NOT FOR DISSEMINATION

DRAFT 1

WORLD REPORT ON VIOLENCE AND HEALTH

WORLD HEALTH ORGANIZATION

GENEVA

2001

Dear Reader:

Please note that this draft document is a work in progress, and many of its components are still under development. ***As such, this document should not be cited, quoted or distributed to anyone.***

Also note that this is a first attempt to assemble the chapters and other parts of the document. Although most components of the Report are included herein, some of them are still in preparation. The Table of Contents of this document indicates which parts of the document are still being prepared. Please also note that the chapters are at different stages of development; while some have undergone several revisions and have been peer reviewed, others are still at earlier stages of development. The status of each chapter is indicated on the title sheet for each chapter.

It is our plan to include testimonies of victims and perpetrators of violence in separate boxes in the text of the chapters. For now, a table describing various samples of testimonies may be found in Appendix D. We would like to draw your attention to these because some violence-related issues will be addressed only through these testimonies. The testimonies represent a broad geographic scope and as such will add national and regional victim and perpetrator perspectives to the Report.

With regard to the tables, figures and boxes, please note that all are not included in this first draft of the Report. Those which are included are placed either within the narrative text of the chapter or at the end of the chapter before the list of references. Their placement will be standardized in future drafts of the Report.

The expected date of publication of the Report is September 2001.

Violence and Injury Prevention Department
World Health Organization
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Violence and Injury Prevention Department

Non-communicable Diseases and Mental Health Cluster

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Preface

To be drafted by a prominent world leader who has contributed to the prevention of violence world-wide.

(N. Mandela?)

Foreword

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Why this Report?

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Violence is a leading public health problem. Each year, more than 2 million people die as the result of injuries due to violence. Many more survive their injuries but remain permanently disabled. Among persons 15-44 years of age, interpersonal violence is the 3rd leading cause of death, war the 6th and suicide the 4th. In addition to injuries and death, violence can result in a wide variety of other health problems. These include profound mental health consequences, sexually transmitted diseases, unwanted pregnancies, as well as behavioural problems such as eating and sleeping disorders.

The World Health Organization as well as other public health agencies has been concerned by the impact of violence on individuals, communities and their health systems for several years. In 1996, in view of what it described as a dramatic increase in the incidence of intentional injuries, the Forty-Ninth World Health Assembly adopted resolution WHA 49,25 declaring violence a leading worldwide public health problem. In the resolution, the WHA recognized the serious immediate and future long-term implications that violence represents for individuals, families, communities and countries. The WHA also recognized the growing consequences of violence for health care services and its detrimental effect on scarce health care resources. The WHA urged Member States to assess the problem of violence in their own territory. It also requested the Director-General, within available resources, to initiate public health activities to address the problem of violence (See box). The WHO Plan of Action to prevent violence followed the WHA resolution.

Purpose of the Report

This Report is an important step to draw attention to the public health aspects of violence and to follow up on the WHA Resolution and Plan of Action. The goals of the report are to raise world wide awareness about the public health aspects of violence and to highlight the contributions of the public health approach to understanding and responding to violence. More specific objectives of the document are: 1) to describe the magnitude and impact of violence cross-nationally; 2) to elucidate cross-national patterns of violence; 3) to provide a baseline for measuring change and progress; 4) to summarize existing information on risk factors, prevention approaches, and policy responses; 5) to provide directions for future research; and 6) to make recommendations for future action in public health. This report, however, is only a beginning. We hope that it will stimulate discussion at local, national, regional and global levels and be a platform for increased action towards violence prevention.

The report focuses on aspects of violence that relate to public health. The authors recognise the importance of other fields, such as the judicial sector, and will to some extent discuss the relationship and important links with other sectors, but will keep the main focus of the report on violence as a public health problem.

Not all types of violence are addressed in the Report. Although all types of violence are important and can have dramatic consequences for victims and their families, the main focus of this first World Report on Violence and Health is on the types of violence that are present world-wide, in the everyday lives of people, and that constitute the bulk of the burden of violence. The report covers, for example, violence that occurs in the family and in the community, as well as violence due to political conflict.

How is the report organized?

The report is organized in two main parts: 1) topic specific chapters, and 2) a data annex. The introductory chapter of the report provides a broad overview of violence as a public health problem. Subsequent chapters focus on specific types of violence, beginning with youth interpersonal violence. The next three chapters focus on violence in the family or close environment: child abuse, intimate partner violence, and elderly abuse, followed by a chapter on sexual violence. The next two chapters focus on self-inflicted violence, with a focus on suicidal behaviour, and collective violence, respectively. The final chapter of the report summarizes crosscutting patterns, issues, and gaps, and discusses the remaining public health challenges in the area of violence and ways to address those challenges in different regions of the world. The chapters are organized using a similar structure, first providing a discussion of definitions and typology, then a summary of data on fatal and non fatal outcomes of violence, followed by a discussion on risk and protective factors as well as prevention strategies and policies, and finally recommendations for future research and public health action.

The chapters contain boxes, in which specific issues are highlighted or case studies presented. The chapters also contain testimonies from victims or perpetrators illustrating the impact of violence on their lives and that of their relatives. Because it is beyond the scope of this report to cover all types of violence fully and adequately, each chapter has a specific focus. For example, the focus of the chapter on child maltreatment is on abuse against children in the family. Some of the other forms of child maltreatment, such as female genital mutilation or child prostitution are addressed in other parts of the Report, while other forms such as child labour or using children as soldiers are not addressed in the report. The chapter on youth violence is focused on interpersonal violence among adolescents and young adults in the community. Other forms of violence involving youth are discussed in other parts of the report. The chapter on elder abuse is focused on abuse by care givers in domestic and institutional settings and not on all forms of violence against older persons.

The second part of the Report, the Statistical Annex, contains tables of data. These tables provide estimates for fatal outcomes of violence for the world and regions for 1999. They also contain the most recent country specific data as reported to WHO by Member States.

How was the report developed?

This report is the result of work conducted by a broad network of experts from around the globe. A small Editorial Committee has co-ordinated the process. An Advisory Committee with 13 prominent members from all regions of the world as well as several WHO representatives provided guidance to the Editorial Committee at several stages during the writing of the Report. Experts on specific violence-related topics were invited to form multi-cultural groups to write the chapters and boxes. Each of the chapters was peer reviewed by at least 5 scientists, each from a different region, who were asked to provide input not only on the scientific content but also on the relevance of the chapter in their own culture. Consultations were held with members of the WHO regional offices and diverse groups of experts within each region to add regional and cultural perspectives, knowledge, and insight for moving the field forward. Stories of victims of violence illustrating the diverse impact of violence on their own and their family's life were collected from grass roots organizations and in some cases directly from victims themselves. A large amount of data is presented in the chapters and in the statistical annex. References are provided for the data presented in the chapter. The data presented in the tables is from the WHO Mortality and Morbidity database which contains data reported annually by WHO member states.

Box 1

WHA49.25 Prevention of Violence: A Public Health Priority

The Forty-ninth World Health Assembly,

Noting with great concern the dramatic worldwide increase in the incidence of intentional injuries affecting people of all ages and both sexes, but especially women and children;

Endorsing the call made in the Declaration of the World Summit for Social Development for the introduction and implementation of specific policies and programmes of public health and social services to prevent violence in society and mitigate its effect;

Endorsing the recommendations made at the International Conference on Population and Development (Cairo, 1994) and the Fourth World Conference on Women (Beijing, 1995) urgently to tackle the problem of violence against women and girls and to understand its health consequences;

Recalling the United Nations Declaration on the elimination of violence against women;

Noting the call made by the scientific community in the Melbourne Declaration adopted at the third international conference on injury prevention and control (1996) for increased international cooperation in ensuring the safety of the citizens of the world;

Recognising the serious immediate and future long-term implications for health and psychological and social development that violence represents for individuals, families, communities and countries;

Recognising the growing consequences of violence for health care services everywhere and its detrimental effect on scarce health care resources for countries and communities;

Recognising that health workers are frequently among the first to see victims of violence, having a unique technical capacity and benefiting from a special position in the community to help those at risk;

Recognising that WHO, the major agency for coordination of international work in public health, has the responsibility to provide leadership and guidance to Member States in developing public health programmes to prevent self-inflicted violence and violence against others,

1. DECLARES that violence is a leading worldwide public health problem;
2. URGES Member States to assess the problem of violence on their own territory and to communicate to WHO their information about this problem and their approach to it;
3. REQUESTS the Director-General, within available resources, to initiate public health activities to address the problem of violence that will:

    (1) characterize different types of violence, define their magnitude and assess the causes and the public health consequences of violence using also a "gender perspective" in the analysis;
    (2) assess the types and effectiveness of measures and programmes to prevent violence and mitigate its effects, with particular attention to community-based initiatives;
    (3) promote activities to tackle this problem at both international and country level including steps to:
        (a) improve the recognition, reporting and management of the consequences of violence;
        (b) promote greater intersectoral involvement in the prevention and management of violence;
        (c) promote research on violence as a priority for public health research;
        (d) prepare and disseminate recommendations for violence prevention programmes in nations, States and communities all over the world;
    (4) ensure the coordinated and active participation of appropriate WHO technical programmes;
    (5) strengthen the Organization's collaboration with governments, local authorities and other organizations of the United Nations system in the planning, implementation and monitoring of programmes of violence prevention and mitigation;

4. FURTHER REQUESTS the Director-General to present a report to the ninety-ninth session of the Executive

Board describing the progress made so far and to present a plan of action for progress towards a science-based public health approach to violence prevention.
Hbk Res., Vol. III (3rd ed.), 1.11

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Chapter 1
Violence as a Public Health Problem

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Introduction

Over the past few years, we have been exposed almost daily to the terrible images of human misery caused by deadly conflicts in East Timor, Sierra Leone, Kosovo, Rwanda, and the Democratic Republic of Congo. The mass graves, mass rapes, and exodus of people are the most visible part of the iceberg of violence. More discrete, but widespread, is the daily suffering of children who are abused by their care givers, women victimized by partners, elderly persons maltreated by care givers, persons who attempt or take their own lives, and youths who cannot attend school without risk of being threatened, beaten or shot. Public health is increasingly taking a stand against accepting violence as an inevitable part of the modern world and is taking actions to prevent it.

The public health approach to violence is interdisciplinary, science-based, and focused on prevention. Public health draws upon and applies the expertise and body of knowledge from many fields, including medicine, epidemiology, sociology, psychology, criminology, education, economics, and other fields. Bringing together the strengths and approaches of each of these fields allows public health to be innovative and responsive to the wide range and far-reaching problems of disease, illness, and injury around the globe. Public health emphasizes collective action and believes that cooperative efforts from such diverse sectors as health, education, social services, justice, and policy are necessary to solve the problem of violence. Each sector has an important role to play in addressing the problem of violence, and, collectively, the approaches taken by each have the potential to produce important reductions in violence.

The public health approach to violence is based on science. In moving from problem to solution, the public health approach to violence has four key steps (Figure 1). The prevention of violence begins with the systematic and ongoing collection of data to describe the magnitude, scope, and characteristics of violence at local, national, and international levels. The first step essentially uncovers the "who," "what," "when," "where," and "how" of violence. The second step of the public health approach addresses the question of "why" violence occurs and involves conducting research to determine the causes and correlates of violence, which factors increase or decrease the risk for violence, and which factors are potentially modifiable through interventions. The third step is to find out what can be done to prevent violence by using the information from the previous steps to design, implement, and evaluate interventions. The fourth step is to implement the most promising interventions in different settings, to disseminate information broadly, and to determine the cost-effectiveness of programs.

Public health is also well known for its emphasis on prevention. Rather than simply accepting or reacting to violence, public health is based on the strong conviction that violent behaviour and its associated consequences can be prevented. The wide variation in rates of homicide among nations or within nations over time suggests that violence is the product of complex, yet modifiable social and environmental factors. Public health both challenges and seeks to empower people, communities, and nation states to see violence as a problem that can be understood and solved (1).

In this introductory chapter we use the public health approach to provide an overview of the problem of violence and how it can be prevented. We begin by describing how violence is

defined by public health officials and propose a typology for delineating the form and context of various types of violence. We then discuss how violence is measured and describe the global burden of violence. Finally, we provide a framework for understanding how and why violence occurs and what can be done globally to prevent it. Subsequent chapters in this report provide more in-depth discussion of definitions of violence, the magnitude and impact of various types of violence, as well as research, prevention strategies, and policy responses for interpersonal violence, sexual violence, self-directed and collective violence.

Definition of Violence

Any comprehensive analysis of violence must begin with a definition of violence. For our purposes, the definition should circumscribe the types of violence of interest in such a way as to facilitate their scientific measurement. The World Health Organization defines violence as:

> *The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation. (2)*

There are several aspects to the definition that merit further discussion. The definition used by the World Health Organization associates *intentionality* with the commission of the act itself, unconnected to the results it brings. Excluded from the definition are unintentional incidents (e.g., most traffic injuries and burns). The inclusion of the word *power*, in addition to the *use of physical force*, broadens the nature of the violent act and expands the conventional understanding of violence to include those acts that result from a power relationship, including threats and intimidation. The *use of power* also serves to include neglect or acts of omission in addition to more obviously violent acts of commission. Thus, *the use of physical force or power* should be understood to include neglect and all types of physical, sexual, and psychological abuse, as well as suicide and other self-abusive acts (2).

The definition also includes a broad range of outcomes, including psychological harm, deprivation, maldevelopment, injury, and death. The broad range of outcomes reflects a growing interest in public health to capture violence that does not necessarily result in injury or death, but poses a substantial burden to individuals, families, communities, and health care systems worldwide. For example, many forms of violence against women, children, or the elderly can result in a range of physical, psychological, and social problems that do not necessarily result in injury, disability, or death. These consequences can be immediate, as well as latent, and can last years beyond the initial abuse. Defining outcomes solely in terms of injury or death thus limits our understanding of the full impact of violence on individuals, communities, and society at large.

One of the more complex aspects of the definition pertains to intentionality and there are a few points to keep in mind regarding this aspect. First, even though violence is distinguished from unintentional injuries, the intent to use force does not necessarily indicate intent to cause damage. Indeed, there may be a great disparity between intended behavior and intended consequence. A perpetrator may intentionally commit an act which, by objective standards, may be judged as

dangerous and highly likely to result in adverse health effects, but may not perceive it as such. This distinction is particularly salient in the case of a youth involved in a physical fight with another youth. The use of a fist against the head or the use of a weapon in the dispute increases the likelihood of injury or death, though neither outcome may be intended. Shaken baby syndrome, in which a parent intentionally shakes a crying child with the intent to quiet it and instead causes brain damage, is another example of the intentional use of force without necessarily intending to cause an injury.

A second distinction related to "intentionality" lies between the intent to injure and the intent to "do violence." Violence, according to Walters and Park (3) is culturally determined. Intention, antecedent conditions, injury and other outcomes may all be part of the cultural definition. Some perpetrators mean to do harm, but based upon their cultural backgrounds, do not perceive their acts as violent. Female genital mutilation and corporal punishment of children are both examples of where the act is regarded as a rite of passage or a disciplinary practice, respectively, and not regarded as violent. The definition used by WHO, however, defines violence as it relates to the health of individuals regardless of perceptions and cultural definitions of violence.

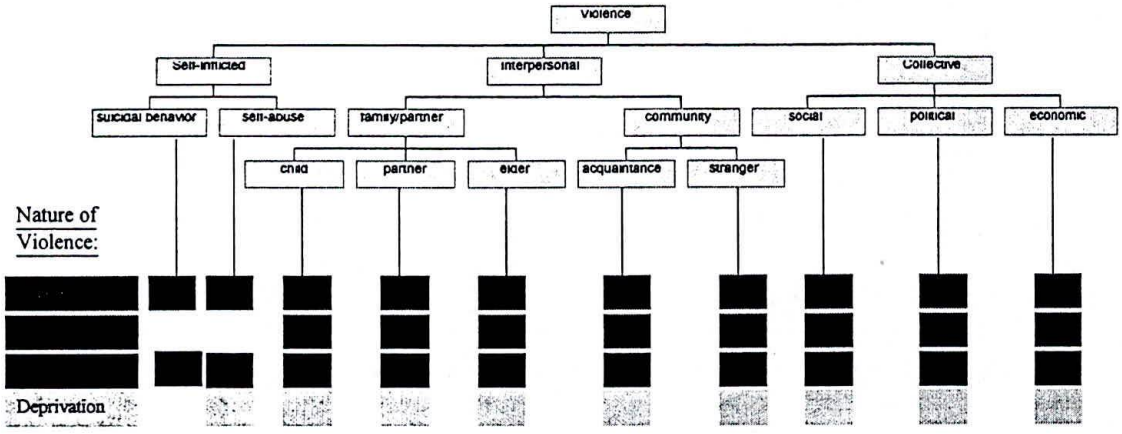
A final facet of intentionality lies in its graded nature. Some perpetrators mean both to injure their victims and to do violence, but not to the extent that they actually do. A suicidal person may not want to succeed, but rather to attract help. According to the WHO definition, however, intent is simply present or absent, regardless of such distinctions. In *defining* violence as a whole, we are interested in the outcomes of an act committed with the intent to harm, and not in whether that intent exactly matches the resulting health outcomes.

Other definitional distinctions are addressed more directly in the chapters throughout this report. For example, the WHO definition does not make a distinction between public and private acts of violence, between reactive aggression (i.e., in response to antecedent conditions such as provocation) or proactive aggression (i.e., instrumental or in anticipation of more self-serving outcomes) (4), or between criminal and non-criminal acts. Each of these aspects, however, are implicitly included in the definition and are important for understanding the etiology of violence and for designing prevention programs.

Typology of Violence

One of the goals set forth in the WHO report *Violence: A Public Health Priority* (1995) was the development of a typology of violence (2). Such a typology can graphically represent the different types of violence and the links between them. Few typologies exist already and none are comprehensive enough for our purposes (5). The typology proposed below first divides violence into three broad categories: 1) self-directed, 2) interpersonal, and 3) collective. The initial categorisation organizes violence according to characteristics of those who commit the violent act. This initial categorisation differentiates violence which one inflicts upon oneself, violence inflicted by another individual or small group of individuals, and violence inflicted by larger groups such as states and nations.

A Typology of Violence



The three broad categories of violence are each divided further to reflect more specific categories of violence. Violence that is directed towards one's self is subdivided into two categories: a) suicidal behaviour, and b) self-abuse. The former includes suicidal thoughts or ideation, attempts (also called parasuicide or deliberate self-injury in some countries), and completed suicides. Self-abuse, on the other hand, includes acts such as self-mutilation and other self-destructive behaviours whose immediate intent is abusive, but not necessarily fatal.

Interpersonal violence is also divided into two main categories: a) family/partner (i.e., violence that largely occurs between family members and intimates in the home, though not exclusively in the home), and b) community violence (i.e., violence between individuals outside of the home among persons known, but not related to one another, and among persons unknown to each other). While the former includes child abuse, intimate partner violence, and elder abuse, the latter would include, for example, gang violence, random acts of violence, stranger rape or sexual assault, and violence in institutional settings such as schools, workplaces, and nursing homes.

Collective violence is subdivided into three categories: a) social, b) political, and c) economic violence. Unlike the other two broad categories of violence, the subcategories of collective violence draw attention to the possible motives of violence committed by larger groups of individuals and states. Collective violence that is committed to advance a particular social agenda would include, for example, hate crimes committed by well- or loosely organized groups, terrorist acts, and mob violence. Political violence would include war, conflict, state violence and other such acts committed by larger groups. Economic violence would include attacks motivated by larger groups for economic gain including attacks to disrupt economic activity, to deny access to essential services, or to create division and economic fragmentation. Clearly, acts committed by larger groups can be committed to advance more than one agenda or have multiple motives.

Each of the broader categories of violence is linked to a vertical axis revealing the nature of the violent act it encompasses. While the horizontal axis answers the question of whom, the vertical

axis answers the question of how. Physical, sexual, psychological violence, and deprivation or neglect represent the four major categories. With the exception of self-directed violence, these four categories are included under each of the types of violence previously described. For example, violence against children committed within domestic settings would encompass physical, sexual, and psychological abuse, as well as neglect. Community violence committed by persons known to one another would include, for example, physical assaults between youths, dating violence, sexual harassment in the workplace, and neglect of older persons in long term care facilities. Political violence would include such acts as rape during conflicts and physical and psychological warfare.

The typology, while far from being universally accepted or perfect, does provide a useful framework for understanding the broad, far-reaching, and complex patterns of violence taking place around the world and in the everyday lives of individuals, families, and communities. It also overcomes many of the limitations of other typologies by delineating the nature of violent acts, the relevance of setting, the relationship between offender and victim, and in the case of collective violence, possible motivations for violent acts.

How Do We Measure Violence, Its Impact and Prevention?

Different types of data are needed to describe the magnitude and impact of violence, to understand which factors increase the risk for violent victimization and perpetration, and to understand how well violence prevention programs are working. Some of these types of data and sources are described in Table 1. Data on fatalities, specifically homicide and suicide, can provide information on the extent of lethal violence in a particular community or country and, when compared to other deaths, are useful indicators of the burden posed by violence-related injuries. These data can also be used for monitoring changes in lethal violence over time, identifying high risk groups and communities, and for making within and between country comparisons.

Mortality data, however, represent only one possible type of data for describing the magnitude of the problem. Since non-fatal outcomes are much more common than fatal outcomes and because certain types of violence are not fully represented by mortality data (e.g., child abuse, elder abuse, and violence against women), other types of data are necessary for capturing the "who," "what," "when," "where," and "how" of violence and for describing its full impact on the health of individuals and communities. Morbidity and other health data, self-report, community, crime, cost, and policy or legislative data are examples of other types of data that are useful for describing and understanding violence. For example, morbidity, community, crime, and self-report data can be used to describe the characteristics of the persons involved in violence, the circumstances surrounding violent events, the temporal and geographic characteristics of violence, and some of the physical, mental, reproductive, and other consequences of violence for individuals and communities. Cost data can be used to describe the economic burden on health care systems, the years of potential lost life associated with violence, and the potential cost savings associated with prevention programs.

There are a number of potential sources for the various types of data, including individuals, agency or institutional records, local programs, community and government records,

population-based and other surveys, as well as special studies.. Though not listed in Table 1, almost all sources include basic demographic information (e.g., a person's age and sex). Some sources include information specific to the violent event or injury (e.g., medical records, police records, death certificates or mortuary reports). For example, emergency department data may have information on the nature of the injury, how the injury was sustained, and the place and time of occurrence. Police data may include information on the relationship between victim and perpetrator, whether a weapon was involved, and other circumstances related to the offense. Other data sources have much more detailed information about the person, his or her background, attitudes and behaviours, or involvement in violence (e.g., surveys, special studies) and are better for capturing violence that is not reported to hospitals, police, or other agencies.

The availability, quality, and usefulness of the various data sources for measuring different types of violence within and between countries varies considerably. Countries around the world are at varying stages in the development of their data collection capacity.

Mortality data, among all sources of data, are the most widely collected and available. Many countries maintain birth and death registries and keep basic counts of homicides and suicides. Calculating rates from these basic counts, however, is not always possible because population data are either not available or are unreliable. This is especially true in areas where populations are in flux (e.g., areas experiencing conflict or continuous movements among population groups) or where populations are more difficult to count (e.g., densely populated or very remote areas). Systematic data on non-fatal outcomes, however, is not available in most countries of the world, though efforts for developing such systems or collecting such data are currently underway. A few documents providing guiding principles or data elements for measuring different types of violence in different settings have also been published in recent years (6-9).

Even when data are available, the quality of the information may be poor or less than adequate for research and prevention purposes. Given that agencies and institutions keep records for their own purposes and follow their own record-keeping procedures, the data from these sources may be incomplete or lacking the kind of information necessary for describing and understanding the problem of violence. For example, data from health services are collected to allow optimal treatment of the patient. The medical record may contain diagnostic information about the injury and course of treatment, but not the circumstances surrounding the injury. These data may also be considered confidential and not available for research purposes. Surveys, on the other hand, contain more detailed information about the person, his or her background and involvement in violence, but are limited to how well a person recalls events, admits to engaging in certain behaviors, which questions are asked, how and by whom they are asked, as well as when, where, and how well the instrument is administered.

Although beyond the scope of the discussion here, it should be noted that there are a number of other challenges associated with the collection of violence-related data. These challenges include, but are not limited to, developing measures that are relevant and specific to sub-population groups and different cultural contexts (6,7,9,10); developing tools to better link data across sources to increase its usefulness; developing protocols to protect the confidentiality of victims and ensure their safety (11); as well as attending to the many ethical

considerations associated with violence research.

How Big is the Problem of Violence?

The prevention of violence, according to the public health approach, begins with a description of the magnitude and impact of the problem. A basic understanding of the patterns of violence in a community, the groups at greatest risk for violence, and other characteristics of the problem, is useful for identifying intervention strategies and targeting prevention resources. All of the chapters in this report provide a description of fatal and non-fatal outcomes as well as consequences for specific subtypes of violence. Here we describe some of the global patterns of violence using data compiled specifically for this report from the World Health Organization's mortality database on diseases and injuries, the World Health Organization's Burden of Disease and Injury Report, as well as data from surveys and special studies of violence.

Estimates of Mortality

In 1998, an estimated 2.3 million people died from violence, for an overall age-adjusted rate of 38.4 per 100,000 (Annex Table 3). The vast majority of violence-related deaths in the world occurred in low to middle income countries. Less than 10% of all violence-related deaths occurred in high-income countries. Approximately 42% of the 2.3 million violence-related deaths were suicides, 32% were homicides, and 26% were war-related. In 1998, suicide was the 12th leading cause of death in the world, homicide the 15th and war the 19th.

Similar to many other health problems in the world, violence is not distributed evenly among sex or age groups. In 1998, there were 736,000 homicides (overall age-adjusted rate of 12.2/100,000) (Annex Table 4). Males accounted for nearly 80% of all homicides and had rates that were more than three times the rates of homicides among females (19.0 vs. 5.4/100,000). The highest rates of homicide among males were for those between the ages of 15 and 44 (31.1/100,000), while for females, the highest rates of homicide occurred among those between the ages of 0 and 4 (9.3/100,000). With the exception of the youngest age groups (i.e., 0-14 years of age), male homicide rates were approximately 3 to 6 times higher than female homicide rates across each of the various age groups (i.e., 15-44 years, 45-59 years, 60+ years).

The different age and sex patterns for homicide among males and females, reflect in part, different types of violence. The high rates of male homicide in the 15-44 year age group are driven largely by high rates of youth interpersonal violence among males between the ages of 15 and 24. These patterns are described in more detail in Chapter 2. The high rates of child homicide among females reflect the most severe form of child maltreatment. The highest rates of homicide among female children 0-4 years of age are found in China, India, and some of the low and middle income Eastern Mediterranean countries. In China, for example, the rate of female child homicide is double the rate of male child homicide in the 0-4 age group (15.7 vs. 7.9/100,000).

Worldwide, suicide claimed the lives of nearly 1,000,000 people in 1998 (overall age-adjusted rate of 16.4/100,000) (Annex Table 5). Approximately 60% of all suicides occurred among males, and over half (53%) occurred among those between the ages of 15 and 44. For both males and females, suicide rates increase with age and are highest among those over 59 years of age. Suicide rates, however, are generally higher among males than females (19.9 vs. 12.9/100,000). This is especially true among the oldest age groups, where worldwide, male suicide rates among those 60+ years of age are almost twice as high as female suicide rates in this age group (50.9 vs. 30.0/100,000).

Rates of violent death also vary according to country income levels. In 1998, the rate of violent death in low/middle income countries (42.2 per 100,000) was more than double the same rate in high-income countries (17.3 per 100,000) (Annex Table 3). The proportion of violent deaths due to homicide or suicide also differed by income group (Annex Tables 4 and 5). In high-income countries in the Americas, there were three times more suicides than homicides, while in low/middle income countries in the Americas there were more than four times more homicides than suicides. There are also considerable regional differences in the relative importance of these types of deaths. For example, in Sub Saharan Africa and in Latin America and the Caribbean, it is estimated that there are 13 and 5 homicides, respectively, for each suicide. However, in high-income countries in Europe and the Western Pacific there are approximately 4 suicides for each homicide.

Within regions there are also large differences between countries. For example, in 1994 Colombia reported a male homicide rate of 146.5/100,000 population, while Mexico reported a rate of 32.3 and Cuba 12.6 per 100,000 population (12). Large differences within countries also exists between, for example, urban and rural populations, rich and poor, and between different racial and ethnic groups. In the United States, for example, African-American youths aged 15-24 had rates of homicide in 1998 (56.5/100,000) that were more than twice the rate of their Hispanic counterparts (23.3/100,000), and over 13 times the rate of their white, non-Hispanic counterparts (4.2/100,000) (13).

Estimates of Disability Adjusted Life Years

Mortality is an important indicator of the burden of violence and is probably the only one for which relatively accurate data has been collected in some parts of the world. However, as mentioned earlier, mortality data provide only a partial picture of the magnitude of the problem. For every person that dies from a violence-related injury, many more survive, often with permanent disabling sequelae. In recent years, a new indicator has been developed that combines the numbers of years of life lost from premature death with the loss of health from disability. This indicator is known as the Disability Adjusted Life Years or DALY (14).

In 1998, war, self-directed, and interpersonal violence were ranked respectively xx, xx and xxth among the leading causes of the world's disability adjusted life years (DALYs) lost (Annex Table 15). It is estimated that in 2020, war will rank 8th, interpersonal violence 12th and self-directed violence 14th. In low and middle income countries, war is among the 15 causes of DALYs lost for persons aged 0 to 44, while homicide is the 4th leading cause of DALYs lost in this age group, considered in many parts of the world to be the most

economically productive age group. In high-income countries, violence also ranks among the 15 leading causes of DALYs for persons aged 0 to 44. Similar to mortality patterns, males and those persons under the age of 45 are disproportionately represented among victims of premature death and illness in both their absolute numbers and rates of disability adjusted life years lost.

Estimates of Non-Fatal Violence

It is important to realise that the above rankings for mortality and DALYs most likely underestimate the true burden of violence. In all parts of the world, deaths and the proportion of lost years of life from premature death and loss of health from disability represent the "tip of the iceberg." Physical and sexual assaults occur on a daily basis, though precise national and international estimates of each are clearly lacking. Not all assaults result in injuries severe enough to require medical attention and, even among those that do result in serious injuries, surveillance systems for reporting and compiling these injuries are either not available or are presently under development in some countries.

Much of what is known about non-fatal violence comes from surveys and special studies of different population groups. For example, lifetime estimates of physical assaults by intimate partners, from national surveys of women, range from 5.1 in the Philippines and 9.5 in Paraguay, to 22.1 in the USA, 29.0 in Canada, and 34.4 in Egypt (15-19). Lifetime estimates of sexual assault (attempted or completed) among women living in cities or provinces around the world range from 15.3 in Toronto, Canada to 21.7 in Leon, Nicaragua, 23.0 in North London, and 25.0 in one province in Zimbabwe (20-23). Rates of physical fighting in the past year among adolescent males range from 22% among boys (grade 7) in Sweden, 44% of boys (grades 9-12) in the USA, to 76% among boys (grades 8-10) in Jerusalem (24-26).

It is important to keep in mind that since these data are largely based on self-reports, it is difficult to know whether they over- or underestimate the true extent of physical and sexual assaults among these population groups. Certainly in those countries with strong cultural pressures to keep violence "behind closed doors," the nature and extent of non-fatal violence is likely to be underreported. Victims of violence may be reluctant to discuss violent experiences not only out of shame and taboos, but also out of fear and because the admission of experiencing certain violent events (e.g., rape) in some countries may result in death (e.g., the killing of women who have been raped to preserve family honour, also known as "honour killings").

There are also a number of other health consequences associated with violence, and similar to non-fatal violence, it is difficult to know the true extent of these consequences or the precise burden of these consequences on health care systems, as well as the economic productivity of nations around the world. The direct and indirect health care costs associated with violence related injuries are estimated to be in the billions of dollars in some developed countries such as the United States. National and international estimates of violence-related health consequences, such as depression, smoking, alcohol and drug use, unwanted pregnancy, sexually transmitted diseases, HIV/AIDS, and other infections (all of which have been linked

to violence in small scale studies)(27-32) are also lacking. The economic burden associated with these consequences is also unknown.

How and Why Does Violence Occur?

Violence is a multifaceted and complex problem. No single factor explains why some individuals behave violently toward others or why violence is more prevalent in some communities and not others. Violence is the result of the complex interplay of individual, relationship, sociocultural, and environmental factors. Understanding how these factors are related to violence is one of the important steps in the public health approach to preventing violence.

Some of the chapters in this report use an ecological model to understand the multifaceted nature of violence. The ecological model explores the relationship between individual and contextual factors and considers violence as the product of multiple levels of influence on behaviour (Figure 2). Beginning with the individual, the first level of the ecological model seeks to identify the biological and personal history factors that an individual brings to his or her behaviour. Not only are demographic factors considered, but also factors such as impulsivity, low educational attainment, alcohol abuse, and prior history of aggression and abuse. In other words, at this level the ecological model focuses on the *characteristics of the individual* that increase the likelihood of violent victimisation. This level of the ecological model also focuses on the characteristics of the individual that increase the likelihood of perpetration of violence.

The second level of the ecological model explores how proximal social relationships (e.g., with peers, intimate partners, or family members) increase the risk for violent victimisation and perpetration. In the case of partner violence or child maltreatment, for example, interacting almost daily and sharing a common domicile with an abuser may increase the opportunity for violent encounters. Because individuals are bound together in a continuing relationship, it is likely that the victim will be repeatedly violated by the offender (33). In the case of youth interpersonal violence, previous research shows that youths are much more likely to engage in negative activities when those behaviours are encouraged and approved by their friends (34,35). Peers, intimate partners, and family members all have the potential to shape an individual's behaviour and range of experience.

The third level of the ecological model examines the community contexts where social relationships are embedded (e.g., school, workplace, neighbourhoods) and seeks to identify the characteristics of these settings that are associated with violent victimization and/or perpetration (e.g., high residential mobility, high population density, heterogeneity, institutional practices), or factors related to such settings (e.g., social isolation, drug trafficking). Previous research indicates that opportunities for violence are greater in some community contexts than others (e.g., in areas of poverty, physical deterioration, or where there are few institutional supports).

The last level of the ecological model examines the larger societal factors that influence differential rates of violence, including those factors that create an acceptable climate for violence; those factors that reduce inhibitions against violence; and those factors that create and sustain gaps between different segments of society or that create tensions between groups or even

countries. Larger societal factors include, for example, cultural and subcultural norms that support violence as an acceptable way to resolve conflict, attitudes that support suicide as an individual choice instead of a preventable act of violence, norms that support parental rights over child welfare, norms that encourage male dominance over women and children, norms that support police use of excessive force over citizens, or norms that support political conflict. Larger societal factors also include the health, education, economic, and social policies that sustain gaps between the rich and poor or that keep one group at a disadvantage over another group (see Box 1).

The ecological framework alerts us to the multifaceted nature of violence and the interaction of risk factors operating within a broader social, cultural, and economic context. It is important to note that while some risk factors may be unique to a particular type of violence, more often the various types of violence share a number of risk factors. Prevailing cultural norms, poverty, social isolation, and such factors as alcohol consumption, substance abuse, and access to firearms are risk factors for more than one type of violence. As a result, it is not unusual for some individuals at risk for violence to experience more than one type of violence. Women at risk for physical violence by intimate partners, for example, are also at risk for sexual violence (36).

It is also not unusual to see links between different types of violence. For example, previous research shows that exposure to violence in the home is associated with violent victimisation and perpetration in adolescence and adulthood (37). The experience of rejection, neglect, or indifference from parents leaves children at greater risk for aggressive and antisocial behaviour, including abusive behaviour as adults (38-40). Associations have been found between suicide and several types of violence, including intimate partner violence (41), sexual assault (27,28), and elder abuse (42,43). Suicide rates have been shown to decrease during wartime, in Sri Lanka for example, and to increase after hostilities cease (44,45). In many countries that have suffered violent conflict, the rates of interpersonal violence remain high even after cessation of hostilities because of the social acceptability of violence and the availability of weapons among other factors.

Identifying the factors that increase or reduce the risk for violent victimization and perpetration at each level of the ecological model is an important step toward preventing violence. Once these factors are identified, researchers and prevention specialists can then begin to develop interventions or prevention programs aimed at reducing or modifying the risk for violence. The ecological model in this regard serves a dual purpose --- each level in the model represents a level of risk and each level can also be thought of as a key point for intervention. Given the links between violence and the interaction between individual factors and the broader social, cultural, and economic context suggests that addressing risk factors across the various levels of the ecological model may contribute to decreases in more than one type of violence.

What Can Be Done to Prevent Violence?

This section of the introduction is still being written. Listed below is a brief outline of the discussion for this section.

Outline:

I. Violence is preventable.

- Cross-cultural examples of successful approaches

II. Lessons learned from research on violence

- Start early
- Disrupt the developmental pathways of violence
- Break the cycle of violence
- Intervene at multiple levels (individual, family, community, society)
- Address victims and perpetrators

III. Prevention and Policy Responses

- Importance of primary, secondary, and tertiary prevention
- Need for multi-sector responses across and within types of violence
- What can the health sector do?
- What can policy-makers do?

IV. Putting Knowledge into Practice

- Importance of small scale efforts
- Promising vs. proven approaches: balancing public health action
- Avenues for sharing knowledge and information

Conclusion

Violence is a major public health problem worldwide, resulting in over two million deaths each year. It comes in many forms, is present in a variety of contexts, and affects men, women, and children of all ages and socioeconomic backgrounds. Not only is violence responsible for numerous deaths and injuries worldwide, it is also an important risk factor for many other immediate and long-term health problems --- problems that can affect individuals, families and communities for years. The personal, psychological, and social costs of violence have serious implications for the future human, economic, and social development of nations around the world.

While human atrocities around the globe capture widespread attention, the everyday violence of life in families and communities continues unabated. Violence, however, is preventable. Public health is concerned with the well being of populations as a whole and believes that collective action is necessary to achieve important reductions in violence. Creating safe and healthy communities around the globe requires commitment on the part of multiple sectors at the international, national, and community levels to document the problem, build the knowledge base, promote the design and testing of prevention programs, and promote the dissemination of lessons learned.

Public health officials have a very important role to play in this process. Through their vision and leadership, much can be done to establish national plans and policies for violence prevention, to help facilitate the collection, availability and quality of data to effectively document and respond to the problem, to build important partnerships with other sectors, and to ensure an adequate commitment of resources to support prevention efforts. Violence is not simply a social ill or a social justice problem, it is an important health problem that deserves urgent attention.

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Figure 1: The Public Health Approach to Violence

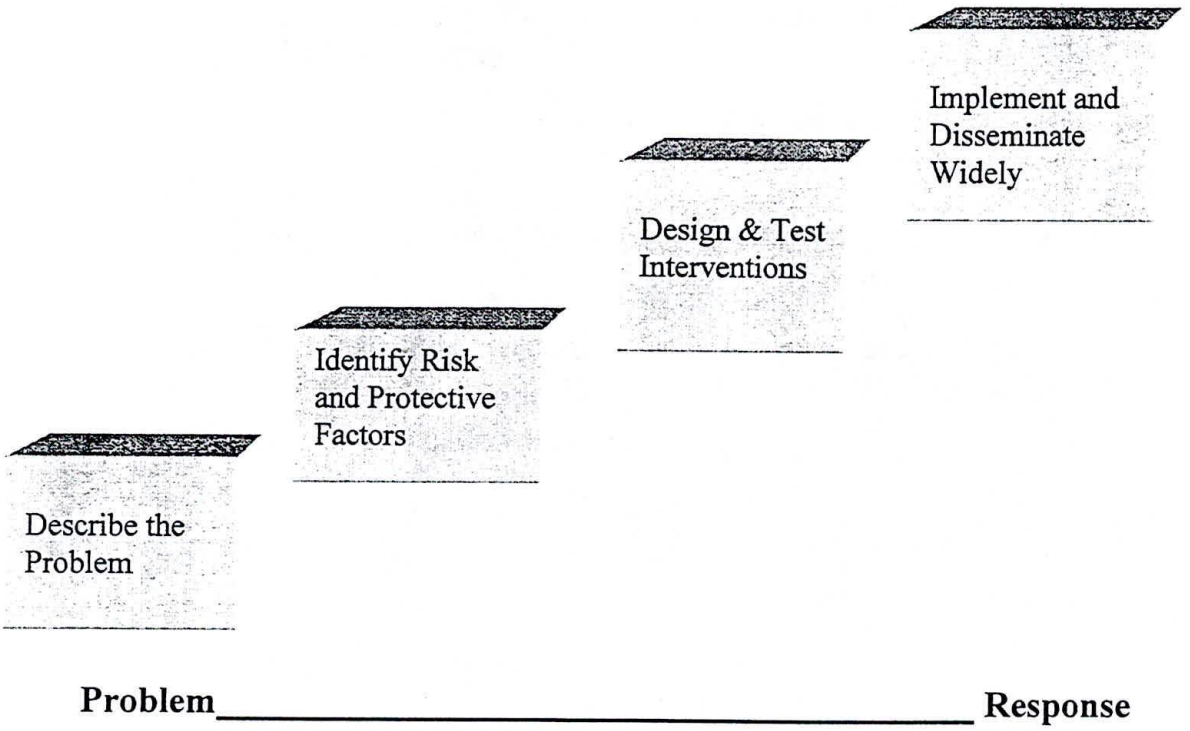

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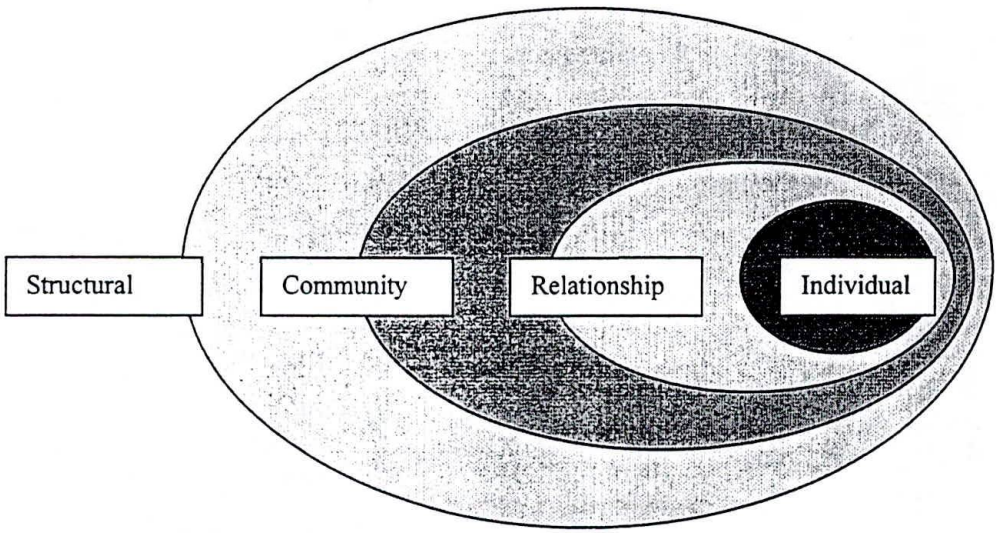
Table 1: Type and sources of data for describing the magnitude and impact of violence and for understanding the etiology of violence

Type of Data	Data Sources	Examples of the types of information collected
Mortality	Death certificates, vital statistics registries, coroner or mortuary reports	Characteristics of the decedent, cause of death, location, time, manner of death
Morbidity and other health data	Hospital, clinic, or other medical records	Diseases, injuries, as well as information on physical, mental, or reproductive health
Self-report	Surveys, special studies, focus groups	Attitudes, beliefs, behaviours, cultural practices; exposure to violence in the home or community
Community	Population records, local government, or other institutional records	Population counts and density; levels of income, education, unemployment; divorce rates
Crime	Police records, judiciary records, surveys	Type of offence, characteristics of offender, relationship between victim and offender, circumstances of event
Cost	Program, institutional or agency records; special studies	Expenditures on health, housing, social services; costs of treating violence-related injuries; utilisation patterns
Policy or legislative	Government or legislative records	Laws, institutional policies and practices

Figure 2: Ecological Model for Understanding Violence



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Box 1: Violence and Social Inequality

The issue
Over the years, a lot of scientific evidence has been produced in many different countries, showing that people from lower socioeconomic groups have mortality rates significantly higher than those from higher groups, at least with regard to each major cause of death. In fact, social inequality in health has survived major improvements in medical science, several stages of technological development, considerable demographic changes, and substantial efforts to set up more equitable public-health systems, governments and states.

What have changed considerably, however, are the health outcomes contributing to social-health differentials. Of particular concern nowadays are deaths from accidents and violence, since they are – or are becoming – some of the causes of death with the steepest social-class gradients. The largest differentials are found in childhood and youth, periods of life where injuries account for many premature deaths in most parts of the world.

State of current knowledge
As is the case for any health outcome, socioeconomic differences in violence-inflicted injuries have both individual and contextual explanations. Nevertheless, research has been concerned mainly with the former rather than the latter.

Studies dealing with differences between individuals reveal that people with low socioeconomic status, measured in terms of income, profession or education, are at greater risk of being injured by violence both inside the home (especially boys in childhood and women in adulthood) and outside the home (especially men, except with regard to sexual assault). This has been observed on continents throughout the world: Africa (Egypt, South Africa), America (Brazil, the US), Asia (India, Taiwan), Europe (Denmark, Great Britain, Greece, Spain) and Australia. A majority of the studies conducted have concerned the industrialized world.

For their part, comparisons between living areas indicate that, in general, the lower the material standard of living, the worse is the quality of life as indicated, for instance, by rates of mortality and morbidity for violence-inflicted injuries, including sexual violence. In addition, there is growing evidence that large income differences within individual countries (as is the case in for example Brazil, Colombia and South Africa as opposed to for example Austria, Canada, Poland and Scandinavia), states (for instance in some states in the US) or areas are associated with higher incidence rates of various forms of violence and violence-inflicted injuries.

In sum, there is a rather consistent pattern in the social distribution of death by violence-inflicted injury, which is to the detriment of less privileged individuals and people in poorer living areas. Nevertheless, the mechanisms underlying the differences are not well understood, and many crucial questions – such as how places and people interact in the social etiology of injuries due to violence – remain largely unanswered. It is also unclear whether social differentials in morbidity patterns are in all instances similar to those with regard to mortality. Are people of low socioeconomic status more likely to die from any injuries they sustain?

Why are social differences in violence-inflicted injuries a public-health issue?
The social patterning of violence-related injuries is a crucial public-health issue for several reasons. One is the current increase in the concentration of wealth between and within countries. This is expected to have spillover effects on the social fabric and, consequently, on the incidence of crime and violence and the social distribution of victims.

Another is that social differences in violence-related injuries are neither unavoidable nor irreversible. In fact, abatement strategies may even help combat social inequalities in individual risks without addressing the upstream mechanisms of wealth distribution. One can think here of collective measures, such as weapon/alcohol control or street lightning, which impact on the mediating factors that increase the risk of violence and affect their social distribution.

A third reason is that the existence of social differences in wealth may hinder the penetration of injury-control and safety-promotion strategies or impede their long-lasting effects. Accordingly, it is essential to reflect on the

strategies for prevention that are most likely to work, where – and for whom – they are needed most. This is of key importance when there is an expectation for prevention to be mediated by safety-promotion work at community level.

Public-health actions

Actors in the public-health arena cannot do everything, but they certainly can contribute to diminishing and combating social differences in violence-inflicted injuries, and thereby reduce the overall risk. The production and distribution of educational material targeted at the whole population, and also at particular groups (e.g. actual or potential victims or offenders, health-care personal), might enable public-health agents to improve the capacity of individuals and communities to act to protect and improve their safety. Improved efficacy and better localization of health and social services are other possibilities.

As local partners, public-health agents can act as facilitators in mobilizing the social and material resources needed locally for various services (e.g. shelters, telephone help lines, street lighting, school curriculum). They may also act as advocates on behalf of individuals or communities to enable them to overcome structural barriers (legal, economic, or journalistic).

A definite moral stance should be adopted so as to help reduce the cultural and social acceptance of use of violence in various situations. Complementary, targets could be set that are specifically aimed at reducing the size of the gap between the mortality and morbidity rates of the most and the least advantaged groups and areas. Measures of these differences could be employed as indicators of the potential for improvement in a nation's or living area's health-and-safety status.

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Box 2: DESEPAZ

In 1992 the City of Cali, Colombia, led by its elected public health specialist Mayor, set up a comprehensive program aimed to reduce the high levels of crime in the city. In Cali, a city with approximately 2 million inhabitants, rates of homicide had increased from 23 in 1983 to 85 per 100,000 inhabitants in 1991, while those from traffic accident deaths were around 21. Violence was defined as a major priority for the city and a broad spectrum of political forces within the city were convened to design a strategy to reduce it. The resulting program was named DESEPAZ, an acronym for **De**sarrollo, **Se**guridad y **Paz**.

DESEPAZ main guidance principles were: 1) Reliable and timely information about crime is crucial and consequently epidemiological surveillance and research had to be organized. 2) Violence is multicausal and thus no simple strategies would solve the problem. 3) Strengthening of the Police and the Judiciary System are prerequisites for orderly city life. 4) Prevention should be prioritized. 5) Community commitment from different stakeholders such as entrepreneurs, church leaders, academicians, journalists, and the citizens themselves should be accomplished. 6) Education for tolerance and respect to others rights is necessary. 7) Diminishing social and economic inequities should be actively pursued.

Following the public health strategy, descriptive epidemiological studies were carried out in order to identify risk factors for violence. Actions were taken based on the information provided by the surveillance system. Restriction on the sale of alcohol and banning the permits to carry handguns were put on weekends and other special occasions. Investments for institutional strengthening of the police, the judiciary systems and the human rights advocate's office were approved. Education in civil rights was prepared for the police and the civil society. Special projects towards prevention of violence and promoting tolerance among the citizens were implemented. Television spots showing the importance of tolerance, self-control and respect for others' rights were displayed at peak rating hours. Cultural and educational projects were organized to promote dialogue, conflict's resolution, and education at school and family levels, in collaboration with NGO's.

Special projects to improve income and safe leisure and recreation for young people were organized. The city administration contracted specially trained youth groups, most of them coming from gangs, to build roads, clean parks and take care of open spaces. Community participation and commitment was obtained through weekly "Community Councils" where leaders and plain people presented and discussed with the mayor and members of his cabinet proposals to deal with crime situations.

The great majority of funds for DESEPAZ came from the municipal budget, although contributions from the national government and other sources were obtained. The continuation of DESEPAZ by the next two administrations is by itself an important recognition to the degree of acceptance of the projects. It must be said though that support has fluctuated and in some projects has not existed. In 1998 the Inter American Bank approved a 10 million dollar 4-year loan for the implementation of new preventive projects and the maintenance of those initially defined and there exists new enthusiasm and support. Public opinion around violence has moved from a passive attitude to an active demand for more prevention. Different members of the civil society are pushing to improve and to incorporate new strategies to prevent any form of violence. Reduction of violence has become a city goal.

The homicide rate declined from an all time high 124 in 1994 to 86 in 1997, a 30% reduction in a period of three years. In 1998, mostly due to a weakening of the prevention strategies, the rate increased to 87. In absolute numbers there has been a reduction of about 600 killings, which is permitting the police and the judiciary to utilize their scarce resources on more organized forms of crime.

Chapter 2

Youth Violence as a Global Public Health Problem

Status:

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Table of Contents

Introduction

Youth violence is a global tragedy. Adolescents and young adults are the primary victims and perpetrators of violence in almost every region of the world.[1] There is substantial evidence that homicide and nonfatal assaultive violence involving youth are important contributors to the global burden of premature death, injury, and disability.[1,2] Communities in many parts of the world are searching for successful ways to prevent youth violence. The current challenge is to identify and successfully implement policies and programs that are effective in reducing these destructive behaviors and their detrimental health and social consequences.

It is important to acknowledge at the outset that youth violence is a complex problem caused by the interaction of numerous biological, psychosocial, and environmental factors. Patterns and trends in youth violence are closely linked to stages of human development and the social context in which such development occurs.[3] Youth violence is also closely linked with other forms of violence. Witnessing violence in the home or being physically abused as a child, for example, may engender adolescent violence by socializing children to believe that violence is an acceptable strategy for resolving interpersonal problems.[4,5] In some nations, prolonged exposure to war and other forms of armed conflict may contribute to a culture of violence that, in turn, increases rates of youth violence.[6-8] Understanding the factors that place young people at risk for or protect them from violent victimization and perpetration is critical towards developing effective violence prevention policies and programs.

We must also acknowledge, given the complexity of this issue, that there is no single solution to the problem of youth violence. Multi-faceted approaches that combine effective and complementary strategies are needed. Moreover, it is also clear that the same approach may not be equally effective in different cultural contexts. Consequently we cannot assume that what works to prevent youth violence in the United States will necessarily be effective in South Africa or Colombia and visa versa. Over the past two decades, however, we have learned a great deal about the etiology and prevention of youth violence. This knowledge, although based primarily on research conducted in western cultures and wealthier countries, provides a foundation upon which to guide potentially productive programs for youth violence prevention. There is much more to be learned about prevention, however, by comparing and contrasting knowledge about youth violence across different cultural and political contexts.

The purpose of this chapter is fourfold: 1) to describe global patterns in violent victimization and perpetration among youth, 2) to review what is known about the predictors, causes, and correlates of youth violence, 3) to highlight promising and effective prevention strategies, and 4) to provide recommendations for future action.

Definitional Issues

In this chapter we are focusing on the violent victimization of youth by others and the perpetration of interpersonal violence by youth. Youth are defined as including adolescents and young adults between 10 and 24 years of age. For our purposes, youth violence is defined as the intentional, threatened, or actual use of physical force or power against another person that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation.[9] Types of violence that impact youth, but are excluded from the above definition, include suicidal behavior, war-related violence, and political violence. Although within the scope of the above definition, we will not emphasize youth violence that occurs in the context of dating relationships or in the context of unequal relationships of responsibility, trust, or power (e.g., child abuse and maltreatment).

Various approaches to categorizing youth violence have been used, although there is no widely accepted standard. The primary types of interpersonal violence are homicide, rape, robbery, and assault. These types can be further subdivided by characteristics of the offender (e.g. stranger, acquaintance, intimate), the motivation of the offender (i.e. emotional violence where the main objective is to hurt the victim versus instrumental violence where the main objective is to obtain something), characteristics of the victim (e.g. homicides of children, parents, siblings), or characteristics of the offense (e.g. school violence, gang violence).[10]

In this chapter we address youth violence from the perspective of both the victim or victimization and the offender or perpetration. In describing the health consequences and burden of youth violence we focus on epidemiologic patterns in deaths, injuries, and violent victimizations suffered by youth. In reviewing what's known about risk factors for youth violence we focus on what is known to cause youth to behave violently towards others. The primary, but not exclusive thrust of youth violence prevention programs is to prevent the expression of violence by youth. Nevertheless, there are measures that can be taken to protect youth from being victimized. Youth victimization and perpetration are closely related in that they tend to occur under similar circumstances, share a common etiology, and may be prevented through similar policies and prevention strategies. Moreover, perpetrators are disproportionately likely to be victimized, and vica versa.[11,12]

Patterns and Trends in Mortality

Fundamental to understanding youth violence is the descriptive epidemiological information provided by routine mortality surveillance at the country level. Although fatalities represent only the tip of the youth violence iceberg, death rate differences between countries and regions are perhaps the only reliable way of measuring youth violence and identifying cross-national and historical changes in the size and shape of the problem.

The WHO's burden of disease projections for homicide, shown in Table xxx of the main appendix, provide indirect sources of epidemiological information about fatal youth violence. For 1998, these

projections estimated that 736,000 homicides occurred in the world, of which 69% involved victims aged 15 to 44 years. Nineteen percent of victims were 45 years and over, and 11% were aged 0 to 14 years. There were an estimated six males per female victim aged 15 to 44, and homicide rates in this age range were between two and 10 times higher in low- to middle-income regions of the world than in high-income regions.

The availability of these projections for all continents creates the impression that youth homicide death rates are equally well monitored in all world regions. This perception is far from the truth, and masks major differences between regions in the availability of actual data on youth homicide. Furthermore, the age categories used in the projections obscure key changes in the patterns of victimization occurring from 10 to 24 years of age. The regional differences in data availability show where resource development in violence and injury surveillance is most required, while age changes provide clues about possible underlying causes. In this section we therefore use actual data on youth homicides instead of projections, and divide the period from 10 to 24 years old into three developmentally important age bands: pre-adolescence from 10 to 14 years; adolescence from 15 to 19 years, and young adulthood from 20 to 24 years.

Materials and Methods

To describe the epidemiology of youth homicides we used mortality data from WHO, PAHO and the Brazilian Health Ministry (www.datasus.gov.br), and for countries and regions inadequately covered by these sources we carried out a literature review of studies from 1990 onwards. Homicides were defined as cases coded E960 to E969 in ICD9 and X85 toY09 in ICD10.Because socio-economic status is a well-established macro-level predictor for overall homicide rates, youth homicide rates were calculated for regions defined according to country income levels. These regions are the same as used in the main appendix data tables, and were defined by dividing WHO geographical areas into clusters of low- to middle-income and high-income countries according to World Bank criteria.

The most recent year for which data were available across the largest number of countries (N = 68) was 1994. To minimise the effect of differences in country population size and annual fluctuations in reporting completeness, one year weighted averages using data for two or more years between 1992 and 1996 were computed. For each age and sex category, the number of homicides and population totals for all country years in each region were summed seperately, and the homicide totals divided by the population totals to give the weighted regional homicide rates. The ICD 9 external cause data were also pooled by region and year, and for each region the percentages of homicides due to firearms (E965), sharp instruments (E966) hanging and strangulation (E963) and other causes (E960-962, E964 and E967-969) were calculated. As well as the cross-sectional analyses, the data were sufficient to prepare regional trends in homicide rates and methods from 1985 to 1995 for Europe (both low- to middle- and high-income), the low- to middle and high-income Americas, and the high-income Western Pacific.

Youth Homicide Data Availability by Region

The WHO regional and economic groupings used in this section are shown in footnote 1, which also indicates the countries for which mortality data on youth homicides were available. There were no data for Africa, and none for the low- to middle-income Eastern Mediterranean, India and the low- to middle-income Western Pacific. Under a third of the regional populations for the high-income Eastern Mediterranean and low- to middle-income South East Asia were represented. These five regions were therefore excluded from the subsequent comparisons.

Except for China where the mortality data were drawn from a population sample, over 70% of the regional populations were represented by the mortality data for the remaining six regions included in the analysis. These regions were the high income Americas (AMRO-H), the low- to middle-income Americas (AMRO-LM), high income Europe (EURO-H), low- to middle-income Europe (EURO-LM), China, and the high income Western Pacific (WPRO-H).

Youth Homicide Rates by WHO Regional and Economic Groupings

Of the six regions with adequate mortality data, the highest youth homicide rates were in the low- to middle-income Americas, and the lowest in the high-income Western Pacific and European regions. Table 1 shows the regional youth homicide rates for 10 to 24 year olds, indicators of intra-

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1 Countries in the five regions where data represented over 70% of the regional population are listed below, with those returning data indicated by italic type.

Low- to midlle income Americas
Antigua and Barbuda, *Argentina, Barbados, Belize*, Bolivia, *Brazil, Chile, Colombia, Costa Rica, Cuba*, Dominica, Dominican Republic, *Ecuador El Salvador*, Granada, Guatemala, *Guyana*, Haiti, Honduras, Jamaica, *Mexico, Nicaragua, Panama*, Paraguay, *Peru*, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, *Trinidad and Tobago*, Uruguay, *Venezuela.*

High-income Americas
Bahamas, Canada, United States

Low- to middle-income Europe
Albania,Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, *Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Malta, Poland, Republic of Moldova, Romania, Rrussian Federation, Slovakia, Slovenia, Tajikistan*, TFYR Macedonia, Turkey, *Turkmenistan, Ukraine, Uzbekistan, Yugoslavia.*

High-income Europe
Andorra, *Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg*, Monaco, *Netherlands, Norway, Portugal*, San Marino, *Spain, Sweden, Switzerland, United Kingdom.*

High-income Western Pacific
Australia, Brunei Darussalam, *Japan, New Zealand, Republic of Korea, Singapore.*

regional variations in rates, and the projected overall homicide rates for 1998, based on burden of disease projections.

Table 1 shows that the youth homicide rate was over 10 per 100 000 population in three regions. These high violence regions were the low- to middle- and high-income Americas, and low- to middle-income Europe. Among these high-violence regions the rate in the low- to middle-income Americas (24.9/100,000) was twice that in low- to middle-income Europe (10.1/100,000) and the high-income Americas (12.8/100,000). In China the youth homicide rate was 3.1 per 100 000 population, while the high-income European and Western Pacific regions had rates of under two per 100,000.

Comparison of the youth homicide rates with the projected overall homicide rates indicates the extent to which youth homicides drive the overall rate in a region. For the low- to middle-income Americas, the high income Americas, low- to middle-income Europe, and China the ratio of youth homicides to the overall rate was about equal, meaning that in these regions homicides among 10 to 24 year olds contributed disproportionately to the overall homicide rate. In contrast, the ratio of youth homicide to overall homicide rates in the high-income European and Western Pacific regions was around 0.2, meaning that overall rates in these regions were not as greatly influenced by homicides in younger age groups.

Youth Homicide Rates by Age and Sex

In all regions and age groups male youth homicide rates were higher than female rates, suggesting that maleness is a universal risk factor for homicide in ages 10 to 24. Across all regions and both sexes homicide rates increased sharply between each of the age ranges (i.e. 10 to 14, 15 to 19 and 20 to 24 years), suggesting that developmental changes (involving biological maturation and socialisation) occurring at these ages are also a comon risk factor across diverse cultural settings.

While common to all regions, the size of these age and sex differences varied considerably between them, as shown in Figure 1. These variations suggest that the impact of developmental changes on youth homicide rates is amplified or reduced by region-specific social and environmental factors. Homicide rates among 10 to14 year olds were the lowest in all regions for both sexes, and varied least between regions. This contrasted with the age ranges 15 to19 and 20 to 24 years, where the highest rates and the largest regional variations occurred. While male rates exceeded female rates in all age groups and all regions, it is notable that male youth in the low violence, high-income European and Western Pacific regions suffer homicide rates lower than the rates for female youth in the high violence regions of the Americas and low- to middle-income Europe. The number of male youth homicides for every female death was greatest in the three high violence regions (the two Americas and low- to middle-income Europe) and smallest in the low violence regions (high income Europe and the Western Pacific).

Methods of Youth Homicide

The methods of perpetrating youth homicide include firearms, knives and blunt instruments, hanging and strangulation, and an array of 'other' methods for inflicting physical injury such as poisoning and pushing from heights. For all regions, over 60% of all youth homicides in males and females were accounted for by firearms; sharp instruments; and hanging/strangulation. As shown in Figure 2, there were substantial differences by region and sex in the distribution of these methods.

Figure 2 shows that firearms were the most frequent method used in male and female homicides for the high-income Americas and both European regions, although they were only marginally more common than sharp instrument deaths among females in high-income Europe. By contrast, firearms accounted for the smallest percentage of homicides among females in the low violence, high-income Western Pacific, and the second lowest percentage among their male counterparts in the region. While the high violence, high-income Americas were distinguished by over 80% of male and 60% of female youth homicides being inflicted by firearms, deaths in high violence, low- to middle-income Europe were more evenly spread between the different causes. The causal profile for males in low- to middle-income Europe was nearly identical to that for high-income Europe, with firearms accounting for around 46% of youth homicides, sharp objects 31%, and other causes 20% of deaths in both regions. The profiles for females in both regions were also very similar, with the exception of an elevated proportion of firearm deaths among females in low- to middle-income Europe.

Trends in Youth Homicide Rates and External Causes

Trend lines showing youth homicide rates were plotted for the low- to middle-income Americas, high-income Americas, high-income Western Pacific, and both European regions for the years from1985 to 1995.

High-income Americas. Trends for the high income Americas suggest that youth homicide victims are becoming younger, with rates increasing more rapidly in 15 to 19 year olds than in 20 to 24 year olds (Figure 3). Homicide rates among 15 to 19 year old males nearly doubled between 1987 (9.2) and 1991 (17.9), while among 20 to 24 year old males there was a less pronounced increase from 16.4 in 1987 to 23.0 in 1991. Thereafter rates in both these high-incidence male groups stabilised until 1993, and from 1994 began to decline.

Firearm-related homicides in 10 to 24 year olds increased from around 65% of all youth homicides in 1985 to over 85% in 1993, and then decreased slightly to around 80% in 1995. This trend for the percentage of firearm deaths closely matched that for homicide rate changes in 15 to 19 and 20 to 24 year olds, and was mirrored by the curve for homicides due to sharp instruments, which decreased in proportion to the increase in firearm inflicted deaths.

Low- to Middle Income Americas. Rates among 15 to 19 and 20 to 24 year old males and females increased from already high levels in 1985 to extremely high levels in the early 1990s (Figure 4). In

20 to 24 year old males, homicide rates increased from just over 60 in 1987 to around 90 per 100,000 for the years 1991 to 1994. Rates in 15 to 19 year old males followed a similar pattern of increase, climbing from around 30 in 1985 to over 50 per 100,000 in the period 1991 to 1994. In females, the homicide rate increase among 20 to 24 year olds (from under five in 1985 to over six between 1991 and 1994) was nearly overtaken by the more rapid increase in 15 to 19 year olds, among whom the homicide rate nearly doubled between 1985 and 1991. Among 10 to 14 year olds, homicide rates in females doubled from 0.7 in 1984 to 1.4 in 1994, while for males in this age group the increase was more gradual, from 2.5 in 1985 to 3.8 in 1994.

High-income Europe. Male and female rates in high-income Eourope were distinguished by their consistency over time (Figure 5). Rates for males aged 20 to 24 varied between a 1986 low of 2.0 and a 1992 high of 2.8, and apart from the period 1991 to 1993 showed no sustained upward trend. Rates in males aged 15 to 19 remained between one and 1.5, and in 10 to 14 year olds hovered around 0.3 per 100 000. Female youth homicide rates were similarly consistent, varying for 20 to 24 year olds between 0.8 and 1.2, for 15 to 19 year olds between 0.5 and 0.7, and for 10 to 14 year olds remaining at approximately 0.3 per 100 000.

The trend for external causes showed that although firearm-related cases accounted for the largest proportion of deaths in all years, they exceeded 50% of all cases only in 1989 and 1991, and in most years accounted for just over 40% of youth homicides. Sharp instruments were the next most prominent cause (accounting for between 20% and 30% of cases), and the proportion of deaths involving sharp instruments increased as firearm-related deaths decreased, and decreased as firearm-related deaths increased.

Low- to middle-income Europe. Low- to middle-income Europe is composed mainly of the ex-soviet transition societies, and its youth homicide trends were dominated by a rapid increase in rates that coincided with the late 1980s collapse of communism (Figure 6). This increase began with a gradual rise between 1988 and 1990, followed by a very steep increase from 1991 to 1994. For males aged 20 to 24 there was a four-fold increase in rates between 1988 and 1994 (11.6 to 48.7), and for males aged 15 to 19 a five-fold increase (4.9 to 23.7). Thereafter male homicide rates in these two oldest age groups began declining. In 10 to14 year old males there was a gradual homicide rate increase from 0.7 in 1985 to 1.84 in 1994, followed by a decline to 1.4 in 1995. For females aged 20 to 24 homicide rates nearly tripled from 2.6 in 1988 to 7.1 in 1995 – the post-1994 decline seen in males of this age range was therefore not evident for females. For females aged 15 to 19 rates increased from 2.0 in 1988 to 4.4 in 1994, and then declined slightly. As for males, female homicide rates in 10-14 year olds increased steadily, from 0.4 in 1995 to 0.9 in 1995.

The trend for homicide methods in low- to middle-income Europe shows that the steep escalation in homicide rates from 1991 onwards coincided with a rapid decrease in the percentage of sharp-instrument related deaths and a corresponding rise in the proportion of homicides involving firearms. From 1985 to 1995, the percentage of youth homicides inflicted by sharp instruments decreased from 60% to under 30%, while the proportion involving firearms more than doubled from 20% to 50%.

High-income Western Pacific. As for high-income Europe, the trends for both males and females were distinguished by consistently low rates (Figure 7). In the 20 to 24 year age range, male rates fluctuated between 1.3 and 1.8, and female rates between 0.8 and 0.9 per 100 000. In 15 to 19 year olds, male rates ranged from 0.7 to 1.3, and female rates vary between 0.3 and 0.6. The lowest rates for males and females occurred in 10 to 14 year olds, and for both sexes hovered around 0.4 per 100 000.

The trend for external causes shows that the proportion of firearm-related deaths decreased from around 16% between 1985 and 1987, to under 10% between 1991 and 1993, before again moving slightly upward to just under 15% in 1995. This was complemented by an increase in the percentage of youth homicides inflicted by sharp instruments, which rose from 25% in 1985 to nearly 40% in 1995, and decrease in the proportion of hanging and strangulation deaths.

Other Studies of Youth Homicide

Epidemiological findings on youth homicide in countries and regions inadequately covered by actual mortality returns were scant. Almost all the studies identified were for Africa, and because few studies were explicitly concerned with documenting youth homicide, the information was often sketchy.[12-22] There were some common epidemiologic patterns evident across these studies (Table 2) First, there was a steep increase in homicide rates from adolescence to young adulthood. Second, studies that mentioned the sex of victims showed a marked preponderance of male over female victims. Third, the studies where rates were estimated suggested substantial variation in youth homicide rates between countries and regions. For example, the rates for South Africa and Tanzania placed these countries among the high violence regions, while the rates for Fiji and Taiwan placed those countries among the low violence regions.

Conclusions

The major barrier to describing the global epidemiology of youth homicide is insufficient surveillance data for some of the low- to middle-income regions (especially Africa and the Eastern Mediterranean) where the highest projected rates occur. Our knowledge of age- and sex-specific patterns and trends is thus biased towards the high-income regions that tend to have much lower rates. Concerted effort is therefore needed to eliminate these knowledge gaps by developing violence surveillance systems in Africa, parts of the low- to middle-income Americas, the eastern Mediterranean, south east Asia, India, and the low-to middle-income Western Pacific.

Within the knowledge limits imposed by these biases in data availability, the cross-sectional and trend analyses showed dramatic variations in rates and the distribution of homicide methods within and between regions, confirming that high youth homicide rates are by no means inevitable. Two rate patterns were consistent across all regions and years and can therefore be considered as reflecting

universal risk factors. First the preponderance of male over female victims, and, second, the occurrence in males and females of steady increases in homicide rates from 10 to 24 years of age. Crosscutting these universal patterns were region and time specific variations in three areas. First, the ratio of male incidence to female incidence was highest in the high-violence regions and lowest in the low-violence regions. Second, the magnitude of the increase from mid-adolescent to early adulthood was different across regions. While the relative increase in homicide rates at early adulthood (between 15 to 19 and 20 to 24 years) was very similar in all regions, the mid-adolescent increase between 10 to 14 and 15 to 19 years was substantially greater in the high violence regions than in the low violence regions. This means that the main contributor to regional differences in youth homicide levels is the rate among 15 to 19 year olds, which, as shown by the trend analyses for the high violence regions, also showed a more rapid increase in homicide rates from 1985 to 1995 than the other age groups. Thirdly, the trend analyses highlighted the acute effect of massive and sudden political change on homicide rates in low-to middle-income Europe, as compared to the large but less abrupt increases in youth homicide rates for the high and low- to middle-income Americas, both of which indicate a substantial change in risk factors.

The trends in homicide methods showed that high violence countries and years were associated with a high proportion of firearm related homicides. This was most clearly apparent in low- to middle-income Europe, where the percentage of youth homicides inflicted by firearms increased from 20% in 1985 (when the homicide rate was 12) to 50% in 1995 when the homicide rate was 35. In both high violence regions of the Americas firearms accounted for over 70% of youth homicides in all years, as against averages of 45% and 15% in the low violence regions of high-income Europe and the high-income Western Pacific respectively.

Predictors, Causes, and Correlates of Youth Violence

We now review the scientific literature on the possible causes of youth violence. This review is focused on those factors that can change over time in the interest of shedding light on possible prevention strategies. We review this literature using a conceptual framework sensitive to the factors that support or impede healthy human development and the environmental context in which such development occurs.[3]

This literature review is divided into two sections. Because we are interested in the strongest evidence for causes of youth violence the first section focuses on longitudinal studies of large community samples. Longitudinal studies allow for the measurement of risk factors prior to the occurrence of violence, which is an essential form of evidence for establishing whether a risk factor is a predictor or possible cause. Unfortunately, virtually all of the longitudinal research studies of youth violence are based on samples from Western societies (Canada, Denmark, Finland, Great Britain, New Zealand, Sweden, United States).[24] Consequently, it is difficult to determine, based on extant research, whether what we currently know about the causes of youth violence can be generalized beyond Western societies. Also most of this research is based on males. This part of the

literature review focuses primarily on factors that influence violent behavior at the individual, family, peer, and neighborhood levels.

The second section of the literature review focuses on the influence of macro-level factors such as a nation's socioeconomic status, the nature and stability of it's political system, and the influence of persistent exposure to civil disturbances and war on youth homicide rates. Some of the studies reviewed in this section may not focus on violence as a juvenile phenomenon, but they do address factors that may affect youth as a key risk group. The influence of macro-level factors on youth violence is an important complement to the literature that addresses individual, family, peer, and neighborhood level risk and protective factors.

Individual, Family, Peer, and Neighborhood Influences on Youth Violence

Violent offenses, like other crimes, arise from interactions between offenders and victims in situations. Some violent acts are probably committed by youth with relatively stable and enduring violent tendencies, while others are committed by more "normal" youth who find themselves in situations that are conducive to violence. This section summarizes knowledge about the development of violent persons (i.e. persons with a relatively high probability of committing violent acts in any situation) and the occurrence of violent acts. Risk factors for violence are defined as factors that predict a high probability of violence. In order to determine whether a risk factor (e.g. school failure, poor parental supervision, delinquent peers) is a predictor or possible cause of violence, the risk factor needs to be measured before the violence. Hence, longitudinal follow-up studies are needed.

In the interests of throwing light on possible causes of violence and prevention methods, the emphasis is on risk factors that can change over time. Thus, genetic factors that are fixed at birth, such as the XYY chromosome abnormality, are not discussed, but biological factors that can change, such as the resting heart rate, are included. The main focus in this section is on individual level studies as opposed to aggregate level ones (e.g. of rates of violence in different areas), and on violent offenders rather than victims of violence. However it should be noted that victims of violence overlap significantly with violent offenders.[11] In Pittsburgh, boys who were killed or injured by guns were particularly likely to have sold drugs, carried a gun themselves, and been involved in a gang fight.[12]

Specialization or Versatility. Generally, young violent offenders tend to be versatile rather than specialized. They tend to commit many different types of crimes and also show other problems such as truancy and school dropout, substance use, persistent lying, and sexual promiscuity. However, there is a small degree of specialization in violence superimposed on this versatility.[25]

As an indication of their versatility, violent youth typically commit more nonviolent offenses than violent offenses. In the Cambridge Study, the convicted violent delinquents up to age 21 had nearly three times as many convictions for nonviolent offenses as for violent offenses.[26] In the Oregon Youth Study, which is a longitudinal survey of over 200 boys from age 10, the boys arrested for

violence had an average of 6.6 arrests of all kinds.[27] Generally, violent males have an early age of onset of offending of all types.[28] Both in official records[29] and self-reports,[30] an early age of onset of violent offending predicts a relatively large number of violent offenses.

Hamparian and her colleagues[29] identified all (811) youth born in 1956-58 and arrested for violence as juveniles in Columbus, Ohio. These youth were arrested for 2282 nonviolent offenses and 1091 violent offenses, including 12 murders, 40 rapes, 255 robberies, and 466 assaults. The murderers had 6.3 arrests of all kinds, compared with 5.6 for the rapists, 5.4 for the robbers, and 4.5 for the assaulters. There was a considerable amount of versatility in violent offending. For example, comparing the first and second violent arrests: 48% of the murder/assault first arrest cases committed robbery/rape on the second arrest; 42% of the robbery first arrest cases committed murder/assault/rape on the second arrest; and 57% of the rape first arrest cases committed murder/assault/robbery on the second arrest.

Continuity. In general, there is continuity from juvenile to adult violence and from childhood aggression to youth violence. In the Columbus study, 59% of violent juveniles were arrested as adults in the next 5 to 9 years, and 42% of these adult offenders were charged with at least one Index (serious) violent offense.[31] More of those arrested for Index violence as juveniles were rearrested as adults than of those arrested for minor violence (simple assault or molesting) as juveniles: 63% compared with 53%. In the Cambridge Study, one-third of the boys convicted of violence between ages 10 and 20 were reconvicted of violence between ages 21 and 40, compared with only 8% of those not convicted of youth violence.[32]

Childhood aggression predicts youth violence. In the Orebro (Sweden) follow-up of about 1000 youth,[33] two-thirds of boys who were officially recorded for violence up to age 26 had high aggressiveness scores at ages 10 and 13 (rated by teachers), compared with 30% of all boys. Similarly, in the Jyvaskyla (Finland) follow-up of nearly 400 youth,[34] peer ratings of aggression at ages 8 and 14 significantly predicted officially recorded violence up to age 20.

One possible explanation of the continuity over time is that there are persisting individual differences in an underlying potential to commit aggressive or violent behaviour. In any cohort, the people who are relatively more aggressive at one age also tend to be relatively more aggressive at later ages, even though absolute levels of aggressive behaviour and behavioral manifestations of violence are different at different ages. There may also be developmental sequences or pathways over time from one type of aggression to another. For example, in the Pittsburgh Youth Study, which is a follow-up of over 1,500 Pittsburgh boys originally studied at ages 7, 10 and 13, Loeber and his colleagues reported that childhood aggression (e.g. bullying) escalated into gang fighting and later into youth violence.[35]

Biological Risk Factors. According to Raine,[36] one of the most replicable findings in the literature is that antisocial and violent youth tend to have low resting heart rates. This can be easily demonstrated by taking pulse rates. The main theory underlying this finding is that a low heart rate indicates low autonomic arousal and/or fearlessness. Low autonomic arousal, like boredom, leads to sensation-seeking and risk-taking in an attempt to increase stimulation and arousal levels.

Conversely, high heart rates, especially in infants and young children, are associated with anxiety, behavioral inhibition, and a fearful temperament.[37]

In the British National Survey of Health and Development,[38] which is a prospective longitudinal survey of over 5300 children born in England, Scotland, or Wales in 1946, heart rate was measured at age 11. A low heart rate predicted convictions for violence and sexual offenses up to age 21; 81% of violent offenders and 67% of sexual offenders had below-average heart rates. There was an interaction between heart rate and family background. A low heart rate was especially characteristic of boys who had experienced a broken home before age 5, but among these boys it was not related to violence or sexual offenses. A low heart rate was significantly related to violence and sexual offenses among boys who came from unbroken homes.

In the Cambridge Study, resting heart rate was measured at age 18 and was significantly related to convictions for violence and to self-reported violence at age 18, independently of all other variables.[39] More than twice as many of the boys with low heart rates (65 beats per minute or less) were convicted for violence as of the remainder.

Perinatal (pregnancy and delivery) complications have been studied, because of the hypothesis that they might lead to neurological damage, which in turn might lead to violence. In a Danish perinatal study, Kandel and Mednick[40] followed up over 200 children born in Copenhagen in 1959-61. They found that delivery complications predicted arrests for violence up to age 22; 80% of violent offenders scored in the high range of delivery complications, compared with 30% of property offenders and 47% of nonoffenders. However, pregnancy complications did not significantly predict violence.

Interestingly, delivery complications especially predicted violence when a parent had a history of psychiatric illness; in this case, 32% of males with high delivery complications were arrested for violence, compared with only 5% of those with low delivery complications.[41] Unfortunately, these results were not replicated by Denno[42] in the Philadelphia Biosocial Project, which is a follow-up of nearly 1000 African American births in Philadelphia in 1959-62. It may be that pregnancy and delivery complications predict violence only or mainly when they occur in combination with other family adversities. Interactions between biological and psychosocial factors are quite common.

Psychological/Personality Factors. Among the most important personality dimensions that predict youth violence are hyperactivity, impulsiveness, poor behavioral control, and attention problems. Conversely, nervousness and anxiety are negatively related to violence. In the Dunedin (New Zealand) follow-up of over 1,000 children, ratings of poor behavioral control (e.g. impulsiveness, lack of persistence) at age 3 - 5 significantly predicted boys convicted of violence up to age 18, compared to those with no convictions or with nonviolent convictions.[43] In the same study, the personality dimensions of constraint (e.g. cautiousness, avoiding excitement) and negative emotionality (e.g. nervousness, alienation) at age 18 were significantly correlated with convictions for violence.[44]

Many other studies show linkages between these personality dimensions and youth violence. In the

Copenhagen perinatal project, hyperactivity (restlessness and poor concentration) at age 11-13 significantly predicted arrests for violence up to age 22, especially among boys experiencing delivery complications.[41] More than half of those with both hyperactivity and high delivery complications were arrested for violence, compared to less than 10% of the remainder. Similarly, in the Orebro longitudinal study in Sweden, hyperactivity at age 13 predicted police-recorded violence up to age 26. The highest rate of violence was among males with both motor restlessness and concentration difficulties (15%), compared to 3% of the remainder.[45]

Similar results were obtained in the Cambridge and Pittsburgh studies.[10] High daring or risk-taking at age 8-10 predicted both convictions for violence and self-reported violence in the Cambridge Study. Poor concentration and attention difficulties predicted convictions for violence in the Cambridge Study and reported violence (by boys, mothers, and teachers) in Pittsburgh. High anxiety/nervousness was negatively related to violence in both studies, and low guilt significantly predicted court referrals for violence in the Pittsburgh study.

The other main group of psychological factors that predict youth violence include low intelligence and low school attainment. In the Philadelphia Biosocial Project,[42] low verbal and performance IQ at ages 4 and 7, and low scores on the California Achievement Test at age 13-14 (vocabulary, comprehension, maths, language, spelling) all predicted arrests for violence up to age 22. In Project Metropolitan in Copenhagen,[46] which is a follow-up study of over 12,000 boys born in 1953, low IQ at age 12 significantly predicted police-recorded violence between ages 15 and 22. The link between low IQ and violence was strongest among lower class boys.

Similar results were obtained in the Cambridge and Pittsburgh studies.[10] Low nonverbal IQ at age 8-10 predicted both official and self-reported violence in the Cambridge Study, and low school achievement at age 10 predicted official violence in both studies. The extensive meta-analysis by Lipsey and Derzon[47] also showed that low IQ, low school attainment, and psychological factors such as hyperactivity, attention deficit, impulsivity, and risk-taking were quite important predictors of later serious and violent offending.

Impulsiveness, attention problems, low intelligence, and low attainment could all be linked to deficits in the executive functions of the brain, located in the frontal lobes. These executive functions include sustaining attention and concentration, abstract reasoning and concept formation, goal formulation, anticipation and planning, programming and initiation of purposive sequences of motor behaviour, effective self-monitoring and self-awareness of behavior, and inhibition of inappropriate or impulsive behaviors.[48] Interestingly, in the Montreal longitudinal-experimental study, which is a follow-up of over 1,100 children from age 6, a measure of executive functions based on cognitive-neuropsychological tests at age 14 was the strongest neuropsychological discriminator of violent and nonviolent boys.[49] This relationship held independently of a measure of family adversity (based on parental age at first birth, parental education level, broken family, and low socioeconomic status).

Family Factors. Numerous family factors predict violence. In her follow-up of 250 treated Boston boys in the Cambridge-Somerville Study, McCord[50] found that the strongest predictors at age 10 of later convictions for violence (up to age 45) were poor parental supervision, parental aggression,

including harsh, punitive discipline, and parental conflict. An absent father was almost significant as a predictor, but the mother's lack of affection was not significant. She also demonstrated that fathers convicted for violence tended to have sons convicted for violence.[51] In later analyses, she showed that violent offenders were less likely than nonviolent offenders to have experienced parental affection and good discipline and supervision, but equally likely to have experienced parental conflict.[52]

Similar results have been obtained in other studies. In the Chicago Youth Development Study,[53] which is a longitudinal follow-up of nearly 400 inner-city boys initially studied at age 11-13, poor parental monitoring and low family cohesion predicted self-reported violent offending. Also, poor parental monitoring and low attachment to parents predicted self-reported violence in the Rochester Youth Development Study,[54] which is a longitudinal study of nearly 1,000 children originally studied at age 13-14. Broken families between birth and age 10 predicted convictions for violence up to age 21 in the British National Survey,[55] and single parent status at age 13 predicted convictions for violence up to age 18 in the Dunedin study.[43] Parental conflict and a broken family predicted official violence in the Cambridge and Pittsburgh studies, and coming from a single-parent female-headed household predicted official and reported violence in Pittsburgh.[10]

Harsh physical punishment by parents, and child physical abuse, typically predict violent offending by sons.[56] Harsh parental discipline predicted official and self-reported violence in the Cambridge Study.[10] In a follow-up study of nearly 900 children in New York State, Eron and his colleagues[57] reported that parental punishment at age 8 predicted not only arrests for violence up to age 30, but also the severity of the man's punishment of his child at age 30 and also his history of spouse assault. In a longitudinal study of over 900 abused children and nearly 700 controls, Widom discovered that recorded child physical abuse and neglect predicted later arrests for violence, independently of other predictors such as gender, ethnicity, and age.[58] In the Rochester Youth Development Study, Smith and Thornberry showed that recorded childhood maltreatment under age 12 predicted self-reported violence between ages 14 and 18, independently of gender, ethnicity, socioeconomic status, and family structure.[59]

Large family size (number of children) predicted youth violence in both the Cambridge and Pittsburgh studies.[10] In the Oregon Youth Study,[27] large family size at age 10 predicted self-reported violence at age 13-17. Young mothers (mothers who had their first child at an early age, typically as a teenager) also tend to have violent sons, as Morash and Rucker[60] demonstrated in the Cambridge Study for the prediction of self-reported violence at age 16. Interestingly, the relationship between a young mother and a convicted son in this study disappeared after controlling for other variables, notably large family size, a convicted parent, and a broken family.[61] A young mother also predicted official and reported violence in the Pittsburgh Youth Study.[10]

Peer, Socioeconomic, and Neighborhood Factors. Having delinquent friends is an important predictor of youth violence; peer delinquency predicted self-reported violence in the Rochester Youth Development Study.[54] A mental health survey administered to 221, 12 to 17 year old residents of a marginal neighborhood in Lima, Peru, found that having a friend that consumed drugs was associated with violent behavior.[62] What is less clear is how far the link between delinquent

friends and delinquency is a consequence of co-offending,[63] which is particularly common under age 21. Elliott and Menard concluded both that delinquency caused delinquent peer bonding and that delinquent peer bonding caused delinquency.[64] However, there seems to be no information specifically about the link between peer violence and youth violence.

In general, coming from a low socioeconomic status (SES) family predicts youth violence. For example, in the National Youth Survey, the prevalences of self-reported felony assault and robbery were about twice as high for lower class youth as for middle class ones.[65] In the Lima study, low maternal education and housing density were found to associated with youth violence while under the influence of alcohol.[62] Gianini, Litvoc and Neto[66] found, in an emergency-room based study of young adults in Sao Paulo, Brazil, that after adjusting for sex and age, the risk of victimization was significantly higher for the subproletariat, with an Odds Ratio of 4.2 and 95% CI of 1.99-8.84. Similar results have been obtained for official violence in Project Metropolitan in Stockholm,[67] in Project Metropolitan in Copenhagen,[46] and in the Dunedin Study in New Zealand.[43] Interestingly, all three of these studies compared the SES of the family at the boy's birth, based on the father's occupation, with the boy's later violent crimes. The strongest predictor of official violence in both the Cambridge and Pittsburgh studies was family dependence on welfare benefits.[10]

Generally, boys living in urban areas are more violent than those living in rural ones. In the US National Youth Survey, the prevalence of self-reported felony assault and robbery was considerably higher among urban youth.[65] Within urban areas, boys living in high crime neighborhoods are more violent than those living in low crime neighbourhoods. In the Rochester Youth Development Study, living in a high crime neighborhood significantly predicted self-reported violence.[54] Similarly, in the Pittsburgh Youth Study, living in a bad neighborhood (either as rated by the mother or based on census measures of poverty, unemployment, and female-headed households) significantly predicted official and reported violence.[10]

In the United States the availability of guns, gangs and drugs in a neighborhood are important risk factors for youth violence.[67,68] The number of arrests of juveniles for homicide in the United States more than doubled between 1984 and 1993 (from 5.4 to 14.5 per 100,000 population).[69] Blumstein[70] suggested that this increase was linked to concurrent increases in gun carrying, gangs, and battles over crack cocaine selling. In the Rochester Youth Development Study, about 30% of the sample were gang members, but they accounted for about 70% of violent crimes and 70% of drug selling.[71] The incidence of violence increased after joining a gang and decreased after leaving it. More than half of those in gangs said that they owned guns for protection.[72] In the Pittsburgh Youth Study, initiation into drug selling coincided with a significant increase in weapon carrying, and 80% of those selling hard drugs at age 19 were carrying a gun.[73] In Rio de Janerio, Brazil, where the majority of homicide victims and aggressors are 25 years of age and younger, drug trafficking is responsible for a high proportion of homicides, conflicts and injuries.[74]

Situational Factors. It might be argued that all the risk factors reviewed so far in this section -- biological, psychological/personality, family, peer, socioeconomic, and neighborhood -- essentially influence the development of a long-term individual potential for violence. In other words, they contribute to between-individual differences: why some people are more likely than others, given the

same situational opportunity, to commit violence. Another set of influences -- situational factors -- explain how the potential for violence becomes the actuality in any given situation. Essentially, they explain short-term within-individual differences: why a person is more likely to commit violence in some situations than in others. Situational factors may be specific to particular types of crimes: robberies as opposed to rapes, or even street robberies as opposed to bank robberies. One of the most influential situational theories of offending is routine activities theory.[75] This suggests that, for a predatory crime to occur, the minimum requirement is the convergence in time and place of a motivated offender and a suitable target, in the absence of a capable guardian.

Much work on describing situations leading to violence has been carried out in Great Britain under the heading of crime analysis.[76] This begins with a detailed analysis of patterns and circumstances of crimes and then proceeds to devising, implementing, and evaluating crime reduction strategies. For example, Barker and her colleagues[77] analyzed the nature of street robbery in London. Most of these crimes occurred in predominantly ethnic minority areas, and most offenders were 16-19 year old Afro-Caribbean males. The victims were mostly Caucasian females, alone, and on foot. Most offenses occurred at night, near the victim's home. The main motive for robbery was to get money, and the main factor in choosing victims was whether they had a wealthy appearance.

In their Montreal longitudinal study of delinquents, LeBlanc and Frechette provided detailed information about motives and methods used in different offenses at different ages.[78] For example, for violence at age 17, the main motivation was utilitarian or rational. For all crimes, however, the primary motivation changed from hedonistic (searching for excitement, with co-offenders) in the teenage years to utilitarian (with planning, psychological intimidation, and use of instruments such as weapons) in the twenties.[79] In the National Survey of Youth, which was a cross-sectional survey of nearly 1400 American youth aged 11-18, assaults were usually committed for retaliation or revenge or because of provocation or anger.[80]

In the Cambridge Study, motives for physical fights depended on whether the boy fought alone or with others.[81] In individual fights, the boy was usually provoked, became angry, and hit out to hurt his opponent and to discharge his own internal feelings of tension. In group fights, the boy often said that he became involved to help a friend or because he was attacked, and rarely said that he was angry. The group fights were more serious, occurring in bars or streets, and they were more likely to involve weapons, produce injuries, and lead to police intervention. Fights often occurred when minor incidents escalated, because both sides wanted to demonstrate their toughness and masculinity and were unwilling to react in a conciliatory way.

Many of the boys in the Cambridge Study fought after drinking alcohol, and it is clear that alcohol intoxication is an immediate situational factor that precipitates violence. In a Swedish study, about three-quarters of violent offenders and about half of the victims of violence were intoxicated at the time.[82] Conventional wisdom suggests that alcohol consumption has a disinhibiting effect on behavior that encourages both offending and victimization. However, the biological links between alcohol and violence are complex.[83]

Behaviors leading up to violence have been studied. Wolfgang classified actions leading to homicide

in Philadelphia based on police records.[84] Most commonly, homicides arose from trivial altercations (insults or jostling), domestic quarrels, jealousy, or altercations over money. Similarly, violent offenses in London usually arose from family disputes or quarrels between neighbors or persons working together.[85] In Sweden, most violent crimes were preceded by arguments, either arising out of the situation or based on existing social relationships.[82] However, in all these studies, a minority of violent acts were basically unprovoked attacks or robberies. Pallone and Hennessy[86] referred to "tinderbox criminal violence", defined as violence occurring between similar types of people, known to each other, ostensibly to settle long-lasting or emerging disputes.

Much is known about the situations in which violence occurs.[87] For example, in the Swedish study, violence preceded by situational arguments typically occurred in streets or restaurants, while violence preceded by relationship arguments typically occurred in homes.[82] In England, stranger assaults typically occurred in streets, bars, or discotheques, nonstranger assaults typically occurred at home or work, and robberies typically occurred in the street or on public transport.[88] Violence in public places could be investigated using systematic observation, for example recording incidents from closed-circuit television cameras mounted on buildings. More research on situational influences on violent acts needs to be incorporated in prospective longitudinal studies, in order to link up the developmental and situational perspectives.

Macro-level Influences on Youth Violence

A number of factors that operate at the societal level may increase the vulnerability of nations or regions to violence, a vulnerability which may have a particularly important effect on adolescent and young adult populations. These macro-level conditions include the ways in which our political, economic, and social systems are structured as well as the changes that occur in these systems.[89] This section reviews the literature on the ways in which these macro-level factors may contribute to the development of social contexts conducive to violence and shape the development of violent groups and persons.

Studies of the macro-level determinants of violence use a variety of methodologies ranging from case studies to ecological analyses using econometric modeling or cross-national comparisons of secondary data. These types of study designs are not as useful as the longitudinal studies of individuals reviewed earlier for establishing causal relationships. Nevertheless, they are very useful for identifying potentially important associations and explanations for how the social context and changes in it may influence violent behavior.

Economic Conditions. A key set of macro-level risk factors for violence includes those factors that reflect the economic structure and condition of a society. Several studies have demonstrated a link between economic growth, income inequality, and violence. Fajnzylber, Lederman and Loayza[90] found, in their empirical, cross-country study of 45 developed and developing countries (1965-95), that income inequality, as measured by the Gini coefficient, had a significant and positive effect on the homicide rate. The gross domestic product (GDP) growth rate also had a significantly negative

effect on the homicide rate, but it was mediated by the level of income inequality, and its impact is lessened when income inequality was higher.

The presence of an illicit drug trafficking industry as significant component of the economy of a nation appears to play an important role in contributing to violence. Fajnzylber, Lederman and Loayza[90] found a positive and significant correlation between countries considered significant producers of illicit drugs and homicide rates.

Political Structure. The quality and level of state governance, both in terms of its legal framework and its social protection policies, is a potentially important determinant of violence. In particular, the extent to which a society enforces it's laws through arrest and prosecution of violent offences may act as a deterrent against violence or serve to incapacitate violent offenders from committing further offences. Fajnzylber, Lederman and Loayza[90] found that the homicide arrest rate had a significant negative effect on homicide rate. In their study objective measures of governance, in particular, arrest rates, had significant negative effects on crime rates, while more subjective measures (Rule of Law and Voice and Accountability indices) had weak effects.

The quality of State governance however, can have an impact on violence, particularly as it affects young people. Noronha et al.[91] concluded in their study of the types of violence that affected different ethnic groups in Bahia, Brazil, that dissatisfaction with police, justice and prisons influenced the generation and reproduction of authoritarism and the use of private modes of justice. de Souza Minayo[74] found that one of the key forms of violence against youth in Rio de Janeiro was police use of force, including violent searches, physical violence, sexual abuse and rape, and bribery, especially targeted against boys from lower socioeconomic strata. Sanjuán[92] included the sense of class-dependent justice as a key factor in the creation of a "culture of violence" among the marginalized youth population in Caracas. Lack of access to regular forms of administrative justice may contribute to the formation of youth groups according to normative and protective codes. The expression of certain forms of violence may become routine, according to the public perception of justice and to the sense of absence of legal limits. For example, Aitchinson[93] concluded that post-apartheid South Africa impunity for former human rights abusers and the inability of the police as an institution to shift towards a democratic society, have contributed to the perception of societal insecurity and to the risk of extrajudicial actions involving violence.

Another aspect of governance concerns social protection by the State. Pampel and Gartner[94] used a scale of collectivism (level of development of national institutions for collective social protection) to explain why countries with equal percentage increases in the proportion of the population aged 15 to 29 showed unequal increases in homicide rates. They concluded that national institutions for collective social protection reduce the likelihood that an increase in the 15-29 year-old population will be accompanied by an increase in homicide rates. Messner and Rosenfeld[95] examined the effects of political efforts (which they refer to as "decommodification", measure developed based on levels and patterns of welfare expenditures) to insulate personal well being from market forces such as economic recessions. Higher welfare expenditures were negatively related to homicide rates, suggesting that societies where individuals are protected from market forces have less homicide.

Social integration. Social integration refers to the extent to which social networks and support systems exist which interweave family, community, organisational, and institutional structures. From a structural perspective, Gartner[6] operationalised social integration as the divorce rate per 1 000 marriages and Cutright and Briggs[7] as the divorce rate per 10 000 men aged 15 to 64. Societal integration was also measured by the percent of the population belonging to distinct ethnic or linguistic groups (an index of ethnic-linguistic fractionalisation). In both studies increased ethnic-linguistic heterogeneity was associated with increased homicide rates, but more clearly so for adults than children. The divorce rate was positively associated with homicide rates in Gartner[6] and Cutright and Briggs,[7] although only in the latter with homicide death rates among 1 to 4 year olds. Fajnzylber, Lederman and Loayza[90] found ethnic-linguistic fractionalisation to be positively associated with homicide rates, independently of income inequality.

Social capital is also a measure of the level of social integration in a society or community. Social capital is defined as "the rules, norms, obligations, reciprocity and trust embedded in social relations, social structures, and society's institutional arrangements which enables its members to achieve their individual and community objectives."[96] Lederman, Loayza and Menéndez[96] found, in a study of the effect of social capital on incidence of crime in 39 developed and underdeveloped countries (1980-94), that the prevalence of trust among community members had a strong and significant effect on reducing the incidence of violent crimes. Wilkinson, Kawachi and Kennnedy[97] showed that social capital scores indicating low social cohesion and high levels of interpersonal distrust were associated with elevated homicide rates and increased economic inequality.

The lack of social capital may hinder young people from reaping the benefits of human capital investments: youth who lack social capital in neighborhoods tend to do poorly in school and have an increased probability of dropping out.[98] Moser and Holland[99] conducted a Participatory Urban Appraisal of five communities representative from Jamaica's poor urban areas. They found a cyclical relationship between violence and the destruction of social and human capital. Community violence created an "area stigma", restrained physical mobility and employment and educational opportunities due to fear, made businesses reluctant to invest in the community, and made neighbors less likely to invest in local infrastructure. The absence of social capital and increased stress and mistrust resulting from the erosion of appropriate infrastructure, social space and opportunities was perceived to increase the likelihood of violent behavior, especially among young people.

The Cultural Context. Culture is reflected in the system of norms and values that are passed across generations in any society. These norms and values play an important role in how members of a society respond to their environment and changes in it. The cultural context can influence violence, for example, by prescribing it as a method of conflict resolution and socializing youth to adopt norms and values that support violent behavior. Cultural norms and the process of socialization are influenced by conditions at the social and community levels.

Indicators of officially approved violence, such as involvement in wars and the death penalty, are often associated with high rates of illegitimate, interpersonal violence. Gartner[6] operationalised the cultural context through the number of civil and international wars per nation from 1900 to 1980, the total battle deaths per one million population over this period, and whether or not a country had the

death penalty. Cutright and Briggs[7] used total battle deaths per million population as an indicator of offically approved violence. These measures were significantly associated with homicide rates at all ages and in both sexes. In a study of gangs in El Salvador, Smutt and Miranda[8] found that 6 out of 10 gang members had directly experienced the armed conflict, suggesting that prolonged exposure to armed conflict contributed to the creation of a culture of violence.

Cultural contexts which fail to provide nonviolent alternatives for conflict resolution may have higher rates of youth violence. The ACTIVA study (Multisite Study on Cultural Attitudes and Norms related to Violence in Selected Cities of Latin America and Spain), evaluated the strength of the association between aggressive behaviours and attitudes and self-efficacy for alternatives to violence across different settings.[100] In all cities, the lack of self-efficacy for alternatives to violence was strongly related with all forms of violence. Some attitudes towards specific behaviours were also associated with violence. For example, the acceptance of corporal punishment was associated with aggression toward the child and attitudes that supported slapping were associated with partner violence. Bedoya Marín and Jaramillo Martínez[101] describe, in their study of gang typologies in Medellín, Colombia, how low-income youth are influenced by the culture of violence at the societal level and certain subcultural elements at the community level. They argue that a "culture of violence" is fostered at the community level through the tacit institutional support of funds generated through drug trafficking, the growing value of "easy money" and means required to obtain it, and the corruption of the police, judicial, military, and administrative forces. At the same time, behaviors such as fighting by machete use have been transmitted through generations and adapted to the present settings.

Cross-national cultural influences have also been linked with the rise in juvenile violence. Rodgers[102] indicates, in a literature survey of youth gangs in Latin America and the Caribbean, that violent Los Angeles-style gangs have emerged in northern and south-western Mexican towns, where immigration from the United States is highest. These gangs emulate the behavioural patterns of their North American counterparts, and have gang members who once emigrated to the United States, and thus assimilated U.S. gang culture. A similar process has been found in El Salvador, with the high rate of deportation of Salvadorian nationals from the United States since the 1992 peace accords, many of whom were members of gangs in the United States.

Social Change. Co-occurring social changes at the structural level, such as demographic explosion of the youth population, emigration, urbanisation, and changing social policies, have been linked with an increase in youth violence. In countries affected by economic crises and ensuing structural adjustment policies, notably in Latin America and Africa, there has been a shrinkage of real wages, informalization of labor, and a substantial decline on basic urban infrastructure and social services.[103,104] Rapid urbanization has resulted in the concentration of poverty in cities where the growth rate of the young population is greatest.[105] These changes have resulted in higher number of youths living in female-headed households, increased vulnerability to poverty, need to supplement family incomes, and reduced socialization capacity within the family. A state of tension exists between the decreasing supportive infrastructure and the demographic pressure created by a growing population group of adolescents and young adults.

Lauras-Locoh and Lopez-Escartin[104] suggest, in their analysis of youth demography in Africa, that this tension has been expressed, for example, in school-based and student revolts. Diallo Co-Trung[106] describes the phenomenon in Senegal where the population younger than 20 doubled between 1970-88 in the midst of a recession and the implementation of structural adjustment policies. Students responded to the reduction in state public investment and the ensuing degradation of the quality of education and increasing social inequality in access to schooling with strikes and student revolts. Rarrbo[107] found, in his study of Algerian youth, that the convergence of the demographic explosion and the accelerated urbanization created tension-prone conditions, such as unemployment, underemployment, and housing problems. Expectations of a stable job disappeared and frustrations resulting from assimilation into urban culture and its temptations (designer goods, gadgets, luxury goods) made young people more vulnerable to delinquent peer influence. Dinnen[108] describes, in an ethnographic account of a criminal group surrender in Papua New Guinea, how the evolution of "raskolism" (criminal gangs) occurred within the broader context of decolonization and ensuing social and political change, notably population expansion unmatched by economic growth. Such a phenomena has also been cited as a concern in former communist economies.[109] As the markets open and the state machinery disappears unemployment soars and the social welfare system is reduced. Young people lack legitimate alternatives and the necessary social support at the juncture between school and work. They are exposed to the increased stress felt within the family and the general disintegration of public order and social controls.

Conclusions

Although we have much more to learn it is clear that youth violence results from a complex interaction among factors associated with our individual characteristics (biological and psychological factors), the immediate social contexts in which we interact with others (family and friendship networks), the nature of the communities where we live (socio-economic status, presence of gangs and illicit drug dealing), and the characteristics of the broader society and culture in which we exist (economic conditions and norms and values). These different levels of influence on our behavior are referred to as ecological contexts. Figure 9 displays the factors we discussed in the previous literature review in an ecological model. The point of this model is to illustrate that not only is youth violence influenced by many factors, but that one cannot understand youth violence without considering how these different contexts operate together to cause or mitigate the expression of violence by youth. This ecological perspective on youth violence has important implications for preventing this global problem.

A Typology of Youth Violence Prevention Strategies

Youth violence is caused by a complex interaction among multiple factors at the individual, family, community, and societal levels. Ultimately, therefore, public policies to reduce the health burden of youth violence will need to be multifaceted to have measurable effects on the problem. One of the

more difficult challenges in violence prevention is how to design programs to address multiple risk factors.[110] As the preceding discussion has shown, there are a number of factors — some residing in the individual and others in the family and social environment — that increase the probability of aggression and violence during childhood, adolescence, and early adulthood. Designing programs to address multiple risks involves designing programs that influence not only individual cognitive, social, or behavioral factors, but also the social systems that shape cognition, beliefs, development, and behavior.

A typology of youth violence prevention strategies is useful when considering the range of prevention strategies that might make-up a comprehensive effort to prevent youth violence. We propose a typology based on two key dimensions: (1) the stages of human development and (2) an ecological model of the multiple and interconnected social contexts in which human development occurs.

Within each stage of the human development, there are basic needs related to physical, emotional, and social development, and developmental tasks related to the acquisition and mastery of knowledge, skills, and relationships.[3] Prevention strategies should clearly specify the developmental stage of the people targeted for services and those services must be tailored for the respective developmental needs of those people. Risk factors within such a framework serve as barriers to successful development.[3] For example, child abuse may be a barrier to the development of strong emotional bonds between an infant and parent. Programs that address developmental needs, remove barriers, and foster support for healthy development across a variety of contexts are key to preventing violence.[3]

Developmental needs and tasks take place within a social context. The ecological model used in our typology conceptualizes the multiple factors that can influence violence in the context of different systems of influence (e.g., individual factors, close interpersonal relationships, proximal social contexts, and societal macro-systems).[111] Prevention measures that influence individual factors would attempt to modify risk or protective factors associated with individual skills, attitudes, or beliefs (e.g., poor peer relation skills, low academic achievement, or inappropriate beliefs about the use of violence against others). Strategies addressing close interpersonal relationships would attempt to influence the nature and quality of the interactions youth have with the people they interact with on a regular basis (e.g., poor emotional bonding between parents and children, intense peer pressure to engage in violence, or the absence of a strong relationship with a caring adult). Intervention addressing close proximal social contexts would be designed to modify the day to day environments and settings in which youth interact to increase their safety and support healthy development (e.g., modify elements of the physical environment that heighten the likelihood of assault, e.g. poor lighting), or the lack of opportunities to engage in pro-social activities in neighborhood institutions such as schools or churches). Strategies that address the societal macro-system would reduce economic or social barriers to healthy development or enhance opportunities to achieve key developmental needs (e.g., modification of norms or values imbedded in the culture that promote violence, improve economic conditions).

Tables 3 and 4 provide examples of youth violence prevention strategies organized along the two key dimensions in our proposed typology. The developmental stages from infancy to early adulthood are

one axis of the typology and the ecological systems through which violence can be prevented are organized along the other axis. The prevention strategies presented in this table are not intended to be exhaustive nor do they represent strategies that have all proven to be effective; rather, they are presented to illustrate the breadth of potential solutions and to emphasize the need to consider addressing the problem simultaneously at different stages of development and through different social systems of influence. There are at least two noteworthy limitations of this typology. First, the typology does not differentiate between strategies directed at preventing violent behavior and those designed to prevent violent victimization. Although this important distinction is not immediately obvious, both are useful approaches to prevention and are intermixed among the array of strategies. Second, the typology does not differentiate among specific types of violence. One could imagine developing a separate array of prevention strategies for different types of violence (e.g., school violence, gang violence, violence between intimates). Tables 3 and 4 include strategies that address a number of different types of violence.

The Effectiveness of Youth Violence Prevention Strategies

As is evident from the above typology there is a broad range of strategies for preventing youth violence. Unfortunately the evidence for the effectiveness of many of these strategies has never been demonstrated in a scientifically rigorous way. There are several types of evidence that should be considered before concluding that a program is effective.[112] Programs should be evaluated, wherever possible, using experimental designs that provide evidence of statistically significant effects on the reduction of violent behavior or associated injuries. These results should be replicated in multiple sites and across different cultural contexts. Finally there should be evidence that the impact is sustained over time.

We review what's known about the effectiveness of a range of violence prevention strategies. This review is organized by the developmental stage of the persons that are being targeted for reducing violent behavior, the future potential for violent behavior, or the risk of victimization. The social context through which the intervention operates to influence violent behavior is considered within each developmental stage. We have focused this review on the results of experimental and quasi-experimental studies of the effectiveness of interventions to prevent youth violence. These types of evaluation studies allow for the measurement of the independent effects of the intervention on violent behavior and/or injury by using control groups and collecting data longitudinally (i.e. prior to and after the implementation of the intervention) in the research methodology. As in the case of the literature on risk factors these studies have been conducted primarily in Western societies.

Infancy and Early Childhood

The biological and environmental factors that can ultimately influence the likelihood of youth violence are first evident during infancy and early childhood. Children are born with a basic

temperament and constellation of genetic characteristics and predispositions that interact with a child's environment to influence their likelihood of expressing aggression and violence later in life. Neurological impairments, the nature of the patterns of interactions between a child and its caregivers, exposure to neglect and/or physical abuse, and environmental stresses associated with poverty may all contribute to the propensity for aggressive and violent behavior.[5,26,113-123] There are a number of prevention strategies targeted at infants and/or their caregivers that appear effective in preventing the subsequent expression of aggressive and violent behavior during adolescence and young adulthood.

Home Visitation. Home visitation is an intervention in infancy and early childhood that typically involves weekly to monthly visits to provide parenting and health information, emotional support, counselling, and referrals to outside agencies to families at high-risk for abuse or other health problems.[124] Although findings are mixed some studies have found evidence that over the long-term, visited children have lower rates of antisocial behavior than those who did not receive home visits.[125-129]

Parenting Programs. Parenting skills can be learned and improved through training. These programs are designed to improve the emotional bond between parents and their children, to encourage parents to use consistent and contingent child-rearing methods and to help develop parental problem-solving skills and self-control in raising children. Several programs have found this type of training to be successful and there is some evidence of a long-term impact in reducing antisocial behavior.[130-133] In a study of the cost effectiveness of early interventions for preventing serious forms of crime in California, training for parents of school-age children exhibiting aggressive behavior was estimated to prevent 157 serious crimes (i.e., homicide, rape, arson, robbery, aggravated assault, and residential burglary) per million dollars spent.[134] Parent training was estimated to be about three times as cost effective as the California "three-strikes" law (a law that put in place harsh sentences for repeat offenders).

Early Childhood Education. Pre-school enrichment programs can be helpful by giving young children a head start in the skills needed to be successful in school as they grow older. These programs can strengthen a child's bonds to school, improve school achievement, and self-esteem.[124] Long-term follow-ups of prototypical pre-school enrichment programs have found many positive benefits for children, including less involvement in violent and other delinquent behaviors than for similar children not enrolled in such programs.[126,135-136]

Other interventions during these early developmental stages that might prove to be effective include programs to: prevent unintended pregnancy in order to reduce the constellation of risk factors associated with early childbirth that could contribute to youth violence,[124] increase access to pre and post-natal care in order to reduce the potential for birth trauma and enhance well baby care thus minimizing health problems that could contribute to youth violence,[3] and monitor lead levels and remove toxins in order to prevent damage to a child's brain that could indirectly contribute to youth violence by limiting cognitive abilities and school performance.[3] Further evidence of the long-term effects of such programs on violent and aggressive behavior is needed.

Adolescence

Aggressive behavior patterns, poor problem-solving skills, and other experiences in early childhood contribute to the potential for adolescent violent behavior by interfering with the development of positive peer relationships, academic achievement, and adjustment in school and other social contexts during adolescence.[26,54,115,137-143] There are a number of prevention strategies targeted at adolescents, their peers, parents, and social environments that appear very promising for preventing the expression of aggressive and violent behavior.

Social Development Programs. Social development programs seek to improve children's social skills with peers and others and to promote behavior that is positive, friendly, and cooperative.[144-145] These programs typically focus on one or more of the following dimensions: anger management, perspective taking, moral development, social skills, social problem solving, or conflict resolution.[145] There is evidence that these types of program can be effective in reducing behavior problems and improving social skills.[146-147] Available results suggest that they are more promising when part of more comprehensive efforts that include the direct involvement of teachers, parents, and peers.[145]

Mentoring. Mentoring programs match youth with a non-familial caring adult, particularly those youth growing up in a single parent family or adverse situation.[148] Mentors can be older classmates, teachers, counselors, police officers, or members of the community. The goals of mentoring are to assist youth in developing skills and to provide a sustained relationship with a more experienced person who serves as a positive role model and guide.[145] An evaluation of the Big Brothers/Big Sisters Program, the oldest and best known mentoring program in the United States, found that a positive mentoring relationship led to reductions in self-reported anti-social behaviors, such as hitting and drug use.[149]

Family Therapy. There are many forms of family therapy, but, in general, they share the common goals of improving communication, interaction, and problem solving between parents and their children.[145] Some programs also focus on improving a family's ability to deal with factors in the youth's and family's ecology that may contribute to antisocial behavior and help the family make better use of resources that exist within their community. These programs are most appropriate for families experiencing a high level of conflict and behavioral problems.[145] Family therapy programs can be costly, but there is substantial evidence that they can be effective in improving family functioning and reducing child behavior problems.[150-152] Functional Family Therapy[153] and Multisystemic Therapy[154] are two approaches used in the U.S. that have been demonstrated to have strong and long-term effects on reducing the violent and delinquent behavior of juvenile offenders at lower costs than other treatment programs.[112]

Other strategies that may be effective in addressing violence during this developmental stage, but have not been adequately evaluated, include programs to: provide incentives for graduating from high school and attending college for underprivileged youth, prevent adolescents from gaining access to firearms without the supervision of an adult, situational crime prevention strategies,[155] supervised after-school recreation,[124] and public information campaigns to promote pro-social norms.[3] Programs that do not appear to be effective in reducing adolescent violent behavior include: peer mediation

(i.e., programs where students help other students resolve disputes),[124] peer counseling,[124] and replacing school work with vocational training and employment.[124]

Early Adulthood

A weak family environment, involvement in delinquent peer groups, and school failure makes the transition to adulthood more difficult and the likelihood of violent behavior greater.[110,156] Factors such as unemployment, relationship difficulties, skills deficits, drug and/or alcohol abuse may contribute to feelings of estrangement and poor social adjustment in early adulthood.[110] The net effect of these factors is diminished opportunity to successfully meet the challenges of adult life and a greater potential to engage in violent behavior. Failure to adapt to these challenges also has potential implications for violent behavior that is expressed towards the children and partners of these young adults.

There is a dearth of prevention programs that target young adults. Given the high-risk faced by persons in this developmental stage for both violent perpetration and victimization in almost every part of the world, this represents a huge gap in the existing knowledge base. Programs are needed which assist adolescents in making the transition to adulthood and help young adults learn to adapt to changing roles and new environments. Attenuating the negative effects of low opportunities for meaningful employment would appear to be a particularly high priority for young adults living in poor neighborhoods. The prevention of child and partner abuse should be a particularly high priority in this developmental stage.

Multiple Component Prevention Programs

As is evident from our review of risk factors and prevention strategies, youth violence is caused by a complex interaction among multiple factors and efforts to reduce this problem in a substantial way will need to be multifaceted. Ideally programs should approach youth through multiple systems of influence (individual, family, community, and society) and provide a continuum of interventions and activities that span the stages development. Such programs can address co-occurring risk factors, such as school attainment, early pregnancy, unsafe sex, and drug use, and can address the needs of adolescents in all spheres of their lives.[102]

The DESEPAZ program in Cali, Colombia, illustrates the role of a municipal government in organizing a comprehensive repsonse to the problems of crima and violence.[157] In Cali the Municipal Security Council gathered government officials on a weekly basis to study the epidemiology of violence in select neighborhoods of the city and to develop plans of action. Actions in the areas of epidemiological analysis, social communication, institutional strengthening of the legal sector, community mobilisation and infrastructure development, were taken based on the information provided by the surveillance system and the community-based consultation process. Restriction on

the sale of alcohol and banning the permits to carry hand guns were put on weekends and other special occasions. Public opinion around violence moved from a passive attitude to an active demand for more prevention. The homicide rate declined from 124/100,000 in 1994 to 86/100,000 in 1997, a 30% reduction in a period of three years.

ESSOR in Mozambique presents a case of a comprehensive adolescent delinquency prevention program implemented in two low-income neighborhoods of Maputo.[158] The program targeted adolescents between 13-18 years of age and functioned within a larger community-based development initiative. Socio-educational activities on identified adolescent risk behaviors prepared participants to disseminate acquired information into the community. Sports and leisure activities were used to promote self-expression, team-building, and a development of trust between social action agents and the youth. Professional training was offered to youth older than 15 years of age. The program included regular home visitation by a social action agent for all participating youths. While at the beginning of the program only 5% of the youth showed "constructive" behaviors, 18 months after the number had increased to 23%. The pre-intervention evaluation indicated most youths were involved in gangs, while 18 months after, 5% of youths reported belonging to gangs or prostituting themselves. At the same time, parents reported that parent-child relations improved: 86% of those parents who had reported difficult interactions before the program have reported an improvement. Community members and institutions included in the evaluation reported that 84% believed significant changes had favored the decrease of delinquency.

The Children At Risk Program in the United States presents another example of a community-based, comprehensive initiative for at-risk youth aged 11-15.[159] Based in six high-risk neighborhoods, the program aimed to prevent drug abuse and selling and promote healthy development for youth at risk of delinquency. In a similar fashion as ESSOR; case managers worked with the youth and their families to develop and follow-up a service plan, and facilitate the use of existing community social services. The project site also offered family services, educational support, after-school and summer activities, mentoring, enhanced community policing, and collaboration with the juvenile justice system. A preliminary evaluation 12 months after the initiation of the project indicated that participants had a lower number of contacts with the police than did youth in the control group (41 versus 69). The treatment group also had less contacts with juvenile court: 34 contacts compared to 71 in the control group.

The Project for the Promotion of Community Self-Management (PROFAC), implemented in the marginalized urban community of Rincón Grande de Pavas in Costa Rica, has adopted a multi-faceted approach to work with gangs.[160] A negotiation process with the youth achieved a cease-fire. Strategies include involvement in community reconstruction projects, the creation of a youth organization, and the establishment of a community business. Preliminary results indicate continued project involvement of former gang members, maintenance of the cease-fire, and sustained reconstruction of destroyed property.

Summary and Recommendations

In sum, deaths and injuries from youth violence constitute a substantial public health problem in many regions of the world. Substantial variations in the magnitude of this problem exist within and between nations and regions of the world. Longitudinal research has revealed a great deal about the patterns and causes of youth violence. We know that violent youth are versatile in committing other types of crime and antisocial acts, but there is some specialization in violence. There is significant continuity from childhood aggression to youth violence and from youth violence to adult violence. The major risk factors for youth violence are biological factors (low heart rate), psychological/personality factors (impulsivity, low intelligence), family factors (poor supervision, harsh discipline, violent parents, large families, young mothers, broken families), peer delinquency, low socioeconomic status, and disintegrated neighborhoods. Studies of macro-level influences suggest that economic inequality, the extent to which legal and social protections are supported and enforced, low levels of social integration, the presence of cultural norms supportive of violence, and rapid social changes may all influence the level and nature of youth violence in a society. Given that youth violence is caused by a complex interaction among these biological, psychological, and social factors, public policies and prevention programs to reduce the health burden of youth violence will need to be multifaceted to have measurable effects on the problem. The evaluation research on youth violence suggests that interventions applied during infancy and early childhood are more effective than interventions applied during adolescence and early adulthood. We have also learned that the effectiveness of prevention programs depends on the quality of the implementation process. Problems such as poor staffing, departures from intended procedures, and the lack of administrative support may contribute to program ineffectiveness. Based on our findings we offer the following recommendations for how we can improve our understanding of youth violence and its prevention.

The foundation of efforts to prevent youth violence should be the development of data systems to routinely monitor patterns and trends in associated violent behaviors, injuries, and deaths. The data from these systems provides information useful for targeting and formulating public policies and prevention programs and evaluating their effectiveness. The following aspects of the public health surveillance of youth violence require greater attention:

- There is a need for the development of simple approaches to youth violence surveillance that can be applied in a wide range of cultural settings.

- Uniform standards for defining and measuring youth violence should be developed and incorporated into injury and violence surveillance systems. These standards should include age categories that are sensitive to the developmental differences in the patterning of risk and victimisation.

- Priority must be given to developing and implementing systems for the surveillance of deaths due to violence in regions where homicide data are currently inadequate or lacking. These regions are Africa, the Eastern Mediterranean, India, the low- to middle-income Western Pacific and parts of the low- to middle-income Americas.

- Surveillance activities should be complemented by special studies dedicated to establishing th ratio of fatal to non-fatal cases by method of attack, age and gender. Such data can then be use to estimate the dimensions of the youth violence problem where only one type of data (i.e mortality or morbidity) is available.

- All countries and regions should be encouraged to establish centres where routinely availabl information from health services (such as energency departments), the police and othe authorities in regular contact with victims and perpetrators of violence can be collated an compared in order to inform prevention programmes.

Scientific evidence regarding the patterns and causes of youth violence, both qualitative an quantitative, is fundamental to the development of rational responses to this problem. While grea strides have been made in improving our understanding significant gaps remain. The followin areas of research require greater attention:

- Studies that focus specifically on youth violence as opposed to childhood aggression o delinquency.

- Research into the validity and relative advantages of using official records, hospital records, an self-reports to measure youth violence.

- There is significant continuity from childhood aggression to youth violence, but reasons fo discontinuity or desistance and the role of protective factors, should be investigated.

- Estimates of the total cost of violent youth to society are needed (including the cost of co occurring problems such as substance abuse and conduct problems) for better assessing the cos effectiveness of prevention and treatment programs.

- New longitudinal studies are needed that measure a broad range of risk and protective factors t further investigate developmental pathways to youth violence.

- Research is needed that contrasts violent offenders with nonviolent offenders and non-offender and on which risk factors have differential effects on persistence, escalation, de-escalation desistance of violent offending at different ages.

- Research is needed to identify protective factors for youth violence.

- Research is needed on female involvement in youth violence.

- Cross-cultural research on the causes, development, and prevention of youth violence is neede to help explain the remarkable variation in levels of youth violence that exists across nations an regions of the world.

- Cross-cultural research is needed on the societal and cultural influences on youth violence.

- Research is needed that can provide clearer guidance as to how we might modify macro social and economic factors in ways that are effective in reducing youth violence.

- Institutions are needed to organize, coordinate, and fund cross-national research on youth violence.

The demand for knowledge about how to effectively prevent youth violence has never been greater. To date, however, most of the resources committed to prevention have been invested in untested programs, many of which are based on questionable assumptions and delivered with little consistency or quality control. Progress in our ability to effectively prevent and control youth violence requires evaluation. The following areas of evaluation research require greater attention:

- We need to adopt consistent standards in the application of evaluation methods for the assessment of the effectiveness of youth violence prevention programs and policies. These standards should include the application of an experimental design, evidence of statistically significant effects on the reduction of violent behavior or injuries associated with such behavior, replication at multiple sites and across different cultural contexts, and evidence that the impact is sustained over time.

- Greater investment should be made in assessing the cost effectiveness of youth violence prevention programs and policies. A better understanding of the relative costs and benefits of alternative approaches to prevention will be helpful in selecting particular approaches given the limited availability of resources for prevention.

- Longitudinal evaluation designs are needed to assess the long-term impact of interventions applied in infancy or childhood on the occurrence of youth violence.

- Evaluations of the impact of social experiments that seek to modify social conditions associated with youth violence such as income inequality or the concentration of poverty should be conducted whenever the opportunity arises.

- Systematic reviews of youth violence interventions are needed, such as the Cochrane Collaborative on health care interventions.

Much greater attention needs to be given to the application of what we have learned about the causes and prevention of youth violence. We currently lack the appropriate infrastructure to translate and communicate what is known to practitioners and policy-makers. This is a problem we face in every part of the world. Effective implementation of youth violence prevention programs and policies requires a greater commitment to building an adequate capacity to provide the appropriate training and technical assistance. The following areas of program implementation issues require greater attention:

- Global coordination is needed to facilitate the development of organizational networks focused on information sharing, training, and technical assistance.

- Simultaneous investment should be made in the application of internet technology and more generally available mechanisms for sharing information in settings lacking access to computers.

- Information on youth violence and its prevention is generally available from information sources in western cultures, but much harder to find for other regions of the world. The development of international clearinghouses to identify and translate relevant information from every region of the world and from fugitive information sources is needed.

- Research is needed on how best to implement youth violence prevention strategies and policies. The identification of effective prevention strategies is insufficient to assure their successful implementation. Therefore, we need to learn much more about how to successfully implement promising strategies particularly across different cultural settings.

- The prevention of youth violence should be integrated, wherever feasible, with programs to prevent child abuse and other forms of intimate violence in the family.

Both the demand for and supply of information about the causes and prevention of youth violence is rapidly increasing. Continued progress in this area will require substantial investments to improve the capacity to conduct public health surveillance, to carry out the needed etiologic and evaluation research (including longitudinal studies), and the investment in a global infrastructure to disseminate and apply what is learned. If these investments can be realized youth violence will come to be generally viewed as a preventable public health problem within the foreseeable future.

Table 1. Youth homicide rates (10-24 years, both sexes) and projected overall homicide rates per 100 000 by region, 1992-1996

Regional rates and between-country variations					
Region[a]	Actual homicide rate, 10-24 year olds[b]	Highest	Lowest	Median	Projected homicide rate, all ages[c]
Africa	No data	-	-	-	48.8
America, high income	12.81	16.35	1.71	14.02	4.2 ???
America, low- to middle-income	24.88	95.3	0.68	8.76	26.3
Eastern Mediterranean	Insufficient data	-	-	-	11.6
Europe, high-income	1.02	1.69	0	0.97	4.3
Europe, low- to middle-income	10.10	49.6	0.40	4.77	9.8
India	No data	-	-	-	8.2
South East Asia, low- to middle-income	Insufficient data	-	-	-	8.8
China	3.14	-	-	-	4.8
Western Pacific, high-income	0.77	2.65	0.32	1.43	4.2
Western Pacific, low- to middle-income	No data	-	-	-	8.8

[a] All countries within each region and countries with youth homicide data are shown in endnote one.

[b] Calculated from country mortality data provided by WHO, PAHO and the Brazilian Ministry of Health.

[c] Projections prepared by WHO Global Programme for Evidence and Information for Policy.

Table 2. Summary of Special Studies of Youth Homicide in Selected Low- and Middle-Income Countries

Country, Year, Reference	Sample size and method	Findings and comments
South Africa, 1998[13] South African Police Services, Crime Information Analysis Centre, unpublished data	Descriptive analysis of all homicides reported to the police and recorded in the national crime information analysis centre	A total of 25 039 homicides were recorded for the year, equivalent to an incidence rate of 59.6 per 100 000 population. Of the homicides, 3.7% were aged 0-11 years, 3.4 percent 12-17 years, and 84.7% 18-49 years.
South Africa, 1992-1995[14] Kahn, Tollman, Garenne & Gear, 1999	Verbal autopsies of 932 deaths identified during annual health and demographic surveys in a rural area	Homicide incidence was 2 per 100 000 in 5-14 years and 46 per 100 000 in ages 15-49. Males were the victim for 83% of the homicides, and the main external causes were stabbings and gunshots.
South Africa, January-December 1999[15] Violence and Injury Surveillance Consortium, 1999 Annual Report (forthcoming)	Sample of 14754 known and suspected non-natural deaths registered and medico-legally examined at 12 state mortuaries in metropolitan and urban centres	Homicide accounted for 6826 (46%) of all cases. Of the homicide victims, 0.8% were aged 10-14, there were 7.7% aged 15-19, 16.1% aged 20-24 and 20.1% aged 25-29. Firearms were involved in 56.9% of all cases and there were 6.6 male victims for every female victim.
South Africa, 1990-1992[16] Campbell et al, 1997	Clinical-forensic analysis of 1198 traumatic cardiac injuries presenting to hospitals and mortuaries in the Durban metropole	All but 6% of victims died. The mean age was 30.5 years (range 5 to 77 years) and 91% were male. The proportion of cases involving firearm injuries increased from 34% in 1990 to 50% in 1992.
South Africa, 1997[17] Phillips, 1999	6194 known and suspected non-natural deaths registered and medico-legally examined in the Cape Town metropole	Homicide accounted for 2065 (33.3%) of all cases. Of the homicide victims 1.5% were 0-14 years, 31.4% were 15-24 years and 35.2% were 25-34 years. There were 11.7 males for every female victim. Firearms accounted for 38.6% of the deaths, and sharp instruments for 45.2%.
South Africa, 1992-1996[18] Wigton, 1999	Retrospective study of mortuary, police and hospital records of firearm injuries in children from 0 to 18 years of age resident in the Cape Town metropole.	A total of 1 736 children and adolescents sustained firearm injuries, of which 86% were between 13 and 18 years of age. One fifth of these cases were fatal, and the annual number of gunshot injuries in persons under 19 years presenting at hospitals tripled from 142 to 421 between 1992 and 1996.

Nigeria, 1991-1993[19] Amakiri et al, 1997	Prospective study of 876 consecutive coroner's autopsies performed at the University College in Ibadan.	A total of 27 (3.1%) of all cases were due to homicide, of which gunshots accounted for 55.6% . No homicides were found in victims aged 0-14.
Nigeria, 1977-1988[20] Nwosu & Odesanmi, 1998	Prospective study of 202 homicides examined at the Ile-Ife Teaching Hospital Department of Morbid Anatomy.	Most victims were aged 20-40 years, and there were 4.6 males for every female. Firearms accounted for 37% of the deaths and sharp instruments for 35%.
Tanzania, 1992-1998[21] Moshiro et al, submitted for publication (check to see if published yet and if so replace with proper reference – if not special permission to use the results will be required).	Descriptive analysis of 25 548 deaths recorded through annual household health and demographic surveys of one urban population, one wealthy rural population and one poor rural population.	Of all deaths 1474 (5.8%) were due to injuries of which 26% were a result of violence. Male homicide rates in 5-14 year olds varied from 0 to 4.1 per 100 000, and in 15-59 years olds from 22.3 to 32.1. Female homicide rates for ages 10-14 ranged from 0 to 4.3 and in ages 15-59 from 4.4 to 6.1.
Fiji, 1969-1989[22] Pridmore, Ryan & Blizzard, 1996	Retrospective study of Republic of Fiji Ministry of Health official mortality and morbidity reports.	No age-related findings given. Overall homicide rate of 0.4 per 100 000 population.
Taiwan, 1965-1994[23] Loe, Lee & Chou, 1998	Retrospective analysis of Taiwan official vital statistics, data aggregated into five year periods for males and females in ages 10-14 and 15-19.	Among 10-14 years olds, homicide rates per 100 000 varied between 0.16 and 0.35 in males, and in females from 0.17 to 0.3. In ages 15-19 male rates ranged from 2.33 to 4.15, and female rates from 0.25 to 0.9. There were no clear trends over time.

Table 3. Prevention Strategies by Developmental Stage (Infancy Through Middle Childhood) and Ecological Context

Ecological Context	Developmental Stage: Infancy (ages 0-3)	Early Childhood (ages 3-5)	Middle Childhood (ages 6-11)
Individual	• Increase access to prenatal/postnatal services to minimize birth trauma, provide adequate nutrition and well-baby care	• Social development training • Preschool enrichment programs including Head Start	• Social development training in anger management, social skills, and problem-solving
Close Interpersonal Relations (e.g., family, peers)	• Home visitation services to strengthen families • Parenting training for new parents • Respite day care centers or drop-in programs	• Parenting training	• Mentoring • Home-school partnership programs to promote parental involvement
Proximal Social Contexts (e.g., schools, churches)	• Lead monitoring and toxin removal • Foster care programs	• Lead monitoring and toxin removal • Foster care programs	• Create safe havens for children on high-risk routes to and from school • Provide after-school programs to extend adult supervision • Recreational programs
Social Macro-systems (e.g., cultural norms, economy)	• Deconcentrate lower-income housing • Reduce income inequality	• Public information campaigns to promote pro-social norms	• Reduce levels of media violence • Public information campaigns to promote pro-social norms

Table 4. Prevention Strategies by Developmental Stage (Early and Late Adolescence, Early Adulthood) and Ecological Context

Developmental Stage

<table>
<tr><th>Ecological Context</th><th>Early Adolescence (ages 12-14)</th><th>Late Adolescence (ages 15-19)</th><th>Early Adulthood (ages 20-24)</th></tr>
<tr><td>Individual</td><td colspan="2">• Social development training in anger management, perspective taking, moral development, social skills, and problem solving</td><td>• Vocational training</td></tr>
<tr><td rowspan="2">Close Interpersonal Relations (e.g., family, peers)</td><td colspan="2">• Mentoring
• Academic enrichment programs
• Peer mediation
• Temporary foster care programs for serious and chronic delinquents
• Provide education to promote healthy relations with the opposite sex and decrease dating violence</td><td rowspan="2"></td></tr>
<tr><td>• Bullying prevention programs</td><td>• Family therapy</td></tr>
<tr><td>Proximal Social Contexts (e.g., schools, churches)</td><td colspan="2">• Recreational Programs
• Multi-component gang prevention programs
• Train health care professionals in identification and referral of high-risk youth</td><td>• Establish adult recreational programs</td></tr>
<tr><td>Social Macro-systems (e.g., cultural norms, economy)</td><td colspan="2">• Public information campaigns to promote pro-social norms
• Reduce levels of media violence
• Educational incentives for at-risk, disadvantaged high school students
• Enforce laws prohibiting illegal transfers of guns to youth</td><td>• Establish meaningful job creation programs for the chronically unemployed
• Provide incentives for post-secondary education or vocational training</td></tr>
</table>

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Chapter 3

Child Maltreatment

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INTRODUCTION

An international literature has emerged to document that violence against children, by their caretakers, is a international health concern (e.g.: 4, 6, 13, 19, 24, 39, 42, 43, 50, 51, 73, 80, 92). While child maltreatment has a long history; well documented in literature, art; and science in many parts of the world; its recognition as a global public health problem is a recent phenomenon (42)(92). Investigations, in both developed and lesser-developed countries, have demonstrated significant initial and long-term harm (e.g. 2, 6, 8-10, 30, 33, 67). There is some evidence that wide public recognition and public policy interventions have reduced the incidence of maltreatment in some countries (19)(26) but the scale of the problem remains massive even in those countries. The medical literature demonstrates that clinical skills in the of child maltreatment recognition by medical professionals in countries with a longer history of awareness are much less than ideal and that even in developed countries, there are few hours devoted to child maltreatment in medical curricula (1)(44)(71). Professional education for health professionals will need to be upgraded to include the recognition and appropriate response to child maltreatment. Prevention of child maltreatment on a global scale will require not only education of health professionals but education of the citizenry. Public policy efforts directed at educating parents and setting up systems to respond to children in need are needed in every country. There is a clear need for public health research to document the epidemiology and consequences of maltreatment in many developing countries as well as research into effective prevention and intervention strategies.

INTERNATIONAL ISSUES IN DEFINING MALTREATMENT

While there is widespread agreement that child abuse should end; there is less agreement, both within and between societies, about which specific acts are abusive (42, 48). There is also widespread disagreement about which acts of omission in care of a child constitute unacceptable child neglect. Some experts define abuse and neglect by focusing on the behaviours or actions of the parents while others include the consequences of maltreatment for the children or the intention of the parent as part of the definition. Some observers argue that only violence from parents or caretakers should be included, others include children harmed by other children or in other social relationships, such as the poor treatment of children in government institutions. In a recent survey of key respondents in 47 countries, 20 potentially abusive or neglectful actions were listed and respondents were asked to indicate whether these actions were defined as child abuse and neglect (42). Every listed action had at least 14 respondents who reported that this action would be classified as abusive or neglectful in his or her country; however the highest rate of endorsement (adult use of a child for sexual gratification) was endorsed by just 95% of the respondents. Physical beating of a child was considered abusive in the country of the respondent for 75% of the countries.

Although a universally agreed-upon definition of child maltreatment may not be attainable, discussions among child advocates from 27 countries have produced the following definition:

> *'Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power.' (96)*

This broad definition reflects the observation that child maltreatment is commonly conceptualised as including four specific sub-types of maltreatment: physical abuse, emotional abuse, sexual abuse and neglect. Definitions are offered below for these sub-types. There is growing, but not universal, acknowledgement of the damaging effects of child exploitation in occupations such as prostitution, labour in dangerous or debilitating conditions, and as soldiers, child exploitation is explicitly included in the general definition. The Convention on the Rights of the Child (see box) addresses some of these issues.

Physical abuse: Physical abuse of a child results from an act of commission which produces actual physical harm, or holds the potential for harm which is reasonably within the control of a parent or person in a position on responsibility, power or trust. There may be single or repeated incidents.

Figure 1: The International Convention on the Rights of the Child

The CRC asserts the right of children to be protected from abuse and maltreatment and contains a number of articles which amplify this right. The CRC provides an international framework for addressing and responding to violence against children. It sets down principles that can guide efforts to prevent violence against and amongst children. Among these principles are: Children should be treated without discrimination (Article 2); their best interests should be the primary concern (Article 3); and their views should be taken into account in a manner consistent with the maturity and evolving capacities of the child (Article 12). Article 19 specifies that States have an obligation to protect children from all forms of violence and outlines measures that might be taken in this regard. Other articles draw attention to groups of children who are at particular risk from violence: children who are sexually exploited (Article 34), or exploited through work (Article 32), children who misuse substances (Article 33), children in armed conflict (Article 38) and children who are disabled (Article 23). The Convention explicitly recognises that many adults play a part in protecting children from violence, drawing attention to the responsibilities of parents (Article 5), and the vulnerability of children deprived of their parents (Article 9). It recognises that sometimes children may need to be cared for outside the family (Article 20), and sets down conditions for that care (Article 25). Article 39 sets out the importance for the child of having the opportunities to recover from violence and be able to reintegrate into society in an environment that fosters the health, self-respect and dignity of the child. Other Articles in the Convention emphasise the important role of the health-care community in monitoring and reporting child abuse, as a channel for advocacy and direct technical support to countries. The convention offers a broad international perspective in an area complicated by different cultural conceptions of appropriate discipline and child care standards. The CRC indicates a number of aspects of the treatment of children that are almost universally accepted standards while defining other actions as completely unacceptable.

Sexual abuse: Sexual abuse involves acts which use a child for sexual gratification of an adult either by inappropriate exposure to adult sexuality, by direct sexual contact, or by making the child available to others either directly for immoral and illegal acts, such as through pornography.

Emotional abuse: Emotional abuse involves intentional acts which lead to a failure to provide a developmentally appropriate, supportive environment, including the availability of a primary attachment figure, or acts which themselves have an adverse effect on the emotional health and development of a child. A supportive environment is necessary for the child to develop a full range of emotional and social competencies commensurate with her or his personal potential and in the context of the society in which the child lives. Emotionally abusive acts include: restricting movement. belittling, denigrating, scapegoating, threatening, scaring, discriminating, ridiculing or other non-physical forms of hostile or rejecting treatment.

Neglect and negligent treatment: Neglect is the failure to provide for the development of the child in one or more of the following spheres: health, education, emotional development, nutrition, shelter, and safe living conditions. Neglect is distinguished from poverty, by many observers, in that neglect requires the failure to provide for the child when there are resources reasonably available to the family or caretakers and the neglect causes, or has a high probability of causing, harm to the child's health or physical, mental, spiritual, moral or social development. This definition explicitly includes the failure to properly supervise and protect children from harm when supervision and protection is feasible.

EPIDEMIOLOGY

Despite the difficulties noted above in defining abuse and neglect, data have been collected in many countries of the world on the epidemiology of child maltreatment. This research has focused on physical and sexual abuse; much less is known about the epidemiology of neglect, emotional abuse and other forms of maltreatment. At least 26 countries collect official statistics on reported maltreatment (42). A WHO European Region initiative identified current statistics on child abuse for 10 countries,[1] either in health or legal systems (29).

There is an epidemiological tradition of international comparative research generating new ideas about prevention and treatment for major public health problems (e.g. 47). Similarly epidemiological studies of child maltreatment may help mobilise professional attention and public opinion. Comparative studies among cultures and countries may lead to new hypotheses about the roots of maltreatment and suggest promising directions for intervention. However, research on child abuse is harder than most other social science research because of methodological difficulties and special ethical issues (77)(81). Studies which are needed (56), and which have only recently been attempted (43) are studies which use common definitions and instruments to capture similar information across cultures and countries.

Legal and social systems with responsibility for responding to, and counting, child abuse and neglect reports are not found in many countries (42). Because the legal and cultural definitions of abuse and neglect vary among countries, and the majority of countries don't

[1] Bosnia Hezegovina, Croatia, Hungary, Italy, Kazakhstan, Latvia, Macedonia, The Netherlands, Poland, Russia.

require mandatory reports, there is little to be gained by directly comparing rates of official maltreatment in different countries. Case reports and case registries are most useful as a source of local data to guide local action but the use of this type of data assumes public or professional recognition of maltreatment. More compelling data may come from surveys of parental *behaviours*. Sound population-based surveys of the frequency of potentially abusive behaviours may lead to broader public and professional recognition of child abuse and neglect and influence both professional education and public policy.

With more than two decades of research, the most common approach to measuring the prevalence of abusive behaviours has been the Conflict Tactics Scale (CTS) (84)(86). Developed from conflict theory, the CTS scale ascertains the frequency of specific behaviours used to resolve conflict. The original scale was based around three areas of conflict resolution: rational discussion or 'reasoning ', the use of verbal and non verbal acts to symbolically hurt the other or 'verbal aggression' and the use of physical force,. A recent revision of the CTS has produced an instrument to specifically measure parent-child conflict (PCCTS) (90). The scale rates behaviours according to their frequency both over the past year and ever, providing estimates of both incidence and lifetime prevalence. It is sensitive to different levels of violence severity, is relatively easy to complete and avoids confounding measurement of the behaviour with either causes of the behaviour (such as dominance or aggressiveness) or the consequences (i.e. injury). The hazard of defining abuse by bad outcomes could otherwise lead to an abusive act not being considered problematic unless it results in injury. Contexts and causes are not included in the CTS but these issues can be included with it in population surveys, Population surveys using the CTS may be effective tools to increase awareness in societies that have not previously recognised child abuse and neglect. Although the original CTS was developed to measure partner violence, it has been widely used to assess abusive behaviours toward children with over 130 publications using it as a measure of child maltreatment (88). The 1995 version of the CTS dramatically improved its use as a tool to assess child abuse (90).

The behaviours specified in the CTSPC (see Figure 2) require refinement for different languages and cultural contexts but provide a foundation for the collection of baseline data. The scale is designed as a questionnaire for parents although it has been adapted to obtain child or adult recall of childhood experiences (13)(20)(39). The legal environment differs between countries; in some countries it is illegal to hit children (for example, Sweden, Norway, & Denmark) whereas in others it is legal to physically punish using objects (for example, Germany). The criteria for determining prevalence rates of physical abuse may vary according to statute in the country where the study is undertaken. One advantage to ascertaining the prevalence of a variety of behaviours intended for discipline is that investigators may use develop differing definitions of what is abusive while depending upon the same instrument to collect the data. There are certain criteria that must be met before the scale is applied since it requires a standardised introduction and set of response options [2]

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[2] **Applying the CTSCP:** The introductory explanation and the response categories need to be added. Both have been shown to make an important difference in the findings. These are as follows:

"Children often do things that are wrong, disobey, or make their parents angry. We would like to know what you have done when your (SAY age of referent child) year old child, did something wrong or made you upset or angry.

Fig. 2: CTSPC items

Scale and Items
Non-violent Discipline
A. Explained why something was wrong
E. Gave him/her something else to do instead of what he/she was doing
Q. Took away privileges or grounded him/her
B. Put in 'timeout' (or sent to room)
Psychological Aggression
F. Shouted, yelled, or screamed at him/her
N. Threatened to spank or hit but did not actually do it
J. Swore or cursed at him/her
U. Called him/her dumb or lazy or some other name like that
L. Said you would send him/her away or kicked him/her out of the house
Physical Assault
Minor Assault (Corporal Punishment)
H. Spanked him/her on the bottom with your bare hand
D. Hit him/her on the bottom with a hard object
P. Slapped him/her on the hand, arm or leg
R. Pinched him/her
C. Shook him/her: Child aged 2 or older
Severe Assault (Physical Abuse)
V. Slapped on the face, head or ears
O. Hit some other part of the body besides the bottom with a hard object
T. Threw or knocked down
G. Hit with a fist or kicked hard
Very Severe Assault (Severe Physical Abuse)
K. Beat up, that is you hit him/her over and over as hard as you could
I. Grabbed around neck and choked
M. Burned or scolded on purpose
S Threatened with a knife or gun
C Shook him/her: Child under age 2

I am going to read a list of things you might have done in the past year and I would like you to tell me whether you have: done it once in the past year, done it twice in the past year, 3-5 times, 6-10 times, 11-20 times, or more than 20 times in the past year. If you haven't done it in the past year but have done it before that, I would like to know this, too."

Coding Responses:

1 = Once in the past year
2 = Twice in the past year
3 = 3-5 times in the past year
4 = 6-10 times in the past year
5 = 11-20 times in the past year
6 = More than 20 times in the past year
7 = Not in the past year, but it happened before
0 = This has never happened

Neglect

NA. Had to leave your child home alone, even when you thought some adult should be with him/her

NC Were not able to make sure your child got the food he/she needed

NE. Were so drunk or high that you had a problem taking care of your child

ND. Were not able to make sure your child got to a doctor or hospital when he/she needed it

NB Were so caught up with problems that you were not able to show or tell your child that you loved him/her

 (Source: (90))

An identically modified version of the parent-child CTS was used in 4 countries by the WorldSAFE (World Studies of Abuse and the Family Environment) consortium of the International Clinical Epidemiology Network to increase attention to the problem of maltreatment among health professionals in lesser-developed countries (43). WorldSAFE is a project of a team of clinical epidemiologists in paediatrics, internal medicine, and psychiatry, as well as statisticians and social scientists from 15 countries. (see http://www.inclen.org for additional information.) WorldSAFE developed a common core protocol to ascertain the prevalence of abusive child discipline behaviours and domestic conflict behaviours in population-based samples. Pilot projects have been fielded in the Philippines, India, Egypt, Chile and Brazil. Focus groups in India, Chile and Egypt were used to confirm the appropriateness of the questions in the instrument; a number of additional questions were added by the focus groups. A table of preliminary results from individual communities in that project along with comparative data from a national random-digit dial telephone poll in the United States, which used the PCCTS, appears below.

The CTS does not eliminate the difficulties inherent in the international study of violence directed against children. Difficulties remain despite the use of common instrumentation because different sample populations and techniques for data collection have been used. Data from the US suggest that there is wide variation in rates by family composition and social class (90). Further, the experience of the WorldSAFE investigators is that there are some behaviours that are relatively unique to specific countries or which carry different meanings for parents in other countries. For example WorldSAFE data, shown in table 1 below, indicate that slapping on a child's face or head was a relatively common disciplinary method in India while it is uncommon in the United States, Egypt, Chile or the Philippines. Screaming at children appeared to be universal while hitting the child on the buttocks with an object appears at a lower frequency in most countries. Analyses to examine confounding by social class and education are still underway. Comparable US data reveal very strong differences by social class and whether the family is a single parent household (90). Stratification by social class may reveal more similarities than differences. Table 1 presents WorldSAFE findings comparing the prevalence of self-reported specific parental behaviours in communities in Chile, Egypt, India, and the Philippines with previously collected data from the US collected in a national telephone survey (90).

These data demonstrate that child maltreatment is not isolated to a few countries or just one hemisphere. The WorldSAFE investigators chose not to define an overall physical abuse rate by combining rates for specific items on the Conflict Tactics Scale but instead report the variations in frequency of specific acts. If hitting a child with an object, elsewhere besides the buttocks were defined as physical abuse, three of the communities surveyed have much higher rates than those published for the US. Other authors have made conclusions about overall rates. Data are presented in Appendix 1 which reveal published prevalence rates for physical abuse ranging from 14.7% (46) using a self assessed definition which asked respondents whether they thought they had been physically abused to 93.8% (20) using a standardised questionnaire. An estimated mean prevalence rate for physical abuse across studies reported in the 1990's is 31% (see Appendix 1).

Table1: Reports of Disciplinary Practice Use in Specific Communities in 4 countries and in a US Telephone Survey Using the Modified PC-CTS[#]

Non-violent discipline	Chile	Egypt	Philippines	Rural India(43)	USA (90)
Explained why	91%	80%	90%	94%	94%
Took privileges	60%	27%	3%	43%	77%
Told to stop	88%	69%	91%		*
Gave something to do	71%	43%	66%	27%	75%
Stay in one place	37%	50%	58%	5%	75%
Verbal Punishment					
Yelled or screamed	84%	72%	82%	70%	85%
Called names	15%	44%	24%	29%	17%
Cursed	3%	51%	0%		24%
Refused to speak	17%	48%	15%	31%	*
Threatened to kick-out	5%	0%	26%		6%
Threatened abandonment	8%	10%	48%	20%	*
Threatened evil spirits	12%	6%	24%	20%	*
Moderate Physical Punishment					
Spanked butt (with hand)	51%	29%	75%	58%	47%
Hit on butt (with object)	18%	28%	51%	23%	21%
Slapped on head	13%	41%	21%	58%	4%
Pulled hair	24%	29%	23%	29%	*
Shook him or her	39%	59%	20%	12%	9%
Hit with knuckles	12%	25%	8%	28%	*
Pinched	3%	45%	60%	17%	5%
Twisted ear	27%	31%	31%	16%	*
Forced stand burdened	0%	6%	4%	2%	*
Put hot pepper in mouth	0%	2%	1%	3%	*
Locked out	2%	1%	12%		*
Severe Physical Punishment					
Hit with object (not butt)	4%	26%	21%	36%	4%
Kicked	0%	2%	6%	10%	0%
Burned	0%	2%	0%	1%	0%
Beat-up	0%	25%	3%		0%
Knife-gun threat	0%	0%	1%	1%	0%
Choked	0%	1%	1%	2%	0%

* Not collected in 1995 Gallup Survey of US (90).

[#] WorldSAFE (World Studies of Abuse and the Family Environment) is a consortium of investigators from the International Clinical Epidemiology Network representing medical schools in India, Chile, the Philippines, Egypt, Brazil and the United States who have been fielding population based studies of domestic violence and child abuse using a common protocol. (see 45 & http://www.INCLEN.ORG for information about the investigators and project).

Surveys estimating prevalence rates for sexual abuse vary dramatically in their estimates depending upon the definitions and methods used in the study. The US literature has revealed wide variations in rates depending upon how questions are asked. Because sexuality and sexual acts with children are difficult to talk about in many societies, there are little international data on the prevalence of child sexual abuse. Surveys about sexual abuse may be compromised in that parents may not be aware of what has happened to a child or a parent may refuse to report acts that may place the parent in legal jeopardy. For example, incest is punishable by death in the Philippines. Most existing prevalence surveys of sexual abuse ask adults about their own childhood while physical abuse surveys ask parents about acts toward their own children... Few surveys have children directly about their sexual experiences. Among published studies, prevalence rates for men, reporting about their own childhood, range from 1% (58), using a narrow definition of sexual contact with pressure or force, to 19% (33), using a broader definition. Lifetime prevalence rates for child sexual victimisation among adult women range from 0.8% (14) using rape as the definition to 45% (33) with a much wider definition. Using studies reported in international journals over the 1990's a mean lifetime prevalence rate of childhood sexual victimisation of women as girls is 19% and men as boys is 7%.

Obviously, the wide variations in published prevalence estimates could result from real differences in risk in different cultures or from differences in study design (definitions, sampling and method of data collection) (37). For child sexual abuse, including peer abuse can increase prevalence by 9% (30) and including contact and non-contact can raise rates by approximately 16% (72).

Prevalence studies can provide a means of evaluating changes over time. A national study was repeated in the US at ten-year intervals from 1975, 1985 and 1995 (86). Reductions in levels of severe physical punishment to children were noted although overall rates of physical punishment did not appear to reduce at the same pace. The cross-sectional surveys did not address the causes of the decrease in rates but hypotheses include; changes in family structure, economic prosperity, public awareness of child abuse, and growth in treatment and intervention programmes (86). Using public health statistics on the prevalence of child deaths and children in need of protective intervention, reductions in levels of physical violence against children have been noted and ascribed to changes in laws about corporal punishment in Sweden (25). There continues to be debate about the reliability of these claims (22) which serve to emphasise the importance of and need for comprehensive measures to evaluate change as awareness of child abuse develops.

DYNAMICS OF MALTREATMENT

Child maltreatment is an entirely socially constructed phenomenon. A variety of theories and models have been developed to explain its existence. The most successful and predictive explanatory model or theory is the "ecological model" (5)(37). In this model, there four contributory components: 1) the characteristics of the individual child, 2) the characteristics of the caregiver or perpetrator, 3) the characteristics of the family and the immediate domestic environment of the child, and 4) the community and society in which the child lives which includes the social, economic and cultural features of the child's environment. One of the most consistently associated risk factors for all forms of child abuse is that of a context of domestic violence and previous victimisation emphasising the links between violent contexts

for both adults and children. Some findings are fairly consistent across countries. The factors specified below for each area have been linked to child maltreatment in more than one study and most have been associated in more than one country. However, the factors listed may be only statistically associated and not causally linked (16). Factors Associated with Child Maltreatment include:

Children Characteristics

- Neglect is most commonly reported among the youngest children; they are the most vulnerable.
- There appears to be an increased risk for physical abuse for premature infants, handicapped children, and twins. The risk of abuse climbs during early childhood. Physical abuse peaks for children between 9 and 12 years of age in the United States (82) while in China the risk is highest for 3-6 year olds (87).
- Girls are at higher risk for infanticide, educational and nutritional neglect, kidnapping, sexual abuse, and forced prostitution (18)(33)(45).
- Gender differences in risk for physical abuse are not consistent. In China, boys are more strictly disciplined, perhaps due to the higher parental expectations (83). In neither the US nor India is there evidence of a difference in harsh physical punishment by gender (41)(85).
- Adolescents appear to be at greatest risk for verbal abuse (41) and sexual abuse (33) (83).
- A gender difference exists for victims of sexual abuse with boys having lower rates than girls do; girls are at two to three times higher risk compared to boys (33).

Caregiver Characteristics

- Women self-report harsher physical discipline use than men in the US (82) and India (45). Single mothers are 3 times more likely to self-report the use of harsh physical discipline than mothers in two-parent families (82). However, in the United States, life-threatening head injuries, abusive fractures, and fatal child abuse are more commonly perpetrated by men (75) (76).
- In most countries, gender roles influence responsibility for child rearing and determine responsibility for discipline and care. In focus groups, Indian mothers report nearly sole responsibility for discipline (43).
- Sexual abuse offenders, for both female and male victims, are predominantly men. Rates of male perpetrators for female victims range from 92.0% (55) to 99.2% (5). For male victims the range is between 63.2% (38) and 85.7% (3) (33).
- Parents maltreated as children are at higher risk of maltreating their own children although in the US, data suggest that the majority of maltreating parents were not themselves maltreated (66).

Family and Societal Characteristics

- Poverty is strongly associated with both physical abuse and sexual abuse in many countries and in many studies (41)(85)(86).
- Child abuse appears more likely in households with parental divorce or separation (31)
- Child abuse appears less likely in extended family households or where child care is shared (41)(54)(84).
- Household crowding appears to increase the risk for children (41)(69).
- Substance abuse and family violence are both clear risk factors for maltreatment (33)(41)(62)(70)(71).

ETIOLOGY

Child maltreatment is entirely socially constructed. Maltreatment arises from the family social environment around the child; it cannot be explained without a thorough consideration of the role that culture plays in its definition, recognition, cause and effects. Perpetrators and victims cannot be viewed in isolation; both are subject to social forces. A society may internalise patterns of social organisation which reinforce violence such as ethnic segregation, gender-based discrimination and age oppression (43). It may be difficult for cultural insiders to recognise cultural norms as harmful or violent. Certain practices are taken for granted as acceptable, even though they may induce pain, injury and trauma.

Initially, research attention focused on simplistic associations between factors, such as poverty, mental illness, and history of abuse in the family. As the research base developed there was a realisation that there is no one single cause or set of causes of child maltreatment. It is not possible to establish simple causal relationships between specific caregiver factors and different forms of abuse or between specific forms of abuse and specific consequences. Child abuse is the result of many factors coming together in a complex interplay. An accumulation of risk factors increases the likelihood of maltreatment. Protective factors also appear to be additive; they diminish both the likelihood of maltreatment and negative consequences (76). Social capital, the social networks and support systems that a child and his or her family can access, appear to provide an important resource to ameliorate risk.

THE CONSEQUENCES OF MALTREATMENT

There are both immediate consequences of maltreatment, including physical and psychological damage, and harms which can last a lifetime. Research, mostly from the developed world, which has a longer history of recognition of maltreatment, has demonstrated acute and long-term physical injuries. Similarly, there are many studies demonstrating short and long-term psychological harms. A number of developed country studies have illustrated serious societal consequences including delinquency, school failure, teen-age pregnancy, suicide, and drug abuse. Relatively limited data exist demonstrating long-term consequences in lesser developed countries. The consequences for different forms of maltreatment may be different but there does not appear to be any syndrome or pattern by type of abuse. A recent review of the harms from sexual abuse concludes that 1/3 or children have no detectable difficulties following sexual abuse (79). However, two-thirds appear to have difficulties. Some children have a few symptoms that do not reach clinical levels of concern or are at clinical levels but which are not as high as children generally seen in clinical settings. Other children have serious psychiatric symptoms such as depression, anxiety, substance abuse, aggressivity, shame, or cognitive impairments. Finally some children meet full criteria for psychiatric illness including post-traumatic stress disorder, major depression, overanxious disorder and sleep disorder.

Health Burden

Injuries, intentional and unintentional, are a large and neglected health problem in all regions, accounting for 16% of the global burden of disease in 1998 as measured in DALYs

(Disability Adjusted Life-Years). Violence and self inflicted injuries, including suicide, (both related to child maltreatment (29)) are major public health concerns because of their increasing contribution to the global disease burden. The burden of ill health caused by child abuse forms another significant portion of the total burden. While some health consequences have been researched (8)(9), others have only recently been brought to attention including: behavioural psychopathology (30)(65) More importantly, there is now serious evidence that major adult forms of illness including ischemic heart disease, cancer, chronic lung disease, skeletal fractures (2), irritable bowel disease, and fibromyalgia (59) have origins in child maltreatment, presumably acting through behavioural risk factors such as increased smoking and other risky behaviours. It is quite clear, therefore, that the health burden is dramatically under estimated. WHO statistics (see Appendix to report) show that 26.9% of the total amount of injuries for boys aged 0-4 and 33.5% for girls aged 0-4 are caused by intentional injury and interpersonal violence. For boys and girls aged 5-14 these figures are 22.2% and 22.6%. There are variations between regions and income levels. The percentage of total amounts of injuries sustained through intentional injury are highest, for example, for children in the Eastern Mediterranean and European regions in low/middle income groups (Appendix X).

Physical, behavioural and emotional manifestations vary between children, depending on the child's developmental status when the abuse occurs, its severity, the relationship of the perpetrator to the child, the length of time the maltreatment goes on for and supportive or buffering factors in the child's environment (10)(79)(97). The effects of maltreatment can be serious, life threatening and long lasting. Of those that live, some claim never to recover (97). However, it is not just the child who will be affected. The immeasurable damage in family disruption and individual trauma to family members and other affected people compounds effects and can continue into the next generation. Because health is more than the absence of disease, the suffering and decreased quality of life resulting from child abuse is significant.

Fig. 3: Other Health Consequences of Child Maltreatment

Physical	Bruises and welts Burns/scalds Ocular damage Lacerations and abrasions Fractures Abdominal/thoracic injuries Poisoning Asphyxia Central nervous system injuries Munchausen Syndrome by Proxy
Sexual	Unwanted pregnancy STDs HIV/AIDS ♦ Morbidity due to adverse reproductive health outcomes ♦ Eating disorder ♦ PTSD ♦ Depression, anxiety ♦ Drug/Alcohol misuse
Emotional/Behavioural	Poor self-esteem Hyperactivity Self-inflicted injuries Poor peer relationships Feelings of shame/guilt Somatic disorders Deterioration in school performance Eating disorder Depression, anxiety Drug/alcohol misuse
Long Term	Developmental effects Disability Eating disorders Sleep disorders Alcohol/drug misuse Depression/anxiety Delinquency, violent behaviour Self destructiveness Risk taking behaviour Increased probability of maltreating own children (physical abuse and neglect) Increased probability of sexually abusing children when adult (males) Long term reproductive health outcomes Sexual dysfunction ➢ Infertility ➢ Ischemic heart disease ➢ Cancer ➢ Skeletal fractures ➢ Liver disease
Fatal	Suicide HIV/AIDS Mortality due to adverse reproductive health outcomes

(Sources: (2)(10)(30)(33)(34)(65)(97))

Child Death

There are wide discrepancies in the numbers of children thought to have died as a consequence of maltreatment. Several states in the US have demonstrated significant levels of misclassification in the cause of death as many deaths attributed to other causes have been shown, on re-investigation, to be homicides (63). Most commonly deaths discovered to have been homicides were originally attributed to SIDS (sudden infant death syndrome) or to "accidents." Unfortunately, in many jurisdictions death scene investigations and autopsies are not routine. Despite the apparent widespread misclassification, there is general agreement that fatalities from child maltreatment are more frequent than official estimates from vital records. Data from the United States indicate that the rate of known maltreatment deaths has increased from 1.30 to 1.81 per 100,000 between 1985 and 1995. The increase may represent greater diligence in investigation and classification. The forms of maltreatment leading to death have remained similar over time; between 1993 and 1995, 37% of dead maltreatment victims died from neglect, 48% died from abuse and 15% died as a result of both types of maltreatment (23). International estimates of the number of children dying from maltreatment vary according to the source of information. WHO data estimate 88,000 deaths to children under 14 as a result of homicide and 281,000 deaths to children under 14 as a result of intentional injury across the world. As noted above in the section on child characteristics, infants and very young children are at greatest risk, with rates per 100,000 of the population for the 0-4 age group more than double those of 5-14 year olds. Income and the global region of origin are related to variation in risk. Among children aged 0-4, the rate per 100,000 for mortality caused by homicide is 2.5 for boys and 2.6 for girls living in high income groups, whereas in low/middle income groups it is 8.4 for boys and 9.9 for girls; a nearly four-fold difference in risk by income. Children under 4 from the Eastern Mediterranean low/middle income group have the highest homicide mortality rates at 14.8 for boys and 16.4 for girls. India is next (10.1 for girls and 13.6 for girls). The greatest gender difference in homicide mortality rates is found in China with rates of 15.7 for girls in comparison to 7.9 for boys aged 0-4.

Financial Burden

While the obvious financial costs for both the short and long term care of victims of child maltreatment are high, the hidden costs may be extensive. Some examples are:

- Medical care and complications
- Mental health and substance misuse care for victims, perpetrators and families
- Inappropriate medical care for unrecognised abuse
- Criminal justice system expenditures
- Other legal costs
- Social welfare organisations costs
- Cost to the education system caused by poor school performance
- Years of life lost because of death, disability and long term effects

This list is not exhaustive, but reflects some of the components that are taken into account to calculate the financial burden of maltreatment. This list of costs is not all-inclusive; it does not include potential social and economic multiplier effects to address the impact of maltreatment on economic productivity and impact on the quality of life. The financial cost associated with child maltreatment was estimated at $12,410,000,000[3] in the US in 1996 (96). This figure included estimates for future lost earnings, educational costs and adult mental health services. In the UK an estimated annual cost of $1,176,000,000 is expended for immediate welfare and legal services alone (74). Additional research studies and data are urgently needed in this area. Preventive costs are likely to be many times less than the combination of initial and long-term costs of maltreatment to the individual, family and society.

RECOGNITION / TRAINING OF HEALTH PROFESSIONALS

It is apparent that many health professionals around the world lack the skills or inclination to identify and intervene when confronted with a child maltreatment victim. Data from the United States, a country with a relatively long history of recognition of the problem of child maltreatment, are illustrative. While a survey of American medical schools observed that 95% of medical school deans reported that their schools included information about child abuse in the medical school curriculum, the median amount of class-time spent on child maltreatment was two hours. When the medical students were asked, they reported child maltreatment coursework in only 80% of American medical schools although they agreed with the estimate of 2 hours of instruction (1). It seems unlikely that medical students will develop adequate skills at the recognition and response to child maltreatment with just 2 hours of instruction. Collateral evidence bears out the failure to adequately prepare the health care workforce to recognise child maltreatment. Recent studies have demonstrated tremendous lack of agreement between physicians of findings indicative of child sexual abuse and a high rate of missed diagnosis on abusive head trauma presenting to a major medical centre (43)(70). Anecdotal reports from the faculty of the 27 lesser developed country medical schools participating in the International Clinical Epidemiology Network suggest that the problem may be even greater in other regions of the world. Little or no formal instruction in child maltreatment has been provided at any of a group of some of the most prestigious medical schools in Asia, Africa, and South America.

Physicians need to be trained to pursue histories of child maltreatment, interpret histories in the context of the child's developmental status, recognise the signs and symptoms of child maltreatment and distinguish suspicious findings from innocent findings. The medical evaluation of suspected child abuse needs to have both great sensitivity and specificity, meaning that the likelihood of detecting abuse must be high and the likelihood of detecting abuse when no abuse has occurred must be very low (75). Social service organisations rely extensively on medical expertise and are not in a position to question medical interpretations of physical findings. High rates of medical error and physician unwillingness to pursue the diagnosis of child maltreatment complicate societal efforts to protect children and leave children at risk. Unfortunately, available data suggest that the preparation of physicians for work in this area is inadequate.

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[3] US dollars

The 1998 publication of the International Resource Book (42) provides estimates of the forms of child maltreatment that consume the greatest amount of professional energy. Respondents reported that sexual abuse consumed the greatest amount of professional time followed by physical abuse. Relatively few respondents thought that neglect, abandonment and psychological maltreatment consumed the most professional time. Sexual abuse is one area that many health professionals report great reluctance to pursue (76) and which is hard to even research (32). Training in the techniques of examination in this area needs to be specialised and there are clearly differences in reliability of diagnosis based on experience (71).

Table 2: Forms of Child Maltreatment That Consume the Greatest Percentage of Time and Professional Energies across 47 countries

Type of Abuse	*Number*	*Percent*
Physical Abuse	25	54.3
Sexual Abuse	32	69.6
Physical Neglect	13	28.3
Psychological Neglect	13	28.3
Street Children	7	15.2
Abandonment	7	15.2
Other	2	4.3

(Source: (47))

INTERVENTION

Mandatory reporting of suspected child maltreatment appears to be the law for a minority of the world's population (42). A survey completed by professionals in 47 countries noted that at most 24 countries have mandatory reporting of suspected child maltreatment and another 17 countries have voluntary systems for reporting. These same respondents report that in 39 of the 47 countries foster care is the most prevalent service offered. Case management services and therapy for the child were also mentioned as frequent services. The same survey also noted that investigation and rescue were more common than preventive services despite evidence of the effectiveness of early home visiting and other forms of prevention (67)(68)(69). Few other data are available about the frequency of different interventions and the success of these interventions in different countries (56)(95).

Is treatment effective? There are very limited studies of this issue, most in the US and more for sexual abuse. A review of the effectiveness of treatment for sexual abuse noted that the older non-experimental studies suggested that some problems, such as aggressiveness and sexualised behaviour were resistant to change (79). However, the same review noted that newer randomised trials have concluded that many of the symptoms can be responsive to professional intervention although other factors such as parental reaction and children's attributions can influence outcomes.

PREVENTION

The Haddon Matrix is a useful tool for organising prevention planning and policy development in child maltreatment (41). Haddon proposed that the prevention of motor vehicle injuries could be organised into A) primary prevention or prevention prior to the occurrence of the event, B) secondary prevention or prevention that came into place at the time of the event, and C) tertiary prevention or rehabilitation after the event. Further, Haddon proposed that prevention could be directed alone or together at the host (child), at the agent (caregiver), or the environment. The intersection of these two dimensions produces a matrix with 9 cells. A multi-faceted prevention program requires strategies for every cell of the matrix. Careful parenting education and home visiting (69) can be seen as primary prevention directed at the caregivers. Teaching a parent to pick up the phone or walk away when he or she is angry with a child is secondary prevention and post-maltreatment parenting classes or the use of foster care constitute tertiary prevention. Teaching a child to avoid situations that could be risky is primary prevention while education to say "no" is secondary prevention and instructing the child to tell an adult if someone has touched her or him is tertiary prevention. Providing social support and income support for new parents is a primary environmental strategy and making sure that medical providers recognise maltreatment is a tertiary environmental strategy for prevention. Other prevention strategies that fit into this matrix include altering social norms for acceptable parenting behaviour, increasing recognition of the potential harm from shaking a child, and ensuring the availability of counselling services for victims. Interventions that target "high-risk" groups prior to the occurrence of maltreatment should be considered primary prevention. Some of the data from the home visiting programs in the United States suggest that targeted prevention activities may be the most cost-effective (69).

On a global scale, a major reason that maltreatment continues to flourish is that maltreatment is not even recognised as a problem. The Haddon Matrix approach suggests that building public awareness of child maltreatment can be one important starting point for primary prevention for both the parent and the environmental. The ISPCAN world report on maltreatment (42) revealed wide variation in public awareness across different countries (see Table 3). Only a minority of countries and a minority of the world's people appear to recognise the problem of maltreatment.

Table 3: The General Public's Level of Awareness Regarding Child Abuse and Neglect Issues across 47 countries

	Not Aware		*Neutral*		*Aware*	
Extent of Child Abuse	16	35.6%	14	31.1%	15	33.3%
Causes of Child Abuse	25	56.8%	12	27.3%	6	13.6%
How Can Society Prevent Child Abuse	31	68.9%	12	26.7%	2	4.4%
What Can Individuals Do to Prevent Child Abuse	28	62.2%	14	31.1%	3	6.7%

(Source: (42))

Research examining the effectiveness of different prevention strategies has been limited even in the two countries indicating that there is awareness of how society can prevent maltreatment. In the US, attention has focused on home visitation as an approach. These programs use a variety of providers (nurses, graduate students, and paraprofessionals) and they emphasise different areas (health care, child development, and social supports). Whilst not all home visitation has been shown to be effective, most of the studies document positive alterations in parental attitudes and behaviours as well as a reduction in the likelihood of child physical abuse and neglect (22)(40)(54)(55)(68)(69)(70). Home visiting is particularly effective with very vulnerable families including those who are reticent, highly isolated, lacking in social skills and unlikely to reach out for help themselves.

Centre-based and parent education preventive interventions have documented gains including: increased positive parent-child interactions, more extensive use of social supports, less use of corporal punishment, higher self esteem and personal functioning. For teenagers in particular evaluations have demonstrated fewer subsequent births and higher employment rates. Centre-based programs are particularly effective for new parents who are motivated and self confident enough to step outside their own homes and seek support.

Prevention strategies directed simultaneously at multiple intersections of the Haddon Matrix provide the greatest promise of success. However, the strategies themselves must be serious and sustained. Research has identified a number of key characteristics of successful preventive services.

- *The importance of duration.* If the goal of a program is crisis intervention, short-term services may be effective. Short-term programs may be useful in identifying risk, improving knowledge, reducing immediate stress and temporarily reducing isolation. However, improving parenting practices, and thus reducing the risk for abuse, generally requires significant (and long-term) intervention. Longitudinal studies confirm that gains grow over time.

- *The greatest gains are seen with high-risk families.* The likelihood of maltreatment in the future is clearly higher in families with multiple risk factors. Prevention efforts targeted at populations of families at high risk are most likely to show significant benefits since the baseline rate of events in lower risk populations will be near zero.

- *The importance of intensity.* Interventions with new parents, especially high risk parents, need to be frequent (once a week or more often) in order to be effective (22).

- *The qualities and skills of the service providers are important.* Only a few home visiting prevention programs have shown clear benefit. The most successful to date have very clear but flexible educational curricula and use well-trained professionals such as trained nurses (68)(69). Other home visiting programs that have failed to show benefit appear to suffer form very modest interventions by visitors without extensive special preparation.

As discussed earlier in this chapter, the ability of the health system to recognise trauma and make accurate diagnoses is an important part of the rehabilitative response. Very few children report themselves for help, even where they have the verbal or physical ability to do so (35). They may fear they will not be believed, fear the consequences of telling others or think that the way they are being treated is normal. Pre-verbal infants are particularly at risk. Following detection, tertiary interventions are best underpinned by a co-ordinated inter-agency, multi-

disciplinary approach. Children may need immediate medical attention and counselling. Caregivers may need therapeutic help, information and education, skill development, material, practical and social support. Children, safe carers and the community may need legal protection from perpetrators, who themselves may need treatment and support.

Fig. 4: Prevention Activities

Primary	*Secondary*	*Tertiary*
Environment Public awareness activities (i.e. through media and campaigns) Community education programmes on CRC Availability and accessibility of social services, supports and networks	Perinatal and ongoing identification of at risk children and families Community-based, family centred support, assistance and networks	Adequate child protection laws and child friendly courts
Caregiver ⇒ Pre-natal, perinatal and early childhood health care that improves pregnancy outcomes and strengthens early attachment ⇒ Promoting good parenting practices	Family support such as home visiting Clearly established referral system of support services Substance abuse treatment programmes Information about community resources and safety planning	Treatment and support for perpetrators
Child School-based activities towards non violence	School based social services for high stress environment	Early diagnosis Proper inter-disciplinary services to ensure Medical treatment, care, counselling, management and support of victims/families Reintegration in a child-friendly community/schools

(Source: (41)(95)

The Haddon Matrix approach to prevention suggests multiple levels for targets (41). Children are likely to need a range of help including therapeutic and relationship work to compensate for poor attachment formation and/or early sexualisation, educational support and personal safety training. Caregivers can need help with self-esteem, anger control and conflict resolution, sexual dysfunction, parenting skills and addiction related behaviour. Preventive interventions can also be directed at the family level on such issues as social isolation and exclusion, economic difficulties and marital or relationship problems including domestic violence. At the community level interventions can be targeted on housing, employment and social support services. Finally, at the cultural or societal level interventions can focus on the acceptability of corporal punishment and gender inequalities related to child rearing and family life (69).

POLICY RESPONSES

Governmental policies addressing the prevention and response to child maltreatment appear to range from '*laissez faire*' to strong 'paternalist' policy, and from pro-birth family to child rights perspectives (36). The World Perspectives on Child Abuse resource book (42) suggests that governmental policies generally lean toward the laissez faire with either no or voluntary reporting and no officially recorded statistics for the majority of countries providing a response. Further, only 47 countries even participated. It is very likely that the majority of non-respondent countries also have either no or very *laissez faire* policies.

The appropriate set of government policies are the same as the core functions of public health: governments should undertake a) surveillance, b) assurance, c) monitoring, and d) policy development (66). Governments must monitor the occurrence of child maltreatment and the potential for resulting harm. Monitoring may consist of collecting case reports, periodic surveys, or other methods appropriate to ascertaining the incidence and impacts of maltreatment in its different forms. In the United States registries of reported cases (19) have been supplemented with three national incidence studies (56) as well as three academic surveys of child violence (85)(90). Because of the lack of recognition and training of professionals, and lack of governmental programs, reliance upon official reports is likely to be even less successful in other countries. Periodic population-based surveys of the public are likely to be needed to help raise professional and public awareness.

Assurance means ensuring that response systems are working and providing systems where private systems are lacking or cannot respond to the need. For example, in the Philippines, private and public hospitals provide the first line of response to child maltreatment and the government follows with the criminal justice system (73). If private systems are adequate for the task, there may be no need for governmental systems. It is absolutely essential that children receive thoughtful and expert services at every stage in the process. Investigations, medical evaluations, medical and mental health care, family intervention and legal services are all activities that children and families will require to be safe. In countries where there is a tradition of private children's aid societies providing these services, it may be necessary only to monitor care. However, governments must assure the quality and availability of services and provide them if no other provider is available. Assuring the training and availability of child protective service workers, health care personnel, court personnel, police, and child care workers clearly falls under government policy. If medical schools continue to ignore the problem of child maltreatment, government must assure that doctors are

sufficiently skilled in this area by directing curricula, altering licensing examinations, or making other demands on the profession.

Monitoring remains a government function. Even in situations where private child advocacy organisations are providing services, the core function of continuing to monitor services and study the epidemiology of maltreatment remains a governmental task. A focus on outcomes and an allegiance to developing better interventions through the scientific method should be fostered by the government regardless of whether the service providers are public or private.

Finally, policy development is another primary governmental task. Policies may be required to assure a trained workforce, a multi-disciplinary response, alternative placements for children, access to health resources, and resources for families. Governments must take seriously their responsibilities to assist families care for children and to assist local agencies with careful and effective protective service interventions. Careful consideration of mandatory reporting, provision of training of professionals in child protection, and ensuring the medical and mental health needs of victims cannot be done by any other agency in society. However, a necessary condition for the development of policy is that child maltreatment must have risen to the level of public and professional awareness.

Responsibility of the Health Care System

Medical and public health providers have a special responsibility. Researchers in these fields have the skills to design and conduct investigations of the epidemiology and consequences of maltreatment which can drive public awareness and governmental responses. Where health professionals turn a blind eye to maltreatment, it is unlikely that the public will recognise and demand assistance for maltreated children. Medical schools must include attention to the problem of child maltreatment within their curricula.

SUMMARY

Although the predominance of western publications about the problem of child maltreatment could lead to the interpretation that child maltreatment is a western problem, there are mounting data to suggest that the problem is of equal or greater importance in non-western countries. There are great difficulties with definitions of maltreatment in different societies. There are also variations in patterns of caring for children and in the strengths and resources of families around the globe. We have evidence that there is little public or health professional recognition of child maltreatment in most of the countries of the world. Wider public and health professional recognition would be the start of effective prevention policies. Health professionals must learn to recognise child abuse and neglect and governments and academics must ascertain the epidemiology. Effective intervention strategies can be developed. Effective prevention efforts and policies must be directed at the children, the caregivers, and the environment before, during, and after occurrences of abuse or neglect. Health professionals must take on the task learning to recognise and respond to child maltreatment. Medical schools must include training in this field as a part of medical education.

Box 1

Implementation of the UN Convention on the Rights of the Child (CRC) in Relation to Child Maltreatment
Marcus Stahlhofer

Article 19 of the CRC recognises the child's right to protection from all forms of violence. It acknowledges the range of situations that are potentially abusive, and that violence may be attributable to active mistreatment, or else to neglect. It notes that violence and abuse occur both within and without the family and the home. This article affirms the central need to provide protection for all children. In contrast, articles 32, 33, 34 and 38 amongst others identify the special protection needs that occur in very particular situations.

Article 19.2 identifies the many domains in which violence can be responded to, and the responsibility that falls to the State to strengthen all these actors. This is not simply through the introduction of protection measures, but through prevention, identification, investigation and follow-up. Article 19.2 highlights the importance not only of legislative measures in responding to violence and abuse, but also the central place of social programmes and the provision of support to carers in order to prevent it.

In this way, article 19 provides a framework for thinking about the context of violence and abuse and for approaches to responding to it, always bearing in mind the general principles of the Convention.

The Committee on the Rights of the Child has drawn on all the aspects of article 19 given above in its discussion with State Party delegations on matters of violence and abuse. It has highlighted the fact that violence and abuse often goes unacknowledged and has urged countries to investigate the issue. In its comments to the government of Romania, the Committee urged 'that research be undertaken on the issue of child abuse and neglect within the family.' In the light of article 19.2, the Committee frequently calls upon States to introduce legislation to address the issues of violence and abuse. 'The Committee recommends that ...the State Party considers the possibility of introducing more effective legislation and follow-up mechanisms to prevent violence within the family...' but equally, that legislative reform must be accompanied by other measures if violence and abuse are to be properly addressed. In its comments to Costa Rica, the Committee noted that the legislation that was in place had not been adequately enforced. It further urged that...'the government intensify... its information and advocacy campaign at the community and family level.'

Jordan passed before the Committee on the Rights of the Child in 1993. In its Concluding Observations and Recommendations, the Committee stated its concern at 'the rates of domestic violence and abuse, the lack of discussion of these problems, and facilities to address them.' It recommended that studies be conducted into on the nature and extent of domestic violence, and that appropriate follow-up measures should be taken in the field of family awareness and social support. In the light of these recommendations and others, Jordan had, by 1999, introduced a national plan of action for children, and a task force to study matters relating to the welfare and rights of children including the issues of domestic violence and abuse. Appropriate legislative reform was undertaken, and in addition, training and information was provided to increase public awareness and discussion of this otherwise taboo subject. Recognising that social and cultural barriers inhibited women and children from seeking assistance in case of domestic violence, special units of women police officers were trained to provide appropriate assistance and support.

Box 2

Learning from People with Direct Experience of Child Maltreatment
Corrine Wattam

The National Commission of Inquiry into the Prevention of Child Abuse in the UK asked survivors what they thought child abuse was and what could be done to prevent it. These are some of the responses[4]:

Definitions

"Child abuse is, mental abuse, i.e., telling a child that he is useless, thick or unable to think for himself. Physical abuse, i.e., beating him for absolutely no reason. Sexual abuse i.e., touching intimately, intercourse, or other sexual acts"

"I realize that when some people use the expression 'child abuse' they mean only sexual abuse. That of course, is a horrific crime. Some would take the view that physical abuse is 'nothing' compared with it. I don't take that view because from experience I know that it damages, especially when verbal abuse accompanies the beatings"

"the nature of child abuse and neglect comes in many different forms. Children can be deprived of love, food, clothes to wear, a warm place to sleep, stimulation with learning skills, the list is endless. A child needs to feel safe, if you can't be safe with your family or parents then who can you be safe with?

Causes

"It [abuse] is a way that some people deal with their hurt. It is a way of controlling others"

"my suggestion comes from my own situation. My parents were both pretty grim: a cruel seemingly unloving mother and a semi-absent father who at times resorted to leathering, punching and kicking. It took me forty years to realize the problem was not with me but was a) their marriage; b) their inability to communicate and c) their inability to resolve difficulties in a mature way"

"I believe in my own experience, couples who lack sexual communication can be a major cause of child abuse. My mum weighed over 40 stone, my dad used my mums weight as one of his excuses to come onto me. He often said my mum was barren, which I found cruel of him to say about her. I felt very sorry for my mum. My dad always said he wanted to keep it in the family, he said he trusted me as I wouldn't have any diseases. He said he loved my mum and made me feel guilty by saying it would destroy my mum if I ever told her about my dad. So for years I kept it a secret and chose to say nothing to spare my mums feelings"

Prevention

"community and families want to believe that abuse is rare and cannot happen to them. They need educating to the facts, that even the most respectable household can hide an abuser and a victim. Education, would let a victim know he/she was not alone and that help was available, also abusers would learn of ways to seek help"

"I don't honestly know if child abuse would ever stop, whether it be sexual or otherwise. It has been going on for generations"

"If asked today by anyone how to avoid being abused my advice would be shout, yell, scream, kick and tell someone (I wish I had)"

"Tender loving care, a listening ear and lots of it, in my view, are the only way to try and help"
"maybe if it was spoken about more, accepted that this sort of thing does happen in all walks of life by men and women, then this subject would not be 'taboo!. I think if people were more open and stopped burying their heads in the sand we could start to prevent it"

[4] Letters were received from over 1000 respondents. For the full report see (69).

Box 3

Infanticide in Hungary
Maria Herczog

When we talk about domestic violence we usually think of battered women and children, sometimes men. And if we hear about a mother killing her new-born child, we do not want to believe it. In Hungary more than two dozen cases of infanticide are recorded each year. In 1999 there were 29 and on average, an infant is killed every two weeks of each year.

Research started in 1998 by the National Institute of Family and Children in co-operation with the Association of Visiting Nurses aimed to find out about women who commit infanticide and why they do not receive support in crisis situations that could act as preventative measure. 4500 questionnaires were distributed to visiting nurses. The research has revealed a picture that does not relate to the monster-mother model. All the women who committed infanticide kept the whole period of their pregnancy secret. They could not or dared not share the fact that they were expecting a baby with anyone. The cases were primarily characterised by isolation and the anticipation of a miracle that would somehow sort out the pregnancy. In general the women did not injure their children, but left them alone and let them die.

The typical picture is of a very lonely woman, not having one person to trust, let alone to receive help from when giving birth. Remarkably enough, almost half of them were married or living in a permanent relationship and two-thirds live in very small communities where everybody knows them. Before receiving the typical sentence of 2-3 year imprisonment, they stand alone again in front of the judge. Family, neighbours, colleagues, doctors and district nurses – who in all cases have known about or at least suspected the concealed pregnancy but could not or did not want to get involved in such 'private' issues – are heard as witnesses. These witnesses are never considered as responsible or implicated. Society seems to point its finger to the deliberately 'wicked' woman who does not fit our ideas about motherhood. Researchers point to social causes such as a mother's poverty and isolation, and lack of sex education, but no comprehensive evaluation or action plan has been introduced to make the necessary changes.

Infanticide is a preventable problem if it is considered as the responsibility of the wider community as well as the mother herself. Following the research, recommendations have been made about a concerted response to hidden pregnancy. Anyone who is suspicious of a hidden pregnancy is advised to approach the local child welfare services where the social worker can organise a case conference after talking to the pregnant woman and trying to convince her to ask for help of any kind. In cases where the prospective mother denies the pregnancy an obligatory report should be made in accordance with health legislation. This states that after the 24th week of pregnancy there is a right to intervene despite non-consent of the woman in the best interests of the unborn child. Although there are many doubts concerning ethical issues related to pressurising anyone to be examined and helped – even if she does not want to be – the conflict of interest, the risk of death to the child and the potential tragedy for the entire family make it acceptable for most professionals. In parallel to these recommendations a media campaign has been launched along with training for helping professionals and a handbook on the subject is in preparation.

BOX 4

ZIMBABWE: INSIGHTS INTO A COMPREHENSIVE AND EFFECTIVE RESPONSE

Naira Khan

The training and Research Support Centre (TARSC) of the Child and Law Project in Zimbabwe undertook a participatory and multi-sectoral response to child sexual abuse. Recognition of child sexual abuse has only evolved recently as a grave and perpetuating problem in Zimbabwe. No systematic national research has been conducted to determine prevalence rates. Only small, local research has been documented. Building on this information, TARSC embarked on participatory research among rural and urban groups across the country. A reference group of individuals and professionals from the affected communities first established the particular aspect of child abuse to be studied. It was decided that using a new education philosophy, 'education for social change'. Areas of concern would be identified by the communities, enabling reflection on causes and participatory strategies for action. Role-play, drama, pictures and conversations were used to draw out the communities' views, experiences and perceptions around child sexual abuse. The groups consulted during this process were youth in and out of school, adult men and women, professionals, community leaders and government, and NGO's active in children's issues. A two stage process collected views about children and their rights, the extent, nature, forms and causes of sexual abuse of children as well as what can be done to prevent, detect, report and manage the problem.

During this research process, consultative meetings were held with the reference group to monitor progress and a leaflet detailing stage one results was prepared in English and Shona, the local language. These groups later developed and implemented action programmes. Professionals, having been involved from the development process, instead of being brought in at the end to deliver a service. Following evaluation findings, many activities were implemented to prevent child abuse and neglect. Two examples are the school information programme and the legal programme. TARSC implemented the school information programme with the Ministry of Education and Culture, focusing on training, capacity building and development of training materials for school psychologists, heads and teachers, administrative staff and children. It is envisaged that by the end of 2000 the majority of personnel in this Ministry will be conversant with issues of Child Sexual Abuse and the program will begin the second phase of their initiative to prepare children to recognise potentially abusive situations, to be aware of reporting channels.

Together with the Ministry of Justice, Legal and Parliamentary Affairs, TARSC initiated a legal programme. Plans included the establishment of multisectoral training on victim-friendly courts for vulnerable witnesses for nurses, police and NGOs, and courses for trainee lawyers and reporting protocols. For abusers, a training of probation officers, police and public prosecutors on management of young sexual offenders, training and a review of sentencing patterns.

Innovative initiatives have also been launched on the subject of public awareness, health professional awareness and crisis intervention. For example, the Mabvuku Cultural Drama Group uses drama to initiate community dialogue and problem solving on child sexual abuse. During the last two years the group has been conducting performances at places where men are in the majority such as beerhalls and burial societies.

BOX 5

TRAINING F0R HEALTH PROFESSIONALS IN GERMANY

Reiner Frank and Maru Kopecky-Wenzel

There may be debate about whether a particular case can be labelled as abusive or not. However, the developmental status, behavioural problems of children, relationships within a family and the needs and strengths of families can be recognised with some certainty. In Germany research projects in hospitals as well as in private practices have demonstrated that child abuse is a widespread phenomenon encountered within the health system. Local and regional initiatives have unified professionals from practice and from research in different fields. In the absence of a mandatory reporting system training must address knowledge and skills within a given profession and knowledge and skills for co-operation between professions.

Teaching within a profession:
Patterns of identification vary according to the groups of professionals, e.g. paediatricians, paediatric surgeons, child psychiatrists, nurses. They also depend on the professional context, such as hospital or private practice.

Knowledge: For all medical professions it is essential to be familiar with signs and symptoms suggestive of physical abuse, sexual abuse and neglect and with concurrent explanations. Behaviour of children, family situations and pattern of relationships have to be assessed. For the best use of resources it is useful to tap the experience of children of health professionals within their daily practice. To enhance competence in recognising and naming problems in behaviour and relationships short instruments were developed or adapted for use in the clinical routine. In a controlled study researchers found that nurses in paediatric and paediatric surgical hospitals were able to distinguish between normal and behaviourally disturbed children and to identify parental rejection, a strong indicator of child abuse and neglect. On the basis on this research practice parameters were developed and published by the board of paediatricians and by the board of child psychiatrists. Guidelines stemming from a version from Hamburg paediatricians were adapted regionally in different counties.

Skills: In the county of Bavaria a survey among practitioners in paediatrics and child and adolescent psychiatry was done to evaluate the Bavarian version. From the view of the practitioners the best way to improve practice is to offer an opportunity to discuss their own cases. In training sessions in small circles it was possible to train on issues such as how to describe a given child and its development, how to assess hyperactivity, how to deal with parents perceived as demanding, hostile and hopeless. The readiness of physicians in hospitals to identify signs and symptoms as a result of family violence depends strongly on the existence of a support group within that hospital.

Teaching between professions
Knowledge: The correlation between the amount of family adversities and behaviour problems of children is well established. The co-operation of mental health professionals such as psychologists, social workers, child psychiatrists should be sought. In Germany, the largest gap exists between the medical system and the system of youth welfare. Different professional belief systems impede a successful co-operation. Knowledge on the expertise of other professions is a prerequisite for co-operation. Information must be given on child abuse from a medical point of view, from the view of the youth welfare system and from a legal perspective.

Skills: Personal contacts and long term dialogue can build up mutual understanding and confidence. Teaching elements are common sessions conjointly guided by a physician and a social worker. Local or regional groups meeting regularly over time are useful to create a good working atmosphere.

To implement the existing body of knowledge into practice, an ongoing effort is necessary. The ingredients necessary for effective functioning are knowledge, skills in communication and a personal network. A local or regional feed back system would be very useful to show that long term targeted interventions are successful.

BOX 6

EARLY INTERVENTION TO PREVENT CHILD ABUSE IN THE UNITED STATES

Anne Cohn Donnelly and Deborah Daro

For the better part of the last decade, professionals and others in the United States have sought ways to offer new parents help in getting off to a good start as a way of preventing child abuse and strengthening families.

More than half of the nation's 50 states now have state-wide parent support initiatives underway. In addition, a number of carefully crafted family support programs (such as HIPPY, MELD, Parents as Teachers and Olds' Prenatal and Infancy Home Visitation Program) aimed at new parents have been promoted by NGO's across the country. Also, several of the nation's largest foundations, have launched national initiatives to explicitly promote a more comprehensive and coordinated system of support for young children and their parents. The Federal government has new funding streams in the areas of child health, early childhood education and child welfare services which are being used for new parent and family support assistance (such as the Early Head Start Initiative).

Of all these relatively new initiatives the one that perhaps best captures what we have learned from research is Healthy Families America. Launched by an NGO in collaboration with a corporate foundation and building upon the experiences of one state (Hawaii's Healthy Start), the goal of HFA is to offer all new parents nation-wide support around the time their first baby is born.

The service typically begins in the hospital and continues with home visits. The home visitor may be a nurse, a social worker or a paraprofessional from the community. The purpose of services offered to the families is to address the full gambit of needs new families face (e.g. facilitating bonding, parenting skills and child development, health care for both mother and baby, and assisting with housing and employment and other social needs).

The structure of the service is guided by critical elements derived from research. These include: early intervention (begin as close to the time of birth as possible, if not prenatally), intensity (at least once a week at first and perhaps up to 6-9 months), longevity (2 years or more for the most vulnerable families), comprehensive (services should address a variety of social, emotional and concrete needs including ensuring that the family has a medical home), flexible (tailoring services to each individual family and their particular needs), and appropriate (both the method of service delivery and the content is sensitive to the particular cultural and ethnic values of the family being served). Also important is the degree to which the services offered are coordinated with others the family may be receiving.

The effort, now in more than two thirds of the states and over 300 communities, is attempting to offer all parents some support (with long term intensive support for high risk parents) while establishing an integrated family support system in the community. Enthusiasm for this intervention has been keen from all quarters. Securing funding and setting up home visitation programs has been relatively easy. Finding well qualified workers has been more difficult necessitating various efforts to offer on the job training. A fundamental challenge has been to weave existing efforts into new developments and competition between programs with similar goals is significant.

The Healthy Families America effort has been the focus of more than 30 separate evaluative research efforts, most of which are still in process. The lead researchers from these various efforts have been meeting in a Research Network for a number of years to share information about methodology, measures used and findings. Early results, while uneven, are encouraging.

Box 7

Corporal Punishment: State-authorised Violence to Children

The most common direct experience of violence by children globally is being hit, slapped, punched, kicked and beaten by their parents and other carers. Corporal punishment of children is socially and legally accepted in most states. In many, it is not only parents who can hit their children. In schools, other institutions and in penal systems for young offenders, corporal punishment remains common: state-authorised violence, often severe, on a massive scale.

In many states, corporal punishment of children is now the only form of inter-personal violence which remains legal. It is at the least ironic that adults have designed laws which give children - the smallest and most vulnerable of people - less, not more, protection from assault.

It is through the assertion that children, too, are holders of human rights that the legality of corporal punishment is now being globally challenged. Hitting children is a breach of the universal rights that all people share: to respect for physical integrity and human dignity. The existence of special legal defences justifying corporal punishment - "reasonable chastisement", "lawful correction" - breaches children's right to equal protection under the law.

The UN Convention on the Rights of the Child requires states to protect children from "all forms of physical or mental violence" while in the care of parents and others. The Treaty Body for the Convention, the UN Committee on the Rights of the Child, has highlighted that corporal punishment is incompatible with the Convention. In examining reports from states in all continents it has recommended prohibition of all corporal punishment, however light.

In 1979 Sweden became the first country to prohibit all corporal punishment of children. Since then, at least 10 more states have banned it (Germany being the most recent, in July 2000). There have also been key judgments from constitutional or supreme courts condemning corporal punishment in schools and penal systems (for example, in Namibia, Zimbabwe, South Africa and Zambia). Ethiopia's 1994 Constitution asserts the right of children to be free of corporal punishment in schools and care institutions. In 1998 the European Court of Human Rights found the beating of a young English boy by his stepfather amounted to inhuman or degrading punishment and that domestic law allowing "reasonable chastisement" failed to protect the child. It ordered the UK government to pay the boy £10,000 and his legal costs.

More recently, in 2000 the European Court threw out an application from a group of UK Christian private schools claiming that the ban on school corporal punishment breached their rights and parents' rights to religious freedom, etc. (echoing a similar decision by South Africa's Constitutional Court). Protection of vulnerable individuals from deliberate violence cannot be diluted by considerations of religion or culture.

In January 2000 Israel's Supreme Court declared all corporal punishment to be unlawful: "... If we allow 'light' violence, it might deteriorate into very serious violence. We must not endanger the physical and mental well-being of a minor with any type of corporal punishment. A truth which is worthy must be clear and unequivocal and the message is that corporal punishment is not allowed".

The consistent recommendations of the UN Committee on the Rights of the Child are undoubtedly leading to accelerating progress to end corporal punishment. In Bangladesh, the Ministry of Women and Children Affairs designated the theme for "Child Rights Week 2000" as "Banning corporal punishment". In Sri Lanka, the National Child Protection Authority has prepared a booklet for parents and teachers as a prelude to a legal ban. Recently, school beating has been banned in Korea, New Zealand, Uganda and Thailand.

Nevertheless, international surveys suggest that corporal punishment - flogging, whipping or caning - for juvenile offenders remains legal in at least 60 states; that it is legal in schools and other institutions in at least 65 states, and in the family home in all but 11. Where corporal punishment has not been consistently challenged by legal reform and public education, scattered prevalence studies suggest that it remains extremely common. For example, a survey of Egyptian children published in 1998 found more than a third of the children reported being beaten with hands, sticks, belts and shoes; a quarter of these children reported that harsh discipline led to physical injuries. In the UK, research in the 1990s found three quarters of a large sample of mothers admitted to smacking their baby before the age of one; a quarter of the young children in the survey had been hit with an implement and a third punished "severely".

The imperative for ending corporal punishment of children is one of universal human rights. But there are strong supporting arguments from public health and violence prevention perspectives. Corporal punishment is dangerous to children in the short-term: in every state harsh discipline kills some children, injures and handicaps many more. In the longer term, it is identified by a very large body of research as a significant factor in the development of violent attitudes and actions in childhood and later life.

Action to end coporal punishment is long overdue. States need to adopt explicit legislation prohibiting all corporal punishment and link implementation to comprehensive public education campaigns involving adults, adolescents and children.

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Chapter 4

Violence Against Women by Intimate Partners[1]

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Introduction

Worldwide, one of the most common forms of violence against women is abuse by a husband or intimate male partner. A signal feature of the global epidemiology of violence is that women are most at risk from family members and male intimates. This is in stark contrast to the risk pattern for men, who on average are much more likely to be attacked by a stranger or an acquaintance than by someone within their primary circle of relationships (1-5). The fact that women are often emotionally involved with and economically dependent on those who victimize them has major implications /for both the dynamics of abuse and the approaches available for addressing it.

Relationship violence is a global phenomenon that disproportionately affects women. Domestic violence occurs in all countries and transcends social, economic, religious and cultural groups. Although women can be violent in relationships and violence exists in some same-sex partnerships, the vast majority of partner violence is perpetrated by men against their female partners (6). As a result, this chapter will restrict itself to discussing violence by men against female intimates.

Thanks largely to the efforts of women's movements worldwide, violence against women, and domestic violence in particular, is now firmly placed on the international agenda. Initially conceptualized primarily as a women's human rights issue, partner violence is increasingly also seen as an important public health problem. This chapter briefly examines what is known about the nature and magnitude of partner violence and describes its consequences for women's health and well-being. In addition, it examines the range of interventions being tried globally and reviews the limited data available on the effectiveness of these efforts. Despite a scarcity of formal evaluations, the field of domestic violence has over two decades of experience to inform practice. Drawing on this experiential base, the chapter highlights lessons learned about how to conduct and organize domestic violence interventions and offers insights on areas in need of strengthening. The chapter concludes with a list of recommendations for future work on violence against women in intimate partnerships.

Nature and Magnitude of the Problem

Intimate partner violence refers to any number of behaviors that serve to undermine the physical, psychological, and/or sexual integrity of women within intimate relationships. It includes acts of physical aggression, such as slaps, hits, kicks or beatings; psychological abuse such as constant belittling, intimidation, and humiliating treatment; forced intercourse and other forms of sexual coercion; and a variety of controlling behaviors, such as isolating a woman from family and friends, monitoring her movements, and restricting her access to resources. When different types of abuse occur repeatedly in the same relationship, the phenomenon is often referred to "battering."

In nearly 50 population-based surveys from around the world, 10 percent to over 50 percent of women report being hit or physically harmed by an intimate male partner at some point in their lives (See Table 1). The percent of women who have been assaulted by a partner in the last 12 months varies from less than 3 percent of adult women in the United States and Canada, to 27

percent of ever-partnered women in León, Nicaragua; 38 percent of currently married women in Korea, and 52 percent of currently married Palestinian women in the West Bank and Gaza strip. For many of these women, physical aggression is not an isolated event but an ongoing phenomenon, often accompanied by debilitating sexual and psychological abuse.

Research suggests that physical violence in intimate relationships is almost always accompanied by psychological abuse, and in one-third to over one-half of cases by sexual violence (3, 7-9). For example, among 613 ever-abused women in Japan, 57% had suffered all three types of abuse—emotional, physical and sexual. Only 8% of women had experienced physical abuse alone (7). Likewise in Monterrey, Mexico, 52% of physically assaulted women had also been sexually abused by their partner (10). Figure 1-1 graphically illustrates the overlap among types of abuse among ever-partnered women in León, Nicaragua (8).

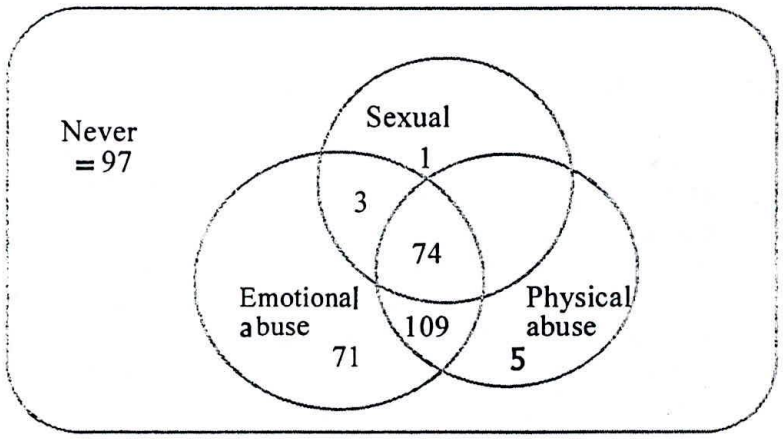

Figure 1-1: Overlap between sexual, physical and psychological violence experienced by women in León, Nicaragua (n=360 ever-married women).

Most women who suffer any physical aggression generally experience multiple acts over time. In the León study, for example, 60% of women abused in the previous year were abused more than once, and 20% experienced severe violence more than six times. Among women reporting any physical aggression 70% reported severe abuse (11). The average number of physical assaults in the previous year among currently abused women surveyed in London was seven (12); in the United States in 1997, it was three (5).

Although types of abuse generally overlap in the same relationship, the data presented in Table 1 refer exclusively to the percentage of women who have experienced physical assault. Prevalence studies of domestic violence represent such a new area of research that comparable figures on other types of partner violence are not yet available. Because of methodological differences, even the data on physical violence from these well-designed studies are not directly comparable. Reported rates of abuse are highly sensitive to the definitions used, how questions are asked, the population being investigated, and the degree of privacy achieved during the interview (13). As a result, differences among countries—especially small to moderate differences—might well represent methodological variations rather than true differences in rates [See Box 1: Enhancing the Comparability of Data on Domestic Violence].

In surveys of partner violence, women usually are asked whether or not they have experienced any of a list of specific behaviors, such as being slapped, pushed or shoved, hit, punched or kicked, beaten, or threatened with a weapon. Research has shown that asking behaviorally specific questions—such as "Have you ever been forced to have sexual intercourse against your will?"--yields higher rates of disclosure than questions that ask women whether they have been "abused" or "raped." (13). Behaviorally specific instruments also allow researchers to assess the relative severity and frequency of the abuse that women suffer. Surveys generally define physical acts more severe than slapping, pushing, shoving or throwing an object as "severe violence."

At times the focus on "acts" can mask the atmosphere of terror that often permeates these relationships. For example, in Canada's national survey of violence against women, one third of women who had been physically assaulted by a partner said that they had feared for their lives at some time in the relationship (14). Although international studies have concentrated on physical violence because it is more easily conceptualized and measured, women routinely say that it is the psychological abuse and degradation that they find the most difficult to bear (1, 15, 16) (see Box 2 – Women's Experiences of Violence).

The Dynamics of Abuse

Many cultures hold that men have the right to control their wives' behavior and that women who challenge that right--even by asking for household money or by expressing the needs of the children—may be punished. Studies from countries as different as Bangladesh, Cambodia, India, Mexico, Nigeria, Pakistan, Papua New Guinea, Tanzania and Zimbabwe indicate that violence is frequently conceptualized as physical chastisement--the right of a husband has to "correct" an errant wife. (17-25). As the authors of the Pakistani study note, "Beating a wife to chastise or to discipline her is seen as culturally and religiously justified...Because men are perceived as the 'owners' of their wives, it is necessary to show them who is boss so that future transgressions are discouraged (p. 39)."

Justifications for violence frequently evolve from traditional notions of the proper roles and responsibilities of men and women. Men are given relatively free reign as long as they provide financially for the family. Women are expected to tend the house and mind the children, and to show their husbands obedience and respect. If a man perceives that his wife has somehow failed in her role, overstepped her bounds, or dared to challenge his prerogative, then violence can ensue.

A wide range of studies from both the industrial and developing world identify a remarkably consistent list of events that are said to "trigger" violence (17-22). These include: not obeying the husband, talking back, not having food ready on time, failing to care adequately for the children or home, questioning the man about money or girlfriends, going somewhere without his permission, refusing the man sex, or suspicions of infidelity. All of these represent transgression of dominant gender norms.

In many developing countries, women share the notion that men have the right to discipline their wives using force if necessary (See Table 2—from Pop Report). In rural Egypt, upwards of 80 percent of rural women say that beatings are justified under certain circumstances (26). Significantly, one of the reasons that women most often cite as just cause for beatings is refusing a man sex (26-29). Not surprisingly, denying sex is also one of the reasons women cite most often as a trigger for beatings (18, 30-32). This reality clearly has implications for women's ability to protect themselves from unwanted pregnancy and sexually transmitted infections.

Societies often distinguish between "just" and "unjust" reasons for abuse as well as between "acceptable" and "unacceptable" amounts of violence. Thus, certain individuals (usually husbands or elders) are given the right to physically chastise a woman, within limits, for certain transgressions. Only if a man oversteps these bounds—for example, by becoming too violent or for beating a woman without just cause—will others intervene (17, 21, 33, 34).

This notion of "just cause" permeates qualitative data on violence in many parts of the developing world. As one indigenous woman in Mexico observed, "I think that if the wife is guilty, the husband has the right to hit her...If I have done something wrong...nobody should defend me. But if I haven't done something wrong, I have a right to be defended" (21). Similar sentiments are expressed among focus group participants in North and South India. "If it is a great mistake," notes one husband in Tamil Nadu, "then the husband is justified in beating his wife. Why not? A cow will not be obedient without beatings." (25).

Even where culture itself grants men substantial control over female behavior, abusive men generally exceed the norm (27, 35, 36). For example, data from the Nicaragua Demographic and Health Survey (DHS) show that, among women who were abused physically, 32% had husbands who scored high on a scale of marital control compared with only 2% among women who were not abused physically. The scale included such behavior as the husband's continually accusing his wife of being unfaithful and limited her access to family and friends (27).

Women's Responses to Abuse

Qualitative studies confirm that most abused women are not passive victims but use active strategies to maximize their safety and that of their children. Some women resist, others flee, and still others attempt to keep the peace by capitulating to their husband's demands (3, 37-39). Thus, what may seem to an observer to be lack of response to living in a violent relationship may in fact be strategic assessment of what it takes to survive in the marriage and to protect herself and her children.

A woman's response to abuse is often limited by the options available to her (38). In-depth qualitative studies with abused women in Africa, Asia, Latin America, Europe, and the United States, confirm that fear of retribution, lack of alternative means of economic support, concern for the children, emotional dependence, lack of support from family and friends, and an abiding hope that he "will change" are common factors that keep women in abusive relationships. (8, 18, 20, 40, 41) In developing countries, women also cite the stigmatization of being unmarried as an additional barrier to leaving abusive relationships (18, 34, 42).

At the same time, denial and fear of social stigma often prevent women from reaching out for help. Studies show that anywhere from 22% to nearly 70 % of abused women surveyed never told another person prior to the interview (see Table 3). Those who do reach out do so primarily to family members and friends rather than formal institutions. Only a minority has ever contacted the police.

Table 3

Percentage of Physically Abused Women Who Sought Help From Different Sources, Selected Countries

	Never Told Anyone	Contacted Police	Told Friends	Told Family	Reference
	%	%	%	%	
Bangladesh	68	--	--	30	(43)
Canada	22	26	45	44	(35)
Cambodia	34	1	33	22	(44)
Chile	30	16	14	32[a]	(45)
Egypt	47	--	03	44	(26)
Ireland	--	20	50	37	(40)
Moldova	--	6	30	31	(46)
Nicaragua	37	17	28	34	(27)
UK	38	22	46	31	(12)

[a] 32% told her family; 21% told his family

Despite the obstacles, many abused women eventually do leave violent partners—even if after many years, once the children are grown. In León, Nicaragua, for example, 70% of women eventually leave their abusers (47). The median time that women spend in a violent relationship is 6 years, although younger women are more likely to leave sooner (8). Studies suggest a consistent set of factors that propel women to separate permanently: the violence gets more severe and triggers the realization that the abuser is not going to change, or the violence begins to noticeably affect the children. Women also cite emotional and logistical support from family or friends as pivotal in their decision making process. (39, 41, 48-50).

Research likewise suggests that leaving an abusive relationship is a process, not a "once-off" event. Most women leave and return several times before they leave for good. The process of detaching includes periods of denial, self-blame and endurance before women come to recognize the abuse and to identify with other women in the same situation. This is the beginning of disengagement and recovery from the abusive relationship (51). Recognizing this process can help individuals be more understanding and less judgmental when they encounter a woman who returns to an abusive situation.

Regrettably, leaving does not necessarily guarantee a woman's safety. Violence sometimes continues and may even escalate after a woman leaves her partner (52). In fact in the United States and Canada, an abused woman's risk of being murdered is greatest immediately after separation (53) [insert Canada ref] [See Box 3: Domestic Homicide].

Explaining Intimate Partner Violence

Researchers have only recently begun to look for individual and community-level factors that might serve to increase or decrease the rate of partner violence in different settings. Cross-cultural research shows that, although violence against women is present in most societies, there are examples of pre-industrial societies where partner violence is virtually absent (54, 55). These societies stand as testament to the fact that social relations can be organized in such a way as to minimize violence against women.

In many places the prevalence of domestic violence varies substantially among neighboring areas. These local differences are often greater than differences across countries. For example, in Uttar Pradesh, India the percentage of men who said that they beat their wives varried from 18% in Naintal District to 45% in Banda (56). The percentage that physically forced their wives to have sex varied from 14% to 36% among districts (see Table 4). This variation raises an interesting and compelling question: What is it about these different settings that accounts for an almost three-fold difference in wife beating?

Table 4

Variations in Men's Attitudes and Reported Use of Violence, Selected Districts Uttar Pradesh, India (n = 6,695)

	Admit to forcing wife to have sex %	*If wife disobeys, she should be beaten %*	*Admit to hitting wife %*	*Hit wife in last year %*
Aligarh	31	15	29	17
Banda	17	50	45	33
Gonda	36	27	31	20
Kanpur Nagar	14	11	22	10
Naintal	21	10	18	11

(56)

Recently, researchers have become more interested in asking and answering such questions, although the current research base is inadequate for the task. One of the few sociodemographic factors that has consistently emerged as predictive of higher rates of abuse in population-based studies is lower socioeconomic status. Studies in many countries show that, although violence among intimates cuts across all socioeconomic groups, women living in poverty are disproportionately affected (11, 14, 27, 44, 45, 57-60).

It is as yet unclear why poverty increases the risk of violence—whether it is due to low income itself or other factors that accompany poverty, such as crowding or hopelessness. For some men, living in poverty is likely to generate stress, frustration, and a sense of inadequacy for having failed to live up to their culturally defined role of provider. It may also operate by providing ready fodder for marital disagreements and/or by making it more difficult for women to leave

violent or otherwise unsatisfactory relationships. In all likelihood, low SES acts as a "marker for a variety of life conditions that combine to increase women's risk (33).

Another risk factor that appears especially robust across settings is witnessing or experiencing violence as a child. Studies in Nicaragua, Chile, Cambodia and Canada have all found that rates of abuse are higher among women whose husbands were either beaten themselves as children or witnessed their mothers being beaten (11, 35, 44, 45). Although men who physically abuse their wives frequently have violence in their background, not all boys who witness or suffer abuse grow up to become abusive themselves. An important theoretical question is what distinguishes those men who are able to form healthy, non-violent relationships despite childhood adversity from those who become abusive?

Cross-cultural research suggests a variety of structural and sociocultural factors that contribute to higher rates of violence as well. Levinson's ethnographic study of 90 pre-industrial societies throughout the world identified four factors that, in combination, are strongly associated with a high prevalence of violence against women (55). These include economic inequality between men and women; a pattern of using physical violence for conflict resolution; male authority and decision-making in the home; and divorce restrictions for women.

Likewise, in their comparative study of high versus low violence societies, Counts, Brown and Campbell found that societies with the least domestic violence were those that had **community sanctions** against domestic violence (either formal legal sanctions or the cultural expectation that neighbors should intervene when a woman is beaten) and those where abused women had access to **sanctuary,** either in the form of shelters or family support. The "Sanctions and Sanctuary" framework further theorizes that violence will be highest in societies where women's status is in transition. Where women have very little status, violence is not "needed" to enforce male authority. Where women have high status, they have achieved sufficient power en masse to change the gender power dynamic. Domestic violence is highest when women begin to assume non-traditional roles and/or enter the work force.

But the causes of violence are neither fully structural nor fully individual. Practitioners, activists and researchers are increasingly using an "ecological model" to understand the interplay of personal, situation, and sociocultural factors that combine to cause abuse (33, 61). An ecological approach to abuse argues that no one factor alone "causes" violence but rather that a number of factors combine to raise the likelihood that a particular man in a particular setting may act violently toward his partner. The more risk factors present, the higher the likelihood of violence.

The model can best be visualized as four concentric circles. The innermost circle represents the biological and personal history that each individual brings to his or her behavior in relationships. The second circle represents the immediate context in which abuse takes place—frequently the family or other intimate or acquaintance relationship. The third circle represents the institutions and social structures, both formal and informal, in which relationships are embedded—neighborhood, workplace, social networks, and peer groups. The fourth, outermost circle includes the economic and social environment, including cultural norms.

A range of studies suggests various factors that appear to increase the likelihood of partner abuse at each of these four levels.

- At the individual level these include being abused as a child or witnessing marital violence in the home (62, 63), having an absent or rejecting father (61), and frequent use of alcohol (63-68).

- At the level of the family and relationship, cross-cultural studies cite male control of wealth and decision-making within the family (55, 64) and marital conflict as strong predictors of abuse (58, 69).

- At the community level women's isolation and lack of social support, together with male peer groups that condone and legitimize men's violence, predict higher rates of violence (43, 64, 70).

- At the societal level violence against women appears most common where gender roles are rigidly defined and enforced (33) and where the concept of masculinity is linked to toughness, male honor, or dominance (54, 71). Other cultural norms associated with abuse include attitudes that condone physical punishment of women and children, acceptance of violence as a means to settle interpersonal disputes, and the perception that men have "ownership" of women (33, 55, 63, 72).

Figure 2. An ecological framework for understanding gender-based violence (adapted from Heise, 1998 (33)).

By combining individual level risk factors with cross cultural studies, the ecological model contributes to understanding gender-based violence by explaining on one hand, why some societies and some individuals are more violent than others and, on the other hand, why women are so consistently the victims.

The Consequences of Abuse for Health and Well Being

The consequences of abuse are profound and extend beyond the health and happiness c individual women to affect the wellbeing of entire communities. Living in a violent relationshi affects women's sense of self worth and their ability to act in the world. Studies show tha abused women are routinely prohibited from accessing resources, participating in public life, c receiving emotional support from friends and relatives. Not surprisingly, such women ar frequently less able to care for themselves and their children or to pursue jobs and careers as the may have wanted.

Impact on health. A growing body of literature documents that living with an abusive partne can have profound impacts on woman's health. Violence has been linked to a host of differer health outcomes, both immediate and long term. Figure 3 summarizes the various consequence that have been associated with abuse in the scientific literature. Although violence can hav direct health consequences, such as injury, victimization also operates through a number o pathways to increase women's risk of *future* ill health. Like tobacco or alcohol use, victimizatio can best be conceptualized as a risk factor for a variety of diseases and conditions.

Studies show that women who have experienced physical and/or sexual abuse in childhood o adulthood experience a higher frequency of negative health outcomes related to physica functioning, psychological well-being, and risk behaviors, including smoking, physical inactivity drinking and drug use. (68, 73-79). A history of violent victimization puts women at increase risk of depression, suicide attempts, chronic pain syndromes, psychosomatic disorders, injury gastrointestinal disorders, irritable bowel syndrome; and a variety of reproductive healtl consequences (see below). Taken together, existing research suggests several emergin conclusions about the health consequences of abuse:

- The influence of abuse can persist long after the abuse has stopped;
- The more severe the abuse, the more severe its impact on women's physical an mental health; and
- The impact of different types of abuse and multiple episodes over time appears to be c

Violence and Reproductive Health. Women who live with violent partners have a difficult tim protecting themselves from unwanted pregnancy or disease. Violence can lead directly to unwante pregnancy or sexually transmitted infections (STIs) including HIV/AIDS via coerced sex, o indirectly by interfering with a woman's ability to use contraceptives and or condoms (80, 81) Studies consistently show that domestic violence is more common in families with many children (5, 25, 27, 28, 45, 57, 82). Researchers have long assumed that the stress of many childrer increases the risk of violence, but recent data from Nicaragua suggests that the relationship ma be the opposite. In Nicaragua, the onset of violence largely precedes many children, suggestin that violence may be a risk factor for having many children (80% of violence begins within th first four years of marriage) (8).

Violence also occurs during pregnancy, with consequences not just for the woman, but for the developing fetus. Studies from Nicaragua, Egypt, Chile and Cambodia have found that as many as one of every four women has been physically or sexually abused during pregnancy, usually by a partner (26, 27, 35, 44, 45). In the United States estimate of abuse during pregnancy range from 3% to 11% among adult women and up to 38% among low-income, teenage mothers (83-87).

Violence during pregnancy has been associated with miscarriage, late entry into pre-natal care, still birth, pre-term labour and birth, foetal injury and death (80) and low birth weight, which is a major cause of infant death in the developing world. (85, 88-91). In León, Nicaragua, for example, abused women have a four times greater risk of having a low birth weight infant than non-abused women, even after controlling for other factors. In this setting, 16% of low birth weight among infants can be attributed to domestic violence (91).

Elsewhere, domestic violence accounts for a substantial but largely unrecognized proportion of maternal mortality. A recent study among 400 villages and 7 hospitals in Pune, India, found that 16% of all deaths during pregnancy were due to domestic violence (92). The study also demonstrated that 7 out of 10 maternal deaths in this region normally went unrecorded and 41% of recorded deaths were misclassified.

Use of Health Services. Given the long-term impacts of violence on women's health, it is not surprising that victimization also increases women's use of services, thereby increasing health care costs. Studies in the United States, Zimbabwe and Nicaragua indicate that women who have experienced physical or sexual assault in either childhood or adulthood use health services more frequently than their non-abused peers (74, 76, 93-96). On average, abuse victims have more surgeries, physician visits, hospital stays, pharmacy visits and mental health consultations over their lifetimes than non-victims, even after controlling for potential confounding factors.

For example, in one study at a major HMO in the United States, researchers found that having been raped or assaulted was a stronger predictor of health care use than was any other variable, including a woman's age or other health risks such as smoking (75). Women who had been victimized sought medical attention twice as often as non-victimized women in the year of the study (which was not the year the woman was victimized). The medical care costs of women who were raped or assaulted were 2.5 times higher than the costs of non-victims, after controlling for confounding factors (75).

Economic Costs of Violence. In addition to its human costs in terms of pain and suffering, violence places an enormous economic burden on societies in terms of lost productivity and increased utilization of social services. Among women in Nagpur, India, for example, 13% reported that they had missed paid work because of abuse, missing an average of 7 workdays per incident. Eleven percent reported that they were unable to perform household chores due to an incident of violence (97).

Although domestic violence does not have a consistent impact on women's overall likelihood to be employed, it does appear to influence women's earnings and their ability to *keep* a job (95, 98, 99). A study from Chicago found that women with histories of domestic violence were more likely to have experienced spells of unemployment, to have job turnover, and to have suffered more physical and mental health problems that could affect job performance. They also had

lower personal incomes and were significantly more likely to receive public assistance tha women who did not report domestic violence (99). Similarly, in a study from Managu Nicaragua, abused women earned 46% less than women who did not suffer abuse, even afte controlling for other factors that affect earnings (95).

Impact on Children. Conflict in the home frequently has a "spill-over" effect on youn children. Children who witness marital violence are at higher risk for a host of emotional an behavioral problems, including anxiety, depression, poor school performance, low self esteem disobedience, nightmares, and somatic health complaints (8, 100-102). They are also more likel to act aggressively in both childhood and adolescence (103, 104). Indeed, studies from Nort America indicate that children who witness violence between their parents frequently exhib many of the same behavioral and psychological disturbances as children who are themselve abused (101, 105).

Regrettably, children are often present during domestic altercations. Sixty-four percent of abuse women in Ireland (40) said that their children routinely witnessed the violence, as did 49% o battered women in Nicaragua (8), and 50% of abused women in Monterrey, Mexico (10). In th Nicaragua study, children of battered women were more than twice as likely to suffer fron learning, emotional and behavior problems, and almost seven times more likely to be abuse themselves (either physically, emotional or sexually) than were children of non-battered wome (8).

Recent evidence suggests that violence may undermine child survival as well (106, 107). A study in León, Nicaragua, for example, found that after controlling for other possibl confounders, the children of women who were physically and sexually abused by a partner wer six times more likely to die before the age of five. Partner abuse accounted for as much as on third of child deaths in this region (107). Another study in the Indian states of Tamil Nadu an Uttar Pradesh found similar results. Women who had been beaten were significantly more likel than non-abused women to have experienced an infant death or pregnancy loss (abortion miscarriage, still birth), even after controlling for well-established predictors of child mortalit such as women's education, age and parity (106).

Prevention and Policy Response

To date, the majority of work on partner violence has been spearheaded by women's organizations, with occasional funding and assistance from government. Where government has become active—as in North America, Australia, parts of Europe, and Latin America—it has generally been in response to demands by civil society for more constructive action on this issue. The first wave of reform has generally involved some combination of legislative reform, police training, and the establishment of specialized services for victims. Scores of countries have passed laws related to domestic violence, although many justice system officials are still unaware of the changes or unwilling to implement them. Individuals working within the system frequently share the same biases and prejudices that dominate the society at large. Experience has repeatedly shown that without sustained efforts to change institutional culture and practice, most legal and policy reforms remain cosmetic.

Despite over twenty years of activism against gender violence, remarkably few interventions have been rigorously evaluated. In fact, in their recent review of family violence interventions in the United States, the National Research Council identified only 34 studies that attempted to evaluate interventions related to partner abuse. The majority of these (19 out of 34) focused on law enforcement strategies, reflecting the strong bias that exists in the United States toward criminal justice approaches to dealing with violence (108). The available research base on interventions in developing country settings is even more limited. Only a handful of studies exist that attempt to critically examine some of the interventions currently underway. Among these are a review of programs dealing with violence against women in four states of India and an initiative by UNIFEM to systematize lessons learned from projects funded through the United Nations Violence Against Women Trust Fund (Roxanna Carrillo, personal communication, May 2000).

There is an overwhelming need in the field of partner violence for greater attention to evaluating the impact of current interventions. Outlined below is a description of the most common interventions being tried globally to reduce partner violence and to respond to the needs of victims and perpetrators. Although commonly understood as "good practice," there is little concrete data available to support the effectiveness of these interventions in reducing violence or mitigating its impact.

Support and refuge for victims. In the industrial world, women's crisis centers and battered women's shelters have been the cornerstone of programs to assist victims of domestic violence. In 1995, there were approximately 1,800 programs in the United States for abuse victims, 1200 of which provided emergency shelter in addition to emotional, legal and material support to women and their children. (109). Such centers generally provide support groups and individual counseling, job training, programs for children, legal assistance, help negotiating social services, and referrals for drug and alcohol treatment. Most refuges and women's centers in Europe and the United States were founded by women's activists, although many shelters and crisis centers today are run by professionals and receive government support.

Since the early 1980s, shelters and women's crisis centers have sprung up in many developing countries as well. Most countries have at least a handful of NGOs providing specialized services and advocacy for victims of abuse and some—such as Nicaragua—have hundreds. Because of the expense of maintaining shelters, many developing countries have avoided this model in favor

of telephone hotlines and/or non-residential crisis centers that provide self-help support group legal services, counseling and advocacy services.

In settings where maintaining a formal shelter is not feasible, women have devised oth emergency housing options, such as organizing informal networks of "safe homes" where wome in distress can seek temporary shelter in the homes of neighbors. Elsewhere communities ha designated the local church as a "sanctuary" where women can stay with their children over nig if their partner arrives home drunk or violent.

Legal remedies and judicial reforms. The 1980s and 1990s have witnessed a wave of refor directed at transforming how the law treats physical and sexual abuse by an intimate partner. I the last decade, for example, 24 Latin American and Caribbean countries have passed legislatio specifically designed to address domestic violence (110, 111). The most common refor involve criminalizing physical, sexual and psychological abuse by intimate partners eith through special domestic violence laws or by amending existing penal codes. Laws va according to the range of perpetrators and acts covered, as well as the penalties imposed.

The logic behind such reforms is to communicate that domestic violence is a crime and will n be tolerated. By bringing domestic violence into the public sphere, advocates hope to counter th notion that violence is a private, "family matter." Legal reforms have been accompanied b various approaches to increase women's access to justice and improve successful prosecutio Industrial countries have tried various experimental reforms including specialized domesti violence courts, training of police, court and prosecutorial personnel, and providing victi advocates to assist women through the criminal justice system. Although little rigorous data a available to evaluate these measures, the recent National Academy of Sciences review of Famil Violence Interventions concludes: "Anecdotal evidence suggests that specialized units an comprehensive reforms in police departments, prosecutor's offices and specialized courts hav improved the experience of abused children and women (108)."

Similar experiments are underway in a number of developing countries. In India, for exampl state governments have established Legal AID Cells, Family Courts, *Lok Adalats* or People' Courts, and *Mahila Lok Adalats* or Women's Courts. A recent evaluation notes that these bodie primarily function as conciliatory mechansims, relying exclusively on mediation and counselin to promote family reconciliation. Interviews with key informants suggest that even as conciliatory mechansims, these entities leave much to be desired. Mediators generall subordinate women's well-being and safety to the state's interest in family preservation (112).

Transforming Police Practice. Next to support services for victims, efforts to reform police practice are the second most common form of domestic violence intervention globally. Advocates sought to make the police more responsive to the victims needs and more aggressive toward arresting perpetrators. Early efforts focused on training; but when training alone proved largely ineffective at changing police behavior, advocates began to seek mandatory arrest laws and pro-arrest policies to *force* officers to take a more aggressive stance toward domestic violence. Arrest for domestic violence is perhaps the best-studied intervention for family violence.

Early support for arrest as a means to reduce recidivism came from a 1984 research experiment in Minneapolis, Minnesota, that suggested that arrest cut in half the risk of future assaults over a six month follow-up period, compared with separating couples or advising them to get help (113). These results were widely publicized and led to a dramatic shift in police policies toward domestic violence throughout the United States.

Efforts to replicate the Minneapolis findings in five additional jurisdictions, however, failed to support the initial findings. The replication studies found that on average arrest produced no discernable effect on recidivism (114, 115). Detailed analysis revealed that in the United States the effect of arrest varied with characteristics of the perpetrator. When the perpetrator was married, employed, or both, arrest reduced repeat assaults, but for unemployed and unattached men, arrest actually increased abuse in some cities. The impact of arrest also varied by community. Men living in communities with low unemployment were deterred by arrest regardless of their individual employment status; suspects in high unemployment areas were more violent following arrest than after a warning (116). These findings have led some US researchers to conclude that mandatory arrest laws should be repealed in areas of concentrated poverty (117).[2]

Elsewhere governments have experimented with "All Women's Police Stations"—an innovation that began in Brazil and has now spread throughout Latin America and parts of Asia (119, 120). Although good in theory, evaluations show that such efforts to date have experienced many problems (112, 120-124). While the presence of a women's police station increases the number of abused women coming forward, frequently the women require services—such as legal advice and emotional counseling—that are not available at the stations.

Moreover, the assumption that female officers will be more sympathetic to victims has not always proved true. Female officers assigned to all-women stations frequently have been ridiculed by their peers and have become demoralized. In some settings, the creation of specialized police cells for crimes against women has made it easier for other police units to dismiss women's complaints. As a review of All Women Police Stations (AWPS) in India observes, "Women victims are forced to travel great distances to register their complaints with the AWPS and can not be assured of speedy neighborhood police protection." To be viable, this strategy must be accompanied by sensitivity training for officers, mechanisms to reward and legitimate the work, and provision of a wider array of services (112, 120, 122).

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[2] This is not to say that arrest serves no useful purpose in domestic violence cases, but only that it does not appear to reduce recidivism across the board. Advocates' original intent in promoting arrest was not to deter future violence, but to interrupt current abuse and to ensure women's equal protection under the law (118).

Health service interventions. In recent years advocates have turned their attention toward reforming the response of health care providers to victims of abuse. Most women are likely to interact with the health system at some point in their lives—when they seek contraception, give birth or seek care for their children. This makes the health care setting an important opportunity to identify women experiencing abuse and provide them with needed support and referral Unfortunately, studies show that in most countries, doctors and nurses rarely ask women whether they are being abused, even when there are obvious signs of violence (125-132).

Existing health care interventions have focused on sensitizing providers, encouraging routine screening for abuse, and institutionalizing protocols for the proper management of abuse. A growing number of countries, including Brazil, Ireland, Malaysia, Mexico, Nicaragua, the Philippines and South Africa have initiated pilot projects to train health workers to identify and respond to abuse (133-135). Several Latin American countries—including Peru, Bolivia Ecuador, Mexico, and Nicaragua--have also incorporated guidelines for addressing domestic violence into their national health sector policies (136).

Presently, the US Centers for Disease Control is evaluating a range of interventions aimed at reforming the response of the health sector to abuse (137). Existing research suggests that making procedural changes in client care—including adding chart prompts, or integrating questions on abuse into standard intake forms—have the biggest impact on provider behavior (138, 139). Confronting the underlying beliefs and attitudes is also important. In South Africa, for example, the Agisanang Domestic Abuse Prevention and Training Project (ADAPT) and its partner, the Health Systems Development Unit of the University of Witwaterstrand, developed a reproductive health and gender training program with a strong domestic violence component The course used role playing, popular sayings and wedding songs to help participants analyze common notions about violence and the proper roles of men and women. Only then did training turn to the nurses' responsibility as health professionals. A post-training survey found that participants no longer believed that beating a woman was justified and that most accepted the concept of marital rape (131).

Although active screening for abuse (questioning clients about histories of victimization) is generally considered "good practice" in the field of health care and intimate violence, there has not yet been any systematic look at the impacts of this practice on women's safety, satisfaction with care, or help-seeking behavior. Studies repeatedly show that women are open to being queried about violence in a non-judgmental way (126, 127, 140), but little information is available to evaluate whether and under what conditions this strategy is helpful (141).

Outreach and Advocacy. Outreach and advocacy have been a cornerstone of virtually all responses to domestic violence evolving from the non-profit sector. Outreach initiatives seek to support domestic violence victims in their homes and communities, via peer promoters, women's *defensoras,* and other mechanisms designed to take information about women's rights and available services ***to*** women, rather than expect them to come to services. Frequently, NGOs recruit and train peer advocates from the ranks of former domestic violence survivors who have used their services.

Both government and non-profit projects frequently employ individual "advocates" to provide survivors with support, information and advice. Advocacy recognizes that individuals coming from a position of fear and isolation will often require assistance to negotiate the justice system, family welfare bureaucracies, and benefit entitlements. It is the emphasis on rights and entitlements that distinguishes advocacy from more familiar concepts like support. Some of the more innovative projects involve collaborations where NGO-employed advocates work directly out of state-run police stations, prosecutors' offices, or hospitals, to help women negotiate these systems and receive quality service.

Several advocacy and outreach schemes have been evaluated. The Domestic Violence Matters (DVM) project in Islington, UK, for example, placed civilian advocates in neighborhood police stations. These advocates would contact all victims within 24 hours of their call to the police. Another UK initiative, the Domestic Violence Intervention Project (DVIP), combined an education program for violent men with proactive responses and advocacy for their partners. A recent review of these programs found that the DVM successfully decreased the number of repeat calls to the police and by inference, repeat victimizations. It also increased women's use of new services, including refuges, solicitors and support groups. The DVIP accessed greater numbers of ethnic minority and professional women than other domestic violence services. In both cases, women welcomed outsiders making the first move and felt that the intervention helped them take actions that increased their safety and accelerated the process of change (142).

Alternative Sanctions. Instead of threatening jail time, some communities are experimenting with other means to raise the social cost of violent behavior. A common civil law approach is to issue court orders that can prohibit a man from contacting or abusing his wife, mandate that he leave the marital home, order him to pay maintenance and/or child support, and require him to seek counseling or substance abuse treatment.

In multiple sites around the United States, researchers have found that although victims feel that protective orders are effective, there is generally no difference in rates of victimization among those with orders and those without (143). By contrast, Harrell (144) found that protective orders *were* effective in Denver and Boulder for at least a year in preventing repeat violence in comparison with victims without orders. Multiple studies confirm that arrests for violation of a protection order are rare, a fact that tends to undermine their effectiveness in preventing violence (145). Other research shows that protective orders can enhance women's self esteem but are less effective against men with serious criminal records (146, 147).

Elsewhere, communities have explored techniques such as public shaming, picketing an abuser's home or workplace, or requiring community service to censure abusive behavior. Activists in India often stage *dharnas*, a form of public shaming and protest, in front of the house or workplace of abusive men (112). In the US state of Texas, an innovative judge is sentencing batterers to "shame sentences," ordering one abusive man to apologize to his wife publicly on the steps of city hall, and another to carry a sign around a local shopping mall that read "I went to jail for assaulting my wife. This could be you" (148).

Coordinated Community Interventions. An increasingly common model uses coordinating councils or interagency fora to improve and monitor community-level responses to victims and perpetrators (147). Apart from networking and exchanging information, such councils, at their best: 1) identify and rectify gaps and bottlenecks in the provision of services; 2) promote good practice via training and practice guidelines; 3) track the disposition of cases and conduct institutional audits to the assess the practice of different agencies; and 4) sponsor community awareness and prevention activities. Originally patterned after model programs in Duluth, Minnesota, Quincy, Massachusetts and San Francisco, this approach to intervention has spread widely throughout the United States, the UK, Canada and parts of Latin America.

For example, the Pan American Health Organization (PAHO) has initiated pilot projects in 16 Latin American countries to explore the utility of this type of approach in both urban and rural settings. In rural settings, the coordinating councils include such individuals as the local priest, the mayor, community health promoters, women's groups, and the magistrate. The PAHO project began with a qualitative research project—known as the "Ruta Crítica"—to identify what happens to women in these communities when they reach out for help. The results, summarized in Box 4, document the repeated failure of systems to meet women's needs and highlight the critical need for better coordination among services.

Although there are likely many positive benefits of community interventions, these programs have seldom been evaluated. One study that looked primarily at process variables, found a statistically significant increase in the percentage of police calls that resulted in arrest and the percentage of arrests that resulted in prosecution following the implementation of a community intervention project in each of three communities (149). The study also found a significant increase in the percentage of men sent to mandatory counseling in each of the communities, although it is unclear what impact, if any, these changes had on rates of abuse.

Qualitative evaluations have noted that many of these interventions focus primarily on coordinating refuges and the criminal justice system, at the expense of wider involvement from faith communities, schools, the health system, or other social service agencies. A recent review of multi-agency fora in the United Kingdom notes that while councils can improve the quality of services that women and children receive, "interagency work can act as a "smokescreen' and a 'face-saver," while very little actually changes. To avoid this outcome, groups should commit to self-evaluation criteria that include concrete changes in policies, practice and user satisfaction (150).

Perpetrator Treatment. Batterer treatment programs are an innovation that began in the United States that has now spread to throughout Canada, Europe, Australia and parts of the developing world (151-153). Most programs use a group format and include skill building and reflection around issues of gender role socialization, stress and anger management, empathy and taking responsibility for one's own actions. Although potentially beneficial for a small group of men, studies show that the majority of men never complete the required counseling, even in those programs where the court mandates their participation (154). Evaluation of Britain's flagship Violence Prevention Programme, for example, showed that 65% did not show up for the first session, 33% attended fewer than six sessions, and only 33% went onto the second stage group (155).

Unfortunately, only a handful of batterer treatment programs have been rigorously evaluated. In the United States, research suggests that the majority of men (53%-85%) who complete such programs remain physically nonviolent for up to two years after treatment (156, 157). But between one-third to one-half of men who enroll in such programs fail to complete them (156). Moreover, while men may refrain from physical violence after treatment, many men continued other types of threatening or coercive behavior toward their partners (158).

Nevertheless, a recent evaluation of programs in four US cities found that most abused women felt "better off" and "safe" after their partners entered treatment. This study found that after 30 months, nearly half the men had used violence once, 23% of men had been repeatedly violent and continued to inflict serious injuries, and only 21% of men were neither physically nor verbally abusive. Sixty percent of couples had split up and 24% had no contact (157).

According to a recent international review by researchers at the University of North London (155), evaluations collectively suggest that treatment programs work best if they:

- continue for longer rather than shorter periods;
- can change men's attitudes enough for them to discuss their behavior;
- can sustain men in membership; and
- are integrated with a criminal justice system which takes prompt, rigorous and agreed upon action in cases of a breach of conditions.

In Pittsburgh, for example, the no-show rate dropped from 36% to 6% between 1994 and 1997 (albeit in the context of much reduced take-up overall), when the justice system began issuing arrest warrants for men who failed appear at the program intake interview o (155).

Prevention Campaigns. Women's organizations have long used communication campaigns, small-scale media, and other community events to raise awareness about domestic violence and attempt to change social norms. Although there is evidence that such campaigns achieve considerable reach, there is little data on the impact of such efforts on attitudes or rates of violence. During the 1990s, for example, a network of over 100 women's groups in Nicaragua mounted an annual mass media campaign to raise awareness of the impact of violence on women (159). Using slogans such as "Quiero vivir sin violencia" (I want to live free of violence), the campaign mobilized communities against abuse. According to a national health survey conducted in 1998, more than half of the Nicaraguan population had heard at least one of the campaign's messages, and one-half of all women who had heard the messages were able to repeat at least one of the slogans. (27) Likewise, UNIFEM, together with eight other UN Agencies, has been sponsoring a series of regional campaigns against gender violence that organize around the slogan, "A Life Free of Violence: It's our Right" (160).

Anti-violence education programs. Despite a growing number of violence prevention initiatives aimed at youth, only a small percentage has incorporated elements specifically designed to address violence in intimate relationships. The vast majority of such programs promote general conflict resolution skills without explicitly addressing the emotional, cultural,

and gender-related dynamics of violence in intimate relationships. Indeed, there is much room t integrate exercises that explore relationships, coercion and control, and gender norms int existing prevention programs aimed at reducing school violence, bullying, delinquency, and othe "problem behaviors." In developing country settings, similar exercises could be integrated int family life education curricula, youth development schemes, and reproductive and sexual healt programs.

The programs that *do* explicitly address dating violence and other forms of abuse tend to b "stand-alone' initiatives sponsored by entities working to end violence against women (See Bo 5: Innovative Prevention programs). Only a handful of these programs have been evaluated including a dating violence prevention curricula in Canada (161), and a curricula entitled, Skill for Violence–Free Relationships," designed for 7th grade students (162) . Using pre-test, post-tes designs, these evaluations found positive changes in knowledge and attitudes toward relationshi violence (see also (163)), but no longitudinal studies exist to assess the impact of such change on students' future involvement in violent relationships.

Principles of "Good Practice"

As the above review makes clear, activists and program planners have had to rely more o experience and instinct than on sound research when setting priorities and/or designin interventions. Despite the lack of rigorous evaluations, the field of domestic violence is rich i experience. The accumulated wisdom of hundreds of service providers, advocates an researchers suggests a number of principles to help guide "good practice" in the field of domesti violence.

Actions to address violence must take place at both the national and the local level to b effective

An enduring lesson to emerge from violence organizing to date is that actions to address violenc must take place at both a national and local level. At a national level, efforts must include action to improve the status of women, to establish appropriate norms, policies and laws for respondin to abuse, and to create a social environment conducive to non-violent relationships (See Box 6 Agenda for Change). Countries in both the industrial and developing world have found it usefu to create a formal mechanism or process for developing national action plans to achieve suc goals. To be effective, such plans should include clear objectives, lines of responsibility an timeframes, and be backed by an adequate commitment of resources. The process of developin such a plan provides an excellent means to engage diverse social actors, including representative from different government ministries, women's NGOs, service providers, and professiona associations.

But experience suggests that national-level action alone will never be sufficient to transform the landscape of intimate violence. Even in countries like the United States and Canada where national movements against domestic violence have been active for over 25 years, the options that an abused woman faces and the responses she receives from formal institutions like the police, still largely depend on where she lives. In settings where the community has organized a

a local level, where groups exist to train and monitor the response of formal institutions, and where efforts have been made to challenge the norms that perpetuate abuse, a woman experiencing violence faces one reality. Absent such local organizing, she faces quite another (164).

Promoting women's safety and autonomy should guide all decisions related to interventions

Interventions should be designed to work *with* women and respect their decisions, rather than make assumptions about what is best for them. Indeed, a central tenet of feminist organizing around violence is that women are generally the best judge of their own situation. Interventions that adopt this stance are generally rated as more successful both by women themselves and by external evaluators. Recent reviews of different programmatic responses to domestic violence in the Indian states of Maharashtra and Madhya Pradesh, Karnataka and Gujurat, for example, repeatedly emphasized that the success or failure of endeavors was defined largely by the attitudes and perspective that organizers brought to their work (165). The same service – for example a shelter home or counseling—had dramatically different consequences for women depending on whether it was run by individuals who prioritized women's safety and autonomy or prioritized "rehabilitating fallen women" or family reunification (165).

In general most interventions that take control away from the women – like mandatory reporting by health workers to the police – have proven to be counterproductive. They can jeopardize a woman's safety and make it less likely that women will come forward for care (166-169). Concern has been raised, for example, about the recent proliferation of laws designed to require health workers to report suspected cases of abuse. Such laws transform doctors into arms of the justice system and fundamentally undermine women's autonomy and the "emotional safety" of the clinical encounter. Ironically, the template for this intervention, mandatory reporting for suspected child abuse, has itself never been evaluated in terms of its positive or negative impact on children's safety and well-being (108).

Efforts to reform the response of institutional actors—such as the police, health workers, or the judiciary—must go beyond "training" to include system-wide efforts to change institutional culture

Experience has shown that little lasting change is achieved from short term efforts to "sensitize" institutional actors, unless there is a real effort to engage the whole institution in which an individual is embedded—the leadership, the way in which performance is evaluated and rewarded, as well as cultural biases and beliefs (170, 171). In the case of reforming health care practice, for example, training alone has seldom been sufficient to change providers' behavior toward victims of violence (172, 173). Although training can improve knowledge and practice in the short term, the impact of training generally erodes unless accompanied by institutional level changes in policies, protocols and performance criteria (172, 174). Even the most motivated individuals cannot sustain new behaviors in the face of an indifferent or hostile institutional culture.

Interventions must emphasize coordination and work with multiple sectors in the same locality

Different sectors such as the police, health, judiciary and social support services must work together in order to meet the range of needs that women in violent relationships experience. Historically the tendency of programs has been to concentrate effort on one sector—conducting training of the police and the judiciary, for example—rather than emphasizing engaging all relevant actors in a particular setting. Experience suggests that single sector interventions are often ineffective because they address only one aspect of a dysfunctional social system (112).

Conclusions and Recommendations

The evidence available, although limited, shows violence against women by intimate partners to be a serious and widespread problem in all parts of the world. There is also growing documentation of the impact of violence on women's physical and mental health and wellbeing. In spite of the growing recognition of this, more needs to be done, particularly in the area of primary prevention. Major investment is needed in both research and program development. The following section provides some guidance as to where this investment would be most useful.

Donors and governments should invest heavily in violence related research over the next decade.

The lack of a clear theoretical understanding of the causes of domestic violence and its relationship to other forms of interpersonal violence has frustrated efforts to build an effective global response. Studies to advance our theoretical understanding of violence are needed on a variety of fronts, including:

- Studies that examine the prevalence, consequences, and risk and protective factors of partner violence in different cultural settings, using standardized methodologies and measures;
- Longitudinal research that studies the developmental trajectory of violent behavior against women and whether and how it differs from the development of other violent behaviors;
- Studies that explore the impact of violence from a life-course perspective, investigating the relative impact of different types of violence on women's health and well-being and whether the effects of victimization are cumulative;
- Studies that explore the developmental life course of adults who form healthy, non-violent relationships despite past traumas or experiences known to increase risk of abuse.

In addition, greater investment is needed in research to help advance intervention, both to make the case for investment to policy-makers as well as to inform the design and implementation of programs. In the next decade, priority attention should go to:

- Increased documentation of the range of strategies and interventions that exist around the world to combat gender-based violence;

- Studies that calculate the economic costs of intimate partner violence, in terms of lost productivity, health care costs, costs related to policing and social services, etc.;

- Studies designed to evaluate the immediate and long-term effects of programs designed to prevent and respond to intimate partner violence, including school based education programs, legal and policy changes designed to deter violence, services for victims, and campaigns designed to change social norms.

Programs should focus more energy on the primary prevention of violence

To date, the vast majority of energy and investment in partner violence programs have focused on responding to the needs of abused women and their children. Although understandable, this tendency to design programs to assist "victims," means that the work of primary prevention is often lost.

Lack of attention to prevention derives in part from the fact that women's NGOs—the primary architects and engines of work on domestic violence internationally--have traditionally been under-funded and overworked. Although most groups working on partner violence are committed to eliminating violence and empowering women, their ability to prioritize prevention has frequently been overwhelmed by the sheer number of women in need of assistance. As one activist observed, "When facing hundreds of women in need of emergency help now, the longer term agenda tends to slip."

The situation is complicated by the fact that the entire field of domestic violence has been severely under funded, and the monies that are available have tended to be short term and focused on either services or discrete "projects." Although women's groups have been incredibly creative in their efforts to change social norms through campaigns, workshops, street theater and the like, they have seldom had the technical expertise or financial backing necessary to move beyond "awareness raising."

True progress in the field of violence prevention awaits serious attention by policymakers and activists to the task of empowering women, confronting the social dislocations and economic upheavals that disempower men, and creating a social environment that supports and promotes equitable, non-violent relationships between men and women. Fundamentally, preventing domestic violence is about creating healthy families and healthy communities. Today's violence prevention interventions must aim to create a generation of children who come of age with new skills to manage relationships and resolve conflict, expanded life opportunities, and different expectations regarding gender roles and the sharing of power between men and women.

------SIDEBAR BOX---------

One exercise used by the Indian NGO, Sakshi, to help domestic violence programs reorient their activities more toward prevention is to envision an anti-violence agenda that evolves from the needs of the daughters and sons of today's battered women. Most domestic violence programs design their interventions around assisting victims and transforming how social institutions—the courts, health sector, the police—respond to victims and perpetrators. Instead, Sakshi encourages groups to take children as their point of departure for planning. What interventions and programs

could be funded today that would help prevent future domestic violence? Such an exercise still requires groups to consider the needs of victims because some children will nonetheless grow up to experience violence. But this exercise helps redirect thinking toward primary prevention and fundamental social change (Naina Kapur, personal communication, January, 2000)

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Programs should place greater emphasis on equipping family, friends and faith communities to respond constructively to issues of domestic violence.

Since many women will never access "official" services or systems, working to expand informal sources of support through neighborhood and friendship networks, faith communities and workplaces is highly important. Most abused women reach out first to family members or friends, not formal institutions (80, 128, 175, 176). How these individuals respond is highly predictive of whether a woman continues toward empowerment and action or whether she retreats once again into isolation and self-blame (175).

Whereas anti-violence efforts have focused considerable attention on reforming the response of "formal" institutions such as the police, far less attention has been directed toward changing the attitudes and response of trusted individuals on the "frontline." There is much room for creative programs aimed at combating harmful social norms that keep women trapped in abusive relationships, and to model more constructive responses to abuse on the part of family and friends. An innovative program in Ixtacalco, Mexico, for example, used community events, small-scale media and 12-session workshops, to help women identify and name the abuse in their lives and to model for friends and family members how best to respond to her situation. The program worked specifically to counter victim-blaming attitudes and to provide concrete examples of more constructive responses (177).

Domestic violence programs should make common cause with other programs aimed at preventing youth violence, teen pregnancy, substance abuse, and juvenile delinquency.

Evidence from the industrial world suggests that there is considerable overlap between the factors that increase risk of a variety of problematic behaviors (178). There also appears to be substantial continuity between aggressive behavior exhibited in childhood and various problem behaviors in youth and early adulthood [ref]. Increasingly, the prevention insights from a variety of problem areas overlap. All point to the need to intervene early with high risk families to provide needed support, guidance, mentoring and services before a pattern of dysfunctional parenting, harsh punishment, and/or maltreatment set the stage for abusive behavior in adolescence or adulthood.

Regrettably, there is little overlap in the programmatic or research agendas of programs dealing with youth violence, child abuse, substance abuse or domestic violence—despite the fact these problems regularly co-occur in families. Although not all violent men come from troubled families, if the violence against women movement is to get serious about prevention it must begin to focus its attention on children—especially young children from troubled homes, and their parents.

Domestic violence advocates have traditionally been wary of shifting attention to children for fear that the all-important task of empowering women will be lost. Rather than adopt the responsibility of working directly with children and youth, domestic violence advocates and researchers should work with programs focusing on early childhood development, fatherhood, home visitation, and youth violence prevention to integrate concern for domestic violence. Do these programs address issues of gender role socialization? Do they explicitly address marital conflict and violence? Are they in touch with local domestic violence programs and resources? Those working directly with victims can also contribute by intensifying their work with the children of abused women.

Table 1

Physical Assault on Women by an Intimate Male Partner

Selected Population-Based Studies, 1982–1999

Percentages rounded to whole numbers

"P" after year indicates the year of publication for studies not reporting the field work dates.

*Population of respondents:

1 = all women
2 = currently married/partnered women
3 = ever-married/partnered women
4 = married men reporting on own use of violence against spouse
5 = women with a pregnancy outcome
6 = all men reporting on own use of violence against partners
7 = married women; half with pregnancy outcome, half without

**Nonrandom sampling techniques used.

[a]Sample group included women who had never been in a relationship and therefore were not in exposed group.

[b]Rate of partner abuse among ever-married/ partnered women, recalculated from author's data.

[c] Although sample includes all women, rate of abuse is shown for ever-married/partnered wo- men (N not given).

[d]Perpetrator could be family member or close friend.

[e]Severe abuse

[f]Any physical abuse/severe physical abuse only

[g]Physical or sexual assault

[h]In past 3 months

Compiled by the Center for Health and Gender Equity (CHANGE) for ***Population Reports***

Region, Place & Year of Field Work (Ref. No.)	Coverage	Sample: Size	Sample: Popu-Lation*	Sample: Age	% of Adult Women Physically Assaulted by an Intimate Partner: In Previous 12 Months	In Current Relationship	Ever (in Any Relationship)
ARFICA, SUB-SAHARAN							
Ethiopia 1995 (110)	Meskanena Woreda	673	2	15+	10[h]		45
Kenya 1984–87 (362)	Kisii District	612	7	15+		42	
Nigeria 1993P (331)	Not stated	1,000	1				31[a]
South Africa 1998 (235)	Eastern Cape	396	3	18–49	11[b]		20[b]
	Mpumalanga	418	3	18–49	12[b]		29[b]
	Northern Province	465	3	18–49	5[b]		20[b]
South Africa 1998 (281)	National	5,077	2	15–49	6		13
Uganda 1995–96 (33)	Lira & Masaka Districts	1,660	2	20–44		41	
Zimbabwe 1996 (464)	Midlands Province	966	1	18+			17[c]
ASIA & PACIFIC							
Australia 1996 (490)	National	6,300	1		3[c]	8[c]	
Bangladesh 1992 (407)	National (villages)	1,225	2	<50	19		47
Bangladesh 1993–95 (422)	Nasimagar Thana	3,611	2			32	
Bangladesh 1993 (255)	Jessore & Sirajgonj (rural)	10,368	2	15–49		42[d]	
Cambodia 1996P (325)	Phnom Penh & 6 prov.	1,374	3				16
India 1993–94 (233)	Tamil Nadu	859	2	15–39		37	
	Uttar Pradesh	983	2	15–39		45	
India 1995–96 (288)	Uttar Pradesh, 5 dist.	6,695	4	15–65		30	
India 1999 (496)	6 states	9,938	3	15–49	14[e]		40/26[f]
Korea, Rep. of 1989 (253)	National	707	2	20+	38/12[f]		
New Zealand 1994 (272)	National	2,000	6	17+	21[g]		35[g]
Papua N. Guin. 1982 (437)	National, rural (villages)	628	3**				67
Papua N. Guin. 1984 (366)	Port Moresby (low income)	298	3**				56
Philippines 1993 (323)	National	8,481	5	15–49			10[d]
Philippines 1998 (57)	Cagayan de Oro City & Bukidnon Province	1,660	2	15–49			26
Thailand 1994 (215)	Bangkok	619	4			20	
EUROPE							
Moldova 1997 (410)	National	4,790	3	15–44	7+		14+
Netherlands 1986 (383)	National	989	1	20–60			21/11[e,f]
Norway 1989P (403)	Trondheim	111	3	20–49			18
Switzerland 1994–96 (178)	National	1,500	2	20–60	6[g]		21[g]
Turkey 1998 (223)	E and SE Anatolia	599	1	14–75			58[e]
United Kingdom 1993P (308)	North London	430	1	16+	12[e]		30[e]
LATIN AMERICA & CARIBBEAN							
Antiquea 1990 (200)	National	97	1	29–45			30[c]
Barbados 1990 (494)	National	264	1	20–45			30[c,g]
Bolivia 1998 (338)	3 districts	289	1	20+	17[e]		
Chile 1993P (268)	Metro. Santiago & prov.	1,000	2	22–55		26/11[f]	
Chile 1997 (312)	Santiago	310	2	15–49	23		
Colombia 1995 (337)	National	6,097	2	15–49		19	
Mexico 1996 (363)	Metro. Guadalajara	650	3		15		27
Mexico 1996P (191)	Monterrey	1,064	3	15+			17[g]
Nicaragua 1995 (130)	León	360	3	15–49	27/20[f]		52/37[f]
Nicaragua 1995 (163, 312)	Managua	378	3	15–49	33/28[f]		69
Nicaragua 1998 (386)	National	8,507	3	15–49	12/8[f]		28/21[f]
Paraguay 1995–96 (105)	Nat'l, except Chaco reg.	5,940	3	15–49			10
Peru 1997 (188)	Metro. Lima (middle and low income)	359	2	17–55	31		
Puerto Rico 1995–96 (105)	National	4,755	3	15–49			13[b]
Uruguay 1997 (440)	Montevideo & Canelones	545	2**	22–55	10[g]		
NEAR EAS & NORTH AFIRCA							
Egypt 1995–96 (132)	National	7,121	3	15–49	16[d]		34[b]
Israel 1994 (197)	West Bank & Gaza Strip (Palestinians)	2,410	2	17–65	52/37[f]		
Israel 1997P (196)	Arab, except Bedouin	1,826	2	19–67	32		
NORTH AMERICA							
Canada 1993 (378)	National	12,300	1	18+	3[c,g]		29[c,g]
Canada 1991–92 (367)	Toronto	420	1	18–64			27[e]
United States 1995–96 (436)	National	8,000	1	18+	1.3[e]		22[e]

Box 1

Enhancing Comparability of Data on Domestic Violence
Mary Ellsberg

Most international prevalence figures on violence are not comparable due to inconsistencies in the way that violence is conceptualized and measured. Prevalence is defined as the proportion of abused women in a given study population during a specific period of time. Therefore, how to define and measure "abuse" and how to determine the study population are two important methodological challenges facing researchers on violence.

These issues have been addressed in a great variety of ways, with little consensus as to the most appropriate method. A further complication is presented by the recognition that what we are measuring is not the actual number of women who have been abused, but rather, the number of women who are willing to disclose abuse. Therefore, there is always the potential for bias from either over-reporting or under-reporting.

Finally, many researchers have pointed out that research on violence involves a number of inherent risks to both respondents and interviewers, and that addressing these concerns is essential, both for ethical reasons, as well as for ensuring data quality . However, the degree to which these issues have been incorporated into study design and implementation varies a great deal. Following are some of the greatest challenges to comparability between studies.

Selection of study participants. There is great variation in the study populations used for domestic violence research. Many studies include all women within a specific age range (frequently 15-49 or over 18), while other studies interview only women who are currently married or have been married at some point in their lives (Table 1). Because both age and marital status are associated with a woman's risk of suffering partner abuse, the selection of eligible participants can have a great impact on the estimates of prevalence of abuse in a population.

Table 1. Study populations from recent surveys on violence against women.

Country	Study Population
Cambodia (44)	Women and men aged 15-49
Canada (179)	Women aged 18 or older
Chile (45)	Women aged 22-55 married or partnered for more
Colombia (180)	than 2 years
Egypt (26)	Currently married women aged 15-49
Philippines (181)	Ever married women aged 15-49
Uganda (182)	Women aged 15-49 with a pregnancy outcome
Zimbabwe (183)	Women 20-44 and their spouses/partners
	Women 18 years and older

Definitions of violence. A further complication in the comparison of violence prevalence is the use of inconsistent definitions of abuse. For example, some studies present only figures for violent acts occurring in the last 12 months, whereas others measure lifetime experiences of violence. In addition, not all studies separate different kinds of violence, so that it is not possible to distinguish between acts of physical, sexual and emotional violence or between violence committed by different perpetrators (184).

Enhancing disclosure. All studies on sensitive subjects, such as violence, face the challenge of how to get people to talk openly about intimate aspects of their lives. The degree to which this is achieved depends partly on methodological issues such as whether questions are clearly worded and easy to understand, and how many times women are asked about violence. Another major issue influencing disclosure is how comfortable women are made to feel during the interview. This may be affected by many factors including the sex of the interviewer, the length of the interview, whether others are present, and whether the interviewer appears to be genuinely interested in her story and willing to listen without making judgments.

Over-reporting, or the fabrication of acts of violence that have not actually occurred, is generally felt to be rare in violence research (184-187). Under reporting of violence, on the other hand, is widely considered to be a much more common threat to validity.

Researchers on violence, and particularly feminist researchers, have proposed a series of strategies to enhance disclosure. Two important strategies are giving several opportunities to disclose violence within the interview, and using behaviorally specific questions, rather than asking women more general and subjective questions, such as, "have you ever been abused?" By focusing on acts rather than subjective interpretations women are not forced to identify with stigmatized categories such as "battered woman" or "rape victim". Providing multiple opportunities to disclose allows women more time to think about their answers, to recall events that may have happened long ago or in different contexts, and to build up enough trust to talk about violence (185). Another key strategy lies in the selection and training of interviewers who are skilled in developing rapport with respondents (188).

Strategies to improve the quality of data on violence must take into account concerns for the safety of both respondents and interviewers throughout the research process (189-192). Disclosing violence may expose a respondent to the risk of retaliation by an abusive partner or family members. It may also be emotionally distressing for her to recall past events without adequate support. The World Health Organization recently published guidelines for addressing ethical and safety issues in violence research. The recommendations urge researchers only to undertake studies on violence if they are able to ensure minimal safety standards, such as ensuring complete privacy during the interview, providing information and referrals for respondents, and special training and support for interviewers. The WHO guidelines argue that not only are these considerations essential for ethical reasons, but also that they are critical to ensuring data quality, primarily because of their impact on women's disclosure (192).

As more international data on violence against women become available, two distinct research trends have emerged. Several national studies have produced prevalence estimates on violence. Most of these studies, with a few important exceptions, such as the Canadian and US National Surveys on Violence against Women (5, 179), have been primarily designed for other purposes.

For example, recent Demographic and Health Surveys and Reproductive Health Surveys have included a limited number of questions on violence in national surveys in Egypt (26), South Africa (193), Puerto Rico (194), Paraguay (195), Moldova (46), Philippines (181) and Colombia (180). These surveys typically use aggregate "gateway" questions, such as "have you ever been beaten by anyone since you were 15/were married? By whom?"

The other trend is represented by smaller, in-depth studies providing more detailed information on women's experiences of violence (12, 44, 80, 187, 196, 197). Although these studies cover a limited geographical region, they tend to place more emphasis on the interaction between interviewers and respondents, and to be more cognizant of safety issues.

There are many potential advantages to including violence questions in national surveys designed primarily for other purposes. In many cases, national statistical bureaus conduct the studies, thus the results are given the legitimacy of "official statistics." This can be very useful for the purposes of advocacy. Nationally representative data are useful for local program planning, and also permit in-depth analysis of variation between regions. Finally, the large data sets generated by these studies, including many other reproductive and child health outcomes, can be used to deepen understanding of risk factors and health consequences of violence.

However, there are also potential drawbacks to this strategy. In general, prevalence estimates have been higher in the smaller, more focused studies than in the national surveys designed primarily for other purposes. One explanation for this may be that the focused studies are able to produce more accurate prevalence estimates due to the use of methods for enhancing disclosure. Therefore, one tradeoff of using multi-faceted surveys for producing prevalence estimates on violence is the risk of significant under-reporting. Under reporting of violence will dilute associations between potential risk factors and health outcomes, leading to falsely negative results. Underestimating the dimensions of violence may also result in violence intervention programs not receiving the priority they deserve in the allocation of resources. Finally, if safety concerns are not systematically addressed, women may be placed at risk of retaliation or other harm as a result of their participation in the study.

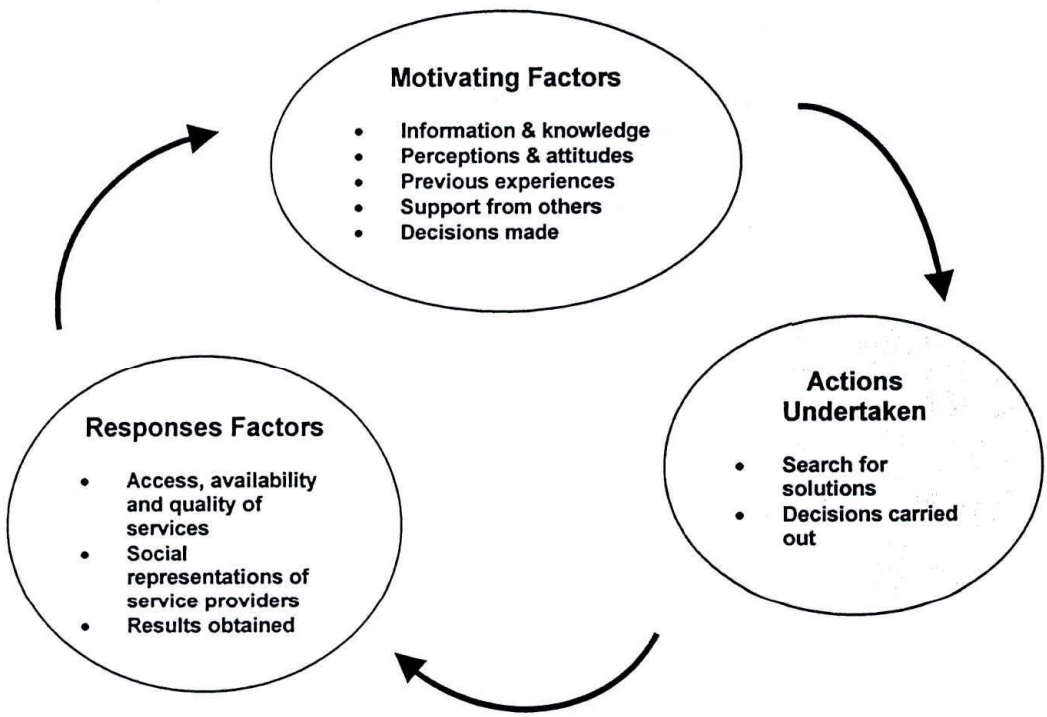
Box 2

"La Ruta Critica:"
An Evaluation of Institutional Responses to Domestic Violence
Pan American Health Organization

In 1995, PAHO began the implementation of a community diagnostic study to document what happens when a woman affected by family violence decides to break the silence and seek assistance in ending the abuse. The study was undertaken in ten Latin American countries[1]. The Spanish term coined for this process is *La Ruta Crítica*, which refers to "the sequence of decisions made and actions taken by a woman in order to confront the violent situation she faces (or has faced) and the responses she encounters in her search for help." It is an iterative process, where internal and external motivating factors influence the actions undertaken by women affected by violence. These actions provoke responses from various social actors, including service providers and community members; these responses, whether positive or negative, intended or unanticipated, in turn affect the motivating factors for women.

In effect the study asks, "What happens when a woman decides to seek help? Who does she go to? What factors motivate her to or inhibit her from action? What kinds of attitudes and responses does she encounter from institutional actors? Do service provider attitudes and responses reflect prevailing community norms?"

Figure 1: "Ruta Crítica" Conceptual Framework



[1] Participating countries include Belize, Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Peru.

Qualitative methods were chosen to provide in-depth understanding of women's motivations and service providers' perceptions and attitudes; four sources were chosen to allow triangulation of information and maximize credibility and trustworthiness of the findings

All together, researchers conducted over 500 in-depth interviews with battered women, interviewed over 1000 service providers and completed approximately 50 focus group sessions.

Results show that there are many factors, internal and external, that impact on a woman's decision to take action to stop the violence. This is often a long process. In some cases it takes many years and several attempts at seeking help from several sources. Rarely is there a single event that precipitates action. Findings suggest that many battered women are resourceful in seeking help and finding ways of mitigating the violence. There are formidable obstacles to ending domestic abuse in the home, and some of these are summarized below.

What factors drive battered women to search for help?

Battered women identified several factors that act as catalysts for action. An increase in the severity or frequency of the violence may trigger a recognition that the abuser is not going to change. An event may make it clear to her that she cannot modify the situation with her own internal resources. A primary motivating factor is the realization that her own life, or those of her children, are in danger.

> *"He mistreated the children badly. He only knew how to shout orders. There was a period when he would beat them. The children, particularly my oldest son, had become very disobedient, rebellious and had lost all motivation to study. He didn't go to school..."*
>
> *"I finally decided to leave when he burned all my clothes and also burned me."*
>
> *"The moment cam when I said to myself that I had to find someone to help me because it was not possible to keep going on in this way. I had become hysterical, problematic, unhappy, mainly because I could see my beaten face every week in the mirror."*

What factors inhibit the process of seeking help?

As with the precipitating factors, the factors that inhibit help-seeking are multiple and intertwined.

> *"One learns to live with the person even though he is an abuser. I don't know, for me he was my companion because I felt alone, without the support of a family. He was my family..."*
>
> *"I used to excuse him for that and I believed that though the love I had for him he was going to get better, and that this was not going to keep on.*

However, economic factors appear to weigh more heavily than do emotional considerations:

> *"The children were very young and I didn't think I could support them on my own. And I didn't want to burden my mother."*

These barriers are reinforced by battered women's feelings of guilt, self-blame, or abnormality.

> *"I tried to reflect on my own actions. What did I do to provoke him? I considered my personality..."*

> *"My mother would tell me that I was crazy and that is why I was seeing a psychologist and my brothers and sisters said the same thing."*

> *"There came a moment in which I really thought 'Am I crazy?' Then I sought help to make sure that what was happening to me was true."*

But across the board the greatest inhibiting factor was fear.

> *"He'd threaten me...He'd say 'If you tell anyone, I'll kill you.'"*

> *"Because one of the things one has to put up with in this type of relationship is that he will threaten that if you tell, what will happen is worse than you could ever imagine. So that is why I never told anybody."*

> *"He would tell me that he was going to burn the house and he'd grab knives...Just a short while ago he told me that he was going to poison my food when I wasn't looking."*

> *"He took out a knife that he carried around and he told me. 'If you don't come back home I will kill you because you are going to be mine or nobody else's. I became very frightened and tried to calm him and I told him that of course I'd come back and we will still be together."*

> *"In front of me he killed my little cat that I loved, and he told me that if I betrayed him that is what he would do to me."*

Women who initiated the "Ruta Crítica" rarely began with formal health or police services. They initially relied instead on support from other women in the community, including female family members, neighbors, and health promoters.

> *"I finally told a friend that I trusted. I went to tell her because she is an older lady and she told me that he was wrong, that he was a sadist. She told me that I should get out of the house."*

"...Almost every time he abused me I would go to my friend's house and she would give me a place to sleep. I would even sleep on the floor, because she was poor. She was the one who finally said, 'This is too much. I am going to help you find help because that man is abusing you too much!"

Many women brought up the rampant corruption and gender-based stereotypes that exist within the judicial and police systems.

"They made fun of me. [The police] would laugh in my face and [my husband] would say, 'Go ahead, accuse me. They are all my friends, the judge is my friend, the police are my friends...and see? What have you got by making all this fuss? Nothing. I am still here. What have you gained? Nothing.' Everything is a joke."

Box 3

Examples of Innovative Prevention Programs

In 1996, the **Parenting for Peace and Justice Network** and 18 other U.S.-based NGOs launched the "Family Pledge of Nonviolence," a long-term campaign to offer families and communities alternatives to violence. Members are asked to sign a pledge that says in part: "Making peace must start within ourselves and in our family. Each of us, members of the _____ family, commit ourselves as best we can to become non-violent and peaceable people. (Magazine of the Women International League for Peace and Freedom, May/June 1998, p. 19)

Education Wife Assault in **Toronto, Ontario** works with immigrant and refugee women to help them develop culturally appropriate violence prevention campaigns for their community. EWA holds "Skill Shops" that give women leaders the background and skills they need to develop their own culturally specific programs against domestic violence. The immigrant women then carry out the campaigns with the technical support of EWA. EWA staff also lends emotional support to women organizers to help them overcome the isolation and "backlash" often directed at women working against domestic violence who are frequently perceived as threatening to community and cultural cohesiveness (Center for Women's Global Leadership, 1992).

In **South Africa** the **Planned Parenthood Association of South Africa** (PPASA), an affiliate of the International Planned Parenthood Federation (IPPF), together with AVSC International, developed the Men as Partners Program to address gender violence. The program integrates participatory exercises on gender, **sexual** power, and intimate relationships into PPSA's "life skills" workshops. The program began after a survey of 2,000 South African men found that 58% believed that the concept of rape did not apply to a husband forcing his wife to have sex against her will, 48% thought the way a woman dressed caused her to be raped, and 22% approved of a man hitting his partner compared with 5% who approved of a woman hitting her partner) [AVSC International, 1999 #2049].

In **Mexico**, the **Instituto Mexicano de Investigación de Familia y Población A.C. (IMIFAP) ,** a nongovernmental organization, has developed an experiential workshop for adolescents to help prevent violence in dating and friendship relationships. The workshop, entitled, "Rostros y Mascaras de la Violencia (Faces and Masks of Violence)," uses participatory techniques to help youth explore expectations and feelings about love, sex, and romance, to distinguish between romantic and controlling behaviors, and to understand how traditional gender roles inhibit both male and female behavior [Fawcett, 1999 #2092].

In **Brooklyn, New York**, the Anti-Violence Education Project uses self defense training as an entre to discuss violence prevention with children in the public schools. The project holds weekly sessions to teach children self defense and non-violent ways to resolve conflict. It draws analogies between relationship strategies and the philosophy of karate (The project teaches that the marshal arts do not condone violence; rather, the true master is the one who can use the least force to achieve his/her ends). It also teaches children to look critically at how the media misrepresents the marshal arts through its depiction of pseudo-heros such as Bruce Lee (Ellman, 1993).

In **Trinidad and Tobago**, the NGO **SERVOL** (Service Volunteered for All), conducts 14 week adolescent development workshops aimed at helping youth develop healthy relationships and parenting skills. The first half of the program is devoted to helping adolescents understand how they became who they are through the way they were parented and the second half helps them discover how not to repeat the mistakes while forming their own families. In effect, this course is on "emotional intelligence," learning to distinguish emotions and how to handle them. The students learn about the psychic impact of trauma and how it can set up destructive behaviors later in life.

Box 4

How Women Experience Violence: Women's Voices from North and South

Expressions of violence against women may vary from one country to the next, and there are specific culture bound expressions that are unique to certain regions, such as bride burning or acid throwing in South Asia. However, the words which women use to describe the feelings of shame, fear and powerlessness that they experience are strikingly similar and indicate that to a large degree these feelings transcend cultural boundaries.

"He used to tell me, "you're an animal, an idiot, you are worthless." That made me feel even more stupid. I couldn't raise my head. I think I still have scars from this, and I have always been insecure...I accepted it, because after a point he had destroyed me by blows and psychologically." **young woman from Nicaragua**

"Always at night I remember. When I turn over my back hurts, my arms hurt, and then I say to myself, "How could I have thought that my husband would be my companion, my support, my protection. He has been my executioner. During the eleven years I have lived with him, I have not had a single happy day." **young woman from Cuzco, Peru**

"I told my sisters-in-law that my husband had forced me into sex, but they told me that this is part of life." **22-year-old woman from Zimbabwe**

"I was afraid people were going to treat me bad for staying there as long as I did. I took it personal; I thought I deserved it for letting this go on." **Middle-aged housewife, United States**

"Sometimes, he would want to do it, even though I didn't feel like it. I would tell him sometimes that I did not want it, and that he came near to me only to have sex. Then he would get very angry and beat me and say that I did not like him because I was having an affair."
42 year old married woman from Bombay, India

"I went to get pills from the health center, without [my husband's] knowledge. He knew nothing, but found where I had hidden the pills, and burnt them. He said that I was taking them because I had a lover. But I was doing it to prevent hardship. I could not continue taking the pills because he beat me. He beat me more because he said I had a lover."
Woman from peri-urban center of Guatemala City

"My husband is a great drunkard and whenever he is drunk, I used to say no to him when he asked me for sex but her used to beat me up and forced me to have sex with him. Whether I like it or not, I have to bow down to him and have sex." ***34-year-old woman from Papua New Guinea***

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Chapter 5

Elder Abuse

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Table of Contents

Introduction

Abuse of older persons by family members has been a consistent theme in world literature since ancient times but remained a private matter, hidden from public scrutiny, until the advent of the battered child and women's movements in the last part of the 20th century. Initially framed as a social welfare and then ageing issue, elder abuse, like other forms of family violence, has become a public health and criminal justice concern and thus open to the conceptual and methodological perspectives, instruments, and modalities of intervention employed in those domains. The focus of the chapter is on abuse of elders by family members or persons known to them either in their homes or institutional/residential settings. It does not deal with the broader concept of violence that includes crime by strangers, street crime, gang warfare, or military conflict.

Mistreatment of older persons, which has come to be known as "elder abuse," was first described in British scientific journals in 1975 as "granny battering." (*1,2*). However, it was the US Congress that first seized upon the problem as a socio-political issue, joined later by researchers and practitioners. By the 1980s reports of scientific investigations and/or governmental activities were coming from the US, Canada, Norway, Sweden, Hong Kong, and Australia and in the 1990s from the UK, other European countries, Israel, India, South Africa, Latin America and Japan. Although elder abuse was first identified in the developed countries, which have produced the extant research on the topic, reports and anecdotal evidence from some developing countries reveal its occurrence in the South. The emergence of the problem reflects a growing world wide concern about human rights, gender equality, domestic violence, and population ageing.

Numbers and Trends in Ageing

Concern about the mistreatment of older persons is particularly disturbing given the expected population explosion in the older age categories in both developed and the developing nations. Presentation of data on numbers and trends in ageing is complicated by the fact that ageing is defined differently in these nations. In western society, old age has become associated with chronological time; generally, set at the age of retirement, 60 or 65 years of age. However, among the developing nations, the socially constructed concept based on school age, work age, or retirement age has little significance. A more meaningful interpretation is related to the roles that are assigned to persons during their lifetime. Thus old age is viewed as that time of life when persons, because of physical decline, can no longer carry out their role in the family or the field. As the definition of "elder abuse" has evolved, the chronological standard has been adopted by both developing and developed countries. Elders in this context are persons 60 or 65 years, although in practice some consideration is given to including younger persons 50 or 55 years who may have shortened life expectancy, such as the developmentally disabled. Studies may not use a numerical age but ask older persons their experience with abuse since the "age of retirement."

It is expected that by the year 2025, the global population of persons 60 years and older will double, from 590 million to 1.2 billion. Throughout the world, 1 million people turn 60 every month, 80 percent of whom are in the developing world. In 2050, the percentage of people over

60 will exceed those under 15, and the gap will continue to widen for the next 100 years. Although the proportion of elders to the total population will remain higher in the developed nations, the percentage of increase of the elderly population will be greater in the developing countries. Aged populations in countries such as Germany, France, or Sweden are undergoing 30 to 60 percent increases, while developing countries such as Thailand, Kenya, and Columbia are expected to experience a more than 300 percent and Indonesia, a more than 400 percent increase in their older population through 2025 *(3)*. The number of older people in the developing countries will more than double, reaching 12 percent of their total population. For example, because of lower fertility and mortality rates in Latin American and the Caribbean, the proportion of older persons is expected to reach 10 percent of the population. By 2020, Cuba, Argentina, Thailand and Sri Lanka will have a higher proportion of persons over 65 years than the United States *(4)*. The over 65 population of China will grow from 63 million in 1990 to 400 million in 2050. Ghana's 60 years and older cohort will increase from 1.0 to 2.2 million; South Africa, from 2.7 to 6.3 million, and Tanzania from 1.6 to 3.1 million in the next 25 years.

Women are the majority of the older population in all nations although it is reported that more men are represented in most older groups in India, Bangladesh and Egypt *(4)*. Due to improved medical science and preventive medicine, life expectancy of women will continue to exceed that of men. Today 58% of older women live in the developing world; by 2025, this percentage will increase to 75%. However, the gender gap is much smaller in developing countries, due primarily to higher rates of maternal mortality and lately to the HIV/AIDS epidemic.

This demographic revolution is taking place in developing countries alongside increases in mobility, emigration, economic recession, and changing family characteristics. The process of industrialisation has eroded long-standing patterns of interdependence between the generations producing material and emotional hardships for elders *(5)*. Family and community networks in many developing countries that formally provided support to their older generation have been undermined by social and economic changes. The AIDS pandemic is changing the situation of older persons both quantitatively and qualitatively. About one in three adults in Botswana are already infected which means that two-thirds of today's 15 year olds will die of AIDS. In South Africa where about 20% of the population is infected with HIV, researchers forecast that the gross national product will be reduced 17% by 2010 *(6)*. Children are being orphaned at an alarming rate as parents die from the disease. Older persons who anticipated support from their children in old age find themselves to be the primary caregivers today and without family to help them in the future.

Only 30 percent of the world's aged are covered by pension schemes. In the conversion from a planned to a market economy, many elders in Eastern Europe and the states of the former Soviet Union have been left without retirement income and health and welfare services that were part of the previous communistic regimes.. Structural inequalities in both the developed and developing countries, which have resulted in low wages, high unemployment, poor health services, gender discrimination, and lack of educational opportunities, have contributed to the vulnerability and impoverishment of older persons. For elders in the developing world, the risk of communicable diseases still exists. At the same time, as life expectancy increases, they will be subject to the long-term, incurable, and often disabling diseases associated with old age. Environmental hazards and social violence present further threats to well-being. Nevertheless, medical and

social welfare advances promise that for many elders, disability-free old age will increase in length, diseases will be prevented or ameliorated with good health promotion and prevention strategies, and the large number of older people will constitute a huge reservoir of experience, wisdom, and common sense. Recognition of the potential challenges (poverty, industrialisation, family migration, etc.) may not prevent elder abuse but with the involvement of young and old in model strategies, changes may come about in the conditions that have allowed it to develop unchecked.

This chapter begins with the definition of elder abuse, examples from both a developed and developing country, and then gives information on the prevalence, risk factors, and consequences of elder abuse in domestic and institutional settings. Examples of national responses to the problem and intervention strategies follow. A list of recommendations completes the chapter.

Definition of Elder Abuse

Developed Countries

Elder abuse is a multidimensional construct. It can be used as an all-inclusive term representing all types of abusive behaviour against the elderly or it can refer to a specific physical act. Most experts agree that elder abuse can be an act of commission (abuse) or omission (neglect), intentional or unintentional, and of one of more types: physical, psychological (emotional, verbal aggression), and financial abuse and neglect that results in unnecessary suffering, injury, pain, loss and/or violation of human rights and decreased quality of life (*7*). Whether the behaviour is labelled as abusive, neglectful, or exploitative may depend on how frequently the mistreatment occurs, the duration, intensity, severity, consequences, and, most significantly, the cultural context. For example, among the Navajo people what appeared to the outsider (researcher) as economic exploitation by family members was in part defined by the elders as their cultural privilege and duty to share with their families *(8)*. Other Indian tribes interpreted elder abuse not as a problem of the individual but of the community *(9)*.

A definition developed by the UK's Action on Elder Abuse (*10)* and adopted by the International Network for the Prevention of Elder Abuse (*11*) states that: "Elder abuse is a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person." It is usually categorised in the following way.

- **Physical Abuse**: the infliction of pain or injury, physical coercion, physical/chemical restraint
- **Psychological/Emotional Abuse**: the infliction of mental anguish
- **Financial/Material Abuse**: the illegal or improper exploitation and/or use of funds or resources
- **Sexual Abuse**: non-consensual contact of any kind with an older person
- **Neglect**: the refusal or failure to fulfil a caretaking obligation including/excluding a conscious and intentional attempt to inflict physical or emotional distress on the older persons

Case of mistreatment often include more than one type.

Even though the definition of elder abuse has been heavily influenced by the work done in North America and Great Britain, reports coming from Finland, Greece, Hong Kong, Israel, India, Ireland, Poland, and South Africa showed some distinctive differences (*12*). Using a phenomenological approach, Norway researchers identified abuse with the 'triangle of violence' that includes a victim, perpetrator, and others, who, directly or indirectly, observe the actors. For those countries (Hong Kong/China) with an emphasis on harmony and respect, circumventing or ignoring the care or treatment of an elder is called an act of elder abuse. The failure of family members to fulfil kinship obligations in providing food or housing could also constitute neglect.

For the practitioner, cases of elder abuse present a myriad of problems. The ageing process and diseases of old age compound the impact of physical and psychological violence on the health status of the elder victims. Cognitive and functional deficits diminish the elders' ability to leave a dangerous relationship or to make good decisions. Cultural values regarding kinship obligations and use of the extended family network to resolve difficulties rather than outsiders may also weaken the ability of elders, particularly women, to leave abusive situations. Often, the abuser may be the victim's only source of companionship. Isolation and frailty of the victims may induce unscrupulous family members and acquaintances to acquire, through deception and undue influence, their financial and material property, leaving them homeless and penniless. With regard to intervention, the most difficult question in cases of elder abuse is how to balance the elder's right to self-determination and the clinician's belief that something should be done.

Developing Countries

In many nations, older people were to be respected and provided comfort and leisure in old age *(13)*. This reverence for the aged was reinforced through the major philosophical traditions and public policy. In Chinese society it was imbedded in a value system that stressed "filial piety." Mistreatment of older persons was unrecognised and certainly unreported. A study of Korean-Americans attitudes toward elder abuse revealed their belief in primacy of family harmony over individual well being in determining whether behaviour was perceived as abusive or not *(14)*. Similarly, Japanese-Americans considered the "group" to be important and paramount with the individual's well-being sacrificed for the group *(15)*.

Displacement of elders as heads of the household and deprivation of their autonomy in the name of love are cultural norms even in countries where the family is the central institution and the sense of filial obligation is strong *(16)*. Nevertheless, this "overprotection" leaves the older person feeling isolated and demoralised. Such infantalisation may be considered a form of abuse. In some traditional societies, older widows are subject to abandonment and "property grabbing." Mourning rites of passage for widows in most of Africa and India include cruel practices, sexual violence, forced leviterate marriages, and evacuation from their homes *(17)*. Accusations of witchcraft are directed at isolated, older women, often connected with unexplained events in the local community, such as a death or crop failure (*5,18*). In sub-Sahara Africa, the practice of witchcraft has driven many older women from their homes and communities to live in poverty in the urban areas. In Tanzania an estimated 500 women are murdered every year after being

accused of witchcraft *(19)*. These acts of violence are customs that have been firmly entrenched in the social structure and may not be readily identifiable as "elder abuse." (BOX-Witchcraft).

An early workshop (1992) in South Africa differentiated between mistreatment (verbal abuse, passive and active neglect, financial exploitation and over medication) and abuse(physical, psychological and sexual; and theft) *(12)*. More recently, focus groups were held with older persons recruited in three historically "black" townships in South Africa to determine the level of knowledge and understanding of elder abuse. In addition to the typical western schema of physical, verbal, financial, sexual and neglect, the participants included (1) loss of respect for elders, which was paired with neglect, (2) accusations of witchcraft and consequences of being a witch, and (3) systemic abuse. They produced the following definitions *(20)*:

- **Physical Abuse**: beatings, pushing, shoving
- **Emotional/Verbal**: age discrimination, hurtful words, insults, denigration, intimidation, false accusations, psychological pain, and distress
- **Financial Abuse:** extortion and control of pension money, exploitation to render care services to grandchildren, theft of property
- **Sexual Abuse:** incest rape, criminal rape, other types of deviant sexual behaviour
- **Neglect:** loss of respect for elders, withholding affection, a lack of interest in the elder's well-being
- **Accusations of witchcraft:** brandishment, stigmatisation, ostracism, physical danger
- **Systemic Abuse:** the dehumanising treatment given older persons at health clinics, and pension offices, marginalisation by the government

These lay definitions (classified by the researchers) were the result of an initial effort in South Africa to elicit information directly from older persons about elder abuse and represent a first attempt at classification of elder abuse in a developing country. They build on the Western schema but include aspects that are relevant to the indigenous population.

Scope of the Problem

Elder Abuse in Domestic Settings

With most developing nations just becoming aware of the problem, information on the rate of elder abuse has relied on five community surveys conducted in the past decade in five developed countries *(21-26)*. The results show a 4% to 6% rate if physical, psychological abuse (verbal aggression), and financial abuse and neglect are included (Table 1). A difficulty in making comparisons is the variation in the time frame among the studies. The Boston, Canada, and Amsterdam survey findings refer to the "preceding year." The Finnish town study results were based on abuse since the "age of retirement," and the British survey, "in the past few years." The Boston, Canada, and Amsterdam research found no difference in prevalence rates by age or gender; the Finnish authors report a higher proportion of female victims (7.0%) compared to men (2.5%). (No breakdown by age or gender given in the British survey). Because of the differences in the methodology used by the 5 surveys and relatively small numbers of victims, further comparative analysis is not warranted.

Since the estimates of all five surveys were based on self-reports and, except for the Boston project, excluded individuals who could not respond to a survey question, the percentages are considered to be an underestimation of the problem. However, the percentages are still lower than those that have been associated with child abuse and domestic violence. The US National Family Violence Surveys (1985) found a rate of 161 per 1,000 women had been subject to a violent act by an intimate partner during the preceding year and 34 per 1000 for "severe violence." Using the same criteria, the rate for child abuse was 110 incidents per 1000 children and 6.9 if "hitting with an object" was omitted from the list of physically abusive acts *(20)*. Studies of violence against women in a group of developed and developing countries showed percentages ranging from 16% of women in 62 Belgium municipalities who experienced "serious to moderately serious violence" to 60% of women in Santiago, Chile who experienced "abuse by male intimate"*(27)*. National random sample surveys conducted in low income countries also uncovered high proportions: 39% of peninsular Malaysian women reported being physically beaten by a partner; 20% of Columbian women were physically abused; 33%, psychologically abused; and 10%, raped by husbands .

A newly released Canadian survey of family violence found 7% of people (aged 15 years and older) who were married or living in a common-law relationship were the victims of some type of violence by a partner during the previous 5 years. The 5-years rate of violence (threatened, threw something, pushed, slapped, kicked, etc.) was similar for women (8%) and men(7%). However, women tended to report more severe violence and more negative emotional consequences than men. They were more likely to be injured and to report repeated victimizations to the authorities. The survey reported 7% of older adults experiencing some form of emotional abuse, 1%, financial abuse, and 1% physical abuse or sexual assault in the previous 5 years by children, caregivers (paid and unpaid), and partners. Men (9%) were more likely than women (6 %) to report being victims of emotional or financial abuse. Because of differences in the survey questions and time frame, these findings cannot be compared to the earlier Canadian study which found a much smaller proportion of emotional abuse (1.4%) and a larger proportion of financial abuse (2.5%) *(28.*.

Elder Abuse in Institutional Settings

In developed countries where the proportion of elders in institutions had reached a high of 9% (*29*), a shift in emphasis has occurred in recent years towards care by the community and use of less restrictive residential settings. Current rates for nursing home utilisation are in the range of 4-7 % They include Canada (6.8%), the United States (4%) as well as countries like Israel (4.4%) and South Africa (4.5%). Older people, in most African countries, can be found in long-stay hospital wards, homes for the destitute and disabled and in sub-Saharan countries, in witches camps. Social, economic, and cultural changes that are taking place in some of the developing societies will leave families less able to care for their frail relatives and thus portend an increasing demand for institutional care (*5*). The demand for institutional care for older persons is becoming the normal expectation of the general public in China. In fact, institutional care has rapidly bypassed family care in Taiwan *(13)*.

Utilisation figures for the Latin American countries range from 1-4%. Institutional care is no longer viewed as an unacceptable place for an old person but considered as an alternative for

families. The government sponsored 'asilos' in Latin America, large institutions resembling the early English workhouses, have been converted to smaller facilities with professional staff representing many disciplines. Other homes are operated by religious communities of immigrant origin. Utilisation figures are not available in the countries of the former eastern bloc in Europe, because the authorities did not allow publication of scientific studies about institutions.

Despite the fact that a vast literature exists on quality of care issues in institutional settings, and abuses have been well-documented in reports of governmental inquiries, ethnographic studies, and personal histories, no prevalence or incidence data are available for any country. A survey of nursing home personnel in one US state disclosed that 36% of the nursing and aide staff reported having seen at least one incident of physical abuse in the preceding year by other staff members, and 10% admitted having committed at least one act of physical abuse themselves. At least one incident of psychological abuse against a resident had been observed by 81% of the sample in the preceding year, and 40% admitted to having also committed such an act *(30)*.. The findings suggest that mistreatment of older residents may be even more extensive than generally believed.

The rates of elder abuse in the community and the extent in institutional settings are also greater than the general statistics on violent acts collected by countries would indicate. Some of the disparity is due to the fact that elder abuse has gone unrecognised until the last few decades. Some deaths of older persons both in institutional settings and the community have been attributed to natural, accidental, or undetermined circumstances when in fact they were the consequences of abusive or neglectful behaviour.

Although the relative numbers of older persons who are victims of different forms of violence may be less or more than younger populations, the repercussions can be very serious. Compared to younger adults, older people are physically weaker and more vulnerable, their bones more brittle, and their convalescence slower. Even a relatively minor injury can cause serious, permanent damage. Many have limited incomes so that the loss of only a small amount of money may have a significant impact. If isolated, lonely, or troubled by illness, they become likely targets for fraudulent schemes. To the degree that concern about personal safety limits choices, reduces independence, and diminishes autonomy, the quality of life is threatened.

Elder Abuse in Domestic Settings

Risk Factors

Most of the early work on elder abuse was limited to domestic settings and carried out in the developed countries. In searching for explanations for elder abuse, researchers drew from the psychological, sociological, gerontological and family violence literature. As a way of accommodating the complexity and multiplicity of factors associated with elder abuse, researchers are turning to the ecological model, first applied to child abuse (*31,32*) and more recently to intimate partner violence (*33-35*). The ecological model is selected because it can account for interactions that take place across multiple systems, initially conceived as a nested arrangement of four levels of the environment. Mistreatment of elders in this conceptualization is viewed as the interplay of individual, interpersonal, social contextual, and societal factors.

Individual Determinants. Early on, researchers renounced individual personality disturbances as causal agents of family violence in favour of socio-psychological and socio-cultural factors (*36*). However, more recent research in family violence has shown that abusers who are the most physically aggressive are more likely to have personality disorders and alcohol problems than the general population (*37*). Likewise, elder abuse studies have found that perpetrators are more apt to have mental health and substance abuse problems than family members or caregivers who are not abusive. (*38-40*).

Cognitive and physical impairments of the abused elder were also strongly identified in the initial studies as risk factors. However, later work with abuse and non-abuse cases from a social service agency revealed that these elders were not more debilitated than non-abused elders and might even be less so, particularly in cases of physical and verbal abuse *(41)*. Similarly, a comparison of abuse and non-abuse cases from samples of Alzheimer patients showed degree of impairment was not a factor *(42,43)* in abuse by the caregiver. Among cases reported to authorities, however, a greater proportion are the very old and the most impaired .

Historically, culturally sanctioned beliefs about the rights and privileges of husbands have led to the domination of men over women throughout the world. Feminist theorists contend that power and gender are key elements leading to intimate partner violence but the relationships may be more complex than these factors can explain. Gender has also been proposed as a defining issue in elder abuse because older women especially have been subject to oppression and economic disadvantage all of their lives *(44)*.. Unlike intimate violence involving younger people, in which the victim is almost always the women, older men are also at risk of abuse by their spouses, adult children, and other relatives in about equal proportions to women as evidence by the community based prevalence studies *(21,22)*. It has been noted that the "actions and writings of most older women give little indication that they wish to emphasise the issue of gender... they may not wish to promote the understanding of women's oppression through elder abuse at the expense of abused older men.... It also may reflect the internalisation of societal sexism and their belief that they are of less value than men and may need men's power to succeed" *(45,* p.71).

Interpersonal Context. Derived from early theoretical models, caregiver stress as a risk factor became the centre of the framework used to link elder abuse with the caring of an elderly relative. *(46,47)*. Although the popular image of abuse depicted a dependent victim and stressed caregiver, evidence has accumulated that neither of these factors differentiate between abuse and non-abuse cases . While not denying the stressful component, researchers have tended to incorporate it into a wider context examining the quality of relationships as a causal factor *(39,43,48)*. Some of the studies on caregiver stress, Alzheimer's disease, and elder abuse suggest that the nature of the pre-morbid caregiver-carer relationship may be the important predictive factor *(43,49,50)*. Today, the conclusion is that stress may be a contributing factor in cases of abuse but does not explain the phenomenon.

It is important to add that work with dementia patients has shown that violent acts perpetrated by a care recipient can act as "triggers" for reciprocal violence by the carer *(51)*. It may be that the violence is a result of the interplay of several factors "..stress, the relationship between the carer and the care recipient, the existence of disruptive behaviour and aggression by the care recipient, and the depression in the caregiver "*(52)*.

Living arrangements, particularly overcrowded living conditions and lack of privacy have been associated with intrafamily conflict. Although abuse can occur when the abuser and victim live apart, the older person is more at risk when living with others. Dependency is another risk factor associated with the early theories. First interpreted as the dependency of the victim on the caregiver or abuser, later work on cases of physical abuse identified abusers who were dependent on the victims, usually adult children dependent on elderly parents for housing and financial assistance *(41)*. In some of these cases a "web of interdependency" was evident, a strong emotional attachment between abused and abuser that often hindered intervention efforts.

Social Context/Institutional Influences. In almost all risk factor analyses, social isolation emerges as a significant variable in elder mistreatment *(22,38,54,55)*. Similar to the work done with battered women, isolation can be both a cause and consequence of abuse. In the case of older persons, many are isolated because of physical and/or mental infirmities. Further, the loss of friends and family members reduces the opportunities for social interaction.

Although income of the elder was not a significant factor in the prevalence study carried out in the USA, financial difficulties of the abuser did surface as an important risk factor. Sometimes, it was in connection with a substance abuse problem in which the adult child extorted money from the elder, usually a pension check or it could be resentment on the part of family members having to spend money on the care of the older parent.

While the emphasis in the developed world has been on individual or interpersonal attributes as potential causal factors, cultural norms and traditions such as ageism, sexism, and violence, are recognised as the context in which elders are viewed. The depiction of older persons as frail, weak, and dependent has made them appear to be less worthy of governmental investment than other groups and even of family care and ready targets for exploitation. The unequal status of women may prevent some older women from seeking help. As noted earlier with respect to witchcraft, some cultures condone violence.

Societal Factors. Societal factors are given great weight as risk factors for elder abuse in the developing countries although there is no empirical evidence to date. With respect to Africa, they include the patrilineal and matrilineal inheritance systems and land rights that affect the political economy of relationships and the distribution of power inherent in them; the social construction of gender that place older women at risk; rural-urban migration and formal education that reduce the interdependency of generations within the family unit; and the loss of the traditional domestic, ritual, and arbitration roles of elders within the family through modernization *(17)*.. According to the members in the South African focus group study, much of the abuse occurred in the context of social disorganization, specifically domestic violence, exacerbated by crime, alcohol, and drugs (20). Similar conclusions were found in an exercise conducted by 7 male community leaders of the Tamaho squatter camp in Katlehong, South Africa. To show the linkage between poverty and violence, they described how dysfunctional family life, lack of money for essentials needs, and lack of education and job opportunities for youth have contributed to a life of crime, drug peddling, and prostitution by young people. Elders are viewed as targets for abuse and exploitation; their vulnerability a result of poverty marked by a lack of pension support, job opportunities, poor dietary and hygiene practices, disease, and malnutrition *(17)*.

The period of political transformation affecting the eastern European post-communist nations have also been suggested as producing conditions that have increased the risk of elder abuse. The pauperization of significant parts of society, the lack of stability and social security, the release of aggressive behaviour especially among young people, and unemployment are factors that have effected the psycho-social and health status of ordinary people and, in particular, elderly people, increasing their vulnerability to mistreatment *(56)*. In Chinese societies a multitude of factors have been suggested for mistreatment of older people including a lack of respect by the younger generation, a state of tension between traditional and new family structures, a restructuring of the basic support networks for the elderly, and migration of young couples to new towns leaving elderly people in deteriorating residential areas in the town centres *(57)*.

The integrative model that encompasses individual, interpersonal, contextual, and societal perspectives overcomes some of the bias evident in the elder abuse field at the present time which has focused on interpersonal and family issues. It recognises the difficulties that older persons face, especially older women, who live in poverty, without the basic necessities of life and without family support and that this deprivation may increase their risk of abuse, neglect, and exploitation. The ecological framework offers an approach that may better capture the common elements of all forms of family violence issues and help lead to common solutions.

Consequences of Mistreatment

Very few empirical studies have been conducted to determine the consequences of mistreatment even though clinical and case study reports about the severe emotional distress experienced by older persons as a result of mistreatment are plentiful. Some evidence, from developed countries, is available to show that there is a higher proportion of persons with depression or psychological distress in an abuse sample than a non-abuse sample. (*40,58,59*). Since these studies were cross-sectional in design, there is no way of knowing whether the condition was an

antecedent or consequence of the mistreatment. Other suggested symptomatology associated with these cases include feelings of learned helplessness, alienation, guilt, shame, fear, anxiety, denial, and post traumatic stress syndrome. (*60,61*). Emotional effects were also cited by the South African focus group participants along with health problems and in the words of one member, "illness of the heart" *(20)*.

In a seminal study, data from an annual comprehensive health and welfare study of a representative sample (n = 2,812) of elders in one US city was merged with the data base of the local adult abuse agency for each year over a 9-year period (*56*). Information for the health survey was recorded by nurses who saw the elders at the hospital for the first year's data collection and every third year thereafter. In between years, the data were updated by telephone. Information about abuse and neglect was obtained by case workers using existing protocols after investigating the claim, usually involving a home visit. The merged database allowed the researchers to identify who in the sample of 2,812 had been reported during the 9 years as a substantiated case of physical abuse or neglect. The mortality rates were then calculated for the non-abused, the physically abused, and neglected individuals beginning with the first year of the survey and extending for 12 years thereafter. When the mortality rates were compared, by the 13th year following the initiation of the study, 40% of the non-reported (non-abused, non-neglected) group compared to 9% of the physically abused or neglected elders were still alive. After controlling for all possible factors that might affect mortality (e.g., age, gender, income, functional status, cognitive status, diagnosis, social supports, etc.) and finding no significant relationships, the researchers speculate that mistreatment causes extreme interpersonal stress that may confer an additional death risk.

Elder Abuse in Institutional Settings

Elder mistreatment has been identified in continuing care facilities (nursing home, residential care, hospitals, day care facilities, etc.) in almost all countries in which they are located. Abuse may occur at a number of different levels, for example, an older person may be abused or neglected by a paid member of thestaff, another resident, a voluntary visitor or relatives and friends. An abusive or neglectful relationship between the older person and their carer may not necessarily cease on admission to institutional care; sometimes, the abuse may continue although the setting has changed.

There is, equally, a distinction to be made between individual acts of abuse or neglect inflicted upon individuals and instititutionalised abuse, in which the regime of the institution itself maybe abusive . However, in reality, within an abusive or neglectful institution it is often difficult to define whether the reasons for abuse are caused by individual acts or omissions or are due to intrinsic managerial failings; both are often found in the same institution.

The spectrum of abuse and neglect within various types of facilities spans a remarkable range *(64)* related to provision of 1) care (e.g., resistance to changes in geriatric medicine, erosion of individuality in the care, inadequate nutrition, deficient nursing care (pressure sores, etc.), lack of care in the terminal stages of life); 2) staffing (e.g., work related stress and staff burnout, poor

physical working conditions, insufficient training, personal psychopathology); 3) staff-resident interaction (e.g., poor communication, aggressive residents, cultural differences); 4) environment (e.g., lack of basic standards of privacy, use of various types of restraints, little sensory stimulation; accident history; and 5) organisational policies (e.g., a "closed" institution, staff shortages, run down establishment, lack of choice, fraud involving residents' possessions or money, poor attitudes or culture; history of deficiencies; high staff turnover, lack of resident/family council). As expressed in a report from India, institutional abuse is perpetuated by staff through unquestioning regimentation (in the name of discipline or imposed protective care) and exploitation of the elder's dependence, exacerbated by the lack of professionally trained management.

With the present state of knowledge, it is impossible to know at this time how pervasive these conditions are. The top ten deficiencies (broad categories) cited by the US government in their 1997 survey of 15,000 nursing homes were food preparation (21.8%), comprehensive assessment (17.3%), comprehensive care plans (17.1%), accidents (16.6%), pressure sores (16.1%), quality of care (14.4%), physical restraints (13.3%), housekeeping (13.3%), dignity (13.2%), and accident prevention (11.9%) *(65)*.

An assumption that an abusive or neglectful situation arises only in poor quality institutions is probably not accurate. The differences in quality of care between different types of institution may not be very great. A key finding from an examination of reports of inquiries into scandals into residential care suggested that the change required to alter an acceptable or good care practice into an abusive one was not very large and could occur rapidly with only a slight, perhaps barely detectable, change in the situation (66*)*.

Responses to the Problem

National Responses

Among the nations of the world, efforts to mobilise social action against elder abuse at a national level and to develop legislation and other policy initiatives are at varying stages of development. Several authors (*67,68*) have used Blumer's (*69*) model of social problems to describe the process; emergence of a problem, legitimisation of the problem, mobilisation of action, formulation of an official plan, and implementation of the plan. The US is furthest advanced with a fully developed system for reporting and treating elder abuse cases that is state-based. The federal government's involvement is limited to supporting a National Center on Elder Abuse which offers technical assistance and provides a small amount of funds to the states for elder abuse preventive services. A national focus is also provided by the National Committee for the Prevention of Elder Abuse, a non-profit organisation formed in 1988 and the National Association of State Adult Protective Services Administrators, organised in 1989.

In Canada and Australia, some provinces/states have systems to deal with elder abuse cases in place but no official federal policy has been pronounced. New Zealand has established a series of pilot projects throughout the country. All three have formed national groups. The New

Zealand National Elder Abuse and Neglect Advisory Council was formed early in the 90s to provide a national perspective on the development of strategies for the care and protection of older persons; the Australian Network for the Prevention of Elder Abuse in 1998, to share information and create a contact between those working with older people in abusive situations or with an interest in responding to abuse; and in 1999, the Canadian Network for the Prevention of Elder Abuse, to promote ways of working together for the development of policies, programs and services to eliminate elder abuse.

Action was mobilised in Britain by Action on Elder Abuse (AEA), a national charity. AEA has helped to focus government attention on the abuse of older people in the community and institutions with resultant policy documents from the Department of Health and the Social Service Inspectorate. Norway leads among the Scandinavian countries with parliamentary support for a service project in Oslo and a resource centre for information and studies on violence, the latter primarily the result of action by elder abuse advocates. Other European countries (Germany, France, Italy, Poland), are at the "legitimisation" stage; elder abuse activities mainly limited to individual researchers and local service programs.

The Latin American Committee for the Prevention of Elder Abuse has been active in bringing the problem of elder abuse to the attention of South American and Caribbean countries by offering training at regional and national meetings. For some countries, awareness of the problem is still emerging (Peru, Uruguay, Venezuela, Cuba) with professional meetings on the topic and research studies while others have moved on to legitimisation and action (Argentina, Brazil, and Chile). In Buenos Aires, "Proteger," which deals exclusively with elder abuse cases, was established two years ago as one of the programs of the Promotion of Social Welfare and Old Age. Professionals and other workers in the program receive a six-month training period on gerontology mainly focusing on prevention of violence and intervention on elder abuse. It also maintains a free helpline. Official sanction and support for training on elder abuse has been provided by the Brazil Ministry of Justice, Health, and Welfare. In Chile, as the result of the work of a 1994 interministerial commission for the prevention of violence, an official bulletin was issued about intrafamiliar violence that included the mistreatment of old persons. Studies from researchers in Asian countries (Hong Kong, India, Japan, Korea) have illumined the problem but no official recognition in terms of policies or program development has followed so far.

Reports about elder abuse in South Africa first appeared in 1981 and a preventive program on institutional abuse was established in 1994 by the State and private sector (*70*). Elder abuse activists have been responsible for initiating a National Strategy on Elder Abuse under consideration by the government and for inclusion of elderly in the final declaration of the Southern African Development Countries Conference on the Prevention of Violence Against women (*71*). The Nigeria Coalition on Prevention of Elder Abuse involves all agencies and groups that work with and for the elderly. For many other African nations, efforts to deal with elder abuse are overshadowed by other seemingly more pressing concerns including debt, poverty, and conflict.

The expansion of activities to recognise and prevent elder abuse world-wide led to the formation of the International Network for the Prevention of Elder Abuse (INPEA)in 1997. With

representatives from the six continents, INPEA is primarily devoted to increasing public awareness, promoting education and training, furthering advocacy on behalf of abuse and neglected elders, and stimulating research into the causes, consequences, treatment, and prevention. During this initial stage in the organisation's development, workshops have been the primary training medium, conducted at professional meetings in Brazil, Cuba, Canada, Australia, the USA, and the UK. A quarterly newsletter and website have aided communication and dissemination of information. INPEA was also an inspiration behind the formation of the Canadian Network for the Prevention of Elder Abuse and the Australian Network for the Prevention of Elder Abuse. Some preliminary planning for cross-cultural research is underway but awaits further discussion and funding opportunities.

Intervention Strategies

Most of the programs organised to handle cases of abuse, neglect, and exploitation are located in the high income countries. They are conducted under the auspices of the social service, health care, and legal systems or in coordination with family violence programs. Although the presence of elder abuse in some low/middle income countries has been substantiated, generally no specific programs have been established to deal with it. Clients under these circumstances would be seen by the government/nongovernmental social service agencies whose staff may or may not be informed about elder abuse. The case of Costa Rica (see BOX) is an exception *(16)*. In some countries, there is no social service or health care system to respond..

Social Services. Generally, countries delivering services to abused, neglected, and exploited elders have done so through existing health and social service systems. Because of the complexity of the cases that often involve medical, legal, ethical, psychological, financial, law enforcement, and environmental issues, guidelines and protocols are used to assist the worker, and special training made available to them. Multidisciplinary consulting teams with representation from the various disciplines are called upon to assist in planning the care. Coalitions, task forces, etc. are organised with representation from statutory, voluntary, private, and charitable organisations to offer consultation, sponsor training, develop legislation, and identify needs in the service system. Helplines to take reports of elder mistreatment are often one of the first components in an elder abuse system (*72,73*). They are currently operating in Britain and in local communities within France, Germany, and Japan. BOX. Only the US, along with several Canadian provinces, has created a system (Adult Protective Services) solely for handling reports of adult mistreatment, with case managers investigating cases, making assessments, developing care plans, and monitoring the cases until they can be turned over to existing ageing service agencies.

Since much of elder abuse is spouse abuse (see Table 1), there is growing interest in providing services modelled after those developed for battered women. Emergency shelters and support groups specifically for older victims are relatively new. Through sharing similar experiences, the victims gain psychological resources to deal with their fear, self-doubt, stress, and anxiety. The eventual goal is to improve self-esteem and enhance coping abilities. One example of the adaptation of the domestic violence model to elder abuse is the program established by the Finnish Federation of Mother and Child Homes and Shelters in cooperation with a local nursing home and the open care system. The elder abuse project consisted of emergency shelter beds

located in the nursing home, a telephone assistance program that offered advice and an opportunity for elders to talk about their situation, and a victim support group that met on a biweekly basis. Other emergency shelters for elder victims of abuse have been located in the US, Canada, Germany, and Japan.

In low income countries without the social service infrastructure to undertake the type of programs listed above, local projects can be established that will enable older persons to plan programs, develop their own services, and advocate for change at the community level. Through these activities they gain a sense of empowerment and self esteem. As an example, in Guatemala, blind older people were being ejected from their homes by their families. They formed a committee, created a safe house for themselves, and developed handicrafts and income-producing projects in the community to support it *(74)*.

Health Care. In some European and Latin American countries and in Australia, members of the medical profession have played a leadership role in bringing information about elder abuse to the attention of public and government officials. In others (such as the US, Canada), physicians are late comers many years behind the social work or nursing professions. Few intervention programs for abused elders are housed in hospital settings; if so, they are consultation teams on call when a suspected case of elder abuse is found. Health care providers are important participants in detection and screening programs. Although physicians are considered to be in the best position to identify cases of elder abuse because of the trust which most elders place in them, many do not diagnose abuse because it is not part of their knowledge base and hence does not enter into their list of differential diagnoses. There is also evidence little attention is paid to the special needs of elderly people in emergency rooms; health care professionals feel less comfortable caring for elderly people than for younger clients; social and personal concerns of the older person are frequently ignored; psychosocial issues such as elder abuse, depression, suicide prevention, and substance abuse are not commonly addressed; and most emergency departments do not use protocols for detecting and dealing with elder abuse *(75)*.

Investigation of a patient's condition for possible abuse *(76,77)* is warranted when the health care provider notices:

- delays between injury or illness and seeking medical attention,
- implausible or vague explanations provided by either party,
- differing histories from patient and abuser existence of a "closed institution,"
- frequent emergency department visits for chronic disease exacerbations despite a care plan and available resources,
- functionally impaired elders who arrive without the main carer present, and
- laboratory findings that are inconsistent with the history provided.

When conducting an examination *(78)*, the physician or health care provider should

- interview the patient alone with direct enquiries about physical violence, restraints or neglect;
- interview the alleged abuser alone
- observe the relationship and behaviour of the patient and alleged abuser,
- conduct a comprehensive geriatric assessment that includes medical, functional, cognitive, and social factors, and
- document the social networks (formal and informal) available to assist the patient.

Table 2 presents a list of indicators that can serve as a guide when mistreatment is suspected; however, the presence or absence of any of the indicators does not serve as a proof that abuse has or has not taken place. As noted earlier, health care providers who are ill-prepared, overworked, and unsympathetic to the needs of older people may be at risk of abusing the patient.

Legal Actions. Despite the growing interest in the problem, most countries have not passed specific elder abuse legislation. Aspects of the problem can be covered under civil rights, family violence, mental health, property rights, and criminal acts. However, specific laws on elder abuse that cover definitions, investigation, assessment, and treatment procedures at the same time underscoring the rights of the abused and abuser imply a stronger commitment to the eradicating the problem. Even in those countries that have these laws, cases of elder abuse have rarely been prosecuted because of elders' reluctance or inability to press charges against family members, the perception that elders make poor witnesses, or the hidden nature of elder abuse. As long as elder abuse is viewed as a caregiver issue, legal action is not a likely option. However, adopting the family violence paradigm does imply involvement with the criminal justice system.

Only the US states, the Canadian Atlantic Canadian provinces, and Israel have mandatory reporting legislation. Forty-three of the 50 states require professionals and others working with elderly persons, if they have "reason to believe" abuse, neglect, or exploitation has occurred, to report it to a state designated agency. The first state passed legislation in 1976; the most recent, in 1999. Newfoundland passed its adult protection law in 1973; the last of the four provinces (Prince Edward Island) in 1988 and Israel in 1989. Like the child abuse reporting laws, elder abuse legislation was designed to prevent evidence of abuse from going unnoticed. Mandatory reporting was considered to be a valuable means of case-finding, particularly in situations where victims are unable to report and professionals are reluctant to refer to the service system. Although research on the impact of mandatory reporting does not provide a clear answer as yet, the conclusion at this time is that the decision to report a case appears to have less to do with the legal mandate than with other organisational, ethical, cultural, and professional issues (*79*).

Education, Training, and Public Awareness. Education, training, and public awareness have been critical elements in disseminating information about elder abuse in the developed nations. Because education is not just learning new information but about changing attitudes, behaviours, and values, it is a fundamental preventive strategy. Training sessions, seminars, continuing education programs, workshops, educational and scientific meetings, and conferences on gerontology and related disciplines are ideal venues for raising awareness, increasing knowledge, presenting and evaluating researcher results, and sharing information. Audiences include not

only practitioners in disciplines such as medicine, nursing, social work, law, criminal justice, ageing, mental health, religion, but also researchers, educators, policy makers, and administrators. A basic generic curriculum suitable for most disciplines includes learning about the background of elder abuse, the signs and symptoms, and local agencies to contact for assistance. Intermediate training enhances skills in interviewing, assessment, and care planning. Dealing with ethical and legal issues, which are often very difficult to resolve, requires more advanced training from specialists in those areas. Since it is often necessary to consult with various professionals when handling elder abuse cases, courses in how to work with other professionals and in multidisciplinary teams have also become part of an advanced training curriculum. The above information should also be available to health and welfare workers in developing countries through print or electronic means.

Public education is an important aspect of preventing abuse and neglect. The goal is to inform the general public about the types of abuse, how to identify the signs, and where to turn for help in a similar way that has occurred with child abuse and domestic violence. Persons who come in contact with elders and may be in a good position to identify those needing assistance, such as family members, neighbours, friends, public service providers (e.g., postal workers, bank tellers, utility meter readers) are a target group for education. Programs for older persons are usually more successful if the information about abuse is incorporated into sessions dealing with a broader topics such as successful ageing or health care.

The media is a powerful resource for raising public awareness about elder abuse. It can be very influential in calling attention to the issue and in disseminating information. Positive imaging and a greater role for older persons in the media can also help to reduce stereotyping and change attitudes. The participants in the South African focus group study also called attention to the importance of the media in increasing public awareness. 'It must be in the news. Everybody must hear about it' *(20).* They suggested that awareness of the problem be promoted through community workshops with the involvement of the government. In other developing countries with little resources, local level associations can provide basic health care and education. Older people's organizations, community centers, and day care programs can serve an educational function, providing instruction on safety and physical security. Self-help and support groups can also be a means of disseminating information.

Very few intervention programs have been evaluated so it is not possible to identify which approach is most successful . Efforts to assess the effectiveness of the projects have been hampered by the absence of common definitions, varied theoretical explanations, disinterest by the scientific community, and lack of funding necessary to support rigorous studies. Two methods of measuring intervention success now under development include a risk assessment tool to gauge the risk of future abuse and a system to evaluate program performance in terms of client outcomes. A literature review of elder abuse intervention studies located 117 that had been published (in English) between 1989 and 1998 *(80)* but not one had a comparison group or met standard criteria for a valid evaluation study. Based on the findings, the authors state that there was insufficient evidence to support any specific intervention for elder abuse and neglect. Six studies were singled out as most closely meeting the criteria but they too had serious methodological weaknesses and were descriptive in design. Case resolution among the six ranged from 22% to 75% of the cases following intervention.

Summary and Recommendations

Although violent acts against the elderly by family members, caregivers, and others in whom they placed their trust is better understood today than 25 years ago when elder abuse was first recognised as a problem, a more solid knowledge base is needed for policy, planning and practice purposes. Many aspects of the phenomenon remain unknown: the theoretical underpinnings, actual prevalence, causes, and consequences. Almost no valid and reliable results have been generated by research on the effectiveness of interventions. More attention must be given to primary prevention beginning with a commitment to help bring about a world in which older persons are allowed to live out their lives in dignity with adequate food, shelter, health care, and opportunities for self-fulfilment. For some countries that are facing increasing impoverishment, the challenge is enormous. Perhaps, the most insidious form of abuse against elders, however, is the negative attitudes that prevail about older persons and the ageing process, whether expressed as myths, stereotypes, intergenerational conflict, or the glorification of youth. As long as older people are devalued and marginalised by society, they risk being subjected to discrimination by others and robbed of their personhood and self esteem.

The Need for Knowledge

Knowledge about elder abuse is a priority in creating a world-wide response. Since different countries are at different stages in the development of intervention and prevention programs, learning more about the status of the problem is a necessary first step. In 1990, the Council of Europe convened representatives from the European countries to gather information on definitions, available statistics, legal provisions, supportive and preventive measures, treatment, general programmes and policies of prevention, and relevant publications and other materials *(81)*. Using that model, a study group on elder abuse should be formed to gather information from the countries of the world. This material can be utilized in the creation of a common definition that applies to both developed and developing countries. It can serve as the foundation for the development of a minimum data reporting form and the compilation of country/world data that will confirm the scope and magnitude of the problem, both in domestic and institutional settings.

Cross-national research should be conducted not only to help explain the role of culture but also to offer insight into the nature of elder abuse and to suggest methods of successful intervention. Studies should be undertaken to find out how older persons can take a greater role in defining the problem and designing programs to prevent it. That effort is underway in Canada but might have particular relevance in developing countries whose specific traditions regarding ageing and the family must be honoured and where resources are in short supply.

Another necessary step for increasing knowledge are research studies that meet rigorous standards. Too much of what has been done in the past has involved small samples and weak methodology, sometimes resulting in conflicting results. The abuser's mental state and substance abuse have been shown to be risk factors in some studies but how these lead to abuse or neglect in particular situations and not in others has not been investigated. Further work is needed to resolve the contradictory data about cognitive and physical impairments as risk factors for elder abuse. Similarly, more research is needed to clarify the role of caregiver stress as a

factor in elder abuse which early on was viewed as a primary cause of elder abuse. With the increasing prevalence of Alzheimer's disease in the world and the higher prevalence of abusive behaviour in these families, greater attention should be given to the origins of the relationships between caregiver and care recipient and how abusive/aggressive acts can be prevented. The manner in which social isolation or lack of a support system contributes to abuse or neglect may be obvious. Nevertheless, victims in such situations generally are unwilling to take advantage of programs that foster social interaction, such as senior centres or day care activities. Studies into the nature and circumstances of the victims might offer more acceptable solutions.

Perhaps, the facet of elder abuse that has received the least attention is the impact on the victim. One ingenious study has shown a decidedly negative effect on mortality but how much was due to the abuse and how much to the "intervention" (adult protective services investigation, etc.) is not known. Longitudinal studies that track both abused and non-abused persons should be part of a research agenda. Few studies have looked at the psychological impact. Except for depression which occurs more often in abuse cases than non-abuse cases, little is known about the emotional state of the victim.

The role of ageism in leading to abuse of elders has yet to be the subject of research investigations although some theorists suggest that the marginalisation of elders is a contributory factor to abuse. Cross-cultural studies might be particularly useful in understanding this effect. Other societal factors need to be examined. Although they are viewed as major determinants of elder abuse in the low income countries, there is no research to support the claim. The process that shows the linkage between these societal factors and elder abuse needs to be elucidated. Some of the actions in the developing countries are directly abusive such as witchcraft or abandonment of widows. Other factors such as poverty, modernization, inheritance systems are indirect causal agents. Using the ecological model to explain elder abuse is a new approach. Its usefulness as a theoretical construct requires more study.

A variety of intervention models have been developed (e.g., mandatory reporting, protective service units, social service protocols, emergency shelters, support groups, self-help groups, consultation teams) but few have been evaluated using an experimental or quasi-experimental research design. Because questions still remain about the effectiveness of the various approaches, evaluative research of high standards is a critical need. Generally speaking, the topic of elder abuse has not attracted the attention of established researchers; yet, their expertise is needed. Greater investment of funds in elder abuse studies would help to encourage this level of research.

The Call for Public Policies

A basic requirement across the globe is the establishment of laws to guarantee the human rights of older persons. Elders as a group should be included within existing laws on domestic or intrafamily violence. Efforts should be made to ensure that current criminal and civil laws refer to abuse, neglect, and exploitation of older persons or other violent acts affecting older persons. A special law on protection of older persons would indicate the nation's commitment to the problem.

As has been described earlier, many existing traditions are abusive towards older women (e.g., witchcraft, abandoment of widows, etc.). Working toward the passage of laws to outlaw these customs will require collaboration among many groups and a long-time commitment. Advocacy groups consisting of older persons and younger people should be formed at the local, provincial, and national levels to work toward change. Governmental health and welfare programs will be necessary to offset the negative impact on old people that has taken place with modernization and the resulting changes in family life. As life expectancy increases even in the developing countries, the creation of an adequate pension system is critical.

The Importance of Prevention Strategies

Prevention begins with public awareness. Education, training, and the media are valuable tools in increasing both professional and public awareness. Human service providers at all levels, working in the community and in institutional settings, should receive some basic training on elder abuse detection. Working with the media can be particularly useful as a means of informing the public and authorities. Although the media tend to concentrate on the most grievous situations, they have the ability to mobilize governments into action. A number of programs can be instrumental in preventing domestic elder abuse or stopping it from occurring in which elders themselves play a leading role. These include recruiting and training elders to serve as visitors (companions) to isolated elders; forming support groups for victims; initiating community programs to stimulate social interaction and community participation of older people; creating social networks of older persons to promote solidarity and social support among their peers within villages, neighborhoods, or housing units; and working with older people to create "self-help" program that will provide them with the chance to be productive.

Helping abusers, particularly adult children, is a more difficult task. Mental health and substance abuse services should be offered and job and educational opportunities made available. New methods of conflict resolution may have to be developed to replace the traditional role of community elders.

Finally, the problem of elder abuse cannot be addressed without at the same time ensuring that the basic needs of older persons for food, shelter, economic security and access to health care are met. A world wide climate should be promoted "in which ageing is accepted as a natural part of the life cycle, the potential richness of late is stressed, anti-ageing attitudes are discouraged, and an atmosphere amenable to reflection and achieving inner peace is permitted to flourish" *(82)*.

Box 1

Permanent Forum Against Abuse of the Older Person

To indicate the kinds of actions presently being taken to combat and prevent elder abuse we focus on the activities of a Costa Rican organisation, the Permanent Forum Against Abuse of the Older Person..

This organisation was formed in 1991 as a spin-off of a course on holistic care of the elderly offered by the University of Costa Rica and the training arm of the Social Security Administration (CENDEISSS) for the Association of Nursing Homes. The 40 participants ranged from administrators to direct service providers and volunteers. Inspired by the course to take action against the problem of elder abuse, they decided to form this organisation. Membership in the "Permanent Forum Against Abuse of the Older Person," which was still meeting regularly in 1996, includes representatives of governmental and non-governmental organisations that have jurisdiction over or provide services to older persons: the Ministries of Public Health, Justice, and Labor; the welfare bureau; the Social Security Administration; the geriatric hospital; public and private universities; a large nursing home; and two social agencies.

The Forum's stated objective (mission statement) is to take actions to prevent the causes of "aggression," whether it be "domestic, institutional, or social." Given the multiple perceived causes of elder abuse, the Forum's efforts encompass a wide range of issues that affect the quality of life of older Costa Ricans and are not focused narrowly on abuse. In 1995, for example, the Forum wrote to the President of Costa Rica asking that the government enforce payment of Social Security taxes by employers so that on their retirement workers will not find themselves without pensions. This letter was also sent to the media where it was aired and published.

Other activities of the Forum over the period 1991-1996 have included disseminating information on elder abuse through public service announcements on radio and television, organising conferences, publishing pamphlets on care of elders for family members, protesting negative media portrayals of older people, and, occasionally, receiving and responding to reports of abuse. On the few occasions when the Forum has tried to get action on reported cases of abuse, however, they have been unsuccessful. One member of the Forum said that "Intervention doesn't work because the law is too broad and no one is responsible for enforcing it." The Forum has concluded that the best course is to place its main emphasis on public education. Under discussion was the possibility of developing and disseminating an age sensitivity curriculum for the elementary schools. Simultaneously with this focus on education, however, one of the Forum's 1996 projects was to urge the president of Costa Rica to designate one branch or office of the government to be responsible for all issues related to ageing. The feeling was that services for the elderly were too fragmented, allowing cases of abuse to fall through the cracks.

Source: Gilliland N, Picado LE. Elder abuse in Costa Rica. *Journal of Elder Abuse & Neglect*, 2000, 12(1)

Box 2

Emotional Abuse, Deprivation of Freedom and Financial Exploitation

Julia, an Argentinian single woman is 76 years old and has no known relatives. to recover from a bad case of flu, at the suggestion of Maria, her house porter, she was admitted from her own flat to a private nursing home for a two week period. As soon as she felt better, she began to ask to return home but was always given "no" as an answer.

Occasionally she would have visitors. She was never left alone and was prevented from leaving the nursing home even at Christmas time. Almost a year passed, and she remained in the nursing home without any medical reason. Martha, the nursing home manager, who is a close friend of Maria, took all of Julia's pension ($600 US) as payment leaving Julia with no cash.

On behalf of Julia, Rosa, an old neighbour, appealed to the government claiming illegal deprivation of freedom and emotional abuse. A couple of days later, Julia was visited by a social worker from the Buenos Aires Government Program on Elder Abuse called "Proteger" who tried to remove her from the nursing home. She found a lot of opposition from the nursing home owners who also asked that their own physician examine Julia and provide a written report that she had no signs of physical mistreatment. After a couple of hours had passed and with great perseverance on the part of the social worker, Julia was able to go home.

Besides the emotional shock and the traumatic situation that she had to endure, Julia found upon return home that her jewelry and money that she kept in a safety box had been removed. It appears that they had been taken by Maria who had a key to the flat. The following day, Julia and the social worker went to the police station to report the theft and the situation. The case is in the court.

Julia, who always was a fairly happy person, independent, polite, educated, and self-confident is now, after being held against her will, distressed, frightened, and insecure. Currently, she has a home help to assist her with daily activities, psychological assistance, and a weekly social worker follow-up session.

"Proteger" (to protect), one of the current Programs on Promotion of Social Welfare and Old Age, deals exclusively with elder abuse situations in the Buenos Aires D.C. area. Workers are given a six month training course on gerontology with a focus on the prevention of violence and elder abuse. In addition, the program operates a helpline.

Box 3

Japan Elder Abuse Prevention Center Help Line Service

In 1993, The Society for the Study of Elder Abuse (SSEA), an independent group that consisted of social workers, university professors, and a nursing home director, conducted a nation-wide survey of community care support centres to find out about elder abuse cases. The findings confirmed the existence of elder abuse in Japan and the need to have the problem addressed by the Health and Welfare Ministry. With information from the survey, which showed the necessity of taking definitive measures to prevent elder abuse, SSEA concluded that a telephone counselling service, similar to the one established by Action on Elder Abuse in the UK, was the best way to attack the elder abuse problem in Japan.

The group organised the Japan Elder Abuse Prevention Centre, a non-profit organisation, and initiated the volunteer telephone counselling service known as "Help Line" on March 3, 1996. A grant-in-aid from a non government public organisation provided start-up funds for the telephone installation and office supplies. Through the generosity of one of the SSEA members, who directs a nursing home ("Ryokujyu-en"), a room was made available as an office for the program. In the initial stages, the nursing home also paid for the telephone bill although currently it is maintained by grants-in-aid from non-government public organisations. A notice of the opening of the telephone counselling service was sent to home services support centres and other consultation agencies in the community. An article with the telephone number and purpose also appeared in the family section of two major newspapers.

The Help Line Service is provided every Monday from 13:00 to 16:00. It offers information on nursing care, social services, and since 1998 legal counselling and is available to anyone who has an elder abuse problem including health, medical, and welfare professionals. In emergency situations, assistance is sought from a public temporary assistance agency in the neighbourhood. Decisions are based on the mutual consent of all counsellors, and office work is shared among them.

Initially, the counsellors were restricted to members of SSEA but after the first year, three new volunteers were added to the staff. Qualifications for serving as a counsellor include professional status in social work, aptitude and experience as a counsellor, interest and willingness to study elder abuse, and availability as a volunteer. One or two counsellors are assigned to a particular day. An telephone answering service gives the available service hours during off hours.

The guidelines for the program set by SSEA state that it is a telephone service only. If a caller wants face-to-face counselling, the case will be transferred to a home service support centre in that person's neighbourhood. Counsellors are not assigned to particular cases but take calls as they come in. If the caller asks help line support frequently, he or she is informed that the responding counsellor might vary each session. The counselling service call is limited to one hour. An emphasis is placed on maintaining the privacy and anonymity of the callers and the confidentiality of the files.

Training for new counsellors include basic policies and procedures for counselling, information about social welfare services, and knowledge about elder abuse, especially for ways to cope with the problem, as well as how to record a case and how to deal with emergency situations. Usually a trainee will "sit" with a counsellor and observe for a few months; then take calls with assistance from the more established counsellors, especially in situations where the caller seemed to be emotionally upset. All counsellors attend a monthly SSEA meeting in which information about elder abuse is exchanged, technical papers and case studies are reviewed, and supervision is provided. . Bi-monthly meetings are held for discussion of cases with one of the SSEA members serves as a specialist in the case. Other professionals may be called upon with regard to the case studies.

Source: Yamada Y. A telephone counseling program for elder abuse in Japan. *Journal of Elder Abuse & Neglect*, 1999, 11(1):105-112.

Box 4

Influencing The Future:
An Intergeneratonal Curriculum On Elder Abuse

Sensitising children to old age and providing opportunities for intergenerational relationships may be critical factors in the prevention of elder abuse and neglect. By including lessons on aging in school curricula, children may develop an increased respect for seniors, may be less inclined to mistreat older people and may even attempt to prevent others from doing so.

The recognition of the need to raise awareness among children and adolescents resulted in a two-phase intergenerational education project funded by Health Canada. The first initiative is an early childhood education interactive storytelling kit designed to bring old and young together with games and stories for children three to seven. Although elder abuse is not addressed directly, the book fosters positive imaging of old age and is replete with the wisdom of older people. This book has also been proven to be effective when used with older children who have limited English literacy skills. Seniors, youth and members of the community at large link with each other to discuss the subject of elder abuse and how they can collectively, as a community, can reduce or eliminate abuse in general and elder abuse in particular.

The primary goal of the formal curriculum, the second initiative, is to change the deep-seated negative societal attitudes and beliefs about aging and to decrease the incidents of elder abuse. The content was based on learning theories and is developmentally appropriate for youth in their transition years. Before the creative strategy was developed, a needs assessment was completed with numerous consultation and focus groups consisting of: seniors, teachers, youth, faith communities, health care providers, multi-cultural health care providers, academics, volunteers, police force who work with seniors and deal with seniors' issues, intergenerational programmers and recreationalists.

Pre-testing of the program was done to ensure language appropriateness for use by teens, adolescents, and seniors from a wide range of multi-cultural backgrounds. Curriculum content on aging and elder abuse was incorporated into relevant class studies, such as health, social sciences, family-life education and personal safety. Ontario schools have included conflict resolution into the school curriculum and teachers find that elder abuse concepts fit in with this material. The educational program provides background and planning information as well as direction on how to link seniors and youth.

The curriculum model contains 15 lessons/sessions: A Study of Our Canadian Society; Your World, My World, Our World; Power and How Power Can Be Used to Influence The Lives of Others; The Link Between Power and Potential Abuse; The Impact of the Media on Our Society; The Link Between Media Messages and How Stereotyping Can Lead to Possible Abuse of Older Persons (Elder Abuse); Types of Abuse of Older Persons, The Factors That May Lead to Each and the Prevalence of Abuse in Our Society; Abuse of Older Persons: The Hidden Crime; Steps That Can Be Taken to Lessen Abuse of Older Persons; Community, Planned Community Action; The Community In Action; Bringing Closure to the Program; and, Reflection.

The curriculum includes a drama kit consisting of a video and two plays, which can be performed for both stage and radio. The plays address the misconceptions that different generations may have about each other as well as the various forms of elder abuse. The 30-minute video (ages 12 – 16) is a story of betrayal and love as seen through the eyes of a 15-year-old girl. The video portrays the healing of generational estrangement and ultimately the timeless and priceless value of grandmothers. Through the young girls' narrative, the causes of - and solutions to - elder abuse are explored.

These educational tools have been used successfully outside of the school: in nursing homes, at seniors' events, at summer camps and youth conferences. The outcomes of the curriculum, which was initiated in 1999 are being evaluated and documented. The evaluation focuses on determining how well the objectives are being met, analysing the problems and identifying alternative changes and revisions. Before initiating elder abuse concepts it is critical to

prepare teachers through curriculum development workshops to increase their knowledge and confidence in addressing elder abuse content.

Educating children about elder abuse and neglect must be recognised by the larger community as a necessary prevention strategy. Educational curricula for children can not only foster positive attitudes and concern for the safety and well-being of older people, they can also contribute to increased intergenerational interaction.

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Box 5

Witchcraft: A Violent Threat

In Tanzania, an estimated 500 women are murdered very year after being accused of witchcraft. The problem is particularly acute in the Sukumaland area of northern Tanzania. In Shinyanga region, 178 people were killed as a result of being accused of witchcraft in the 18 months from January 1996 to June 1997, according to a study by the Tanzania Media Women's Association, citing data from the Ministry of Home Affairs. The murders represented nearly 40 percent of all murders reported in the region in that period.

The killings are only part of the story. Many more women are driven from their homes and communities for fear of being accused of witchcraft, living in destitution in urban areas. nearly a third of those interviewed in the study were afraid of getting old because of the fear of being attacked as a witch.

Although belief in witchcraft goes back centuries, the violence has risen steeply in recent years. Research by HelpAge International points to social and economic problems including poverty, pressure on land, inadequate or inaccessible health services and poor education as the underlying causes. people need explanations for misfortunes such as illnesses and death, crop failures and dried-up wells, and they look for a scape-goat.

Traditional healers often make accusations of witchcraft at the suggestion of the accused person's family or neighbours. They may blame witchcraft to explain events that they cannot understand or control. For example, one young boy killed his mother after a traditional healer told him that she was the cause of his problems.

Land disputes are a common underlying cause of violence against widows. According to inheritance laws, widows may remain on their husband's land, but they do not own the property. When they die, the land becomes the property of their husband's sons. Although this system is intended to protect women, it is sometime used to get rid of troublesome "tenants." And it can be a lucrative income for hired killers.

Women's low status

Although men may be accused of witchcraft, women's circumstances and their low status in society make them more vulnerable to attack. Women usually live longer than men and marry men older than themselves. many are therefore alone in old age, often living in poor housing, making them an easy target. male domination of policing and counselling systems also mean that older women receive little protection.

Myths about the physical appearance of witches increase women's vulnerability. For example, many older women are believed to be witches because they have red eyes-people do not know that red eyes can result from a lifetime of cooking over a smoky stove or from conditions such as conjunctivitis.

Call for action

Community leaders are calling on the government to take strong measures. A former party secretary said: 'It is a question of educating the people. In other areas of the country where people are better educated, we don't face this problem.'

Until recently, the government of Tanzania was reluctant to acknowledge that witchcraft beliefs still existed. However, witchcraft is now being widely discussed and official condemned. In 1999, the Tanzania government made witchcraft the theme for International Women's Day.

Steps to improve the security of older women are being taken by a Tanzanian NGO, Magu Poverty Focus on Older People Rehabilitation Centre (MAPERECE) and HelpAge International programme in Tanzania, through a project that combines both practical and advocacy work. The project will involve older people's organisations, churches,

schools and other groups to explore and change attitudes to witchcraft-related violence. and address practical problems such as poor housing and use of inefficient smoky stoves.

Source: Reprint of article in HelpAge International. *Aging and Development New, No.6, July 2000.*

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Chapter 6

Sexual Violence

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Chapter 7

Self-Directed Violence

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Introduction

It has been estimated that in the year 2000 approximately one million people died from suicide, worldwide (1). This represents a global mortality rate of about 16 per 100,000 (Fig.1) or one death every 40 seconds. Suicide is estimated to constitute 2.3% of the total burden of disease (2). Moreover, suicide represents the 12th leading cause of death in the world overall, but among those of 15-44 years of age self-inflicted injuries are the fourth leading cause of death worldwide and the sixth leading cause of ill health and disability (3).

Suicide deaths represent only a portion of the magnitude of the problem. In addition to the number of suicidal deaths, many more persons make non-fatal attempts to take their lives or harm themselves, often seriously enough to require medical attention (4). Furthermore, for every suicidal death there are many other people who survive them whose lives are profoundly affected emotionally, socially, and economically. Each year, the economic costs associated with self-inflicted injuries are estimated to be in the billions of dollars (5).

This chapter describes the international epidemiology of fatal and non-fatal suicidal behaviour, the factors that increase the risk of suicide, various preventative and policy responses, and recommendations for future reseach and intervention. The text is enriched by a number of boxes which illustrate themes or aspects of the suicide phenomenon of particular relevance at the present time.

Definitions

Suicidal behavior ranges in severity from merely thinking about self-destruction (suicidal ideation), to developing a plan and obtaining the means to commit suicide, attempting to take one's own life (commonly called "attempted suicide", "parasuicide" or "deliberate self-harm"), and finally to completing the final act ("completed suicide").

The term "suicide" in itself evokes direct reference to violence and aggressiveness. Apparently, Sir Thomas Browne was the first to coin the word "suicide" in his *Religio Medici* (1642). A physician and a philosopher, Browne based the word on the Latin *sui* (of oneself) and *caedes* (murder). The new term reflected a desire to distinguish between the homicide of oneself and the killing of another (6). In fact, the original meaning of "self-murder" is still a popular choice to designate suicide in some northern European countries, such as Germany, where "selbstmord" is used more commonly than "suizide".

A frequently quoted definition of suicide is the one reported by Shneidman in the 1973 edition of the Encyclopaedia Britannica: *"The human act of self-inflicting one's own life cessation"* (7). Based on that (the basic principle of the *mors voluntaris*), intention to die is a key-issue in the attribution of a cause of death to suicide. However, the reconstruction of the intentions and desires of the person prior to death is often difficult to accomplish unless the person made clear statements relevant to intent prior to death or left a suicide note. Having in mind that not all the subjects who survive a suicidal act intend to live, nor all suicidal deaths are planned, the correlation between intent and outcome may be very problematic. In many jurisdictions, a death

is certified as suicide if the circumstances are consistent with suicide and if murder, accidental death and natural causes can be ruled out.

There has been much disagreement about the terminology that is best for describing suicidal behaviour. Recently, the outcome-based terms of "fatal suicidal behaviour" has been proposed for suicidal acts that result in death and "non-fatal suicidal behaviour" for suicidal actions that do not result in death (8). The latter term replaces the terms "attempted suicide" (a term which is popular in the USA), "parasuicide" and "deliberate self-harm" (terms which are popular in Europe).

Suicidal ideation refers to thoughts of killing one's self, featuring varying degrees of intensity and elaboration. The available literature on the topic also includes feelings of tiredness for life, that life is not worth living, and the wish for not waking up from sleep (9, 10). Although these different ideations express varying levels of severity, this does not imply any particular *continuum* among them. Moreover, the intention to die is not a necessary criterion for non-fatal suicidal behavior.

Another common form of self-directed violence is self-mutilation. This represents the direct and deliberate destruction or alteration of parts of the body without any conscious suicidal intention. Favazza (11) proposes three main categories: major self-mutilation (self-blinding, amputations of fingers, hands, arms, limbs, feet, genitalia, etc); stereotypical self-mutilation (head banging, self-biting, arm hitting, throat and eye gouging, scrathcing, hair pulling, etc); superficial-to-moderate self-mutilation (skin cutting, scratching and burning, needle sticking, compulsive hair pulling). Self-mutilation involves very dfferent meanings from suicidal behaviours, and will not be discussed further. For an extensive review of self-mutilation, see Favazza (11).

Epidemiology of Suicidal Behaviour

Fatal Suicidal Behavior

Reliable information on suicide mortality data can be accessed through a number of agencies around the world. The World Health Organisation provides mortality data on suicide starting from 1950, by age and gender (web site: www.who.int). Other agencies that may provide information are the World Bank, UNICRI, INTERPOL, EUROSTAT, UNICEF, ISPCAN, UNIFEM, ICE and INCLEN.

A number of governmental agencies, national associations and voluntary organizations may also provide information; the Centers for Disease Control, USA, the Swedish National Centre for Suicide Research and Prevention, the Australian Institute for Suicide Research and Prevention are some examples of these. The International Association for Suicide Prevention, the International Academy for Suicide Research, the American Association of Suicidology, AusEinet have their own web sites which can be accessed for information. Normally, the most recent suicide mortality data available from these agencies refer to a period up to between 18-36 (or more) months back, depending on the country in question.

National suicide rates vary considerably (Tab.1). Among countries reporting suicide, the highest suicide rates are found in Eastern European countries (e.g. Lithuania, 48.2; Russia, 41.5) and Asian countries (e.g. China, 16.1; Japan, 17.9). The lowest rates are found mostly in Latin American, Arabic and some Asian countries (e.g. Argentina, 6.6; Brazil,3.5; Kuwait, 1.8; Thailand, 4). Countries in Central and Northern European, North American, South East Asia and Western Pacific countries fall somewhere in between these extremes (e.g. Australia, 13; Canada, 13.4; India, 9.7; New Zealand, 14.9; USA, 11.8). Unfortunately, there is little information on suicide in most African countries (12) (Figure 2).

For the two nations with suicide rates available from the 1700s (Finland and Sweden), the trend has been for the suicide rate to increase over time (13). For the 1900s, 7 nations had a significant increase (Finland, Ireland, the Netherlands, Norway, Scotland, Spain and Sweden), four a significant decrease (England/Wales, Italy, New Zealand and Switzerland) and one no change (Australia) (13). For the period 1960-1990, 28 nations experienced a rising suicide rate (including Bulgaria, Costa Rica, Mauritius, Singapore, and Taiwan) while eight experienced a declining suicide rate (including Australia and England/Wales) (13).

Suicide rates in the general population are not distributed equally. One of the important demographic markers of suicide risk is age. Cross-nationally, suicide rates tend to increase with age, although some countries such as Canada have recently experienced a secondary peak in youth (15-24 years of age). Globally speaking, as recently as 1995, starting from 0.9 per 100,000 in the age group 5-14 years old, suicide rates gradually increased up to 66.9 per 100,000 in the age group 75+ years (see Fig. 3). In general, rates among those 75 years and older are approximately three times higher than those of youth under 25 years of age. This trend is observed for both sexes, and it is steeper for males. In females, suicide rates actually present several distinct patterns. In some nations, female suicide rates rise with age, in other female rates peak in middle age while, particularly in developing nations and minority groups, female suicide rates peak in young adults (14).

Although suicide rates are largely higher among the population over 60 years of age than in any other age group, given the demographic distribution, the actual number of cases of suicide is higher among people less than 45 years of age than in people over 45 years of age (see Tab. 2 and Fig. 4). This is a remarkable change in relation to just 50 years ago - when the number of cases of suicide was proportional to age - and is not explained in terms of the overall aging of the global population; in fact, it goes against this demographic transition. Currently, suicide rates are already higher among younger people in approximately one third of all countries, irrespectively of continent, level of industrialization or wealth. Examples of countries in which current suicide rates (and absolute number of cases) are higher among those below 45 years of age include Australia, Bahrain, Canada, Colombia, Ecuador, Guyana, Kuwait, Mauritius, New Zealand, Sri Lanka and UK.

Gender, race, and ethnicity are also important factors in the epidemiology of suicide. In terms of sex distribution, suicide rates are higher among men. Between 1950 and 1995 the male: female ratio varied from 3.2:1 to 3.6:1. The only exception to this predominance is observed in rural China, where the ratio of male:female suicide is 0.8:1 (see Box 1). However, the ratio of male/female suicide seems rather influenced by the cultural context, going from 1.3 to 1 of India to more than 5 to 1 in several of the former Soviet Union countries, up to 8 to 1 in Puerto Rico.

On average, it seems that men commit suicide about 3 times more frequently than women, with substantial consistency throughout different periods of life, with the exception of extreme advanced age in which men tend to present even higher rates. In general, the sex difference in suicide rates is smaller in Asian countries than elsewhere in the world. These differences between countries and by sex indicate the importance of each country monitoring its own epidemiological trends in order to ascertain which groups of its citizens are most at risk for suicide.

In terms of race/ethnicity, the prevalence of suicide in Caucasians is approximately double that of other ethnicities, although a trend towards an increase in African-American people has recently been reported (4). In the USA about 2 out of 3 suicides are committed by Caucasians. Also in Zimbabwe and South Africa suicide rates are higher in whites than in blacks (15). Suicide rates are higher in many aboriginal groups, for example in some Native American and Native Canadian tribes (16) and in aboriginal groups in Taiwan (17) and Australia (18) (See Boxes 2 and 3). Data on suicide in aboriginal groups in other countries are unavailable.

Cautions in the use of suicide data. Comparison of different countries with respect to suicides is often performed, but it must be borne in mind that the recording of mortality procedures varies greatly amongst countries, seriously affecting comparability. Even in those countries which adopt standardised criteria, such as Australia, the application of these criteria may vary considerably. A recent survey on suicide coding reliability of 20 western countries demonstrated percentages of sensitivity of suicide certification ranging from 89.6% (Austria) to 51.7% (Greece)(19). A WHO Working Group on Suicide Prevention Practices (20) advised on the appropriate way of making comparisons by using national statistics only for trend analysis.

Suicide rates are expressed as number of suicidal deaths per 100,000 population. If reported rates refer to small populations (cities, provinces or even countries with small population) their interpretation requires extra caution since just a few deaths may greatly influence their representation. Normally, for populations under 250,000 crude suicide number are expected to be mentioned. Some rates may be reported as age-standardised and this can exclude suicides under 15 years of age because of small numbers usually characterising this age group [but in many countries there is an alarming increase in suicides in this age group, including Italy (21)].

Furhermore, suicide mortality data usually carry an underestimation of their real number. Many different issues contribute to this. Suicide data are the end result of a chain of informants which involves those finding the body (eg, family members), doctors, police, coroners and statisticians. Any of these individuals, for a variety of reasons, may be reluctant to call a death a suicide. This is thought to be particularly true in those regions where religious and cultural attitudes condemn suicide. However, Cooper and Milroy (22) have found an undercount of 40% in official records of suicide in regions in England. In general, a suicide may be voluntarily hidden to avoid stigmatisation, for social convenience, for political reasons, to benefit from insurances policies, or because it was masked as an accident (eg, a road accident). Suicide can also be misclassified as an undetermined cause of death, or as natural cause (for example when people –especially in the elderly- neglect to take life-sustaining medicaments). Lozano (23) reported that in Chile the number of injurious deaths classified as "undetermined" is of the order of 45% and that 1 out of 4 of these deaths actually reveals to be a case of suicide.

Suicide can also go officially unrecognized when people overdose as drug-abusers, as are in self-starvation situations [so called "suicidal erosions"(24)], or when people die some time after their suicide attempt (in these cases usually it is the clinical cause of death which is the one officially reported), or in case of euthanasia or assisted suicide. The probability of under-recognition is also related to the age of the person, with underreporting generally much more prevalent in elderly people. Despite this and the other motives above mentioned, it has been argued that the relative ranking of national suicide rates is reasonably valid. For example, Sainsbury and Barraclough (25) found that suicide rates of immigrants from other nations to the USA were in roughly the same order as the suicide rates in their home nations.

Non-Fatal Suicidal Behaviour and Suicidal Ideation

Relatively few countries have reliable data on non-fatal suicidal behaviour. The main reason for that resides in the difficulty of collecting information. Only a minority of attempters present to health facilities for medical attention. It has been calculated that, on average, only about 25% of subjects with suicidal acts make contact with public hospitals (which may represent the easiest source for data collection) (26) and they do not necessarily represent the most serious ones. This aspect is known as "tip of the iceberg phenomenon", underlining that the large majority of suicidal people remain unnoticed (27). Several institutions, like national centres for injury control and prevention or department of statistics (and of justice, in several countries) keep records of these non-fatal events that are registered at health services. They represent useful data for research and preventative efforts, since suicide attempters constitute a high risk group for subsequent suicidal behaviour, both fatal and non-fatal. Public health officials also rely on reviews of hospital records, population surveys, and special studies. These sources often include data that is lacking in mortality data systems.

Available data indicate that, both in absolute and relative numbers, non-fatal suicidal behavior is higher in younger people than among older people. It is estimated that the ratio of fatal versus non-fatal suicidal behaviour in old age (i.e., those over the age of 65 years) may be of the order of 1 to 2-3, while in the young people (those less than 25 years of age) this may reach the level of 1 to 100-200 (28, 29). Although suicidal behaviour is less frequent in the elderly, the probability of a fatal outcome is much higher (24, 30). On average, suicide attempts in old age are, in psychological and medical terms, more serious and the "failure" of a suicidal action is often due to unpredictable and fortuitous circumstances. As a general trend, non-fatal suicidal behaviour also tends to be 2-3 times higher in women than in men. Finland, however, represents a remarkable exception to that (31).

Data from an ongoing, cross-national study of non-fatal suicidal behavior in 13 countries, reveal that for the period 1989-1992 the highest average male age-standardised rate of suicide attempts was found for Helsinki, Finland (314/100,000), and the lowest rate (45/100,000) was for Guipuzcoa, Spain, representing a seven-fold difference (31). The highest average female age-standardised rate was found for Cergy-Pontoise, France (462/100,000), and the lowest (69/100,000) again for Guipzucoa. With only one exception (Helsinki), the person-based suicide attempt rates were higher among women than among men. In the majority of centres, the highest person-based rates were found in the younger age groups. The rates amongst people aged 55 years and over were generally the lowest. The methods used were largely poisoning and then cutting. More than 50% of the suicide attempters made more than one attempt, and nearly 20% of

the second attempts were made within 12 months after the first attempt.

Data from a longitudinal, nationally representative sample of nearly 10,000 adolescents aged 12-20 years in Norway indicated that 8% had ever attempted suicide and 2.7% made an attempt over the two-year study period. Logistic regression analyses showed that future attempts were predicted by previous attempts, female gender, young age, pubertal timing, suicidal ideation, alcohol use, not living with both parents, and poor self-worth (32).

Suicidal ideation is more common than both attempted and completed suicide (10). However, its exact dimension is still unclear. For example a review of studies published after 1985 on community surveys in adolescent populations (particularly high-school students) reveal that between 3.5% and 52.1% of adolescents report suicidal thoughts (27). Generally speaking, the great differences existing in these percentages may be explained by the different definition used of suicidal ideation and with the different time intervals to which the study referred (e.g., past year, lifetime, past two weeks, etc.). There is also evidence of a higher percentage of suicidal thoughts in female subjects which is maintained among women in old age (33). Overall, the prevalence of suicidal ideation among older adults (in both sexes) is estimated to be between 2.3% (last two weeks) and 17% (life-time)(34). However, compared to other suicidal behaviors (e.g., attempts), suicidal ideation may not be a useful indicator of which adolescents or adults are most in need of preventive services.

Risk Factors for Suicidal Behavior

Suicidal behaviour is a multidetermined phenomenon. The factors that place individuals at risk for suicide are complex, interactive, and interdependent. Identifying these factors and understanding their role in both fatal and non-fatal suicidal behavior is a key to preventing suicide. Epidemiologists and suicidologists have described a number of specific characteristics that are closely associated with an elevated risk for suicidal behavior. These include demographic (e.g., age, sex as mentioned above), psychiatric, biological, relationship, and social and environmental factors.

Psychiatric Risk Factors

Much of what is known about suicide risk is derived from studies in which researchers interview a surviving parent, friend, or other close proxy to identify specific life events and psychiatric symptoms that a suicide victim experienced before death. These types of studies are referred to as psychological autoposy studies. Research using this type of approach has shown that many adults who complete suicide had evidence of a psychiatric condition that could be diagnosed at the time of death and retrospectively months or even years earlier (35, 36).

Major depression, other mood disorders (e.g., bipolar disorder), schizophrenia, conduct, personality, and anxiety disorders, impulsivity, and sense of hopelessness are some of the major psychiatric and psychological factors associated with suicide (Tab. 3 provides the prevalence of mental disorders in 5,588 cases of suicide) (37). A diagnosable depressive disorder plays a major

role in suicide and is estimated to be involved in approximately 65-90% of all suicides with psychiatric pathologies (38) Among depressive people, risk seems to be higher when patients are not compliant with treatment or consider themselves as untreatable (or are considered as such) (39) (See Box 4). The life-time risk of suicide in those affected by major and bipolar depression has been estimated around 12-15% (40, 41).

Schizophrenia is another psychiatric condition with high exposure to suicide, with a life-time risk estimated to be around 10-12% (42). The risk is particularly relevant in young male patients, in the early stages of the disease, especially for those subjects with good psychosocial functioning before the onset of the illness, chronic relapses, and fears of "mental disintegration" (43). Other factors, such as feelings of hopelessness and helplessness also increase the risk of committing suicide. Beck et al (44), for example, in a ten-year longitudinal evaluation, underlined the importance of feelings of hopelessness as a major predictor of suicidal behaviour. In their study, lack of future expectations correctly identified 91% of subjects who subsequently died by committing suicide.

Alcohol and drug abuse also plays an important role in suicide. In the USA it has been reported that at least one fourth of all suicides involves alcohol abuse (45). Life-time risk of committing suicide in alcoholics is not much lower than that of depressive disorders (45); on the other hand, points of contact between these two pathologies are mutiple and are often difficult to distinguish. There are many possible causal links: 1) alcohol abuse may result in depression directly or through the downward mobility and failure that most alcoholics experience; 2) alcohol abuse may be a way of self-medicating to alleviate depression; or 3) both depression and alcohol abuse may be the result of similar stressors in the person's life. However, while in depressive disorders suicide happens relatively early in the history of the disease (especially in the fourth decade of life), in alcoholics suicide usually occurs late in the condition, often in conjunction with other factors such as a breakdown in important relationships, social emargination, indigence, and onset of a somatic complication from a chronic abuse (See Box 5).

Some of the strongest risk factors for a completed suicide, however, are previous non-fatal suicidal behaviors. A previous suicide attempt is perhaps the most powerful predictor of subsequent fatal suicidal behaviour (4). The risk is higher in the first year, and especially in the first 6 months after the attempt, with nearly 1% of individuals dying by suicide during that time (46). The level of increased risk due to the history of a previous attempt varies from study to study. Gunnell and Frankel, for example, report a 20-30 fold increase in risk in comparison to the general population, which is consistent with several other reports (47). While the presence of previous suicide attempt is very common in suicided people, it should be noted that the majority who those who die by suicide do not present such an aspect (48).

Biological and Medical Markers

A family history of suicide is one of the recognized markers for increased risk of suicide. To some researchers, this suggests that there may be a biological trait passed from generation to generation which predisposes some people to suicidal behavior. Data from clinical, twin and adoption studies suggest that biological factors may play a role in some suicidal behaviour. Twin

studies have shown that monozygotic twins, who share 100% of their genes, have a significantly higher concordance for both suicide and attempted suicide than dizygotic twins who share 50% of their genes (49). However, the twin studies have not yet considered monozygotic twins reared apart, a prerequisite for methodologically sound twin studies, and none of the studies have carefully controlled for psychiatric disorders. It could be that it is a psychiatric disorder that is inherited, and this increase the risk of suicidal behaviour in related individuals.

Adoption studies show that significantly more biological relatives of adoptees who committed suicide had themselves suicided in comparison with biological relatives of control adoptees (50). As these suicides were largely independent of the presence of psychiatric disorder, it suggests that there is a genetic predisposition for suicide independent of, or additive to, the major psychiatric disorders associated with suicide. Other social and environmental factors probably also interact with family history to increase risk for suicide.

Other evidence suggesting a biological basis for suicide is from studies of neurobiologic processes that underlie many psychiatric conditions, including those that predispose to suicide. A number of studies, for example, have shown altered levels of serotonin metabolites in the cerebrospinal fluid of adult psychiatric patients who completed suicide (51, 52). Low levels of serotonin and blunted neuroendrocrine responses to serotonergic challenges have been shown to persist over time after episodes of illness (53, 54). Serotonergic trait abnormalities are thought to lead to a lowering of the threshold for suicidal behaviour at times of stress or psychiatric illness. Impaired prefrontal cortex serotonergic function may underlie a reduced ability to resist impulses to act on suicidal thoughts (55, 56).

Suicide may also be the consequence of a severe and painful illness, especially one that is disabling. The prevalence of physical illness in suicided subjects is estimated to be at least 25% and in more than 40% of cases it is considered an important contributory factor to suicidal behaviour and ideation, especially if concomitant to a mood disorder or depressive symptoms (57). Understandably, the perspective of unbearable suffering and humiliating dependence may render envisageable the "rational" hypothesis of prematurely ending life. However, several investigations have demonstrated that only rarely does suicide occur in subjects suffering from a physical illness in the absence of psychiatric symptoms (38).

Relationship Factors

Certain life events may serve as precipitating factors in the etiology of suicide. Those that pertain to personal loss, interpersonal conflict, the disruption of a relationship, and pending legal or work-related problems have been linked to suicidal risk in a number of studies (58-61).

For some individuals a loss of a loved one either through divorce, separation, or death may trigger intense depressive feelings, especially if the loss involves a partner or a very near and dear person. For others, conflict associated with interpersonal relationships in the home, school, and workplace can also trigger feelings of hopelessness and depression (See Box 6). For example, in a study of over 16,000 adolescents in Finland, the researchers found an increased prevalence of depression and severe suicidal ideation among both those who were bullied in school and among those who were perpetrators of bullying (62). Controlling for age, sex, and mental disorder,

researchers in South East Scotland found adverse interpersonal events to be independently associated with suicides in a retrospective case-control study (63). In a review of all suicides over a two year period in Ballarat, Victoria, Australia, the researchers found social and personal difficulties to be associated with suicide in over a third of the cases (64). Previous research also shows an elevated risk of depression and suicide attempts among victims of intimate partner violence (65-68).

A history of physical or sexual abuse in childhood also contributes to suicide risk in adolescence and adulthood (69-71). Humiliation and shame are typically present in sexual abuse victims (4). Some of the consequences of abuse during childhood and adolescence include generalized feelings of mistrust in interpersonal relationships, difficulty in maintaining such relationships, persistent sexual difficulties, and intense feelings of inadequacy and inferiority. For example, a study in the Netherlands comparing adolescent functioning and sexual abuse in 1490 students, found that the abused sample had significantly more suicidal behaviour and emotional and behavioural problems, than the non-abused adolescents (72). In an Australian study, 68 sexually abused children, 5 years after initial clinical presentation, displayed more disturbed behaviour, had lower self-esteem and were more depressed and anxious than age and gender-matched controls (73). An ongoing 17-year longitudinal study of 375 subjects in the USA, found 11% reported physical or sexual abuse before the age of 18. Abused participants at the ages of 15 and 21 reported more suicidal behaviour, depression, anxiety, psychiatric disorders and emotional-behavioural problems than those not abused (74).

Though data are lacking, there is also a belief that sexual orientation may be related to an increased risk for suicide among adolescent and young adult populations. Estimates of suicide among gay and lesbian youth, for example, range from 2.5% to 30% (75, 76). Factors such as discrimination, intrapersonal stressors, drugs and alcohol, HIV/AIDS, and limited support structures contribute to suicide and suicide attempts (77, 78).

Being in a stable marital relationship, on the other hand, seems generally to be a "protective" factor against suicide. Childrearing responsibilities confer an additional protective element (79). Research examining the relationship between marital status and suicide reveals high rates of suicide among single or never-married persons in western cultures, even higher rates among widows, with some of the highest rates found among those who are separated or divorced (80, 81). This phenomenon is particularly evident in male subjects, especially with regard to the first months from the loss/separation (82).

In contrast with the generally protective effect of the marriage are early marriages (<20 years of age). For these teenage marriages, a rate constantly higher than that of unmarried peers has been reported in several studies (83, 84). It is also important to point out that marriage is not protective in all cultures. Higher rates of both fatal and non-fatal suicidal behaviour have been reported among married women in Pakistan compared to married men and single women (85, 86). Factors such as legal, social, and economic discrimination may predispose these women to psychological stress and subsequent suicidal behavior (85). Higher rates of suicide have also been reported among married women over the age of 60 in Hong Kong compared to the widowed and divorced in this age group (83).

While problems in interpersonal relationships increase the risk of suicidal behaviour for some individuals, social isolation is also a marker for suicidal behaviour. Social isolation underlies Durkheim's concepts of 'egoistic' and 'anomic' suicide (87), both of which incorporate the notion of insufficient social connectedness. It is readily accepted that social isolation can be a precipitating or triggering factor for suicide. For example, following the death of a loved one, a person may complete suicide if they are insufficiently supported by those around them during the grieving period. In addition, social isolation can be a sign or symptom of potential suicidal behaviour. A large body of literature has reported that individuals who experience isolation in their lives are more vulnerable to suicide than those who have strong social ties with others (88-91).

In a comparison study of social behaviour between groups of suicide attempters, suicide completers and people dying of natural causes, Maris (92) found that the group of suicide completers had participated in less social organisation, were often without friends and had shown a progressive decline of interpersonal relationships leading up to a state of total social isolation. Psychological autopsy studies indicate that social withdrawal frequently precedes the suicidal act (92). This was also highlighted in a study by Negron et al (93) who found that suicide attempters were more likely to isolate themselves in an acute suicidal phase than suicide ideators. Wenz (94) identified anomie, actual and expected social isolation as etiological factors in widow suicide. Additionally, social isolation has been frequently identified as a contributing factor in suicidal ideation among the elderly (95, 96). In a study on suicide attempt among adolescents under 16 years of age who had been referred to a general hospital, Hawton (97) found that the most frequent problems underlying this behaviour were relationship difficulties with parents, problems with friends and social isolation.

Social and Environmental Factors

The social and environmental context is also important for understanding fatal and non-fatal suicidal behaviour. Previous research has identified a number of important social and environmental factors related to suicidal behavior, including the availability of means, place of residence, immigration, employment, economic stability, social integration, and religion.

A major factor determining whether a suicidal behaviour will be fatal or non-fatal is the method chosen. (See Box 7) In the United States, firearms are used in approximately two-thirds of all suicides (4). In other parts of the world, hanging is more common, followed by firearm, jumping from a height, and drowning. In China, however, intoxication by pesticides is the most commonly used method.

In the last two decades, in several western countries and particularly in Australia there has been a remarkable increase in hanging, especially by younger people, accompanied by a nearly parallel decrease in firearm use (98). In general, elderly people tend to adopt methods implying less use of physical strength, such in the case of drowning and especially of jumping from heights, as it is the case of the elderly in Singapore or Hong Kong (99). Nearly everywhere, women tend to utilize more "soft" methods (for example, overdosing with medicines), both in fatal and in non-fatal suicidal behaviours (31). A well-known exception is self-burning in India.

Apart from age and gender, the choice of method in suicide is influenced by several other factors. For example, tradition influences the perpetuation of the practice of hara-kiri in Japan. Imitation, especially in young people often in relation to a media event (100) or to the suicide of a celebrity (101), has been seen to strongly influence the choice of the method (102). The degree of intention is generally related to the lethality of the method: elderly people normally express a greater determination to die and they tend to chose more violent methods (eg, firearm, hanging, jumping from a high place) in the context of circumstances that aim not to offer possibilities of being rescued (103). The place of residence is also strongly related to the choice of method. For example, in rural communities of Eastern European countries, the easy availability of herbicides and pesticides renders these means as very frequently adopted for suicidal purposes, but the same holds true for the Pacific islands of Samoa, where –as confirmation of this hypothesis- the control of the sale of paraquat, a herbicide, led to an actual decrease in the number of deaths due to suicide (104). In rural communities of Australia, where possession of firearms is very common, their use as sucidal method is far more frequent than hanging (105).

Suicide risk appears to be related to place of residence also for different motives than access to means. In fact, although the number of suicides is far greater in urban areas, rates of suicide are often higher in rural and remote areas. For example, in 1997 New York (Manhattan) recorded 1,372 suicides, a number three times higher than that of the state of Nevada (411), but the latter has more than three times the rate of New York (24.5 –the highest in the USA- versus 7.6) (106). Urban/rural differences in suicide rates are not unique to USA. Similar distributions have been reported for Australia (105), but also in European countries such as Scotland and England and Wales, where farmers have been found to have high rates of suicide (107). Higher rates of suicide among women living in rural areas of China have also been reported (see box on China). Social isolation, difficult detection of warning signs by proxies or other community members, limited access to health facilities or general practitioners, lower level of education, all are factors that may contribute to explain the higher rate of suicide in rural and remote areas.

The impact of immigration on suicide rates has been been studied particularly in countries such as USA, Canada and Australia. In these countries, where the population is constituted by different ethnic groups, suicidal behaviour in a given group appears to be analogous to that of the country of origin, with rates tendentially slightly increased. In Australia, for example, immigrants from Greece, Italy, Pakistan evidence suicide rates remarkably lower than those of immigrants

coming from Eastern European countries, or from Scotland or Ireland, countries with traditionally higher suicide rates (108)(Tab.4). This observation strongly emphasises the role of cultural factors in suicidal behaviour.

Several studies have also revealed increased rates of suicide during periods of economic recession and high unemployment rates (109). The reverse has been demonstrated during "booming" periods. In a study examining the impact of economic factors on the frequency of suicide in Germany, Weyerer (110) investigated the effect of four economic variables and their relationship to suicide rates between the year 1881-1989 (pre-unification). The strongest correlation was found during times of obvious social disintegration, high unemployment with diminished state safeguards and increased frequency of bankruptcy. A preliminary investigation into the above average suicide rate in Kuzbass (Russia) from 1980 to 1995 gave economic instability, the disintegration of the USSR as well as specific historical factors as possible contributions (111). A qualitative account by Berk (112) of his visits in Bosnia reported a higher than expected rate of suicide as well as alcoholism among children: while they had survived the most immediate threat posed by war, the young had succumbed to the long-term stress.

At the individual level, suicidal behaviour is more frequent in unemployed than in employed people. Indigence and a socially deteriorated role —both a consequence of lack of work-- appear to be variables often associated with increased suicidal behaviour, especially in case of sudden loss of a previous occupation. However, research into unemployment impact has generally suffered from a number of confounding factors, such as the commistion of subjects waiting for first employment with others who have lost their occupation, length of the unemployment period, "under the table" work, concomitance with psychiatric conditions and personality disorders, etc.

Religion has long been thought of as an important factor in fatal and non-fatal suicidal behavior. Previous research indicates that suicide rates are highest in countries where religious practices are either strongly discouraged or prohibitied (such as was the case in former communist countries), followed by countries in which Asian religions predominate, and in countries where Protestant Christianism is stronger. Countries that are predominantly Moslem have some of the lowest suicide rates in the world, immediately preceded by countries that are largely Roman Catholic. Unfortunately no data are available in relation to the majority of countries following Animistic religions, mostly found in Africa. This obviously does not capture the importance nor the degree of individuals' adherence to and observation of the precepts of a given religious denomination (113).

Durkheim believed that suicide stemmed from a lack of identification with a unified group and postulated that the incident of suicide would be reduced in countries with a high degree of religious integration. Accordingly, Durkheim argued that shared religious practices and beliefs, such as those associated with Catholicism, are protective factors against suicide (87). Several studies that have investigated Durkheim's hypotheses have found support for his argument (114, 115). A study by Simpson and Conlin (116) which examined the impact of religion found that belief in Islam reduced suicide rates more than a belief in Christianity. Several other studies have found no association between the percentage of Catholics in a population and a reduced suicide rate (117, 118).

Amidst the difficulties of research looking specifically at religious denomination, further studies

have investigated the influence of church attendance and networks as a measure of religious faith. The findings of these studies have suggested that church attendance and a network interpretation have a strong preventative influence (119). The degree of commitment and involvement in religion was found to be an inhibitor of suicide (120). Similarly, a study by Kok (121) investigated the suicide rate among the three ethnic groups of Singapore and found that the Malays (a Muslim group who are strongly opposed to suicide) had by far the lowest suicide rate. Furthermore, the Hindu groups who believe in reincarnation do not strictly forbid suicide, had the highest rate of suicide. Another study examining differences between Afro-American and white populations of the US, found that the lower rate of suicide among Afro-American could be attributed to orthodox religious beliefs and personal devotion (122).

In sum, risk factors for suicidal behaviour are numerous and interactive. Psychiatric disorders, especially depression and schizophrenia, are found to have been present in many people who have suicided. Alcohol and drug abuse and previous suicide attempts are also strong indicators of completed suicide. Biological studies propose a genetic link to suicide and lower levels of serotonin and its metabolite in the brain. Severe and disabling physical illnesses contribute to suicidal behaviour, although are usually coexisting with a psychiatric disorder. Other risk factors include: loss of a loved one, physical or sexual abuse, separation or divorce, social isolation, living in rural areas, migration and unemployment. Although not one "cause" of suicide can be given, a predisposition coupled with a combination of risk factors, may help to predict those most in need for prevention strategies.

Response to the Problem: Prevention, Policy Responses

Considering the increase in the occurrence of suicidal behaviour, in particular among youngsters, there is a need for effective prevention and intervention programs. Multiple factors have been identified as risk factors for suicidal behaviour. Knowledge of these risk factors is the foundation on which prevention and intervention programs are based. Although many of these programs have been developed over the years, very few of them have demonstrated some influence in reducing suicidal behaviour.

Psychiatric and Psychological Factors

Treatment of mental disorders. Since the majority of published studies - and clinical experience, as well - indicate that a few mental disorders are significantly associated with suicide, the early identification and appropriate treatment of those disorders emerge as an important strategy for the prevention of suicide. Mood disorders, alcoholism and other substances abuse, schizophrenia and some types of personality disorders are particularly relevant in this respect. There is evidence that the education of primary health care personnel in the identification and treatment of people with mood disorders may effectively result in a reduction of suicide rates among those at risk. Also, there are indications that new generation medication for both mood and schizophrenic disorders, with less side effects and a more specific therapeutic profile, increases adherence to treatment and better outcomes, thus reducing suicide rates among clinical populations. The reduction of the stigma still attached to people with mental disorders in many

communities favours this people coming forward to receive treatment at early stages of the disease, when treatment is more efficient, thus contributing also to the reduction of suicide.

Treatment of suicidal behaviours. In clinical populations two basic strategies of treatment are employed. According to the first strategy, suicidal behaviours are secondary to the mental disorder. Treatment is primarily focussed on the mental disorder under the assumption that its improvement will result in reductions in suicidal behaviours. The second strategy engages treatment, which directly targets suicidal behaviours. Reduction of suicidal behaviours is the primary goal of treatment (123). In alignment with the latter strategy different treatments, or interventions, have been developed, two of which will be discussed below.

Behavioural Interventions

Behavioural interventions employ a certain behaviour and problem solving focus. In the therapy sessions the client has to discuss current and past suicidal behaviours, including ideation, threats and communications with a mental health worker, exploring connections to the possible underlying or controlling factors (123). Results on the efficacy of these treatments are promising, although there is not a conclusive answer on the efficacy yet.

A study by Salkovskis et al. (124) included multiple high-risk suicide attempters with a history of suicidal behaviour, aged 16-65 years, who were admitted to the Emergency Ward for an antidepressant overdose. Patients received either treatment as usual (TAU) or both TAU and a brief problem-oriented intervention. Salkovskis found a significant difference in parasuicide repeat rates in favour of the experimental group six months after treatment. Unfortunately, this difference was not significant anymore when the difference was assessed after 18 months.

A study by Linehan (125) was a one-year intervention aimed at patients with multiple parasuicides with borderline personality disorders, multiple behavioural dysfunctions and significant mental disorders. During the first year after treatment, patients who received dialectical behaviour therapy (DBT) had fewer parasuicidal episodes than patients who had received TAU did.

Another research study (126), which adopted a behavioural therapy approach examined whether high risk parasuicide patients showed a deficit in positive future thinking and whether such a deficit could be remedied by a brief, manual assisted psychological intervention (manual assisted cognitive behaviour therapy: MACT). Patients were randomly assigned to either MACT or treatment as usual (TAU) and assessed again at 6 months follow-up. They found that parasuicidal patients showed reduced positive future thinking compared to a sample of controls. Patients who received MACT showed a significant improvement in their positive thinking in the follow-up period, whereas patients who received TAU did not. However, the control group did also show a significant improvement in positive future thinking, a finding that could not be explained. In terms of the effectiveness of the intervention on the parasuicide repetition rate, the median rate of repetition per month was halved in the MACT group, although this was not statistically significant.

Green Card

The green card is a relatively simple non-demanding intervention. The client receives a card, which gives him/her immediate access to different sources of crisis intervention, such as an on-call psychiatrist and/or immediate hospitalisation. The green card has not proven to be particularly effective, but does exert some beneficial effect on first-time attempters.

Morgan's study (127) involved first-time suicide attempters. The green card gave patients easy access to the accident and emergency department and the availability to contact an on-call trainee psychiatrist. The experimental group received TAU and the green card; the control group only received TAU. At 12 months follow-up the experimental group showed reductions in rates of repeated suicide attempts, although not significant. However, when suicide attempts and threats were combined there was a significant reduction in the experimental group.

Cotgrove et al (128) examined a group of adolescents. In this study the green card gave them the possibility of re-admission to the hospital on demand. The green card did not include a special telephone support service. After one year, following the suicide attempt, differences in repeated suicide attempts were not significant, but the results suggested lower rates in the experimental group, even if the card was not used.

A recent study by Evans et al (129) used the green card in a mixed group of first-time attempters and patients with a history of suicide attempts. Patients were randomly allocated to control groups, which received only TAU, or experimental groups, which received TAU and the green card. The green card offered a 24-hour crisis telephone consultation with an on-call psychiatrist. The green card had a different effect for first-timers and patients who had made previous suicide attempts. Among the latter group, the odds of repeating suicide attempts were higher in the treatment group, while the green card appeared to exert a protective effect, although non-significant, on those who had not previously attempted suicide.

In conclusion, the green card seems beneficial to a certain degree to first-timers, but as indicated in Evans' study (129) it does not seem to be beneficial to patients who have made previous attempts. As indicated in the literature, patients who have made multiple suicide attempts are a vulnerable group. It might be that telephone support alone, as given in Evans' study, was not enough and the green card should have offered easy access to more or different sources of crisis intervention to this population.

Another intervention, which is based on the principle of connectedness and easy access and availability of help, is a Tele-Help/Tele-Check service for the elderly operating in Italy (130). Tele-Help is an alarm system that the client can activate to call for help. The Tele-Check service contacts the client twice a week for assessment of needs and for emotional support. In this study 12,135 individuals aged 65 years and over were connected to the Tele-Help/ Tele-Check service for 4 years. During this period only one suicide was found as compared with the expected number of 7.44 (130).

Biological Factors

Pharmacotherapy. Pharmacotherapy has been examined for its efficacy in affecting neurobiologic processes, which underlie psychiatric conditions, including those that are related to suicidal behaviour.

Verkes et al (131) indicated that paroxetine might be effective in reducing suicidal behaviour. This study was conducted on the basis that suicidal behaviour has been associated with reduced serotonergic function. Paroxetine is a selective serotonin reuptake inhibitor (SSRI), which enhances the serotonergic function. In a 1-year double blind study paroxetine and placebo were compared in 91 patients with a history of suicide attempts and who had recently attempted suicide. These patients had not suffered major depression, but the majority had a cluster B personality disorder. The results showed that enhancing serotonergic function with an SSRI, in this case paroxetine, might reduce suicidal behaviour in a subgroup of patients with a history of suicide attempts, but who do not suffer from a major depression.

Relationship Factors

Research has indicated that susceptibility to suicide is related to the social relationships of a person; the greater the degree of social relationships, the less the susceptibility to suicide (132).

A number of interventions have focussed on the enhancement of social relationships in order to reduce repeated suicidal behaviour. The general approach is to explore problems in different areas of the client's social life and to target them in collaboration with the therapist. Although the main goal of the intervention is to prevent recurrent suicidal behaviour, the improvement of social relationships is also considered important.

Research has shown that the interventions are ineffective regarding prevention of recurring suicidal behaviour. However, intermediate goals related to enhancement of social relationships were achieved.

Psychosocial interventions. Litman and Wold (132) investigated the efficacy of a reaching-out service, called continuing relationship maintenance (CRM). A total of 400 subjects, who were evaluated as high-risk by lethality rating scales, were assigned to this program for an average of 18 months. They either entered the experimental (CRM) group or the control group, the latter receiving on-going counselling with the clients taking initiative for contact themselves. The intervention did manage to reduce suicidal ideation, attempts, and completed suicide. However, the intermediate goals were achieved, with the CRM group showing significant improvement compared with the control group. The CRM group showed reduced loneliness, improvement in love relationships, better use of professional help, less depression, and more confidence in using community resources.

Gibbons et al (133) examined different outcome measures for patients who received routine treatment and those who received so-called task-centred casework. There was no difference in the

number of repeated attempts between both groups, but they showed differences on measures of social problems and satisfaction with the service they had received. The experimental group showed greater improvement in social problems and was more satisfied with the service than the control group.

In a study by Hawton et al (134) 80 overdose patients either received out-patient counselling (OP) or were returned to their general practitioners (GP) with recommendations for further care. Again, there was no statistical difference in the rates of repeated suicide attempts, but there were indications of some degree of increased benefit for the OP group at a 4-months assessment. A greater proportion of the OP group had resolved or improved their target problems and on the Social Adjustment Scale (SAS) they showed particular improvements in social adjustment, relationship with extended family, marital adjustment, and family relations. Counselling seemed most beneficial for women and patients with dyadic problems.

Social and Environmental Factors

Suicide prevention centres. Besides the specific interventions, as described above, there are community mental health services available for persons exhibiting suicidal behaviour. A suicide prevention centre is supposed to serve as a crisis centre offering immediate help mostly via telephone contact and crisis-oriented programs.

Dew et al (135) performed a quantitative literature review of the effectiveness of suicide prevention centres. Results suggested that suicide prevention centres have no specific effect, either positive or negative, on the population rates. However, methodological limitations of this study make it difficult to firmly conclude that centres do not prevent suicide. Furthermore, they found that the proportion of suicides among prevention centre clients are greater than the proportion of suicides in the general population, and that individuals who committed suicide are more likely to have been centre clients. Both these results indicate that the suicide prevention centres are at least successful in attracting the population they are supposed to help: the high-risk population.

Lester (136) reviewed 14 studies examining the effectiveness of suicide prevention centres on suicide rates. Of these, seven studies were found to provide some evidence for a preventive effect. A study by Riehl et al (137) actually reported an increase in suicide rates in three of the 25 German cities with a suicide prevention centre he examined. Thus, Lester found some support for the preventive effect of suicide prevention centres, but the results also indicated that this effect might not be found for all subgroups in a population, or for all methods of suicide.

School-based interventions. These programs train school staff, community members, and health care providers to identify those at risk for suicide and make referrals to mental health services. The extent of training varies from program to program, but all emphasise a strong link to local mental health services. The interventions have demonstrated improvements in knowledge of suicide and willingness to refer.

A note of caution though is made by Lester (138) who suggested that with the education of school staff members, students might be referred to mental health professionals on fewer occasions, which might resulted in increased mortality. He based this suggestion on the finding that states in the US with school programs witnessed an increase in their youth suicide rates

(138). Although education of school staff members, parents and others involved in school programs is important, they can not replace the role of the mental health professional. It is important that vulnerable students are referred on to those with the skills to intervene and treat, because only then programs and treatments are beneficial. Nevertheless, there are certainly good reasons for schools to act as a medium for suicide prevention. The primary reason is that health care facilities alone can not meet all the needs of youths.

A school program that has been created by Dade County Public Schools (DCPS) in Miami, Florida shows the different types of prevention as previously described. This program is the Suicide Prevention and School Crisis Management Program (SPSCMP), which was implemented in 1989 (139). The results of this program were rather promising. Overall, the program seemed to be effective in reducing the rate of suicide attempts and completed suicides, although the rate of student suicidal thoughts remained relatively stable. However, two important limitations of this study should be mentioned. First of all the number of suicides is very small. Within the period of 1980-1994 the number of suicides fluctuated between 3 per year in 1993 and 18 per year in 1989. This brings us immediately to the second point of criticism namely the sudden increase in 1988, just before the program started. The number of suicides was the highest recorded since 1980. The decline in suicides after 1989 seems thus enormous because of this high initial number of suicides. The reason for this sudden increase in 1988 has not been explained and the decline might be a natural response to this, regardless of the implementation of the program.

Restriction of access to means of suicide. Restriction is particularly relevant when access to preferred means of committing suicide is amenable to control. The first evidence of this approach was demonstrated in 1972, by Oliver and Hetzel (140), in Australia, who demonstrated a reduction in suicide rates when access to sedatives (mainly barbiturates, lethal in high doses) was reduced.

In addition to the study of Oliver and Hetzel, on the reduction of availability of sedatives, there is evidence of the impact of the reduction of availability of other toxic substances, such as pesticides, widely disseminated in rural areas of many developing countries. The case of Samoa is perhaps one of the best-studied examples (104): until 1975, when "paraquat" was introduced in the country, total suicide rates were below 5 per 100,000. In 1976 suicide rates started to climb to reach nearly 50 per 100,000 in 1982, when access to "paraquat" was drastically curtailed. Within two years, suicide rates had dropped to approximately 10 per 100,000. It is interesting to note that between 1976 and 1982 the so-called "paraquat suicides" represented between 50% and 80% of all suicides, depending on the year, and that in spite of the mechanisms for the control of access to "paraquat", after 1984 more than 90% of all suicides are represented by the so-called "paraquat suicides". (See Figure 5).

The removal of carbon monoxide from domestic gas and from car exhausts represents the best known examples of the reduction of suicide rates through gas detoxification. The mechanisms through which this approach is applied may vary from place to place. Suicides from poisoning with domestic gas in England started to decline in 1955 soon after carbon monoxide began to be removed (141). Although this impact was dramatic on suicides using that particular method, it was also observed in relation to the overall suicide rates (141). In spite of a slight increase of the total number of suicides after the end of the process of detoxification of domestic gas, it never reached the rates prior to 1955, probably due also to other effective interventions (see Figure 6).

Similar declines in the use of domestic gas for suicide have been noted in Scotland, the Netherlands, Japan, the United States and Switzerland (142). The introduction in 1965 in the USA of catalytic converters for the removal of carbon monoxide from car exhausts resulted in a clear sustained reduction of suicides using that method (143). The same phenomenon was observed in Japan (142). In addition, data from the UK, where no such device was introduced, shows a remarkable increase over the same period (See Figure 7).

The relationship between the possession of handguns at home and suicide rates has been well-demonstrated (144). The efficacy of firearm control depends largely on the adoption of legislation, which regulates areas ranging from guns sales, ownership and storage, to the incorporation of mechanisms that distance guns from bullets and others, such as trigger blocking devices. An additional advantage of this approach resides in that it also contributes to wider injury prevention programs, be those injuries accidental or intentional. In some countries (Australia, Canada and the United States) restrictions on the ownership of firearms has been associated with a reduction in their use for suicide (142).

Media reporting. The possible impact of mass media on suicide rates has also been documented and already referred. The evidence indicates that the impact of media reporting on imitation suicides depends largely on the way it is reported, e.g., the tone of the text, terms employed, the location of the matter and the use of graphic and unnecessary material. There is also some indication that the "vulgarisation" of reports about cases of suicide might create a "suicide culture", in which suicide is perceived as a normal and acceptable way out of some difficult situations.

Responsible media reporting also includes the provision of adequate and reliable information about agencies and places where help can be obtained in case of need, particularly in crisis situations (145). Deglamourising suicide also means the provision of adequate information in the cases of suicides committed by celebrities, such as the pain and mourning impinged upon survivors. Media can also be used to bring health issues in the publicity. Community-based interventions often involve media for its great potential to reach large parts of the population. Evaluations of the effectiveness of health promotion via the mass media have suggested limited results (146). The mass media is most effective in making people aware of certain health issues they had little knowledge of. Although media campaings have a modest effect on general attitudes, they hardly bring about behaviour changes (146).

Intervention after a Suicide: Postvention

The loss of a person by suicide evokes different feelings of grief in the survivors than death from natural causes. In general, there is still a taboo attached to the discussion suicide. Those people bereaved by suicide might therefore have less opportunity to talk with others about their grief. Communication of feelings is an important part of the healing process. Survivor groups serve a very important role in this process. The first self-help support groups were established in North America and the United Kingdom in 1960. In 1970, the first support group for suicide survivors started in North America, followed by various countries throughout the world. Self-help support groups are described as groups of people who are directly and personally affected by a specific

issue. The members run the groups, but access to outside resources and assistance is made available.

Evidence has suggested that the self-help groups have positive outcomes for their participants. The common experience of loss by suicide bonds people and might encourage them to communicate their feelings, which is often difficult in society in general (147).

Policy Responses

In 1996 the United Nations Department for Policy Coordination and Sustainable Development issued a document in which the importance of a guiding policy on activities related to suicide prevention was highlighted and developed, and which became a landmark in the subject (148). In addition to that, WHO published a series of documents on strategies for the primary prevention of mental, neurological and psychosocial disorders, in which a fascicle was dedicated to suicide; later, that series was edited in a book format (149). Other reports on suicide and prevention have also been developed (for example, CDC guide).

In 1999 WHO included the prevention of suicide among its priorities and launched SUPRE (SUicide PREvention), a global initiative aiming at the prevention of suicidal behaviours, with the following objectives:

1. To bring about a lasting reduction in the frequency of suicidal behaviours, with emphasis on developing countries and countries in social and economic transitions.
2. To identify, assess and eliminate at early stages, as far as possible, factors that may result in young people taking their own lives.
3. To raise the general awareness about suicide and provide psychosocial support to people with suicidal thoughts or experiences of attempted suicide, and to their relatives and close friends, as well as those of people who committed suicide.

The main strategy for the implementation of SUPRE is based on two elements, along the lines of the Primary Health Care Strategy:

1. organisation of global, regional and national multi-sectoral activities to increase awareness about suicidal behaviours and their effective prevention, and
2. strengthening of countries capability to develop and evaluate national policies and plans for suicide prevention, which might include, e.g.:
- Support and treatment of populations at risk (e.g., people with depression, the elderly, youth),
- Reduction of the availability and access to means of suicide (e.g. toxic substances, handguns),
- Support/strengthening of networks of survivors of suicide, and
- Training of primary health care workers and other sectors.

SUPRE has now been complemented by a Multisite Intervention Study on Suicide (SUPRE-MISS) which aims at the identification of both specific risk factors and specific interventions effective for the reduction of suicidal behaviours.

Recommendations

Several important implications may be drawn from the information presented in this chapter for the development and implementation of effective prevention strategies aimed to reduce both fatal and non-fatal suicidal behaviour rates.

Firstly, suicide and attempted suicide are multidetermined phenomena that represent the interplay of biological, psychological-psychiatric, and social factors in very individualised expressions. Every suicidal action has multiple causes, so that any prevention programs should be "multimodal" by definition (24). In other words, complexity of causes necessarily involves complexity of approaches and, consequently, complexity of strategies.

Secondly, programs for suicide prevention are doomed to be ineffective if they are not cast within the framework of large-scale plans carried out by multidisciplinary teams, comprised of representative of governments, health-care planners and health-care workers.

Thirdly, given the size of the phenomenon and of its many fall-downs, major investments are needed both in the area of research and in preventative efforts. In particular, there is the neccesity of long-term, evaluable projects. So far, those that have been established have been of short duration and assessment, if occurred, only concerned with short-term follow-ups.

Lastly, it is very important that countries do not rely on epidemiological surveys and prevention strategies that have been developed in other nations. Research teaches us that cultural factors play a major role in suicidal behaviour (150) and that there are huge differences in the dimension and characteristics of this problem around the world. As an example, the average ratio between the highest and the lowest suicide rates is 1:102.4 for men and 1:35.8 for women (151). Also, epidemiological trends vary from country to country and the same holds true for research results. What has shown to have a positive effect in preventing suicide in a given nation, may demonstrate totally ineffective or negative impacts in another cultural ambience.

Consequently, there is an urgent need for more and better information concerning the causes of suicidal behaviour, both at national and international level, with a particular attention to minority groups. Cross-cultural comparisons, such in the case of the WHO/EURO Multicentre Study of Suicidal Behaviour and of the very recent WHO/SUPRE-MISS, should be encouraged. They may help us to better understand causative and protective factors, and consequently assist us to re-orientate preventative efforts. With regards to this it is necessary that:

- Data collection on both fatal and non-fatal suicidal behaviour is stimulated. It is noteworthy that nearly half of the countries owing to the United Nations are not reporting mortality data for suicide to WHO. This is particularly true for many nations of Africa and the Middle East, and also for countries of Latin America. General hospitals and other socio-medical services should be encouraged to keep records of non-fatal suicidal behaviours.

- Data collection must be valid and up-to-date. Within this aim, certification and classification procedures should be improved by the adoption of uniform criteria and definitions. Once established, these have to be constantly applied and reviewed. Data collection has to be organised in such a way as to avoid duplication of statistical records and in the meantime to be readily usable for analytical/epidemiological investigations by researchers and

national/international agencies.

- Data banks have to be built in network with relevant agencies (eg, general hospitals, psychiatric and medico-legal institutions, coroners, departments of justice, education and labour, bureau of statistics, etc) in order to permit long-term monitoring and thus a better understanding of risk factors and pathways to suicide. This implies that governmental agencies work together in an interdisciplinary, coordinated manner and that all health professionals and officers of involved agencies are educated in the detection and referral of suicidal cases and in the appropriate coding of these behaviours.

- Data sets of major social indicators should also be available in parallel with suicidal behaviour data. Ideally, they should contain indices of "happiness" of a given nation, quality of life indicators, rate of divorce, of unemployment, of homicide, alcohol and drug abuse, education, religious appartenence, sexual orientation, ratio young/elderly in the population, percentage of women in formal work settings, etc.

Once reliable data sets are obtained, a carefully designed multidisciplinary research program, using control groups, may be set in operation. There is an urgent need for coupling psychosocial measures with biological parameters. This may permit a great advancement of current knowledge. For example, the rapidly expanding research in molecular genetics, especially the one addressing the identification of genetic subtypes and polymorphism in alleles controlling serotonin metabolism, appears to be a particularly promising field of research. Also structural, and especially functional, brain imaging deserves more research investments. Longitudinal evaluations carried out in suicide attempters may clarify if abnormalities possibly encountered have "trait" or "state" dimension and this could be particularly relevant if associated with, for example, a reduced serotonergic metabolism (55).

Clinical research may further develop, contributing to highlight the role of co-morbid conditions and their causative role (for example, interaction between depression/alcohol abuse), as well as sub-grouping subjects on the basis of their age (suicide in the elderly has different characteristics from that in youngsters) and of their personality and temperamental characteristics. In addition, the importance of aspects such as hostility, aggression, impulsivity, tendency to dyscontrol, waits to be elucidated.

The large role that psychiatric risk factors play in increasing the risk of suicidal behaviour indicates that improving treatment options for those who have a psychiatric disturbance would go far in preventing suicide. This requires several components. First, pharmaceutical companies must be encouraged to develop newer and more effective medications for psychiatric disorders. For example, the advent of the serotonin re-uptake inhibitors may have resulted in a decline in the Scandinavian suicide rates (152).

Second, research funding must be targeted to devising more effective techniques of psychotherapy and counseling for suicidal individuals. In particular, there is the need for developing more specific techniques for those people whose personality disorders are more frequently associated with suicidal behaviour. This can be accomplished by issuing "requests-for-funding" rather than making general grants available for whoever applies.

Third, the gatekeepers in the society (family physicians, social workers, and clergy, among others) must be trained to recognize, refer and treat appropriately those with psychiatric disorders, especially affective disorders. In particular, the early identification and the appropriate treatment of individuals suffering not only from mental disorders, but also from drug and alcohol abuse and dependence, should constitute an absolute priority in the agenda of governments and their health-care planners. The program set up in Gotland (Sweden) by Rutz (153) accomplished this for physicians and has provided a model for other countries to follow

In addition to potential developments in treatment, many changes in the environment which reduce access to lethal methods for suicide (such as emission controls on cars which reduce the carbon monoxide content of the exhaust) are introduced to ameliorate other social problems (such as pollution). However, some social policies can be directed specifically toward preventing access to methods for suicide, such as:

- fencing in high bridges and access to the tops of high buildings,
- passing laws to force automobile manifacturers to change the shape of tail pipes and have automatic engine turn-off after specified periods of engine idle,
- restricting the availability of insecticides and fertilizers to non-farmers,
- requiring the monitoring of prescriptions for lethal medications by physicians and pharmacists, reducing the size of prescriptions, packaging the medications in plastic blisters, and prescribing medication, when possible, as suppositories, and
- passing stricter gun control laws.

Other areas of prevention that need further development and research are: suicide prevention centres, survivors groups, media response to suicide and school suicide prevention programs.

Suicide prevention centers. Suicide prevention centers mainly use the telephone for crisis intervention but also face-to-face counselling and outreach programs. These centres were initially establishhed by volunteers in the community as a response to what communities perceived to be an urgent problem. At present, and despite the high volume of client contacts they register, there is no conclusive evidence that these centres have an impact on suicide. However, as already commented in this chapter, they may have a small, but statistically significant, effect on the suicide rate (130, 135, 136).

Several international organizations coordinate the centers around the world – Befrienders International, IFOTES, and Lifeline. Befrienders International has now established Samaritan centers in more than 40 countries. Although these agencies are usually supported by the community, governments might do more to support them with better funding.

Survivor groups. Those who experience the suicide of a significant other (such as a child, spouse or parent) are at high risk for suicide. Again, services to help these individuals have typically been established and run by survivors themselves. These services provide regular meetings and supportive people to call on in acute crises. As with suicide prevention centers, governments should provide more funding and professional back-up and advice to support these services.

To counteract social isolation, governments should also promote community-based programs (eg, youth centres or senior centres) with the aim of stimulating social interaction and participation of these groups in the life of the community. Governments should also broadly target emotional and social well-being, addressing antecedents factors for suicide and increasing protective factors. Especially among young people, initiatives aimed to promote help-seeking behaviour have to be strongly stimulated.

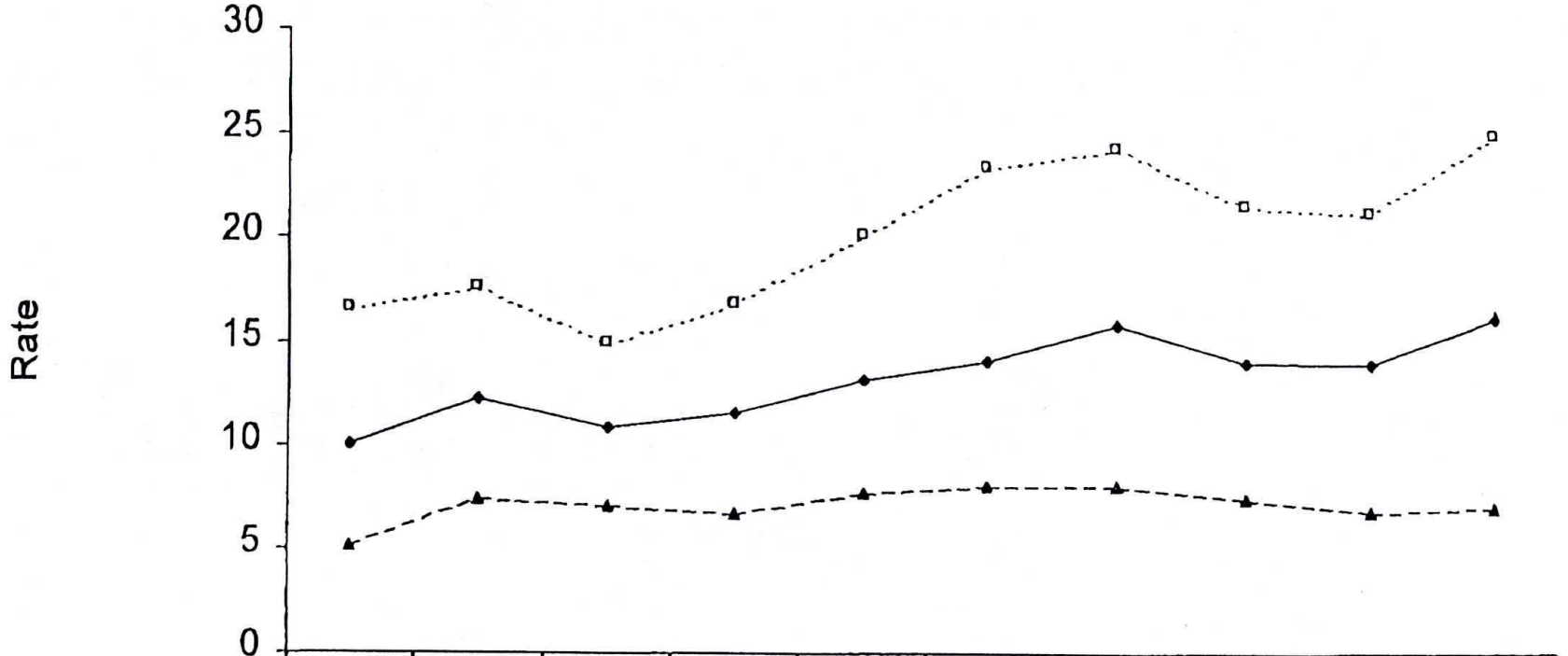
Media response to suicide. As reported above, research has documented rather convincingly, that suicides (real and fictional) presented in the newspapers and on television may result in a rise in the suicide rate in some members of the society in the days after the publicity.

As a result, various agencies have proposed guidelines for the media in reporting suicidal behaviour, including the Centers for Disease Control in Atlanta (USA), Befrienders International (the United Kingdom), Australia and New Zealand governments, and WHO (145). An advocacy for responsible media reporting is an absolute imperative.

School suicide prevention programs. It has been thought that educating people about suicidal behavior, teaching them the cues to impending suicidal behavior, informing them of helpful responses to depressed and suicidal individuals, and indicating the community resources available for those in distress might reduce the incidence of suicidal behavior. Such programs require a captive audience, and most of the programs devised to date have been for school children. More thought should be given to providing such educational programs to others in the community (such as church groups, union members, etc.).

Although evaluation of these programs has indicated beneficial results in some cases (139), others have argued that they may do harm to some children (138). Providing more general programs to raise the self-esteem of children and to teach them general coping skills (efforts which should reduce the incidence of a variety of inappropriate behaviors such as delinquent behavior, drug and alcohol misuse and eating disorders, as well as suicidal behavior) may prove to be a more valuable option.

Figure 1 - Global suicide rates (per 100.000), by gender, 1950-1995.



	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
Total	10.1	12.3	10.9	11.6	13.2	14.1	15.8	14	13.9	16
Male	16.6	17.5	14.9	16.7	20	23.2	24.1	21.4	21	24.7
Female	5.2	7.4	7	6.7	7.7	8	8	7.4	6.8	6.9

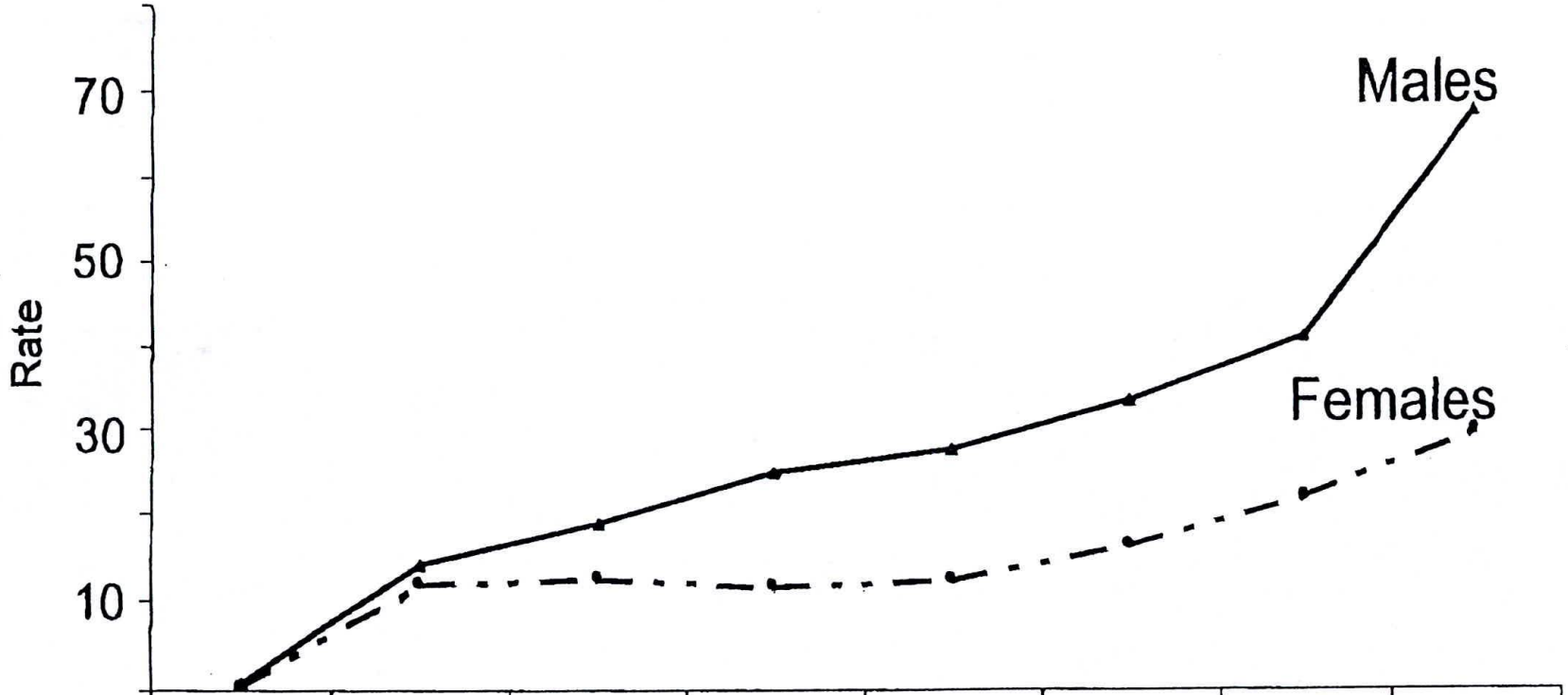
Table 1 - Suicide Rates (per 100,000)

(most recent year available, as of August 1999)

Country	Year	Males	Females
Albania	1993	2.9	1.7
Antigua and Barbuda	1995	0	0
Argentina	1993	10.6	2.9
Armenia	1992	3.6	1.0
Australia	1995	19.0	5.1
Austria	1997	30.0	10.0
Azerbaijan	1996	1.5	0.3
Bahamas	1995	2.2	0
Bahrain	1988	4.9	0.5
Barbados	1995	9.5	3.7
Belarus	1993	48.7	9.6
Belgium	1992	26.7	11.0
Belize	1995	12.0	0.9
Brazil	1992	5.6	1.6
Bulgaria	1994	25.3	9.7
Canada	1995	21.5	5.4
Chile	1994	10.2	1.4
China (mainland)	1994	14.3	17.9
China (SAR Hong Kong)	1996	15.9	9.1
Colombia	1994	5.5	1.5
Costa Rica	1994	8.0	1.8
Croatia	1996	34.2	11.3
Cuba	1995	25.6	14.9
Czech Republic	1996	24.0	6.8
Denmark	1996	24.3	9.8
Dominican Republic	1994	0	0
Ecuador	1995	6.4	3.2
Egypt	1987	0.1	0
El Salvador	1990	15.6	7.7
Estonia	1996	64.3	14.1
Finland	1996	38.7	10.7
France	1995	30.4	10.8
Georgia	1990	5.4	2.0
Germany	1997	22.1	8.1
Greece	1996	5.7	1.2
Guatemala	1984	0.9	0.1
Guyana	1994	14.6	6.5
Honduras	1978	0	0
Hungary	1997	49.2	15.6
Iceland	1995	16.4	3.8
India	1985	11.4	8.0
Iran	1991	0.3	0.1
Ireland	1995	17.9	4.6
Israel	1996	8.2	2.6
Italy	1993	12.7	4.0
Jamaica	1985	0.5	0.2
Japan	1996	24.3	11.5
Jordan	1979	0	0
Kazakhstan	1996	51.9	9.5
Kuwait	1994	1.8	1.9
Kyrgyzstan	1996	17.6	3.8
Latvia	1998	59.5	11.8

Lithuania	1998	73.7	13.7
Luxembourg	1997	29.0	9.8
Malta	1997	5.9	2.1
Mauritius	1996	20.6	6.4
Mexico	1995	5.4	1.0
Netherlands	1995	13.1	6.5
New Zealand	1994	23.6	5.8
Nicaragua	1994	4.7	2.2
Norway	1995	19.1	6.2
Panama	1987	5.6	1.9
Paraguay	1994	3.4	1.2
Peru	1989	0.6	0.4
Philippines	1993	2.5	1.7
Poland	1996	24.1	4.6
Portugal	1996	10.3	3.1
Puerto Rico	1992	16.1	1.9
Republic of Korea	1995	14.5	6.7
Republic of Moldova	1996	30.9	6.2
Romania	1996	21.1	4.3
Russian Federation	1995	72.9	13.7
Saint Kitts and Nevis	1995	0	0
Saint Lucia	1986-88	11.0	3.0
St. Vincent and The Grenadines	1982-85	2.0	0
Sao Tome and Principe	1987	0	1.8
Seychelles	1985-87	12.2	0
Singapore	1997	14.3	8.0
Slovenia	1996	48.0	13,9
Spain	1995	12.5	3.7
Sri Lanka	1991	44.6	16,8
Suriname	1992	16.6	7.2
Sweden	1996	20.0	8.5
Switzerland	1994	30.9	12.2
Syrian Arab Republic	1985	0.2	0
Tajikistan	1992	5.1	2.3
Thailand	1994	5.6	2.4
Trinidad and Tobago	1994	17.4	5.0
Turkmenistan	1994	8.1	3.4
Ukraine	1992	38.2	9.2
United Kingdom	1997	11.0	3.2
United States of America	1996	19.3	4.4
Uruguay	1990	16.6	4.2
Uzbekistan	1993	9.3	3.2
Venezuela	1994	8.3	1.9
Yugoslavia	1990	21.6	9.2
Zimbabwe	1990	10.6	5.2

Fig. 3 Global suicide rates (per 100.000), by gender and age, selected countries, 1995.



5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+
0.9	14.2	18.9	24.9	27.6	33.3	41	66.9
0.5	12	12.6	11.6	12.4	16.4	22.1	29.7

Age group

Table 2 - Percentage of suicides by age group and gender, selected countries*, (most recent year available for each country).

Age (years)	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	Total
Males	0.7	12.7	18.3	20.5	17	13.9	9.6	7.3	100
Females	0.9	13.3	15	15.4	14.7	13.9	13.7	13.1	100
All	0.8	12.8	17.5	19.2	16.4	13.9	10.7	8.7	100

*Does not include India.

Fig. 4 Percentage of suicides by age, selected countries, 1950-1995

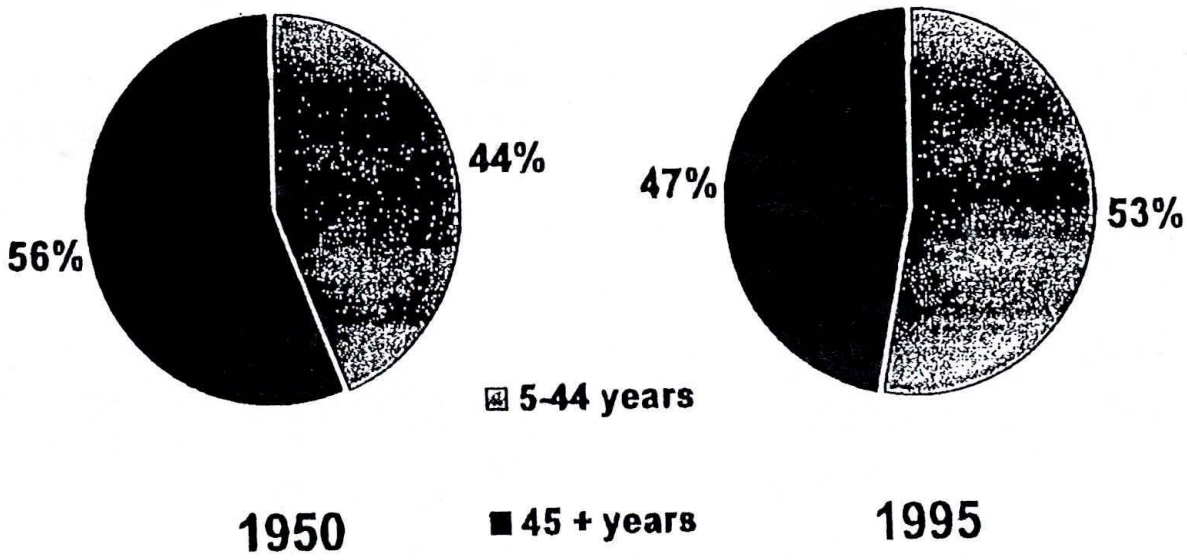


Table 3 - Psychiatric diagnoses in 5588 cases of suicide

(Source: WHO: Primary Prevention of Mental, Neurological and Psychosocial Disorders. Geneva, WHO, 1998)

Diagnosis	Number of diagnosis	Percentage of total number of diagnoses
Affective disorders	1400	24%
Neurotic and personality disorders	1340	22%
Substance abuse	947	16%
Schizophrenia	612	10%
Organic brain syndrome	308	5%
Other mental disorders	1259	21%
No psychiatric diagnosis	137	2%

The number of diagnoses is greater than the number of cases due to multiple diagnoses, in some cases.

Table 4.
Tab. 4

Standardised suicide rates (per 100 000) in Australia, by birthplace, for all ages, 1982-1992,.

Year	Australia	U.K. and Ireland	Southern Europe	Eastern Europe	Western Europe	Oceania	Asia	Total Overseas Born
1982	11	12	7	31	19	14	8	13
1983	11	12	8	21	16	10	12	12
1984	11	11	5	17	17	17	9	11
1985	11	12	6	20	17	14	7	12
1986	12	13	6	17	19	14	8	12
1987	14	14	7	28	17	17	8	13
1988	13	15	8	20	14	17	9	13
1989	12	13	7	16	16	14	8	12
1990	13	12	5	14	19	14	8	11
1991	14	14	9	22	19	13	8	12
1992	13	13	8	24	17	14	7	12

Source: ABS, 1994. Commonwealth of Australia copyright reproduced by permission.

Fig. 5 . Frequency of suicides in Samoa in relation to the arrival in the country (1974) of pesticides containing Paraquat and the control of its sales (1982).

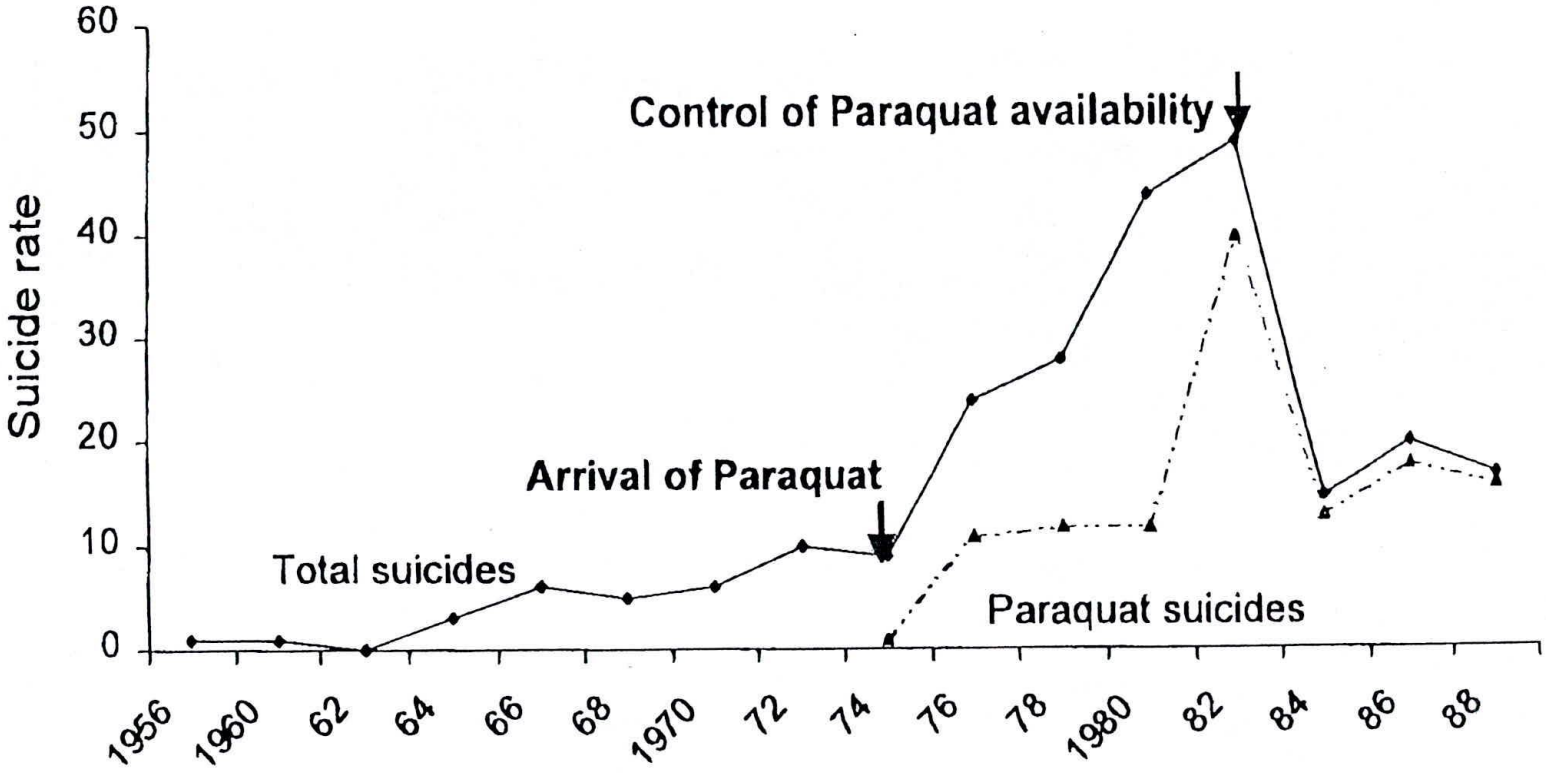


Fig.6 - Impact of detoxification of domestic gas (% CO) on suicide rates (per 100.000), England and Wales,1950-1995. (Similar results for Switzerland and Japan)

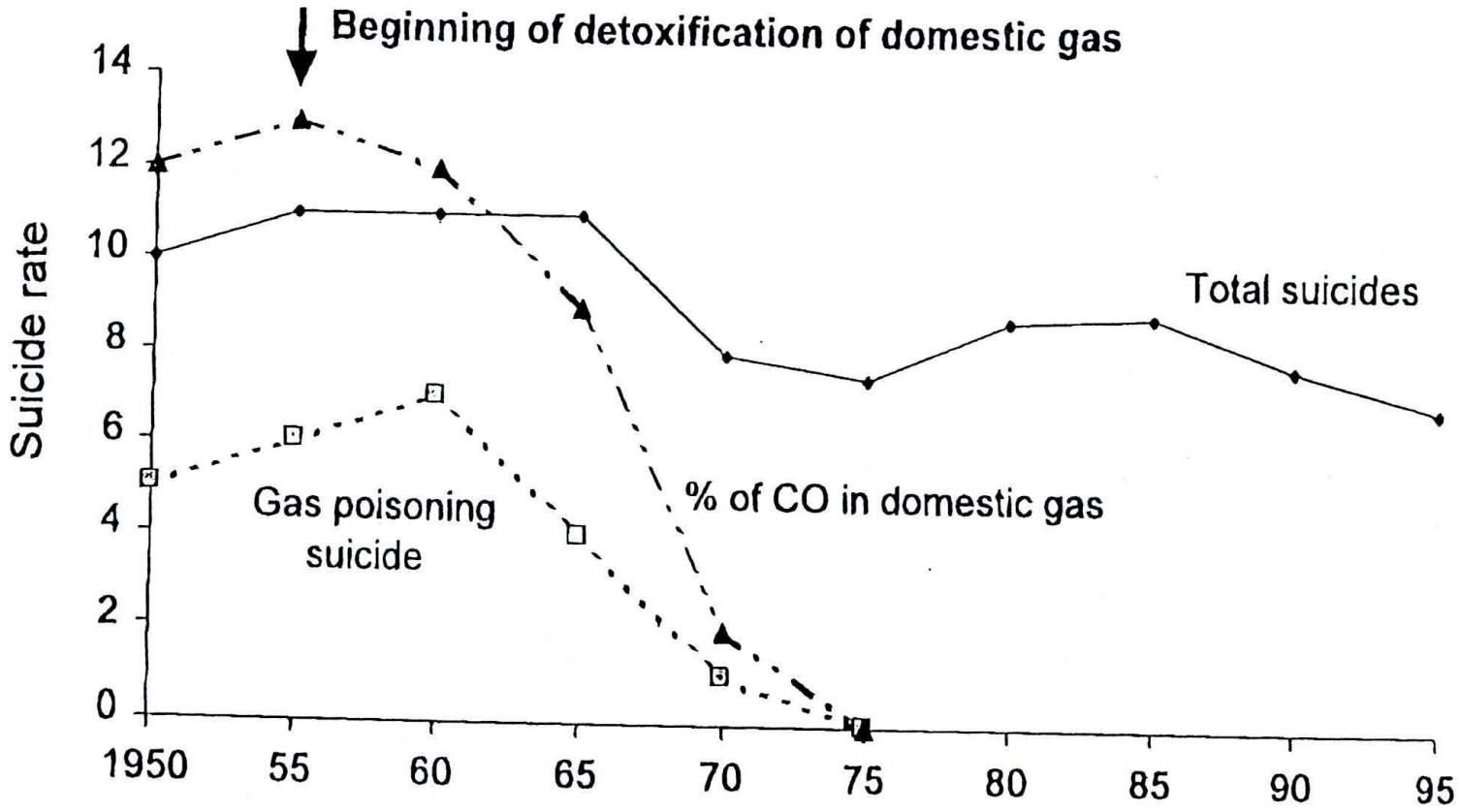
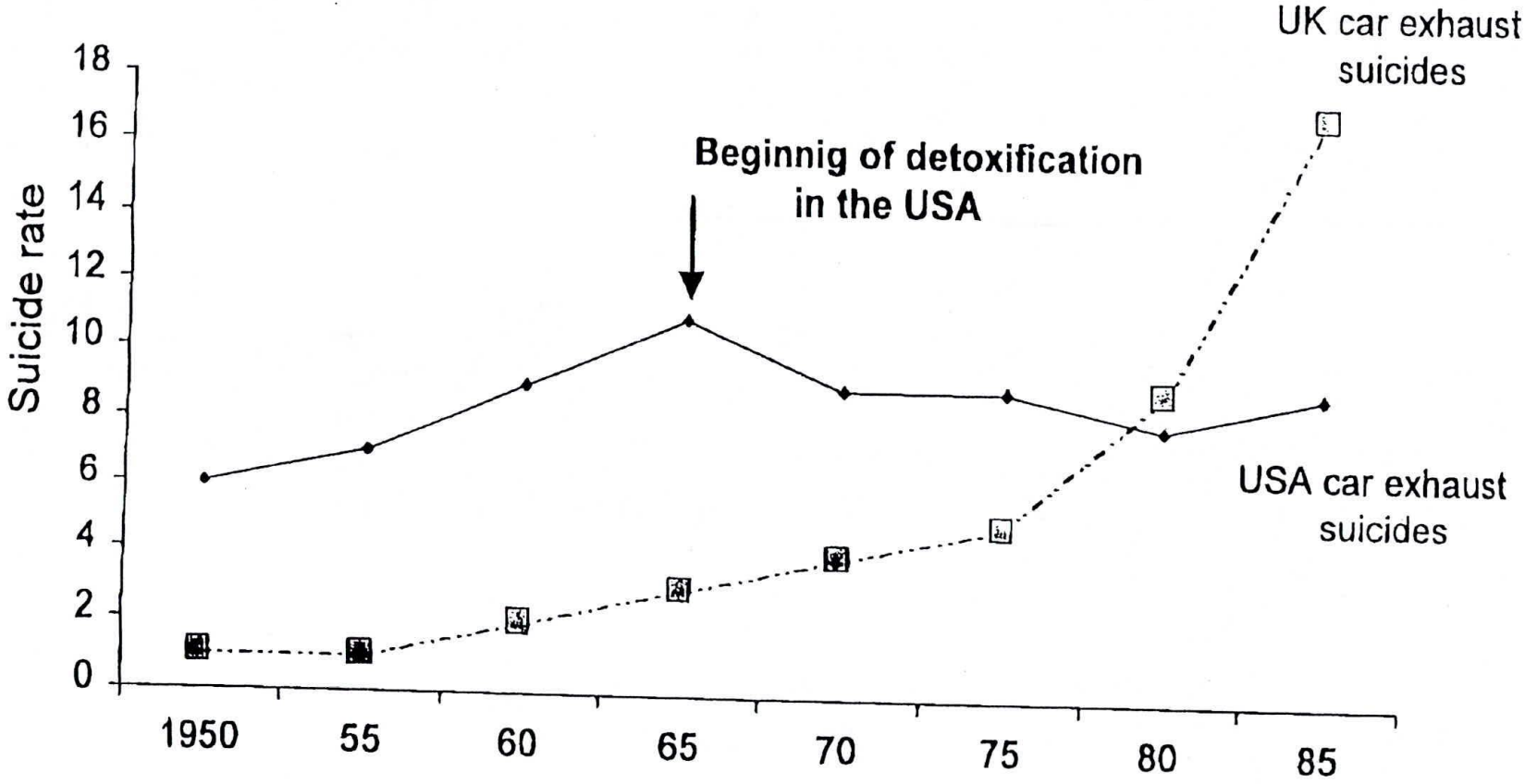


Fig-7 - Impact on suicide of detoxification of car emission in the USA, as compared with non detoxification in UK.
(Suicide rates per 100,000 by inhalation of car exhaustion gases)



Source: Clarke & Lester, 1987

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Box 1

Suicide in China

Suicide is a major public health problem for China. The Global Burden of Disease project - which makes some controversial adjustments to Chinese mortality figures - estimates a 1998 national suicide rate of 32.9 per 100,000 (413,000 deaths), indicating that suicides account for 4.4% of all deaths and 4.2% of all DALYs lost. This makes suicide the fourth most important health condition in the country. The pattern of suicides is different than elsewhere: unadjusted mortality data for 1994 (which report a national rate of 21.22 per 100,000) report rural rates 4-fold urban rates (27.02 v. 6.74), female rates 26% higher than male rates (23.72 v. 18.81) and particularly high rates in young rural females 15-44 (34.95) and in the rural elderly 65 and over (97.33).

Traditionally suicide in China is a culturally acceptable response to a variety of extreme situations, but other factors - the low rate of treatment for depressive illness and the new social stressors that have arisen during the economic reforms - also play an important role. The predominance of women is partly explained by the high proportion of female suicides as impulsive acts perpretrated by persons without identifiable mental illness (about 40%); these would probably be suicide attempts in other countries but become completed suicides in China because of the highly lethal methods employed in rural areas (predominantly insecticides and herbicides).

The only prevention services currently available are telephone hot-lines and a few crisis centers in some of the big cities; nothing is available in the countryside. Recently, the Ministry of Health has given high priority to the development and implementation of a national suicide prevention program.

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Box 2

Suicide Among the Inuit

There are few observations or stories about suicide in the Arctic before colonization. Yet, in the early to mid 1900's, recorders of suicide among the Inuit suggested that suicide was a trait of the then called Eskimos. These early reports, however, were based on loosely collected data from diverse events, not only self-inflicted death (1).

In the last 30 years, the rates of suicide have increased dramatically in Canada's northern population (the 1991 census recorded some 43,000 Canadians with Inuit origins). For example, rates of 59.5 to 74.3 (per 100,000) have been reported in various communities in the Arctic, compared to around 13.5 (per 100,000) in the general Canadian population. The highest risk group is the young males and this phenomenon is increasing, something noted in other indigenous groups (2). Rates as high as 195 (per 100,000) for 15 to 25 year olds have been recorded. Furthermore, there is little study of attempters in the Arctic (and Canada as a whole), although these too suggest alarming rates. For example, one study (3) reported a lifetime prevalence of 14% in an Inuit group, compared to one of about 3% in the general Canadian population. Thus, it is easy to conclude that the rates of suicide and suicide attempts are high in the Arctic compared to international rates, although the reliability of the data remain problematic as underreporting is likely.

Many explanations have been advanced to account for the high rates of suicide and suicidal behaviour in the Arctic. Understanding the tragedy first requires developing a historical context: The Arctic has had foreign visitors dating back to the days of the Vikings. However, large-scale colonization occurred only in the beginning of the 19th century. Since that time, attitudes and policies of racial and cultural superiority have led to exploitation and suppression of the Inuit people, their culture and values. The cultural transitions and change were enormous and as Durkheim (4) demonstrated, when social integration and regulation are too weak or too strong, suicide is predictable.

The exploitation began in the 19th century with the whaling expeditions and fur trade. Great diseases occurred with the foreigners' arrivals, taking tens of thousands of lives, leaving only about one-third of the population by 1900. The epidemics continued during the first half of the 20th century. The fur trade collapsed in the 1930's, and Canada introduced a welfare state in the Arctic. The missionaries came in large scale in the 1940's and 50's and an attempt at assimilation occurred. Oil exploration began in 1959, further adding to social disintegration (4).

The most recent attempt at "integrating" the Inuit was the residential schools, which were especially suicidogenic (5). The schools separated many children from their families and communities, and prevented the children from learning their languages, heritage and culture. Similar assimilation strategies occurred elsewhere with indigenous people; for example, in Australia, children were taken from their parents' homes and were placed in non-Aborigine foster homes (2, 6). Tragically, the cases of physical and sexual abuse in these systems in the Arctic (and Australia) were quite high and have been associated to the high rates of suicide (1, 2, 5, 6).

Box 3

Aboriginal Suicide in Australia

Suicide within the Aboriginal and Torres Strait Islander populations of Australia has only within the last two decades emerged as an issue of public heath concern. While willed or self-willed death associated with sorcery or physical debility in traditional Indigenous societies might be considered a 'suicide equivalent' phenomenon, it is in sharp contrast to the deaths by hanging of young men which has now captured national attention.

The enumeration of the Indigenous population of Australia and collection of reliable suicide statistics remains problematic. However, most recent estimates indicate a total Aboriginal and Torres Strait Islander population of 386,049, 2.1% of all Australians. The State of Queensland is home to 104,817 people of Indigenous descent, being 27% of the national total and constituting 3% of the State's population. The Queensland suicide rate for the period 1990 to 1995 is 14.5 per 100,000, with the Aboriginal and Torres Strait Islander rate being 23.6. The elevated rate is entirely accounted for by the increased Indigenous male suicides which are concentrated in the 15 to 24 (112.5 per 100,000) and 25 to 34 (72.5 per 100,000) year age periods. These are 3.6 and 2.2 times the rates of these male age-groups for the State as a whole (1), these age-groups comprising 84% of all Indigenous suicides. Because of the problems with identification of Aboriginality in death records, these figures are almost certainly an underestimate.

As noted at the outset, Aboriginal and Torres Strait Islander suicide was, until two decades ago, very uncommon. Understanding why that is no longer the case demands developing an historical context that foreground a period of enormous transition across the country that occurred, roughly, through the 1970s. Previously, Indigenous lives and communities had been controlled through draconian controls and racist legislation which began to lift with little planning or preparation in the late 1960s. The next decade, a period of 'deregulation' (2), was characterised by political and social instability, the lifting of restricted access to alcohol, rapidly increasing rates of violence and accidents, high rates of incarceration, and many other manifestations of continuing disadvantage and underlying turmoil, all with very serious consequences for the stability of communities and family life. Sadly, much of this has continued. The contemporary context also includes markedly elevated rates of morbidity and mortality from most causes, including a homicide rate that is higher by factor of ten, with life expectancy less by nearly two decades that that expected for non-Indigenous Australians.

Against this background, Indigenous suicide began to be recognised as an issue through the late 1980s. At that time suicides tended to occur in non-remote settings among non-traditional groups and was often associated with the acute effects of alcohol consumption. At the end of that decade a national inquiry, the Royal Commission into Aboriginal Deaths in Custody, was convened to investigate Indigenous deaths in police and prison custody, a significant proportion of which was suicide by hanging. The national media focus on the Royal Commission provided for the development of political understandings of hanging that foregrounded the effects of colonisation and oppression. Thus the contemporary 'meaningfulness' of hanging by young Indigenous people whose manifest disadvantage by comparison to the wider society is often experienced as a result

of oppression and discrimination. Since the Commission suicide has continued to increase in the wider Aboriginal and Torres Strait Islander population, with hanging being by far the most common method.

Those taking their lives are usually young men who have grown to maturity during or since the period earlier referred to as 'deregulation'. They are members of the first generation to be exposed to the developmental consequences of widespread community and family instability, much of which reflects the indirect effects of heavy alcohol use (particularly on paternal roles and, consequently, for the construction of Indigenous male identity). There also appears to be a cohort effect as this group ages. Indigenous suicide may now be becoming more common at somewhat later age; some 40% of the male suicides in the Queensland study (1) were of men twenty five years of age or older. Furthermore, no indigenous settings are unaffected by the processes of social change, and indigenous suicide now appears to be generalising and becoming more common in certain remote and 'traditional' populations, sometimes taking on 'traditional' meanings. This picture of suicide in the indigenous populations of Australia bears distinct similarities to that among indigenous populations in similar mainstream cultures elsewhere in the world, for instance in Canada in 1995 (3). These and other health parallels suggest the importance of common experiences of colonisation and its consequences. They also reinforce the centrality of history and meaning in any analysis of indigenous suicide.

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Box 4

Depression and Suicide

The many faces of depression

Depression is the single mental disorder most often associated with suicide. Several studies show that up to 80% of people who committed suicide had several depressive symptoms, and up to 50% had fully diagnosable Major Depressive Disorder (MDD), dysthymia or "double depression" (i.e. dysthymia and recurrent MDD), often combined with anxiety disorder. Anxiety, a powerful driving force in the suicidal process, is intimately interwoven with depression. Sometimes depression and anxiety disorder are indistinguishable.

There is a great deal of suffering in the world, and everyone can be a little despondent from time to time. But for depression to be diagnosed one must (according to DSM IV), for at least two weeks, show a minimum of five of the following nine symptoms: despondency or irritability, anhedonia, changed appetite, disturbed sleep, modified motor activity, reduced energy, a sense of guilt, concentration difficulties and thoughts of death.

It is often difficult to detect and/or diagnose depression in men — who, moreover, seek medical care more seldom than women. Men's depressions are not infrequently preceded by acting-out behaviour, various types of abuse, and violence within and outside the family. Treatment of depression in men is highly important, since suicide is a typically male phenomenon in most cultures. For this reason, treatment of depression among men can be commenced even if the aforesaid criteria for diagnosing depression are not fulfilled.

Among children and teenagers, the faces of depression partially differ from those among adults. Compared with their elders, depressed children and adolescents tend to show more acting-out (truancy, bad behaviour, violent tendencies, declining grades, misuse of alcohol or drugs), but also to sleep and eat more. However, refusal to eat and anorexia, with the concomitant high risk of suicide, are not unusual in combination with depression — notably among girls, but also in boys.

Both among young people and — especially — older adults, depression commonly has physical manifestations, such as stomach ailments, dizziness, cardiac palpitations and pain in various parts of the body. Depression in the elderly may accompany somatic illnesses, such as stroke, cardiac infarct, cancer, rheumatism, Parkinson's, Alzheimer's, etc.

Suicide risk in depressed people

Relatively few people suffering from depression alone commit suicide. Suicide is committed by depressed people who have been subjected to stress by an unfavourable psychosocial situation, such as being poor, unemployed, an outsider, lonely, an immigrant, victimised or disadvantaged in some other way. They may have experienced occupational and residential segregation, a lack of social and cultural integration, destructive family patterns, life in rural areas, prison and police custody, or bereavement. They may belong to indigenous ethnic groups or suffer from conflicts of sexual identity. A sensitive disposition, with poor stress tolerance and an inability to overcome

extra strains in life owing to rigid coping strategies, also contributes to suicidality. In the psychiatric literature, this kind of disposition is described as a borderline, narcissistic or histrionic personality type.

Suicide prevention

To prevent suicide, suicidal people's depression must be detected, diagnosed and treated, preferably with a combination of antidepressant drugs and psychotherapy. Treatment of anxiety exacerbated, in suicidal people, by an unfavourable psychosocial situation is also an important means of suicide prevention (1).

Unfortunately, the fact remains that the majority of depressed people who take their own lives have not usually received any treatment, either with antidepressant drugs or by psychological means, for their depression.

Nevertheless, some studies show that suicidality is reduced when depression is treated. In longitudinal follow-ups of large groups of depressed patients, 15% mortality from suicide is commonly observed. The report by Angst et al (2) on 5% mortality from suicide among depressed people given long-term antidepressant treatment for prophylactic purposes is encouraging. A range of meta-analyses (3-5) also show that a statistically significant reduction in the number of suicidal thoughts and also a reduction — not statistically significant but nonetheless marked — in the number of suicide attempts and suicides are attainable among depressed people treated with antidepressants, in contrast to those given placebo treatment only. Various forms of psychotherapy, especially the cognitive kind, have proved effective in the treatment of depression. Cognitive behavioural therapy has documented effects in reducing suicidality among women with borderline personality structure and several suicide attempts in the anamnesis (6). An extensive study has shown that good psychosocial support of elderly people, with increased telephone access to staff, brings about a significant reduction in their depression and mortality from suicide, as well as enhanced well-being and a decline in their need for hospital care (7).

Future outlook

Depression is a major, widespread illness and will continue to account for a high proportion of the global burden of ill-health during the millennium to come (8). Several population studies show that around 25% of women and 15% of men may be expected to become depressed sometime in their lives. Many studies suggest that depression is on the rise in the western world, especially among young people. Ever increasing stress at the workplace, at school and in family life figures largely in this trend since, it plays a large part in causing depression and precipitating suicide.

Preventive programmes that are population-oriented, aimed at the public and young people in particular, should include instruction in how to deal with stress and recognise signs of mental ill-health. Learning how to understand a suicidal person's communication and cries for help, which are often poorly expressed in verbal terms, and grasping how important it is to seek help in time are essential. Besides dissemination of knowledge about the incidence, symptoms and causes of depression and the treatment options available, population-oriented suicide prevention should

include efforts to change people's stigmatising attitudes towards mental illness and induce them, as fellow human beings, to offer a helping hand to those who are lonely and socially excluded.

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decrease in suicide rates was observed for males in the 25–54 age group. One explanation for this decrease in suicide could be that this age group is more easily influenced to the changes in attitudes that took place in the former Soviet Union during the anti-alcohol campaign. Another explanation may be that this group is more price-sensitive and was hit harder by price increases.

Decreases in suicide mortality during perestroika cannot be explained by any change in data quality or modification of routines for compiling mortality statistics. Quantitative and qualitative studies have shown that the reliability of statistics on suicide and other violent causes of death in Russia was good in the Baltic and Slavic republics, and also Kazakhstan, Kirgizia and Moldavia.

Effects of *perestroika* short-lived

Effects of the Gorbachev's anti-alcohol campaign in the *perestroika* period did not last long, probably owing to several factors. One was that unofficial liquor production took over the Russian market; another is that inadequate financial resources ruled out funding of campaigns to mould public opinion against alcohol consumption and modify public attitudes towards alcohol. Considerable stress and adjustment problems for individuals due to substantial economic difficulties and social changes were probably also contributing to the fact that deaths due to suicide and other violent causes rose sharply in the republics of the former USSR during the 1990s.

Suicide prevention at society and individual level

A restrictive alcohol policy may be one means of reducing suicide and violent deaths among alcoholics. However, suicide-preventive measures at individual level along with public health are essential. Several clinical studies at individual level show that alcohol consumption is correlated with suicide for people characterised by alcohol abuse and alcohol dependency who, at the same time, have personality disorders and/or depression or other mental illnesses.

It is therefore plausible to conclude that measures cannot concentrate solely on reducing alcohol consumption by changing attitudes towards alcohol use, or by regulating the availability of alcohol in terms of market price or sale. Individual measures which include medical treatment of any underlying dependency or other psychiatric disorder; reinforcement of protective and supportive factors; and assistance in developing constructive coping strategies are of equal importance. Moreover, in any attempt to modify attitudes, measures should be adapted to patients' cultural and psychosocial circumstances and fully explore the reasons why they drink. In this context, it is of interest that, the degree of cultural acceptance of drinking in any society has a bearing on the number of its members who become alcoholics.

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Box 6

Suicidal Behaviour in Children and Young People

During the last two decades there have been increasing concerns, internationally, about suicidal behaviours amongst young people. While attention has tended to focus upon completed suicide, there is evidence of a range of suicidal behaviours that extend from ideas and thoughts about suicide, which are not acted upon to suicide attempts and suicide. The weight of evidence suggests that up to 25% of young people may have suicidal ideation. For most young people, therefore, suicidal ideation is common, and, in the absence of other risk factors for suicidal behaviour, not a risk factor for subsequent suicide. Up to 7% of young people may make suicide attempts, with the majority of these attempts resulting in no more than minor physical harm.

Suicide occurs far less frequently than suicidal ideation and suicide attempt behaviour. The risk of suicide amongst children, adolescents and young people tends to increase with age, and is rare among children aged less than 15 years. In most countries, the male rate of youth suicide exceeds the female rate, by a ratio of, typically, 4:1. In contrast, young females are approximately twice as likely as young males to make suicide attempts and to report suicidal ideation.

International research studies consistently suggest that the aetiology of youth suicidal behaviour is complex and multicausal with a range of elements combining in various ways to influence the risk of such behaviour. This evidence suggests that risk factors for suicide and attempted suicide in young people may be classified into several broad domains of related risk factors:

Genetic and biologic factors may influence individual vulnerability to suicidal behaviour. Evidence from twin, adoption, family and molecular genetic studies suggests that suicidal behaviours tend to run in families, implying a possible role of genetic factors in suicidal behaviour. The genetic factor involved may be an inability to control impulsive behaviour, which is fostered or triggered by depression, other mental illnesses or stress. In addition, there is some evidence to suggest that a number of neuroendocrine and biologic factors (particularly, serotonin and its metabolite) may make contributions to suicidal behaviour.

Social and demographic factors may provide social contextual factors that influence both an individual's predisposition to suicidal behaviour and their expression of such behaviour. Rates of suicidal behaviour tend to be elevated amongst young people from socially disadvantaged backgrounds characterised by low socioeconomic status, limited educational achievement and low income.

Family characteristics and childhood experiences including parental disharmony and separation, parental psychopathology, poor inter-familial communication, and exposure to sexual and/or physical abuse during childhood may influence an individual's longer-term vulnerability to psychiatric disorder and suicidal behaviour. Often, young people at risk of suicidal behaviour tend to come from multiple problem family backgrounds in which several of these family risk factors are commonly present. This observation suggests, firstly, that it is the density and chronicity of exposure to a range of risk factors, rather than the occurrence of a single risk factor, which contributes to increased family dysfunction and the development of subsequent mental health problems and suicidal behaviour. Secondly, the adverse family backgrounds which

characterize young people at risk of suicidal behaviour are very similar to the those which occur in other adolescent psychosocial disorders (including, for example, depressive disorders, substance use disorders and offending behaviours), suggesting that the major life pathways which lead to serious suicidal behaviour overlap and correlate, very substantially, with those which lead to a range of adolescent psychosocial and mental health problems.

Stressful or adverse life events or circumstances may precipitate suicidal behaviour. Most commonly, these events include interpersonal losses and conflicts and disciplinary or legal crises. However, such events occur commonly amongst young people and may precipitate suicidal behaviour only when they occur in those individuals vulnerable to suicidal behaviour.

Psychiatric morbidity, including, in particular, affective disorders, substance use disorders, antisocial behaviours and anxiety disorders, are frequent precursors of suicidal behaviour. The majority (80-90%) of young people who die by suicide or make serious suicide attempts have at least one mental disorder. Depressive disorders consistently emerge as those most commonly associated with suicidal behaviour. In addition, young people with psychotic disorders, including schizophrenia, have an elevated risk of suicidal behaviour.

Frequently, young people with serious suicidal behaviour have histories of extensive mental illness including co-morbid or multiple mental disorders, a history of previous suicide attempts, and a history of prior contact and care with mental health services.

Personality factors and cognitive styles, which reflect individual variations in temperament or related factors, may act to encourage the development of suicidal behaviour. Personality disorders may be present in up to one third of those who die by suicide, with the most common disorders being borderline and antisocial disorders.

In contrast to the large volume of research into risk factors for suicidal behaviours in young people there is comparatively little research focused upon identifying individual, family and community factors which may protect against the development of suicidal behaviour in young people. There is emerging interest in this area with available evidence suggesting that the factors likely to protect against suicide include social supports, family cohesion, peer affiliation, good adaptive, social and coping skills and problem solving behaviours, positive and life affirming beliefs and values; high self-esteem, and holding attitudes and moral values against suicide.

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Box 7

Access to Means of Suicide

While suicidal thoughts are relatively common in the general population, only a small proportion of those experiencing suicidal thoughts attempt suicide, and only a proportion of those who attempt it actually kill themselves. One of the variables that influences whether people act on their suicidal impulses, and with what degree of lethality is the availability and access to different methods of committing suicide.

Despite the many potential methods of suicide, only relatively few are commonly used. In developed countries, these are self-poisoning by prescribed or over-the counter medicines or by motor vehicle exhausts, hanging, firearms, drowning, jumping from high places or in front of moving vehicles or self cutting. On the other hand, poisoning with agricultural chemicals is the most common method in developing countries.

The popularity of different methods changes within and between countries with time, determined by relative availability and social and cultural acceptability of each method. Research shows that availability, familiarity with the method, and technical skills necessary to use the method effectively are all relevant variables in the choice and frequency of method used. Thus farmers tend to shoot themselves and medical practitioners, nurses and pharmacists take medicines. The fatality is dependent on the length of time that elapses between a potentially lethal method and death and on whether there are people and facilities available to resuscitate the person. Thus an overdose of drugs usually offers some opportunity for reconsideration and rescue whereas hanging or firearms do not. An overdose of pesticide, while extremely dangerous everywhere, in rural China or Sri Lanka is much more likely to be fatal than such an overdose in the Western world where there is faster access to sophisticated Accident and Emergency units.

While some suicides have been planned in detail for weeks or even months, many suicides are impulsive, occurring soon after a "last straw" life event in the context of multiple social stresses and lack of social supports which have often induced underlying depressive symptomatology. This is important because it means that if access to a commonly used method of suicide is restricted and not available at the time of the impulse, then the suicide is prevented for long enough for the suicidal impulse to wane. Therefore reducing access to one means of suicide does not result in complete substitution by another method, and this is exemplified in the detoxification of domestic gas which has been associated with a decline in suicide rates (REF England, Australia, Netherlands)and in the marked decline in fatal self poisoning due to barbiturates in countries where there has been better prescribing practices for depressed patients, legislative restriction on barbiturate prescribing and the substitution of benzodiazepines.

Motor vehicle exhaust suicides could be reduced by the introduction of carbon monoxide sensors (to cut off the engine at a toxic level), exhaust modification (to make attaching a hose more difficult) and modifications to catalytic converters which decrease

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Chapter 8

Collective Violence

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Introduction

In today's globalized world, war and its effects in remote areas grab our attention. We know something about East Timor, Chechnya, Sierra Leone - places which otherwise would be off the maps of many. Despite this, however, many of the victims, events, responses and complexities remain hidden, sometimes deliberately.

The objectives of this chapter are to:

- Describe the pattern, magnitude, forms and impact of collective violence on health and health systems;
- Summarise existing information on risk factors, scope for prevention and the development of policy responses
- Identify important research priorities for the future

This chapter suggests that if we are to effectively respond to collective violence and war we will need to:

- Develop an understanding of the context in which collective violence occurs, and identify the known and presumed risk factors
- Establish the extent to which prevention of collective violence may be possible;
- Recognize the sensitivities and scope for manipulation concerning data on collective violence; and promote improved surveillance and recording of conflict-related experiences
- Recognize the importance of understanding and bolstering resilience and protective factors which assist individuals, societies and systems to maintain themselves during periods of conflict;
- Highlight the mechanisms being adopted by humanitarian agencies to improve their performance and accountability by developing and adopting good practice guidelines;
- Highlight the value of improving our responses after conflicts so as to ensure that new cycles of violence are not re-established;
- Draw attention to the wide range of possible interventions in response to political conflict: including primary prevention to avoid violent political conflict occurring, secondary prevention to reduce the impact of wars and collective violence, and tertiary prevention to minimise the longer term damage to health systems and to the determinants of health.

Definitions

Collective violence may be defined as the use of force by groups to achieve political, economic, or social objectives. Various forms of political violence have been explicitly recognized: these include wars and related violent political conflicts which occur within or between states, state violence which takes the form of genocide, repression, disappearances torture and other human rights abuses, and structural violence which is characterized by economic, political, and social discrimination and inequity directed at one or more societal groups[#].

A clear example of structural violence was the policy of apartheid in South Africa. The social, economic and political rights of the black majority population were systematically undermined and abused by the apartheid state; this was accompanied by state-repression in the form of torture, detention without trial, and political assassinations. The discriminatory impact on health status and on access to health care has been well described[1]; reversing the long-term impact of these forms of discrimination still represents a major challenge to the current democratic government which was elected in 1994.

All deaths which occur in the organized contest for political or economic control of a territory may be considered war-related deaths. The Correlates of War project (COW) and Stockholm International Peace Research Institute (SIPRI) have defined *minor armed conflicts* as those in which 25 - 1000 battle deaths occur over the entire period of the conflict; *intermediate armed conflict* as those in which 25 -1000 deaths occur per year in a conflict; and *major conflicts* as those in which more than 1000 deaths per year occur. These terms have limitations and do not capture the extensive contextual and other difference that will be present in countries of different sizes and resource bases.

Even if definitions can be agreed, the number of conflict deaths attributed to a particular conflict vary considerably among researchers and even more so between parties to the conflict. Up to 101 major conflicts have been recorded since the end of World War II, with 20-30 ongoing at the beginning of the 21st century. Minor differences in how specific conflicts are categorized has relatively little effect on the total war-related deaths recorded each year, as a small number of major conflicts accounts for the majority of all deaths.

Complex humanitarian emergency (CHE) is a term which describes "A situation affecting large civilian populations which usually involves a combination of factors including war or civil strife, food shortages, and population displacement, resulting in significant excess mortality" [2]. Other analysts[3] (1999) prefer the term 'complex political emergencies' (CPEs) because this highlights the political roots and contributions to the crisis. CPEs typically occur across state boundaries; have political antecedents relating to competition for power and resources; are protracted in duration; are embedded in and reflect existing social, political, economic and cultural structures and cleavages; and are often characterised by 'predatory' social domination. Leaning identifies four characteristic outcomes of CHEs - population

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[#] Other forms of organised violence, such as gang warfare and criminal violence associated with banditry, which do not have political objectives, are not discussed here.

dislocation; destruction of social networks and ecosystems; insecurity affecting civilians and noncombatants and human rights abuses[4].

Kaldor uses the term 'new wars' to describe those which blur the distinctions between war (usually defined as violence between states or organized political groups for political purposes), organized crime (violence undertaken by privately organized groups for private purposes, usually financial gain) and large-scale violations of human rights (violence undertaken by states or politically organized groups against individuals)[5]. The 'new wars' are said to have a number of common features[6] : they entail an element of 'identity politics' - the claim to power on the basis of a particular national, clan, religious or linguistic identity; they employ techniques characterised by an attempt to control the population by getting rid of those of a different identity, through the use of forced resettlement, mass killings, and intimidation, and they link what appear to be local, decentralised conflicts with a 'globalized war economy', interacting with people, processes and aspirations present at the global level. Warring factions may prey upon the civilian populations in their midst, seizing their food and assets. Some commentators dispute this categorisation, arguing that many features of these new wars are not 'new' at all and have been present in many conflicts over the last century.

Genocides (intent to destroy, in whole or in part, a national, ethnic, racial or religious group[7]), politicides (attempts to eliminate a different political group), and democides (attempts to eliminate a different social group) are all forms of 'war on the civilian population'. Although in practice these events have often occurred just prior to, during, or following major clashes between military forces, they sometimes occur independent of military conflicts. Genocides and democides, directed at civilian rather than military populations, have been responsible for the largest number of conflict-related deaths in the 20th century. Major genocides in the 20th century have included the systematic extermination of Armenians by the Young Turks in 1915, the Turkish massacre of Kurds in 1937-38, the holocaust in which Jews, gypsies, homosexuals and communists were systematically annihilated by the Nazis in the second world war, the massacre of Hutus by Tutsi perpetrators in Burundi in 1972, the Khmer Rouge 'auto-genocide' in which around 1.5 million Cambodians were killed in the mid-1970s, the 1994 genocide against Rwandan Tutsis.

Data Sources, Trends and Emerging Patterns

Several research groups collect and analyze data on the victims of conflict, including the Department of Peace and Conflict Research (DPCR) at Uppsala University, Sweden, which focuses on conflict resolution; the Stockholm International Peace Research Institute (SIPRI) which has developed a detailed, standardized reporting format for producing an annual report on conflict impacts; the Unit for the Study of Wars, Armaments, and Development (AKUF) at the University of Hamburg; the Interdisciplinary Research Program on Root Causes of Human Rights Violations (PIOOM) in the Netherlands which monitors deaths and other violations of rights around the world; and the Correlates of War (COW) project, the most widely cited source on the magnitude and causes of conflicts from the 19th century to the present.

Trends in Violent Political Conflict over the Centuries

One set of estimate suggests that 1.6, 6.1, 7.0, 19.4 and 109.7 million military-related deaths occurred in the 16th, 17th, 18th, 19th and 20th centuries respectively[8 9]. Such aggregated data are of limited use in that they hide the circumstances in which populations have died. At least 6 million people are estimated to have died in the capture and transport of slaves over 4 centuries, and at least 10 million native people of the Americas died at the hand of European settlers.

According to White, about 180 million people lost their lives from direct or indirect war-related causes in the twenty five events of greatest magnitude in the 20th beginning with colonial war in the Congo and ending with repeated episodes of genocides in Rwanda and Burundi. Rummel estimates 191 million deaths, also citing 60% of them as occurring among noncombatants. Two specific events - Stalin's terror and Chinese deaths in the Great Leap Forward (1959 - 1962) are the source of the greatest imprecision in terms of magnitude of human destruction. Immediate causes of death in the 25 events of greatest magnitude included about 39 million military and 33 million civilians who died in wars. About 12 million other people were killed in genocides, and 40 million in democides or politicides. Famine related to war, genocide, or democide also killed an estimated 40 million people. Deaths among the military comprise 22% of all these conflict related deaths.

No consensus has been reached on which of the many estimates of collective violence deaths is most accurate. Few data are produced with the degree of precision and rigour expected for public health surveillance, and estimates are often very politicized with some investigators even denying that certain genocides occurred. More precise measurement would be to help differentiate deaths among military personnel from those occurring in the general population.

Deaths among armed forces are usually recorded in military vital event systems and therefore are more accurate, usually varying by no more than 10% - 50% . This contrasts with conflicts fought by non-state groups, among whom death data are more easily manipulated and less readily confirmed, in which estimates vary by up to 100%. Genocides, politicides and democides are even more subject to manipulation and are harder to confirm: estimates for mass killings of noncombatant groups may vary as much as 5 - 10 fold.

A small number of events cause most of the deaths in each category. The two world wars were the source of about two thirds of all deaths among soldiers and civilians killed in wars.

Democide and politicide in many countries during WWII and in China in the 1950s and 1960s account for more than 75% of these deaths. About half of all genocide deaths in the twentieth century occurred during WWII. Most famine deaths occurred in the Soviet Union in the 1920s or in China during 1959 - 1962.

A total of 165 wars or tyrannies in the 20th century each killed more than 6,000 people. Five were responsible for more than 6 million deaths - World Wars I and II, the Russian Civil War, Stalin's rule, and Mao Tse Tung's rule. All of these events were characterized by a majority of deaths occurring among civilians, alongside experiences of democide, genocide, or famine. Together, these five events accounted for about 85% of all conflict-related deaths worldwide in the 20th century.

Twenty one other wars or tyrannies caused between 600,000 and 6 million deaths, 61 caused 60,000 - 600,000 deaths, and 78 caused 6,000 - 60,000 deaths. Most of the events that caused the greatest loss of life occurred early in the century. Only one of the seven biggest killing events occurred after 1950 (famine in China), while sixteen of the next 23 occurred after that year.

In the entire period since WWII, the AKUF estimates there to have been a total of 190 wars. Only a quarter of these were international wars. Most of these wars lasted less than 6 months. Wars lasting more than six months often extended for many years. The total number of wars was under 20 in the 1950s, above 30 in the 1960s and 1970s, and reached a peak of more than 50 during the late 1980s before beginning to recede towards the end of the 20th century. The number of wars declined after 1992, but the remaining wars are, on average, of longer duration. The number of conflicts on each continent declined with the exception of Africa. About 20% of these conflicts have accounted for more than 80% of all deaths. An estimated total of 51 million people are believed to have lost their lives from all direct and indirect causes related to conflicts since WW II; around 17 million deaths can be considered to be direct effects of these conflicts.

Although almost all conflicts occurred in developing countries since the end of the Second War, the post-Cold War period saw an increase in the occurrence of Europe-based conflicts (Table 1). These have occurred mostly in areas of the former Soviet Union and Eastern bloc and reflect power struggles within and between national and ethnic groupings.

Table 1: Armed Conflicts by Region: 1989-1998[10]

	89	90	91	92	93	94	95	96	97	98
Europe2	3	6	9	10	5	5	1	0	2	
M.East	4	6	7	7	7	5	4	5	3	3
Asia	19	18	16	20	15	15	13	14	14	15
Africa	14	17	17	15	11	13	9	14	14	14
Americas	8	5	5	4	3	4	4	2	2	2

Table 2 highlights the fact that modern-day conflicts are increasingly within rather than between states. Although interstate conflicts occur they are rare.

Table 2: Ongoing Conflicts in Terms of Inter or Intrastate Involvement (Numbers)[11]

	1989	'90	'91	'92	'93	'94	'95	'96	'97	'98
Intrastate	43	44	49	52	42	42	34	33	30	32
Combined (intra- and inter-state)	1	2	1	2	4	0	0	1	3	2
Interstate	3	3	1	1	0	0	1	2	1	2

Global Burden of Conflict

The WHO estimates that about 588,000 people died in wars in 1998. That makes war the fourth most common type of injury death in that year, after unintended injuries, suicides, and homicides. Deaths from war varied from less than 1 per 100,000 population in high income countries, to 12 per 100,000 in low/middle income countries. The rate varied by region from near 0 in China, India, and the Americas to 33/100,000 in the eastern Mediterranean and 51/100,000 in Africa. War ranked as the 19th most common cause of death in high income countries and the 17th most common cause of death in low/middle income countries. War ranked as the 13th most common cause of death for 0-1 year olds, 5th for 5-14 year olds, and 5th for 15-44 year olds in 1998.

An estimated 5 percent of all deaths during the 20th century were due to the immediate or secondary impact of collective violence. This was higher than in the 17th - 19th centuries, in which 2 percent of deaths are estimated to have resulted from collective violence. The 40-fold rise in the number of deaths among soldiers in the 20th century greatly exceeded a doubling of the globe's mid-century population. Military deaths per million population rose 18-fold from the 19th to the 20th century (Table 3). Genocide and democide-related deaths also rose in the 20th century as the centralization of large political and economic systems and the emergence of new technologies made mass killings possible[12].

Table 3: Estimated Average Annual Military Deaths in Wars, Worldwide, by Century

Century	Average Annual Military Deaths	World Mid-Century Population in Millions	Average Annual Military Deaths per Million Population
17th	9,500	500	19.0
18th	15,000	800	18.8
19th	13,000	1,200	10.8
20th	458,000	2,500	183.2

Further research will be needed to determine the different forms of collective violence, as well as their nature, implications and trends for affected population groups. Standardized indices will assist in analysis of the massive figures on war-related deaths: specification of the population from which the deaths occur will generate indicators of the **proportion** of the population killed, comparison with the normal death rate among that group prior to initiation of violence will permit identification of the **magnitude** of excess mortality rates, and specification of the time period over which deaths occurred permits determination of the **velocity** of death.

Problems of Collecting Data

Most poor countries lack reliable health information and vital registration systems; in the absence of such baseline data it is particularly difficult, if not impossible, to determine the proportion of morbidity, mortality, and disability which is clearly conflict-related. Complex emergencies invariably disrupt surveillance and information systems[13] thus further weakening the potential to assess conflict-related impact. Assessing the impact of collective violence thus often requires analysis of data which does not normally enter into health data systems.

Innovative methods have, in some situations, been used to more accurately define the extent of loss of life in conflicts. In Guatemala data were analyzed to define the numbers of violent deaths during the civil conflict which engulfed the country from 1960 - 1996. Three in-country data sets were developed from witness and victim reports. Total deaths estimated from these sources range from 8,500 to 24,505. If each source were mutually exclusive total reported deaths would be 54,065, but duplicate entries reduced the total to about 48,000 reported deaths. The existence of these multiple, overlapping sources permitted more accurate estimation of the total deaths unaccounted for of 84,000 people. Summing documented and undocumented estimated total deaths due to the civil conflict produced a total estimate of 132,000 +/- 13,000 (95% confidence interval). The largest number of registered deaths in a year occurred in 1982, at 18,000. Yet official government reports register much fewer deaths due to violence in that year. These more than 100,000 deaths remain invisible in systems that evaluate the burden of disease on the basis of vital event registries[14 15].

The effect of conflict on particular sub-groups of the population such as war orphans, unaccompanied child refugees, and internally displaced populations (IDPs) may be especially difficult to determine. Population size and density may vary tremendously over short periods of time as people move to where safety and resources are greatest; measuring health impact and health status with such shifting populations and uncertain denominators is always problematic. Data on numbers of IDPs and refugees may on occasions be manipulated to make a political point or maximize resource access.

Determining precisely how an emergency unfolded and precisely what occurred in a given complex emergency, as well as establishing an documenting the health impact are significant challenges. As mentioned earlier, parties to the conflict will seek to have their own viewpoints reflected and to play down the impact on civilians. Where popular opposition to conflicts has been generated, it has often been as a result of perceived or actual excessive impact on civilians, as the USA found in the Vietnam war, NATO countries found during its war with Yugoslavia, and Israel found during the Palestinian intifada. Both measurement and

information biases may be present, and civil society organizations, both indigenous, and global, play a valuable role in documenting and 'witnessing' occurrences of collective violence and human rights abuses, and the response by affected communities.

Estimates of the magnitude of impact are extremely imprecise: deaths in the Rwandan genocide have been assessed as varying from 500,000 to one million. In East Timor, tens of thousands of people were considered missing after the conflict and months later it was still unclear whether the original population estimates had been erroneous or whether tens of thousands of people were missing. Little was known about the health burden of the conflict in the Democratic Republic of Congo although recent estimates have suggested that over 1 million people may well have lost their lives in the Congo forests.

Direct and Indirect Health Impact

This section seeks to highlight the variety of ways in which conflict affects health and health systems. It does not seek to be comprehensive, but to reflect the range of impacts, thus highlighting how other health-related objectives suffer in the presence of violent political conflict.

Mass destruction of the enemy as a tactic of warfare has been common throughout history, although we are currently more aware of this given today's technologies of mass communication. Laying of siege, laying waste to essential goods and services, poisoning water supplies, or enslavement of a losing enemy often accompanied warfare in pre-modern times. In European war since the establishment of nation-states in the 17th century, soldiers of one nation engaged in direct battle almost exclusively with soldiers of a rival nation. Anti-colonial wars, often based on guerilla warfare, further blurred the distinction between the military and civilians. This distinction was further eroded with the breakdown of national states since the end of the Cold War. In many internal conflicts, often pitting the state against a section of the civilian population, torture, disappearances and other forms of repression have been practiced in pursuit of political and ideological objectives.

The end of the Cold War unleashed a great deal of violence. Given the widespread availability of small arms[16], parties to conflicts did not have to be affluent, well organized, or supported by one of the global superpowers, in order to obtain modern weapons or perpetrate mass destruction. Even uniformed fighters in many conflicts do not hold clear political allegiances nor have a clear definition of who represents 'the enemy'. One side-effect of this change has been the large numbers of violent deaths of civilian UN employees and workers with non-governmental agencies (see Box). At least 382 deaths among humanitarian workers occurred in the years 1985-1998[17]. More UN civilian personnel than UN peacekeeping troops have been killed over the same period.

While conflicts within states are most common, conflicts between states still occur. The Iraq-Iran war of 1980-1988 is estimated to have left 450,000 soldiers and 50,000 civilians dead[18]. The Eritrea-Ethiopian conflict in the last year of the 20th Century was largely fought between two conventional armies, using heavy weaponry and trench warfare, and claimed tens of thousands of lives. In recent years we have also witnessed coalitions of multinational forces waging war using massive air attacks as in the Gulf against Iraq in 1991 following the latter's

invasion of Kuwait, and in the NATO-led campaign against Yugoslavia (1999) in an effort to stop the internal violence and repression against the Kosovar Albanian population.

Under the Geneva conventions, the rules of war require the application of principles of proportionality and distinction in the choice of targets. Proportionality involves an assessment of ways to minimize likely civilian casualties when a military objective involves targeting which is not exclusively military. Distinction focuses on avoiding civilian targets wherever possible.

Whichever type of war we focus upon, civilians comprise a substantial proportion, and often the majority, of casualities in most conflicts still in progress at the beginning of the 21st century. Measuring the impact and costs of conflict is complex due to methodological and theoretical constraints, inconsistencies in definitions and terms, and restricted access to affected areas. No standard definitions of direct and indirect effects exist, and data are subject to extensive political manipulation. The manipulation of data is exacerbated the closer in time one is to the events being reported. Both NATO and the Yugoslav government devoted attention not only to the air battle but to the 'battle over the air-waves': the Federal Republic of Yugoslavia and NATO repeatedly tussled over the number and circumstances of civilian casualties. At the height of the conflict, US government estimates of deaths among Albanian Kosovars in 1999 varied from 100,000 - 500,000. After the war the estimated number of deaths was substantially lower than 10,000, including about 2,000 deaths resulting from allied bombings[19]. A UN spokesman in Angola argued that only general estimates of war-related deaths was possible: 'You simply cannot count bodies in any war. There are other priorities', he said[20] .

War typically entails a *'conscious attempt by armed parties to subdue or inflict harm on the individual members of an opposed group, to dominate or shatter the social structures of their enemy, and/or to capture, damage or destroy their enemy's material resources'* .[21] While wars have probably always reflected such societal destruction and targeting, international community efforts to prevent annihilation of populations and massive economic destruction have been most visibly inadequate in recent conflicts.

Population Displacement

One consequence of the targeting of entire communities and their livelihoods have been the large numbers of displaced people (Table 4). Refugee (those seeking refuge across international borders) numbers have risen from 2.5 million in 1970, 11 million in 1983, to 18.2 million in 1992 and 23 million In 1997 [22] [23]. Following the end of the Cold War there were estimated to be 30 million internally displaced people[24], the vast majority fleeing conflict zones. Those displaced within countries have less access to resources and support from the international community and may be at ongoing risk from violence perpetrated by the state and other powerful local actors[25].

Table 4: Millions of Internally Displaced and Refugees by Continent and Year (Adapted from [26])

	90	91	92	93	94	95	96	97	98
Internally displaced									
Africa	13.5	14.2	17.4	16.9	15.73	10.19	8.51	7.59	8.77
EAsia/Pa	0.34	0.68	0.7	0.6	0.61	0.56	1.07	0.8	0.53
S.Asia	3.09	2.69	1.81	0.88	1.78	1.6	2.4	2.25	2.12
Mid-East	1.3	1.45	0.8	1.96	1.71	1.7	1.48	1.48	1.58
Europe	1.05	1.76	1.63	2.77	5.2	5.08	4.74	3.7	3.27
Americas	1.13	1.22	1.35	1.4	1.4	1.28	1.22	1.62	1.77
Refugees									
Africa	5.41	5.32	5.73	5.81	5.9	5.19	3.62	2.9	2.73
EAsia/Pa	0.7	0.81	0.5	0.8	0.69	0.64	0.65	0.72	0.67
S.Asia	6.33	6.9	4.72	3.9	3.32	2.81	3.18	2.97	2.93
Mid-East	3.55	2.79	2.85	2.98	3.83	3.96	4.37	4.3	4.38
Europe	0	0.12	2.53	1.95	1.78	1.81	1.88	1.34	1.32
Americas	0.15	0.12	0.1	0.1	0.12	0.07	0.07	0.06	0.36
Ratio of IDPs to refugees									
Africa	2.5	2.7	3.0	2.9	2.7	2	2.4	2.6	3.2
E.As/Pa	0.5	0.8	1.4	0.8	0.9	0.9	1.6	1.1	0.8
S.Asia	0.5	0.4	0.4	0.2	0.5	0.6	0.8	0.8	0.7
Mid-East	0.4	0.5	0.3	0.7	0.4	0.4	0.3	0.3	0.4
Europe		14.7	0.6	1.4	2.9	2.8	2.5	2.8	2.5
Americas	7.5	10.1	13.5	14	11.7	18.3	17.4	27	4.9

Refugees are typically enumerated in order to plan and provide relief, but relatively little attention has been devoted to establishing the precise composition of refugee and internally displaced populations (IDPs). Older adults, refugees not in camps, and IDPs, may neither be identified nor receive required attention.

Table 4 illustrates patterns of refugee and internally displaced movements over the last decade. It is notable that the ratio of IDPs to refugees varies dramatically between regions: in Africa, Europe and the Americas there are many more times as many IDPs as refugees; whereas in Asia and the Middle East the opposite holds.

Increased Mortality and Morbidity

Many deaths may result from reduced access to health services or public health programs, but there is invariably be dispute regarding the extent to which such outcomes should be considered 'conflict-related'. Where the impact on health is due to the weakened economy and environmental destruction, it may be even more difficult to agree on whether and how to attribute these ill-effects to the conflict. Some have suggested measuring the opportunity costs of development foregone as a result of the conflict. Countries in conflict have made systematically less progress, when compared with others of similar socio-economic status and in the same region, in extending life expectancy, and reducing infant mortality and crude death rates[27]. Such analyses, however, may be confounded by the simultaneous influence of the HIV/AIDS pandemic, which in some settings is also exacerbated by conflict and instability[28 29].

Refugees and internally displaced persons typically experience high mortality, especially in the period immediately after their migration[30 31]. Deaths from malnutrition, diarrhea and infectious diseases occur especially in children, while some communicable diseases such as malaria, tuberculosis and HIV infection, as well as a range of non-communicable diseases, injuries and violence typically affect adults. The prior health status of the population, their prior access to key determinants of health (housing, food, shelter, water and sanitation, health services), the extent to which they are exposed to new diseases and the level of resource availability, all affect their health status.

Not surprisingly, the impact on health can be extensive in terms of morbidity, mortality and disability (Table 5). Over thirty years of war in Ethiopia led to approximately one million deaths, about half of whom were civilians[32]. About one third of the 300,000 soldiers returning from the front after the end of the conflict had been injured or disabled and at least 40,000 people had lost one or more limbs in the conflict.

Table 5: Examples of Direct Health Effects of Collective Violence (Adapted from [33])

Category of impact	Causes
Mortality	External causes: mostly weapon-related mortality
	Infectious diseases: Preventable diseases measles, polio, tetanus, malaria
	Non-communicable diseases: deaths otherwise avoidable through medical care (e.g. asthma, diabetes, emergency surgery)
Morbidity	External causes: injuries from weapons, mutilation, anti-personnel landmines, burns, poisoning
	Other external causes: sexual violence
	Infectious diseases • water-related: cholera, typhoid, shigella • vector-borne: malaria, onchocerciasis • other communicable: tuberculosis, ARI, HIV/AIDS, other sexually transmitted infections
	Reproductive health: • Increased prematurity, low birth weight, stillbirths, delivery complications • longer-term genetic effects of exposure to chemicals and radiation
	Nutritional: acute and chronic malnutrition plus variety of deficiency disorders
	Mental health: anxiety, depression, post-traumatic stress disorder
Disability	• Physical • Psychological • Social

Health status may worsen substantially in wartime. Infant mortality rises in association with reduced access to health and immunisation services, impairment of the basic infrastructure necessary to promote health, poorer nutrition for children and their mothers, and population displacement. Preventable diseases such as measles, tetanus and diphtheria may become epidemic. In the mid-1980s, infant mortality in Uganda rose above 600 per 1000 in some war-affected areas[34]. UNICEF showed that declines in infant mortality were reported for all countries in Southern Africa over the period 1960-1986, with the exception of Mozambique and Angola both of which were affected by vicious civil wars and aggression by apartheid South Africa in this period[35].

The comprehensive economic embargo against Iraq in the 1990s, although not a war as such, shared many similar characteristics, notably the very high civilian-to-military casualty rate and deterioration in many indices of health status[36].

In Zepa (former Yugoslavia), a UN-controlled 'safe-haven' which was subsequently overrun by the Bosnian Serbs, perinatal and childhood mortality rates doubled after only one year of war. In Sarajevo, deliveries of premature babies had doubled and average birthweights fallen by 20% by 1993, two years into the war. In Bosnia, fewer than 35% of children were immunized, compared with 95% before the war[37] [38]; in Iraq dramatic declines in immunization coverage have been experienced since the Gulf War and the subsequent imposition of economic and political sanctions. Recent evidence from El Salvador indicates that it is possible, with selective health care interventions and major resource inflows, to improve certain health indices during ongoing conflicts[39]; although other health problems are more refractory to such inputs.

Communicable Diseases

The occurrence and transmission of communicable diseases increases due to the decline in immunisation coverage, population movement, reduction in public health campaigns and outreach activities (see Table 8) and the lack of access to health services. A war-related measles epidemic in Nicaragua was attributed in large part to the declining ability of the health service to immunise those at risk in conflict-affected areas[40] while deterioration in malaria control activities was associated with epidemics in Ethiopia[41] and Mozambique[42] highlighting the vulnerability of complex disease control programmes in periods of conflict. Increased rates of malaria in Nicaragua were attributed to war-related population and troop movements, inability to carry out timely disease control activities, and shortages of the health personnel needed to conduct control programmes in peripheral areas[43]. In Ethiopia, epidemics of louse-borne typhus and relapsing fever were associated with crowded army camps, prisons, and relief camps, as well as the sale of infected blankets and clothes to local communities by retreating soldiers[44]. In Rwanda, epidemics of water-related disease (shigella dysentery and cholera) led to the death, within a month, of 6-10% of the refugee population arriving in Zaire[45]. The crude death rate of 20-35 per 10000 population *per day* was two to three times higher than that previously reported in refugee populations.

HIV/AIDS

'High risk situations' for HIV transmission may also occur in times of conflict and their aftermath[46]. HIV infection has reached high levels in many army forces; the ability of these

men to command sexual services from local women, through payment or force, the movement of troops to different parts of the country, and their ultimate return to divergent regions of the country after demobilisation, present significant risks to women[47] [48] [49]. Military forces (including peace-keeping forces) may stimulate a market for sexual services, attracting women from surrounding states into commercial sex work[50], thus fuelling HIV and STD transmission.

Violence against Women and Rape

Violence against women and rape as a weapon of war have been documented in many conflicts. Although the scale of rape in war has often been hidden, recent conflicts and the systematic use of rape within them, have attracted media, academic and service attention. Estimates of the number of women raped in Bosnia range from 10,000 to 60,000[51] and reports of rape in wartime have been documented from Bangladesh, Liberia, and Uganda, amongst others. Rape is used to terrorize and undermine communities, to force people to flee, and to fragment community structures. The impact on the violated women may be far-reaching in both physical and psychological dimensions. Recent work has sought to document and reflect upon these experiences in order to enhance our responses to such violence[52] [53]. The International Criminal Court has indicated that systematic rape in wartime should be considered a crime against humanity.

Increased Vulnerability

Raised mortality rates reflect the combined effects of poor nutrition, increased vulnerability to communicable diseases, diminished access to health services, poor environmental conditions, and psychosocial distress. A study of the impact of the war in Bosnia drew attention to the creation of new 'vulnerable' populations such as those in isolated enclaves or forced to flee as a result of ethnic repression[54]. Reviews of the health of refugees and displaced populations have revealed massively raised mortality, at its worst, up to 60 times the expected death rates during the acute phase of displacement [55] [56] [57]. In Monrovia, Liberia, the death rate among civilians displaced in 1990 during the civil war, was seven times higher than the pre-war death rate (MSF, Holland, quoted in [58]).

Disability

Data on war-related disability are scant. A nation-wide disability survey conducted in 1982 after the liberation struggle in Zimbabwe, revealed that 13% of all physical disabilities, were the direct result of the war. Estimates of landmine-related amputations and disabilities are sobering: 36000 in Cambodia (6000 in 1990 alone; i.e. one in every 236 Cambodians has lost at least one limb after detonating a mine). Over 30 million mines were laid in Afghanistan in the 1980s, the costs of which are both medical and social[59]. In Hargeisa Hospital, Somaliland, 74.6% of the land-mine related injuries treated from February 1991 to February 1992, were in children between the ages of five and fifteen years[60].

Mental Health

The mental health impact is influenced by a range of factors including the nature of the conflict, the form of trauma experienced (or directly inflicted, as in the case of torture and other repressive violence), the individual and community response to these pressures, the cultural context in which they occur, and the psychological health of those affected prior to the event[61 62]. Psychological stresses are also associated with displacement, both forced and voluntary, and result from loss and grief, social isolation, loss of status, loss of community, and in some settings, acculturation to new environments[63]. Manifestations of such stress include depression and anxiety, psychosomatic ailments, intra-familial conflict, alcohol abuse and antisocial behaviour. Single and isolated refugees, as well as women who are single-handedly managing a family, may be at particular risk.

Summerfield[64] and Bracken et al[65] caution against assuming that populations do not have the ability and resilience to respond to these adverse circumstances; authors in South Africa have similarly argued that not everybody exposed to massive degrees of trauma become 'victims' - their ability to respond is strengthened by their perception of being part of a legitimate struggle[66]. The medical model which labels individuals with a particular complex of symptoms and signs as having 'post traumatic stress syndrome' is culture-bound and may fail to take account of ongoing stressors: it cannot address the complexity of human response, including the interpretation and adaptation to the effects of violence[67]. It is important to appreciate the subjective meaning of the violence or trauma, the way in which distress is experienced and reported, the type of support available to the individual, and the therapies available. It is increasingly apparent that recovery is linked to the reconstruction of social and economic networks, cultural institutions and respect for human rights[68] . A useful contribution to the debate suggests that conflict-affected populations be divided into three groups: those with disabling psychiatric illnesses, those with severe psychological reactions to trauma, and the majority who are able to adapt once peace and order are restored[69]. The two former groups will benefit greatly from context-appropriate service provision.

Depression, substance abuse and suicide are also important consequences of collective violence[70]. Sri Lanka before the two decades of civil war had a much lower suicide rate overall (higher for Tamils, very low for Sinhalese) than is presently the case. Similar data have been reported from El Salvador; in both cases at least in part as a consequence of political violence.

Impact on Health Services

The impact of conflict on health services are wide-ranging (see Table 6). Damage to the Iraqi health system in the 1991 international community response to the Iraqi invasion of Kuwait and its repression of its Kurdish minority was dramatic. Health services were accessible to 90% of the population and the country was able to immunise the vast majority of children under the age of five years before the war. By the end of the conflict, many hospitals and clinics had been severely damaged or closed: those still operating were forced to cope with much larger catchment populations, and damage to water supplies, electricity and sewage disposal, exacerbated both the determinants of health and the operation of health services[71].

Table 6: Impact of Conflict on Health Services (Adapted from [72])

Category of impact	Manifestation
Reduced access to services	• Reduced security (landmines, curfews) • Reduced geographic access (poor transport) • Reduced economic access (increased charges for health services) • Reduced social access (fear of service providers or of being identified as conflict participant)
Compromised service infrastructure	• Destruction of clinics • Disrupted referral systems • Destroyed vehicles and equipment • Poor logistics and communication
Human resources	• Injury, killing and kidnapping of health workers • Displacement and exile • Poor morale • Difficulty keeping health workers in public sector and especially in insecure areas • Disrupted training and supervision
Equipment and supplies	• Lack of drugs • Lack of maintenance • Poor access to new technologies • Inability to maintain cold chain for vaccines
Health services activity	• Shift from primary to tertiary care • Increased urbanization of provision • Reduction in peripheral and community-based activities • Contraction of outreach, preventive and health promotion activities • Disrupted surveillance and health information systems • Compromised vector control and public health programs (partner notification, case-finding) • Tendency towards vertical programs • Reliance on range of organisations to provide project-based services
Impact on health policy formulation	• Undermined national capacity • Inability to control and coordinate NGO and donor activities • Reduced information upon which to make decisions • Reduced engagement in policy debates locally and internationally • Impaired community structures and reduced participation
Relief activities	• Limited access to many areas • Increased expense in delivering services • Increased pressure on host communities, systems and services • High degree of verticality • Insecurity of relief personnel • Impaired coordination and communication between agencies

Poorer supply of drugs during and following conflicts have been associated with increases in medically preventable causes of death such as asthma, diabetes and many infectious diseases. The quality of available care may deteriorate greatly, whether in hospital or out-patient settings. The lack of personnel, diagnostic equipment, electricity, water, and drugs all contribute to these problems.

Human Resources

Human resources are seriously affected by conflict and in countries such as Nicaragua and Mozambique have been specifically targeted. Violations of medical neutrality have been reported from many conflicts, including those in South Africa, the Occupied Territories of Palestine, Philippines, and El Salvador[73]. Qualified personnel often retreat to safer urban areas or may leave their profession. In Uganda, half the doctors and 80% of the pharmacists left the country in search of safer opportunities between 1972 and 1985. In Mozambique, the country was left with only 15% of the 550 doctors present in the country before independence[74]. In East Timor, only 20 Timorese medical practitioners were present after Indonesia left the territory. In Kosovo, although there were numerous Albanian medical professionals, most had not been able to work in the official health system while the area was under the control of the Federal Republic of Yugoslavia.

Impact on Infrastructure and Development Resources

Conflict will also indirectly have an impact on health, through its influence on infrastructure and the determinants of health, such as water and sanitation (Table 7). In both southern Sudan and Uganda, hand pumps in villages were specifically destroyed by activities of government troops in rebel-held areas, and by guerillas in government-held areas[75]. In the international coalition against Iraq following its invasion of Kuwait and its repression of Kurds and Shiites, water supplies, sewage removal and other sanitation services were drastically affected by saturation bombing.

Table 7: Indirect Impact of Conflict on Health and Development (Adapted from [76])

Category of impact	Manifestation
Infrastructure damage	• Damage to water supplies, sanitation, sewage and garbage disposal • Disrupted electrical power and gas supplies • Destruction of bridges, roads, railways, airports and docks • Communication system dysfunction and targeting
Disrupted human settlement	• Displacement within country as IDPs and across borders as refugees • Movement to cities and safer areas • Forced resettlement as military strategy
Environmental damage	• Environmental destruction from use of e.g. napalm, defoliants, saturation bombing • Environmental contamination from chemicals, radiation • Reduced access to areas as a result of landmines and unexploded ordinance • Reduced availability of wood fuel and other local resources • Destruction of natural resources e.g. forests, gems, wildlife, to fuel ongoing conflict
Impact on social organisation	• Impact (positive or negative) on community participation • Direct targeting of community leaders and representatives • Decreased accountability of political systems • Human rights abuses: detention, torture, disappearances, political assassination • Changed (positive or negative) gender relations • Increased inter-group hostility and tension
Macroeconomic	• Diversion of economic and productive resources from social to military sector • Hyper-inflation and price manipulation in favour of few entrepeneurial and military elites • Destruction of local markets • Loss of production, trade and external markets • Increased cost of imports • Increased susceptibility to donor and international financial institution pressure on how economy functions • Loss of tourism

Community Participation

The impact of conflict on community participation may be positive or negative. In some countries, there is evidence of conflict enhancing community mobilisation, participation and control over local decision-making. Experiences from Nicaragua[77], Mozambique[78], Vietnam[79], Eritrea[80] and Tigray[81] suggest that some conflicts may present opportunities for community mobilisation and organisation as communities come together to respond to external threats. Such activity may, however, represent a target for opposing groups, and there is evidence to this effect from Nicaragua and Mozambique.

Macroeconomic Impact

The economic impact of conflict may be profound[82 83]. In Ethiopia, military expenditure increased from 11.2% of the government budget in 1974/75 to 36.5% by 1990/91, the health budget declined from 6.1% in 1973/4 to 3.5% in 1985/86 and 3.2% in 1990/91[84]. There are also significant effects on productivity and exports, reductions in the ability to collect tax revenue, loss of human capital, loss of tourism and other usual sources of income, and great scope for price manipulation, speculation and profit-making, often at the expense of the

majority of the population.

Impact on Food and Agriculture

The specific targeting of food production and distribution activities during periods of conflict is extensive[85] (Table 8). Food production was directly disrupted in Ethiopia through preventing farmers from planting and harvesting their crops and the looting of seeds and livestock by soldiers; in Tigray, the conscription of men, the mining of land, the confiscation of food, and the slaughter of cattle were widespread[86]. The loss of livestock deprives farmers of an asset needed to put land into production: it therefore has an adverse effect both immediately and in the future. In Eritrea, about 40% of the land area was not cultivable due to similar disruption of activities and access to land. In numerous latter-day conflicts, humanitarian supplies have been used by competing sides, as a means of controlling populations, fuelling fighting capacity, or luring populations to areas in which control can be

Forced Resettlement

Forced population resettlement, used by a number of governments for security and ideological reasons, may also have severe adverse impacts upon health. In the two to three years after 1985, more than 5.7 million people, 15.4% of the total rural population, had been moved to villages as part of an enforced Ethiopian government programme[87].

Table 8: Mechanisms Compromising Food Security during Periods of Violent Political Conflict (Source: Adapted from [88])

Category of impact	Manifestation
Destruction	• Direct destruction of food stores • Looting of seeds, equipment, and animals • Destruction of markets
Disruption to agricultural and market activities	• Encirclement of towns and curfews limiting access to fields and markets • Reduction in ability to use coping strategies such as migration • Seizure of relief goods and supplies • Disrupted cattle grazing, veterinary services • Manipulation of commodity prices
Selective provision of food	• Providing food only to areas where political support is provided or desired • Diversion of food aid to military force use
Population relocation	• Forced displacement • Establishment of 'protected villages' or other forms of forced settlement to enable control over population to be exerted

Contributory Causes to Violent Political Conflict

Good public health practice requires a focus also on the identification of risk factors and the determinants of violent political conflicts, and the development of approaches that can improve the resolution of conflicts without war.

A range of proximal and distal risk factors for conflicts have been identified. Proximal risk factors include immediate tensions within and between states in the presence of weapons availability.

Level of Weapons Technology

The technologic level of available weapons influences the extent of destruction which occurs in conflicts. It is important to note, however, that even primitive weapons, such as the machete, can contribute to the occurrence of massive human destruction, as occurred in the Rwandan genocide[89].

The move from the arrow to the crossbow increased the range and destructive force of projectile weapons in the modern era. This was followed, in succession, by the development of simple firearms, rifles, machine guns, and submachine guns. The ability to fire more bullets, more quickly, with greater range and accuracy, has greatly increased the destructive power of such weapons.

The size of the field of combat has also expanded rapidly. Until the 1800s warfare among nation states took place on a 'field of battle'. Mobilization of mass numbers of citizen-soldiers in the Napoleonic wars created larger battle fields, but mobile warfare with rapidly moving positions in large geographic areas only occurred later with the development of railways and the mechanization of mass transport. Subsequent development of tanks, submarines, fighter-bombers, and laser-guided missiles created the possibility of a battle field without geographic limits. More recent wars, such as that waged by NATO against Yugoslavia in Serbia (1999) have been labeled as 'virtual war'[90] given the extent to which the conflict was fought with fighter bombers and missile attacks without ground force involvement.

Indicators of States at Risk

The Carnegie Commission on Preventing Deadly Conflict[91] has attempted to identify indicators of states at risk of collapse and internal conflict (Table 9). These factors interact with one another to predispose to violent political conflict; on their own none may be sufficient to lead to violence or state disintegration. Demographic pressures, for example, become particularly important in the presence of resource constraints, maldistribution of development gains, and lack of democratic processes through which to decide on how best to facilitate development despite adversity. A particularly important factor associated with the occurrence of violent political conflict is the presence of inter-group inequalities, especially in the presence of widening gaps between groups[92]

Table 9: Indicators of States at Risk (Adapted from [93 94]).

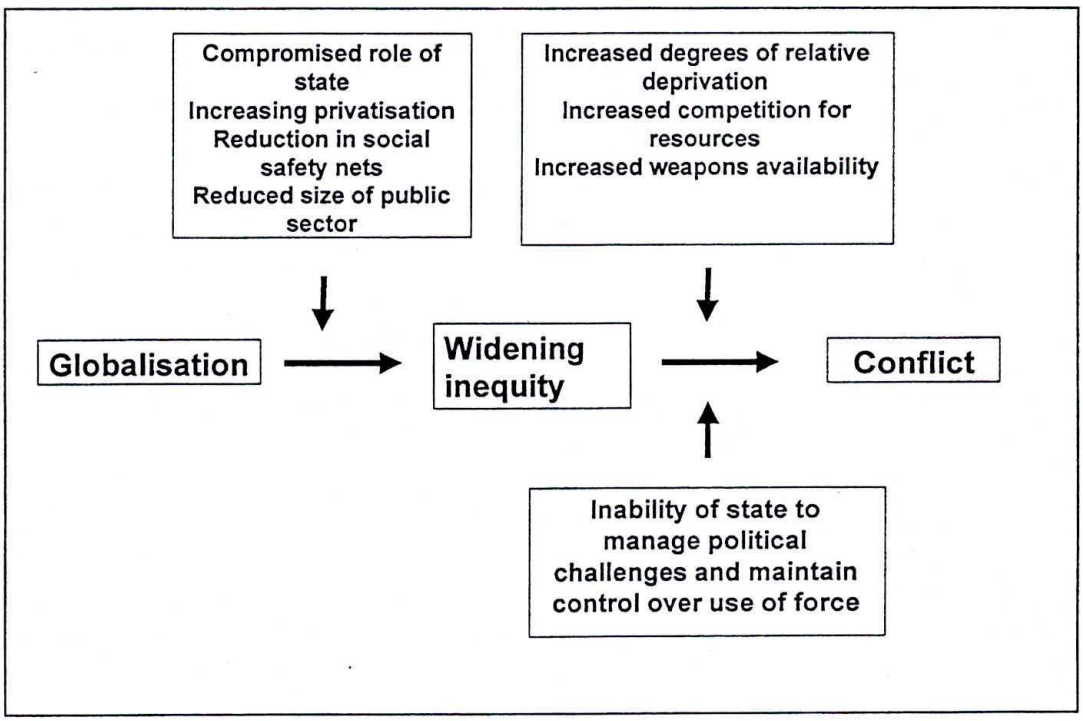
Inequalities	Widening inequalities, especially those manifest between, rather than within, groups
Demographic pressures	High infant mortality; rapid changes in population including massive refugee movements; high population density; youth bulge; insufficient food supply or access to safe water; ethnic groups sharing and disputing land, territory or environmental resources
Lack of democratic processes	Criminalisation or deligitimization of the state; human rights violations; kleptocratic and corrupt processes of governance
Regimes of short duration	Rapid changes of regimes
Ethnic composition of the ruling elite differing from the population at large	Political and economic power exercised (and differentially applied) through ethnic and religious identity; desecration of ethnic symbols by opposing sides
Deterioration or elimination of public services	Reduction in the size and performance of social safety nets which ensure a minimum standard of service available to all
Sharp and severe economic decline	Uneven economic development; differential benefits or losses to one or other group or geographic zone as a result of significant changes in economy; massive economic transfers or losses over short periods of time
Legacy of vengeance-seeking group grievance	History of inter-group rivalry with previous disputes settled through violence
Massive, chronic or sustained human flight	Sufficiently adverse social, political, economic or environmental conditions to propel large numbers of the population into displacement within or across borders

Many of these risk factors are identifiable in advance of overt collective violence. Increased pressure and competition for resources, within a system which inequitably distributes political and economic power, is a potent input to many conflicts. A key question is whether current trends in globalisation are likely to increase the frequency and magnitude of these negative features. There is increasing recognition that both intranational and international violent conflict is fueled by unequal access to resources and power. Trends in the global economy have hastened the pace of global integration and enrichment for some countries and groups within countries, and the fragmentation of societies, associated with the marginalisation and impoverishment of others. Risks of violent conflict are exacerbated by the massive and rapid movements of international finances, by aspirations fanned by the global media and communications systems, by the stimulation of ethnic and religious nationalism often encouraged during periods of economic stress, and by the ready availability of small arms, other weapons and tools of mass destruction. Conflict is much less likely in situations of economic growth than in contracting economies and intense competition over resources. Figure 1 suggests potential linkages between current trends in globalisation and the occurrence of violent political conflict[95]

Key natural resources, such as diamonds in Sierra Leone, the Democratic Republic of Congo (DRC), and Angola, oil in Angola and Southern Sudan, and timber and gems in Cambodia, have all played some role in fuelling and prolonging conflicts. In other settings such as Afghanistan, Burma, and Colombia, control over drugs production and distribution makes a significant contribution to promoting violence.

How best to intervene in the presence of such negative features is unclear. Some key nodes for action include enhancing accountability of decision-making, reducing absolute and relative poverty, reducing inequity between groups, reducing access to weapons, and ensuring that development assistance is targeted to where it is likely to make the greatest impact on poverty reduction[96].

Possible Linkages between Globalisation, Inequalities and Conflict



Responding to Collective Violence

Prevention

Attention must be focused on prevention: it is clear that the impact of violent political conflict, whether in the form of wars, genocide, or state repression, can be horrendous - preventing these from occurring must be our primary response. Many 'risk factors' and risk situations have been identified in the previous section; finding mechanisms for preventing these occurring is a major challenge.

Promotion of human rights and application of international treaties. Among the most important means of prevention are the promotion and application of internationally agreed treaties and laws. Respecting international human rights and the rights of the child are important aspects of developing an appropriate response. International humanitarian law guides the conduct of armed forces during periods of conflict, but are limited when dealing with internal conflicts rather than those between states. Key treaties such as the Ottawa Treaty, with its ban on production, distribution and use of anti-personnel landmines need to be more vigorously enforced. Those states which have not yet signed up to this treaty, which include some of the most powerful states in the world today, should be pressured to do so. New initiatives around light weapons, such as that promoted through the European code of conduct on light weapons transfer should be widely promoted. Recent measures to integrate the monitoring of small arms flows with other early warning systems for conflict[97] should be actively applied. Other measures to decrease the production, sale and distribution of weaponry are also to be encouraged.

The establishment of the International Criminal Court which will ensure a permanent mechanism for dealing with war crimes and other crimes against humanity, should be actively promoted. The role of the state remains extremely important in taking forward each of these.

Over thousands of years, warrior codes and rules of conduct have sought to limit the degree of destruction to economic systems and civilian populations. There was some pragmatism in this: land, machinery and people were the assets gained through fighting wars; without them one had only the risk with none of the benefits. International humanitarian law has developed over time in an attempt to constrain the ways in which wars are waged between states, and to regulate how armed forces relate to one another. The production of biological, chemical, and nuclear weapons and tactics of indiscriminant bombing with conventional explosives created unprecedented levels of mass destruction in the 20th century. Rules to limit the development and use of such tactics and technologies followed, starting with biological and chemical weapons early in the century, including those governing treatment of prisoners such as the Geneva Conventions, and leading to controls over nuclear weapons, chemical and biological warfare agents, anti-personnel land mines, and blinding laser weapons late in the century. These rules, however, only apply effectively to nation-states and multi-state coalitions interested and capable of asserting authority over combatants in their territories.

Early warning systems. Despite increasing attention by the United Nations and other organisations to identify vulnerabilities and early warning systems which can more accurately predict where violent political conflicts are likely to occur, we still have little ability to act on this information. Evidence of increasing tensions between groups, often as a result of deepening poverty and inequities in the distribution of resources within societies, need to be identified early and appropriate responses developed. The role of the state and of the international community, plus key donors, are extremely important in avoiding patterns of development which contribute to violent conflict occurring.

The health sector may play a valuable role in detecting inequalities in health status, in access to health care, and in access to other societal resources. Detecting these early and promoting societal responses to their presence, especially if the gaps between those in good and poor health are widening, is especially important. The recent World Health Report[98] has identified the reduction of health inequity as a key indicator of health sector performance. The health sector, through its surveillance mechanisms, may be able to play a role in detecting increases

in inter-group tensions and social distress through monitoring trends in diseases of poverty and their distribution, as well as the occurrence of inter-personal and inter-group violence. The health sector can play a valuable role in highlighting the health, social and economic impact of violence, thereby contributing to the search for more equitable systems of governance and economic and social development.

Aside from totally avoiding violent political conflict, effort can be directed at improving system performance should violent conflict occur. Disaster planning should include improving early assessments of vulnerability and of needs, enhancing coordination between the key actors, and bolstering global, national, and local capabilities to provide effective health services in situations of adversity. The World Health Organisation has developed surveillance mechanisms such as HINAP and HEDIP to help identify and respond to such crises earlier rather than later.

Globalisation also presents opportunities for heightened awareness and knowledge of violent conflicts and their causes worldwide. The new technologies offer opportunities to exchange ideas and place pressure upon political leaders to make pro-poor and pro-peace choices. The establishment of transnational civil society organisations also presents some opportunities for influencing and pressing for appropriate forms of external aid and support before, during and in the aftermath of conflicts. Conflict-affected groups can use the new technologies to ensure that their voices are heard and their experiences documented and placed in the public domain.

Building and boosting resilience. Systems exposed to adverse environments typically adapt and respond: such adaptations may be positive while others may be dysfunctional, leading to a worsening of the situation for individuals, communities and systems. The World Health Organization, supportive academic and non-governmental organizations, can play a valuable role in conceptualising and documenting adaptations in order to support and bolster those responses which are most effective, efficient and equitable.

During conflicts adaptations and responses occur at individual, community and societal levels. Individuals and communities seek to identify mechanisms of ensuring survival, often entailing one or more of migration, responding to violence with political opposition and/or violence, or promoting innovative survival and coping strategies to ensure that basic needs are met. Adaptation occurs at system level with new actors filling the gaps left by retreating and contracting public sector services. Indigenous health care providers may become more important, as may other forms of private sector provision. The private health care sector expands, both through the provision of services by non-profit NGOs, and through the hemorrhage of public sector workers into the private sector, whether officially or unofficially.

Community involvement. Local systems of democracy and accountability, where they exist, may be seriously disrupted and involvement in community affairs discouraged during violent political conflicts. People may fear playing an active role in debates around social policy or in advocating for the needs of marginalized groups being addressed. This is particularly so in undemocratic political systems and in the presence of actual or threatened state violence against opponents.

In some conflicts, however, positive community responses may occur, facilitating opportunities for health system and societal development. Such responses appear to be more common in those conflicts which were ideology-based, as in Nicaragua, Vietnam and Mozambique, in all of which community participation and control was actively promoted as

part of a broader socialist political programme. In the popular conflict against the Ethiopian Derg, community-based political movements in Eritrea and Tigray engaged strongly in building community structures for participation and decision-making, facilitated the development of multi-sectoral health promotion strategies, and identified innovative community-financing systems[99] [100].

Gender relations may change substantially during conflicts: in part a reflection of greater absence of men on a day to day basis within the community, but also reflecting the new roles absorbed by women during periods of instability[101]. Changed gender relations may also place women at risk, for example, through forcing an engagement in transactional sex in order to maintain livelihoods and earn sufficiently to meet family needs.

Increasing control by those affected. The experiences of those most affected by collective violence as individuals, members of families and communities, service providers and users of services, need to be elicited and understood if those responses which are health-promoting for the greatest number of people are to be supported. Participants in collective violence are not passive objects and will themselves use opportunities presented through health and social services, and the provision of relief supplies, to strengthen their own positions and to mobilise resources for their constituents. This intensely political scenario must be understood and appreciated if service providers and concerned agencies are to minimise the harm they do and maximise opportunities for promoting improved health.

Providing Services during and in the Aftermath of Crises

Different forms of conflict logically require different forms of health sector and humanitarian responses. Some conflicts, whether primarily internal or directed at other states, attract substantial international attention while others appear to be largely ignored by the media, donors and service providers. Ideological, economic and political factors influence greatly the nature of the response; consistency is often lacking despite equivalent loss of life, population displacement, and infrastructure destruction. Ongoing conflicts in Burma, Algeria, Sierra Leone, Sudan, Liberia and Angola, for example, have attracted far less attention and funds in recent years than those in Kosovo or East Timor.

Every conflict has winners and losers. Those who benefit do so through manipulating scarcity, seizing assets, or selling resources such as gems, timber, or drugs. The winners may have an interest in perpetuating conflict; humanitarian aid itself may become a resource over which groups compete, and such assistance and resources may directly or indirectly stoke the conflict.

Humanitarian workers may be directly targeted in latter-day conflicts[102] (also see Box) and this has led to increased efforts to work closely with the military and security sector, which, despite some benefits such as in improving logistics support, may bring negative consequences, additional dangers, and threaten the neutrality and impartiality which many agencies aspire to.

During internal conflicts, due to scarcity of resources and government difficulties in accessing populations under the control of insurgents, indigenous and international NGOs, traditional practitioners, and church groups fill part of the vacuum left by the public sector, especially in

rural areas and among populations more directly affected by violence. NGOs often provide a patchwork of services which are relatively independent of the state and do not necessarily fit in with other service provision and priorities. They may communicate poorly with one another, adopt different approaches and standards of care and health worker remuneration, and focus attention mostly at a very local level. Ensuring a modicum of equity of access and quality in different parts of the service is an early casualty

Extending emergency responses to promoting more wide-ranging services is another key challenge. Surgery services developed in response to anti-personnel landmine injuries could be extended to other forms of injury surveillance and treatment. Mechanisms to protect and maintain key elements of service provision and functioning, including information systems and supplies, are crucial to assuring ongoing system functioning. Complex humanitarian emergencies severely affect health care services both in the countries affected by conflict as well as those to which refugees have fled.

A major challenge in conflict-affected settings is to seek to minimise the direct and indirect adverse impacts of the conflict on the health services, personnel and resource availability. Even where the 'official' health system is destroyed, however, health workers may still be present within their communities and may be able to offer services. The extent to which services are able to be maintained depends on earlier disaster preparedness activities (e.g. training, pre-positioning of drugs and other supplies) as well as on the nature, severity, form and intensity of the conflict.

When refugees flee from their country and cross borders their usual sources of health care are lost. They become dependant on what they can provide for themselves and what can be provided for them in the host country to which they have fled either through existing host country services, or through additional services offered by non-governmental and UN agencies. Host government services may become overwhelmed, both by the number of service users and by their need for services, if large numbers of refugees suddenly move into an area and seek to use local health services.

Host-country services typically do not receive additional resources despite the increased needs and therefore have to cope as best they can with the additional service load. This may disadvantage local community members. While host communities will often accept compromises in services available to them, these may fuel tensions between the host and refugee populations if services available are inequitable in the longer term. Antagonism may also be experienced if refugees are offered access to host services at no or lesser cost, while local community members may be required to pay user charges, both informal and formal, to obtain care.

For host communities and health service providers, a key challenge is to utilise opportunities presented by the influx of refugees, and with them other organisations and resources, to ensure that services access and quality are improved and system capacity strengthened. When the Kosovar Albanians fled into Macedonia and Albania, for example, there were some attempts, by WHO and others, to support the existing health and welfare systems of these countries to cope, rather than simply bringing in a parallel system provided through NGOs.

Even in circumstances where the international community through UNHCR, and a wide range of expatriate NGOs are providing services to the refugee community, an impact on local health services may well be felt. This may result from the recruitment by these agencies of

local health workers, thus depleting indigenous systems of their usual human resources, or from additional needs placed on other levels within the health services through requirement for referral services, rehabilitation services, and chronic disease services which the NGOs may be ill-prepared or unwilling to address.

Humanitarian organisations seek to reduce excess loss of life, and to re-establish an environment in which maintaining and promoting health is possible. A much debated issue is the extent to which these interventions should focus solely on immediate and short-term needs, or should have longer-term objectives in mind. Many relief and humanitarian organisations see their primary role as saving lives which have been placed at risk as a result of extraordinary events. In such situations, doing whatever is necessary, within the available resources, is deemed appropriate even if some of what is done cannot be replicated or sustained over the longer term. The emergency phase is seen as lasting a variable period which ends when excess mortality is reduced to less than 1/10,000 per day, or at least more closely resembles the pre-emergency and host-population levels of mortality.

Organisations which typically espouse a development rather than relief-oriented approach have sought to place the issue of 'developmental relief' onto the agenda, arguing that early attention to the difficult issues of efficiency, effectiveness, sustainability, equity and local ownership will be beneficial in the longer term. If one adopted the latter approach, greater effort would be given to activities such as training, building local capacity, and keeping costs down, rather than seeing these as desirable, but not practical given the acute needs faced in relation to saving lives.

An additional key concern facing the range of organisations offering services in response to humanitarian crises, is the importance of coordination. Organisations need to work together very closely if they are to reinforce each others action, maximise the use of available resources, minimise duplication and overlap, and enhance effectiveness, equity and efficiency. The Code of Conduct for Humanitarian Organisations (see Box, Part A), as put forward by the International Federation of Red Cross and Red Crescent Societies[103], states a number of key principles which many, but not all, humanitarian organizations identify as underpinning their work. Such Codes are aspirational, however, and there are no effective measures for enforcing them nor for evaluating the extent to which such principles are effectively implemented. Related guidelines for improving service provision in armed conflicts have been put forward (see Box, Part B) by other commentators[104] and deserve attention.

Box 1

Proposed Codes of Conduct for Humanitarian Activity

A. Principles of Conduct as stated by the International Red Cross and Red Crescent Movement and NGOs in disaster response programs

1. The humanitarian imperative comes first.
2. Aid is given regardless of race, creed or nationality of the recipients and without adverse distinction of any kind. Aid priorities are calculated on the basis of need alone.
3. Aid will not be used to further a particular political or religious standpoint.
4. We shall endeavour not to act as instruments of government foreign policy.
5. We shall respect culture and custom
6. We shall attempt to build disaster respons on local capacities.
7. Ways shall be found to involve program beneficiaries in the management of relief aid.
8. Relief aid must strive to reduce future vulnerabilities to disaster as well as meeting basic needs.
9. We hold ourselves accountable to both those we seek to assist and those from whom we accept resources.
10. In our information, publicity and advertising activities, we shall recognize disaster victims as dignified humans, not hopeless objects.

B. **Providence principles of humanitarian action in armed conflicts**

1. Relieving life-threatening suffering: humanitarian action should be directed toward the relief of immediate life-threatening suffering.
2. Proportionality to need: humanitarian action should correspond to the degree of suffering, wherever it occurs. It should affirm the view that life is as precious in one art of the globe as another.
3. Nonpartisanship: humanitarian action responds to human suffering because people are in need, not to advance political, sectarian, or other extraneous agendas. It should not take sides in conflicts.
4. Independence: in order to fulfil their mission, humanitarian organisations should be free of interference from home or host political authorities. Humanitarian space is essential for effective action.
5. Accountability: humanitarian organizations should report fully ontheir activities to sponsors and beneficiaries. Humanitarianism should be transparent.
6. Appropriateness: humanitarian action should be tailored to local circumstances and aim to enhance, not supplant, locally available resources.
7. Contextualization: effective humanitarian action should encompass a comprehensive view of overall needs and of the impact of the interventions. Encouraging respect for human rights and addressing the underlying causes of conflicts are essential elements.
8. Subsidiarity of sovereignty: where humanitarianism and sovereignty clash, sovereignty should defer to the relief of life-threatening suffering.

Recognition by the humanitarian community of these problems has led to measures aimed at improving practice and accountability, including the development of minimum standards for service provision in emergencies (the Sphere Project), the promotion of a humanitarian ombudsman, and the research efforts through, among others, the WHO. Promoting the derivation and uptake of good practice is particularly difficult in humanitarian agencies given rapid staff turnover, resistance to revealing failures and limitations given perceptions of negative funding consequences, and a culture of doing rather than reflecting. Interventions may be inadequately based on evidence and despite most agencies valuing the concept of coordination, few wish to be coordinated. Poor quality services have significant adverse

consequences: increased morbidity, mortality, disability, further spread of communicable diseases, community dissatisfaction and break-down, and psychosocial distress. Clear policy objectives for interventions are often lacking and mechanisms for working with new players such as the military and the private sector remain inadequately developed. Despite recognition that the accountability of relief efforts to affected populations should be enhanced, mechanisms to assure this are in their infancy[105]

Ongoing humanitarian challenges include understanding how best to upgrade host population health services alongside efforts to improve those available to refugees; how to most humanely and efficiently provide good quality services; and how to maintain the role of communities in structuring both the determination of priorities and the pattern of service provision. A key issue relates to how and whether to bolster and support resilient health and social systems and individual adaptations to conflict: our level of knowledge regarding these responses, and the potential to further support them, is weak. A persistent challenge to humanitarian workers is to institutionalize a sensitive and inclusive evidence-based culture and to build sustainable mechanisms for crystallizing policy advice from the vast and valuable foundation of field experience[106] .

Another key set of concerns relates to the ethics of intervention and how assistance is distributed. In some settings, such as Somalia, agencies felt obliged to hire armed guards and militia from various factions in an attempt to ensure a degree of safety in maintaining their operations. In many settings, there is a degree of expectation and tolerance that a proportion of aid resources will be diverted to the military combatants waging the conflict - agencies have at times felt that such 'leakage' is acceptable given that most resources still reached their destination. However, in some settings, such a large proportion of food aid and other resources was siphoned off by the warring parties that agencies decided to withdraw from providing services. Other ethical concerns also arise from working with warring factions and indirectly conferring upon them a degree of legitimacy. Mechanisms for deciding whether to be silent, to speak out against abuses observed, or to withdraw from service provision are all possible options, none of which can be lightly taken. The broader debates regarding how aid may directly or indirectly support peace - or war - have been clearly raised in recent commentaries[107].

Post-conflict Re-establishment of Services and Systems

There is increasing awareness of the issues which need to be addressed as countries emerge from major periods of conflict[108]. Supporting countries and agencies to do so is a significant challenge attracting effort and analysis. Table 10 suggests some of the typical responses to post-conflict health system rebuilding, highlights the rationale and problems of such responses, and proposes some improvements for debate.

Table 10: Post-conflict Health Challenges

Component of post-conflict health sector development	Typical responses	Towards a more appropriate response
Establishment of policy framework	Activities seen as 'projects'; limited attention to establishing a policy framework	Early planning and development of policy framework within which project activity can be based; donor support to Ministry of Health policy development capacity including collation and dissemination of information, and facilitation of communication and debate between key stakeholders
Donor coordination	All agree that coordination should take place but none wishes to be coordinated	Identify areas of common interest and build around these; strengthen Ministry of Health capacity to give direction and provide policy framework, coordinate donors and NGOs, and identify areas of need
Attitudes to working with government	Government often bypassed with support going through NGOs and UN authorities	Reform to international aid system so as to allow development-type activity and funding to take place earlier on in a period of post-conflict recovery
Infrastructure development	Attempt to reconstruct whatever previously existed	Review needs and distribution of services - identify opportunities to rationalise and make more equitable distribution of available services; respond to changed population distribution in region
Specific disease problems	Vertical programs with large amount of donor funding and high levels of donor control	Consider implications of range of vertical programmes on linkages between different parts of health sector Consult and involve relevant stakeholders: including national and local public sector, NGOs, and private sector
Bringing together conflicting sides	Promotion of corridors of tranquility and other methods to cease conflict temporarily to promote disease control	Recognise symbolic nature of health care in restoring inter-community relationships; see reconciliation as a long-term issue requiring rebuilding of own community and of trust between communities; promote opportunities to work together but appreciate role of time in reducing distrust
Role of private sector	Encouragement to diversifying range of providers and deregulating private sector	Recognise but seek to constrain private sector provision; promote state role in providing policy framework and setting quality standards; consider incentives to promote equitable access and delivery of services of public health importance.
Promotion of equity	Considered important and to be addressed in the longer-term	Identify equity as key objective of post-conflict reform; recognise that equity concerns may, for interim period, be over-ridden in order to promote greater stability; build links between competing groups, different areas, men and women, as key elements of post-conflict reform
Emphasis on training	Often overlooked, fragmented and uncoordinated	Identify human resource development as integral component of maintaining and developing appropriate services; develop strategies for integrating workers trained in separate systems; invest in management training
Emphasis on information systems and on data-based decision-making	Information considered a luxury and not shared or lost	Prioritise documentation, health intelligence, central repository for information; use new technologies e.g. world-wide web for making information available; make funding conditional on making information available to all; facilitate learning from other post-conflict settings

Other Public Health Roles: Documentation, Advocacy, Health as a Bridge to Peace

Surveillance and documentation remain core areas for public health action. This chapter has argued that data are often imprecise and that improving them will allow more appropriate planning, analyses of experiences and establishing what does and does not contribute to improving health in these adverse settings. We have also argued that data are extremely politically sensitive thus highlighting the role which organizations such as the World Health Organization can play in placing more objective assessments on the table for debate and analysis. However, an obsession with the precision of data may not be warranted in most situations of collective violence; a concern with validity is, however, paramount.

Advocacy is a fundamental component of public health action. NGOs, UN agencies, and health professionals all have important advocacy roles. Some NGOs, such as Amnesty International, have an explicit mandate to speak out about human rights abuses, as do certain parts of the United Nations such as the Special Rapporteur on Human Rights. Some NGOs, such as Medecins sans Frontieres, see the witnessing and recording of abuses, and the advocacy around protecting basic needs and human rights, as central to their mandate. Other agencies are more reticent to speak out against key parties to the conflict for fear that this will undermine their ability to deliver much needed services. In some such cases NGOs have provided information on abuses of which they are aware, to third parties and the press in order to ensure that the international community are appraised of such abuses. Health professionals have a privileged position in being networked globally, and through organisations such as Physicians for Human Rights and health professional associations, are able to monitor, record and advocate against human rights abuses. In South Africa under apartheid, different groups of health professionals played different roles, with some clearly supporting the structural violence of apartheid and the use of violence by the state against the community, whereas others worked individually and in organisations to highlight and oppose apartheid and its manifestations in state violence[109].

Data and the analysis of experience are necessary if advocacy is to be effective. In addition, building up some understanding of effective interventions, what works and does not, and in what circumstances and with what costs, are essential to motivating for more appropriate action. While policy is not made in a vaccuum, it can be better informed by data and experience.

Desire for improved health, and for safety and security, are universal. Health promotion efforts may help identify adverse influences on health which are amenable to control. In societies which are riven with tension and conflict, promoting health may offer opportunities to identify longer-term objectives across communities which will help lay down future patterns of development which are health enhancing and community-building. Health-related peace-building activities provide avenues for facilitating the reestablishment of social structures and livelihoods. Critically examining the potential role of health services in peace-building while gaining understanding of the limitations of such efforts, remains crucial.

Recommendations

We face considerable challenge in developing skills, awareness and knowledge of effective preventive and responsive interventions with which to respond to collective violence. Here we highlight a small number of recommendation that spring from the analysis presented above. First and foremost, however, is the importance of recognizing that the health system response is but a small element of possible mechanisms for preventing and responding to violent political conflict. Clearly, political measures need to be taken to predict and avoid conflict and to develop means for limiting its scope and resultant damage. Strengthening the United Nations is the only global mechanism we currently have to undertake such analyses and to promote patterns of development that will help reduce the risk of conflict. Working together with concerned states and with global civil society organisations, the promotion of forms of development which help reduce inequity and conflict between sub-groups within the population is fundamental, as are mechanisms to ensure that states fulfil their obligations towards the populations that live within their borders.

Definitions

Public health personnel should refine the definitions they use to categorise different forms of collective violence, as well as to describe and quantify their impact.

Data and Surveillance

a) Health and health service-related indicators should be identified and mechanisms to collect them promoted so as to ensure that early departures from health among particular groups and early indications of inter-group tension and rivalry can be identified. b) Knowledge of innovative data and surveillance techniques which have developed over the last two decades for describing and analysing the health status of conflict-affected populations should be further refined to improve our understanding of the impact of conflict on internally displaced populations, populations which have integrated with host communities, and specfic sub-groups of the populations such as child soldiers. C) Improved methods of analysing how health systems are affected, and respond to adversity, is essential if good practice in stimulating preparedness, boosting resilience, and generalising effective responses is to be ensured; d) development of effective mechanisms for 'capturing' the experiences of conflict-affected populations in order to record and analyse these, placing them in the public domain and playing some role in ensuring that population needs are addressed. E) Establishing a post-event analysis to describe more objectively the build-up to the violence, the response and impact, and the behaviour of the UN and NGO agencies, would provide significant opportunities for learning. Some such analyses have been conducted, notably following the Rwandan genocide[110] and provide an extremely valuable opportunity to further enhance prevention and response activities.

Prevention

Effort must be directed at prevention. Close collaboration with the UN and other agencies is essential if vulnerabilities to conflict are to be identified early and more appropriate forms of development promoted. Current forms of globalisation appear as though they may increase the risk of further conflicts occurring. Urgent work to determine how globalisation and development patterns are linked is required. Key interventions include strengthening the United Nations, reducing arms transfers, promoting the adoption of treaties governing the production, distribution and use of anti-personnel landmines. Enhancing respect for and adoption of human rights laws and international humanitarian law are key interventions to promote at country level.

Monitoring the down-sides to globalization and promoting more equitable forms of development and more effective pro-poor development assistance will all contribute to reducing conflict occurrence.

Boosting resilience: The responses of individuals, communities and systems to insecurity and adversity need to be better documented and analysed. Effective responses should be supported and knowledge of these practices generalised in order to assist struggling health systems to cope with situations of adversity.

Improving the quality of humanitarian and other responses - standards and accountability: Efforts to improve the standards and accountability of those responding to collective violence should be supported and bolstered. Current efforts such as the Sphere Project to establish minimum standards for humanitarian interventions, and the Ombudsman project to enhance accountability to affected communities should be actively promoted. Improving the knowledge base upon which good practice is determined and promoting means of extending knowledge and uptake of these findings should be supported.

Enhanced post-conflict responses - reducing likelihood of future conflicts occurring: Health system development in the aftermath of conflicts must take cognisance of the lessons which are beginning to emerge about how best to institute and formulate appropriate policies in these settings. Further documentation of good practice is required and support needed for organizations like WHO to play their part in facilitating more effective policy formulation and implementation; Opportunities to overcome many of the factors which led to the conflict occurring should be identified and targeted for action in the post-conflict environment. The potential, and limitations, of health and health sector activity as a contributor to peacebuilding should be actively explored and documented. Increased appreciation of the sensitivity of health sector action conflicted societies is desirable at the same time as building upon emerging good practice examples of what can be done to promote peace in unstable settings.

Research Needs

There is a clear need for further research, documentation and analysis if we are to improve our understanding of the factors contributing to violent political conflict occurring, as well as to understanding the scope for prevention, improving the response to violence when it occurs, and responding to the health and system challenges which exist in the aftermath of major periods of violence.

A key question is to identify why certain countries which have a number of features of societies which are likely to descend into major conflicts are able to contain this (eg, Mexico, Nigeria, Cuba), whereas in others conflict has occurred or, worse, have led to the almost total collapse of some states (eg, Somalia, Sierra Leone, Liberia, Angola, former Yugoslavia), while other conflicts have been contained and the nation state as a whole has continued to function and continue to provide relatively good public services (eg, Sri Lanka, Indonesia, Algeria).

Box 2

Small Arms and Light Weapons

An issue of emerging importance on the international agenda is the presence of large quantities of small arms and light weapons in many parts of the world. During recent years, the focus of the international community has shifted to these weapons because they have become the weapons of choice in most of today's armed conflicts. Although no clear definition exists, small arms are generally accepted to include pistols, rifles, sub-machine guns and ammunition for them. Light weapons are generally accepted to include small calibre cannons, light support weapons, combat grenades, anti-personnel mines, mortars, anti-tank weapons, anti-tank mines, shoulder-fired surface-to-air missiles and their ammunition.

While the extent to which such weapons are available is not argued to cause conflicts, it is argued that proliferation of such weapons has increased regional instability, threatens the security of civilian populations, and is a major impediment to post-conflict development. Examples of such situations include countries like Angola, Liberia, and Afghanistan. The abundance of weapons, their use, threat of use, and misuse tends to degrade all of the dimensions of an individual's health – his or her social, mental, and physical well being. It is estimated that xxx,xxx small arms-related deaths occur world-wide each year. The number of non-fatal injuries is unknown. Original data from a variety of contexts of armed conflict suggests that at least 35% of those injured or killed by such weapons are civilians. In addition to these direct effects, indirect health effects also arise through factors such as population displacement.

Although most of the international community's attention is focused on legal and humanitarian aspects that relate to transfer of these weapons, it is important to recognise their public health impact and the role public health agencies can play in preventing death, injuries and other adverse effects resulting from the abusive use of these weapons.

The role of public health agencies is multiple. Epidemiologic methods can be applied, whether through descriptive or analytic studies. More complete data on victims and the circumstances in which their injuries occur is needed to set priorities for interventions and to evaluate the impact of these interventions. Analytic studies are needed to elucidate risk and protective factors, and public health needs to develop the appropriate programmes to provide emergency pre hospital and hospital care, as well as long term physical and psycho-social rehabilitation.

In short, complex connections between various factors need to be elucidated, understood, and communicated to those whose decision-making impacts on root causes. Despite the fact that the issues involved cut across domains of the health, social, and political sciences, in many ways this is a traditional type of challenge for public health.

Weapons tend to be viewed in terms of their political attributes of imparting power or advantage. In some senses this has dissuaded those in the health sector from becoming involved in complex issues such as arms transfer. However, weapons do not only possess political attributes – they also possess the inherent capacity to inflict death and suffering. Conveying this in a compassionate and credible manner is an important challenge for those concerned with the health of populations.

Box 4

Child Soldiering: Questions and Challenges for Health Professionals

The issue of involvement of children[1] in armed conflict as participants has not received much attention as a health issue although there are numerous health implications and an important role for health professionals in preventing child recruitment and in the demobilisation and reintegration process and follow-up thereto.

Clearly the involvement of children as combatants in armed conflicts exposes them to risks of death and combat-related injury. What is less obvious are the other health implications, including mental and public health aspects, some inherent and some arising from particular conditions or situations, or the type of use and abuse to which child soldiers are prone. What follows is a brief introduction to some of these issues.

The generally quoted estimate of "at least 300,000 children currently participating in armed conflicts"[2] should be treated with scepticism. First, there is no way of knowing what the numbers really are, and this was the *most* conservative estimate at the time in order to ensure that it could be challenged as being exaggerated. Secondly, a figure of this sort is irrelevant because it fails to convey the essentially cumulative nature of the problem: today's "300,000" are not the same children as yesterday's or tomorrow's. Some of the children will have been killed, demobilised, invalided out, or become adults (that is passed their 18th birthday), while new children will have been recruited. The effects of their participation in combat do not cease simply because of increased age or demobilisation. Finally, this does not of course include the thousands of under-18s who are in armed forces or groups but not currently engaged in armed conflict.

In so far as this issue is considered only in the context of participation in combat, inevitably the distribution of child soldiers by region predominantly reflects the distribution of conflicts, although the relative sizes of armies affects the absolute numbers of children involved as compared with the proportion of the population or the number of situations in which children are involved. Thus the large number of conflicts in Africa at present, does not necessarily mean that there are more child soldiers in Africa than say in Asia where the sizes of the armies tend to be much greater. Unless children are routinely recruited into armed forces, they normally become involved only after the conflict has been in progress for some time. However, once children start becoming involved the numbers involved escalate rapidly and the ages decrease. At any time, the majority will be teenagers but the ready availability of simple-to-use lightweight automatic weapons means that children as young as ten now serve as front line troops. Although even younger children are reported to be involved, they normally serve as spies, messengers, guards, camp servants, and similar roles. In those situations where girls are recruited as well as boys, normally about one-third of the child soldiers are girls, and most of them are combatants even if their role also requires them to provide sexual services, whether or not dignified as "wives".

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[1] The term "child" is being used in this context to cover all those up to the age of 18 years in line with the general definition in the Convention on the Rights of the Child.

[2] See, for example, Coalition to Stop the Use of Child Soldiers booklet "Stop Using Child Soldiers", (Coalition and International Save the Children Alliance, London, 1998)

The research on child soldiers[3] undertaken for the UN Study on the Impact of Armed Conflict on Children (Machel Study)[4] showed that the most frequent combat-related injuries of child soldiers (as opposed to adult soldiers) were loss of hearing, loss of sight and loss of limbs. These partly reflect the greater sensitivity of children's bodies, for example, the eardrum, and partly the uses to which children are more prone to be put, such as laying and detecting anti-personnel landmines. However, child recruits are also prone to non-combat related health hazards caused by carrying heavy loads, including weapons, malnutrition, infectious diseases such as malaria, skin and respiratory infections.

Although not an intrinsic part of military service, the fact is that girl recruits are often expected or required to provide sexual services as well as to fight. This exposes them to high risk of sexually transmitted diseases, HIV/AIDS, as well as to the dangers of abortion or child birth. (The military are one of the high risk groups for both contracting and spreading HIV infection). Younger boys too are often sexually abused. In addition, child recruits are often given drugs and/or alcohol in order to enable or encourage them to kill and to commit atrocities, creating problems of substance dependency in addition to the general health hazards.

Teenagers recruited into regular government armed forces are usually subjected to the same military discipline, including initiation rites, toughening up exercises, punishments, and denigration designed to break the will, as adult recruits. The impact on adolescents is often damaging mentally and emotionally as well as physically. The whole issue of the mental and emotional impact on children and adolescents of their involvement in armed forces and armed groups and participation in combat is an area that merits further consideration.

As WHO pointed out in its contribution to the Machel Study[5]:

> "The vulnerability of children engaged in combat is directly related to the age and developmental maturity of the child. A child's development is a process of mastery of its ever-enlarging environment. Violence and fear run contrary to that need of mastery. The repeated direct exposure of children as perpetrators to violence may lead to persisting patterns of problematic behaviour and functioning. Many children may be withdrawn, depressed and display difficulties in social relationships and at school. Others, particularly the "successful" child soldier, are likely to adopt an active role, becoming the agent of aggressive behaviour rather than becoming its passive victim. ... Children going through the development stages of socialization and acquisition of moral judgement in such an environment are ill-prepared to be reintegrated into a non-violent society. They acquire a premature self-sufficiency, devoid of the knowledge and skills for moral judgement and for discriminating inappropriate risk behaviours whether reflected in violence, substance abuse or sexual aggression. Their rehabilitation constitutes one the of the major social and public health challenges in the aftermath of armed conflict."

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[3] Published as Rachel Brett and Margaret McCallin: Children: The Invisible Soldiers (Stockholm, Rädda Barnen, 2nd edition 1998)

[4] The Study was requested by the Committee on the Rights of the Child and mandated by the UN General Assembly in 1994. The Final Report is contained in UN Document A/51/306, which presented to the UN General Assembly in 1996.

[5] Family and Reproductive Health and the Division of Emergency and Humanitarian Action: "The Impact of Armed Conflict on Children: A Threat to Public Health" (WHO, Geneva, July 1996), p 54

Key issues for medical professionals include:[6]

- The need for thorough (but sensitive) medical screening of all former child soldiers at the earliest possible opportunity. This may take place at the time of formal demobilisation, but may also occur when child soldiers are captured, escape, or otherwise leave service.

- Such screening may need to be done in stages, addressing the most vital problems first and only moving on to more sensitive issues, such as sexual abuse, sexually transmitted diseases, and so on at a later stage when greater confidence has been established between the health professional and the child. Issues of culture and gender sensitivity inevitably arise (such as the appropriateness of opposite sex health professional questioning about sexual abuse), and the availability of continuing, appropriate health services and support for male and female former child soldiers for whom longer-term treatment or care is needed.

- Be aware of the need to look for "hidden" injuries, for example vitamin deficiencies or hearing impairments (which may be more prevalent amongst child soldiers than amongst adult ones, and unless identified and addressed may continue to impact on the child's development or ability to reintegrate into society, education, vocational training and employment).

- It is important to realise that many child soldiers may not be identified as such in the course of a demobilisation process. In particular, girls may be listed as "dependents" or "camp followers" even though they have also been fighters, and even if this puts them in a position of dependency on those who (individually or collectively) abducted or otherwise forced or persuaded them to join in the first place. Younger children may also be "screened out" either because they are politically embarrassing and/or because they cannot comply with demobilisation requirements such as handing in a gun.

- Adolescent girl soldiers frequently suffer from loss of menstruation brought on by malnutrition and trauma.[7] This in itself may add to their worries and they may need reassurance that this is normal given their circumstances.

- In general, attention needs to be given to the mental/psychosocial state of child soldiers as well as to their physical health situation. There may be nightmares, hallucinations, chronic anxiety, avoidance, flashbacks, regression in behaviour, increased substance abuse as a coping mechanism, poor concentration and memory, a sense of guilt, refusal to acknowledge the past, poor control of aggression, obsessive thoughts of revenge, feelings of estrangement from others. In addition, their social behaviour may be altered, with "militarised behaviour" leading to non-recognition or

[6] This section draws heavily on the UNICEF/Save the Children: Report of the workshop "The Challenge of Child Soldiers", Colombo, Sri Lanka, 24 March 2000

[7] It has been reported that all the adolescent girls in the GUSCO rehabilitation programme in Northern Uganda suffer from this problem.

poor recognition of the norms of civilian society.

- As with all children, each child is different, an individual, as well as falling within a particular age group. Any programmes obviously need to take account of this. For child soldiers, there may be external factors which also need to be considered: what was their role; how were they recruited; have they "won" or "lost" the war; or has it ended inconclusively; or is the war ongoing; how long were they involved; were they protected, perhaps remaining within a family structure, or abused and exploited; what is the situation to which they will be returning. These and other factors may not only affect how the children see themselves but also how others perceive them – as a threat, as heroes, stigmatised as killers and those who committed atrocities; as victims, as "used goods" in the case of girls who have been married or sexually exploited. There may also be security issues making it impossible for them to rejoin their families or to be reintegrated into their home communities.

- At the same time as addressing the results of child participation in conflicts, health professionals may be able to play a valuable educational role in helping to prevent children being recruited – including as volunteers – by raising awareness amongst at risk groups of children and adolescents themselves and their families and communities of the dangers of becoming involved, including the psychological and mental health impacts. At the same time, they may also be in a position to alert governments and armed groups themselves to the dangers for children of becoming soldiers, and the possible long term impact on society of training children in arms and involving them in fighting.

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Chapter 9
Public Health Challenges – What Lies Ahead

Status:
Draft: To be completed after Regional Consultations

Public Health Challenges – What Lies Ahead

The purpose of the final chapter is twofold: 1) to summarize the crosscutting patterns, issues, and gaps in the field of violence prevention, and 2) to discuss the important public health challenges in the field and ways to address those challenges in different regions of the world.

Cultural perspectives, expertise, and insight for moving the field forward within and across the different regions of the world will be summarized from four regional consultations to be held in the Fall, 2000. Each of the consultations will focus on five public health challenges: 1) how to improve the collection, availability, and quality of data for documenting the problem of violence, 2) how to improve our understanding of the etiology of violence, particularly the role of social and cultural factors (poverty, inequality, social norms), 3) how to accelerate the development, implementation, and evaluation of prevention programs and policy responses, 4) the contributions and limitations of the public health approach, and 5) how we can advocate for greater involvement of the health and other sectors in violence prevention.

Appendix A

Statistical Annex

Table 1a. Population for all member states by sex, age, 1999
Table 1b. Basic indicators for all member states
- a. Total population size
- b. Total population density
- c. Infant mortality rate (per 1,000 births)
- d. Life expectancy at birth - male
- e. Life expectancy at birth - female
- f. Average years of education for population aged more than 25 years

Table 1c. Basic indicators associated with the crime rate for all member states
- a. % of population living in urban areas
- b. Divorce rate
- c. GDP/capita adjusted for purchasing power (US$)
- d. % of GDP in health expenditure
- e. % of GDP in social resource expenditure
- f. % of GDP in family child care services

Table 2. Injury mortality by manner of death, sex, and country, 1995-1997
- a. Homicide
- b. Suicide
- c. War
- e. Unintentional
- f. Undetermined
- g. All injuries

Table 3. Mortality caused by intentional injury by sex, age, WHO region, 1998
Table 4. Mortality caused by homicide by sex, age, WHO region, 1998
Table 5. Mortality caused by suicide by sex, age, WHO region, 1998
Table 6. Mortality caused by war by sex, age, WHO region, 1998
Table 7. Mortality caused by intentional injury by sex, age, and country, 1995-1997
Table 8. Mortality caused by homicide by sex, age, and country, 1995-1997
Table 9. Mortality caused by suicide by sex, age, and country, 1995-1997
Table 10. Mortality caused by war by sex, age, and country, 1995-1997
Table 11. DALYs lost due to intentional injury by sex, age, WHO region, 1998
Table 12. DALYs lost due to interpersonal violence by sex, age, WHO region, 1998
Table 13. DALYs lost due to self-inflicted violence by sex, age, WHO region, 1998
Table 14. DALYs lost due to war by sex, age, WHO region, 1998
Table 15. Ten leading causes of mortality and DALYs lost by region, 1998
Table 16. Intentional injury by method, sex, and country, 1995-1997
Table 17. Homicide by method, sex, and country, 1995-1997
Table 18. Suicide by method, sex, and country, 1995-1997

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Appendix B

Contact Information for Study Contributors

Appendix C

Useful Resources

General

Books/Journals/Articles

Pediatrician's Guide to Media Violence
American Medical Association

International Organizations

World Wide Web Sites

Bonn International Centre for Conversion
www.bicc.de

International Center for the Prevention of Crime
www.crime_prevention__intl.org

International Action Network on Small Arms
www.iansa.org

National Center for Injury Prevention and Control
www.cdc.gov/ncipc/injweb/websites.htm

Trauma.org
www.trauma.org/trauma.html

United Nations Children's Fund
http://www.unicef.org

United Nations Development Fund for Women
http://www.unifem.undp.org/

United Nations High Commissioner for Refugees
http://www.unhcr.ch

WHO Violence and Injury Prevention Department
www.who.int/violence_injury_prevention/

WHO Collaborating Centres on Violence and Injury Prevention
www.who.int/violence_injury_prevention/pages/who_collaboratingcentres.htm

Youth Violence

Books/Journals/Articles

International Organizations

World Wide Web Sites

Center for the Study and Prevention of Violence
www.colorado.edu/cspv

Youth Violence and Suicide Prevention Team, Division of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention
www.cdc.gov/ncipc/dvp/yvpt/yvpt.htm

Partnerships Against Violence Network
www.pavnet.org

Child Maltreatment

Books/Journals/Articles

Child Abuse and Neglect: The International Journal,
Elsevier Publications, Editorial Office, 1825 Marion Street, Denver CO, 80218, USA (a monthly professional journal)

Child Maltreatment,
Sage Publications, 2455 Teller Rd, Thousand Oaks, Ca. 91320, USA (a quarterly professional journal)

The Battered Child, Fifth Edition, edited by Mary Edna Helfer, Ruth Kempe and Richard Krugman, The University of Chicago Press, Chicago, Il. 60637, USA, 1997 (a basic textbook)

Classic Papers in Child Abuse, edited by Anne Cohn Donnelly and Kim Oates, Sage Publications, Thousand Oaks, Cal, 91320, USA, 2000. (a compilation of significant work in the field)

International Organizations

International Society for Prevention of Child Abuse and Neglect
Membership Office
P.O. Box 809343
Chicago Il 60680
USA

World Wide Web Sites

International Society for Prevention of Child Abuse and Neglect
ISPCAN.org

The Center for Effective Discipline
http://www.stophitting.com/

Violence Against Women by Intimate Partners

Books/Journals/Articles

International Organizations

World Wide Web Sites

Women Against Violence Europe
http://www.wave-network.org/

The Trust Fund in Support of Actions to Eliminate Violence Against Women
http://www.unifem.undp.org/trust.htm http://www.un.org/womenwatch/

The Human Rights of Women: A Reference Guide to Official UN Documents
http://www1.umn.edu/humanrts/instree/women/engl-wmn.html

Human Rights Watch: Women`s Rights Division
http://www.hrw.org/about/projects/women.html

Network of East-West Women
http://www.neww.org/index.htm

Elder Abuse

Books/Journals/Articles

The dimension of elder abuse, perspectives for practitioners
(Bennett, Kingston and Penhale edited by Macmillan Press Ltd, London, 1997 ISBN-0-333-62568-4)

Abuse and Neglect of Older Canadians: Strategies for change
Michael MacLean, Editor, Canadian Association of Gerontology,Toronto,1995-(ISBN 1-55077-068-3)

Understanding elder abuse in minority populations
edited by Toshio Tatara,1999,United States,(ISBN 0-87630-919-8)

Elder Abuse. International and Cross-Cultural Perspectives by Jordan Kosberg PhD, Juanita GarcÌa PhD) Editors ñ The Haworth Press, Inc-1995- USA (ISBN 1-56024-711-8)

Journal of Elder Abuse & Neglect - An International Journal published by Haworth Maltreatment & Trauma Press, Inc. edited by Rosalie S. Wolf and Susan McMurray Anderson(UBSN: 0894-6566)

Journal on Adult Protection, published by Pavilion Publishing, Brighton edited by Hilary Brown, Paul Kingston, and Barry Wilson

The Ageing and Development Report 1999
edited by Randel J, German T, and Ewing D

The Status of Widows in 10 Countries: Seclusion and Exclusion, 1999
Edited by Owen M and Young K: Unpublished, OAK Foundation
Margaretowen@compuserve.com or
www.oneworld.org/empoweringwidows

Institutional abuse: Perspectives across the life course (1999), edited by N. Stanley, J. Manthorpe & B. Penhale.

International Organizations

Action on Elder Abuse (UK)
Astral House 1268
London rd
SW64ER
England
Tel: 01816792648
Fax: 01816796069

Australian Network for the Prevention of Elder Abuse
Aged Rights Advocacy Service
Abuse Prevention Program
45 Flinders St., Adelaide, SA 5000
Tel. (08) 8232 5377
Fax (08) 8232 5388

Canadian Network for the Prevention of Elder Abuse
c/o Institute for Human Development, Life Course and Aging
University of Toronto
222 College Street, Suite 106
Toronto, ON M5T 3J1
tel. 416 978 1716
416 978 4771
cnpea@hotmail.com
website: www.mun.ca/elderabuse

International Network for the Prevention of Elder Abuse
c/o Institute on Aging
UMass Memorial Health Care
119 Belmont Street
Worcester, MA 01605
USA
tel. 508 334-6166
fax 508 334-6906
wolfr@ummhc.org
www.inpeabuse.org

National Center on Elder Abuse
1225 I Street, NW, Suite 725
Washington, DC 20005
saravanis@nasua.org
www.gwjapan.com/NCEA

National Committee for the Prevention of Elder Abuse
c/o Institute on Aging
UMass Memorial Health Care
119 Belmont Street
Worcester, MA 01605
USA
tel. 508 334-6166
fax 508 334-6906
wolfr@ummhc.org
www.preventelderabuse.org

Latin American Committee for the Prevention of Elder Abuse (COMLAT IAG)
ARENALES 1391 - 8th Floor "B"
(1061) Buenos Aires - Argentina
Tel/Fax: 54-11-48119590
e-mail: lsdaichman@intramed.net.ar
e-mail: lmachado@attglobal.net

Sexual Violence

Books/Journals/Articles

International Organizations

World Wide Web Sites

The Global Alliance Against Traffic in Women
http://www.inet.co.th/org/gaatw/

Coalition Against Trafficking in Women
http://www.uri.edu/artsci/wms/hughes/catw/

Research, Action and Information Network for the Bodily Integrity of Women
http://www.rainbo.org/

Self-directed Violence

Books/Journals/Articles

Jacobs DG (1999): The Harvard Medical School Guide to Suicide Assessment and Intervention. Jossey-Bass Publisher: San Francisco

De Leo D, Schmidtke A, Diekstra RFW (1998) : Suicide Prevention: A Holistic Approach. Kluwer Academic Publishers: Dordrecht/Boston/London

International Organizations

International Association for Suicide Prevention,
c/o General Secretary, Mrs. Vanda Scott, Le Barade', 32330 Gondrin, France,
tel/fax +33 562 29 19 47, Email: iasp1960@aol.com

International Academy for Suicide Research,
c/o President, Prof. Armin Schmidtke, Dept. Psychiatry, University of Wuerzburg, Germany, tel +49 931 201 7667, fax +49 931 201 7669,
Email: clips-psychiatry@mail.uni-wuerzburg.ge

World Wide Web Sites

Australian Institute for Suicide Research and Prevention
http://www.gu.edu.au/school/psy/aisrap/

Suicide Information and Education Centre
www.siec.ca

Collective Violence

Books/Journals/Articles

Anderson M.B. Do no harm. How aid can support peace - or war. Boulder and London, Lynne Rienner, 1999.

Carnegie Commission on Preventing Deadly Conflict. 1997. Preventing deadly conflict. Final report. New York, Carnegie Corporation (available also at http://www.ccpdc.org

Leaning J, Briggs SM, Chen LC. (Eds) 1999. Humanitarian crises: the medical and public health response. Cambridge, MA, Harvard University Press

Levy BS, Sidel VW (Eds). 1997. *War and public health.* Oxford: Oxford University Press.

Medecins Sans Frontieres. 1997. Refugee health. An approach to mergency situations. London, Macmillan.

Perrin P. 1996. Handbook on war and public health. Geneva, International Committee of the Red Cross.

Weiss TG, Collins C. 1996. Humanitarian challenges and interventions. World politics and the dilemmas of help. Boulder, Westview Press, 1996

International Organizations

World Wide Web Sites

UN Office for the Coordination of Humanitarian Affairs
http://www.reliefweb.int/ocha_ol/

Relief Web
http://www.reliefweb.int/w/rwb.nsf

AlertNet
http://www.alertnet.org

Refugees Daily
http://www.unhcr.ch/news/media/daily.htm

UNHCR News
http://www.unhcr.ch/news/newswire/newswire.htm

Security Watch
http://www.isn.ethz.ch/infoservice/index.cfm?service=cwn&menu=1

Updates on World Conflicts
http://www.cartercenter.org/UPDATES/updates.html

Weekly News
http://www.idpproject.org/weekly_news.htm

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Appendix D

Sample Testimonies

Nepal (Child Prostitution): "Maya, an attractive young Nepalese girl, came from a village so poor that often corn was the only food available. When she was only 13, her cousin said he would take her to Kathmandu and find her work. That was 15 years ago. Her cousin took her to a room in Bombay which she was assured was Kathmandu. There, he sold her. When she refused to perform on her first day in the brothel, she was beaten and red chili powder put up her nose. Maya surrendered, and lived a life full of mental and physical torture. She had already been in Bombay for 13 years when she tested HIV positive and was sent back to Nepal. Her story is not much different from those of hundreds of Nepali girls, some dying in villages in Nepal after being sent back with AIDS from the brothels of Bombay."

USA (Youth Violence): "Twenty years ago what kids worried about was getting bad grades. But now, kids are worried about getting killed…I'm scared too and I don't want to die. I have a whole lot of life to go and make my own goals and be what I want to be." (Miguel, a 12-year-old resident of California)

Nicaragua (Child Soldiers): "I joined the guerrillas when I was about fifteen years old. This was not exceptionally young. Many of the fighters were youths. It gave us a perfect cover for our activities, because youths are always in the streets, playing or whatever. We were inconspicuous…We were organized in small clandestine units and had as little contact as possible with other units, to minimize what we could tell if we were captured. We would prepare caches of weapons, make molotov cocktails, lay ambushes and carry out strategic actions, such as burning buses or executing informants. It wasn't easy. The dictator's guards caught eight of the twelve members of my unit and killed seven of them. There were many sympathizers of the dictatorship living in the neighborhood and we always had to be careful about informants. But the guards could also hit us hard without the help of informants. One time, a patrol chased a fellow fighter, named Jorge, and me after we'd managed to firebomb one of their buses. They followed us right into the neighborhood and caught Jorge. They shot him in the stomach, again and again, repeatedly, and left him to die in the streets, with his entrails falling out. People came out of their houses to see. Including a kid called Noel Gutiérrez, who lived on my alleyway. I think he was eleven or twelve. The guards grabbed him and started beating him, asking him who in the neighborhood were guerrilla fighters. Noel was screaming that he knew nothing, that he was just a kid. So they began pulling his fingernails out, one by one. But he didn't tell them anything, even though he knew who I was. When they finished torturing him, they beat him senseless, put a grenade down his pants and walked away…They were brutal, you know, barbarians, savages…Noel was a good kid – we named the neighborhood school after him…"

USA (Gang Violence): "11-year old Tony lives in a large, poor, densely populated housing project in Chicago. When he is asked to draw a picture of the neighborhood, he draws a 15-story red brick building, commenting that 'it's one of the gun towers.' He proceeds to draw a large gun coming out of the side window and explains; 'usually the gangs shoot out of the side windows, but sometimes they shoot out of the front windows too.' Then he draws a car with a gun coming out of the window as well and says; 'that's when they do a drive-by and shoot you.' Stick figures of rival gang members appear and Tony tells 'usually they just throw things – bottles and bricks. But if you try to come on their territory, they'll try to kill you. One day a bullet came through the window of our apartment and almost hit my little sister.' He also talks about his cousin, who was shot and killed in one of the white buildings, because he was mistaken for a gang member from one of the red buildings. 'I hear shooting every night and see dead bodies on the street. I see and hear all these things all the time, on the way to school and the way from school.'"

Panama (Intimate Partner Violence): "I married my husband at a very early age. My dad saw me talking to him and drew his conclusions. He threw me out of the house and forced me to live with the boy. It was his mistake. He had always been bad; he hit my mother a lot. Although, I had just entered university, I dropped out. At first, my husband and I lived at his parents' house. The first four years were relatively peaceful. He did not abuse me physically, just with words. As time went by he started hitting me out of jealousy and he would not allow me to get out of the house. But I had to work, because he could not be bothered with it. With my work, we earned quite some money and we bought cows and a car. He would deny my contribution, though, and one day he decided without my consent to sell the cows and car. He once hit me when I was three months pregnant. He hit me with a metal chain in the stomach and pelvis. I aborted and got an infection. I had to stay hospitalized for more than a month and because of the incident, they had to remove my uterus. During that time he only visited me once. He had sold the television my brother had given me and stopped by to give me some money. He still hits me - he always hits me - in the face. But it's the insults that hurt the most. I tell you, it's worse than if he had stabbed me in the back with a knife."

Peru (Marital Rape):"...When my husband raped me again, I had to go to the health center to receive medical attention. They sent me to the police, who asked me to take a medical exam to prove I was raped. Medical exams cost money and I did not have money so I went back to the center. A nurse there helped me, gave me money to take the exam. I took it, went back to the police and they called on my husband. He denied that I was his wife and the policemen believed him. They told me that, if I wanted to press charges against him, I would have to find people who could testify that we were married. I could not proceed the case, because getting people to testify costs money. And I don't have money..."

Mozambique (Elder Abuse): "It's a sad, sad story. My physical pain is enormous, because I was burnt alive. Still, the pain I have inside is worse: No one takes care of me and no one visits me. My son even prefers that I died...It happened a long time ago. My daughter-in-law lost her baby in the sixth month of her pregnancy and she blamed me for it. She accused me of witchcraft. From then on the injustices started: I was not allowed to cook anymore, my grandson was prohibited from seeing me and eventually I was forced to move out of my son's house. I had to live into a pahlota, a straw hut which had no facilities whatsoever. One day my grandson had an accident while he was walking home from school. My son and his wife accused me from causing it. I told them I was innocent, but they would not listen. The next day, my daughter-in-law threatened to kill me. She said that as long as I was alive, the family would have misfortune. I was so confused that I didn't notice they were making concrete plans. I only realized the severity of their hatred, when I woke up in the night and saw my pahlota on fire. I was suffocating from the smoke and I couldn't get out of the flames. I started to scream, but no one would listen. Then, I must have fainted. When I recovered I found myself in the hospital, with my neighbors. Their 12-year old son had woken up from a toothache that night when he saw the flames and heard me screaming. He called his parents and they saved me."

Nicaragua (Violence against the Elderly): "I was walking in the Don Camilo neighborhood, looking for someone to assault. Don Camilo is about two or three neighborhoods away from ours, 'cause we never attack our own people. Our own people help us, they hide us when the Police comes. And we protect them from other gangs and all. They're like our friends, our family. Anyway, my parents had kept me locked up for three weeks because of all the Police activity. I felt really destructive and just wanted to take it out on somebody... I also needed a drink, because I hadn't had one in three weeks, and so needed some money to buy it. I was walking around with my gun and thought 'hey, why not do a house?' I wanted to find one with, say a couple of old-timers. It would be the easiest job I ever did! So I hung around a bit, looking into houses, you know, checking them out. After a while I figured out that in one house there was

nobody except this old woman who would probably die of a heart attack when she saw me. So I thought, 'great, let's do it!'
Man, I have never heard anybody scream so loudly! But worse, she didn't stop. I tried to shut her up by beating her up, but she just kept on screaming and screaming, louder and louder! I figured I'd best get the hell out of there. But her screaming brought the whole neighborhood out and I about twenty guys chased me, all shouting that they were going to kill me."

India (Suicide): "X drank a lot, but not too much. He was a hard working man who never quarreled with anyone. He and his wife had been married for more than 25 years and their marriage had brought five children; three daughters and two sons. The boys were still in school, but the two youngest girls were already working to support the family. His eldest daughter had been married off two years before and her dowry had left the family in great debt. When his second daughter reached the marriageable age, X went out to find her a suitable husband. Although the family could not afford another dowry, he set the wedding date. He was convinced that he could somehow borrow money just as he had done with the first marriage. It was a big disappointment to X when his friends and relatives closed the door on him when he asked them for a contribution. He still owed them money from the last dowry. As the wedding date approached, his wife and children started to bother him. They told him to call the wedding off if he was not able to come up with the money for the dowry. X became desperate and started to yell at them, as they pushed him more and more. Too stubborn to call the marriage off, he tried every place he could think of to borrow money. It was no use. One day the disillusioned father was sitting outside his house. He asked his neighbors for advice and they told him not to worry. God would help him one way or another. The next day he did not go to work. In another quarrel with his wife, he wondered why he had been given daughters at all. His wife, fed up with his complaints, went into the kitchen. Making use of the time alone, X took poison and laid himself down. His wife continued her housework, thinking he was fast asleep from exhaustion. Later, when she went to wake him, she discovered he was dead."

Belarus (Attempted Suicide): "I am married and have two adult sons, both students. I used to work as an engineer in the same plant as my husband. We were making a good living but our salary decreased extremely last year and became insufficient. That was the only reason that my husband started his own business. He founded a small firm and asked me to take are of the bookkeeping. Thus, I was obliged to do a lot of extra work as a bookkeeper and a housekeeper after a whole day at the plant. I did not have enough experience to do the bookkeeping properly. I had to rewrite my papers over and over again, which caused anger and discontent with my husband. We worked hard, but it didn't pay off. Our company stayed small and we didn't grow rich. My husband and I started to quarrel, something that had never happened before. I was constantly nervous and tensed and did not get any rest. After a year of business disappointments, I was on the edge of a nervous breakdown. One day, I had again made mistakes in the bookkeeping and my husband wanted me to correct and rewrite the documents. I can hardly recall what I felt at that moment, but I got hold of a knife and before my husband's eyes, I cut myself in my abdomen. Even now I don't realize that I could have died. I spent a long time in a mental hospital and now I am doing well."

Rwanda (Collective Violence): "My husband and I come from different ethnic backgrounds. After we got married, I moved to live in his area. When the atrocities started, people from our community stoned me, raped me and mutilated certain intimate parts of my body. I had to flee and live with my father's family - my mother's family had perished during the killings. I am forty years old now and not only do I have scars that will never go away, the genocide has also destroyed my marital and family relations. My husband has recently asked me to return home. At first I refused, because I vividly remember the hostilities and because the situation remains oppressed. But, I have to think of the future of my two-year-old daughter. It is only because of her that I have decided to go back."

Vietnam (Health Consequences-Collective Violence): "I got married when I was twenty. My husband is a farmer and I love him very much, because he is nice and intelligent. We live in the Tran Yen district, Yen Bai province. I have been pregnant six times, but we only have one child, a 2-year-old girl. The first time I got pregnant I had an abortion in the fourth month. The second time I gave birth to a baby whose face and little hands were severely malformed. It died after three days. When my third pregnancy was again premature and I again lost the baby, people in our community began to suspect that our house was haunted by an evil spirit. My husband could no longer keep quiet; he became very angry and burnt our house. We moved to the Bao Dap commune where I became pregnant for the fourth time. My husband and I were hoping that this time, now that we had moved into this new community, into this new house, we would receive a healthy child. When I again had a miscarriage, I went to see a doctor. They could not find anything wrong. I got pregnant again and this time I gave birth to a girl with a cleft palate. We started hoping again, but my last pregnancy ended in the birth of a twin-malformation that died just after the delivery. I don't know why this happens to us. I am healthy and I don't work hard. In fact, when I'm pregnant my husband often asks me to stay at home and rest. He is also in good health. Although, at first, when he just came back from the front, he did not look well. During the war with the Americans, he had fought in the South. He saw the American airplanes flying over many times, spraying Agent Orange. I don't think I will ever give birth again. I'm afraid this is my fate."

Afghanistan (Collective Violence):"Hundreds of men, women and children had come a long way to attend a wedding ceremony in Kandahar City. I went along with my mother and two sisters, but was on a different bus because men and women traveled separately. Near to the place where the wedding was going to take place, their bus, which was full of women and children, drove over an anti-tank mine. It was a terrible moment. The explosion spread sorrow and screams throughout the whole party. In all 45 women and children were killed from the explosion and 35 more were severely wounded. My sisters and my mother died on that bus."