MEASUREMENT AND EVIDENCE KNOWLEDGE NETWORK

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COMMISSION ON SOCIAL DETERMINANTS OF HEALTH (CSDH)

WHO

- Papers regarding CSDH Conceptual Framework
- 2005 consultation in Chile
- Scoping paper on methodological considerations, Jan 2006.

Community Health Cell

From: "Josiane Bonnefoy" <josiane.bonnefoy@gmail.com>
To: "Thelma Narayan" <chc@sochara.org>
Cc: "Liliana Jadue" <ljadue@udd.cl>; "Francisca Florenzano" <fflorenz@gmail.com>; "Mike Kelly" <Mike.Kelly@nice.org.uk>; "Antony Morgan" <Antony.Morgan@nice.org.uk>
Sent: Friday, March 31, 2006 5:44 AM
Attach: Arrangements for M&E KN Meeting at Santiago.doc; Measurement and Evidence Knowledge Network.xls; Agenda Draft 31thMarch.pdf; Paper 1 - Methodology Paper 040206.pdf; Paper 2 - CSDH - Conceptual framework.pdf; Paper 3 - Consultation on Measurement - Report of Proceedings.pdf
Subject: M&E KN First Meeting Santiago 2006 – Dr. Narayan

Dear Thelma,

Please find enclosed information for our First Meeting of the Measurement and Evidence Knowledge Network.

We are attaching the following documents for your information:

1. Arrangements for M&E KN Meeting at Santiago
2. Measurement and Evidence Knowledge Network:
3. Agenda Draft 31thMarch

We are enclosing the following essential reading for the meeting:

Paper 1 - Methodology Paper 040206
Paper 2 - CSDH - Conceptual framework
Paper 3 - Consultation on Measurement - Report of Proceedings

I would appreciate if you could confirm the reception of this mail.

If you would like any further information, please do not hesitate to contact me,

Looking forward to meeting you, I wish a nice and safe trip.

Best regards,

Josiane Bonnefoy

Methodology - 37 pgs
CSDH - Conceptual - 35 pgs
onsultation on Measurement - 23 pgs
95

Pls. Print.
31/3.

MEASUREMENT AND EVIDENCE KNOWLEDGE NETWORK

FIRST MEETING

1. Flight arrangements

Following consultation with all you, itineraries have been agreed and tickets have been forwarded to you. Please note that once you receive your tickets, the cost of any changes made to these flights will be at your own expense.

2. Visa, travel insurance and other travel-related costs

You are responsible for obtaining your own visas for Chile and countries in transit, wherever required. On arrival in Chile, we will reimburse you for the cost of visas and any airport taxes on receipt of invoices only. Please bring these invoices with you.

Please note that we cannot be held responsible for any costs associated with travel-related problems, including health problems, experienced during the course of the meeting.

3. Meals and accomodation

The Measurement and Evidence Knowledge Network will cover the costs of each participant's accommodation, meals and transport from and to the airport. Accommodation is booked until the date of the agreed return flight and meals will be provided for the same period.

4. Airport pick-ups

On the basis of the agreed flight times, we will make arrangements for you to be picked up at the airport on arrival. Please look for a representative of **Transvip** standing outside the gates immediately after you clear Customs, in the arrival hall. If you do not see the person who will be waiting for you, please approach the Transvip counter. You may have to wait a short while for other participants to arrive on different flights.

Please do not use other means of transport since it is already booked for you. This means that you do **not** have to pay for the service because we have already taken care of it. We will also arrange transport for you back to the airport after the meeting.

5. Accommodation arrangements

The meeting will be held at the InterContinental Santiago Hotel, with contact details as below:

Hotel InterContinental Santiago
Av. Vitacura #2885 Las Condes
Santiago CHILE
Tel: (562) 394 2000 | Fax (562) 394 2075
http://www.intercontisantiago.com/

Upon arrival please inform at the reception desk that you are part of the group booked by the Universidad del Desarrollo for the Measurement and Evidence Knowledge Network Meeting.

6. Climate

At present we are in autumn, with decreasing temperatures, at the moment ranging during the day between 8° and 24° Celcius.

7. Health precautions

No specific health precautions are necessary for Santiago.

8. Currency

At the moment, 1 US Dollar is equivalent approximately to $ 520 (Chilean pesos) and 1 Euro to $ 625 (Chilean pesos).

If you are bringing dollar notes, please take into account that USD 100 notes beginning the series with AB and CB (years 1996 and 2001) are not accepted.

Nearly all credit cards are accepted. The most commonly used are: Visa, MasterCard, Dinners and American Express. ATM machines accept Plus and Cirrus. You will find them at the airport if you need to have some cash immediately.

We very much look forward to seeing you. Please contact myself (josiane.bonnefoy@gmail.com) or my colleague Francisca Florenzano (fflorenz@gmail.com) with any queries.

Our phone numbers at the University are:

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Francisca Florenzano : + 56 (2) 299 9305
Liliana Jadue : +56 (2) 299 9423
Fancy Fredes (Secretary) : +56 (2) 299 9423.

Only in case of emergency:

Josiane Bonnefoy : Home: +56 (2) 273 5626
Francisca Florenzano: Mobil: 09-2247800

Upon arrival to the hotel you will receive information on who will be at the venue to contact you.

We wish you a nice and safe trip to Santiago.

Best regards,

Josiane Bonnefoy

World Health Organization

Commission of Social Determinants of Health

Measurement and Evidence Knowledge Network Members

Name	Country	E-mail address	Institution and Postal address	TelePhone:
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10. Dr Mike Kelly (Hub) UK

11. Dr Josianne Bonnafoy co-Hub. Chile

World Health Organization

Universidad del Desarrollo

National Institute for Health
and Clinical Excellence

Commission on Social Determinants of Health

Measurement and Evidence Knowledge Network First Meeting

Santiago, Chile: April 6th – 8th, 2006

Hotel InterContinental Santiago
Avda. Vitacura 2885, Las Condes
Santiago, Chile

Agenda

Draft

Objectives of the Meeting:

1. To launch the Measurement and Evidence Knowledge Network, and provide a face to face discussion, reflection and proposal on the Network's subject, tasks and key deliverables.

2. To agree on the key principles that will steer M&E KN's work, so as to provide guidance to the work carried out by the Commission's main streams: civil society, country work and knowledge networks.

3. To present and discuss applied experiences of evaluation at different levels: civil society, country and international cooperation agencies, of both upstream and downstream interventions.

4. To agree M&E KN's working organisation and methodology, distribution of responsibilities, links with different CSDH's components, use of SharePoint, and timeframe of KN's activities.

5. To agree on a framework for the collection, appraisal and synthesis of evidence across knowledge networks.

6. To identify the necessary pieces of work and the main themes for position papers and how these will be commissioned by the M&E KN.

7. To suggest date and topics to be dealt with in the Second M&E KN Meeting.

Expected outcomes of the meeting:

1. Shared understanding of M&E KN's role, responsibilities, tasks and key deliverables.
2. Definition of M&E KN's working methodology and timeframe.
3. Clarity on individual members' responsibilities.
4. Preliminary inventory of experiences of evaluation of interventions on social determinants of health equity known by members.
5. Agreement on necessary pieces of work and on main themes for position papers and how these will be commissioned.
6. Proposal of date for Second M&E KN Meeting and highlights of subjects.

Thursday 6th April

19:30 **Dinner**

Welcome address from representatives of:
Ministry of Health
UDD, Dr Pablo Vial and Dr Liliana Jadue
NICE, Professor Mike Kelly
WHO/CSDH, Ms Sarah Simpson

Introduction of Knowledge Network members and invited observers.

Friday 7th April

9:00 – 13:00 First session: The Measurement and Evidence Knowledge Network

Chair: Jeanette Vega

Rapporteur: Francisca Florenzano

Objectives:

1. To introduce the Commission on Social Determinants of Health, and the organisational context in which the M&E KN will work.
2. To present the Measurement and Evidence Knowledge Network: its background, purpose, special characteristics (cross-cut), tasks and key deliverables.
3. To examine members representation in the network and to agree on how to deal with potential gaps in representation.
4. To agree on the meeting's working methodology and expected outcomes.
5. To introduce the preparatory work and the key principles guiding the KN's work.

9:00 – 9:30 Introduction

Dr Josiane Bonnefoy & Professor Mike Kelly

- Objectives of Meeting
- Expected outcomes of Meeting
- Structure of agenda.

9:30-10:30 Commission on Social Determinants of Health

Ms Sarah Simpson, Secretariat, WHO Geneva & Ms Tanja Houweling, Secretariat, UCL London.

- Social Determinants of Health and WHO's position on the subject.
- Conceptual framework of the Commission on Social Determinants of Health.
- CSDH Components: Commissioners, Knowledge Networks, Country Work, Civil Society, Secretariat and linkages.
- Knowledge Networks: Themes.

(20' presentation and 40' discussion)

10:30–11:00 Break

11:00-12:00 Measurement and Evidence Knowledge Network - Update on work to date

Dr Josiane Bonnefoy

- M&E KN Hub History:
    - (a) Measurement Consultation meeting, Santiago, March 2005 – main themes and conclusions

      First meeting of Knowledge Network hubs, Ahemedabad, India, September 2005Fourth meeting of Commissioners, Teheran, Islamic Republic of Iran, January 2006.
    - (b) Work with other knowledge networks to date. + ? c̄ country strategy
- M&E KN Members:
    - (a) Preliminary composition of network - criteria, potential gaps, etc.
    - (b) Terms of reference: hub, network members and virtual members.
    - (c) Expected outcomes.

(20' presentation and 40' discussion)

12:00–13:00 M&E KN Scoping Paper

Professor Mike Kelly

- Presentation (30 mins)
- Discussion (30 mins) – (key issues arising, noted for later discussion of key issues)

13:00–14:00 Lunch

14:00–18:30 Second session: Measurement and Evidence: developing a shared perspective and approach

Chair: Sarah Simpson

Rapporteur: Antony Morgan

Objectives:

1. To present the conclusions arrived at the Santiago Consultation, March 2005, in order to state from where are we taking a step forward.

2. To identify the key issues for the Network to consider in gathering and synthesizing evidence on:
    (a) methods for evaluating action on the social determinants of health (given absence often of RCTs).
    (b) equity/inequality measurement tools for setting targets and monitoring and evaluating - these could be integrated into health information systems e.g. household surveys etc.

social/publi
policy +
implement.

1. **Presentations:**
    - Introduction and outline of session (5-10 mins)
    - Brief presentation of main conclusions of the Santiago Consultation, March 2005 on evaluation methodologies. Ms Francisca Florenzano (20 mins).
    - Example of a concrete evaluation of intervention carried out by NICE, to identify the challenges. Mr Antony Morgan (20 mins).

2. Discussion and identification of key issues.

Saturday 8th April

8:30–13:00: Third session: Developing a framework for the collection, appraisal and synthesis of evidence: working with knowledge networks and developing our future guidance

Chair: Josiane Bonnefoy

Rapporteurs: Sharon Friel and Tanya Houweling time frame for expected impact.

Objectives:

1. To agree on how are we going to collect, collate and synthesise the network's own evidence on evaluation methodologies and experiences.
2. To agree on the recommendations to Knowledge Networks on how to collect, collate and synthesise their networks' evidence.

8.30-9.15 Summary key points from day 1 discussions
Professor Mike Kelly

9.15-10.30 Two working groups focussing on

- What type of evidence is needed to support sound recommendations and what are the methodological implications?
- How to incorporate evidence coming from different sources, i.e., civil society, country and international levels.
- What criteria to discern whether small-scale interventions or experiences can be scaled up to the macro level?
- How to develop attributable fractions analysis of interventions.
- What approaches and methods will be used to gather evidence?

NB there may be other questions to consider in addition to these

10.45-11.15 Working group report back.

11.15- 13.00 Discussion, summary and next steps

Group 1: Rapporteur: Sharon Friel:

Group 2: Rapporteur: Tanya Houwling

13:00- 14:00 **Lunch**

14:00–18:30 **Fourth session: Key foci and activities for MEKN**

Chair: Mike Kelly

Rapporteur: Josiane Bonnefoy

Objectives:

1. To finalise key issues to be considered by Network
2. To determine priority activities for network
3. To identify main pieces of work to be commissioned by network
4. To identify links with other CSDH streams of work (country work and civil society process)
5. To agree on roles of network members in relation to work prioritised
6. To agree on network members' terms of reference.
7. To clarify process, mechanisms and timing of future communication among network members

8. To identify other people or experiences that could be drawn on in undertaking work
9. To identify date and activities for second network meeting (subject to discussion with missing members)
10. To finalise overall timeplan for network activities

Discussion:

- Agreed outcomes from meeting and key issues
    - (a) Scope of the work and priority activities
    - (b) Potential gaps, challenges and ways forward with MEKN approach
- Linking to other streams of CSDH work
- Other KN planning
    - (a) Roles of network members
    - (b) Share Point and communication among network
    - (c) Second meeting date and purpose
    - (d) Overall timeplan
- Summary and conclusion.

20:00 **Dinner.**

WORLD HEALTH ORGANISATION

COMMISSION ON THE SOCIAL DETERMINANTS OF HEALTH

MEASUREMENT AND EVIDENCE KNOWLEDGE NETWORK

METHODOLOGICAL CONSIDERATIONS RELATING TO THE DEVELOPMENT OF THE EVIDENCE BASE ON THE SOCIAL DETERMINANTS OF HEALTH: SCOPING PAPER ORIGINALLY PREPARED FOR THE WHO COMMISSIONERS' MEETING TEHRAN, IRAN JANUARY 2006

Michael P Kelly, Josiane Bonnefoy, Antony Morgan, Francisca Florenzano

The National Institute for Health and Clinical Excellence (NICE) (UK) and the Universidad del Desarrollo (UDD) (CHILE)

Draft 2 February 4th 2006

METHODOLOGICAL CONSIDERATIONS RELATING TO THE DEVELOPMENT OF THE EVIDENCE BASE ON THE SOCIAL DETERMINANTS OF HEALTH

Draft 2 February 4th 2006

1. Introduction

1.1. Commission on the Social Determinants of Health

In 2005, the Director General of the WHO set up a global Commission on the Social Determinants of Health (CSDH). The Commission's mission consisted of four elements:

? link c̄ CMH (macro-ec)

1. **learning**: the consolidation, dissemination and promotion of knowledge that demonstrated the imperative and necessity for action on the social determinants of health and informed policy and effective, equitable interventions on the social determinants;
2. **advocacy**: the identification and promotion of opportunities for action on the key social determinants for policy makers, implementing agencies and the wider society;
3. **action**: the speeding up and supporting of processes that initiated, informed and strengthened actions to integrate knowledge about social determinants within public health policy and practice; and
4. **leadership:** the support, enhancement and development of the public, political, technical and institutional leaders to help them inform, advocate and deliver the desired change in understanding and action.

placing SDH on the agenda - target audience - policy makers

intersectoral + global

The overarching objective of the Commission was to lever policy change by learning from existing knowledge about the social determinants of health (SDH) and turning that learning into actionable global and national agendas. As part of the learning element, a number of Knowledge Networks (KNs) were established to synthesize knowledge. This knowledge would inform the Commission about opportunities for improved action on SDH by fostering the leadership, policy, action and advocacy needed to create change.

long term WHO commitment to integrate SDH into all work.

- not just persistent but ↑ inequity
- lots of policy but little attempt: & how it works

The purpose of the Knowledge Networks was to organize knowledge:

- on priority associations between the social determinants of health and health inequities across different country contexts with attention to widespread cross-cutting determinants such as gender inequality;
- on the extent to which prioritized social determinants of health in relation to globalization can be acted upon, exemplified through successful national and global policies, programmes and institutional arrangements;

- how to ↑ political action
- failures of policy rep. SDH eg in UK education & health inequalities 9 yrs later
- politicians can't understand diff bet determinants of health & determinants of ineq. of hlth
- opposition by power str.

- to stimulate societal debate on the opportunities for acting on the social determinants of health; and
- to inform the application and evaluation of policy proposals and programmes in relation to the social determinants of health nationally, across regions and globally, assessing implications for both women and men.

The themes for the KNs included: ⑨

priority public health [illegible]

- Early Child Development
- Health Systems
- Urban Settings
- Social Exclusion
- Employment Conditions
- Globalization
- Women and Gender Equity
- Measurement and Evidence

The themes of the last two KNs were cross-cutting.

The Measurement and Evidence Knowledge Network (MEKN) will work with the other KNs on the measurement, appraisal, evaluation and synthesis of evidence relating to the social determinants of health. This paper outlines the principles that will inform the approach of the MEKN.

As part of the launch of the Commission on the Social Determinants of Health which took place in Santiago in Chile in March 2005, an expert consultation for the Measurement and Evidence KN was held. The purpose of the meeting was to begin a consensus building process towards the development of guidelines on assessing and evaluating programmes and policies on the social determinants of health. Following the consultation the National Institute for Health and Clinical Excellence (NICE) in London, England and the Universidad del Desarrollo (UDD) from Santiago, Chile were selected as the organizational co-hubs for the Measurement and Evidence Knowledge Network (MEKN).

1.2 The social determinants of health and health inequalities

Globally there have been impressive improvements in overall indicators of health over the last several decades. None the less, health inequalities within and between countries persist and in many cases have widened and have continued to widen in the recent past (WHO, 2004). This is in spite of the fact that the pursuit of equity and the reduction in health inequalities has been a goal of some national (Graham, 2004a; 2004b) and some international policies (World Health Organization, 1981; 1985; 1998a; Ritsatakis, 2000; Braveman, et al, 1996; Braveman, 1998, United Nations, 2000).

The first premise for the development of a methodology for working on the social determinants of health is a statement of a value position. The explicit values underpinning the development of the methodology is that the health inequalities that exist within and between societies are unfair and unjust. This is not a scientifically or rationally derived principle; it is a value position which asserts the rights to good health of the population at large. It stands in contrast to the value position that argues that differences in health are a consequence (albeit an unfortunate consequence) of the beneficial effects of the maximisation of individual utility in the market. It is important to state this at the outset that individual and collective utilities may be at odds with the rights to health. The debate about social determinants takes place within a sometimes explicit but usually implicit tension between the competing claims of rights and utilities. Arguably these claims and counter claims are irresolvable through rational discourse. In short, to uphold one person's or group's rights is to interfere with some other individual or group's utilities – and vice versa (Macintyre, 1984). This applies in health as it does within in other spheres of human conflict.

It is important therefore to be very clear about questions of inequality and inequity and the values that inform the discussion. Whitehead describes health inequality as *'measurable differences in health experience and health outcomes* between different population groups – according to socioeconomic status, geographical area, age, disability, gender or ethnic group'. Inequality is about objective differences between groups and individuals measurable by mortality and morbidity. Whitehead describes 'health inequity' as '*differences in opportunity* for different population groups which result in for example, unequal life chances, access to health services, nutritious food, adequate housing etc. These differences may be measurable; they are also judged to be unfair and unjust (Whitehead, 1992). Leon et al (2001) point out that health inequalities and health inequities within countries do not mean the same thing and the related values may be different. As a consequence solutions to tackling health inequalities cannot be universally applied to all situations and the importance of applying these solutions in context must be noted. However, regardless of context, cultural differences and differing systems, the position taken by the MEKN is that systematically differential patterns of health outcomes which have their origins in social factors are unfair and unjust. The explicit *value* position is that this is morally indefensible and that there is an imperative to find solutions to this state of affairs. Moreover, because the origin is social they are the product of human agency. Because they are the product of human agency they are potentially changeable through human agency.

Although such human agency will operate through political, economic and biomedical systems, they must be underpinned by an evidence based approach. And this is the second premise – commitment to an evidence based approach. However, there are a number of difficulties; the present paper offers some solutions to those difficulties. The difficulties may be briefly stated. There are conceptual problems of attribution. So it may be argued that pursuing equity in health means eliminating the social determinants of health inequalities. These determinants are in turn systematically associated with social disadvantage and marginalization (Braveman, 2003). The major factors may be relatively easily delimited. The unequal distribution of the social and economic determinants of health such as income, employment, education, housing, and environment produce inequalities in health (Graham, 2000). However while the general relationship between social factors and health is well established (e.g. Marmot & Wilkinson, 1999; see also Solar & Irwin, 2005 for a review), the relationship is not as well understood in causal terms, as it is readily observed (Shaw et al 1999). The causal pathways of inequalities in health are empirically and theoretically underdeveloped. Consequently the policy imperatives necessary to reduce inequalities in health are not easily deduced from the known data.

or by popular
pressure/claims
+ NGO/CS
activation

There have been many attempts to develop policy on the basis of what is known, and on basis of the observed relationships. The results have not been particularly impressive, partly because the evidence base is weak - there is a very rich literature describing health inequalities, especially in developed countries, but a dearth of good studies explaining what can be done about it (Millward et al 2003) - and partly because policies which damage health and increase health inequalities have prevailed. The evidence base is further hampered by a lack of systematic studies of the effects of policy. The contours of inequality are not well described. The degree to which changes in inequalities can be measured is ill defined (Killoran & Kelly, 2004). The difference between the determinants of health and the determinants of inequalities in health is often confused (Graham & Kelly, 2004; Graham, 2004a, 2004b, 2004c). The health of populations and the health of individuals is frequently elided (Heller, 2005). And, finally, the link between the proximal and distal determinants of health are poorly conceptualized and integrated into research (WHO, 2004).

In the face of these difficulties a thoroughgoing evidence based approach means finding the best possible evidence about the social determinants (NHMRC, 1999). The most sophisticated and technologically advanced search strategies and systematic review procedures should be used (Glasziou et al 2004, Jackson & Waters 2005a, 2005b) along with traditional forms of scholarship. The definition of best evidence should be made on the basis of its fitness for purpose and on the basis of its connectedness to research questions (Glasziou et al 2004). Those research questions are the ones which deal with the effectiveness of interventions to change the social determinants. While there will be gaps in this evidence and some of it will be more powerful than other parts. Therefore the strength of evidence alone should not drive the strength of policy recommendation (Harbour & Miller, 2001). Never the less it is taken that is axiomatic that an evidence based approach offers the best hope of tackling the inequalities that arise as a consequence of the operation of the social determinants. The evidence will provide the basis for understanding and the basis for action (Greenhalgh, 2001). Linking evidence based to health policy will require the identification of appropriate and culturally sensitive mechanisms (Rawlins, 2005; Briss, 2005).

There are of course some important caveats about the evidence based approach. There will have to be a recognition that strength of evidence alone is not sufficient as a basis for making policy (NHMRC 1999) and that it is possible to have very good evidence about unimportant problems and limited or poor evidence about very important ones. Therefore a distinction must be drawn between absence of evidence, of poor evidence and evidence of ineffectiveness. The two former are not the same as the latter. It will need to be recognised that the links between scientific knowledge and policy and practice are not linear and that the scientific evidence base is generally imperfect in its own methodological, theoretical and empirical terms. Consequently the connection between evidence and policy and practice inevitably involves matters of judgements (Kelly et al 2004). This leads to a commitment to the principle that the application of research findings to non research settings requires an understanding of the local context and the tacit knowledge and the life worlds of practitioners and end users. It also means that evidence hierarchies must be used flexibly.

2 Principles

2.1 Initial Conceptual Ideas

Solar and Irwin (2005) developed a discussion paper for the CSDH *'Towards a conceptual framework for analysis and action on the social determinants of health'* to set out the conceptual foundations for the work of the commission. It put forward a framework (drawn from existing models and frameworks) for the social determinants of health which aimed to:

- clarify the mechanisms by which social determinants generate health inequities
- show how the major determinants relate to each other
- provide a framework for evaluating which social determinants of health are the most important to address
- map specific levels of intervention and policy entry points for action.

The framework also highlights 3 key issues that need to be addressed if effective action is to be taken on the social determinants of health:

1. to distinguish between the structural (e.g. income and education) and intermediate (e.g. living and working conditions, population behaviour, food availability) determinants of health
2. to understand and make explicit what is meant by the socio-political context (encompasses a broad set of structural, cultural and functional aspects of a social system whose impact on individuals).
3. to take account of the actions that need to be taken at different levels (macro, meso, micro) in order that inequalities in health can be tackled (i.e. to alter the configuration of underlying social stratification, and those policies and interventions that target intermediate health determinants).

empowerment
gender
ethnicity/
race, caste
class
trade/WTO)

The MEKN drew on these ideas to develop a set of principles for thinking about measurement evaluation and evidence issues relating to the social determinants of health.

2.2 Defined Principles for MEKN

- address concerns of policy makers
- effectiveness of intervention
- hierarchy of designs for internal validity

? change focus for policy makers

Principle 1 Methods and epistemology

The data and evidence which relate to social determinants of health come from a variety of disciplinary backgrounds and methodological traditions. The evidence about the social determinants comprises a range of ways of knowing about the biological, psychological, social, economic and material worlds. The disciplinary differences arise because social history, economics, social policy, anthropology, politics, development studies, psychology, sociology, environmental science and epidemiology, as well as biology and medicine may all make contributions. However, each of these has its own disciplinary paradigms, arenas of debate, agreed canons, and particular epistemological positions. Some of the contributions of these disciplines are highly political in tone and intent. And in spite of a great deal of research endeavour and comment as well as practical attempts at problem solution, there is also a great deal which is not known about the causes of inequalities in health.

In short, although the empirical subject matter of the social determinants of health is diverse, that diversity is given an added layer of complexity by the disciplines involved and that those disciplines do not reach an easy consensus on the nature of knowing the material nor its interpretation. When the ways of knowing and understanding within the worlds of policy makers, politicians, NGOs, as well as of the people whose lives are directly affected by the social determinants, the degree of complexity could be potentially debilitating. As an evidence base therefore it has a number of problems: it is drawn from a diversity of disciplines using different methods, it is incomplete, and it is it is biased in various ways, including political and ideological bias. This does not mean it is unusable; it means we must devise ways of sorting out the disciplinary differences, of filling the gaps and of reducing the bias while valuing the diversity.

It is therefore inappropriate to rule out evidence and data *a priori* on the basis of its disciplinary and methodological provenance. The immediate task is to find the best

1. Diff. types of knowledge - oral traditions
2. literature reviews to incl. grey literature
3. Who are policy makers
4. use case studies
5. conflicting interests
6. stakeholders - implementors/elected reps.

evidence, from whatever source it comes, defined by the extent to which it has used an appropriate method to answer the research question. It is axiomatic that to assert the superiority of one type of knowing over another will be unhelpful. A range of types of knowledge and knowing will be important (Kelly, 2004; Berwick, 2005). A pluralistic approach will therefore be necessary. The question which must be asked is what we know, suitable for what we need to do?

The principles involved are very straightforward and have been the premise of philosophical thought for millennia (Plato, 1974). Humans use different forms of knowing and different forms of knowledge for different purposes. There is no necessary hierarchy involved until we need to discriminate on the basis of fitness for purpose. It is necessary to describe the criteria for acceptability and fitness for purpose and this the MEKN will do. The task will involve doing this across a range of different knowledge types. This does not mean that all knowledge and knowing in general, or of the social determinants of health in particular, is of equal value. It means we have to develop multiple criteria to determine fitness for purpose, to judge thresholds of acceptability and critically appraise the knowledge on this basis.

Principle 1 therefore promotes the use of a wide range of methodologies to assess the success of interventions and policies which aim to address the social determinants of health. This is familiar territory. Indeed, much has been written over the last 30 years about the most appropriate means of evaluating the work of social and community programmes aimed at reducing health inequalities. During the 1980s, increasing expectations within public services towards evidence-based decision making led to a desire from those working in the field of health promotion to establish a credible scientific basis for their work. Early attempts to summarize the evidence of 'what works' borrowed methodologies employed by biomedicine to systematically review evaluations of the effectiveness of health promotion interventions.

Traditionally, a systematic review process was used to assess evaluations in terms of their methodological merit and measures of effectiveness. To allow long-term follow-up over time, this type of evaluation requires dedicated and substantial research resources and those with specialist evaluation expertise who can advise on appropriate research designs and methods, implement these and conduct the appropriate analysis. One of the biggest problems with this form of evaluation is providing evidence of a causal link between the project being evaluated and the outcome measures. Experimental and quasi-experimental research designs go some way towards addressing this problem, although these designs are regarded by many as a research design that is neither feasible nor desirable for community-based interventions.

The findings from reviews of scientific studies highlight the tensions inherent in searching for the limited amount of health promotion that has been evaluated or will fit into the biomedical model of evidence. Some of the key questions include:

- What counts as evidence?
- How do certain perspectives on evidence limit the focus of our endeavours in evaluating the impact of health promotion?
- What kinds of explanatory models might help us to ask better questions?
- What does this mean for indicators of outcome in evaluation studies?

These questions have been considered by a WHO Working Group (1998b), who has put forward a set of core features for the evaluation of health promotion.
They are:

- *Participation*. Each stage of evaluation should involve, in appropriate ways, those who have a legitimate interest in the initiative. Those with an interest can include: policy makers, community members and organizations, health and other professionals, and local and national health agencies. It is especially important that members of the community whose health is being addressed be involved in evaluation.
- *Multiple methods*. Evaluation should draw on a variety of disciplines and methods.
- *Capacity building*. Evaluations should enhance the capacity of individuals, communities, organizations and governments to address important health promotion concerns.

  empowerment
- *Appropriateness*. Evaluations should be designed to accommodate the complex nature of health promotion interventions and their long-term impact.

The MEKN aims to identify what types of instruments exist or need to be developed to measure the impact of a social determinants approach to improving health, as it is mediated through the health system. In doing so, it will promote the use of combining methodologies and to building a strength of evidence and will avoid disciplinary wars aiming to promote the use of the right method of evaluation to answer specific questions.

intersectorality
catalysis?
approach

Participants involved in the expert meeting held in Chile in 2005 to accompany the launch of the Commission also called for the need to ensure:

- a balance in the type of evidence drawn upon: consult *systematic reviews* (such as the Cochrane and Campbell databases of relevant interventions), but also aim to develop an 'evidence jigsaw', including for example, descriptions of policy-making processes (e.g. detailed case studies of successful as well as failed policy initiatives in the area of social determinants).

  'including on implementation',

- Different *kinds* of evidence are used for policymaking depending on the question being asked. Policymakers have recommended that researchers should help them with the task of piecing together the 'evidence jigsaw' (Whitehead et al. 2004). The 'jigsaw' would encompass different types of evidence – for example, evidence about the potential effectiveness of policies (from experimental, quasi-experimental, and observational studies); evidence on the diagnosis and/or causes of problems that could contribute to the development of appropriate interventions/programmes; evidence on costs and cost-effectiveness.

- The purpose for which the evidence is used should be made explicit. It is also important to recognize that evidence is produced for different kinds of *purposes*, including: mobilizing political will, purchasing "buy-in" from the public, demonstrating success, predicting outcomes, and monitoring progress.

The MEKN will pay particular attention to the role of qualitative research in assessing the effectiveness of approaches to address the social determinants of health. Professor Jennie Popay has proposed two different models to describe the ways in which qualitative evidence contributes to the evidence base for policymaking (Presented at the March 2005 Chile CSDH Meeting).

1) The *enhancement model* assumes that qualitative research adds something "extra" to the findings of quantitative research – by generating hypotheses to be tested, by helping to construct more sophisticated measures of social

phenomena, and by explaining unexpected findings generated by quantitative research.

2) The *epistemological model* views qualitative evidence as making an equal and parallel contribution to the evidence base through: (a) focusing on questions that other approaches cannot reach; (b) increasing understanding by adding conceptual and theoretical depth to knowledge; and (c) shifting the balance of power between researchers and the researched (Popay unpublished). Importantly, the epistemological model views qualitative evidence as not necessarily complementing quantitative evidence, but sometimes conflicting with it.

Qualitative research can play two key roles as part of the evidence base for the social determinants of health: (a) providing insights into the subjectively perceived needs of the people who are to be the targets of the interventions and programmes aimed at addressing the social determinants of health and health inequalities (giving people a 'voice'); and (b) helping to unpick the 'black box' of interventions and programmes to deepen understanding about factors shaping implementation, and hence, impact (Roen et al; Arai et al 2005). One major difference between the qualitative and quantitative traditions concerns the notion of replicability and generalizability. Obviously generalizability within the qualitative tradition is of a different kind to that which is possible in an experiment or a survey (Popay unpublished). With regard to judging the *external validity* of qualitative evidence, Popay notes: 'The aim [in the qualitative tradition] is to identify findings which are *logically* generalizable rather than probabilistically so' (Popay et al. 1998). It should also be noted that there is a rapidly growing literature on methods for the synthesis of qualitative research and of mixed methods research (see for example, Dixon Woods et al 2004; Popay & Roen, 2003).

There must therefore be a commitment to methodological pluralism and epistemological variability and a commitment to the view that epistemological positions should not be viewed as mutually incompatible. The argument that there is an inherent incompatibility between objectivist and subjectivist approaches is to be explicitly rejected in favour of the view that there are different ways of knowing, and that different ways of knowing can and do play different roles in the ways that human actors use knowledge and information. However, in certain circumstances and for certain purposes some forms of knowing are more practically useful. The polarization of knowledge into objectivist and subjectivist approaches is unhelpful and misleading

(See Gomm & Davies, 2000; and Gomm et al 2000 for a review of helpful ways to describe different methodological approaches). The view that all knowledge is relative and of equal value is to be rejected in favour of a view which defines the relevance and the salience of knowledge according to its practical value in given circumstances.

Principle 2: Gradients not gaps

There are conventionally three different ways in which the inequalities are described: health disadvantage, health gaps and health gradients (for a full discussion of this see Graham, 2004a, 2004b, 2005. and Graham & Kelly, 2004). Health disadvantage simply focuses on differences, acknowledging that there are differences between distinct segments of the population, or between societies. The health gaps approach focuses on the differences between the best and worst off. The health gradient approach relates to the health differences across the whole spectrum of the population acknowledging a systematically patterned gradient in health inequalities.

Conceptually, narrowing health gaps means raising the health of the poorest, fastest. It requires both improving the health of the poorest and doing so at a rate which outstrips that of the wider population. It is an important policy goal. It focuses attention on the fact that overall gains in health have been at the cost of persisting and widening inequalities between socioeconomic groups and areas. It facilitates target setting. It provides clear criteria for monitoring and evaluation. An effective policy is one which achieves both an absolute and a relative improvement in the health of the poorest groups (or in their social conditions and in the prevalence of risk factors).

However, focusing on health gaps can limit the policy vision. This is why the approach advocated here is one of normally aiming to reduce health gradients. The penalties of inequalities in health affect the whole social hierarchy and usually increase from the bottom to the top. Thus, if policies only address those at the bottom of the social hierarchy, inequalities in health will still exist and it will also mean that the social determinants still exert their malign influence. The approach to be adopted by the MEKN will involve tackling the whole gradient in health inequalities rather than only focusing on the health of the most disadvantaged. The different meanings associated with health inequalities and health inequity is sometimes conflated. The principle here is to make the conceptual distinction clearly and to argue for a very clear approach based on the whole population gradient. The only significant caveat is that where the health gap is both very large and the population numbers in the extreme circumstances is high, a process of prioritising action by beginning with the most disadvantaged would be prioritised.

This approach is in line with international health policy. The founding principle of the WHO is that the enjoyment of the highest attainable standard of health is a fundamental human right, and should be within reach of all 'without distinction for race, religion, political belief, economic or social condition' (WHO, 1948). As this implies, the standards of health enjoyed by the best-off should be attainable by all. The principle is that the effects of policies to tackle health inequalities must therefore extend beyond those in the poorest circumstances and the poorest health. Assuming that health and living standards for those at the top of the socioeconomic hierarchy continue to improve, an effective policy is one that meets two criteria. It is associated with (i) improvements in health (or a positive change in its underlying determinants) for all socioeconomic groups up to the highest socioeconomic group and (ii) a rate of improvement which increases at each step down the socioeconomic ladder. In other words, a differential rate of improvement is required: greatest for the poorest groups, with the rate of gain progressively decreasing for higher socioeconomic groups. It locates the causes of health inequality, not in the disadvantaged circumstances and health-damaging behaviours of the poorest groups, but in the systematic differences in life chances, living standards and lifestyles associated with people's unequal positions in the socioeconomic hierarchy (Graham & Kelly, 2004).

intra-country
+ global
inequalities
↑ poverty
trade
finance
jobless growth
corruption
MNC control
of internat.
bodies +
policies
unfair practices
patents
drugs
GMOs
environ. pollution
flows of human
resources
exploitation of
labour
conflicts + war
defence +
oil deals
sanctions

Principle 3: Causes: determinants and outcomes

Principle 4 is that MEKN will use as a basis for developing the evidence a causal model which crosses from the social to the biological.

What is generally missing in the analysis of social factors and health is the kind of underlying certainty about effectiveness and cause which we have come to expect with respect to clinical medicine. Clinical medicine has its own uncertainties of course. Aetiology is sometimes unknown or tenuous. The effects of treatments are also uncertain (Chalmers, 2004). The disease categories used by medicine to describe pathology, are not essentialist but are nominalist and therefore change and evolve over time. Data and evidence are surrounded by uncertainty (Griffiths et al 2005), and the skill of the doctor is in the end about working through and with these uncertainties, not resolving them.

There are no
covering laws
ref. social
inequalities
- is an aspirational
principle of
looking for biological
+ sociological
plausibility

But not with standing the uncertain and contingent nature of the understanding of bio medical processes, medicine operates very successfully with an underlying epistemological principle which is that health outcomes have preceding causes and that the isolation of cause is the basis of effective intervention. In the case of inequalities in health real pathological changes in the human body occur, but in highly patterned ways in whole populations. The key assumption made here is that both the pathologies and their patterning have causes. There will be social and biological causes working in tandem. The task is to map that process as a way of developing an explanation. In classic scientific terms there must be covering scientific social and biological laws (Hempel, 1965). What needs to be explained is why the biological systems in the human body change in ways that are determined by social circumstances. At the heart of the problem of the social determination of health and the corresponding inequalities in health is this. The molecules in the human body behave differently according to the social position someone occupies, according to their job, according to their experience of class and ethnic relations, according to their education, and according to a whole range of social factors which impact on them over their life course. Their immunity, their nutritional status, their resilience, their ability to cope, all act as mediating factors, but ultimately there is a biologically plausible pathway from a number of social factors or social determinants to biological structures in the individual human body.

In the biological clinical realm the randomized controlled trial provides the best way of determining what the mechanisms of cause are and what precisely it is, that is effective (Chalmers, 1998). The randomized controlled trial provides the most secure basis for valid causal inferences about the effects of treatments (Chalmers, 1998). *Inter alia*, to what extent can similar methods be applied in the social realm?

It has been argued that before 1948 clinical medicine was dominated by what today we would call theoretical and political positions and largely untested paradigms (Cochrane, 1972; Doll, 1998). It is suggested that these practices were tested empirically by individual clinicians, but were never subject to the kind of deep rigorous scrutiny which the clinical trial permits (Greenhalgh, 2001). Effectiveness was in much more tenuous territory than it is today. Doll has argued (Doll, 1998) that 1948 was a watershed because it was the year that the streptomycin trial for treating pulmonary tuberculosis reported. The methodological breakthrough was that effectiveness could be plainly demonstrated. Although of course in 1948, the clinical trial still had many years to go before it found general acceptance (Cochrane, 1972), the fundamental principle was established and the causal premise was in grasp.

The question is to what extent is the study of the social determinants of public health governed by untested paradigms? To what extent is the study of the social determinants led by theory rather than by evidence of effectiveness? If it is to be led by evidence of effectiveness the question of cause has to be confronted head on. Moreover, even if the goal of seeking causes is aspirational , given the current state of knowledge, that there are causal mechanisms at work, and that these may eventually be discerned, is a guiding principle.

The approach to be adopted is that of separating necessary and sufficient conditions. The necessary condition is/are the preceding phenomenon which needs to be identified and be described without which the succeeding phenomena will not occur. The sufficient conditions will describe the degree or volume which is required to produce an effect. A true causal model would permit the statement, 'if a then always b'. By identifying the necessary and sufficient conditions it is possible to develop such statements (Davidson, 1967). A true causal model would also account for the nature of the relationship between a and b. This is what Hempel (1965) called the covering law. Of course, because the subject matter is going to be surrounded by varying degrees of uncertainty, the initial models or model will be weaker than a true causal model. However, it is the degree of precision of the true causal model that should be the goal, and unravelling necessary and sufficient conditions is the starting point.

With respect to the social determinants of health, we are able to identify some of what are the necessary and the sufficient conditions but the nature of which are which, is very unclear. The core candidates can be listed relatively easily because the literature has explored them at length: occupational exposure to hazards, occupational experience of relations at work (degree of self direction), the biological aging process , the experience of gender relations, the experience of ethnic relations including direct experience of racism, home circumstances, degree and ability to exert self efficacy especially through disposable income, dietary intake, habitual behaviours relating to food, alcohol, tobacco and exercise, position now and in the past in the life course, schooling, marital status and socio economic status. These are the media through which the direct effects of the social world impacts directly on the life experiences and exert direct effects on the human body. They in turn are linked to macro variables like the class system, the housing stock, the education system, the operation of markets in goods and labour and so on (see Solar & Irwin, 2005).

However, just listing the factors, neither tells you what the linkages actually are, nor what the covering law is, nor what the biologically plausible relations actually consists of. As Smith (2004) has argued, if we combine all the dimensions of social differences into one construct, like socio economic group, this precludes discussion of the policy relevant options (Smith, 2004), but it also precludes proper explanation. There is clearly an urgent need for these processes to be modelled.

The problem of multi faceted causation will need to be considered in the modelling process. It is clear that there are likely to be a range of factors involved in the explanatory framework, and the component parts of the model will need to be delineated. However, this must not degenerate into simply arguing that it is very complex, because this is no explanation at all (Cohen, 1951). Modelling in a multi factorial way allows the delineation of the necessary and sufficient conditions.

The evil causes evil fallacy (Cohen, 1951) also needs to be avoided in this modelling process. Antonovsky (1985; 1987) called this the pathogenic approach. By this he meant, a search for system dysfunction, or the identification of the breakdown of idealized social systems. He argued that the social and medical sciences were dominated by a pathogenic orientation. Applied to health inequalities, a pathogenic argument is that health inequalities are a pathological deviation from an idealized better state caused by some kind of pathological mechanism. The pathological mechanisms are usually said to be things like global capitalism, political decisions, failing health care systems and poverty. This is unhelpful on two counts. First, idealised perfect non pathological social systems do not exist, and the pathology which is identified as the cause is not an explanation, it is a political statement about values. The value system is used as the explanation. Now that it is not to say that the tackling of health inequalities and the associated suffering and premature mortality are not worthwhile things to do, nor that is a value position of which to be diffident (see above). Quite the contrary, it is a prime value which should drive forward research and action. But a value, which determines that something is bad (or good), is not the same thing as an explanation.

To understand health inequalities we must turn to a concept of cause which has its origins in positivistic and rationalist thought and which in effect mirrors the kinds of precision about cause which clinical medicine is capable of delivering. This, it will be argued, requires a classical scientific explanation: neither an historical nor a sociological explanation will do (Danto, 1968). This is because the phenomena being explained are not historical or social: they are physical. An explanation which stops at the social level is insufficient for these purposes. We need a model of cause which traverses a number of levels of analysis which academic disciplines traditionally keep separate. Some of the observed patterns which are manifested in mortality and morbidity data are no doubt accounted for genetically or other purely biological mechanisms, but it seems inconceivable that the health variations which follow so closely sets of social arrangements could all be accounted for in this way. Other processes are at work and they are amenable to causal analysis which asserts the primacy of a pathway from the social to the biological. This does not undermine any other form of analysis like a sociological one which operates at the level of the social, nor does it preclude bringing aspects of the sociological explanations into play. But the principles of cause should be applied to the issue in question across the social and biological. In this sense the concern is not really inequalities in health, but much more specifically the social determinants of inequalities in illness. The research question is to find out what the social determinants of mortality and morbidity are.

This will lead further to use the distinction between the determinants of health and the determinants of inequalities in health. The commitment to addressing the social determinants of health is often summed up in the phrase ‘tackling the determinants of health and health inequalities’. Such phrases can create the impression that policies aimed at tackling the determinants of health are also and automatically tackling the determinants of health inequalities. What is obscured is that tackling the determinants of health inequalities is about tackling the *unequal distribution* of health determinants.

Focusing on the unequal distribution of determinants is important for thinking about policy. This is because policies that have achieved overall improvements in key determinants such as living standards and smoking have not reduced inequalities in these major influences on health. Positive trends in health determinants can go hand-in-hand with widening inequalities in their social distribution. As these examples suggest, distinguishing between the overall level and the social distribution of health determinants is essential for policy development. When health equity is the goal, the priority of a determinants-oriented strategy is to reduce inequalities in the major influences on people’s health. Tackling inequalities in social position is likely to be at the heart of such a strategy. It is the pivotal point in the causal chain linking broad ('wider') determinants to the risk factors that directly damage people's health.

Therefore the model of *cause* needs to be articulated. The evidence should be interrogated to determine what phenomena are attributed to other phenomena. Are necessary and sufficient conditions specified, is the causal chain concerned with proximal, intermediate or distal causes, and what are the plausibility levels of the proposed mechanisms? In brief are we able to find patterns which point to strong causal or associational relationships? To what degree are we able to discern a consistent direction in the evidence, and to what degree are the patterns of the results or the conclusions of studies broadly similar? Is there a relationship which suggests that more of the exposure or the intervention produces more of an effect? If there is then we have a much clearer sense of potential cause and are able to map out what the proposed mechanisms are.

The level, or levels of analysis, needs to be identified (Kelly, Charlton and Hanlon, 1993). This means examining the evidence, and regardless of its disciplinary provenance, assessing whether the *dynamics* of what is described could plausibly work at a physical, societal, organisational, community or individual level. In other words, to what degree is the policy or intervention based on biological, social, technical plausibility? To what extent is it possible to ascertain time periods and the chronology in the evidence? Are the purported relationships logically possible in chronological terms? Do certain events precede others? What dynamic processes in terms of the component parts of social systems are described? This is particularly important in multi factoral explanations, where the sequencing of events may be hidden, or at least difficult to discern and where, as we noted above, multi factoral explanations are often no explanations at all.

Principle 4: Social Structure

Principle 4 aims to make more explicit the range of dimensions of inequalities that need to be considered when building an evidence base on how best to address the social determinants of health, including ethnicity, gender, sexuality, age, area, community and religion (Anthias, 1990; 1992). These represent linked but separate dimensions of inequality. Whilst these discrete dimensions of social difference are seldom denied as important, they are under developed empirically and theoretically in the literature on social determinants. Consequently, the relationships between the different dimensions of inequality and the ways they interact with each other to produce health effects, are hardly to be found in the extant evidence at all (Graham & Kelly, 2004). This is a point of very considerable importance because, it is clear from the evidence that does exist, that different segments of the population respond very differently to identical public health interventions. This means that we need to anticipate a wide range of responses to policies across and within societies, by virtue of the nature of the variation in populations.

What these different and variable axes of differentiation have in common is that they result in differences in life chances. These differences in life chances are literal: there are marked social differences in the chances of living a healthy life. This has been most systematically captured in occupation-based measures of socioeconomic position – but differences in people's health experiences and their patterns of mortality are observed across other axes of social differentiation. It is an important challenge to develop measures of inequality that embraces these axes. If, as the evidence suggests, dimensions of disadvantage interlock and take a cumulative toll on health, these dimensions need to be summed in order both to map and to understand the health penalty of social inequality.

One of the key principles therefore for the MEKN is that there are different axes of social difference (Graham & Kelly, 2004) and that these dimensions overlap (Davey Smith et al 2000). Within different axes of differentiation, like gender, different aspects interplay as well, like income access to power and prestige (Bartley et al 2000). The specific health impacts will be mediated by proximal factors like social position, specific exposures, the nature of specific illnesses and injuries and their social significance in different cultural contexts (Whitehead et al 2000). The model which will be developed will also need to account for the fact that these different aspects of social difference vary independently of each other. But they also coalesce together in varying ways to produce overall patterns of advantage and disadvantage.

Material and environmental disadvantage accumulate through the life course and in particular childhood disadvantage is associated with disadvantage in later life (Benzeval et al 2000). The two building blocks which will be used to develop these ideas are those of the life course and the life world. Life course epidemiology shows how socially patterned exposures during childhood, adolescence and early adult life may operate via chains of social, biological or psychological risk (Kuh et al 2003; Graham & Power, 2004). The purpose of life course epidemiology is to build and test theoretical models that postulate pathways linking exposures across the life course to later life health outcomes (Kuh et al 2003). The life world is a social space, part physical, but predominantly cognitive and subjective. The life word is where we experience the social structure first hand in the form of opportunities, barriers, difficulties and disadvantage. Schutz (1964, 1967; 1970) conceptualized the totality of the experience of the life world as a series of concentric circles. The innermost circle is the one where the everyday contacts and routines are highly predictable and are therefore taken for granted, which are salient and immediate and which tend most of the time to be the most important. There are more distant parts of the life world. It is important to note that the innermost circle of the life world may not be, and Schutz never suggested it would be, a place that was benign and cosy. It may be violent and bullying. It may be cold and unforgiving. It may be unpleasant and chronically difficult. It will be the place where discrimination and disadvantage are experienced. However, it constitutes the centre of the existence of the person. This is because life worlds are the building blocks of social life. It is the point where social structure impacts on the individual. The life world is where the causal mechanisms of health inequalities operate, and the pathways to ill heath can be described. It is the bridge between the social and the biological.

The importance of this idea for patterning of health is that health is an outcome of the accumulated effects of a variety of social and biological factors which impact on people at distinct periods in the life course in the life world. These factors act both positively and negatively as well as cumulatively. MEKN will therefore proceed on this conceptual basis.

So what is the model of social structure, if any, in the evidence? This means considering the extent to which the evidence is sensitive to the relations between groups and individuals and in particular the social variations and differences in the population. The important differences along the dimensions of age, gender, religion, caste, occupation, mobility, place, residence, status grouping, and class membership.

Principle 5: Social Dynamics

Principle 5 highlights that the social systems and sub systems which make up societies are not static objects, they are constantly changing and therefore the relationships which give rise to the outcome of health inequalities and differences are themselves also changing in terms of their force and in terms of their salience at any given moment.

In compiling evidence across knowledge networks it is important therefore to reflect on the historical dimension with respect to the social determination of health. Whilst inequalities in health seem to be a characteristic of all modern contemporary societies, the shape they currently have is not a given, is not set in stone. It is instead something which changes. The question is whether there is any discernible historical patterning which would help us to understand what is going on, and what the processes involved actually are.

The starting point for such analysis is the path breaking work of Antonovsky (1967). In what was one of the very earliest attempts to review historical and contemporary evidence about inequalities in health in a systematic way, Antonovsky showed that inequalities were a common feature of all advanced social systems. Examining data from more than thirty international studies he argued that the inescapable conclusion was that social class influenced a person's chance of staying alive. Historically he noted a variation of about 2:1 between the extremities of the social classes, although he saw this differential narrowing in the mid nineteen sixties. This class differential held even though overall death rates were declining. He noted that whatever the index used, or however the class system was represented, almost invariably the lowest social classes had the highest mortality rates (Antonovsky, 1967).

He went on to demonstrate that there was an important characteristic in the historical differences between the most and the least advantaged across different societies. He observed that where the overall rates of mortality were high, the differences in mortality between the best and the worse off tended to be relatively small. This, he claimed, characterised societies in the early period of industrialization. As rates of economic growth increased, and particularly as industrialization evolved, the patterns of mortality began to improve for both the most and the least advantaged, *but at differential rates.* The middle and upper classes seemed to derive the health dividends of industrialization earlier. The mortality rate of the most advantaged improved at a faster rate than the rate of mortality of the least advantaged. The result was that the differences between the most and least advantaged got bigger. However, as time went on, the rate of improvement for the middle and upper classes began to slow, while the rate of improvement for the least advantaged began to increase, resulting in a narrowing of the difference.

This led Antonovsky to suggest that where death rates are relatively high *or* low, the difference between the most and the least advantaged will tend to be relatively small, but where the rates of mortality are mid range the difference between the most and the least advantaged will be relatively high. Since the publication of these data in the mid 1960s this pattern seems to have evolved still further. For example the gradient in countries like Britain seems to have begun to steepen again over the last forty years or so, and in some countries of the former Soviet block the increase in health inequalities in recent time has been dramatic. One conclusion to be drawn from Antonovsky's earlier work, combined with the more recent data, is that health inequalities are part of long term social, political and economic trends and are linked to the playing out of policies and historical events and underlying changes in the social structure and the division of labour in society in ways that require an explanation in their own right.

The interesting thing about this is the shape of the curves Antonovsky described. Both extremes are close together and the middle much further apart. One conclusion to draw from this is that it describes a pattern that is linked to some underlying process of modernization/ industrialization, and there are some compelling biological (the prevalence of infectious disease, the nature of infant mortality) as well as social (the nature of the housing stock, the appearance of decent sanitation and safe drinking water in particular), set of factors at work. Certainly the chronology of events would lead one in that direction. The other important conclusion is that these data demonstrate namely that inequalities in health are not fixed, but rather are variable at different historical time periods.

One of the more interesting ways of trying to make sense of global type data is to try to evaluate it in the context of data from different spheres. One of the most striking examples of this is in relation to work by Victora and colleagues (2000). They propose the idea of the inverse equity hypothesis. Drawing on data relating to the implementation of child health programmes in Brazil, they note a very similar, almost identical set of curves to that described by Antonovsky, although over very much shorter time horizons. They note that whenever there is a new programme introduced, the children of the better off benefit sooner and to a greater extent than the children of the poorer sections of society. The improvements do impact on the less advantaged but later, and there is an inevitable catching up process. Critically Victora and colleagues argue for the inevitability of this process *ceteris paribus*. It operates at a much shorter time frame than the kinds of historical epochs which Antonovsky was interested in, but the same pattern emerges. Victora et al also note that these effects compound one another in the sense that they children of the more well to do are inevitably always in front since the benefits of the next new intervention(s) will have already kicked in, before the poorer cohorts have caught up with last one. So although the overall effect is of health improvement, the constantly repeated cycles tend to reinforce the inequalities giving them the impression of being constant, when in fact they are each the product of successive waves of differential responses to successive interventions.

Several important ideas follow from this. If health inequalities as measured by the differences between different groups are not fixed, but rather constantly reinforced and reproduced, then the search for the distal causes should be in the cycle, or rather in the reasons why inequities reproduce themselves in each cycle in this way. The intermediate determinants are to be located in factors in the delivery of intervention, rather than in some abstract entity called society, the economy or the political process. These would in turn be mediated by the proximal factors in the life course and the life world.

The key idea here then is the nature of dynamic change, not as interesting historical data but as central to the explanatory process itself.

Principle 6 Explicating bias

The last test to be applied relates to ideological or political bias. The problem of values and politics and their particular role in generating knowledge has been a longstanding theme in the social and the political sciences (Weber, 1948). The solution though is relatively straightforward. All knowledge is potentially and actually ideologically or politically biased. The solution is to acknowledge this fact and to seek to make the biases explicit, even if the writer has sought to conceal their own prejudices. This is an imperfect science, but is workable in two stages. First being able to describe any political bias that is inherent in the argument, and then second, to seek to determine whether the political biases have influenced the interpretation of and the selection of the evidence.

It must be acknowledged that values determine the way knowledge is constructed and generated in the first place and in the ways that it is interpreted and used. This explicitly recognises that knowledge and knowing can never be value free. However, the way to move through the problem of values is not to try to produce value neutral science but to aim to make values explicit, to the reader, the author and the user.

Recognition must be made that although knowledge and knowing are socially constructed, it is still possible to develop knowledgeable understandings of physical and social phenomena and that the search for better understanding is a worthwhile and important goal of science.

Because knowledge is socially constructed bias will be an inherent part of any knowledge based activity. The overarching goal in reaching understanding of phenomenon is the reduction of and the demonstration the reduction of bias. In whatever field of knowledge we are working our aim should be to uncover bias and manage it. This is equally true in detecting possible sources of bias in trial data or meta analysis as it will be in interpreting the results of qualitative investigations or the evaluations of policy programmes. That knowledge is a social construct is not denied, but that knowledge is the most valuable tool for tackling health inequalities and understanding their social determinants is axiomatic. Knowledge is better than prejudice and is critical to making progress. It is imperative to expose political and ideological biases in the selection of and interpretation of evidence.

3. Into action

3.1 Translating evidence for policy and practice

It must be recognised that in public health and related interventions context, culture and human behaviour and social differences in the population play a greater mediating role than in clinical interventions and that therefore different forms of data and evidence will be called into play, external validity will be inherently problematic and the time from intervention to outcome will generally be long term (Briss 2005). Evidence is an essential *but not sufficient* basis for policy action. Several other ingredients besides evidence are involved in the policy-making process, including political will, transferability of evidence into appropriate social strategies, and scalability into different contexts and settings. The policy-making process is often poorly understood by researchers (Petticrew et al 2004; Whitehead et al 2004; Lomas et al 2005).

It may be argued that focusing on the evidence base and the individualised interventions which typically populate it has the effect of ignoring the more important macro level determinants of health and the degrees to which inequity is tolerated and sustained through policies at national and local levels. Inequalities in health reflect wider inequalities (and therefore decision-making across a wide policy spectrum). At a micro level, too, reliance on the evidence base works against a recognition or assessment of the effects of synergy and also underestimates context-specific aspects. In order to obviate these problems there are a number of further questions which need to be asked of the evidence (Kelly et al 2004).

An explicit attempt should be made to assess the *transferability* of interventions from one setting to another. For example, are the interventions feasible, culturally acceptable and appropriate, and possible to scale-up in developing countries? What are the financing, budgetary and institutional implications of national interventions and of scaling up local interventions? What factors or processes affect change in countries and systems? Under what conditions are policy/programme changes associated with improvements in population-level health and greater equity in health? Such factors and their relative contribution to change should be analyzed.

The MEKN will work towards proposing approaches for using the evidence on integrating the SDH and health equity goals into national and global policy and planning. One particular approach that may be helpful in articulating the processes involved in effective approaches is 'Programme Evaluation' put forward at the expert meeting on measurement held in March 2005. Programme evaluation (PE) in this respect is defined as a systematic set of practices to improve and account for public health actions, and to forecast a range of "plausible futures" stemming from policies. Evaluation is a driving force for *planning* effective public health strategies, improving existing programmes and demonstrating the results of resource investments (Milstein & Wetterhall 1999). The foundation of PE consists of a well-described sequences of steps (engaging stakeholders, describing the programme – including the use of logic models, focusing the evaluation design, gathering credible evidence, justifying the conclusions, and ensuring the use and sharing of lessons learned) that has been set forth by the CDC's Programme Evaluation Framework (Milstein & Wetterhall 1999), the Community Toolbox (http://ctb.lsi.ukans.edu/ctb/c30/ProgEval.html) and elsewhere. Beyond formal evaluation systems, PE also encompasses a wider spectrum of methods and approaches (such as system dynamics simulation models) to observe and interpret programmes, and to stimulate further observations.

Within its sequences of steps, PE *subsumes* virtually all of the methods and tools considered during the meeting and described above. Thus, planning for action within a PE framework incorporates systematic reviews of previous research, Health Impact

Assessment, as well as additional steps such as power mapping and eliciting public opinion. The real utility of PE may lie at the country engine level.

4.Proposed programme of work for MEKN and key deliverables

This paper has set out a range of issues which are key to advancing our understanding of the social determinants of health. It has puts forward a set of principles which will guide the approach taken by all the thematic knowledge networks in their task to organise and synthesis evidence and knowledge that promotes a social determinants approach to health development.

In particular, these principles emphasise the need to focus on knowledge that:

- Supports reductions in ***health gradients*** to ensure that standards of health achieved by the best off can be attained by the whole population.
- Demonstrates the added value of using ***diverse methods*** to build certainty about the right approach to be taken to address the social determinants of health (e.g. Whitehead's 'evidence jigsaw').
- Attempts to incorporate a multi-faceted ***causation model*** of health and health inequalities.
- Takes account of all the ***dimensions of social difference*** including ethnicity, gender, sexuality, age, area, community and religion to ensure that recommendations for action are sensitive to a range of contexts.
- Incorporates a historical perspective to finding out what works best to address the social determinants of health and recognises the ***dynamic nature of the social systems*** that influence people's lives.

These principles will also be used to frame the forthcoming activities of the MEKN. The activities will also be guided by the ongoing work being carried out by the WHO secretariat to developing the overarching conceptual framework for the Commission's work.

The National Institute for Health and Clinical Excellence and the Universidad del Desarrollo will collaborate with a small group of experts in the field of measurement and evidence specifically to fulfil the aims and objectives of the MEKN particularly focusing on:

1. *Definitions of Evidence*: What constitutes evidence when measuring the effects of policy and interventions aimed at tackling social determinants and health inequalities? In the absence of a control group, what constitutes evidence? What are the standards for levels of evidence for both quantitative and qualitative techniques used to illustrate the relationship between a social determinants approach and improved health outcomes and greater health equity? The following key areas will form the basis of the approach to the evidence – causes of inequalities, dimensions of variation in population, the relationship between individual behaviour and social systems and a typology of evidence and methods.
2. *Measurement - Selection of indicators*: What types of indicators accurately reflect the effect of a social determinants approach on health and health systems? (Referring to health systems conceptualized as complex social systems with flexible boundaries that shift with the emergence of new social realities). Should indicators be predominantly outcome or process oriented? In the case of the former: should they reflect a change in absolute numbers, relative numbers, or a change in trends?
3. *Measurement - Evaluation methodologies*: What types of instruments exist or need to be developed to measure the impact of a social determinants approach to improving health, as it is mediated through the health system?
4. *International perspectives on links between social determinants and health:* Analyse evidence on the robustness of the associations between SDH and health/ health equity across different country contexts.
5. *Action on the social determinants: upstream interventions:* Collate and summarise evidence and suggest national and global policies, programs and institutional arrangements that modify the association between SDH and health equity and enhance opportunities for greater health equity, taking into consideration women's as well as men's concerns and experiences.
6. *Action on the social determinants: mainstreaming downstream interventions*: Document and assess the processes and mechanisms required to mainstream and scale-up successful examples of incorporating social determinants (SD) into health programs and policies.
7. *Developing Frameworks for Action:* Propose approaches for using the evidence on integrating the SDH and health equity goals into national and global policy and planning.

8. *Using effective dissemination strategies*: Identify and engage institutions and actors to contribute to the production, dissemination and use of knowledge for the proposed policies and programs across different regions.

9. *Working in partnership with the Commission:* Engage with the Commission components (country work, civil society organizations and global initiatives, themed knowledge Hubs, WHO technical liaison) to exchange knowledge and learning. In particular to provide technical support to the themed KN's through the shared workspace by providing regular current awareness bulletins on the measurement, evaluation and synthesis of evidence relating to the social determinants of health (e.g. advice on identifying literature, quality and quantity of evidence required for evaluation approaches, methods and tools for assessing the strength of the evidence and evidence-based prioritization of recommendations).

As a result of these activities the MEKN will:

- Establish a global network of researchers, policy makers and agencies on the theme of measurement and that connect the developing and developed worlds.
- Organise and host two MEKN meetings.
- Develop a series of position papers relating to issues arising out of this scoping paper to improve knowledge and action on issues of definition, measurement, synthesis, evaluation and implementation of actions to address the social determinants of health.
- Moderate online discussions through SharePoint about key measurement and evidence issues to assist other Knowledge Networks and Commission streams of work.

Other activities and products may arise out of the first meeting of the Knowledge Network which will take place on the 7th and 8th of April 2006 in Santiago, Chile.

References

Anthias, F. (1990). Race and class revisited- conceptualising race and racisms. *Sociological Review* 38:19-42.

Anthias, F. (1992). Connecting race and ethnic phenomena. *Sociology* 26: 421-38.

Antonovsky, A. (1967). Social class, life expectancy and overall mortality. *Millbank Memorial Fund Quarterly* 45: 31-73.

Antonovsky, A. (1985). *Health Stress and Coping.* San Francisco: Jossey Bass.

Antonovsky, A. (1987). *Unravelling the Mystery of Health: How People Manage Stress and Stay Well.* San Francisco: Jossey Bass.

Arai, L., Roberts, H., Roen, K., Popay, J. (2005). It might work in Oklahoma but will it work in Oakhampton? What does the effectiveness literature on domestic smoke detectors tell us about context and implementation? *Injury Prevention 11 148-151.*

Bartley, M., Sacher, A., Firth, D., Fitzpatrick, R. (2000). Dimensions of inequality and the health of women, in Graham, H. (ed) *Understanding Health Inequalities.* Buckingham: Open University Press.

Benzeval, M., Dilnot, A., Judge, K., Taylor, J. (2000). Income and health over the lifecourse: evidence and policy implications, in Graham, H. (ed) *Understanding Health Inequalities.* Buckingham: Open University Press.

Berwick, D.M. (2005). Broadening the view of evidence based medicine. *Qual Saf Health Care* 14: 315-16.

Braveman, P. (1998). *Monitoring Equity in Health: A Policy Oriented Approach in Low- and Middle Income Countries.* Geneva: World Health Organization Department of Health Systems (WHO/ CHS/ HSS/ 98.1).

Braveman, P. (2003). Monitoring equity in health and health care: A conceptual framework. *Journal of Health Population Nutrition* 21(3): 181-92.

Braveman, P., Tarimo, E., Creese, A. et al (1996). *Equity in Health and Health Care: A WHO Initiative.* Geneva: World Health Organization, October 1996 WHO/ ARA 96.1.

Briss, P. (2005). Evidence-based: US road and public health side of the street. *Lancet* 365: 828-830.

Chalmers, I. (1998). Unbiased, relevant and reliable assessments in health care. *British Medical Journal* 317: 1167-68.

Chalmers, I. (2004). Well informed uncertainties about the effects of treatments: How should patients and physicians respond? *British Medical Journal* 328: 475-76.

Cochrane, A.L. (1972). *Effectiveness and Efficiency: Random Reflections on Health Services.* London: British Medical Journal/Nuffield Provincial Hospitals Trust.

Cohen, A.K. (1951). *Juvenile Delinquency and the Social Structure*, PhD Thesis, University of Harvard.

Danto, A.C. (1968). *Analytic Philosophy of History.* Cambridge: Cambridge University Press.

Davey-Smith, G., Chaulsley, K., Lambert, H., Paul, S., Fealon, S., Ahmad, W. (2000). *Ethnicity, health and the meaning of socio economic position*, in Graham, H. (ed) *Understanding Health Inequalities.* Buckingham: Open University Press.

Davidson, C. (1967). Causal relations. *Journal of Philosophy* 64: 691-703.

Dixon-Woods, M., Agarwal, S., Young, B., Jones, D. and Sutton, A. (2004). *Integrative Approaches to Qualitative and Quantitative Evidence.* London: Health Development Agency.

Doll, R. (1998). Controlled trials: the 1948 watershed. *British Medical Journal* 317: 1217.

Glasziou, P., Vandenbroucke, J., Chalmers, I. (2004). Assessing the quality of research. *British Medical Journal* 328: 39-41.

Gomm, R. & Davies, C. (eds) (2000). *Using Evidence in Health and Social Care.* London: Open University Press.

Gomm, R., Needham, G., Bullman, A. (eds) (2000). *Evaluating Research in Health and Social Care.* London: Sage.

Graham, H. (ed) (2000). *Understanding Health Inequalities.* Buckingham: Open University Press.

Graham, H. (2004a). Social determinants and their unequal distribution: clarifying policy understandings. *Milbank Quarterly* 82: 101-24.

Graham, H. (2004b). Tackling health inequalities in England: remedying health disadvantages, narrowing gaps or reducing health gradients. *Journal of Social Policy* 33:115-131.

Graham, H. (2005). Intellectual disabilities and socioeconomic inequalities in health: an overview of research patterns, determinants and challenges. *Journal of Applied Research in Intellectual Disabilities 18 101-111.*

Graham, H. & Kelly, M.P. (2004). *Health Inequalities: Concepts, Frameworks and Policy.* London: Health Development Agency.

Graham, H., & Power, C. (2004). *Childhood Disadvantage and Adult Health.* London: Health Development Agency.

Greenhalgh, T (2001). *How to Read a Paper: The Basics of Evidence Based Medicine.* London: BMJ Books.

Griffiths, F., Green, E., Tsouroufli, M. (2005). The nature of medical evidence and its inherent uncertainty for the clinical consultation: qualitative study. *British Medical Journal* 330:511.

Harbour, R. & Miller, J. (2001). A new system for grading recommendations in evidence based guidelines. *British Medical Journal* 323:334-6.

Heller, R. (2005). *Evidence for Population Health.* Oxford: Oxford University Press.

Hempel, C.G. (1965). Aspects of scientific explanation, in Hempel, C.G., *Aspects of Scientific Explanation and other Essays in the Philosophy of Science.* New York: Free Press.

Jackson, N. & Waters, E. (2005a). For the Guidelines for Systematic Reviews in Health promotion and Public Health Task Force, Criteria for the systematic review of health promotion and public health interventions. *Health Promotion International* 20: 367- 74.

Jackson, N., Waters, E. (eds) (2005b). Systematic Reviews of Health Promotion and Public Health Interventions. The Cochrane Collaboration. The Cochrane Public Health Field. www.vichealth.vic.gov.au/cochrane.

Kelly, M.P., Speller, V., Meyrick, J. (2004). *Getting Evidence into Practice in Public Health.* London: Health Development Agency.

Kelly, M.P., Charlton, B.G., Hanlon, P. (1993). The four levels of health promotion: An integrated approach. *Public Health* 107: 319-326.

Kelly, M.P. (2004). Foreword in Dixon-Woods, M., Agarwal, S., Young, B., Jones, D. Sutton, A. Integrative Approaches to Qualitative and Quantitative Evidence. London: Health Development Agency.

Killoran, A. & Kelly, M.P. (2004). Towards an evidence-based approach to tackling health inequalities: the English experience. *Health Education Journal* 63: 7-14.

Kuh, D., Ben-Shlomo, Y., Lynch, J., Hallqvist, power, C. (2003) Life course epidemiology. *Journal of Epidemiology and Community Health* 57: 778-83.

Leon, D., Walt, G., Gilson, L. (2001). International perspectives on health inequalities and policy. *British Medical Journal* 322: 591-94.

Lomas, J., Culyer, T., McCutcheon, C., McCauley, L., Law, S. (2005). *Conceptualizing and Combining Evidence for Health System Guidance.* Ottawa: Canadian health Services Research Foundation.

Macintyre, A. (1984) *After Virtue*, Notre Dame: University of Notre Dame Press.

Marmot, M. & Wilkinson, R. (eds) (1999). *Social Determinants of Health.* Oxford: Oxford University Press.

Milstein, R.L. & Wetterhall S.F. (1999). Framework for programme evaluation in public health. MMWR 48:No. RR-11.

Millward, L., Kelly, M.P., Nutbeam, D. (2003). *Public Health Interventions Research: The Evidence.* London: Health Development Agency.

NHMRC (National Health and Medical Research Council) (1999). *A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines.* Canberra: National Health and Medical Research Council.

Petticrew, M., Whitehead, M., Macintyre, S.J., Graham, H., Egan, M. (2004). Evidence for public health policy on inequalities: 1: The reality according to policymakers. *Journal of Epidemiology and Public Health* 58:811-16.

Plato (1974). *The Republic*, translation and introduction D. Lee. Hamondsworth: Penguin. (Second Ed).

Popay, J., Rogers, A. and Williams, G. (1998). Rationale and standards for the systematic review of qualitative literature in health services research. *Qualitative Health Research* 8:341-51.

Popay, J. (2005). Qualitative research and the epidemiological imagination – a vital relationship. Unpublished manuscript circulated at meeting. Chile Measurement Consultation meeting Commission on Social Determinants of Health, Santiago, Chile.

Popay, J. and Roen, K. (2003). Using Evidence from Diverse Research Designs: A Preliminary Review of Methodological Work. SCIE Report No. 3, November 2003. ISBN 1-90481-2-05-8. UK: Social Care Institute for Excellence.

Rawlins, M. (2005). 5 NICE years. *Lancet* 365: 904-8.

Ritsatakis, A. (2000). Experience in Setting Targets for Health in Europe. *European Journal of Public Health* 10:4 (supplement): 7-10.

Roen, K., Arai, L., Popay, J. and Roberts H. (2005). Preventing children's injuries: Exploring methodological issues in the systematic review of qualitative evidence. *Social Science and Medicine* (in press).

Schutz, A. (1964). *Collected Papers: II Studies in Social Theory*. The Hague: Martinus Nijhoff.

Schutz, A. (1967). *The Phenomenology of the Social World*, trans G. Walsh & F. Lehnert. Evanston Ill: North Western University Press.

Schutz, A. (1970). *On Phenomenology and Social relations: Selected Writings*. Chicago: Chicago University Press.

Shaw, M., Dorling, D., Gordon, D. and Davey Smith, G. (1999). *The Widening Gap: Health Inequities and Policy in Britain*. Bristol: Policy Press.

Solar, O. and Irwin, A. (2005). Towards a conceptual framework for analysis and action on the social determinants of health. Discussion paper for the Commission on the Social Determinants of Health. Internal Paper

Smith, J.P. (2004). The Impact of SES on Health over the Lifecourse. Unpublished.

United Nations (2000). United Nations, The General Assembly, United Nations Millennium Declaration, A/RES/55/2.

Victora, C.G., Vaughan, J.P., Barros, F.C., Silva, A.C. and Tomasi, E. (2000). Explaining trends in inequalities: evidence from Brazilian child health studies. *Lancet* 356 1093-1098.

Weber, M. (1948). Science as a vocation, in Gerth, H.H. & Mills, C.W., *From Max Weber: Essays in Sociology*. London: Routledge & Kegan Paul.

Whitehead, M. (1992). Perspectives in health inequity. *International Journal of Health Services* 22: 429-45.

Whitehead, M., Diederichsen, F., Burston, B. (2000). Researching the impact of public health policies on inequalities in health, in Graham, H. (ed) *Understanding Health Inequalities*. Buckingham: Open University Press.

Whitehead, M., Petticrew, M., Graham, H., Macintyre, S., Bambra, C. and Egan, M. (2004). Evidence for public health policy on inequalities: 2: Assembling the evidence jigsaw. *Journal of epidemiology and Community Health*. 58:817-21.

WHO (1948).*Constitution of the World Health Organisation*. London: WHO.

WHO (1981). *Global Strategy for Health for All by the Year 2000*. Geneva: World Health Organization.

WHO (1985). *Targets for Health for All*. Copenhagen: World Health Organization Regional Office for Europe.

WHO (1998a). *Health 21 - Health for All in the 21st Century*. Copenhagen: World Health Organization Regional Office for Europe.

WHO (1998b). Health Promotion Evaluation: recommendations to policy makers. Report of the WHO European Working Group on Health Promotion Evaluation. Copenhagen: WHO.

WHO (2004). *Priorities to Take Forward the Health Equity Agenda: Report from the Task Force on Health System Research Priorities for Equity in Health.* Copenhagen: WHO.

COMMISSION ON
SOCIAL DETERMINANTS OF
HEALTH

Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health

Discussion paper for the Commission on Social Determinants of Health
DRAFT
5 May 2005

This draft paper was prepared for the second meeting of the Commission on Social Determinants of Health by the Commission secretariat, based in the WHO Health Equity Team, Office of the Assistant Director-General, Evidence and Information for Policy Cluster, WHO Geneva. The principal writers were Orielle Solar and Alec Irwin. Valuable input was provided by the other members of the Commission secretariat, in particular Jeanette Vega. Any errors are solely the responsibility of the principal writers.

TABLE OF CONTENTS

1. Introduction

The Commission on Social Determinants of Health (CSDH) has affirmed its desire to be judged not only on the scientific rigor of its analyses, but on the policy and institutional changes catalysed in countries through Commission advocacy and partnership. To set feasible objectives for its political work and send consistent messages to partners and the public, the CSDH requires clarity on basic conceptual issues. These include:

- The concept of social determinants of health (SDH)
- The values that ground the Commission's analysis and policy recommendations
- The pathways by which SDH affect health status and outcomes
- How SDH relate to health inequities
- The most important SDH for the Commission to address, and why
- Appropriate intervention levels and entry points for policy action on SDH
- The ultimate goal of SDH policies (improving average health status or reducing health inequities)

This paper outlines a conceptual framework we hope can serve as a basis for discussion and clarification of these issues within the CSDH. The paper in its current form is an *early draft*, which aims to open debate rather than furnish definitive answers. It summarizes the results of an initial phase of research and analysis by the CSDH secretariat. The paper will pass through subsequent iterations to incorporate input from Commissioners and yield a final document succinctly laying out the conceptual foundations of the Commission's work.

The paper begins by recalling the CSDH definition of social determinants and some methodological implications. It then takes up the question of values. We propose the concept of health equity as a cornerstone for the Commission's normative framework. Applying equity criteria, we consider the implications of policy approaches focused respectively on: (1) tackling health disadvantages in targeted population groups; (2) reducing health gaps; and (3) addressing the health gradient across the full spectrum of socioeconomic positions. The next section of the paper reviews several models that have sought to explain relationships among SDH and their causal role in generating health inequities. Drawing lessons from these approaches, we propose a comprehensive SDH framework that situates the major determinants and clarifies levels for policy action. Using this model, we then show how and why a set of key thematic foci for the Commission's work have been proposed. Finally, we review several evaluative frameworks the CSDH could use in developing policy recommendations and suggest some principles to ground those policy choices.

2. Social determinants: definitions; difference from individual risk factors

The social determinants of health (SDH) can be understood as the social conditions in which people live and work, or in Tarlov's phrase "the social characteristics within which living takes place".[1] SDH point to both specific features of the social context that affect health and to the pathways by which social conditions translate into health impacts. The SDH that merit attention are those that can potentially be altered by informed action[2].

The concept of SDH originated in a series of influential critiques published in the 1970s and early 1980s, which highlighted the limitations of health interventions oriented to the disease risks of individuals. Critics argued that understanding and enhancing health required a population focus, with research and policy action directed at the societies to which individuals belonged [3]. A case was made for "refocusing upstream" from individual risk factors to the social patterns and structures that shape people's chances to be healthy. Integral to these critiques is the argument that medical care is not the main driver of people's health. Instead, the concept of social determinants is directed to the "factors which help people stay healthy, rather than the service that help people when they are ill". [4]

In some contexts, health determinants have continued to be conceptualized primarily as characteristics of the individual, such as a person's social support network, income or employment status. Population are not merely collections of individuals, however; the causes of ill health are clustered in systematic patterns, and in addition effects on one individual may depend on the exposure and outcomes experienced by other individuals.[5] This flows from the fact that the determinants of individual differences regarding some characteristic within a population may be different from the determinants of differences between populations.[6] In this light, it is useful distinguish two kinds of etiological questions: the first seeks the causes of cases, the second the causes of incidence. When we talk about social determinants, we wish to understand how the causes of individual cases relate to the causes of population incidence[7]. Why do we observe a graded relationship between social position and health status that affects people at all levels of the social hierarchy? How is this gradient shifting over time? Are the factors determining health changing for the better? Is it the same for everyone? Where and for whom are they changing for the worse?[8]

3. Defining core values: SDH and health equity

A reflection on values will necessarily be part of Commissioners' shaping of a conceptual framework. We propose the concept of health equity as a foundation for this reflection. Health equity can be defined as the absence of unfair and avoidable or remediable differences in health among populations or groups defined socially, economically, demographically or geographically.[9] Health inequity involves more than mere inequality, since some health inequalities (e.g., the gap in average life expectancy between women and men) cannot reasonably be described as unfair, and some are neither preventable nor remediable. Inequity implies a failure to avoid or overcome inequalities in health that infringes human rights norms or is otherwise unfair. Health inequities have their roots in social stratification.[10] Health inequity thus defined is a moral category deeply embedded in political reality and the negotiation of social power relations.

The social determinants of health are not necessarily the same as the social determinants of health inequities.[11] Among the many social factors and processes that influence health, some but not all will be found to be significant contributors to health gaps among different social groups. It would be possible to promote SDH policies that might improve average health indicators in a country without altering the extent of health disparities between privileged and disadvantaged groups. A key question for the CSDH then becomes the following: is improving average health indicators a sufficient objective for the policies the Commission will recommend, or should probable positive effects on health equity be a central criterion for the CSDH in selecting policy options?

We argue that the Commission should concentrate its attention on SDH that are major causes of ***health inequities***, and that the policies recommended by the Commission should be policies that can be expected to have a substantial positive health equity impact. However, neither the philosophical value of the concept of health equity nor the desirability of a pro-equity approach to health policymaking can simply be assumed. It is necessary both to justify health equity conceptually and to "give arguments for the government's responsibility to reduce socioeconomic health differences".[12] [13] A number of valuable philosophical accounts of health equity and arguments for the political application of the concept have been put forward recently. Many of these contributions emanate from Amartya Sen or adopt his categories. It will be useful to recall the broad outlines of several of these arguments, giving particular attention to those that emphasize the political translation of health equity.

Stronks and Gunning-Schepers (1993) have drawn on the work of Sen, Berlin and others to construct an argument for government action on health inequities rooted in a theory of social justice. They argue that a just society is characterized by providing equally to all its members a high degree of freedom, specifically the "positive freedom" to choose from among a range of desirable options the life plan that most fully agrees with the particular individual's conception of the good life. A just government does not promote one particular conception of the good life. It leaves the choice of life plans open to individuals. However, a just government *is* obligated to provide the enabling conditions that make it possible for each individual to freely choose her life-plan. "The capability to be as healthy as possible is such a condition," since the presence or absence of this basic capability "determines the life plans from which an individual can choose". To the extent that social conditions can be shown to constrain the health capability of some people within a society, creating inequalities in people's opportunity to exercise positive freedom, a government is under obligation to take action on these social determinants in order to guarantee equality in the chances for health.

Importantly, the factor to be equalized is not health status but *health opportunity,* since individuals may employ their positive freedom to choose a way of life that compromises health in the pursuit of other goods. This underscores that health inequalities per se are not inherently problematic, since such "inequalities that are the result of free choices made by an individual are acceptable". The principle of justice applied here "does not require everyone to have the same level of health, but it demands such a distribution of determinants of health, to the extent they can be controlled, that every individual has the same possibilities to lead a long and healthy life".[14]

In recent work, Anand (2004) has further clarified the grounds for regarding health equity, and not just average levels of health achievement, as a public policy concern. In convergence with Sen, Anand stresses that health is a "special good" whose fair distribution merits the particular concern of political authorities. There are two principal reasons for regarding health as a special good: (1) health is directly constitutive of a person's well-being; and (2) health enables a person to function as an agent.[15] Inequalities in health are thus recognized as "inequalities in people's capability to function". When such inequalities arise as a consequence of individuals' different social positions, a grave breach of the political principle of equality of opportunity has occurred. Assuring the fair distribution of health among members of the society should thus be regarded as a primary responsibility of just governance.

Ruger (2005) has developed similar arguments, linking Sen's capability approach with Aristotle's political philosophy. "While recognizing the interrelatedness of health and other valuable social ends, such as education," Ruger "emphasizes the importance of health for individual agency—the ability to live a life one values". Health is seen as sustaining all other aspects of human flourishing or capability. Thus, promoting an equitable distribution of real opportunities for health emerges as a fundamental task of public policy. "Public policy should focus on individuals' capability to function, and health policy should aim to maintain and improve this capability by meeting health needs".[16]

A values framework based on health equity provides strong support for an SDH agenda.[17,18] Meanwhile, policy action on social determinants can also be justified using a variety of other normative approaches, in particular human rights. The 2000 General Comment on the right to health by the UN Committee on Economic, Social and Cultural Rights characterized the right to health is an "inclusive right" extending "not only to timely and appropriate health care but also to the underlying determinants of health".[19] Authoritative interpretations of international human rights accords thus acknowledge the responsibility for governments to act on SDH and may facilitate the translation of this responsibility into policy. Further reflection will be required to clarify complementarities and possible tensions between equity and human rights approaches to SDH, in light of recent analyses of the plurality of moral frameworks used to legitimate health actions.[20,21]

To summarize, the concept of health equity provides a robust ethical foundation for the work of the CSDH. A close relationship exists between health equity and social determinants, both conceptually and in political terms. Substantial progress cannot be made on health equity without action on the social determinants of health. On the other hand, at a time when health inequalities between and within countries are the focus of increasing concern[22], the potential contributions of SDH measures to health equity constitute an important scientific, ethical and political argument for action on SDH.

The preceding discussion represents only a first step in defining a values framework for the CSDH. It is proposed that a working group of Commissioners with special interest in this area take forward, with support from the secretariat, the project of developing this analysis. The results will be submitted to the full Commission for review and input. The discussion above points to several issues for this deeper exploration. These include the following questions, roughly ranked from broader to more circumscribed:

- A rigorous analysis of social determinants may lead to the conclusion that significantly reducing health gradients would require profound structural changes in many contemporary societies, e.g., in the functioning of markets and the redistributive role of the state. Is the CSDH prepared to "own" such ideas, and what forms of political philosophy will guide its deliberations and recommendations in this respect? Much recent discussion of health equity has been subtended by models of social justice derived from liberal thinkers, in particular John Rawls, for whom liberal market democracy remains the paradigm of appropriate social organization among "well-ordered peoples". Rawls' ideas (and liberal democracy itself, where it may exist) clearly still have much to offer. Yet an analysis of contemporary societies in terms of health equity should be prepared to test and challenge the liberal democratic paradigm itself -- both at the level of Rawls' idealized abstractions and, more importantly, at the level of "really existing market democracies".

- A number of important and insufficiently clarified issues cluster around the notions of individual freedom, personal agency and choice. An equity-based SDH model appears to stand in a complex relationship to prevalent ideas of freedom and responsibility. On the one hand, an equity approach seeks to equalize *opportunities*, not outcomes, and maintains that health differences arising through individual free choice are acceptable; on the other, an analysis of structural determinants implies that certain forms of "free choice" (e.g., low-paid workers' "choice" to smoke more heavily than members of higher socioeconomic groups) are in fact shaped by social forces largely beyond the individual's control. A robust analysis of equity and SDH will need to develop a clear account of the scope and limits of personal freedom, as constructed and/or negated in different social contexts and through diverse forms of social constraint and conditioning. Of use in developing such an analysis will be Paul Farmer's notion of "structural violence",[23,24] as well as accounts of the distortion of personal agency through systemic social oppression proposed by social scientists like Philippe Bourgois.[25] In reflecting on SDH, equity and individual agency, it should not be neglected that, in societies where health is regarded primarily as a private matter, the motif of "personal responsibility" has been deployed politically precisely to absolve government of responsibility for addressing health inequities and responding more actively to the health needs of poor and excluded groups.

  This topic and the preceding point could perhaps best be summarized by stressing that a credible health equity framework must equip itself with a robust *theory of power*. This is in keeping with the observation that health inequities derive most fundamentally from the differential allocation of power and wealth to social positions.[26] Sen's work on capabilities, rationality and freedom will again open valuable lines of enquiry in this respect, especially if crossed with a concrete analysis of the mechanisms and practices of manipulation, exclusion, disinformation and disempowerment deployed in contemporary societies, both authoritarian and nominally democratic. Philosophy should do more than simply describe an ideal of human freedom (or equitably distributed human health). It must also show how we might begin to advance towards that ideal in concrete political terms.

- Human rights analysis emphasizes not only substantive rights, but also people's right to informed participation in the decision-making processes that affect their lives and the exercise of their liberties. Sen's work on the *process aspect* of freedom explores related concerns.[27] It will be important to clarify to what extent the concept of health equity implies a process aspect and how the relevant procedures might be specified.

Will health equity, in its concrete social and political operationalization, stipulate the participation of communities and other stakeholders in decision-making relative to health and health equity agendas (including action on SDH)? How might such participation be structured? What would be its precise objectives? At what level(s) would it take place, and who would be included? Ranaan Gillon has suggested what might be at stake in such choices by asking, in the framework of a discussion of value judgments about health equity, if it would not be appropriate for the taxpayers whose contributions fund national health programmes to be invited to vote on the broad composition of health sector budgets (e.g., proportion of spending devoted to prevention vs. curative care, special benefits for vulnerable groups, etc.).[28] Such a debate is of course just one entry point to a broader discussion about the modes of participation and community ownership required for a robust operationalization of health equity.

- More work is clearly needed on the translation of philosophical principles of health equity into the practice of planning and resource allocation at the various levels of government. A broad commitment to equity does not pre-determine priority among the different moral criteria that may legitimately be used at national and local levels in allocating scarce health resources. These criteria include, for example, allocation based on: need; maximization of individual benefit; and maximization of benefit at the population level. These criteria are all "morally respectable" but can, and in many cases will, lead to conflicting judgments on how resources available to promote health and social welfare should be invested (Gillon). It will be important to continue work currently underway to see if a health equity model of the type presented above can shed light on these operational issues, which are clearly of relevance to planners and programme implementers in countries: constituencies among whom the CSDH needs to be taken seriously.

4. Pursuing equity through health policy: health disadvantage, gaps and gradients

Today, health equity is increasingly embraced as a policy goal by international health agencies and national policymakers.[29] As Hilary Graham has shown, however, political leaders' commitment to "tackle health inequities " can be interpreted in different ways and authorize a variety of distinct policy strategies.

Three broad policy approaches to reducing health inequities can be identified: (1) improving the health of disadvantaged population groups through targeted programmes; (2) closing the health gaps between those in the poorest social circumstances and better off groups; (3) addressing the entire health gradient, that is, the association between socioeconomic position and health across the whole population.

To be successful, all three of these options would require action on SDH. All three constitute potentially effective ways to alleviate the unfair burden of illness borne by the socially disadvantaged. Yet the approaches differ significantly in their underlying values and implications for programming. Each offers specific advantages and raises distinctive problems.

Programmes to improve health among disadvantaged populations have the advantage of targeting a clearly defined, fairly small segment of the population and of allowing for relative ease in monitoring and assessing results. Targeted programmes to tackle health disadvantage may align well with other targeted interventions in a governmental anti-poverty agenda, for example social welfare programmes focused on particular disadvantaged neighborhoods. On the other hand, such an approach may be weakened politically precisely by the fact that it is not a population-wide strategy but instead benefits sub-groups that make up only a relatively small percentage of the population. Furthermore, this approach does not commit itself to bringing levels of health in the poorest groups closer to national averages. Even if a targeted programme is successful in generating absolute health gains among the disadvantaged, stronger progress among better-off groups may mean that health inequalities widen.

An approach targeting health gaps directly confronts the problem of relative outcomes. The UK's current health inequality targets on infant mortality and life expectancy are examples of such a gaps-focused approach. However, this model, too, brings problems. For one thing, its objectives will be technically more challenging than those associated with strategies conceived only to improve health status among the disadvantaged. "Movement towards the [gap reduction] targets requires both absolute improvements in the levels of health in lower socioeconomic groups, and a rate of improvement which outstrips that in higher socioeconomic groups". Meanwhile, Graham argues that gaps-oriented approaches share some of the underlying moral ambiguities of the focus on health disadvantage. Health-gaps models continue to direct efforts to minority groups within the population (they are concerned with the worst-off, measured against the best-off). By adopting this stance, "a health-gaps approach can underestimate the pervasive effect which socioeconomic inequality has on health, not only at the bottom but also across the socioeconomic hierarchy". By focusing too narrowly on the worst-off, gaps models can obscure what is happening to intermediate groups, including "next to the worst-off" groups that may also be facing major health difficulties.

Tackling the socioeconomic gradient in health right across the spectrum of social positions constitutes a much more comprehensive model for action on health inequities. With a health-gradient approach, "tackling health inequalities becomes a population-wide goal: like the goal of improving health, it includes everyone". On the other hand, this model must clearly contend with major technical and political challenges. Health gradients have subsisted stubbornly across epidemiological periods and are evident for virtually all major causes of mortality, raising doubts about the feasibility of significantly reducing them, even if political leaders have the will to do so. Public policy action to address gradients may prove complex and costly and, in addition, yield satisfactory results only in a long timeframe. Yet it is clear that an equity-based approach to social determinants, carried through consistently, must lead to a gradients focus.

Importantly, as Graham argues, strategies based on tackling health disadvantage, health gaps and gradients are not mutually exclusive and need not be cast as rivals. The approaches are complementary and can build on each other. "Remedying health disadvantages is integral to narrowing health gaps, and both objectives form part of a comprehensive strategy to reduce health gradients". Thus a sequential pattern emerges, with "each goal add[ing] a further layer to policy impact". Of course the relevance of these approaches and their sequencing will vary with countries' levels of economic development and other contextual factors. A targeted approach may have little relevance in a country where 80% of the population is living in extreme poverty. Here the CSDH can contribute by linking a deepened reflection on the values underpinning an SDH agenda with country-level contextual analysis and a pragmatic mapping of policy options and sequencing.

5. Modeling health determinants and the pathways to inequity

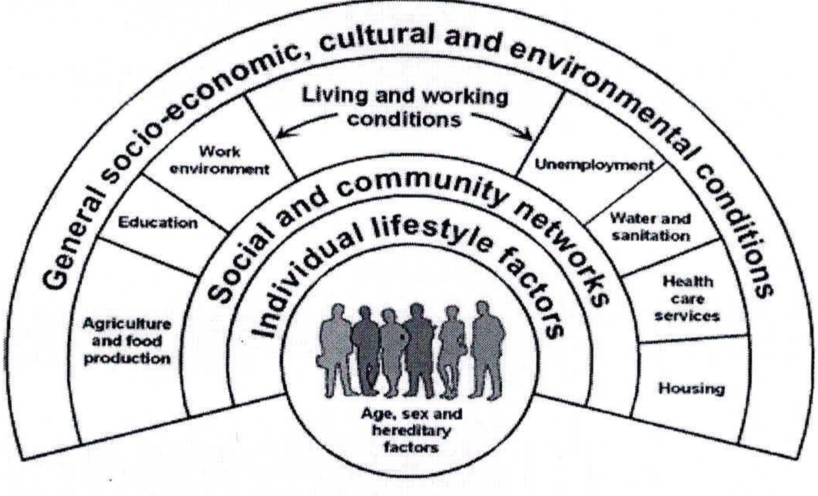
Over the past 15 years, several models have been developed to show the mechanisms by which SDH affect health outcomes, to make explicit the linkages among different types of health determinants; and to locate strategic entry points for policy action. Influential models include those proposed by: Dahlgren and Whitehead (1991); Diderichsen and Hallqvist (1998, subsequently adapted in Diderichsen, Evans and Whitehead 2001); Mackenbach (1994); Marmot and Wilkinson (1999). These models are particularly important in making visible the ways SDH contribute to health inequities among groups in society.

5.1 Dahlgren and Whitehead: layered influences

Dahlgren's and Whitehead's frequently cited model explains how social inequalities in health are the results of interactions between different levels of causal conditions, from the individual to communities to the level of national health policies (see figure on next page).[30] Individuals are at the centre of the picture, endowed with age, sex and genetic factors that undoubtedly influence their final health potential. Moving outward from the centre, the next layer represents personal behaviors and lifestyles. People in disadvantage circumstances tend to exhibit a higher prevalence of behavioral factors such as smoking and poor diet, and will also face greater financial barriers to choosing a healthier lifestyle.

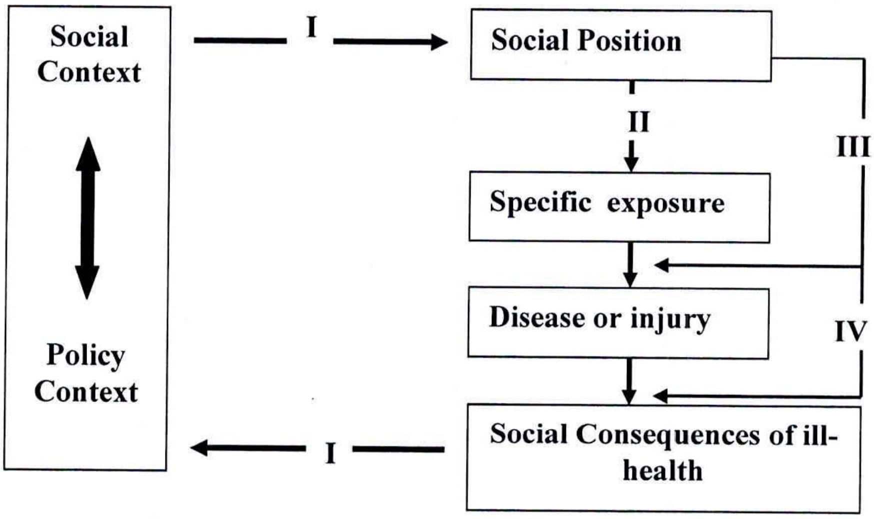
Social and community influences are represented in the next layer. These social interactions and peer pressures influence personal behaviors in the layer below, for better or worse. Indicators of community organization register fewer networks and support systems available to people towards the lower end of the social scale, compounded by the conditions prevalent in area of high deprivation, which have a fewer social services and amenities for community activity and weaker security arrangements. At the next level up, we find factors related to living and working conditions, food supplies and access to essential facilities and services. In this layer, poorer housing conditions, exposure to more dangerous or stressful working conditions and poorer access to services create differential risks for the socially disadvantaged.

Overarching all other levels are the economic, cultural and environmental conditions prevalent in society as a whole. These conditions, such as the country's economic state and labor market conditions, have a bearing on every other layer. The standard of living achieved in a society, for example, can influence an individual's choice of housing, work and social interactions, as well as eating and drinking habits. Similarly, cultural beliefs about the place of women in society or pervasive attitudes to minority ethnic communities can influence their standard of living and socioeconomic position.[31]



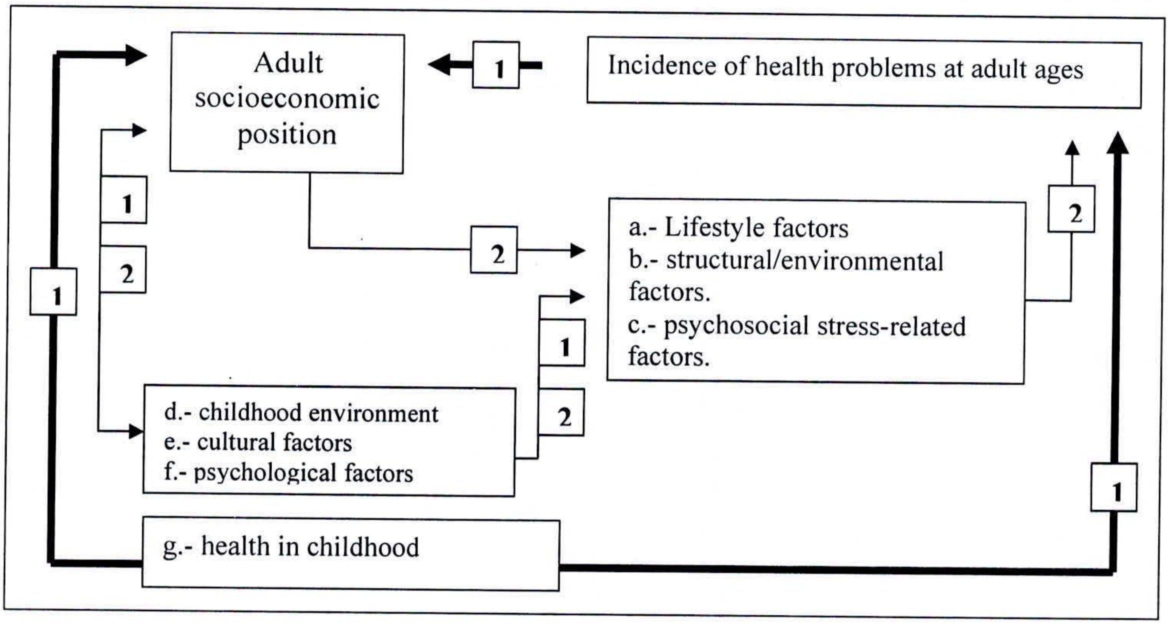
5.2 *Diderichsen et al.: social stratification and disease production*

Diderichsen's and Hallqvist's 1998 model was adapted by Diderichsen, Evans and Whitehead (2001). This model emphasizes how social contexts create social stratification and assign individuals to different social positions. People's social position determines their health opportunities. In the diagram below, the process of assigning individuals to social positions is shown as (I). The mechanisms involved are "those central engines of society that generate and distribute power, wealth and risk", for example the educational system, labour policies, gender norms and political institutions. Social stratification in turn engenders differential exposure to health-damaging conditions (II) and differential vulnerability (III), as well as differential consequences of ill health for more and less advantaged groups, shown as mechanism (IV). "Social consequences" refers to the impact a certain health event may have on an individual's or a family's socioeconomic circumstances. This model includes a discussion of entry points for policy action, an aspect we will take up in a later section.



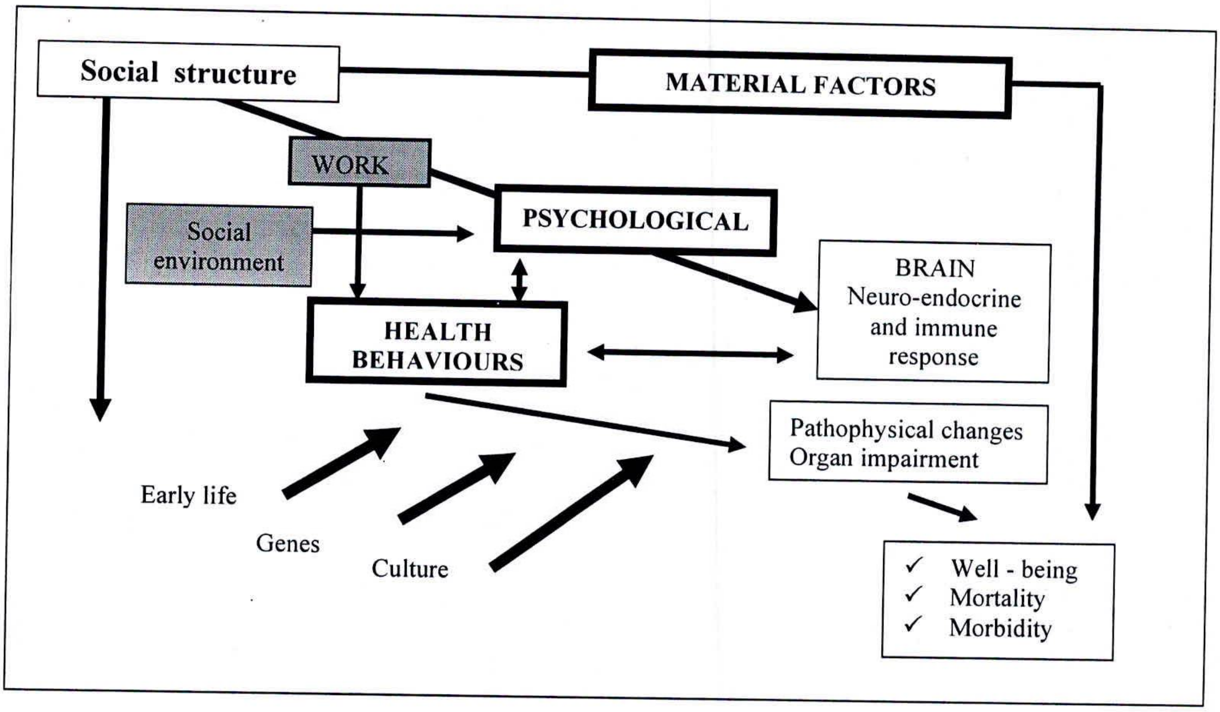
5.3 Mackenbach et al.: selection and causation

Mackenbach's model emphasizes the mechanisms by which inequities in health are generated: selection vs. causation. The number "1" marks the selection processes represented by an effect of health problems at adult ages on adult socioeconomic position, and by an effect of health in childhood on both adult socioeconomic position and health problems at adult ages. The number "2" is the causation mechanism is represented by the three groups of risk factors which are intermediary between socioeconomic position and health problems (Lifestyle factors, structural/environmental factors, psychosocial stress-related factors). Childhood environment, cultural factors and psychological factors are included in the model, which acknowledge their contribution to inequalities in health through both selection and causation.[32]



5.4 Brunner, Marmot and Wilkinson: multiple influences across the life-course

This model was originally developed to connect clinical (curative) and public health (preventive) perspectives on health. It was subsequently applied to the social process underlying health inequalities as a model of the social factors that both cause ill health and contribute to health inequalities. The model is included in the United Kingdom's Acheson report, introduced explicitly to illustrate how socioeconomic inequalities in health result from differential exposure to risk- environmental, psychological and behavioral- across the life course[33,34] This model links social structure to health and disease via material, psychosocial and behavioral pathways. Genetic, early life and culture factors are further important influences on population health.

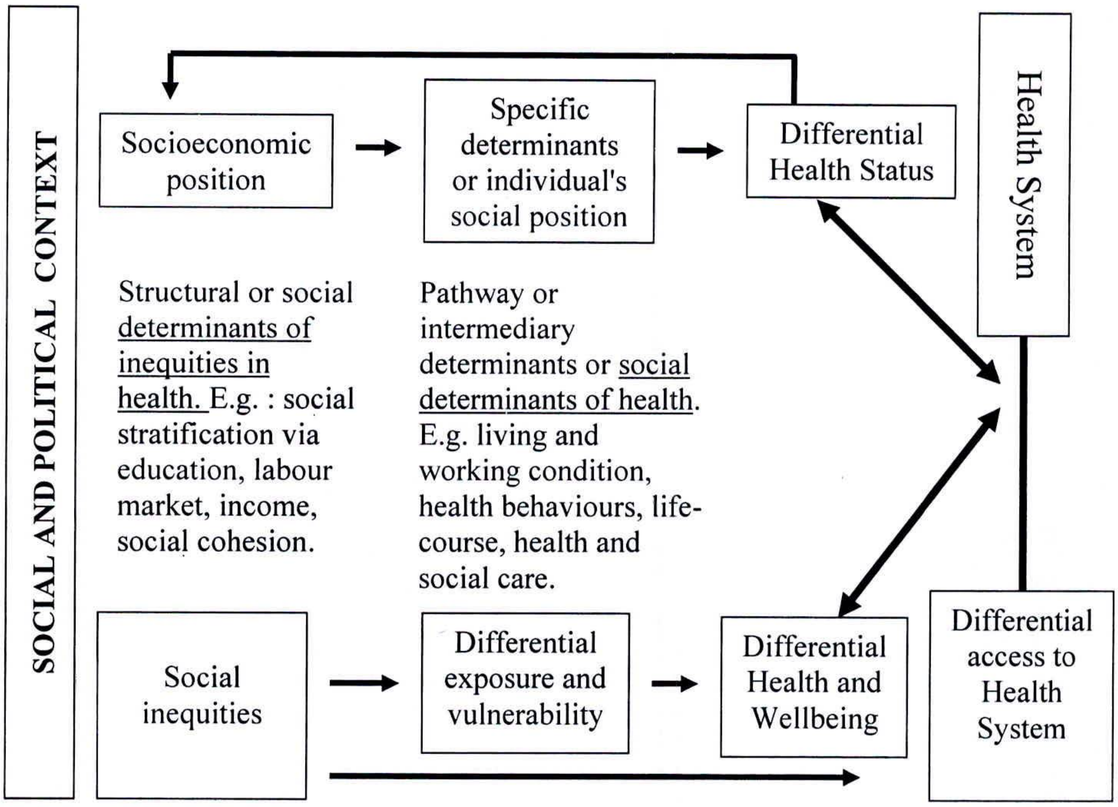


5.5 Synthesis

The various models we have examined (along with others not reviewed in detail here) seek to explain the mechanisms that generate health inequities via SDH. From these proposals, several themes emerge as deserving special attention, including "selection vs. causation", the "specific determinants" perspective and the "life course" approach. Life course analysts argue that policies that prevent an accumulation of risk in the critical biological and social periods - such as prenatal development, the transfer from primary to secondary school, entry to the labor market and exit from the labor market - should be especially important in protecting the most vulnerable[35]. Ongoing debates reveal differences with respect to the incorporation of a life course perspective, however. Certain models are restrictive in this area, while others give strong priority to childhood events and conditions.

Other revealing differences can be noted among the models surveyed in our research. Some models ignore the reverse effect of health on socioeconomic position, while others incorporate it explicitly. Some make biological pathways explicit, while others leave this aspect unaddressed. (One could argue that biological pathways are more relevant for clinical intervention and less so for policymaking.) Health care service and systems are rarely accorded a place in the models, reflecting the fact that the concept of social determinants was originally introduced into debates about public health to underscore the importance of nonclinical factors in shaping the health of individuals and populations.[36]

A comprehensive SDH model should achieve the following: (a) clarify the mechanisms by which social determinants generate health inequities; (b) show how major determinants relate to each other; (c) provide a framework for evaluating which SDH are the most important to address; and (d) map specific levels of intervention and policy entry points for action on SDH. Each of the models we have examined makes an important contribution, yet none on its own fully meets these requirements. However, by combining elements of various models, we can arrive at a synthetic construct that may advance the debate. The schema below is the first stage of such a synthetic model. A more developed version is presented and discussed in the next section, in which we will take up the question of specific thematic foci for the Commission. As a preliminary step, the model sketched below attempts to draw together the more significant insights of the approaches reviewed in the preceding pages.



Reading from left to right, we see the social and political context (including political institutions and economic processes) giving rise to a set of unequal socioeconomic positions. Groups are stratified according to income levels, education, professional status, gender, race/ethnicity and other factors. This column of the diagram ("Socioeconomic position") locates the underlying mechanisms of social stratification and the creation of social inequities. These socioeconomic stratification mechanisms can be described as *structural determinants* of health or as the social determinants of health inequities. These mechanisms configure the health opportunities of social groups based on their placement within hierarchies of power, prestige and access to resources.

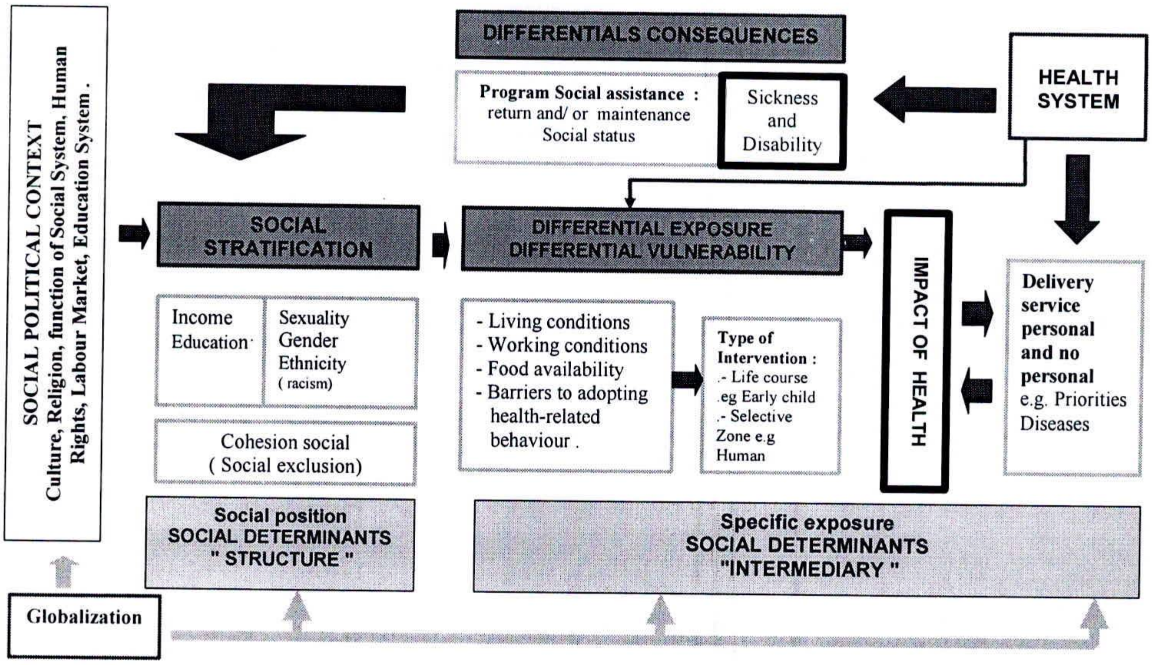
Moving to the right, we observe how these socioeconomic positions then translate into specific determinants of individual health status reflecting the individual's social location within the stratified system. Based on their respective social status, individuals experience differential exposure and vulnerability to health-compromising factors. The model shows that a person's socioeconomic position affects his/her health, but that this effect is not direct. Socioeconomic position influences health through more specific, intermediary determinants. Those intermediary factors include material conditions, such as working and housing conditions; psychosocial circumstances, such as psychosocial stressors; and also behavioral factors, such as smoking. The model assumes that members of lower socioeconomic groups live in less favorable material circumstances than higher socioeconomic groups, and that people closer to the bottom of the social scale more frequently engage in health-damaging behaviors and less frequently in heath promoting behaviors than do the more privileged.

A distinctive element of this model is its explicit incorporation of the health system. Socioeconomic inequalities in health can in fact be partly explained by the "feedback" effect of health on socioeconomic position, e.g., when someone experiences a drop in income because of a work-induced disability. Persons who are in poor health less frequently move up and more frequently move down the social ladder than healthy persons. This implies that the health system itself can be viewed as a social determinant of health. This is in addition to the health sector's key role in promoting and coordinating SDH policy. On this point the UK Department of Health has argued that the health system should play a more active role in reducing health inequalities, not only by providing equitable access to health care services but also by putting in place public health programmes and by involving other policy bodies to improve the health of disadvantaged communities[37].

6. Proposed conceptual framework for the CSDH

The diagram below adds further elements to the schema just discussed. The expanded model seeks to summarize visually the key lessons of the preceding analysis and to organize in a single comprehensive framework the major categories of SDH; a specific set of recommended thematic foci for the Commission; and a mapping of potential levels of policy action. The graphic is necessarily somewhat complex, since it seeks to represent in schematic form an intricate social and political reality. We will "walk through" the diagram, spelling out the links among its components. This framework makes visible the concepts and categories discussed in this paper. It also locates the specific social determinants on which we propose that the Commission focus its work and provides a context for understanding why these particular determinants might be given priority. Before taking up the question of proposed thematic foci, it is helpful to become familiar with this expanded version of the framework. Key issues are: (a) structural vs. intermediate determinants; (b) what is meant by socio-political context; and (c) levels at which inequities in health can be tackled.

WHO Equity Team social determinants framework[38]



6.1 Structural and intermediate social determinants

Fleshing out the previous schema, this framework likewise identifies two major groups of determinants, structural and intermediate, providing specific examples of each. *Structural* determinants are those that generate social stratification. These include the traditional factors of income and education. Today it is also vital to recognize gender, ethnicity and sexuality as social stratifiers. A central point for us is the aspect of social cohesion related to social capital. *Intermediate* determinants flow from the configuration of underlying social stratification and, in turn, determine differences in exposure and vulnerability to health-compromising conditions. Here the literature reflects ongoing discussions regarding the accumulation of exposures and about selection. We include in the category of intermediate determinants: living conditions, working conditions, the availability of food, population behaviours and barriers to adopting healthy lifestyles. Relevant population groupings for analysis and action on intermediate determinants can be defined in various ways. We introduce two examples of groups selected (1) by greater vulnerability (children) and (2) by geography (slum dwellers).

The *health system* itself should also be understood as an intermediate determinant. The role of the health system becomes particularly relevant through the issue of access, which incorporates differences in exposure and vulnerability. This is closely related to models for the organization of personal and non-personal health service delivery. The health system can directly address differences in exposure and vulnerability not only by improving equitable access to care, but also in the promotion of intersectoral action to improve health status. Examples would include food supplementation through the health system. A further aspect of great importance is the role the health system plays in mediating the differential consequences of illness in people's lives. The health system is capable of ensuring that health problems do not lead to a further deterioration of people's social status and of facilitating sick people's social reintegration. Examples include programmes for the chronically ill to support their reinsertion in the workforce, as well as appropriate models of health financing that can prevent people from being forced into (deeper) poverty by the costs of medical care.

6.2 Socio-political context

This framework differs from some others in the importance attributed to the *socio-political context*. This is a deliberately broad term that refers to the spectrum of factors in society that cannot be directly measured at the individual level. 'Context' therefore encompasses a broad set of structural, cultural and functional aspects of a social system whose impact on individuals tends to elude quantification but which exert a powerful formative influence on patterns of social stratification and thus on people's health opportunities. Within the context in this sense will be found those social and political mechanisms that generate, configure and maintain social hierarchies, such as the labour market, the educational system and political institutions.

The most relevant contextual factors, i.e., those that play the greatest role in generating social inequalities, may differ considerably from one country to another.[39] For example, in some countries religion will be a decisive factor, in others less so. Contextual differences militate against "one-size-fits-all" policy approaches to address SDH. Since the mechanisms producing social stratification will be different in different settings, certain interventions or policies are likely to be effective for a given socio-political context but not for others. Meanwhile, the timing of interventions with respect to local processes must be considered, as well as for example partnerships, availability of resources, and how the intervention and/or policy under discussion is conceptualized and understood by the participants at national and local levels.[40]

The specificities required for an appropriate understanding of context may vary with the specific health determinants on which one wishes to act. For example, the most relevant contextual elements for action on early child development will differ from those most relevant to globalization or health systems. In general, the construction/mapping of context should include at least four points: (1) political systems and processes, including definition of needs, existing public policies on determinants, patterns of discrimination, civil society participation, and accountability/transparence in public administration; (2) macroeconomic policy, including fiscal, monetary, balance of payments and trade policies; (3) policies affecting factors such as labor, land and housing distribution; (4) public policy in areas such as education, social welfare, medical care, water and sanitation.[41]

To set feasible policy goals, these general considerations should be supplemented with another, more health-specific element of contextual analysis, namely an assessment of the social value placed on health. The value placed on health and the degree to which health is seen as a collective social concern differ greatly across regional and national contexts. We have argued elsewhere, following Roemer and Kleczkowski, that the social value attributed to health in a country constitutes an important and often neglected aspect of the context in which health policies must be designed and implemented.[42] In constructing a typology of health systems, Roemer and Kleczkowski have proposed three domains of analysis to indicate how health is valued in a given society:

- The extent to which health is a priority in the governmental /societal agenda, as reflected in the level of national resources allocated to health.
- The extent to which the society assumes collective responsibility for financing and organizing the provision of health services. In maximum collectivism (also referred to as a state-based model), the system is almost entirely concerned with providing collective benefits, leaving little or no choice to the individual. In maximum individualism, ill health and its care are viewed as private concerns.
- The extent of societal distributional responsibility. This is a measure of the degree to which society assumes responsibility for the distribution of its health resources. Distributional responsibility is at its maximum when the society guarantees equal access to services for all.[43]

These criteria are important for health systems policy and evaluating systems performance. They are also relevant to assessing opportunities for action on SDH.

Increasingly, global institutions and processes influence the socio-political contexts of all countries, in many cases constraining the autonomy of national actors, including states. Global trade agreements, the deployment of new communications technologies, the activities of transnational corporations and other phenomena associated with *globalization* also directly impact health determinants at various levels. Hence the inclusion in the framework of globalization as a crosscutting factor with implications for all components of the model.

6.3 Levels for policy action on SDH

It will be crucial for the CSDH to identify the level(s) at which it will seek to promote change in tackling SDH through policy. The framework helps to situate these levels, clarify their relationships and suggest the scope and limits of policy action in each area. The crucial basic distinction is between policies that seek to address structural determinants, i.e., to alter the configuration of underlying social stratification, and those policies and interventions that target intermediate health determinants.

Drawing on Diderichsen et al., a typology or mapping of entry points for policy action on SDH identifies the following major options, marked by darkly shaded boxes within the framework: **social stratification**; **differential exposure/differential vulnerability**; and **differential consequences**. First is the option of altering **social stratification** itself, by reducing "inequalities in power, prestige, income and wealth linked to different socioeconomic positions".[44] For example, policies aimed at diminishing gender disparities will influence the position of women relative to men. In this domain, one could envisage an impact assessment of social and economic policies to mitigate their effects on social stratification. Further to the right side of the framework, we see other levels where policies could engage: by decreasing people's **differential exposure** to health-damaging factors; by lessening the **vulnerability** of disadvantaged people to the health-damaging conditions they face; and by intervening through health system to reduce the **differential consequences** of ill-health. Policy options should marshal evidence for the range of interventions (both disease-specific and related to the broader social environment) that will reduce the likelihood of unequal consequences of ill health. For instance, additional resources for rehabilitation might be allocated to reduce the social consequences of illness. Equitable health care financing is a critical component at this level. It involves protection from the impoverishment arising from catastrophic illness as well as an understanding of the implications of various public and private financing mechanisms and their use by disadvantaged populations.

These issues will be explored in greater depth in a later section of the paper, on intervention and policy development models for action on SDH.

6.4. Selection of specific themes for the CSDH

Clearly, the CSDH cannot hope to address the full range of social determinants illustrated in the above framework. Reasoned choices must be made regarding specific topics on which the Commission will focus its knowledge-building activities, policy recommendations and advocacy. While the selection of themes is by no means rigidly fixed at this date, a set of proposals have been developed over the past months through research by the secretariat and the Chair, consultations with experts inside and outside WHO, and the initial discussions among Commissioners during their first meeting in Santiago. The following section outlines the thinking that has led to a specific set of recommendations regarding priority themes for the CSDH. Commissioners are invited to consider this rationale on their way to finalizing a list of themes for the Commission's Knowledge Networks, commissioned papers and other products/activities.

Some preliminary points merit attention. First, it is clear that for most if not all key SDH, precise data on the burden of morbidity and mortality directly attributable to these factors are not available. This means that a simple quantitative ranking of SDH by associated burden of disease is not yet (and may never be) feasible. (Whether such a ranking, if feasible, would be *desirable* is a separate question into which we will not enter here.) Inevitably, then, assessments of the relative importance of particular SDH must be developed in the absence of exhaustive quantitative data; all such assessments will involve a more or less openly "political" aspect.

The selection of recommended areas of work for the Commission has been strongly shaped by a concern with addressing "orphan" areas, i.e., important areas relatively neglected by previous research and heretofore insufficiently addressed by interventions. The evidence base concerning interventions on health determinants is not large.[45] However, an important finding from the available literature is that not all major determinants have been targeted for interventions. In particular, social factors rarely appear to have been the object of interventions aimed at reducing inequity. In contrast, interventions are more frequently aimed at the accessibility of health care and at behavioral risk factors. Regarding the accessibility of health care, a majority of policies are concerned with financing. A notably high proportion of interventions are aimed at those determinants that fall within the domain of regular preventive care, including behavioral factors (individual health promotion and education). Fewer interventions have been found targeted at determinants that do not come under the direct responsibility of the health service or of public health organizations, e.g., factors in the social environment. In general, the smaller the number of determinants addressed by a particular type of intervention, the more frequently that sort of intervention is used.[46] In other words, people have an understandable appetite for simplicity. But simple models do not always lead to satisfactory results.

Interventions and policies on structural determinants of health constitute key orphan areas in the determinants field. More work has been done on intermediary determinants (decreasing vulnerability and exposure), but interventions at this level frequently target only one determinant, without relation to other intermediary factors or to the deeper structural factors. Interventions from the health system have generally been limited to issues of access, moreover focused largely on the financing component and on education activities to promote healthy behavior change. Interventions have not often had the scope to grapple seriously with the social barriers to healthy behavior. The CSDH can ensure that it brings genuine value-added to the determinants field by targeting research and advocacy on such neglected areas.

The following aspects informed the development of a proposed list of foci for the Commission:

- ✓ Themes that impact on the gradient of health inequity, that is, those areas that are closely related to the construction and maintenance of social stratification.
- ✓ Themes that incorporate a life course perspective, given the powerful impact of such factors on health inequities, linked to the possibility to address, through a life-course approach, groups facing unusually high health vulnerability.
- ✓ Themes particularly closely related to the health system and thus to the special responsibilities and opportunities of the health sector in tackling inequities in health. All themes selected should reflect policy areas in which the health sector can realistically expect to exert influence, favoring the implementation of SDH interventions and scaling up towards more comprehensive equity-oriented policies.
- ✓ Themes reflecting fast-growing health problems predominant in developing countries.
- ✓ Themes reflecting a strong concern in *all* countries, implying consequences both for developing and developed countries.
- ✓ Themes that would engage groups experiencing high exposure and vulnerability to the social determinants of health inequities.
- ✓ Themes that are already widely recognized as important SDH, such that from the start the Commission's work could focus, not on trying to convince partners of the theme's relevance, but instead on seeking and promoting effective interventions and policies to respond to the problem.

In what follows, we explore in some detail the basis for selection of each of the recommended themes, in keeping with the general criteria just outlined.

6.4.1 Focus on areas that directly impact the health gradient: gender and social exclusion. Part of the CSDH value-added will be supporting countries not only in tackling intermediary determinants, but in implementing more ambitious policy options that can get at the deeper structural sources of health disparities. Gender and social exclusion have been identified as key structural determinants. They point to social forces that directly shape health inequities. As such, they are of central relevance for the Commission. At the same time, gender and social exclusion constitute structural determinants upon which the health system can actually intervene (directly or indirectly) and which can be incorporated into health sector programming, including but not limited to the delivery of clinical health services.

From a gender perspective, two central social determinants of health are: (1) the multiple impacts of the sexual division of labor; and (2) gender-based differential access to the resources that enable direct payment for medical services or participation in public or private insurance schemes. Both aspects are important for the analysis of gender and health equity.

Social exclusion is a major factor in shaping health inequities and is closely linked to a wide range of other SDH, as well as to social capital. The concept of social capital has increasingly been viewed as relevant to explaining patterns of health inequalities in communities. It is also informing policy and intervention options aimed at reducing health inequalities, particularly through effort and investment in building social capital in ways that can generate health benefits in socially disadvantaged communities. More broadly, policymakers increasingly view the potential of social capital for generating economic, social and health outcomes as a reason why working with communities and building social cohesion is a prerequisite to tackling deprivation and inequities.[47] Social cohesion and community engagement therefore become central for turning policy into practice. A growing body of empirical work tests the relationship between health and measures of social capital. Meanwhile, although positive effects of social capital on health have been identified, many questions remain to be addressed. Specific intervention studies may provide a way forward that allows for more precise testing of how health benefits might flow from specific elements of social capital.[48]

6.4.2 Including a life-course perspective: early child development. Some studies shows that a principal explanation for the persistence and worsening of inequalities is the way in which health (both good and bad) is transmitted from generation to generation through economic, social and developmental processes, and that the advantages and disadvantages are reinforced in adult life. A life-course approach focuses on the different elements of the experience of health, from the moment of conception through childhood and adolescence to adulthood and old age. The life-course model describes the causal pathways of health inequalities and links these to broad social and economic factors as well as to studies of child development. It reveals critical points in the transitions from infancy through childhood into adult life, where an individual may move in the direction of advantages or disadvantages in health. This approach shows that mainstream policies in health, education and social welfare do not always provide enough protection for people at these crucial turning points. The patterns are not uniform, varying by social class but also by ethnicity. Social circumstances influence health at all ages, but have particularly strong effects *in utero*, in infancy and in childhood. For many people, physical, emotional and cognitive development patterns are effectively fixed in childhood, with beneficial or harmful effects on subsequent health.

Such findings suggest that, to develop robust strategies for promoting health equity through social determinants policy, the CSDH requires a specific focus on early child development. Researchers have identified three main routes for the transmission of advantage and disadvantage through early childhood conditions and experiences: (1) poor childhood social circumstances predict poor adult circumstances; (2) poor childhood circumstances cause poor childhood health; and (3) poor adult circumstances determine poor adult health. Focusing for present purposes just on the first of these paths of transmission, we can observe that poor childhood social circumstances relate to poor adult circumstances in several ways. For example, education is still the major route out of disadvantage, but poorer children perform educationally less well than better-off children. Children not staying on in education, or not entering employment or training at 18, are a particularly high-risk group. Children from poorer backgrounds are much more likely to get into trouble with the police, to be excluded from school, or to become a teenage parent, all of which make moving up the social hierarchy more difficult. Meanwhile, analysts question whether some current policies on education, social welfare, employment, crime and health are helping solve these problems or are themselves part of the causes.[49] [50] The Commission can make an important contribution at this key intersection of health sciences, policymaking and social values.

***6.4.3 Focus on areas closely connected with health systems*.** As previously discussed, the various models that have tried to explain the functioning and impact of SDH have not made sufficiently explicit the role of the health system as a social determinant. In some instances, the relevance of the health system has been seen as limited to its role in giving (or denying) access to preventive and curative services to vulnerable and exposed groups, particularly with regard to financial barriers. On the other hand, intersectoral action for health has at times been promoted as a major axis of health policy, with greater or less emphasis and varying degrees of success.[51]

Overall, the orientation of health systems policy has rarely included intervention on SDH. There is ample evidence that SDH dramatically impact health and substantially constrain the health opportunities of vulnerable groups; yet the direct, independent actions that the health system can undertake with respect to SDH are limited. What, then, should health systems do - particularly with regard to SDH and health inequities? Little guidance is currently available on these questions. This gap in knowledge and leadership represents a space in which the Commission to make a significant contribution.

Even if the health system is not itself considered as a direct determinant of health inequities, it influences how people move among the social strata. Benzeval, Judge and Whitehead argue that the health system has three obligations in confronting inequity: (1) to ensure that resources are distributed between areas in proportion to their relative needs; (2) to respond appropriately to the health care needs of different social groups; and (3) to take the lead in encouraging a wider and more strategic approach to developing healthy public policies at both the national and local level, to promote equity in health and social justice.[52] In opting to engage centrally with health systems, the CSDH will moreover underscore that health systems play a fundamental role, together with other social sectors, in preventing negative social consequences of ill health. It will highlight and reinforce the capacity of the health sector to place health equity goals, implying SDH actions, on the agendas of other governmental sectors.

From this perspective, two strategic themes are defined. The first, on priority public health conditions, primarily concerns the integration of SDH policies and actions into traditionally defined health programmes, such as those targeted at specific diseases. This will include aspects such as equitable access to service delivery (promotional, preventive and curative) for different health problems. In addition, a focus is recommended on health systems properly speaking, whose work will embrace intersectoral action; promoting equitable access at the systems level (including financing and the organization of services); and indirect health actions that affect SDH.

6.4.4 Focus on vulnerability and high exposure: employment conditions. Human production is the basis for both welfare and health. There is a clear correlation between gross national product (GNP) , income level, living standards and average life expectancy when nations are compared, but also notable differences in health and life expectancy between socioeconomic strata and occupational groups within nations.

Differences in working conditions and work-related health status have been reported for centuries. The spur for improvement has been the often appalling working conditions, especially for manual workers, who are likely to be poorly educated and have low incomes. Even when the health of manual workers improves, health inequalities do not necessarily diminish, as occupational groups with a better education also benefit from welfare improvements and increased economic resources. The main foci for improvements in work-related health are awareness of the health aspect in the planning of work and production; the eradication or control of known hazards; and improvements in the work environment. But even when theses "classic" occupational hazards have been corrected, inequalities in health remain between higher and lower positions in the workforce, indicating the potential for further improvement.

Occupation is the most important criterion of social stratification in advanced societies and is the basis of the categorization of socioeconomic groups. Social approval depends largely on ones type of job, professional training and level of occupational achievement. Furthermore , type and quality of occupation, and especially the degree of self-direction at work, strongly influence personal attitudes and behavioral patterns in areas not directly related to work, such a leisure, family life, lifestyle, education and political activity . Research from the past two decades has demonstrated the importance of the place and content of work and their effects on coronary heart disease, mental health and musculoskeletal disorders, but many workplaces still have unacceptable safety risks and exposures.[53] [54] On the other hand , unemployment or changes in employment status have been shown to be linked to changes in health.

For the CSDH employment conditions should include both internal factors (workplace) and external factors (social, economic, governance structure and legal context) related to employment. Evidence will be provided on the health effects of internal factors including: psychological stress; physical and ergonomic risks; toxic chemical exposure; and employment conditions like income, job security, flexibility in working hours, job and task control, and employment-related migration. Evidence from a variety of different country contexts and vulnerable population subgroups such as migrants and child workers will be examined. Low self-esteem due to job insecurity and lifestyle choices associated with type of employment will also be considered. The effectiveness of engineering and administrative control measures, employment and industrial relations policy and worker safety legal frameworks—which are external factors that seek to mitigate the effects of the internal factors—will be mapped and analyzed. A concerted effort will be made to examine programmes that include workers' and labour associations in the development of interventions and policy.

6.4.5 Focus on fast-growing problems: urban settlements. Part of the Commission's opportunity to add value will involve engaging themes whose impact on global health is destined to expand rapidly in the coming years, and which have not yet registered sufficiently with the health community. The theme of urban settlements and in particular the health challenges of slum dwellers constitute a vast and growing challenge for developing countries. Interventions in this area imply the integration of actions simultaneously addressing a range of health determinants.

Urban slums are characterized as unplanned informal settlements where access to services is minimal-to-nonexistent and where overcrowding is the norm. The last ten years have seen a dramatic increase in the number of slum dwellers worldwide. Urban development has historically been seen as both a cause and solution for social inequalities in health. However, environmental and individual gradients within urban areas occur everywhere and are resistant change. Urban environments are influenced by the degree and type of industrialization, quality of housing, accessibility of green spaces and by transport, an increasing concern.[55] Slum upgrading includes: physical upgrading of housing, water and sanitation, infrastructure, and the environment; social upgrading through improved education; violence reduction programmes; better access to and improved health services; governance upgrading through participatory processes; community leadership and empowering civil society through knowledge and information.

6.4.6 Globalization. Globalization can be regarded as a social macro-determinant. As shown in the framework, global processes exert a powerful impact at all levels of the social production of health: on the evolution of sociopolitical contexts in countries; on social stratification; and on the configuration of numerous specific determinants (e.g., working conditions, food availability). Among the most relevant aspects of globalization for the work of the CSDH are: market access, trade barriers and liberalization, integration of production of goods, commercialization and privatization of public services, and consumption and lifestyle patterns.

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While recent years have seen a rapid expansion of interest in globalization and health, numerous important questions remain inadequately explored.[56] By framing global processes as macro-determinants of health and health equity and marshalling the appropriate evidence to clarify these links, the CSDH can shed fresh light and open new perspectives. Above all, there is a need to identify and evaluate policy options through which national policymakers can respond to the challenges posed by globalization and capitalize on its opportunities. It is necessary to identify and characterize the degree of negative or positive health impact of globalization in specific cases: not only to clarify relevant causal processes, but as a contribution to evaluating the impact of interventions and policies on other social determinants of health. We are interested both in how global processes have shaped countries' sociopolitical contexts and in how the various modalities and tendencies associated with globalization have impacted countries' capacity to intervene successfully on other SDH. Meanwhile, the need for a new moral framework for globalization has been underscored by current actors and analysts, including the ILO-sponsored World Commission on the Social Dimension of Globalization: "The governance of globalization must be based on universally shared values and respect for human rights. Globalization has developed in an ethical vacuum, where market success and failure have tended to become the ultimate standard of behaviour, and where the attitude of 'the winner takes all' weakens the fabric of communities and societies".[57] Using its health equity framework, the CSDH will identify policies that can foster a more equitable distribution of globalization's benefits and a fairer portioning-out of opportunities for human flourishing.

7. Intervention and policy development models for action on SDH

The CSDH will consolidate evidence around its thematic foci not just to strengthen the scientific knowledge base, but above all to catalyze action. Action in this context primarily means public policies and interventions to tackle health inequities via SDH. To guide policy development, the type of schema presented above -- which shows the levels of SDH and their pathways of causal influence -- must be combined with a mapping of political structures, opportunities and processes. In other words, a scientific "imaging" of the way social determinants differentially impact health must be overlayed with a political grid. The result would be a comprehensive framework that could both locate the real sources of health problems at the social level (accurate diagnosis) and help identify politically workable solutions (effective prescription).

Our review of the literature has identified three particularly suggestive models for intervention and policy development on SDH. We will analyse these three proposals in turn. Throughout, it will be useful to recall the distinction between specific *interventions* (e.g., an innovative health education programme or a change in the organization of a screening programme) and broader *policies* (e.g., changes in income distribution or in the government mechanism for allocating health care resources).

7.1 K. Stronks framework

This model was proposed in the context of the Dutch national research programme on inequalities in health.[58] The programme report highlights three phases of analysis for the implementation of interventions and policies on SDH:

- ✓ **Phase one** involves filling in the social background on health inequalities in the specific country or socioeconomic context. The impact of each social determinant on health varies within a given country according to different socioeconomic contexts. Four intervention areas are identified:
  - The first and the most fundamental option is to reduce inequalities in the distribution of socioeconomic factors or *structural determinants*, like income and education. An example would be reducing the prevalence of poverty in the lowest socioeconomic groups.
  - The second option relates to the specific or *intermediary determinants* that mediate the effect of socioeconomic position on health, such as smoking or working conditions. Interventions at this level will aim to change the distribution of such specific or intermediary determinants across socioeconomic groups, e.g. by reducing the number of smokers in lower socioeconomic groups, or improving the working conditions of people in lower status jobs.
  - A third option addresses the *reverse effect of health status on socioeconomic position.* If bad health status leads to a worsening of people's socioeconomic position, inequalities in health might partly be diminished by preventing ill people from experiencing a fall in income, e.g., as a consequence of job loss. An example would be strategies to maintain people with chronic illness within the workforce.
  - The fourth policy option concerns the delivery of *curative healthcare*. It becomes relevant only after people have fallen ill. One might offer people from lower socioeconomic positions extra healthcare or another type of healthcare, in other to achieve the same effects as among people in higher socioeconomic positions.

- ✓ **Phase two** of the analysis concerns effectiveness. Having identified the possible strategies to tackle health inequalities, one must form an idea of the effectiveness of those strategies. There is clearly a lack of evidence on the effectiveness of interventions to reduce inequities in health. Reviews have shown that many interventions have been undertaken, including health promotion and measures within the healthcare sector. However, only a few them have been evaluated with respect to their effect on the size of socioeconomic inequities in health.[59]

- ✓ **Phase three** looks at political feasibility. The question is: can one actually implement a given intervention in daily practice? Could it be scaled up to constitute a realistic policy? Enabling factors, opportunities and potential barriers to a specific policy or intervention must be clearly identified: examples would include legal constraints, norms and values, financial barriers, etc. A certain intervention judged successful in one country might not fit with the cultural norms of other countries, such that its implementation there might not yield the predicted positive effects.

7.2 M. Whitehead and G. Dahlgren framework

The framework proposed by Whitehead and Dahlgren indicates four interrelated levels to which policies can be addressed: strengthening individuals; strengthening communities; improving access to essential facilities and services; encouraging macroeconomic and culture change.[60]

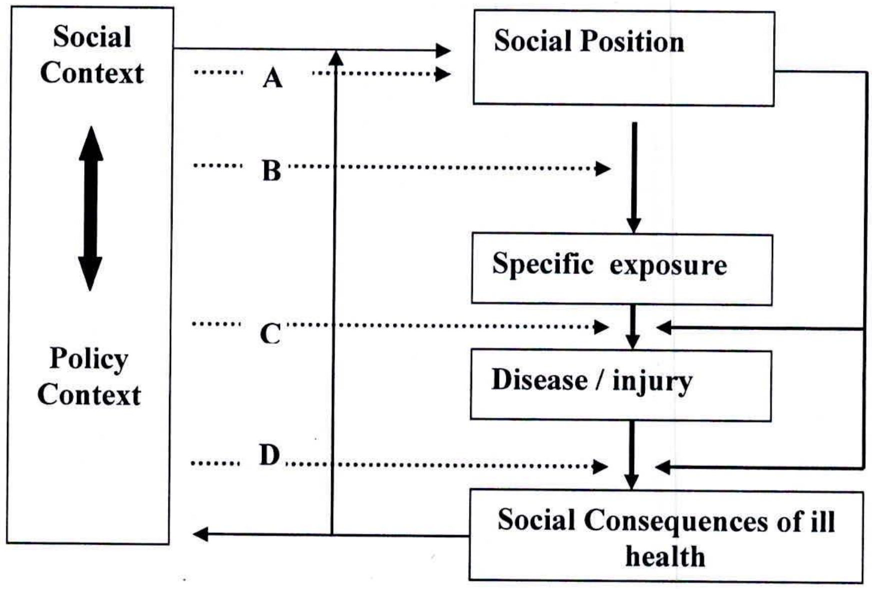
- ✓ The first level is strengthening individuals. Here, policy responses are aimed at supporting individuals in disadvantaged circumstances, using person-based strategies. These policies adopt the premise that building up a person's knowledge, motivation, competence or skills will enable them to alter their behavior in relation to personal risk factor, or to cope better with the stresses and strains imposed by external health hazard from other layers of influence. Examples would include stress management education for people working in monotonous conditions; counseling service for people who become unemployed to help prevent the associated decline in mental health; and supportive smoking cessation clinics for women with low incomes. The potential effect of this policies would be more indirect - counseling services for people who are unemployed are not going to reduce the unemployment rate, but may ameliorate the worst health effects of unemployment and prevent further damage.
- ✓ The second level is concerned with strengthening communities. This is focused on how people in disadvantaged communities can join together for mutual support and in so doing strengthen the whole community's defense against health hazards. The community development strategies at this level recognize the intrinsic strength that families, friends, voluntary organizations and communities can have , over and above the capabilities of individuals working in isolation. These policies recognize the importance to society of social cohesion, as well as the need to create conditions in deprived neighborhoods for communities dynamics to work.
- ✓ The third policy level focuses on improving access to essential facilities and services. These policies tackle the physical and psychosocial conditions in which people live and work, ensuring better access clean water, sanitation, adequate housing, safe and fulfilling employment, safe and nutritious , food supplies, essential health care, educational services and welfare in times of need. Such policies are normally the responsibility of separate sectors, often operating independently of each other but with the potential for co-operation. In this point is necessary program or action integrated.
- ✓ The fourth policy level is aimed at encouraging macroeconomic or cultural changes to reduce poverty and the wider adverse effects of inequality on society. These include macroeconomic and labors market policies, the encouragement of cultural values promoting equal opportunities and environmental hazard control on a national and international scale.

7.3 Diderichsen et al. framework

As mentioned above (section 5.2), the Diderichsen model identifies four entry points or levels of action for interventions and policies: influencing social stratification; decreasing differential exposure to health-damaging factors; decreasing vulnerability; and preventing unequal consequences of ill health that can deepen social inequities.

- ✓ Decreasing **social stratification** itself. While social stratification is often seen as the responsibility of other policy sectors and not central to health policy per se, Diderichsen and colleagues argue that addressing stratification is in fact "the most critical area in terms of diminishing disparities in health". They propose two general types of policies in this entry point: first the promotion of policies that diminish social inequalities, e.g., labor market, education, and family welfare policies; second a systematic impact assessment of social and economic policies to mitigate their effects on social stratification. In the figure below, this approach is represented by **line A**.

- ✓ Decreasing the **specific exposure** to health-damaging factors suffered by people in disadvantaged positions. The authors indicate that, in general, most health policies do not differentiate exposure or risk reduction strategies according to social position. Earlier anti-tobacco efforts constitute one illustration. Today there is increasing experience, however, with health policies aiming to combat inequities in health that target the specific exposures of people in disadvantaged positions, including aspects such as unhealthy housing, dangerous working conditions and nutritional deficiencies. In the figure, this approach is represented by **line B**.
- ✓ Lessening the **vulnerability** of disadvantaged people to the health-damaging conditions they face. An alternative way of thinking about modifying the effect of exposures is through the concept of differential vulnerability. Intervention in a single exposure may have no effect on the underlying vulnerability of the disadvantaged population. Reduced vulnerability may only be achieved when interacting exposures are diminished or relative social conditions improve significantly. An example would be the benefits of female education as one of the most effective means of mediating women's differential vulnerability. This entry point is shown below by **line C**.
- ✓ Intervening through the health system to reduce the **unequal consequences of ill-health** and prevent further socioeconomic degradation among disadvantaged people who become ill. Examples would include additional care and support to disadvantaged patients; additional resources for rehabilitation programmes to reduce the effects of illness on people's earning potential; and equitable health care financing. This entry point appears in the figure as **line D**.



7.4. Synthesis: key policy principles

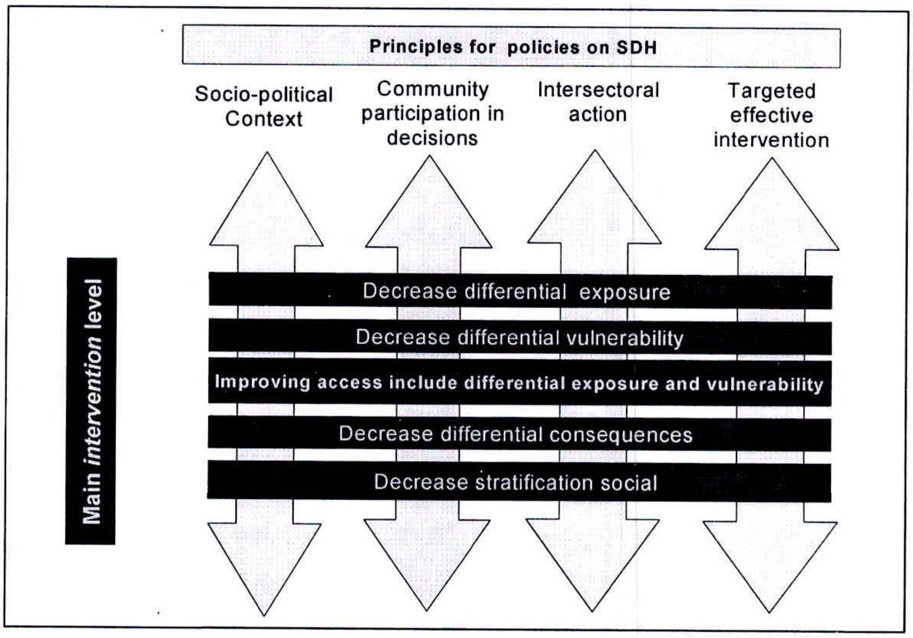
The intervention frameworks just reviewed should be seen in the light of our earlier discussion on health disadvantage, gaps and gradients (section 4). Following Graham, we argued that improving the heath of poor groups and narrowing health gaps are necessary but not sufficient objectives. A commitment to health equity ultimately requires a health-gradients approach. A gradients model locates the cause of health inequalities not only in the disadvantaged circumstances and health-damaging behaviors of the poorest groups, but in the systematic differences in life chances, living standards and lifestyles associated with people's unequal positions in the socioeconomic hierarchy.[61] While interventions targeted at the most disadvantaged may appeal to policymakers on cost grounds or for other reasons, an unintended effect of targeted interventions may be to legitimize poverty, making it both more tolerable for individuals and less burdensome for society.[62, 63, 64] Health programmes (including SDH programmes) targeted at the poor have a constructive role in responding to acute human suffering. Yet the appeal to such strategies must not obscure the need to address the structured social inequalities that create health inequities in the first place.[65]

Health equity is not only about good or bad health outcomes. It fundamentally concerns health *opportunities*. These opportunities must be considered in the elaboration of interventions and policies addressing SDH. This means asking what interventions and policies most effectively promote health opportunities. Are health opportunities best enhanced by focusing action on the groups that are currently most severely affected in terms of health outcomes? Where does such an approach leave those groups that, without being among the most severely affected, experience vulnerability in terms of health opportunities? In the medium term, such vulnerable groups will begin to reproduce the health results now seen in the groups with the worst outcomes. Among groups suffering vulnerability in terms of health opportunities, will we find only people with very low incomes, women or people with certain ethnic or religious backgrounds? The social patterning of health opportunities is highly complex. This is why inequity gradients in SDH cannot be excluded when governments set objectives and build programmes. Including these gradients as an explicit area of policy action can assure that interventions and policies have an impact on health opportunities.

Specific interventions are selected and shaped according to more overarching policy frameworks. Thus, in addition to identifying potential intervention levels on SDH, principally following Diderichsen et al., we believe it is necessary to specify the policy principles within which interventions are implemented. The principles or modalities highlighted involve: intervening upon and shaping the socio-political context; developing policies from the standpoint of the community, with community participation in decision-making; developing intersectoral action, including the incorporation of SDH actions emanating from non-health sectors; and the prioritization of actions proven genuinely effective in tackling health inequities.

The figure below summarizes these ideas. The horizontal arrows mark the levels of intervention on SDH. Here, these levels are placed in relation to the policy modalities that can or should be implemented. The vertical arrows identify four policy principles we believe are essential from the perspective of the CSDH. The first underscores the need for responsiveness to the socio-political context of each country and region. This is a central element for the development of policies adapted to the real capabilities of developing countries and not shaped according to pre-determined recipes. The second vertical arrow represents the principle of community participation in decision-making, underscoring as a central aspect of the CSDH the inclusion and participation of civil society. The third arrow represents intersectoral action, implying not only policies and actions managed from within the health sector, but also the integration of interventions and actions by other sectors that have included contributing to health within their goals. Partner sectors will likely include education, transport and housing, among others. The fourth vertical arrow recalls the need to focus on effective interventions: action based on evidence, evidence for action.

Diagram: new action on pathways and policies [66]



8. Conclusion

This draft paper has sketched a framework on social determinants of health intended to catalyze discussion within the CSDH. The paper in its present form is of course not a finished product, but a tool to stimulate shared thinking and advance debate. It is a step in a process whereby Commissioners, supported by the CSDH secretariat, will reach shared understandings on a set of fundamental conceptual issues important for the coherence and efficacy of the Commission's work. The paper has sought to clarify the concept of social determinants; to suggest a coherent values basis for action on SDH rooted in health equity; and to sketch a model locating intervention levels and entry points for policy action on SDH.

The key element of the framework presented here is the distinction drawn between structural and intermediate social determinants of health, also thought of as social determinants of *health equity* and more specific determinants of *health*. As we have noted, the feasibility of directly impacting health inequities requires intervention on structural determinants. However, such action will demand profound and possibly quite slow processes of social change and will only yield results in the long term. When will these processes begin? Are they even possible? Skepticism regarding the current feasibility of fundamental change is understandable. This being the case, if it is not possible to act directly upon the structural determinants, might one be able to identify pathways to influence them indirectly? The actions that can be undertaken by the health system have major relevance in this regard. It may be possible to influence and model the system in such a way as to bring us closer to the capacity to directly address the social determinants of health inequities.

The sustainability of health sector-led interventions on SDH and the underlying policy structure are inseparably related. It is not possible to maintain continuity in SDH interventions (e.g., incorporation of SDH into health programmes, intersectoral actions and programmes) if such interventions are not supported by broader, enabling government policies in the health sector and the whole range of other sectors. At the same time, a broad policy approach incorporating social determinants will not have any real impact if is not translated into specific, concrete interventions that apply these ideas at national and local levels. For the health sector, this final point implies a new perspective on the elaboration of goals and plans and on the deployment of health actions.

References

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[1] Tarlov A. 1996. Social determinants of health: the sociobiological translation. In Blane D, Brunner E, Wilkinson R (eds). Health and social organization. London: Routledge. 71-93.

[2] Krieger N. A glossary for social epidemiology J. Epidemiology Community Health 2001; 55;693-700

[3] Graham H. [complete]

[4] London Health Observatory 2002 review of the London Helath Strategy High- level Indicators.

[5] Evans T, Whitehead M, Diderischsen F., Bhuiya A., Wirth M. Challenging inequities in health from ethics to action Oxford University Press 2001.

[6] Marmot M. Economic and social determinants of disease Bulletin of the World Health Organization, 2001,79 (10) pag 988 -989.

[7] Rose G. Sick Individuals and Sick Populations International Journal of Epidemiology Vol 14 n° 1 1985.

[8] Performance measurement and performance management in OECD health systems J. Hurts , M Jee-Hughes 2001 .

[9] WHO Equity Team working definition.

[10] Socioeconomic position includes both material and social resources as well as rank or status in a social hierarchy or hierarchies. Social positions derive from, and are generated by, a particular social context, meaning that classifications of social position will vary across societies and historically. In some countries gender, race or religion plays a major part in what position a person occupies. Because there is a range of structures of inequality everyone occupies multiple social positions: for example a white, gay man in a manual occupation or a heterosexual, Indian woman in a managerial occupation. Graham H, Kelly MP. Health inequalities: concepts, frameworks and policy. 2004. NHS Briefing Paper.

[11] Hilary Graham Social determinants and their unequal distribution : Clarifying policy understandings The Milbank Quarterly, Vol 82, n° 1, 2004 (pp.101-124)

[12] Stronks K, Gunning-Schepers L. 1993. Should equity in health be target number 1? European Journal of Public Health 1993;3: 104-111.

[13] Sen, "Why health equity?"

[14] Stronks K, Gunning-Schepers L. 1993. Should equity in health be target number 1? European Journal of Public Health 1993;3: 104-111

[15] Anand S. 2004. The concern for equity in health. In Ananad S, Peter F, Sen A (eds). Public health, ethics and equity. Oxford: Oxford UP.

[16] Ruger 2005

[17] Sen, "Why health equity?"

[18] Ruger 2004.

[19] General Comment and Questions and Answers p 10.

[20] Alkire S, Chen L. Global health and moral values. Lancet 2004; 364:1069-74.

[21] London L. 2003. Can human rights serve as a tool for equity? EQUINET policy series 14.

[22] Numerous refs

[23] Farmer P. 2003. Pathologies of Power.

[24] Farmer P. Infections and inequalities.

[25] Bourgois P. 2003. In search of respect: selling crack in el barrio. New York: Cambridge UP.

[26] Diderichsen, Evans and Whitehead. 2001. The social basis of disparities in health. In Evans et al. (eds). 2001. Challenging inequities in health: from ethics to action. New York: Oxford UP.

[27] Sen, Rationality and Freedom.

[28] Gillon R. Value judgements about health equity.

[29] Graham H. Tackling inequalities in health in England.

[30] LJ Gunning-Schepers Models: instruments for evidence based policy . J Epidemiology Community Health 1999;53:263.

[31] Tackling Inequalities in health : an agenda for action : a review of policy initiatives M. Benzeval, K.Judge. M.Whitehead.

[32] Mackenbach , Van de Mheen, Stronks A Prospective cohort study investigating the explanation of socioeconomic inequalities in health in the Netherlands Social Science Medicine 1994: 38:299-308.

[33] Acheson Report

[34] Hilary Graham

---

[35] Bartley blane british journal

[36] Hilary Graham

[37] J, Mackenbach, L.J. Gunning-Schepers How should interventions to reduce inequalities in helath be evaluated ? Journal of Epidemiology and communities Health 1997;51:359-364

[38] Based in : Reducing inequalities in health a European Perspective J. Mackenbach, M Bakker 2002; Generating evidence on interventions to reduce inequalities in Health : the Duch case K. Stronks Scand J Public Helath 30 Suppl 59 ; Evans T, Whitehead M, Diderischsen F., Bhuiya A., Wirth M. Challenging inequities in health from ethics to action Oxford University express 2001.

[39] Socieconomic inequalities in health , Part 1 , Mackenbach , Bakker, Kunst and Diderichsen . reducing Inequalities in health : European Perspective. 2002.

[40] National evaluation of Health Action Zone ,The final report of the tackling inequalities in health module Michaela Benzeval Queen Mary 2003.

[41] Rockefeller Health Equity programme , from Concept and trends in research on Social determinants of Health in Latin America and the Caribbean J.A. Casas WHO.

[42] Orielle HSR and repro health paper.

[43] Solar O, Irwin A, Vega J. 2004. Equity in Health Sector Reform and Reproductive Health: Measurement Issues and the Health Systems Context. WHO Health Equity Team working paper. [i] Kleczkowki BM, Roemer M, Van Der Werff A. 1984. National health systems and their reorientation toward health for all: guidance for policymaking. Geneva: WHO.

[44] Diderichsen et al

[45] Mark Petticrew , Sally Macintyre. What do we Know about effectiveness and cost - effectiveness of measure to reduce inequalities in Health ? University of Glasgow 2001.

[46] Gepkens A, Gunning - Schepers LJ Interventions to reduce socio-economic health differences: a review of the international literature European Journal public Health 1996; 6:218-226.

[47] Cabinet office 2002 Social capital: a discussion paper Performance and innovation Unit. London

[48] Tackling Health inequalities: turning policies into practice? Hunter D. Killoran A. NHS Health Development Agency.

[49] Childhood disadvantage and adult health: a lifecourse framework . Hilary Graham,Institute for Health Research, Lancaster University; Chris Power, Centre for Paediatric Epidemiology & Biostatistics, Institute of Child Health, London Health Development Agency. NHS.

[50] Clyde Hertzman , Making Early Childhood development a priority : Lesson from Vancouver May 2004 Canadian Centre for Policy Alternative .

[51] Background paper and sources cited.

[52] Ref

[53] Work related policies and interventions, Chapter 6: Hogstedt C. , Lundberg I. Edited Mackenbach , Bakker, Reducing Inequalities in Health : European Perspective. 2002.

[54] Regeneration &neighbourhood change Curtis S.,Cave B, Coutts A. Quenn Mary University of London Paper prepared for HAD seminar . Appendix Employment. 2002

[55] Mark McCarthy Urban Development and health inequalities . Scand J Public Health 2002: 30 :Suppl 59 : 59-62.

[56] Kawachi and Wamala; numerous other refs

[57] Ref

[58] K. Stronks Generating evidence on interventions to reduce inequalities in health : The Dutch case. Scandinavia Journal public Health 30 (suppl 59) pp 21-25.

[59] Gepkens A, Gunning - Schepers LJ Interventions to reduce socio-economic health differences: a review of the international literature European Journal public Health 1996; 6:218-226.

[60] M Whitehead ,Tacling inequalities in helath : a review of policy iniciatives

[61] H. Graham , M P. Kelly Health inequalities : concepts, frameworks and policy. Briefing paper NHS Health development Agency 2004

[62] Petticrew M, Macintyre S. 2001. What do we know about effectiveness and cost - effectiveness of measures to reduce inequalities in health ?

[63] Macintyre S, Petticrew M. 2000. Good intentions and received wisdom are not enough. Journal of epidemiology and Community Health 54 :802-803.

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[64] H. Graham , M P. Kelly Health inequalities : concepts, frameworks and policy. Briefing paper NHS Health development Agency 2004.

[65] M . Petticrew , S. Macintyre. What do we Know about effectiveness and cost - effectiveness of measure to reduce inequalities in Health ? 2001 Oliver A. Cookson R. McDaid D Issues Panel for Equity in Health Niffield Foundation , London .

[66] Elaborated equity team Adapted model Diderichsen and Mackenbach

Commission on Social Determinants of Health (CSDH)

Report of Expert Consultation for Measurement Knowledge Network
Santiago, Chile
March 21 - 24, 2005

REPORT OF PROCEEDINGS
and RECOMMENDATIONS

July 2005

EXECUTIVE SUMMARY

Preliminary Guidelines for CSDH Knowledge Networks Review and Analysis Activities

Introduction

The following is an executive summary and notes from a WHO-sponsored consultation on the measurement of social programs that was held in March 2005. The purpose of the document is to provide broad terms of guidance to the Knowledge Network review and analysis work and to provide suggestions to the Commission on how to document change processes.

This document should be read in conjunction with other CSDH background documents such as the overall Commission strategy outlined in 'Imperatives and Opportunities for Change' and the conceptual framework titled 'Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health.'

A three step process

In order to meet the goal of the Knowledge Networks (KN) to synthesize knowledge to inform the Commission of opportunities for improved action on SDH by fostering the leadership, policy, action and advocacy needed to create change, each KN is recommended to consider the following steps:

Step 1 – Rapid mapping of evidence and policy.

- Canvass a broad and inclusive spectrum of evidence on social determinants of health and health inequalities, including:
  - knowledge from *formal research* (both qualitative and quantitative)
  - knowledge from *practice* (including case studies), and
  - *experiential* knowledge (from policy makers, program managers, international donors and program beneficiaries).
- Identify *priority areas* and *gaps* in knowledge, taking into account variations in contexts across regions of the world, interactions between social determinants, and relevant stakeholders.
- Ensure a balance in the type of evidence drawn upon: consult *systematic reviews* (such as the Cochrane and Campbell databases of relevant interventions), but also aim to develop an "evidence jigsaw", including for example, descriptions of policy-making

processes (e.g. detailed case studies of successful as well as failed policy initiatives in the area of social determinants).

- The composition of expertise within each KN should include, at a minimum, representation of qualitative research and policy expertise, as well as ideally, historical expertise.

Step 2 – Reviewing the prioritized policy options

- In the second step, evidence gathered during the mapping stage should be systematically appraised, using *explicit criteria appropriate for each study design* (e.g. quantitative and qualitative evidence). Criteria for appraising different study designs are available in the literature and should be consulted (for example: Jackson N & Waters E. *Systematic reviews of health promotion and public health interventions.* The Cochrane Collaboration 2005; and Spencer L, Ritchie J, Lewis J, Dillon L. *Quality in qualitative evaluation: A framework for assessing research evidence.* London; Government Chief Social Researcher's Office, 2003, etc).
- How strong and consistent (geographically, across different contexts, across time) are the measured relationships between interventions on specific SDH and improvements in health and health equity? Are the interventions focused on changing gradients of overall inequalities in health or on reaching the groups with lowest health indicators (eg targeting lowest quintile, closing gaps or reducing overall gradients of inequalities)?
- An explicit attempt should be made during this stage to assess the *transferability* of interventions from one setting to another. For example, are the interventions feasible, culturally acceptable and appropriate, and possible to scale-up in developing countries?
- What are the financing, budgetary and institutional implications of national interventions and of scaling up local interventions?
- Change processes: what factors or processes affect change in countries and systems? Under what conditions are policy/program changes associated with improvements in population-level health and greater equity in health? Such factors and their relative contribution to change should be analyzed.

Step 3 – Formulation of recommendations

- Steps 2 and 3 should be independently conducted. Sometimes strong recommendations are justified even on weak evidence, and vice versa. The criteria or basis for specific recommendations can for example be drawn on the basis of social justice; economics; public health burden; etc.
- Each KN should as a minimum run a screening checklist (through the application of Health Impact Assessment) to each of their recommendations, in order to give some indication of the nature, scale, severity, probability, and distribution of potential health impacts.

A. OVERVIEW OF EXPERT CONSULTATION

1. Purpose of the meeting:

The purpose of the meeting was to develop guidance on assessing and evaluating interventions, programs, and policies that are aimed at affecting the social determinants (SD) of population health and health inequalities.

2. Goals:

The three overarching goals of the expert consultation were to:

1. Begin discussions towards developing expert consensus on the sources of evidence for social determinants of health and health inequalities.
2. Provide guidance to the CSDH's Knowledge Networks in assessing evidence on social determinants of health, including identification of appropriate methods, tools, and best practices.
3. Develop a programme of work for the CSDH's Measurement Knowledge Network.

3. Meeting participants

Participants at the meeting represented a broad range of constituencies involved in the evaluation of knowledge and the application of diverse sources and types of evidence to policies. They included representatives of the Cochrane and Campbell collaborations with experience in systematic reviews of public health, social, educational and health service interventions, qualitative researchers, practitioners from the Health Impact Assessment community, and program evaluation/planning experts (see Annex I for list of participants).

B. TOWARDS DEVELOPING ASSESSMENT AND EVALUATION GUIDELINES FOR SOCIAL DETERMINANTS

1. The Nature of Evidence

1.1 "Evidence" refers to any type of observation, whether gathered through qualitative or quantitative methods, or whether arising from randomized controlled experiments or uncontrolled case studies. Although the term "evidence-based" (as in "Evidence-Based

Medicine") has become associated, at least in some quarters, with findings generated by randomized controlled trials (RCTs), there is increasing acknowledgment of alternative ways of "learning" and gaining valuable knowledge about the determinants of health, such as through qualitative research. For example, the Cochrane Collaboration has moved away from its earlier focus on ranking the quality of evidence based exclusively on study design; instead turning to address issues such as "What is the *appropriate* evidence given the question being asked?' Qualitative ways of knowing are being increasing incorporated into systematic reviews of policy evidence (Jackson & Waters 2005).

1.2 Evidence is an essential *but not sufficient* basis for policy action. Several other ingredients besides evidence are involved in the policy-making process, including political will, transferability of evidence into appropriate social strategies, and scalability into different contexts and settings. The policy-making process is often poorly understood by researchers (Petticrew et al. 2004; Whitehead et al. 2004). For instance, the strength of the evidence on any particular topic is not necessarily proportional to the strength of recommendations that should follow. The latter depends upon values, contexts, and judgments about net benefits and harms. Sometimes, strong recommendations for policy are justified on weak evidence, and vice versa. Overall, there is a need to devote further resources to understand: what are the determinants of global public health policymaking.

1.3 Different *kinds* of evidence are useful for policymaking. Policymakers have recommended that researchers should help them with the task of piecing together an "evidence jigsaw" (Whitehead et al. 2004). Such a "jigsaw" would encompass different types of evidence – for example, evidence about the potential effectiveness of policies (from experimental, quasi-experimental, and observational studies); evidence on the diagnosis and/or causes of problems that could contribute to the development of appropriate interventions/programmes; evidence on costs and cost-effectiveness. In addition to considering a diverse "jigsaw" of study designs addressing different kinds of questions, it is also important to recognize that evidence is produced for different kinds of *purposes*, including: mobilizing political will, purchasing "buy-in" from the public, demonstrating success, predicting outcomes, and monitoring progress.

1.4 Expanding the scope of "admissible" evidence in the field of social determinants does not mean sacrificing rigor or doing away with the need for systematic reviews. Qualitative and quantitative researchers alike agree that their respective approaches are amenable to *systematic* review. Systematic reviews -- regardless of whether they are conducted in the quantitative (GRADE Working Group 2004; Jackson & Waters 2005) or qualitative fields (Popay et al 1998; Spencer et al. 2003), or involving both qualitative and quantitative evidence as in the EPPI reviews (at the Institute of Education in London) -- involve established conventions for judging the "trustworthiness" or robustness of the research, for assuring the transparency of methods employed, for the assessment of the technical quality of the research in the context of qualitative research, and the transferability of findings to other settings. The strength of systematic reviews is that they provide a rigorous process to evaluate what has been conducted before; a focus on what works; and perhaps more importantly, what doesn't work.

2. The Role of Randomized Controlled Trials

2.1 Randomized trials have been viewed as the "gold standard" in medical interventions (such as the effect of taking a pill X to prevent disease Y). By experimentally manipulating the treatment, randomized trials have the ability to weed out problems such as selection and endogeneity that often plague observational studies, as well as to uncover any unintended consequences of treatment.

2.2 Although RCTs have been carried out in many clinical settings (e.g. hormone replacement therapy, drugs to treat high cholesterol), as well as in a number of social policy issues (e.g. the negative income tax, early childhood education, welfare-to-work programmes), they have not been attempted as often in the field of the social determinants of health.[1] In some instances where RCTs have been done, the findings have been at odds with the observational findings (although this phenomenon is by no means confined to the field of social determinants). For example, two recent randomized trials of social support provision following major illness -- the ENRICHD Trial (2003) and FIRST Trial (Glass et al. 2004) -- failed to confirm findings from earlier observational studies of a health-protective effect of social support. Experts have argued that these RCT findings do not necessarily disprove the observational evidence. Thus, according to Cohen et al. (2000): "social support is not a variable; it is a *process* that arises through interaction between people. Nor is social support a commodity that can be "delivered" or abstracted from its relational context" (Cohen et al. 2000, p. 17). In other words, translating observational evidence into testable interventions continues to pose challenges in the field of social determinants.

3. The Role of Qualitative Evidence

3.1 Two different models have been described for the ways in which qualitative evidence contributes to the evidence base for policymaking (Popay unpublished). The *enhancement model* assumes that qualitative research adds something "extra" to the findings of quantitative research – by generating hypotheses to be tested, by helping to construct more sophisticated measures of social phenomena, and by explaining unexpected findings generated by quantitative research. By contrast, the *epistemological model* views qualitative evidence as making an equal and parallel contribution to the evidence base through: (a) focusing on questions that other approaches cannot reach; (b) increasing understanding by adding conceptual and theoretical depth to knowledge; and (c) shifting the balance of power between researchers and the researched (Popay unpublished). Importantly, the epistemological model views qualitative evidence as not necessarily complementing quantitative evidence, but sometimes conflicting with it.

3.2 Qualitative research can play two key roles as part of the evidence base for the social determinants of health: (a) providing insights into the subjectively perceived needs of the

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[1] For recent examples in the area of housing, see , the Moving to Opportunity housing voucher experiment conducted by the US Department of Housing and Urban Development (Kling et al. unpublished), or the *He Kainga Oranga*/Housing and Health Research Programmeme conducted in New Zealand (Howden Chapman in press).

people who are to be the targets of the interventions and programmes aimed at addressing the social determinants of health and health inequalities (giving people a "voice"); and (b) helping to unpick the "black box" of interventions and programmes to deepen understanding about factors shaping implementation, and hence, impact (Roen et al. in press; Arai et al. in press).

3.3 One major difference between the qualitative and quantitative traditions concerns the notion of replicability and generalizability. Obviously generalizability within the qualitative tradition is of a different kind to that which is possible in an experiment or a survey (Popay unpublished). With regard to judging the *external validity* of qualitative evidence, Popay notes: "The aim [in the qualitative tradition] is to identify findings which are *logically* generalizable rather than probabilistically so" (Popay et al. 1998). It should also be noted that there is a rapidly growing literature on methods for the synthesis of qualitative research and of mixed methods research (see for example, Popay & Roen, 2003)..

4. The Role of Health Impact Assessment

4.1 Health Impact Assessment (HIA) is a tool for prospectively forecasting the impacts of interventions on health and the distribution of health. HIA differs from systematic reviews in that its primary purpose is to *predict* the outcomes of a proposed policy (as compared to retrospectively rating the quality of existing evidence). It is important to emphasize that HIA is not a planning tool. Rather, its utility is as a prospective tool for forecasting the positive and negative impacts of policies *that have already been proposed.*

4.2 Although the application and diffusion of HIA to public health decision making is still in its early stages, the methodology is already sufficiently robust so that structured guidelines exist for their implementation (see for example, the 1999 Gothenburg Consensus Statement, as well as the European Policy Health Impact Assessment Guide 2004). No policy is immune from HIA scrutiny. There was consensus among meeting participants that HIA need not be prescribed for the individual CSDH Knowledge Networks; however, they ought to be mainstreamed within health systems and government decision making processes, even in developing countries. Much work remains to be done to make this a reality, including the need for local training and capacity building to undertake HIA, possibly with financing from WHO. To date, there has been only limited application of HIA to macro-economic policy decisions. In addition, the use of HIA itself needs further systematic study, i.e. what is the evidence of their impact on policy decisions?

4.3 Among practitioners of HIA, tension exists between its different uses. Some view it as a technical decision support tool, while others view it as a mechanism for engaging the community affected by the proposed policy (i.e. it is a part of the democratic decision making process). This tension is reflected in who actually ends up conducting the HIA – professional experts or members of civil society representing the affected communities? HIAs vary with respect to the extent of community consultation and participation versus "capture" by professionals. In addition, HIAs are often unclear about the degree of uncertainty surrounding forecast impacts. HIAs are frequently conducted under severe time and resource constraints. There is a role for WHO to create a library of HIAs in developing countries (for example, Thailand has conducted about fifty HIAs so far), and to make these accessible to other settings.

4.4 Equity-focused HIA (EFHIA) is a special subset of HIAs intended to forecast the impacts of policies on health equity outcomes (Mahoney et al. 2004). Here, clarity is required in specifying the exact equity outcomes that are being considered -- for example, (a) improving the health of the worst off; (b) reducing the gaps between the best and worst off; or (c) reducing the overall gradient across the socioeconomic hierarchy. These outcomes – referred to respectively as minimizing health disadvantage, narrowing the health gaps, and reducing health gradients (Graham & Kelly 2004) – may not be simultaneously achievable within the context of a given policy intervention, and EFHIA needs to specify which target is being evaluated.

5. The Role of Programme Evaluation

5.1 Programme evaluation (PE) is a systematic set of practices to improve and account for public health actions, and to forecast a range of "plausible futures" stemming from policies. Evaluation is a driving force for *planning* effective public health strategies, improving existing programmes and demonstrating the results of resource investments (Milstein & Wetterhall 1999). The foundation of PE consists of a well-described sequences of steps (engaging stakeholders, describing the programme – including the use of logic models, focusing the evaluation design, gathering credible evidence, justifying the conclusions, and ensuring the use and sharing of lessons learned) that has been set forth by the CDC's Programme Evaluation Framework (Milstein & Wetterhall 1999), the Community Toolbox (http://ctb.lsi.ukans.edu/ctb/c30/ProgEval.html) and elsewhere. Beyond formal evaluation systems, PE also encompasses a wider spectrum of methods and approaches (such as system dynamics simulation models) to observe and interpret programmes, and to stimulate further observations.

5.2 Within its sequences of steps, PE *subsumes* virtually all of the methods and tools considered during the meeting and described above. Thus, planning for action within a PE framework incorporates systematic reviews of previous research, Health Impact Assessment, as well as additional steps such as power mapping and eliciting public opinion. There was no firm consensus at the meeting, however, about where the PE approach should be positioned within the scope of work to be undertaken by the CSDH. For example, should PE be embedded within individual Knowledge Networks, or should it be adopted as an integrative function of the Measurement Knowledge Network? The real utility of PE may lie at the country engine level. In order for PE to be valued by stakeholders, it is recommended that a specific portion of the budget be set aside for this activity (e.g. 10% as recommended by the 6th Global Health Promotion Conference and the 2000 Mexico Declaration) during the 3rd phase of the CSDH.

6. Remaining Gaps

6.1 There is currently lack of information about how much evidence on social determinants exists for developing countries. Nor do we know the extent to which evidence on SD from developed countries is transferable or scalable to developing country contexts. Robust criteria exist for assessing the quality of evidence (both qualitative and quantitative), as well as for applying the existing evidence to plan, forecast and monitor the impacts of policies in the SD field. However, the infrastructural capacity has been hitherto lacking to apply these approaches in the developing world. Each Knowledge Network should include strong representation from a diversity of regions to ensure capacity building as well as knowledge transfer (including lessons that could be applied from developing regions to the rest of the world).

6.2 In addition to the methods and tools considered at the meeting, there is a need to expand coverage to alternative systematized approaches to evaluating evidence – for example, participatory approaches to research and evaluation, exemplified by community-based participatory research (CBPR) and community asset-mapping.

C. TOWARDS A STANDARD REVIEW PROCESS FOR KNOWLEDGE NETWORKS – PRELIMINARY RECOMMENDATIONS

Background

The KN work is essential to the success of the entire CSDH. The focus of the KN work over the next 18 months is to:

1. Analyse evidence on the robustness of the associations between SDH and health/ health equity across different country contexts.
2. Evaluate evidence and suggest national and global policies, programmes and institutional arrangements that modify the association between SDH and health equity and enhance opportunities for greater health equity.
3. Document and assess the processes and mechanisms to mainstream and scale-up successful examples of incorporating SD into health programmes and policies.
4. Propose approaches for using the evidence on integrating the SDH and health equity goals into national and global policy and planning.

5. Identify and engage institutions and actors to contribute to the production, dissemination and use of knowledge for the proposed policies and programmes across different regions.
6. Engage and dialogue with wider country, regional and global processes of the Commission to exchange knowledge and learning.

1.1 Each Knowledge Network should establish a three step process in conducting standardized reviews of evidence on SD: (i) an analytic and strategic review paper; (ii) systematic reviews of selected policies and interventions; and (iii) formulation of recommendations.

1.2 The first step for each Knowledge Network should be a *rapid mapping* exercise to identify potential policies for review and to prioritize them. This should not be a comprehensive review, but should be transparent and reasonably broad. Knowledge Networks should not – indeed they cannot afford to -- confine themselves to considering only randomized trial evidence on social determinants. Each KN should adopt a broad and inclusive spectrum of approaches to gathering and synthesizing evidence, including:

- Knowledge from formal research (both qualitative and quantitative)
- Knowledge from practice (including case studies)
- Experiential knowledge of professionals, policy makers, and people who are to be the targets of interventions.

1.3 During the mapping stage, each KN should identify *priority areas* as well as *gaps* in knowledge, and should take into account:

- Variations in context across regions of the world
- Variations by socially stratifying factors
- Interactions between social determinants
- Relevant stakeholders for the social determinant, including the public sector, private sector, and civil society.

1.4 During the mapping stage, case studies might be considered for identifying best practices, hypotheses, useful frameworks, and issues that should be considered in systematic reviews (the 2nd step) of selected policy options. The review step should be also informed by overviews of available systematic reviews (such as the Cochrane and Campbell databases of relevant interventions, or the York University database of public health interventions), theoretical frameworks, and consultation. The process should largely rely on structured reflection informed by the foregoing sources (as well as additional sources), but it should not be a systematic review and caution should be taken to not just focus on policies where there is the best evidence.

1.5 Each Knowledge Network should pay careful attention to the use of *language:*

- Take care that the use of the term "systematic review: does not become equated with only (randomized) controlled studies
- Take care that the language used is inclusive and engages sectors outside of health, i.e. avoid being "healthiest".

1.6 The composition of each Knowledge Network should:

- Include representation of qualitative research expertise
- Ideally include policy expertise (policy analysis as well as policy practitioners)
- Ideally include historical expertise.

1.7 The second step should consist of *reviewing the prioritized policy options*, and should be systematic in nature. The evidence considered during this step should include unpublished studies in the grey literature, and canvas a wide range of study designs including case studies where appropriate. Explicit criteria applicable for all KNs should be used for selecting studies that are included (although this has yet to be developed), and the selected studies should be critically appraised using criteria that are *appropriate for each study design* (e.g. qualitative and quantitative). Steps should be undertaken to evaluate the transferability of interventions from one setting to another. A broad spectrum of approaches should be considered for synthesizing knowledge, e.g. systematic reviews, meta ethnography as well as realist synthesis.

1.8 There is a need for coordination and management moving from the 1st to the 2nd step to avoid duplication across Knowledge Networks, to identify potential gaps, and to ensure that the questions (the policy options) that are prioritized are appropriately broad. It is our understanding that the CSDH Secretariat is planning this for their meeting in India in September, 2005.

1.9 It is important that the 2nd and 3rd steps (formulation of recommendations) are separated, particularly concerning judgments about the quality of evidence and how compelling it is. Sometimes, strong recommendations are justified on weak evidence and vice versa. The Commission needs to consider how to manage this process, including identifying who is responsible for making the policy recommendations. The Commission also needs to consider how the recommendations should be formulated in such a way that they take into account the need to apply them in vastly different settings, and to take account of different contexts, cultures and values.

1.10 The Knowledge Networks should *not* use the limited time and resources they have to undertake comprehensive reviews of the association between social determinants and health. This would take time, resources, and would be difficult to accomplish given the complexity of the relationships. It would be better to focus directly on the question of what we can do.[2]

1.11 Consideration should be given to asking the Knowledge Networks to undertake case studies given that the evidence for many upstream interventions will be limited, including the quality of available case studies.

1.12 Perspectives and values need to be *local.* Knowledge Networks can provide guidance regarding how to take these into account, and should incorporate these into reviews of the evidence (for example, identifying potentially important moderating factors). Networks

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[2] Of course, in some instances there may be no evidence about "what to do", in which case the KN might usefully spend time reviewing evidence on causality in order to assist in the formulation of interventions & programmemes which can then be evaluated.

should not undertake systematic reviews of this evidence outside of the context of reviewing the effects of policies.

1.13 The Measurement Knowledge Network should be tasked with developing a set of guidelines on how each of the Knowledge Networks should conduct and report their standardized reviews. A number of resources already exist that could be easily adapted and modified.

1.14 The Networks and the Commission should not hide uncertainty. Given that there is likely to be uncertainty about most recommendations, one of the mandates given to the Networks should be to provide explicit suggestions on how policies should be evaluated so as to reduce some of the most important areas of uncertainty.

1.15 There is a need to devote further resources to understanding: what are the determinants of global public policymaking, i.e. towards understanding "how change happened", as well as detailed case studies of *failed* policy initiatives.

D. TOWARDS INCORPORATING HEALTH IMPACT ASSESSMENT IN KNOWLEDGE NETWORKS – PRELIMINARY RECOMMENDATIONS

1.1 Each Knowledge Network should as a minimum apply a screening checklist to each of their recommendations, in order to give some indication of the nature, scale, severity, probability, and distribution of potential health impacts.

1.2 The CSDH should financially support the building of capacity to carry out HIA in countries working with the CSDH (e.g. through organizing regional training workshops).

1.3 The results of HIA should be used to prioritize policy options in the work of the Commission.

1.4 The Commission should adopt the principles of HIA as adumbrated in the Gothenburg Consensus Statement with its broad socio-environmental view of health, and HIAs should be:

- Equity-focused based on the distributional impacts of social determinants of health
- Adapted to the institutional, social and cultural context of each region
- Applied to all policies, including global policy initiatives.

1.5 In order to be able to undertake HIA, it will be necessary to devote further resources for gathering baseline health data at the country level, and ensure that these data are broken down on the basis of core indicators to analyze distributional impacts.

Annex I

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Santiago, Chile: 21-24 March 2005

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REFERENCES

Arai L, Roberts H, Roen K, Popay J. It might work in Oklahoma but will it work in Oakhampton? What does the effectiveness literature on domestic smoke detectors tell us about context and implementation? Injury Prevention 2005 (in press).

Cohen S, Underwood LG, Gottlieb BH. *Social Support Measurement and Intervention. A Guide for Health and Social Scientists.* New York: Oxford University Press, 2000.

European Policy Health Impact Assessment. A Guide. 2004.

Glass TA, Berkman LF, Hiltunen EF et al. The Families in Recovery from Stroke Trial (FIRST): Primary study results. Psychosom Med 2004;66:889-97.

GRADE Working Group. Grading quality of evidence and strength of recommendations. BMJ 2004;328.

Graham H & Kelly MP. Health inequalities: concepts, frameworks and policy. NHS Health Development Agency Briefing Paper. 2004, 12 pp.

Howden-Chapman P, Crane J, Matheson A, et al. Retrofitting houses with insulation to reduce health inequalities: Aims and methods of a clustered, randomised community-based trial. Soc Sci Med 2005 (in press).

Jackson N & Waters E. *Systematic reviews of health promotion and public health interventions.* The Cochrane Collaboration 2005.

Kling J, Liebman J, Katz L, Sonbonmatsu L. Moving to Opportunity and tranquility: Neighborhood effects on adult economic self-sufficiency and health from a randomized housing voucher experiment. (unpublished manuscript accessed at: http://www.ksg.harvard.edu/jeffreyliebman/papers.htm)

Mahoney M, Simpson S, Harris E, Aldrich R, Stewart Williams J. Equity-focused Health Impact Assessment Framework. University of Newcastle, Sydney: Australasian Collaboration for Health Equity Impact Assessment (ACHEIA), 2004.

Milstein RL & Wetterhall SF. Framework for programme evaluation in public health. MMWR 1999;48:No. RR-11.

Petticrew M, Whitehead M, Macintyre SJ, Graham H, Egan M. Evidence for public health policy on inequalities: 1: The reality according to policymakers. JECH 2004;58:811-16.

Popay J, Rogers A, Williams G. Rationale and standards for the systematic review of qualitative literature in health services research. Qualitative Health Research 1998;8:341-51.

Popay J. Qualitative research and the epidemiological imagination – a vital relationship. Unpublished manuscript circulated at meeting.

Popay J & Roen K. Using Evidence from Diverse Research Designs: A Preliminary Review of Methodological Work. SCIE Report No. 3, November 2003. ISBN 1-90481-2-05-8. UK: Social Care Institute for Excellence.

Roen K, Arai L, Popay J, Roberts H. Preventing children's injuries: Exploring methodological issues in the systematic review of qualitative evidence. Soc Sci Med 2005 (in press).

Spencer L, Ritchie J, Lewis J, Dillon L. *Quality in qualitative evaluation: A framework for assessing research evidence.* London; Government Chief Social Researcher's Office, 2003.

Whitehead M, Petticrew M, Graham H, Macintyre, Bambra C, Egan M. Evidence for public health policy on inequalities: 2: Assembling the evidence jigsaw. JECH 2004;58:817-21.

Writing Committee for the ENRICHD Investigators. Effects of treating depression and low perceived social support on clinical events after myocardial infarction. The Enhancing Recovery in Coronary Heart Disease Patients (ENRICHD) Randomized Trial. JAMA 2003;289:3106-16.