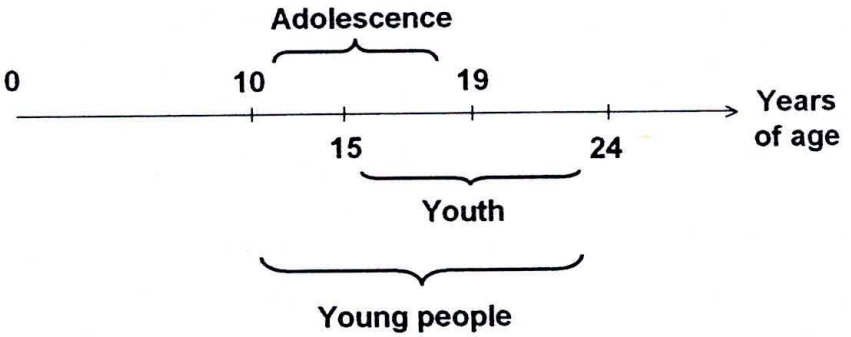
Sexual and reproductive health of young people, India

Shireen Jejeebhoy
Population Council, New Delhi

Population Council

Definitions



Population Council

Adolescence and youth

- Adolescence has both biological (physical & psychological) and socio-cultural dimensions
- "Adolescence" is a phase rather than a fixed age group and can be perceived differently in different cultures
- Gender differentials are important
- Stages in adolescence (10-13, 14-16, 17-19 years)

Population Council

Why focus on young people?

Population Council

Adolescent risk behaviours and implications for adult health

Behaviours formed in adolescence have lasting implications for individual and public health.

- Most adults who smoke started during their adolescence
- Young people who start drinking before age 15 are four times more likely to become alcoholics than those who start at age 21 or later
- HIV+ women more likely than others to report forced sex in adolescence

Population Council

Why focus on young people?

- >300 million population aged 10-24: India's health, mortality, morbidity scenarios depend heavily on the experiences of this population
- Current thinking not informed by the unique needs and vulnerabilities of young people – and continues to
  - *Serve married adolescents in the same way as married adults*
  - *Exclude unmarried adolescents from the network of contraceptive supplies*
  - *Focus on nutritional supplementation and other non-controversial services*

Population Council

Why focus on young people?

- With new thrust towards youth programming (e.g. RCH-2), need to have benchmarks, enable us to track the situation of youth
- Above all, understanding young people's transitions to adulthood, the life choices they face, the factors that facilitate expansion of these choices or limit their attainment will enable the design of more integrated and realistic programming.

Population Council

Context of young people's lives

Population Council

Young people not a homogeneous group: Youth transitions

- Schooling: % attending school:
  - *ages 11-14: 80% of boys and 67% of girls*
  - *ages 15-17: 58% of boys and 40% of girls*
- Work: % 15-19 year olds working (1991):
  - *Females: 26*
  - *Males: 44*
- Marriage: % 15-19 year olds ever married:
  - *Females: 34*
  - *Males: 6*
- Family building: % women 15-19 with 1+ children:
  - *All women: 16*
  - *Married women: 48*
- Mortality rates generally low; gender disparities apparent

Population Council

What % are sexually experienced?

Population Council

Unsafe, unwanted sexual relations

Population Council

Majority of sexually active females are active within marriage

Percentage of young women married by age 13, 15, 18 years

	Women currently aged:	
	20-24	25-29
Proportion ever married	78.8	94.5
Percentage married by age 13	8.9	12.1
Percentage married by age 15	23.5	29.2
Percentage married by age 18	50.0	58.9
Percentage married in adolescence (by age 20)	67.1	74.9

Source: IIPS and ORC Macro 2000

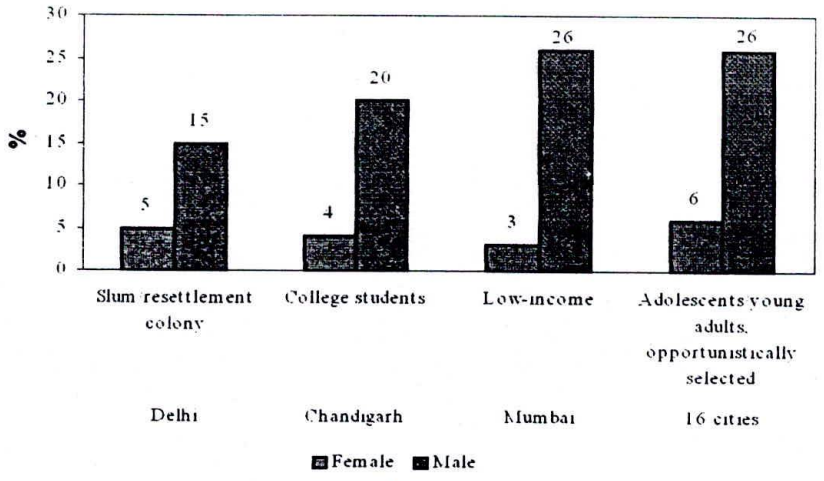
Population Council

Sexual initiation within marriage

- Large proportions of adolescent girls experience sexual initiation within marriage
- Age at marriage remains low, and wide regional variation
- Often the adolescent herself is excluded from the choice of whom and when to marry
- Married adolescents are a neglected population in terms of SRH

Population Council

Premarital sexual activity observed among youth



Source: Abraham and Kumar 1999 for Mumbai; Kaur et al., 1996 for Chandigarh; Mehra, Savithri and Coutinho 2002 for Delhi; Watsa 1993 for the 16 city study

Population Council

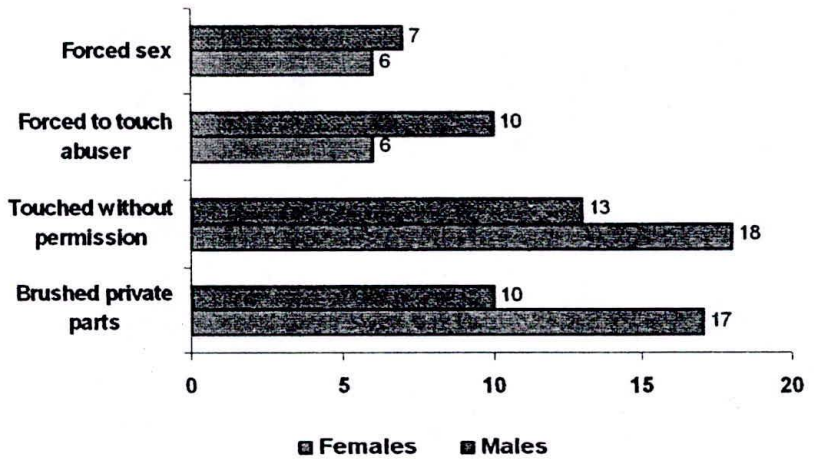
Sexual relations are not always safe

- ***Multiple partners, casual and sex worker relations, relations with "aunties"***
  - 10% rural males 15-19 reported a casual encounter in last 12 months (NACO and UNICEF, 2001)
  - >20% in other studies
- ***Non-use of condoms***
  - Among unmarried males: large proportions report non-use, and inconsistent use (>85%)
  - Among those reporting a casual contact, > 60% report inconsistent use (NACO and UNICEF 2001)
- ***Non- use of contraception***
  - Among the married, 8% report use and 27% report unmet need for contraception (NFHS)

Population Council

Sexual relations are not always wanted

Percentage of females and males aged 16-17 reporting non-consensual sexual experiences, Goa



Source: Patel and Andrew (2001)

Population Council

Non-consensual sexual relations are reported by married females

"I decided to stop it since I used to feel uneasy while having sex with a big abdomen. But my husband used to get angry if I told him that I did not want to have sex. He used to tell me that he would remarry if I refused to have sex with him. I tried to explain to him, but he did not want to listen. He used to get angry if I refused and we had some tiffs on this issue. I had to give in to his demands after a few days and our tiffs were resolved. We continued in this manner till my ninth month. I had feelings of discomfort but I had to accept my husband's wishes"

(18 year old, recently delivered mother, Santhya et al., 2001).

Population Council

Adverse consequences of unsafe or unwanted sexual relations

Population Council

Pregnancy related consequences

- 19% of TFR contributed by 15-19 year olds
- Early pregnancy: >1 in 5 by age 17
- Nearly 15% stunted and 20% anaemic
- High rates of maternal morbidity and mortality
- 1-10% abortion seekers are adolescent
- Neonatal mortality (63 vs 21) and low birth weight

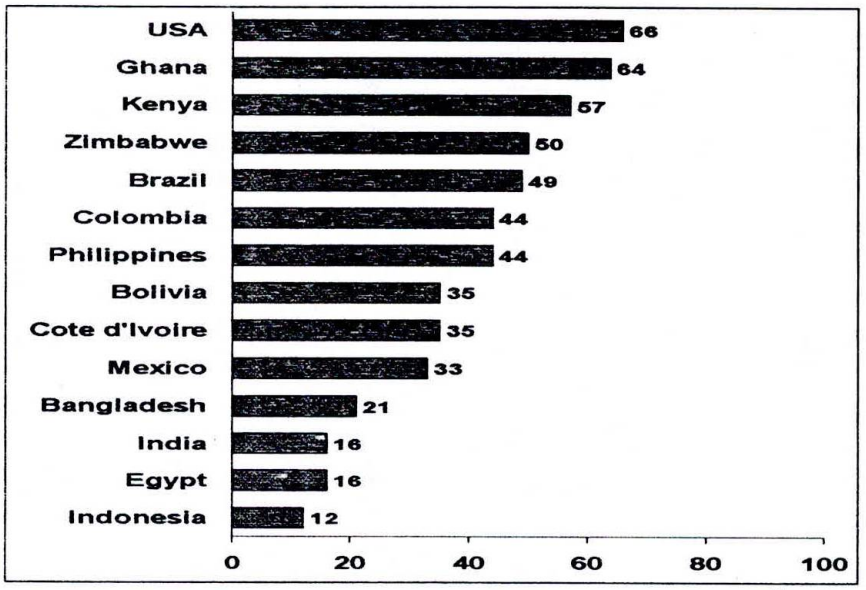
Population Council

Unintended Pregnancy

- Large minorities of married and unmarried report unintended pregnancy
- Often resolved by abortion
- Young abortion seekers – particularly the unmarried – are more likely than adults to delay abortion, opt for unsafe providers and experience complications

Population Council

Adolescent births are often unplanned



Population Council

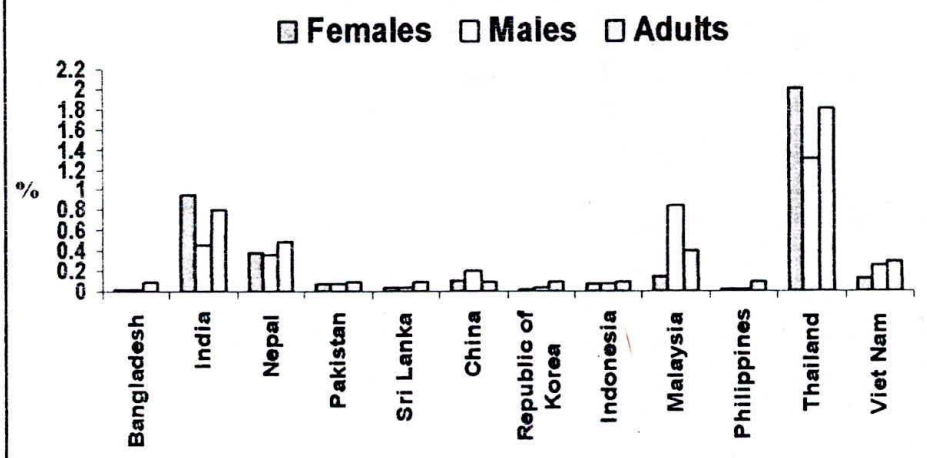
RTIs, STIs and HIV

- STIs observed: married young females aged 18-22 often considered "low risk" : 18%
- Significant percentages of youth with HIV/AIDS:
  - Females 14-24: 0.96%-0.46% (high & low prevalence sites)
  - Males 14-24: 0.46%-0.20% (high & low prevalence sites)

Sources: Joseph et al., 2003; UNICEF, UNAIDS, WHO, 2002

Population Council

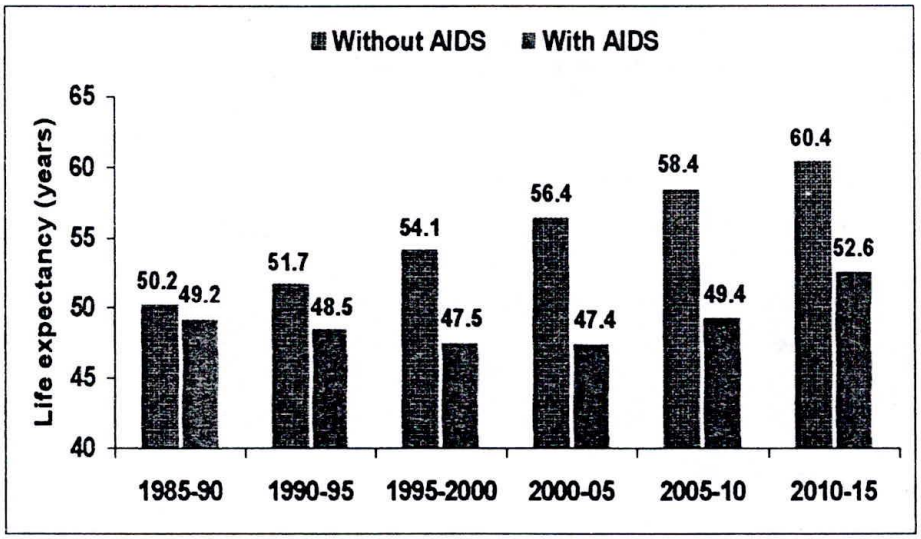
HIV/AIDS among youth, selected Asian countries: % of youth living with HIV/AIDS



Source: UNICEF, UNAIDS, WHO (2002)

Population Council

Life expectancy at birth in 29 African countries with and without AIDS



Population Council

Underlying risk factors and promising practices

CAN WE IDENTIFY THEM?

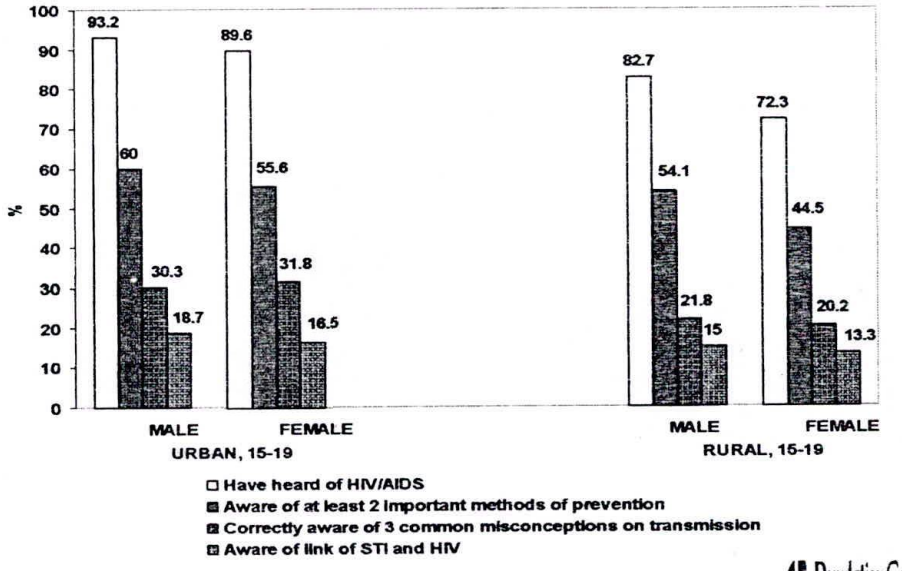
Population Council

Underlying risk factors and promising practices

1. Lack of awareness

Population Council

Lack of awareness: % of adolescents aged 15-19 who have heard of AIDS and who know about transmission routes



Source: NACO and UNICEF 2002.

Population Council

Superficial awareness and widespread misperceptions

- % women aged <25 who have heard of AIDS: 37
- % of these who reported:
  - multiple partner sex as a risk factor: 57
  - Consistent condom use as protective: 58
  - A healthy looking person could be HIV+: 26
- "One does not require much information on these ages in the adolescent age. More information, no doubt, tempts them to do wrong things." (father's group, Mehra et al., 2002, Delhi).

Population Council

Interventions can overcome lack of awareness and misperceptions:

	BEFORE	AFTER
ADOLESCENT GIRLS, ALLAHABAD		
- Could name a STI:	*67*	*94*
- Knew how pregnancy occurs	*44*	*98*
ADOLESCENT BOYS, LUCKNOW		
- Aware of multiple types of STIs	*66*	*83*
- Know that STIs can be asymptomatic	*30-40*	*80*

Sources: Sebastian, 2002 personal communication; Awasthi et al., 2000.

Population Council

Underlying risk factors and promising practices

2. Gender double standards and power imbalances

Population Council

Gender roles and power imbalances

- Priority on preserving young women's virginity before marriage but condoning sexual activity among young men
- Supervision of the movements of daughters and relative freedom to sons
- Friendships between girls and boys are unacceptable
  Girls, low-income setting, Delhi : 80%
  Boys, low-income setting, Delhi : 25%
- Boys do not respect girls who have engaged in pre marital sex: >66%
- Girls who engage in pre-marital sex always regret it: 80%
- Limited decision making autonomy of adolescent females in sexual and reproductive matters

Sources: Mehra et al., 2002; Sodhi et al., 2002

Population Council

Gender roles and power imbalances

- Many feel that society condones premarital sexual activity among boys and even puts social pressures on boys to become sexually active at an early age"... *And if the girl says no then boys defame her in her gali (lane) and colony. Because there is no effect on boy's character"* [19 year-old male student]
- "[Boyfriend] *kissed me forcefully...he gets angry if I talk to anyone in the lane. One day he saw me talking to my brother...he... beat me up. He was saying that boy was my boyfriend... he beat me so much even then I did not say anything to him because I love him so much"* [in-depth interview, 15 year-old girl, slum setting, Delhi]

Source: Sodhi, 2005 forthcoming.

Population Council

Gender roles and power imbalances

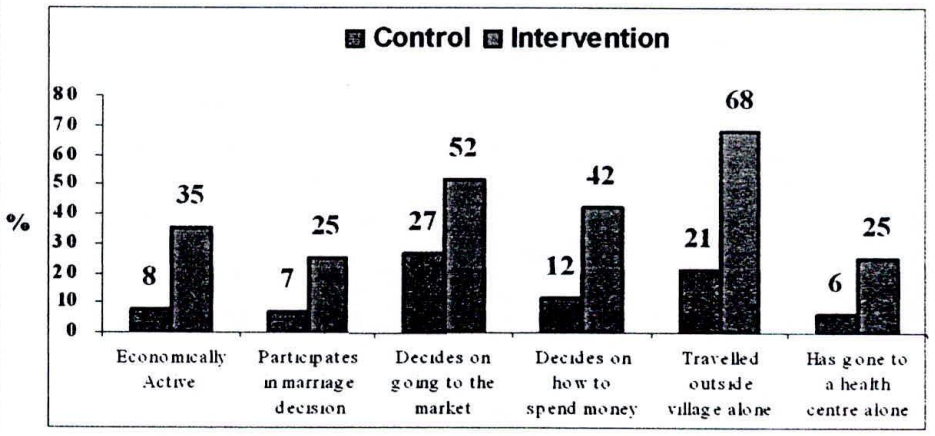
- *% women aged 19-24 who had a say in marriage decisions*
  - rural Uttar Pradesh: 10-12
  - rural Tamil Nadu: 37-53
- "Did I get the chance to say anything? Could I say anything after my parents took the decision? What could I have done? [in-depth interview, 18 year old recently delivered mother in Kolkata]"

Sources: Jejeebhoy and Halli, 2002; Santhya et al., 2001.

Population Council

Emerging evidence of self-efficacy, autonomy, negotiation skills

Follow-up of a cohort of out-of-school adolescent girls two to five years after exposure to a comprehensive education and service intervention:

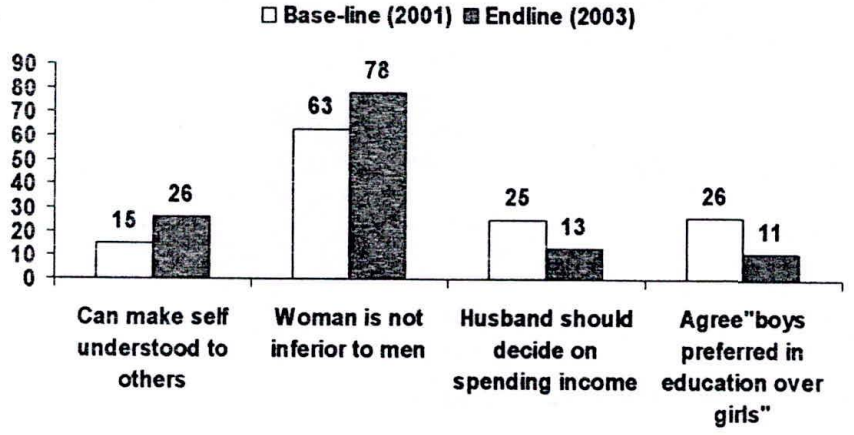


Source: Levitt-Dayal et al., 2002

Population Council

Emerging evidence of self-efficacy and autonomy

Follow-up of girls aged 14-19 who participated in a reproductive health education and vocational skills training programme:



Source: Sebastian et al., 2004

Population Council

Underlying risk factors and promising practices

3. Interaction, communication, supportiveness missing

Population Council

Interaction with parents and other adults

- Limited communication: sex and reproduction are taboo subjects; belief that talking about sex leads to sexual activity
- Supervision of the movements of daughters and relative freedom to sons
- Parental counselling and supportiveness limited
- Teachers ambivalent: stress biological information over broader issues of sexuality

Population Council

Parental interaction: policing may not safeguard against risky behaviour

"There are a lot of constraints on girls' movements. But they continue to meet their male friends stealthily. When parents learn of these cases they generally forcibly get them married off elsewhere after an abortion or agree to get them married to the same boy." (Adolescent girls, 17-19, slum)

"There are some cases of pregnancies among unmarried girls, we do have girls of this kind in our area. We do not know them well and do not interact with them" (Adolescent girls, 15-17, resettlement colony)

Source: Mehra et al., 2002

Population Council

Interaction with parents: what young people want

- We need more attention, care and support from all. We feel we do not have the right to make our own choices, even after learning about all the alternatives and choices related to our careers, friends, movements and life partners. We greatly lack proper and correct information and guidance, especially related to our bodies' physiological and psychological changes.

- We are not allowed to express our emotions and our thoughts. To our parents, we say that we need you to listen to us, to our dreams, our experiences, our explanations. Give us your time. Don't hide things from us, especially when they are related to us. Give us the privacy and the space to grow. Guide us; don't drive us.

Source: Singh, 2002, statement made at the UNFPA South Asia Conference on Adolescents, New Delhi,1998

Population Council

Underlying risk factors and promising practices

4. Lack of an available, accessible, acceptable service environment

Population Council

Limited use of services

- 49% of married young women experiencing gynaecological problem in rural Maharashtra
- 9% of married 16-22 year olds experiencing RTI/STI symptoms in rural Tamil Nadu
- About as likely as older women to seek pregnancy related care
- Unmarried adolescent abortion-seekers more likely than other women to seek second trimester abortion, choose home remedies and unqualified providers

Sources: Barua and Kurz, 2001; Joseph et al., 2002; Santhya and Jejeebhoy, 2002; Ganatra and Hirve, 2002

Population Council

Service environment and obstacles to care

- Lack of autonomy
- Lack of affordability
- Long distances, waiting times
- Poor quality of care
- Lack of privacy, confidentiality
- Providers lack counselling skills, are judgmental and disrespectful.
- Providers reluctant to providing services –notably contraception – to unmarried youth

Population Council

Making the service environment "youth friendly"

- Accommodating young people's stated priorities:
  - "a welcoming facility, where I can drop in and be attended to quickly"
  - "...where thee is privacy and confidentiality,"
  - "where staff treat us with respect and do not judge us,"
  - "where we can get a range of services so that we do not have to be referred to different places for treatment"

Source: Godinho, Dias-Saxena, Divan et al., 2002

Population Council

Key SR rights of adolescents

Population Council

India's commitment to SRHR of Adolescents

- ICPD and ICPD+5 Plans of Action and made a commitment to "*protect and promote the right of adolescents to the enjoyment of the highest attainable standard of health,* provide appropriate, specific, user-friendly and accessible services to address effectively their reproductive and sexual health needs, including reproductive health education, information, counselling and health promotion strategies."
- Convention on the Rights of the Child (CRC, 1989) and its general comment No. 4 (2003) on the main "human rights that need to be promoted and protected in order to ensure that adolescents ..... are adequately prepared to enter adulthood and assume a constructive role in their communities and in society at large."
- MDG goals cannot be achieved without attention to SRH of adolescents

Population Council

Key SR Rights of Adolescents

- Protection from all harmful traditional practices notably early marriage
- Access to information
- Access to health services, including counselling and health services for sexual and reproductive health of appropriate quality and sensitive to adolescents' concerns
- Opportunities to acquire life skills
- A safe and supportive environment

Sources: CRC 2003, ICPD

Population Council

Meeting these rights

- How far have we come in aligning our own policies and programmes with the commitments articulated in the CRC and ICPD
- To what extent have these rights been realised in terms of the reality of young people's lives?
- Way forward

Population Council

Protection from all harmful traditional practices notably early marriage

Population Council

Protection from all harmful traditional practices such as early marriage

- CRC:
  - *State parties must [fulfil their] obligation to protect adolescents from all harmful traditional practices, such as early marriages... (para 39g)*
  - *need to review and reform legislation and practice to increase the minimum age for marriage with and without parental consent to 18 years (para 20)*
- NPP (2000) and NYP (2003):
  - *special programmatic attention to delay marital age and enforce the Child Marriage Restraint Act*

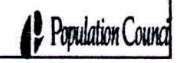
Population Council

Going further: Delay marriage and recognize the vulnerability of married female adolescents

- REALITY?
- Secular trend towards increased marriage age: but at this rate, by 2015 1/3 girls will marry in adolescence
  - *education for girls, programmes for parents, addressing community norms and enforcing existing laws – to accelerate the pace of change*
  - *raise awareness of the negative impact of early marriage*
  - *enhance married girls' autonomy within marital homes: education, life and livelihood skills and opportunities.*
  - *train providers to recognize married adolescent girls as a special group*

Population Council

Access to information



Access to information

- CRC:
  - *ensure that adolescents have access to the information that is essential for their health and development (para 39b) .....*
  - *including on family planning and contraceptives, the dangers of early pregnancy, the prevention of HIV/AIDS and the prevention and treatment of STIs regardless of marital status and whether their parents or guardians consent. (Para 28)*

- ICPD+5:
  - *Ensure that adolescents, both in and out of school, receive the necessary information, counselling and services to enable them to make informed choices and decisions (para 73e)*

Access to information

- **NPP:**
  - *ensure for adolescents access to SRH information*
- **NYP:**
  - *information and education activities; incorporate sexuality education within the school curriculum*
- **NAIDSP:**
  - *generate greater awareness about nature of its transmission*

Population Council

Going further: Attention to content and quality

- REALITY?
- **As larger proportions of adolescents remain in school, larger proportions will be exposed to school based sexuality education programmes.**
  - *attention to content and quality of information*
  - *reaching the out-of school*
  - *Lessons from small scale innovative sexuality education strategies*
  - *Sensitise trainers, counselors*
  - *dispelling fears and misconceptions -- no evidence that in-depth awareness encourages risk taking*

Population Council

Availability, Accessibility, Acceptability and Quality: of sexual and reproductive health services and counselling

---

Population Council

Access to SRH services

CRC:

- *availability, accessibility, acceptability and quality services*
- *effective prevention programmes*
- *address cultural and other taboos surrounding adolescent sexuality…*
- *remove barriers hindering the access of adolescents to information, preventive measures such as condoms, and care.*
- *privacy and confidentiality…*
- *counselling and health services of appropriate quality and sensitive to adolescents' concerns*

Source: paras 41, 33

Population Council

Access to SRH services

ICPD+5

- Ensure services that safeguard the rights of adolescents to privacy, confidentiality and informed consent
- Train all who are in positions to provide guidance to adolescents, particularly parents and families, but also communities, religious institutions, schools, the mass media and peer groups
- Ensure that attitudes of health care providers do not restrict the access of adolescents to appropriate services and information
- Remove legal, regulatory and social barriers to reproductive health information and care for adolescents

Source: ICPD+5 see paras 73b, e, f

Population Council

Policies and programme commitments

- NPP:
  - *ensure "access to... counselling and services, including RH services, that are affordable and accessible;*
  - *"strengthen PHCs and SCs to provide counselling, both to adolescents and also to newly weds"*
- NYP:
  - *establish "adolescent clinics" for counselling and treatment and Youth Health Associations at grass root level for family welfare and counselling services*
- RCH-2 (proposed)
  - *Weekly adolescent health clinics at PHC, CHC and higher levels*

Population Council

Going further:
Integrate young people's concerns into programmes

- REALITY? **Ambiguities remain: Unmarried not eligible for contraceptive services; married report unmet need for contraception and lack pregnancy related care; Poor quality of care, lack of confidentiality and privacy**
  - o ***HW to provide SRH services including contraceptives to unmarried females and males***
  - o ***Providers to give sensitive, non-judgmental, private and confidential services***
  - o ***Redefine male health worker role to include SRH counselling and services to young men***
  - o ***Engage newly married young women and their husbands (contraception, delaying pregnancy, appropriate care)***
  - o ***Two-pronged effort: establish adolescent health clinics; supplies and counselling also through other acceptable outlets, youth clubs etc***

Population Council

Opportunities to acquire life skills and address unbalanced gender role attitudes

Population Council

Life skills development, redress gender imbalances

CRC, ICPD

- ensure that adolescents...have opportunities... to acquire life skills, to obtain adequate and age appropriate information, and to make appropriate health behaviour choices. (CRC Para 39b)
- develop and implement awareness-raising campaigns, education programmes and legislation aimed at changing prevailing attitudes, and address gender roles and stereotypes(CRC Para 24).
- Develop action plans, based on gender equity and equality that cover education, professional and vocational training and income generating activities, and incorporate mechanisms for education and counselling in the areas of gender relations and equality, violence, responsible sexual behaviour including contraception and infection (ICPD+5, para73c).

NPP, NYP:

- not addressed but mentioned in RCH-2

Population Council

Address life skills and gender role attitudes

- REALITY?
- Few programmes address life or livelihood skills, gender double standards;
- existing programmes are small-scale NGO efforts
- Going further:
  - *Expand life and livelihood skills programmes for youth, for females but also males*
  - *Review, adapt and up-scale lessons learned from successful demonstration projects that impart non-formal, life skills, family life, livelihood or vocational skills – for both females and males.*

Population Council

A safe and supportive environment

Population Council

Safe and supportive environment

CRC:

- Creating a safe and supportive environment entails addressing attitudes and actions of both the immediate environment of the adolescent – family, peers, schools and services – as well as the wider environment... (Para 14; 39a)

- promote the health and development of adolescents by (a) providing parents (or legal guardians) with appropriate assistance.... (b) providing adequate information and parental support to facilitate the development of a relationship of trust and confidence in which issues regarding, for example, sexuality and sexual behaviour and risky lifestyles can be openly discussed and acceptable solutions found that respect the adolescent's rights.... (CRC Para 16).

Cont...

Population Council

Safe and supportive environment

ICPD:

- ensure that parents and others responsible for rearing children are educated about and involved in providing sexual and reproductive health information in a manner consistent with the evolving capacities of adolescents (para 73d)

NPP, NYP, RCH-2 (proposed):

- Not addressed

Population Council

Safe and supportive environment

- Parents unwilling to discuss & uncomfortable about discussing sexual matters with adolescents & young people
- Going further: **Sensitise parents and other adults to provide more supportive environments for youth**
  - *Programmes for parents/adult gatekeepers*
    - *about sexual and reproductive issues*
    - *breakdown inhibitions/discomfort*
    - *improve communication skills*
    - *address misperceptions: that talking about sex leads adolescents to engage in risky sex*

Population Council

Last thoughts

- No "best practices" models available
- feasibility, effectiveness and acceptability will continue to remain poorly understood unless they are rigorously and regularly monitored and assessed.
- Need to address sustainability and up-scaling
- importance of inter-sectoral collaboration & public-private partnerships: Health and Family Welfare, Education, Youth, NGOs...

Population Council

Long-Term Population Projections for Major States, 1991-2101

The authors decompose the prospective population growth in 16 major states between 1991 and 2101 into three components to estimate the contribution of each of them individually. The decomposition of population growth in different states seeks to estimate the impact of growth momentum built into the age distribution of population and the share of prospective growth attributable to (a) the unmet need for family planning and (b) high wanted fertility.

LEELA VISARIA, PRAVIN VISARIA

I Introduction

Given the scale and diversity of India's population, a decline from around six children per woman in 1970, to almost half that level in a span of 30 years is a significant achievement. Fertility has declined throughout the country, albeit at varying pace in rural and urban areas or in different states with Kerala and Tamil Nadu already reaching replacement level. Fertility in India has fallen under a wide range of socio-economic and cultural conditions. The rising levels of education, influence of the media, economic changes, continuing urbanisation, decline in infant and child mortality all have contributed to fertility decline. The diffusion of new ideas and enhanced aspirations for children has led even the uneducated parents to limit their family size [Bhat 2002]. Fertility has fallen at all ages; at younger ages due to rise in the age at marriage and at older ages due to control of fertility within marriage through the adoption of family planning (mainly sterilisation).

Population projections made by the United Nations, the World Bank and demographers all indicate that India as a whole will attain replacement level fertility or complete the fertility transition in the next 20 years [Visaria and Visaria 1996, United Nations 2001, World Bank 2000, Natarajan and Jayachandran 2001, Dyson 2003]. However, the population size will continue to rise for 50 to 60 years due to the recent history of high fertility that has resulted in young age structure and because, despite the decline, the total fertility rate (TFR) for the country as a whole is still well above replacement level of TFR of 2.1. On the other hand, the welcome decline in mortality that began around 1921 and accelerated since 1951 has caused substantial population growth in the past. However, since a significant proportion of deaths in India continue to be due to communicable diseases, their control will bring mortality levels further down in the coming decades. It is important to understand why population will continue to grow in the years to come and the relative contribution of the factors causing growth. An exercise in decomposition of population growth would enable us to devise appropriate policy measures to affect growth.

In 1996, a decomposition of the projected long-term population growth in India as a whole and an exploration of its policy implications had elicited considerable interest among the planners and policy-makers [Visaria and Visaria 1996].[1] A similar analysis at the sub-national level for the major states of the country was recommended as potentially useful and instructive. The case for such an exercise rested on the regional diversity in the level and pace of decline in fertility as well as in mortality during the past several years and also on the fact that the onset and the course of demographic transition in the Indian states have varied. The 16 major states are at different stages of demographic transition; and therefore, the analysis of interstate variations in the role of different factors in long-run population growth was expected to highlight the appropriate state-specific policy options.

This paper presents long-term state level projections up to 2101. We decompose the prospective growth in each state in a manner similar to that followed for the national projections prepared in 1996.[2] The procedure relies on a series of population projections with alternative assumptions about the rate of decline in fertility and a likely course of mortality decline. The projections use: (a) the state level base population and its five-year age distribution available from the 1991 Census; (b) life expectancy at birth (separately for males and females), based on the Sample Registration System (SRS) life tables for 1991-95; and (c) the SRS-based age-specific fertility rates for the period 1992-94.[3] In the different variants of projections, future trends in fertility are assumed to vary, whereas only one pattern of mortality regime is envisaged.

Decomposition of the future population growth in different states seeks to estimate the impact of the growth momentum built into the young age distribution of population and the share of prospective growth attributable to (a) the unmet need for family planning and (b) high wanted fertility. A 'standard' population projection, which corresponds to the 'medium' projections in most such exercises, is made for all the major states. The second set of projections is based on the assumption that the replacement level fertility will be attained with immediate effect by all the states regardless of their present actual levels. A third set of

projections is based on the assumption (unrealistic, of course) that the unwanted fertility will be eliminated within the next five-year period (or with almost immediate effect). In addition, a fourth projection illustrates the implications of below replacement level of fertility, such as has been observed in Kerala since 1988. Assuming that this process will spread to the rest of India as well, this fourth projection is essentially an extension of the standard projection, in which the TFR is assumed to decline to 1.8 in each state and then remain stable at that level.

The expected absolute growth of population in each state between 1996 and 2101 according to the standard projection is decomposed to estimate and analyse the contribution to growth of unwanted fertility, high desired fertility and population momentum. Population growth resulting from unwanted fertility will require identification of measures that would assist the couples to achieve their reproductive goals in a manner that is safe, affordable and accessible. The government-sponsored family welfare programme needs to be responsive to individual needs while offering good quality comprehensive services. Population growth resulting from a desired family size or wanted fertility that is higher than the replacement level of fertility will require efforts to modify the preferences of couples about their family size. To address this issue, a socio-economic environment favouring small families will need to be created. Population growth attributable to momentum can be reduced by measures such as a later age at marriage among females, raising their age at first birth (which would increase the length of generation), and elongation of the inter-birth intervals.

The long-term projections have been prepared for 16 major states with the 1991 Census population above five million. Although 18 states had a population of more than five million in 1991, we have not considered Delhi with a population of 9.4 million, of which nearly 90 per cent is urban, because migration is a major factor influencing its population growth. Jammu and Kashmir has not been considered because the 1991 Census could not be conducted, and as a result, we do not have an age distribution for the base period. Its population was 6.0 million in 1981 and an estimated 7.7 million in 1991 [Office of the Registrar General 1998a: 4]. The all-India projections, however, cover all the states and union territories of the country.

I
Demographic Diversity

The Indian states vary widely in terms of their total population. Among the 18 major states with the 1991 Census population exceeding five million, Uttar Pradesh had 139.1 million people, nearly 27 times the population in Himachal Pradesh (5.2 million). The other two populous states of Bihar and Maharashtra had a population of 86 and 79 million, respectively. Together, the three most populous states accounted for 36 per cent of the total population of the country. In three other states of Andhra Pradesh, Madhya Pradesh and West Bengal, population ranged between 66 and 68 million and the six states included almost 60 per cent of India's population (505 out of 846 million) in 1991. Population of Gujarat, Karnataka and Rajasthan ranged between 41 and 45 million, whereas that of Tamil Nadu was close to 56 million. Except for Himachal Pradesh, the 1991 population in the remaining five states ranged between 16 and 31 million (Table 1).[4]

Trends in Mortality

The Indian states have varied in their mortality levels and in the pace of mortality decline. As shown in Table 2, we have chosen the expectation of life at birth (e (0)) as the indicator of mortality during 1971-75 and 1991-95 to illustrate the differentials in the level of mortality and the level of interstate diversity in India over time. The estimates are shown separately for males and females. During 1971-75, the difference between the highest e (0) value of Kerala (62 years) and the lowest e (0) value of Uttar Pradesh (43 years) was 19 years for both sexes together. In 1991-95, among the major states, Madhya Pradesh reported the lowest e (0) of 55 years, 18 years lower than that in Kerala (73 years). The interstate difference of 15 years for males and 21 years for females reflected the uneven progress in the availability of health care services and infrastructural facilities in different parts of the country. During 1991-95, life expectancy

Table 1: Population Statistics for 16 Major States of India, 1971-2001

State	Population (in million)				Intercensal Growth (Per Cent)				
	1971	1981	1991	2001	1971-1981	1981-1991	1991-2001	1971-1991	1971-2001
Andhra Pradesh	43.5	53.6	66.5	75.7	23.1	24.2	13.9	52.9	74.0
Assam	14.6	-	22.4	26.6	-	-	18.9	53.4	82.2
Bihar	56.4	69.9	86.4	109.8	24.1	23.5	33.6	53.2	94.7
Gujarat	26.7	34.1	41.3	50.6	27.7	21.2	22.5	54.7	89.5
Haryana	10.0	12.9	16.5	21.1	28.8	27.4	28.1	65.0	111.0
Himachal Pradesh	3.5	4.3	5.2	6.1	23.7	20.8	17.5	48.6	74.3
Karnataka	29.3	37.1	45.0	52.7	26.7	21.1	17.3	53.6	79.9
Kerala	21.3	25.5	29.1	31.8	19.2	14.3	9.4	36.6	49.3
Madhya Pradesh	41.7	52.2	66.2	81.2	25.3	26.8	22.7	58.8	94.7
Maharashtra	50.4	62.8	78.9	96.8	24.5	25.7	22.6	56.5	92.1
Orissa	21.9	26.4	31.7	36.7	20.2	20.1	15.9	44.7	67.6
Punjab	13.6	16.8	20.3	24.3	23.9	20.8	19.8	49.3	78.7
Rajasthan	25.8	34.3	44.0	56.5	33.0	28.4	28.3	70.5	119.0
Tamil Nadu	41.2	48.4	55.9	62.1	17.5	15.4	11.2	35.7	50.7
Uttar Pradesh	88.3	110.9	139.1	174.5	25.5	25.5	25.5	57.3	97.6
West Bengal	44.3	54.6	68.1	80.2	23.2	24.7	17.8	53.7	81.0
All India	548.2	683.3	846.3	1027.4	24.7	23.8	21.3	54.4	87.4

Notes: Census was not conducted in Assam in 1981 and in Jammu and Kashmir in 1991 due to disturbed conditions.
The 2002 Census figures for the bifurcated states of Bihar, Madhya Pradesh and Uttar Pradesh are included in the respective states.

Sources: Census of India, 1971, 1981 and 1991. Series I, *India, Final Population Tables*, New Delhi, Office of the Registrar General: Census of India 2001 Series 1, *India, Provisional Population Totals*, Paper 1 of 2001, New Delhi, Office of the Registrar General.

was below 60 years in all the four large north Indian states (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) as well as in Assam and Orissa.

In India as a whole, the female life expectancy at birth in 1991-95 exceeded the male life expectancy by a mere 1.2 years (a much lower figure than is observed in the developed countries in northern and western Europe, North America and Japan).[5] In fact, until 1976-80, the SRS reported a lower life expectancy for females than for males in the country as a whole. The reversal of this pattern became visible in the national estimates as female life chances started improving throughout the country, more so in all the four southern states and in Punjab and Maharashtra. In all these states, according to the 1991-95 estimates, female life expectancy was higher than that of males by more than 2 years. However, the anomaly of female disadvantage in life expectancy has continued in the most populous states of Uttar Pradesh and Bihar and to a small extent also in Orissa and Madhya Pradesh. The gender gap in life expectancy was the highest in Bihar (2.1 years), relatively moderate in Uttar Pradesh (1.3 years) and less than half a year in Orissa and Madhya Pradesh. In Assam and Rajasthan, the female life expectancy has improved significantly, and as in India as a whole, the male life expectancy is no longer higher than that of females.

A further examination of the data suggests that the anomaly of lower life expectancy among females, wherever it is evident, mainly reflects the sex-differentials in their chances of survival in rural areas; in urban areas, the females enjoy a higher life expectancy at birth than males in all the states.[6] As for the future, our mortality assumptions envisage a faster rise in female life expectancy and the disadvantage of women in chances of survival is presumed to disappear gradually over time.

Fertility Trends

By 1971, the regional differentials in fertility had begun to appear in India. In 1970-72 the TFR in the southern states of Kerala and Tamil Nadu was around 4, whereas in the northern states of Uttar Pradesh, Haryana and Rajasthan, it was above 6.[7] By 1988, Kerala had attained a TFR below the replacement level (2.0); and since 1993, Tamil Nadu has also attained the replacement level of fertility (a TFR of 2.1). During 1995-97, total fertility rate in the other two southern states of Andhra Pradesh and Karnataka had dropped to 2.9 and 2.7, respectively, from around 3.9 and 3.6 reported in the mid-1980s.[8] According to the results of the National Family Health Surveys (NFHS) of 1992-93 and 1998-99, the small western state of Goa with a population of only 1.2 million in 1991 also had a TFR below replacement level of 2.1 during the three years preceding the survey.[9] Because of its very small size, we have not done any projection exercise for Goa.

On the other hand, fertility in some northern states has continued to be quite high. Despite the evidence of some decline in recent years, TFR ranged between 4.5 and 5.0 in Bihar, Rajasthan and Uttar Pradesh according to the SRS data for 1995-97. Evidently, the pace of decline has varied, such that the gap between the low-fertility states and high-fertility states has widened

Table 3: Absolute and Percentage Change in Total Fertility Rate, 1982-84 to 1992-94 in the Major States of India

State	Total Fertility Rate		Decline in the 10-Year Period	
	1982-84	1992-94	Absolute Decline	Percentage Decline
All India	4.5	3.5	1.0	21.5
Kerala	2.6	1.7	0.9	35.4
Tamil Nadu	3.3	2.1	1.2	35.4
Andhra Pradesh	3.9	2.7	1.2	30.5
Karnataka	3.7	2.9	0.8	22.5
Maharashtra	3.8	2.9	0.9	23.0
Group 1 mean	3.5	2.5	1.0	29.4
Punjab	3.9	3.0	0.9	23.7
West Bengal	4.0	3.0	1.1	26.4
Gujarat	4.1	3.2	1.0	23.4
Orissa	4.4	3.2	1.2	27.5
Assam	4.2	3.5	0.7	17.3
Haryana	4.9	3.7	1.2	23.8
Group 2 Mean	4.3	3.3	1.0	23.7
Madhya Pradesh	5.2	4.3	0.9	17.9
Bihar	5.7	4.6	1.1	18.8
Rajasthan	5.6	4.5	1.1	21.0
Uttar Pradesh	5.8	5.2	0.6	10.9
Group 3 Mean	5.6	4.6	1.0	17.0

Table 2: Estimates of Life Expectancy at Birth by Sex for the 16 Major States of India for 1971-75 and 1991-95

State	e(0) in 1971-75		e(0) in 1991-95		Increase in Years in e(0) between 1971-75 and 1991-95		Years in Which e(0) will Reach Highest Levels	
	Male	Female	Male	Female	Male	Female	Male (79 years)	Female (85 Years)
Andhra Pradesh	48.4	49.3	60.3	62.8	11.9	13.5	2056-61	2056-61
Assam	46.2	44.8	55.6	56.1	9.4	11.3	2066-71	2071-76
Bihar	-	-	60.1	58.0	-	-	2056-61	2071-76
Gujarat	48.8	48.8	60.2	62.0	11.4	13.2	2056-61	2061-66
Haryana	56.7	52.5	63.0	64.0	6.3	11.5	2051-56	2051-56
Himachal Pradesh	54.8	50.9	64.1	64.7	9.3	13.8	2056-61	2056-61
Karnataka	55.4	55.1	60.6	63.9	5.2	8.8	2056-61	2056-61
Kerala	60.8	63.3	69.9	75.6	9.1	12.3	2031-36	2026-31
Madhya Pradesh	47.6	46.3	54.7	54.6	7.1	8.3	2071-76	2076-81
Maharashtra	53.3	54.5	63.5	65.8	10.2	11.3	2051-56	2056-61
Orissa	46.0	45.3	56.6	56.2	10.6	10.9	2066-71	2071-76
Punjab	59.0	56.8	66.1	68.4	7.1	11.6	2041-46	2046-51
Rajasthan	49.2	47.5	58.3	59.4	9.1	11.9	2061-66	2066-71
Tamil Nadu	49.6	49.5	62.3	64.4	12.7	14.9	2051-56	2051-56
Uttar Pradesh	45.4	40.5	57.3	56.0	11.9	15.5	2066-71	2071-76
West Bengal	-	-	61.5	62.8	-	-	2056-61	2056-61
All India	50.5	49.0	59.7	60.9	9.2	11.9	2061-66	2066-71

Note: Estimates for Bihar and West Bengal for the initial period are not available.

Sources: Registrar General, India, Occasional Papers No 1 of 1985, *SRS Based Abridged Life Tables 1975-80*. New Delhi.
Registrar General, India, SRS Analytical Studies, Report No 1 of 1998, *SRS Based Abridged Life Tables, 1990-94 and 1991-95*, New Delhi.

from about 2 to 2.5 children in the 1970s to 2.5 to 3.2 children in the 1990s. The 16 states fall in three distinct categories in terms of fertility decline during 1982-84 and 1992-94: (a) those having low initial level of fertility and experiencing fast decline, (b) those with moderate fertility level and moderate decline and (c) those with high fertility and slow decline (Table 3).

As a result of differences in the initial levels and pace of decline in fertility and mortality during the recent past, the Indian states are at different stages of demographic transition. The states of Kerala and Tamil Nadu are much ahead of the large north Indian states along the path of transition.[10] Age at marriage, literacy level (especially female literacy), access to and use of contraceptive and health care services, level of urbanisation and of industrialisation also differ among different states.

II
Assumptions Underlying Population Projections

The state-level projections presented in this paper begin with the life expectancy at birth as reported for 1991-95 and the TFR estimates for 1992-94.

Mortality Trends

For mortality decline, we have envisaged only one pattern. It is presumed that consistent with the international experience, the pace of mortality decline will slow down as life expectancy at birth rises beyond 65 years. The initial estimates of life expectancy are taken from the 1991-95 state-level life tables, based on the Sample Registration System [Office of the Registrar General 1998b]. In response to the ongoing efforts to control vaccine-preventable diseases and lowering of infant and child mortality, life expectancy at birth is assumed to increase at a relatively faster rate (implying an annual gain in life expectancy of 0.4 years for males and 0.5 years for females) until it reaches 65. The annual increase in life expectancy is expected to slow down thereafter to 0.3 years for males and 0.4 years for females, until the life expectancy reaches 70 years for both sexes. Thereafter, the annual gain in the length of life is expected to slow down even further to 0.25 years for males and 0.3 years for females.

We have assumed that the gain in life expectancy for females will be faster than for males throughout the period. The peak value in life expectancy reached by males is 79 years, and for females it is 85 years. The age-specific mortality rates or survivorship ratios, based on the SRS life tables, are assumed to converge linearly to the pattern implicit in the 'west' model life tables of Coale and Demeny when the e (0) attains its maximum value.[11]

Given the different initial levels of life expectancy in 1991-95, the states are expected to attain the highest level of life expectancy assumed by us in different years. Both men and women in Kerala will attain the maximum level of e (0) within the next 30 years. Except for Punjab in the case of both males and females and Himachal Pradesh in the case of men only, women in all the other states will take at least 30 more years and men 20 more years to catch up with Kerala with respect to the highest life expectancy.[12]

Table 4: Net Interstate Migration during 1971-81 and 1981-91 as Per Cent of Population Enumerated in 1981 and 1991 Censuses

State	Both Sexes		Males		Females	
	1981	1991	1981	1991	1981	1991
Andhra Pradesh	-0.8	-0.3	-0.9	-0.4	-0.8	-0.7
Assam	–	2.3	–	2.8	–	1.9
Bihar	-1.7	-2.2	-2.7	-3.0	-0.6	-1.3
Gujarat	0.8	1.7	1.1	2.0	0.5	1.3
Haryana	4.1	2.8	4.2	2.7	4.0	2.9
Himachal Pradesh	-3.7	-1.6	-1.7	-1.0	-5.8	-2.1
Karnataka	0.4	0.4	0.5	0.6	0.3	0.2
Kerala	-2.9	-2.4	-3.6	-2.6	-2.3	-2.1
Madhya Pradesh	1.6	1.9	1.9	1.9	1.4	1.9
Maharashtra	5.0	3.3	6.1	4.1	3.8	2.6
Orissa	1.0	N	0.8	-0.2	1.3	0.3
Punjab	2.7	1.4	3.1	1.5	2.3	1.3
Rajasthan	-0.7	-0.8	-1.0	-1.2	-0.3	-0.4
Tamil Nadu	-0.4	-0.6	-0.6	-0.7	-0.2	-0.4
Uttar Pradesh	-2.6	-2.7	-3.5	-3.4	-1.6	-2.0
West Bengal	8.6	6.0	9.9	6.6	7.3	5.2

Notes: The estimates are based on a definition of migrant as a person reporting a locality different from the place of enumeration as the place of his previous or last usual residence.

N: Negligible.

Sources: Census of India, *Geographic Distribution of Internal Migration in India: 1971-81*, New Delhi, 1989.
Census of India, 1991, *State Profile*, New Delhi, 1998.

Fertility Trends

The future trends in fertility are difficult to predict. Recently, a surprising plateauing or stagnation in the national TFR had been evident since 1991. The TFR was 3.6 during 1991-92, 3.5 during 1993-95 and 3.4 during 1996-97. Therefore, our assumptions about fertility decline in different states, including those about the year of attainment of replacement level of fertility, seem rather arbitrary. The experience of Kerala since 1988 suggests that the TFR can fall below the replacement level and continue at that level; but it may either rise or fall further in the years to come. The base period values of fertility for each state used in our projections are the averages of the SRS age specific fertility rates and total fertility rates estimated for 1992-94.

One variant of our projections (called standard projection) assumes that in all the states, TFR would remain stable after it reaches the replacement level. Another variant of the projection assumes that unwanted fertility will be eliminated with immediate effect and after that fertility will decline following the standard path. In the third variant, fertility is assumed to drop to the replacement level with immediate effect and continue at that level in the future. In the fourth variant, we have assumed that in all the major states, total fertility will drop below the replacement level to 1.8, as has happened in the state of Kerala and is likely to happen in Tamil Nadu.

Effect of Migration

Prima facie, projections for different states of India seem more difficult than the national projections because interstate migration can be quite important and therefore estimates of the future interstate net migration (inmigration minus outmigration) are needed. At the national level, the volume of net international migration has been unimportant in the past several decades and can be ignored. Further, the census data for 1981 and 1991, presented in Table 4, confirm that the net interstate migration (measured in terms of persons reporting a place of last residence different from the place of enumeration) accounted for only about 3 to 6 per cent of the population even in Maharashtra and

West Bengal, where it was more important. Interstate migration has been important in Delhi, the two north-eastern states of Arunachal Pradesh and Tripura, and in the union territories of Chandigarh, Pondicherry and Andaman and Nicobar Islands as well as in Lakshadweep. However, we have not prepared separate projections for these relatively small territories. Given the small volume of migration even in major states, we have assumed it to be an unimportant factor influencing population growth.

Standard Projections

The standard projections have assumed that fertility in each state will decline at the same annual rate as was observed during the 10-year period between 1982-84 and 1992-94 in the state. As shown earlier in Table 3, the states fell rather neatly into three groups. In one group of states, which included the four southern states of Kerala, Tamil Nadu, Karnataka and Andhra Pradesh, and Maharashtra, fertility had declined at an average annual rate of 2.9 per cent. In the second group of six states including Gujarat, Haryana, Punjab, Orissa, Assam and West Bengal, fertility had declined at an average rate of 2.4 per cent per annum. In the third group of four large north Indian states of Bihar, Uttar Pradesh, Rajasthan and Madhya Pradesh, the pace of fertility decline during 1983-93 was the slowest at 1.7 per cent per annum. These are also the states where the initial level of fertility was higher than that observed in the rest of the country.

In the standard population projection, in all the states except Kerala and Tamil Nadu, once fertility reaches the replacement level of 2.1, it is assumed to stay at that level until the end of the projection period. In the case of Tamil Nadu, if we assume that fertility would continue to decline at the rate of 3.5 per cent per annum (the rate at which it declined between 1982-84 and 1992-94), it would drop significantly below 2.1 to about 1.4 in a short span of 10 years. In Kerala also fertility declined at an annual rate of 3.5 per cent between 1882-84 and 1992-94 and reached the below replacement level of 1.7 by 1993.[13] Instead of envisaging a reversal of the trend and a rise in fertility to the replacement level in these two states, for the standard projection we have assumed that the TFR will continue at the below replacement level of 1.8 until the end of the 21st century.[14] Therefore, for these two states, our standard projection and the projection with below replacement level fertility are the same.

Table 5 shows the period when the major states will attain replacement level of fertility. As noted above, Kerala and Tamil Nadu had already attained the replacement level of fertility (RLF) by 1988 and 1993, respectively. The other two southern states of Andhra Pradesh and Karnataka are expected to attain RLF by 2008. Fertility has declined rather rapidly in recent years in the small mountainous state of Himachal Pradesh and in Maharashtra, where TFR had dropped below 3 during 1992-94. However, according to our standard projections, these two states will take five years longer to reach the replacement level fertility than Andhra Pradesh and Karnataka.

At the other end of the spectrum are the four large north Indian states, and Haryana, where the TFR during 1991-95 was above 4. If fertility in these states continues to decline at the slow pace observed in recent years, they would take 35 to 40 years to reach the replacement level fertility. In between these two extremes are a number of states both in Western and in Eastern India, such as Gujarat, Punjab, Assam, Orissa and West Bengal, where the prevailing level of TFR during 1991-95 was between 3 and 3.5. Their fertility transition is expected to be very similar to that of Maharashtra and Himachal Pradesh. At the current pace of fertility decline, most of these states can expect to attain the replacement level fertility by 2013; only Assam will attain it in 2018.

Projections Based on Assumed Elimination of Unwanted Fertility

In the second set of projections, unwanted fertility is eliminated with immediate effect. These projections attempt to bring out the implications of meeting the unmet need for contraception or eliminating the unwanted fertility of couples so that women have only the children they want. The initial level of unmet need for family planning or unwanted fertility in each state is assumed to be the same as the state-specific estimates of the extent of unwanted fertility estimated by the National Family Health Survey conducted in 1992-93 [IIPS 1995]. In four states (Andhra Pradesh, Maharashtra, Punjab, West Bengal), if unwanted fertility is

Table 5: Total Fertility Rate in 1991-95, Year When It Will Reach Replacement Level (RL) according to Standard Projection

State	TFR in 1991-95	1996-2000	2001-05	2006-10	2011-15	2016-20	2021-25	2026-31	Year When TFR Reaches RL	Years Needed to Reach RL
TFR below 3										
Kerala	1.7								NA	NA
Tamil Nadu	2.2	2.1							1998	5
Andhra Pradesh	2.8	2.5	2.3	2.1					2008	15
Himachal Pradesh	2.9	2.7	2.4	2.2	2.1				2013	20
Karnataka	2.9	2.6	2.3	2.1					2008	15
Maharashtra	2.9	2.7	2.4	2.2	2.1				2013	20
TFR between 3.0 and 4.0										
Punjab	3.0	2.7	2.4	2.2	2.1				2013	20
West Bengal	3.0	2.7	2.4	2.2	2.1				2013	20
Gujarat	3.2	2.8	2.6	2.3	2.1				2013	20
Orissa	3.2	2.9	2.6	2.3	2.1				2013	20
Assam	3.5	3.1	2.7	2.4	2.2	2.1			2018	25
All India	3.6	3.2	2.8	2.5	2.3	2.1			2018	25
TFR above 4.0										
Haryana	4.2	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2033	40
Madhya Pradesh	4.3	3.8	3.4	3.1	2.8	2.5	2.3	2.1	2028	35
Bihar	4.5	4.0	3.5	3.1	2.7	2.5	2.2	2.1	2028	35
Rajasthan	4.5	4.0	3.5	3.2	2.8	2.6	2.3	2.1	2028	35
Uttar Pradesh	5.1	4.5	3.9	3.5	3.1	2.8	2.5	2.2	2033	40

eliminated, TFR level would drop very close to the replacement level. In Himachal Pradesh, the gap between the prevailing total fertility rate and wanted fertility was the highest in the country; 31 per cent of the current fertility was reported as unwanted. Elimination of unwanted fertility would lower the TFR in Himachal Pradesh slightly below the replacement level. Surprisingly, even in the states of Kerala and Tamil Nadu, where the estimated TFR was close to or below the replacement level, 12 and 15 per cent of total fertility was reported as unwanted, respectively.[15] Wanted fertility was significantly above the national average of TFR of 2.6 in all the four large north Indian states and also in Haryana in north India; it ranged between 2.8 in Haryana and Rajasthan and 3.8 in Uttar Pradesh.

In the states, where TFR was above the replacement level after the unmet need or the unwanted fertility was eliminated, we have assumed that the TFR would gradually decrease during successive five-year periods until it reaches the replacement level of 2.1. The year when that would happen will vary between the states and would depend on the existing or initial level of fertility, the extent of unwanted fertility (reported in the NFHS survey), and the pace of decline in fertility observed in each state during 1982-84 and 1992-94.

The information on the extent of unwanted fertility, estimated by the NFHS, is shown in Table 6. Admittedly, unwanted fertility is unlikely to be eliminated suddenly. But the assumption of its elimination is made in order to estimate the effect of unwanted fertility on the long-term growth of population expected under the standard projection in different states.

Table 6: Total Fertility Rate, Wanted Fertility Rate and Unwanted Fertility as Per Cent of TFR by State, 1992-93 (NFHS Data)

State	TFR in 1992-93	Wanted Fertility	Unwanted Fertility	Unwanted Fertility as Per Cent of TFR
Kerala	2.00	1.82	0.18	09.0
Tamil Nadu	2.48	1.76	0.72	29.0
Andhra Pradesh	2.59	2.09	0.50	19.3
Himachal Pradesh	2.97	2.04	0.93	31.3
Karnataka	2.85	2.18	0.67	23.5
Maharashtra	2.86	2.13	0.73	25.5
Punjab	2.92	2.15	0.77	26.4
West Bengal	2.92	2.20	0.70	24.7
Gujarat	2.99	2.33	0.66	22.1
Orissa	2.92	2.32	0.60	20.5
Assam	3.53	2.52	1.01	28.6
All India	3.39	2.64	0.75	22.1
Haryana	3.99	2.81	1.18	29.6
Madhya Pradesh	3.90	3.21	0.69	17.7
Bihar	4.00	3.18	0.82	20.5
Rajasthan	3.63	2.78	0.85	23.4
Uttar Pradesh	4.82	3.82	1.00	20.7

Notes: – Fertility rates are calculated on the basis of births during the 0-36 months before the interview of women aged 15-49.

– A birth was considered unwanted if the number of living children at the time of conception was greater than or equal to the current ideal number of children, as reported by the respondent. By subtracting unwanted fertility from the total fertility, an estimate of wanted fertility was derived.

– Unmet need for family planning includes need for spacing as well as for limiting fertility. Unmet need for spacing is estimated by taking account of the pregnant women whose pregnancy was mistimed, women whose last birth was mistimed and those women who wanted to wait two or more years before their next birth but were not using any method of family planning. Unmet need for limiting is estimated by taking into account of the pregnant women whose pregnancy was unwanted, women whose last child was unwanted and who did not want any children but were not using any family planning to avoid becoming pregnant.

Source: International Institute for Population Sciences (IIPS), 1995, *National Family Health Survey, 1992-93*, Bombay, IIPS.

Projections Based on Assumption of Attainment of Replacement Level Fertility

In the third set of hypothetical population projections, fertility is assumed to reach the replacement level in all the states with immediate effect, regardless of the prevailing fertility levels in each of the states. The TFR is assumed to drop to 2.1 during the five-year period 1996-2001 and is assumed to stay at that level until the end of the 21st century. In reality, fertility cannot drop so drastically from a relatively high level, but the projections based on this assumption help to estimate the contribution of the momentum of population growth. The momentum is in part due to a young age structure of population and in part due to future improvements in mortality that are envisaged in the country and built into the mortality regime assumed for the projections. Again, we have not carried out this set of projections for Kerala and Tamil Nadu, because it would require raising their TFR from below replacement level to the replacement level.

Below Replacement Level Fertility Projections

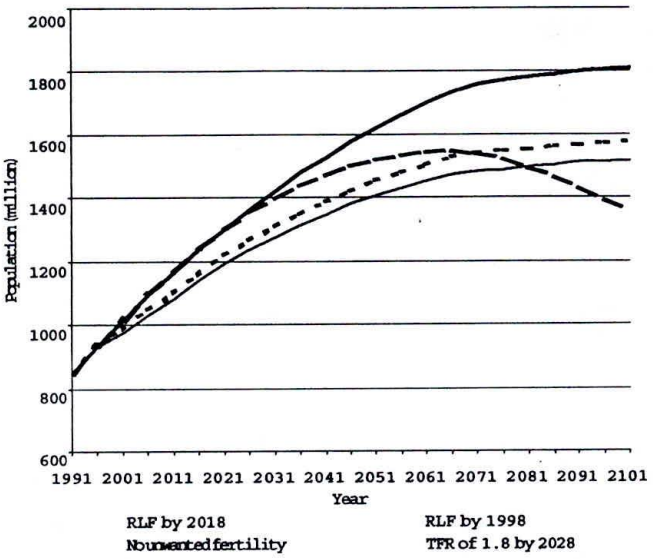
The fourth set of projections is an extension of the standard projections. Instead of assuming that fertility will stabilise at the replacement level, with a TFR of 2.1, this set of projections envisages that fertility would decline below the replacement level up to a TFR level of 1.8. Under this projection, all the states are assumed to maintain a TFR of 1.8 through the rest of the 21st century after it is attained. Given the different levels of initial fertility in the Indian states, and the variations in the pace at which fertility has declined in recent years, the below replacement level fertility will also be reached in different time periods.

IV
Population Growth According to Alternative Projections

The population projections for 1991-2101 for all-India are shown as Figures 1. Additionally, figures for one state from each of the three groups are also given.[16,17] For all the major states and for India, the expected population in years 2051 and 2101 according to the standard projections is shown in Table 7 along with the base population of 1991. The population of India is expected to nearly double in a 60-year period during 1991-2051 from 846 million to 1620 million. However, the state-level differences in the population growth would be quite large. By 2051, population is expected to more than double or increase by nearly one and a half times in the large north Indian states including Haryana from 352 million to 820 million. Thus, these five states between them would contain more than half the population of India in 2051.[18] The population will increase by about 75 per cent in most of the other states of the country. The only two exceptions are Tamil Nadu and Kerala, where population growth over the next 60 years is expected to be less than 30 per cent.

Apart from the northern states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, where population will range between 106 and 337 million by 2051, the other states with a

Figure 1: Population of India according to Alternative Assumptions, 1991-2101



population exceeding 100 million would be Andhra Pradesh, Maharashtra and West Bengal. These seven states between them will contain more than a billion people or 65 per cent of India's estimated population of 1.6 billion.

The effect of attainment of replacement level fertility in all the states will be evident in the quantum of increase in the population during the next 50-year period between 2051 and 2101. Although the net increase in population will continue to be positive in all the states, except Tamil Nadu and Kerala, the absolute increase in the country as a whole will be about 193 million, or 12 per cent above the figure reached in 2051.

If fertility declines below the replacement level to a TFR of 1.8, the absolute size of population will begin to decline in all the states after reaching a peak in different years. This is evident in the Figures 1 to 4 for all-India and the three states of Andhra Pradesh, Gujarat and Madhya Pradesh. For the country as a whole, the population in 2101 with a below replacement level of fertility would be 25 per cent smaller (1.36 billion as against 1.81 billion) than if it is assumed to remain stable at the replacement level. As might be expected, the extent of decline in total population by 2101 would differ between the states, according to the year when the replacement level of fertility is expected to be reached. The difference would be of the order of 30 per cent in the six states of Andhra Pradesh, Himachal Pradesh, Karnataka, Maharashtra, Punjab and West Bengal. In the four large north Indian states and Haryana, the expected population size in 2101 with a below replacement level of fertility would be about 20 per cent smaller than under the standard projection.

If unwanted fertility were to be eliminated with immediate effect, India's population in the year 2101 would be about 13 per cent (240 million) smaller than is expected under the standard projection (1.57 billion as against 1.81 billion). As can be expected, the effect of this factor on the population size would be greater in those states (Himachal Pradesh, Haryana, Assam) where nearly 30 per cent of the TFR was reported as unwanted fertility according to the 1992-93 NFHS data.

For India as a whole, the assumed immediate attainment of a replacement level fertility would lower the 2101 population by only 16 per cent below the standard projection (to 1.52 billion). Relative to the projection envisaging an immediate elimination of unwanted fertility; total population with an immediate attainment of replacement level of fertility would be only 3 per cent smaller. In the demographically backward states such as Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, population with an immediate attainment of replacement level of fertility would be 30 per cent smaller than under the standard projection. In fact, in these four states, the population size in the year 2101 would be smaller under this assumption than if the below replacement level TFR of 1.8 is reached after the standard path of fertility decline.

Table 7: Population of India in 1991, 2051 and 2101 according to Standard Projection, by State

State	1991	2051	2101	Absolute Difference between 1991-2051	Absolute Difference between 1991-2101	Per Cent Increase during 1991-2051	Per Cent Increase during 1991-2101
Kerala	29.1	36.0	25.2	6.9	-3.9	23.7	-13.4
Tamil Nadu	55.9	72.0	57.0	16.1	1.1	28.8	2.0
Andhra Pradesh	66.5	119.9	130.5	45.4	64.0	68.3	96.2
Himachal Pradesh	5.2	9.5	10.3	4.3	5.1	82.7	98.1
Karnataka	45.0	78.0	85.0	33.0	40.0	73.3	88.9
Maharashtra	78.9	147.4	159.6	68.5	80.7	86.8	102.3
Subtotal	280.6	462.8	467.6	182.2	187.0	64.9	66.6
Per cent of total population	31.2	28.2	25.4				
Punjab	20.3	35.7	37.9	15.4	17.6	75.9	86.7
West Bengal	68.1	121.9	132.0	53.8	63.9	79.0	93.8
Gujarat	41.3	73.0	80.2	31.7	38.9	76.8	94.2
Orissa	31.7	53.9	59.5	22.2	27.8	70.0	87.7
Assam	22.4	42.0	47.0	19.6	24.6	87.5	109.8
Subtotal	183.8	326.5	356.6	142.7	172.8	77.6	94.0
Per cent of total population	21.3	19.9	19.4				
All India	846.3	1619.5	1812.2	773.2	965.9	91.4	114.1
Haryana	16.5	41.1	48.8	24.6	32.3	149.1	195.8
Madhya Pradesh	66.2	148.0	175.3	81.8	109.1	123.6	164.8
Bihar	86.4	188.0	216.7	101.6	130.3	117.6	150.8
Rajasthan	44.0	106.1	125.9	62.1	81.9	141.1	186.1
Uttar Pradesh	139.1	337.0	405.0	197.9	265.9	142.3	191.2
Subtotal	352.2	820.2	971.7	468.0	619.5	132.9	175.9
Per cent of total population	41.6	50.0	52.9				

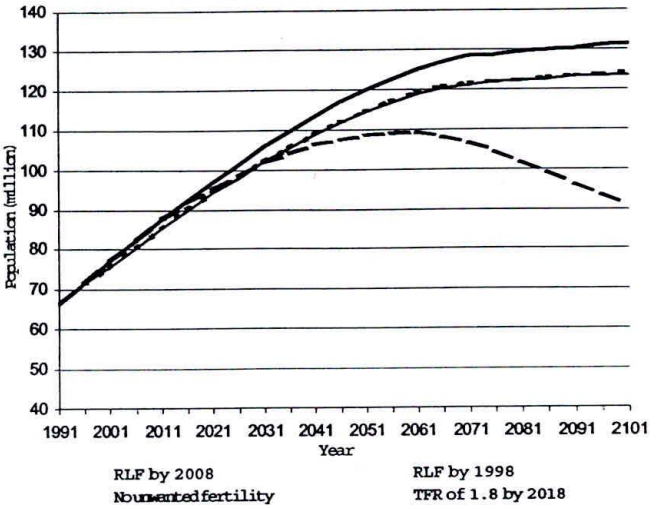
V
Decomposition of Population Growth

The absolute growth of population between 1996 and 2101 according to the standard projection for each state is decomposed to estimate the contribution of unwanted fertility, high desired fertility and population momentum. The share of each of these three factors, shown in Table 8, varies a great deal between the states of the Indian union, thereby highlighting the fact that the regional diversities within the country require distinct policy responses within the framework of the overall national population policy.

The share of unwanted fertility in the total expected population growth varies between a low of 10 per cent in Andhra Pradesh and 15 per cent in the other southern state of Karnataka to above 40 per cent in Haryana and Uttar Pradesh. In Bihar, Rajasthan and Madhya Pradesh also, where the initial levels of fertility have been high and the decline in recent years has been slow, the share of unwanted fertility in expected population growth was higher than the national average of 24 per cent. If the family planning programme in these states can be strengthened and the unmet needs of couples can be met by giving them access to a wide range of methods, the prevention of unwanted pregnancies would significantly reduce fertility as well as population growth in these large states.

On the other hand, the share of high desired fertility in the total expected population growth is quite low in a majority of the states in India; for the country as a whole it was estimated to be only 5.5 per cent. Again, the only exceptions are the large north Indian states, where the share of this factor ranged between 15 and 22 per cent. In all the other states, it was in single digit numbers or even negative. The very low or negative share implies that if the couples' unmet needs for family planning are met; their desired fertility would reach very near or below the replacement level. In other words, couples in states like Karnataka, Maharashtra, Punjab and West Bengal want even fewer children than the number needed for the replacement level of fertility or a TFR of 2.1. This is a revolutionary change in a country where earlier findings have indicated that throughout the country, the preference for sons had kept the wanted fertility high, and the sons are much more valued than are daughters. Evidently, the son preference has become rather weak in all the four southern states of India and the desire for more than one son has rapidly dropped in many other parts of the country as well. On the other hand, wanted fertility is somewhat high in the northern belt of the country, where the unmet need is also relatively high. The desire for large families is very likely related to the higher infant and child mortality levels in these states.

Figure 2: Population of Andhra Pradesh according to Alternative Assumptions, 1991-2101



According to Table 8, 70 per cent of the population growth in India as a whole is due to the momentum built into the young age distribution of the population.[19] The share of high desired fertility in the total growth is less than 6 per cent. The balance 24 per cent of the growth is due to high-unwanted fertility. In the southern states of India as well as in Maharashtra, Gujarat, West Bengal and Orissa, momentum accounts for more than 80 per cent of the prospective population growth. On the other hand, in the four northern states and in Haryana, momentum accounts for only about 43 to 53 per cent of the population growth.

The estimates of the share of high desired fertility, unwanted fertility and growth momentum in the total expected population growth obtained for the country as a whole in the present exercise are somewhat different from those obtained when a similar exercise was done a few years ago [Visaria and Visaria 1996: 8].

Table 8: Factors Underlying Population Growth according to the Standard Projection for Major States of India, 1991-2101

State	Total Expected Population Growth		Unwanted Fertility		High Desired Fertility		Momentum of Growth	
	Absolute	Per Cent	Absolute	Per Cent	Absolute	Per Cent	Absolute	Per Cent
Kerala								
Tamil Nadu	1.1	100.0						
Andhra Pradesh	64.0	100.0	6.6	10.3	0.2	0.3	57.2	89.4
Himachal Pradesh	5.1	100.0	1.1	21.6	0.3	5.1	4.3	84.3
Karnataka	40.0	100.0	5.9	14.8	-1.0	-2.5	35.1	87.8
Maharashtra	80.7	100.0	14.0	17.3	-1.9	-2.4	68.6	85.0
Punjab	17.6	100.0	3.4	19.3	-0.4	-2.3	14.6	83.0
West Bengal	63.9	100.0	10.4	16.3	-1.9	-3.0	55.4	86.7
Gujarat	38.9	100.0	7.9	20.3	0.2	0.5	30.8	79.2
Orissa	27.8	100.0	5.3	19.1	0.7	2.5	21.8	78.4
Assam	24.6	100.0	6.5	26.4	-0.3	-1.2	18.4	74.8
All India	971.7	100.0	237.4	24.4	57.0	5.9	677.3	69.7
Haryana	32.3	100.0	14.0	43.3	2.5	7.7	15.8	48.9
Madhya Pradesh	109.1	100.0	29.2	26.8	24.7	22.6	55.2	50.6
Bihar	130.3	100.0	39.0	29.9	22.4	17.2	68.9	52.9
Rajasthan	81.9	100.0	27.7	33.8	12.4	15.1	41.8	51.0
Uttar Pradesh	265.9	100.0	107.0	40.2	43.4	16.3	115.5	43.4

Figure 3: Population of Gujarat according to Alternative Assumptions, 1991-2101

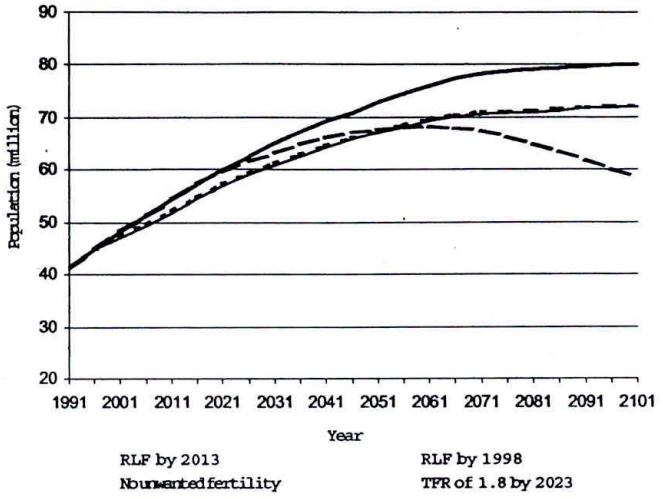
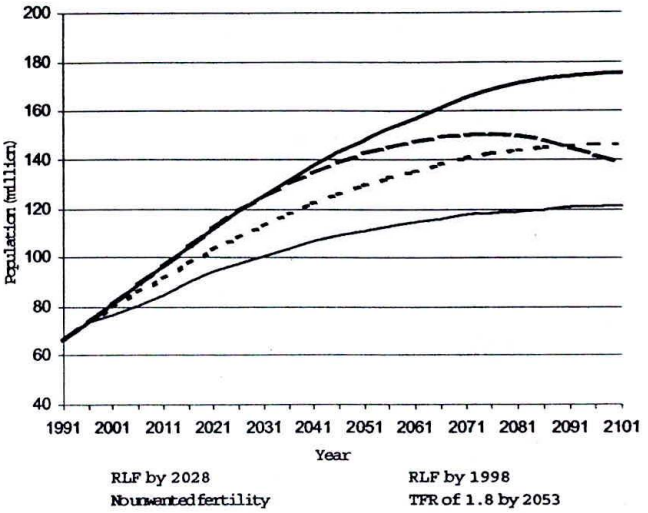


Figure 4: Population of Madhya Pradesh according to Alternative Assumptions, 1991-2101



This is mainly because the present series of projections have used more recent estimates of total fertility rates for the period 1992-94, rather than the 1990-92 estimates that were used earlier. The estimated pace of fertility decline during the decade between 1980-82 and 1990-92 (17.8 per cent or from a TFR of 4.5 to 3.7) was slower than between 1982-84 and 1992-94 (22.2 per cent or from a TFR of 4.5 to 3.5), in spite of the slow decline in the early 1990s. A somewhat faster pace of fertility decline assumed in our standard projection has raised the estimated role of momentum and lowered that of the high desired fertility.[20]

VI
Demographic Consequences of Prospective Population Growth

Given the large regional disparities in the levels of fertility and also of mortality, the long run age distribution of population, the composition of dependents (young as well as old) and the share of the population of working ages will differ significantly between states. The growing pressure of population on land will also begin to influence the structure of employment in different states of the country. The associated policy implications will merit attention by the state governments.

Dependency Ratios

The estimated age distribution of the population and the associated dependency ratios for all-India are shown in Figure 5 and for three representative states from each group in Figures 6-8 according to the standard projections. The child and old age dependency ratios and total dependency ratios are shown for a period up to 2051 only. Also, figures are shown only at 20-year interval, i e, for the years 1991, 2011, 2031 and 2051. Dependency ratios help us to assess the extent of economic dependence in the population.

In the initial year of 1991, the total dependency ratio exceeded 70 per cent in all the states of India, except for Kerala and Tamil Nadu, where it ranged between 60 and 65 per cent. Also, the child dependency constituted the major share of dependency burden on the population in working age groups. The share of old age dependency was very small. However, by 2011, the postulated fertility decline will lower the overall dependency ratio to below 60 per cent in all the states except in the large north Indian states and Haryana, where it will hover around 70 per cent. By 2051, there will be a steady increase in the share of old age dependency to almost the same level as (or a higher level than) child dependency ratio in all the major states except for the five states in the northern zone.

In Kerala and Tamil Nadu, by 2051 the old-age dependency ratio can be expected to be almost twice as high as the child dependency ratio. These states would have to prepare themselves from now onwards to address the health, economic and social needs of the rising proportion of the elderly in their population.

Demographic Transition

India and most of its states are presently in the third stage of demographic transition where both mortality and fertility have been declining for some time now. Since the initial level of fertility and the pace of fertility decline vary between the states, the demographic transition is expected to be completed in different time periods in different states. This is shown graphically in Figures 9 to 12. As may be expected, the rate of natural increase will decline to around or below one per thousand or 0.1 per cent by 2071 in Andhra Pradesh, Karnataka, Maharashtra, Gujarat, Punjab, Himachal Pradesh and West Bengal. The five north Indian states of Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh and Haryana and in Assam and Orissa will take 10 to 15 years longer to complete their demographic transition. On the other hand, the situation in Kerala and Tamil Nadu is likely to be quite different in the sense that the rate of natural increase may become negative in 30 to 40 years.

VII
Policy Implications

The large differentials in the share of unwanted fertility, desired fertility and population momentum between states in a large country call for very different and state-specific population strategies and programmes to lower the growth of population.

Figure 5: Total, Child and Old Age Dependency Ratios for India for Selected Years

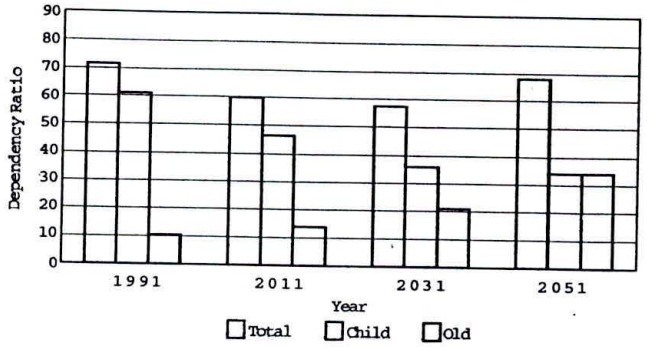


Figure 6: Total, Child and Old Age Dependency Ratios for Andhra Pradesh for Selected Years

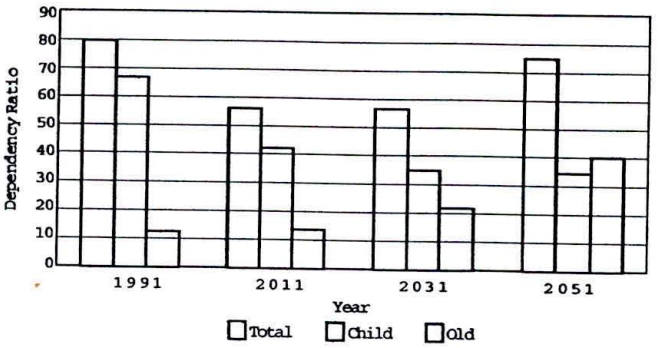


Figure 7: Total, Child and Old Age Dependency Ratios for Gujarat for Selected Years

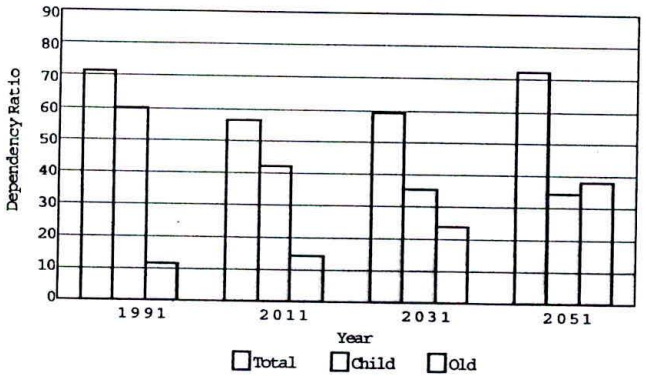
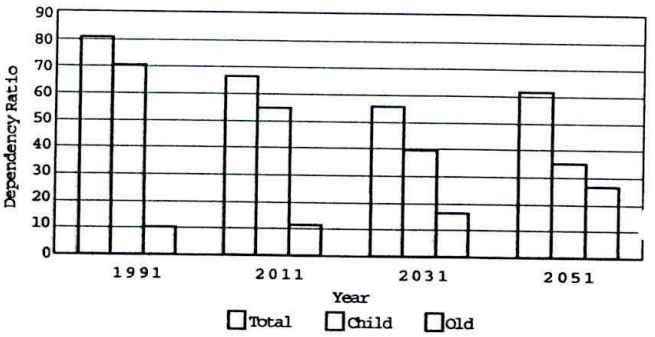


Figure 8: Total, Child and Old Age Dependency Ratios for Madhya Pradesh for Selected Years



The implications need to be spelt out and may require major structural changes in the way health and family welfare funds are allocated between states and the centre. For example, the centre may consider making family welfare a state subject, just as health has been.

Improving access to family planning services would be the most effective means of reducing high-unwanted fertility in the north Indian states as well as in the north-eastern region of the country. There is enough evidence that access to any kind of health care, including family planning methods; to those who need them the most is severely limited in these states. One of the issues that will have to be addressed relates to the dichotomy between health and family welfare and treating the former as a state subject and the latter as the centre subject. Although at the field level, the grass roots functionary provides both the health and family planning services to the clients, there is often a disjunction between the two activities, because allocations of resources, monitoring of activities, etc, are different. In poorly governed backward states, these problems are accentuated. A recent exposure visit for the health ministers of some of the backward states to the health facilities in Tamil Nadu state, which has implemented the new reproductive and child health programme more successfully than most other states, was a step in the right direction.

Nationally, the family welfare programme has been revamped to provide more comprehensive services to women and children and also address the involvement of men in the welfare of the family. Two relevant issues have been articulated in recent years in the Indian context. One, along with contraceptive methods, efforts will have to be made to providing easy access to good quality reproductive health, including safe abortion services, to women. Two, there is a need to expand the range of contraceptive methods available through the programme. The services for treating reproductive tract and sexually transmitted infections are rather rudimentary in the public sector in all the states. Some states like Tamil Nadu are somewhat ahead of others in initiating measures to alleviate this major lacuna in the programme, yet it has a long way to go.[21] Similarly, in spite of abortion being legal in the country since 1972, safe abortion is still not easily available to most women throughout the country. Training paramedical personnel in safe and new technique of abortion should be viewed as a priority. Also, the feasibility of making medical abortion widely available, need to be explored. The states will have to assess the capacity and training of their personnel before launching such measures.

The Indian government has permitted the private practitioners as well as some non-governmental organisations to provide injectible contraceptives services to their clients and charge some fee for them. While these experiments need to be thoroughly evaluated, the feasibility of making them available through the public sector, including necessary training for the providers, needs to be explored to enhance the choice of contraceptives available to the couples. The recent measure to provide training to doctors in no-scalpel vasectomy is a welcome step in increasing the choice and engaging the participation of men.

While we have not presented the state level data on infant and child mortality, there are large interstate differences in the prevailing levels. According to the 1997 estimates, infant mortality rate (IMR) ranged between a low of 12 per 1000 live births in Kerala to 94 and 96 in Madhya Pradesh and Orissa, respectively. In Rajasthan and Uttar Pradesh, IMR was 85, significantly above the national average of 71. On the other hand, IMR ranged

Figure 9: Vital Rates Implicit in Standard Population Projection for India, 1991-2101

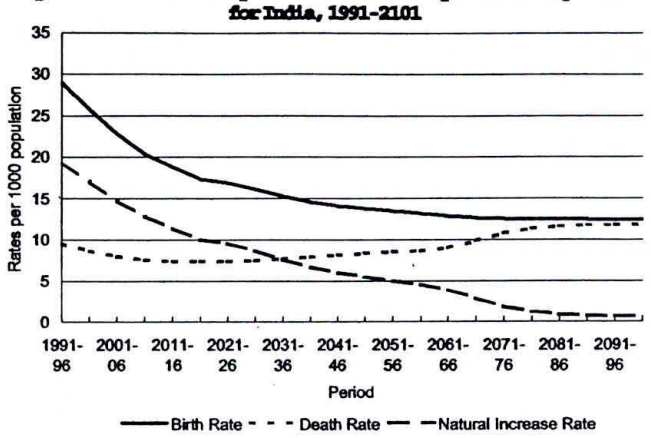


Figure 10: Vital Rates Implicit in Standard Population Projection for Andhra Pradesh, 1991-2101

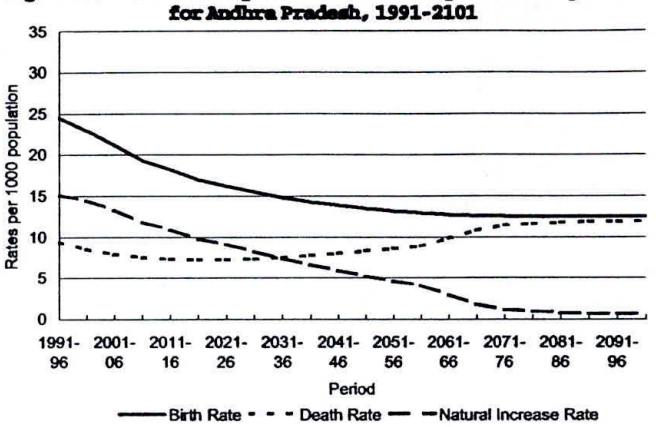


Figure 11: Vital Rates Implicit in Standard Population Projection for Gujarat, 1991-2101

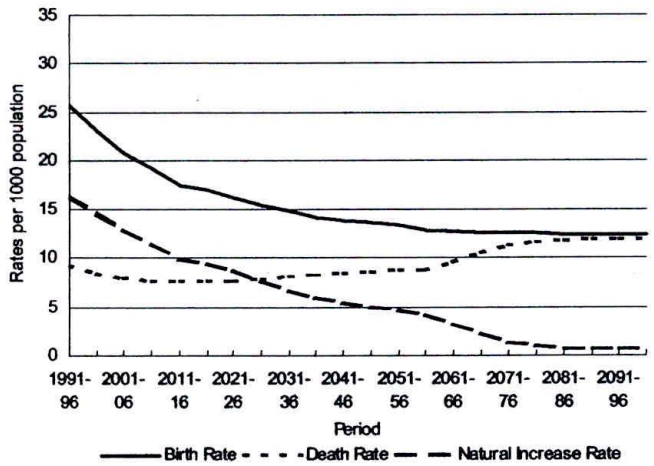
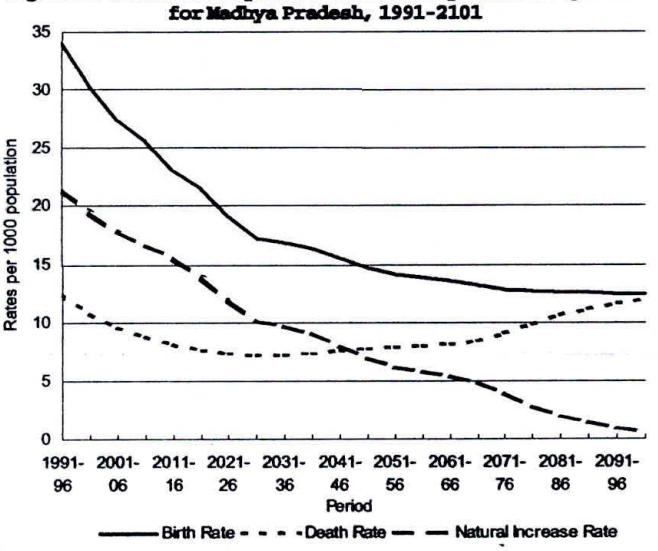


Figure 12: Vital Rates Implicit in Standard Population Projection for Madhya Pradesh, 1991-2101



between 53-55 in the states of Karnataka, Tamil Nadu and West Bengal [Office of the Registrar General 1999]. In the states where IMR is high, a strong effort to improve the health and nutritional status of children and mothers must remain a top priority. This should be viewed not only as an important goal in itself for improving the well-being of people, but also because lowering of infant and child mortality will also reduce wanted fertility insofar as couples try to replace deceased children and seek to insure against the loss of children [Bongaarts 1990].

A concerted effort to lower infant and child mortality will require a programme of universal immunisation, provision of safe drinking water to reduce both morbidity and mortality resulting from water-borne diseases, and ante-natal care and safe delivery. In the large north Indian states, these basic minimum facilities are not available to those who live in remote areas, belong to backward and poor families and are not literate. Improvements in these services will positively enhance the credibility of the health care providers as well of the government.

In the large north Indian states and Haryana, the average age at marriage of girls continues to be quite low and is lower than the average for the country as a whole. Concerted efforts will have to be made to increase the age at marriage in these regions. Further, in this entire belt, NFHS has indicated quite a strong son preference. As one of the authors has argued elsewhere, it is not easy to address culturally and socially governed norms or preferences through policies or programmatic interventions. Yet, efforts to educate the people about the implications of alternative courses of behaviour can be expected to change their actions at least in the long run [Visaria, Leela 1999].

The interstate disparities in population growth evident in the standard projection would have altered the level of representation of different states in the national parliament over the next 25 to 30 years. However, the national population policy, announced by the government of India during February 2000, has recommended that until 2026, the number of seats for each state in the Indian parliament will continue to be based on the population enumerated by the 1971 Census. To mitigate political tension and an adverse effect on the state-centre relationships, the freeze will presumably need to be extended beyond 2026.

VIII
Conclusion

In this paper we have decomposed the prospective population growth in the 16 major states between 1991 and 2101 into three components to estimate the contribution of each of them individually. The components are: growth momentum built into the age distribution of the population of each state as enumerated

by the 1991 Census, the desired high fertility and the unwanted fertility as reported by the respondents in the National Family Health Survey, conducted in 1992-93.

The state level population projections under these alternative scenarios have assumed that in all the states, mortality will continue its downward trend at the pace at which it has in recent decades. The possibility of increase in mortality at certain ages or slowing down the pace of decline, due to relatively high reported cases of HIV/AIDS in some states, is not built into our projections. The loss of life due to major natural calamities is difficult to predict.

The standard projections are based on the assumption of a continuation of the decline in fertility in each state at the level that was observed during a decade between 1982-84 and 1992-94. Although all the states in India have experienced fertility decline in recent years, the states have varied significantly both in the initial level of fertility considered by us and in the pace of fertility decline experienced by them in the recent years. The extent of reported unwanted fertility has also been different among states. These variations are reflected in the population projections and in the estimations of the share of each of the contributory factors. The resulting analysis clearly points to the state-specific policy measures that will have to be initiated in order to meet the unmet need for family planning, lowering desired fertility and also slowing the momentum of growth.

Additionally, the Indian states will also have to prepare themselves for certain other outcomes or consequences of the population growth. For example, the state level differentials in the rate of population growth and the resulting variations in the child and old age dependency will have very different implications for the expenditure and investments necessary for the education of the children in school-going ages, for the health care of young children and for maternal services. In Kerala, for example, a number of primary schools, managed or run by the state, have been slowly closing down because the absolute number of children of school-going age has been declining as a result of the fall in fertility. There is however, a flip side to this also. With the decline in the total number of children that couples have, the aspirations of providing the best education that the parents can afford, have risen and the private fee-charging schools continue to flourish.[22] In less than a decade, a similar situation is likely to occur in Tamil Nadu, where fertility has been declining and schooling at least at the primary level has become nearly universal.[23] These states can use their funds to improve the quality of education in the government-run schools and also provide more diverse vocational education to the older children. The states where the school going population will continue to increase due to both population growth and increase in enrolment in schools in the coming decade or so, will have to spend a large proportion of their revenues on providing basic education by opening more primary schools for the children. Training and hiring teachers, construction of school buildings, etc, will continue to claim a larger share of their revenues.

On the other hand, several states will find a steady increase in the proportion and the number of the elderly in their population and will need to initiate effective measures to safeguard their well-being and to meet their needs for both physical and psychological health care. Again, the state of Kerala has been very well aware of the implications of the ageing of its population. However, measures to alleviate the problems associated with ageing are slow to evolve. The problem is not likely to be acute for a few decades in the states with relatively high fertility, but the issue cannot be ignored for too long.

There is a likelihood of new pressures for interstate migration because of differences in the density of population on land, development of infrastructural facilities, and employment opportunities. Given the linguistic barriers and uneven economic and social development of different states, tensions between the sons of the soil and those who migrate in from other regions will surface in many places in India from time to time. The situation is likely to be accentuated in the future and appropriate policy responses will merit serious consideration. EPW

Address for correspondence:
gidrad1@sancharnet.in

Notes

[Pravin and I worked on this paper during 1999-2000 and nearly finalised it just before his untimely death. His contribution to this work was immense. Our grateful thanks are due to John Bongaarts and Mari Bhat for providing very valuable guidance, to Jignasu Yagnik for the projections and to Shomo Shrivastav for drawing figures for all the states.]

1 The estimated share of the three factors of momentum, unmet needs and high wanted fertility in the expected population growth was noted in the Ninth Five-Year Plan and also in the National Population Policy, 2000, that was announced on February 15, 2000 by the government of India.
2 The methodology underlying the decomposition exercise has been outlined by Bongaarts [Bongaarts 1990 and 1994].
3 Since the age data are not yet available from the 2001 population count, 1991 Census age distribution is used for the projections. Consequently, fertility and mortality estimates for the period around 1991 Census are used for the projection exercise.

4 The demands from many sections of population from these states for forming independent states is viewed as reasonable by many in the country, because they have a large population, with considerable socio-cultural diversity. The administrative unit of state appears too big in these large states for efficient governance. A bill introduced in the Indian parliament has already set up (a) Uttaranchal state out of the hilly districts of Uttar Pradesh, (b) Jharkhand state for the tribal population of Bihar and (c) Chattisgarh state for the tribal population of Madhya Pradesh. The total number of states in India has increased to 29 with the three new states carved out of the three largest states. Even after Uttaranchal state is carved out from the territories of Uttar Pradesh, the latter remains the most populous state in India.

5 In many European countries such as Finland, Belgium, France, and Germany and in Japan, female life expectancy at birth is estimated to be above 80 years, which is 7 to 8 years higher than that of males. See Population Reference Bureau (1999).

6 In urban areas, the female life expectancy at birth was higher by 1.5 to 4 years than the male e(0) even in those states where in the rural areas the female life expectancy was lower than that of males. See Office of the Registrar General, India (1998b).

7 The estimates are based on the Sample Registration System (SRS) data. The SRS had not become fully operative in the initial years in the large North Indian State of Bihar.

8 The chief minister of Andhra Pradesh has recently followed the example set in 1993 by the then chief minister of Tamil Nadu in aspiring to achieve a TFR of 1.5 by 2020 [Government of Andhra Pradesh 1999].

9 The total fertility rate in Goa was 1.9 according to 1992-93 NFHS and 1.77 according to 1998-99 NFHS. A long-term projection has not been prepared for the state, where migration seemed relatively quite important. Some 93,000 Goa-born persons had outmigrated, whereas 1,79,000 persons born outside the state had migrated to Goa from other states or from other countries. The net lifetime migrants constituted 7.3 per cent of the enumerated population of Goa in 1991 [Census of India 1991b].

10 Demographic transitions in the states of Kerala and Tamil Nadu have been analysed the most by Indian scholars. The analyses highlight the contribution of increase in the age at marriage and increase in female literacy level in fertility decline. Qualitative studies undertaken in Tamil Nadu also emphasise the changing aspirations of couples for their children as a major factor in desiring smaller number of children [see for example, Bhat and Rajan 1997, Kishor 1994, Ramasundaram 1995, Visaria, Leela 2000].

11 The highest levels of life expectancy had been selected in the programme, which used the 'west' model life tables of Coale and Demeny [see Coale and Demeny 1983].

12 However, it is almost impossible to predict the course the HIV/AIDS will take in the country and its impact on mortality.

13 Like the gain in life expectancy, which tends to slow down after reaching a certain level, the pace of decline in TFR would also slow down. However, it is not the purpose of this paper to identify how low the fertility can reach in states like Kerala and Tamil Nadu.

14 For the projections, we have allowed the TFR of Kerala to rise marginally from the estimated value of 1.74 to 1.8.

15 Since elimination of unwanted fertility would lower fertility in the states of Kerala and Tamil Nadu to somewhat absurdly lower levels, we have not prepared long-term population projections for them based on this assumption.

16 Population projection figures for the remaining major states along with the figures on dependency ratio are available on request from the senior author.

17 The figure for Tamil Nadu, shows only two projections – one based on standard projection and the other based on elimination of unwanted fertility. The projection incorporating attainment of TFR of 1.8 is the same as standard projection. For Kerala, we have drawn the figure giving only the standard projection, which again is the same as TFR of 1.8.

18 We have not projected the population separately for the three states that are formed out of Uttar Pradesh, Bihar and Madhya Pradesh. Besides a clear demarcation of their boundaries and estimates of their 1991 population, such an exercise would require estimates of fertility and mortality as well.

19 In the earlier exercise, undertaken in 1996 [see Visaria and Visaria 1996], we had estimated the share of population momentum in the country as a whole to be 61 per cent. In the present exercise, the share has gone up mainly because of the faster pace of fertility decline.

20 In both the earlier exercise and this exercise, India is expected to attain replacement level fertility during 2016-21. However, the total population size in 2101 was projected to be 1,757 million as opposed to 1,812 million now.

21 For an examination of the measures undertaken in Tamil Nadu in response to the Reproductive and Child Health Programme, see Visaria, Leela (2000).

22 During the period 1990-93, the government of Kerala closed down 67 schools and recommended closing down of another 89 schools in which the strength of students was below 50 students. Taking into account the fertility decline in the two years preceding 1994, the school age population was estimated to decline from 5.7 million enrolled in 1992-93 to 5.3 million in 2001. Continuing fertility decline will also have an effect on the university student population with a time lag [see James 1995].

23 There is some evidence to suggest that both in Kerala and Tamil Nadu, some fictitious names of children are entered on the school registers to augment the number of children in school, since the grant or aid to schools, and the number of teachers provided depend on the total number of enrolled children.

References

Bhat, P N, Mari (2002): 'Returning a Favour: Changing Relationship between Female Education and Family Size in India', *World Development*, 30(10): 1791-1804.

Bhat, P N Mari and Irudaya Rajan (1997): 'Demographic Transition since Independence' in Zachariah, K C and S Irudaya Rajan (eds), *Kerala's Demographic Transition: Determinants and Consequences*, New Delhi, Sage Publications India: 33-78.

Bongaarts, John (1990): 'The Measurement of Wanted Fertility', *Population and Development Review*, 16(3), 487-506.

– (1994): 'Population Policy Options in the Developing World', *Science*, Vol 263, February 11, 771-76.

Census of India (1971): *Final Population Totals*, New Delhi, Office of the Registrar General.

– (1981a): *Final Population Totals*, New Delhi, Office of the Registrar General.

– (1981b): *Geographic Distribution of Internal Migration in India: 1971-81*, New Delhi, 1989.

– (1991): *Final Population Tables*, New Delhi, Office of the Registrar General.

Coale, Ansley J and Paul Demeny (1983): *Regional Model Life Tables and Stable Populations*, Second Edition, New York, Academic Press.

Dyson, Tim (2003): 'India's Population – the Future' in T Dyson, Robert Cassen and Leela Visaria (eds), *21st Century India: Population, Environment and Human Development*, Oxford University Press (forthcoming).

Government of Andhra Pradesh (1999): *Andhra Pradesh: Vision 2020*, State Secretariat, Hyderabad.

International Institute for Population Sciences (IIPS) (1995): *National Family Health Survey, 1992-93*, Bombay, IIPS.

International Institute for Population Sciences (IIPS) and ORC Macro (2000): *National Family Health Survey (NFHS-2), 1998-99*, Mumbai, IIPS.

James, K S (1995): 'Demographic Transition and Education in Kerala', *Economic and Political Weekly*, Vol 30, No 51, December 23, pp 3274-76.

Kishor, S (1994): 'Fertility Decline in Tamil Nadu, India' in B Egero and M Hammarskjold (eds), *Understanding Reproductive Change: Kenya, Tamil Nadu, Punjab, Costa Rica*. Lund: Lund University Press, 66-100.

Natarajan, K S and V Jayachandran (2001): 'Population Growth in 21st Century India' in Srinivasan and M Vlassoff (eds), *Population-Development Nexus in India*, New Delhi: Tata McGraw-Hill, 35-57.

Office of Registrar General (1998a): *State Profile 1991, India*, New Delhi, Controller of Publications.

– (1998b): *SRS Based Abridged Life-Tables, 1991-95*, New Delhi.

– (1999): *Sample Registration System, Statistical Report, 1997*, New Delhi, Controller of Publications.

Population Reference Bureau (1999): *World Population Data Sheet*.

Ramasundaram, S (1995): 'Causes for the Rapid Fertility Decline in Tamil Nadu: A Policy Planner's Perspective', *Demography India* 24(1): 13-21.

Registrar General, India, Occasional Papers No 1 of 1985, *SRS Based Abridged Life Tables 1975-80*, New Delhi.

Registrar General, India, SRS Analytical Studies, Report No 1 of 1998, *SRS Based Abridged Life Tables, 1990-94 and 1991-95*, New Delhi.

United Nations (2001): *World Population Prospects: The 2000 Revision*, New York, United Nations.

Visaria, Leela (1999): 'Deficit of Women in India: Magnitude, Trends, Regional Variations and Determinants' in Ray, Bharati and Aparna Basu (eds), *From Independence Towards Freedom*, Oxford University Press, New Delhi, pp 80-99.

– (2000): 'Innovations in Tamil Nadu', *Seminar*, Issue No 489, May, pp 49-55.

Visaria, Leela and Pravin Visaria (1996): *Prospective Population Growth and Policy Options for India, 1991-2101*, The Population Council, New York.

NATIONAL YOUTH POLICY 2003

II II II II

1. PREAMBLE

1.1. The National Youth Policy, 2003 reiterates the commitment of the entire nation to the composite and all-round development of the young sons and daughters of India and seeks to establish an All-India perspective to fulfill their legitimate aspirations so that they are all strong of heart and strong of body and mind in successfully accomplishing the challenging tasks of national reconstruction and social changes that lie ahead.

1.2. The earlier National Youth Policy was formulated in 1988. The socio-economic conditions in the country have since undergone a significant change and have been shaped by wide-ranging technological advancement. The National Youth Policy - 2003 is designed to galvanize the youth to rise up to the new challenges, keeping in view the global scenario, and aims at motivating them to be active and committed participants in the exciting task of National Development.

1.3. The Policy is based on recognition of the contribution that the youth can, and should, make to the growth and well-being of the community and endeavours to ensure effective co-ordination between the policies, programmes and delivery systems of the various Ministries, Departments and other Agencies. The thrust of the Policy centres around "Youth Empowerment" in different spheres of national life.

1.4. For India to occupy her rightful place in the Comity of Nations and to meaningfully discharge the manifold obligations thereto, it would be imperative to ensure the effective pursuit of youth development programmes which promote personality development and Qualities of Citizenship and enhance commitment to Community Service, Social Justice, Self-reliance, National Integration and Humanism, an inclusive view of the entire universe as enshrined in our ancient scriptures. The Policy, therefore, recognizes these inter-related values and principles as its basic premise.

2. RATIONALE

2.1 Since our national progress depends, crucially, on the ways and means through which the youth are encouraged and nurtured as a positive force for national progress and are enabled to contribute to socio-economic development, it is essential for an appropriate policy framework to be in place to harness the energies of the youth in this task.

2.2 Recognizing, further, that youth development is a multi-faceted concept, it is equally necessary that all the relevant agencies, including the Ministries and Departments of the Central and State Governments, and local self Government bodies and Panchayati Raj institutions devise their plans and programmes bearing these aspects and features in mind. The Policy will facilitate a multi-dimensional and integrated approach in this behalf, with the State Agencies striving to accelerate the formulation and implementation of programmes.

2.3 An important indicator of the success of such programmes being the stake of the beneficiaries in the results of the same, this Policy also stresses that the youth of the country should enjoy greater participation in the processes of decision-making and execution at local and higher levels. Such participation would be facilitated by identifiable structures, transparent procedures and wider representation of the youth in appropriate bodies, with the emphasis being more on working with the youth than for the youth.

3. THE DEFINITION OF YOUTH

3.1 This Policy will cover all the youth in the country in the age group of 13 to 35 years. It is acknowledged that since all the persons within this age group are unlikely to be one homogenous group, but rather a conglomeration of sub-groups with differing social roles and requirements, the age group may, therefore, be divided into two broad sub-groups viz. 13-19 years and 20-35 years. The youth belonging to the age group 13-19, which is a major part of the adolescent age group, will be regarded as a separate constituency.

3.2 The number of youth in the age group of 13-35 years, as per the 1991 Census, was estimated at about 34 crores, and about 38 crores in 1997, which is anticipated to increase to about 51 crores by the year 2016. The percentage of youth in the total population, which, according to the 1996 Census projections, is estimated to be about 37% in 1997, is also likely to increase to about 40% by the year 2016. The availability of a human resource of such magnitude for

achieving socio-economic change and technological excellence needs commensurate infrastructure and suitable priorities to maximize its contribution to National Development.

4. OBJECTIVES OF THE NATIONAL YOUTH POLICY

The objectives of the National Youth Policy are:

4.1 to instil in the youth, at large, an abiding awareness of, and adherence to, the secular principles and values enshrined in the Constitution of India, with unswerving commitment to Patriotism, National Security, National Integration, Non-violence and Social Justice;

4.2 to develop Qualities of Citizenship and dedication to Community Service amongst all sections of the youth;

4.3 to promote awareness, amongst the youth, in the fields of Indian history and heritage, arts and culture;

4.4 to provide the youth with proper educational and training opportunities and to facilitate access to information in respect of employment opportunities and to other services, including entrepreneurial guidance and financial credit;

4.5 to facilitate access, for all sections of the youth, to health information and services and to promote a social environment which strongly inhibits the use of drugs and other forms of substance abuse, wards off disease (like HIV/AIDS), ensures measures for de-addiction and mainstreaming of the affected persons and enhances the availability of sports and recreational facilities as constructive outlets for the abundant energy of the youthl;

4.6 to sustain and reinforce the spirit of volunteerism amongst the youth in order to build up individual character and generate a sense of commitment to the goals of developmental programmes;

4.7 to create an international perspective in the youth and to involve them in promoting peace and understanding and the establishment of a just global economic order;

4.8 to develop youth leadership in various socio-economic and cultural spheres and to encourage the involvement of Non-Governmental Organizations, Co-operatives and Non-formal groups of young people; and

4.9. to promote a major participatory role for the youth in the protection and preservation of nature, including natural resources, to channelise their abundant energies in community service so as to improve the environment and foster a scientific, inquisitive reasoning and rational attitude in the younger generation and to encourage the youth to undertake such travel excursions as would better acquaint them with cultural harmony, amidst diversity, in India, and overseas.

5. THRUST AREAS OF THE POLICY

5.1 Youth empowerment: The Policy recognizes that in order for the youth to effectively participate in decision making processes, it is essential that they are better equipped with requisite knowledge, skills and capabilities. Towards this end, the Policy envisions the following:

Attainment of higher educational levels and expertise by the youth, in line with their abilities and aptitudes, and access to employment opportunities accordingly;

Adequate nutrition for the full development of physical and mental potential and the creation of an environment which promotes good health, and ensures protection from disease and unwholesome habits;

Development of youth leadership and its involvement in programmes and activities pertaining to National Development;

Equality of opportunity and respect for Human and Fundamental Rights without distinction of race, caste, creed, sex, language, religion or geographic location and access to facilities relating to Sports, Cultural, Recreational and Adventure activities.

5.2. Gender Justice: The Policy recognizes the prevailing gender bias to be the main factor responsible for the poor status of health and economic well-being of women in our society and that any discrimination on grounds of sex violates the basic rights of the individual concerned and it, therefore, stands for the elimination of gender discrimination in every sphere. The Policy enunciates that:

(a) Every girl child and young woman will have access to education and would also be a primary target of efforts to spread literacy.

(b) Women will have access to adequate health services (including reproductive health programmes) and will have full say in defining the size of the family.

(c) Domestic violence will be viewed not only as violation of women's freedom but also as that of human rights.

(d) All necessary steps should be taken for women's access to decision-making process, to professional positions and to productive resources and economic opportunities.

(e) Young men, particularly the male adolescents shall be properly oriented, through education and counseling to respect the status and rights of women.

5.2.1 The Policy further enunciates that

(a) Action would be pursued to eliminate all forms of discrimination in respect of the girl child, negative cultural attitudes and practices against women, discrimination against women in education, skill development and training, and the socio-economic exploitation of women, particularly young women;

(b) Concerted efforts will be made to promote a family value system that nurtures a closer bond between men and women, and ensures equality, mutual respect and sharing of responsibility between the sexes.

5.3 Inter-Sectoral Approach: The Policy recognizes that an inter-sectoral approach is a pre-requisite for dealing with youth-related issues. It, therefore, advocates the establishment of a coordinating mechanism among the various Central Government Ministries and Departments and between the Central and State Governments, and the community based organisations and youth bodies for facilitating convergence in youth related schemes, developing integrated policy initiatives for youth programmes and for reviewing on-going activities / schemes to fill in gaps and remove unnecessary duplication and overlap.

5.4 Information & Research Network: Youth development efforts in India have been hampered by lack of adequate information and research base. The Policy, therefore, suggests the establishment of a well organized Information & Research Network in regard to various areas of concern to the youth to facilitate the formulation of focused youth development schemes and programmes. The Rajiv Gandhi National Institute of Youth Development (RGNIYD) will serve as the apex Information and Research Centre on youth development issues. The National Youth Centre and the State Youth Centres will also serve as store houses of information for the youth. At the micro level, the Youth Development Centres under the NYKs will be equipped to serve as information centres for the local youth.

6. PRIVILEGES OF YOUTH

The Policy acknowledges that the youth of the country should be assured of the following:

6.1 Appropriate education and training which enables them to render themselves socially useful and economically productive;

6.2 Gainful employment and adequate opportunities for personal development and advancement for those not currently in employment;

6.3 Requisite shelter and a clean environment, as also basic health services of quality;

6.4 Social defence and protection from all manner of exploitation;

6.5 Suitable participation in decision-making bodies which are concerned with issues relating to the youth and with socio-economic and cultural matters;

6.6 Sufficient allocation of public funds for youth development;

6.7 Access to Sports, Physical Education, Adventure and Recreational opportunities.

7. RESPONSIBILITIES OF YOUTH

The Policy exhorts the youth to fulfill their responsibilities, as are enumerated below:

7.1 to contribute to sectoral, family and self development and to promote social and inter-generation understanding and gender equality;

7.2 to extend respect to teachers and elders, parents and the family, in consonance with our cultural norms and traditions;

7.3 to uphold the unity and integrity of the Nation, maintain peace and harmony, observe Fundamental Duties and respect the Fundamental Rights and Freedoms guaranteed under the Constitution to all sections of the people;

7.4 to respect others' faiths and beliefs in the religious, cultural and social spheres and to different schools of thought and to neither exploit nor be instrumental in the exploitation of fellow citizens and other persons, especially women;

7.5 to promote appropriate standards of ethical conduct in individual and social life, to maintain honesty and integrity of character and be committed to fight against all forms of corruption, social evils and practices.

7.6 to preserve and protect the Environment; and

7.7 to commit themselves to create a discrimination and exploitation free environment and to devote their time and energy in nation building activities.

8. KEY SECTORS OF YOUTH CONCERN

8.1 The Policy recognizes the following areas as key sectors of concern for the youth:

i. Education;

ii. Training and Employment;

iii. Health and Family welfare;

iv. Preservation of Environment, Ecology and Wild life;

v. Recreation and Sports;

vi. Arts and Culture;

vii. Science and Technology; and

viii. Civics and good Citizenship.

8.2 Education

8.2.1. The Policy acknowledges that the objective of providing appropriate education, which enables the youth to develop into good citizens of the country, should also suitably influence relevant actions of the Government and public behaviour.

8.2.2 It is recognized that the need of the educational system to instill, in the youth, an abiding sense of patriotism and in values oriented towards the unity and integrity of the country, equally calls for the elimination of violence in all forms, adherence to good moral and ethical values and respect and reverence for India's composite culture and national heritage.

8.2.3 This Policy emphasizes that the learning process should minimise the stress and strain, which the system may exert on students, especially in the early years. The thrust of the educational system, particularly in the early years, ought to be on learning, rather than on merely qualifying in examinations and memory-based tests. The Policy lays emphasis

on outdoor learning as an integral part of the educational process and on Physical Education, Sports, Games and Adventure activities.

8.2.4 Academic institutions should be equipped with adequate sports and recreational facilities.

8.2.5 Education, above the secondary level, should have a high degree of vocationalisation so as to enable the youth to acquire such requisite skills as would augment avenues of employment for them; technical institutions need to be strengthened and their number increased keeping an eye on our country's emergence as a major force in information technology.

8.2.6 There needs to be greater uniformity in the educational system and standards in various parts of the country.

8.2.7 Closer links should be developed between the educational system and prospective employers, on an institutional basis and career counselling should be a part of the educational system, from the secondary level onwards. Programmes need to be undertaken for proper dissemination of information, amongst young men and women, in respect of career options.

8.2.8 Programmes should be undertaken to upgrade the existing skills of young artisans of traditional handicrafts and other products and for those who may wish to take up the same as a vocation. Education system should also have a rural orientation to address the varied needs of agriculture, agro – processing and other areas of rural economy.

8.2.9 Educational curriculum in schools should include information on health issues, including reproductive health, HIV-AIDS and also on population issues.

8.2.10 Youth clubs and Mahila Mandals should be encouraged to involve their members in programmes like "Sarva Shiksha Abhiyan" and Total Literacy Campaign for universalisation of primary education, and spread of literacy and to organize activities to promote book reading habits among the youth.

8.3 Training and employment

8.3.1. This Policy recognizes that the question of employment is, at present, of very serious concern for the Indian youth and that several social issues arise out of widespread unemployment and under-employment of the youth.

8.3.2. This Policy further acknowledges that the incidence of unemployment is more pronounced in the rural areas and in urban slums and calls for appropriate strategies and commensurate efforts to deal with it.

8.3.3. The current trends suggest that the growth rate of the labour force has been higher than the growth rate of population and that the growth rate of employment has not been in proportion to GDP growth.

8.3.4. The critical issues in this area include a mis-match between skills-requirement and employment opportunities, low technology levels, low wages and low productivity, occupational shifts in employment, under-employment owing to seasonal factors, excess labour supply in relation to demand, migration of the labour force from the rural to urban areas and limited participation of women in the work force, especially in the organized sector.

8.3.5. The incidence of unemployment has been accentuated by advances in technology and communications, to tackle which, opportunities for self-employment need to be created. Schemes to provide "seed money" to assist viable enterprises initiated by the youth need to be drawn up. A network of youth skill training centres would need to be established to build up the capacities of the young people for income generation activities.

8.3.6. Adequate funding for both pre-job and on-the-job training for youth by government as well as other stake holders should be ensured. For proper vocational guidance and career counselling, schools and colleges should pay adequate attention to this aspect as part of their co-curricular activities.

8.3.7. Government, in conjunction with youth organisations, will develop training programmes for young people in the rural areas, based on their needs. Special schemes would also be developed for young women, youth with disabilities and for young people returning from the urban to the rural areas, alongside flexibility in training systems and collaboration between training institutions and potential employers.

8.3.8. Co-operative schemes involving Self Help Groups of young people in the production and marketing of goods and

services would be encouraged and strengthened, with government support. Banks and Co-operatives would be advised to make identifiable allocations of soft credit to young people and their Self Help Groups and micro-credit adopted as a strategy to enable young women and men, in the rural areas, to undertake fruitful economic ventures.

8.3.9. A Data Bank will be created to keep abreast of the employment opportunities being generated, as also the availability of young people, with the requisite skills, for the same;

8.4 Health

8.4.1 The policy recognises that a holistic approach towards health, mental, physical and spiritual, needs to be adopted after careful assessment of the health needs of the youth.

8.4.2 As per the youth population projections (based on the 1991 Census), about 21.4% of the total population in 1996 was estimated to be in the age group of 10-19 years; of these, about 78.4% lived in the rural and the remaining (21.6%) in the urban areas. The mean age of marriage in the rural areas was 21.56 years for males and 16.67 years for females. In the urban areas, the mean age for marriage was 24.32 years for males and 19.92 years for females. In other words, most women in India are married during the age of adolescence.

8.4.3 The areas of focus of this Policy, in so far as health of the youth is concerned, are:

a. General Health;

b. Mental Health;

c. Spiritual Health;

d. AIDS, Sexually Transmitted Diseases, Substance Abuse; and

e. Population Education.

(a) **General Health**

8.4.4 Nutrition : The policy recognises an urgent need for greater concentration on nutritional studies on the youth – particularly the young women and the adolescents and advocates all measures to lessen the differences between their daily average intake of energy and proteins and the recommended daily intake allowances (RDA). The Policy particularly emphasises on reduction of this gap, which is wider among the children of growing age as per Indian National Nutritional Profile, 1998.

8.4.5 The growth rate standard of Indian adolescents, measured in terms of Body Mass Index (BMI) viz. ratio between weight and height, is lower in India than in most of the industrialised nations. Iron deficiency and anemia are common, especially in girls. The growth-related requirements of adolescents often continue beyond the teenage years and overlap with the nutritional needs of early pregnancy, which has an impact on the health of new-born children, in addition to the mothers. Discriminatory practices in respect of girls also lead to lack of adequate nutritional intake, which results in malnutrition, anaemia and other micro-nutrient deficiencies in young girls which are more noticeable in the rural areas. These concerns need to be effectively tackled through appropriate measures, including awareness-generation programmes.

8.4.6 The Policy lays emphasis on the importance of hygiene and sanitation in promoting a healthy society. All efforts should be made to inculcate in the youth a sense of hygiene and sanitation right from early education. The youth on their part should be encouraged to organise mass awareness campaigns in their neighbourhood to promote better hygiene and sanitation. Their services should also be utilised in creating better sanitation facilities for the community, both in rural areas and urban slums.

8.4.7 Health education and health consciousness: This Policy strongly recommends introduction of health education in the curricula of regular / formal education in higher classes of schools and colleges, in non-formal education centres and in every other organised interaction with the youth. The policy advocates that every youth of India should clearly understand the what, why and how of good health within his or her socio – economic parameters. A policy of minimum physical exercise for all should be propagated.

(b) **Mental Health**

8.4.8 Lack of proper education often leads to mental depression. In an environment that is becoming complex and competitive by the day, the chances of young minds being afflicted with depression are ever rising. This is particularly so, among adolescents who are showing higher incidence of suicidal traits than even before. Against this background, this Policy advocates a system of education which teaches the youth to fight back rather than give in. It also recommends establishment of state–sponsored and free counseling services for the youth, particularly the adolescents.

8.4.9 Adolescence is a period of change and, consequently, one of stress, characterized by uncertainties in regard to identity and position in the peer group, in society at large and in the context of one's own responsibilities as an adult. The compulsions of parental approval often encounter the emerging aspirations of independence. Adolescents exhibit mood-swings and might even indulge in self-destructive activities, such as use of alcohol, drugs and violence; they need, therefore, to be treated with openness, understanding and sympathy and offered creative channels to harness their energies. This would necessitate training and capacity building of all professional groups including NGOs working with the youth belonging to this age group.

(c) Spiritual Health

8.4.10. Health of the mind should be coupled with the health of the spirit. Towards this, yoga and meditation should be propagated widely among the youth. Yoga, in particular, should be taught in the schools.

(d) HIV/AIDS, Sexually Transmitted Diseases and Substance Abuse

8.4.11 The Policy recognizes that the percentage of young people falling prey to substance abuse, STDs and HIV / AIDS being relatively higher, these issues need be tackled as, primarily, confronting the younger generation, particularly the adolescents who are most affected. Being highly impressionable, and, therefore, prone to high risk behaviour, they require proper education and awareness about reproductive health issues, including safe sexual behaviour. The Policy, therefore, advocates a two-pronged approach of education and awareness for prevention and proper treatment and counselling for cure and rehabilitation. It further enjoins that information in respect of the reproductive health system should form part of the educational curriculum. The Policy also stresses the need for establishment of adolescent clinics in large hospitals and similar projects in rural areas to address the health needs of the young adults.

(e) Population Education

8.4.12 The Policy recognises that a growing population is a serious national problem that has negated many of our achievements in the field of development. The youth have an important role to play in this sphere and can create greater awareness in this regard through community programmes.

8.4.13 Responsible sexual behaviour can be promoted through education in family-life issues and control of population. Pregnancy and childbirth, in the adolescent period, particularly for young women below 17 years of age who are living in unhealthy conditions and without adequate access to health services, has been a serious bio-medical hazard. The adolescent age-group has to be sensitised in regard to the correct age for marriage and for the first pregnancy, sufficient spacing between births and limiting the size of the family. It is conceded that in spite of several initiatives taken by the Government, the social climate enjoins the young couple to produce their first child soon after marriage. This scenario is unlikely to change in the near or medium term. Entering into matrimony at the right age assumes critical importance in this context, apart from its healthy impact in checking the high rate of population growth. It is equally imperative that young adults be sensitised to their role and responsibilities as responsible parents. Ante-natal, natal and post-natal services of quality are also necessary for young women.

8.4.14 The following strategies should be adopted to provide better health services to the youth :

a. Government , in co-operation with the Youth Organisations and NGOs, would promote the establishment of Youth Health Associations, at the grass-root level, to ensure proper sanitation, health and hygiene and would, in cooperation with Youth Organisations, develop Family Welfare Services for young people and provide counselling services;

b. Programmes would be instituted, with the support of Youth Organisations and NGOs, to sensitise medical and para-medic students on the issues of health and hygiene and also in the IEC component of various disease control programmes; and

c. Young people will be recognised as "Health Promoters".

8.4.15 The youth will also be involved in a structured manner in the following health-related activities:

a. Construction of lavatories, water points, dispensaries and wells; cleaning of public places and related environment protection activities; community surveys and research on health-related matters;

b. Safe blood donation, nutrition and food production projects;

c. Information, education and prevention campaigns in respect of health concerns, such as malaria, malnutrition, STD (including HIV / AIDS), teenage pregnancy and abuse of alcohol and other harmful substances;

d. "Peer Education" will be an important element in promoting health services.

8.4.16 This Policy urges upon universal accessibility of an acceptable, affordable and quality health care service to the youth throughout the length and breadth of this country to be made available in close proximity to their places of residence. The youth should have this accessibility for themselves as well as for other vulnerable age groups whom they could help out.

8.5 ENVIRONMENT

8.5.1 The Policy recognises that children and young people are particularly vulnerable to the ill effects of environmental degradation. Unplanned industrialisation, which leads to pollution and to degradation of rivers, forests and land, adversely affects the young who have a vital stake in a healthy environment.

8.5.2 Considering the importance of community involvement in preservation of the environment, the Policy exhorts young people to play an increasingly significant role in mobilising the public, at large, in this national endeavour. The Policy also advocates motivating the youth to develop respect for Nature and to lead lifestyle which are less resource consumptive and more source conservationist.

8.5.3 The Policy recognises that women are seriously affected by environmental degradation resulting, inter-alia, in lack of potable water and scarcity of fuel wood. The migration of men to cities to seek employment often isolates the womenfolk who are left to fend for themselves.

8.5.4 Having regard to the above, the Policy highlights the following lines of concrete action:

a. Greater emphasis should be placed on environmental education in school curricula and training programmes should be arranged to inform teachers on environmental issues so as to enable them to instruct the youth suitably. Environmental education should also be a part of the outdoor learning process;

b. The participation of Youth Organisations in gathering environmental data and in understanding environmental issues would be encouraged as a means of improving their knowledge of immediate surroundings and accentuating personal concern towards proper environmental management;

c. Motivating the youth to establish nature and adventure clubs in villages and towns with a view to creating mass awareness towards protection of the country's bio – diversity, and to work with local bodies and NGOs in planning and management of our forests, rural water bodies, common land and natural resources through active local participation.

d. Vocational training, in recycling of materials and managing waste materials, would be promoted so as to ensure that more young people may find a local source of livelihood and, at the same time, arrest degradation of the environment; and

e. Youth Organisations, at the grass root level, would be assisted in provision of training in agro-forestry, agriculture and traditional agricultural practices.

f. Promotion of both traditional and alternative technologies for water conservation and water harvesting through Youth organisations.

8.6 Sports and Recreation

8.6.1 Having recognised that the overall objective of the Policy is the all-round development of personality of the youth and noting that Sports, Physical Education, Adventure, Recreation and related activities might often be overlooked, this Policy strongly supports these activities as important areas of human resource development. No system of education could be considered successful, unless it addresses the urges and aspirations of the youth to be creative and appreciative of the manifold facets of nature and of social life.

8.6.2 The Policy, accordingly, enunciates that:

a. Sports and games be promoted as a mass movement by making it a way of life;

b. Sports, Games and Physical Education including Yoga, should be compulsory in all Educational Institutions;

c. Every educational institution should have adequate facilities for recreation, adventure and sports activities, including playgrounds;

d. Provision be made for common play grounds in the master plans of all civic and municipal areas;

e. At least one-fifth of the time spent by a student in an educational institution should be earmarked for outdoor activities;

f. Geographically disadvantaged areas would be extended additional support for the promotion of Sports and Games;

g. Rural, traditional and indigenous sports would be accorded special attention and it would be the responsibility of the Panchayat Institutions with the help of local youth organisations to develop and maintain infrastructure for this purpose. The involvement of organised youth bodies such as youth clubs under the NYKS, the volunteers of the NSS and the Scouts & Guides in the creation and maintenance of sports infrastructure will go a long way in reducing the high cost of such infrastructure;

h. A National Youth Festival will be held each year, starting at the Block level and culminating at the National Level;

i. Youth Hostels would be constructed in as many places of historical and cultural interest as possible, to promote youth tourism;

j. Youth Organizations devoted to such activities will be encouraged; and

k. Adventure activities among the youth be promoted to inculcate qualities of leadership, resilience, courage, discipline and love for nature and the environment.

8.7 Arts and Culture

8.7.1 Activities connected with Arts and Culture provide recreation to individuals, sharpen their sensitivities and afford a vehicle to inculcate desirable ideals and values. The Policy recognizes the importance of Arts and Culture in a holistic approach to youth development and that Young People need to be sensitised to the great heritage of our country and provided with opportunities to understand and follow pluralistic forms of culture.

8.7.2 This Policy, therefore, enunciates the following:

a. The youth should be better enabled to imbibe the rich traditions and culture of India and sensitised to the need to preserve and enrich this extraordinary heritage. This will be sought to be achieved inter-alia through
   i. inclusion of learning and appreciation of the country's rich heritage in art, architecture, music and dance etc. in the educational curricula at the school level;

ii. encouraging and facilitating through financial assistance in association with concerned State Govt./PRIs etc., visits to ancient monuments/heritage sites during which attempt would be made to impress upon the young people the need for preservation of our ancient heritage by involving them in voluntary work for cleaning up the sites and surroundings and educating and motivating the local youth to protect such monuments against vandalism etc. The Ministry of Railways and State STUs will be persuded to offer concessional fares for such organised educational trips and for organising special services to such places, particularly during holidays;

iii. Encouraging and facilitating the visits of well known artists to educational institutions to impart lessons in appreciation through demonstrations/workshops/performances;

iv. Encouraging and facilitating in association with State Govts./PRIs/NGOs attendance of young persons at performances by well known artistes in their respective areas.

b. A National Youth Centre would be established to provide young people with a common platform where they can express their opinions and views on various issues concerning them. Such a Youth Centre will also provide them with ample scope to give exposure to their creative genius and abilities in the fields of various cultural expressions like fine arts, music, theatre, film etc. State Youth Centres would be established, on similar lines, in the various States.

8.8 Science and Technology

8.8.1 As the adaptation of scientific and technological principles and developments, to maximise the use of local resources, are central to empowerment in the quality of life, the Policy recognises the importance of emerging, modern technologies, particularly in the field of information technology and electronic media, in enabling the youth to perform and achieve in all sectors of their interest.

8.8.2 The Policy also recognises that young scientists and technologists should be extended adequate facilities for research and that the contribution of the private sector in this field should be encouraged.

8.8.3 The National Youth Policy, therefore, provides for:

a. Review of policies in respect of the School Curriculum and the non-formal education sector so that Science may be popularised amongst all sections of the youth;

b. Support to providing exposure to the youth to the scientific temper and way of life;

c. Development of mechanisms within the system to identify and train gifted youth, as early as possible, in the fields of science and technology;

d. The best and the most positive use of information and communications technology, as well as all forms of media, including the electronic media, for youth development as well as for promoting and protecting the richness of our culture;

e. Promoting a multi-sectoral approach involving, inter-alia, the private sector and NGOs, to orient the youth towards scientific and technological studies and research;

f. Ensuring co-ordination between the various Government Ministries/Departments and Scientific Organisations/Institutions dealing with youth development programmes;

g. Upgrading science curricula in institutions of learning to inculcate the scientific approach amongst all sections of the younger generation;

h. Linking the projects of the young scientists to the problems of the people and ensuring better interaction between labs and the industry;

i. Documentation of the large repository of physical and knowledge based resources within the country to prevent their piracy by vested interests.

8.9 Civics and Citizenship

8.9.1 Human behaviour is significantly shaped by norms and values, which are a basis for attitudinal growth. The dominant features in the Indian Society, which impinge on the cultural and other values of young people, include areas such as family life, education, work and occupational activities, gender, class and ethnic relations, religion, mass communication, artistic and creative expression, sports, recreation, politics and the economic environment.

8.9.2 Anti-social behaviour is a manifestation of the absence of well-accepted values, attitudes and norms in the individual and in society which can reflect itself in crime, violent action, breakdown of parental authority in family life, corruption in public life, obscenity in the media, indiscipline in schools and in sporting activities and low productivity at the workplace.

8.9.3 The Policy, therefore, envisages the following strategies:

a. Embodying instruction in the values like respect for teachers and parents, adolescent and the aged besides religious tolerance, and compassion towards the poor and the needy. The concept of family as the basic and most important asset of Indian Society will be strengthened.

b. To motivate the youth to resist fragmentation of society on the basis of caste, religion, language and ethnicity and for promotion of democratic values enshrined in our constitution.

c. To mobilise the youth to create local pressure groups within the community to fight corruption at all levels and to ensure that the benefits of development reach those for whom they are intended and are not siphoned of by middlemen and the powerful.

d. Laying emphasis on the economic and social security of the youth belonging to underprivileged sections of our society and those who are mentally and physically challenged.

9. PRIORITY TARGET GROUPS

This Policy will accord priority to the following groups of young people:

a. Rural and Tribal Youth;

b. Out-of-school Youth;

c. Adolescents particularly female adolescents;

d. Youth with disabilities;

e. Youth under specially difficult circumstances like victims of trafficking; orphans and street children.

10. IMPLEMENTATION MECHANISM

The Policy envisions the following implementation mechanism:

a. All Ministries/Departments of the Union Government and the State Governments, particularly in the social sector will strive to make identifiable allocations in their budgets for youth development programmes;

b. A broad based National Committee on Youth Policy and Programmes is contemplated to review and assess various programmes and schemes focusing on youth. It will also advise the Government on measures for implementation of the Plan of Action of the National Youth Policy;

c. The Union Ministry of Youth Affairs & Sports (with the guidance of this Committee) will be the Nodal Ministry for all such programmes and schemes and will oversee the implementation of the provisions of this Policy;

d. An effective mechanism to coordinate the activities of the Central Ministries/Departments, the State Governments and Community and Youth Organisations, would be evolved in order to facilitate timely execution of youth development programmes; and

e. A National Youth Development Fund will be created through contributions, including from Non-Governmental Organisations, which would be utilised for youth development activities. Income Tax exemption would be sought for contribution to the Fund.

11. REVIEW

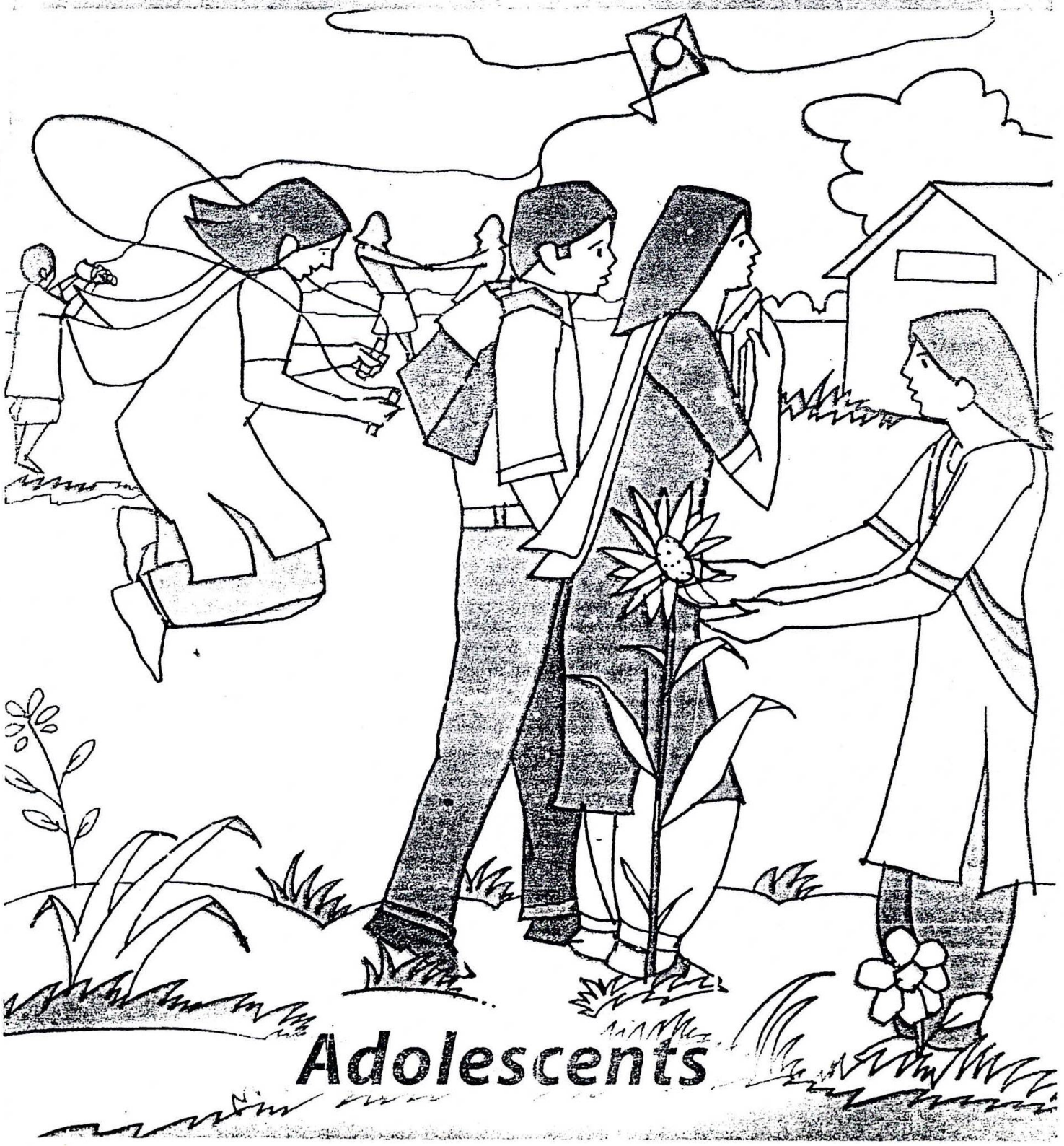
The National Youth Policy, 2003 would be reviewed after 5 years from the date of commencement of implementation.

BACK TO POLICIES INDEX || Top

February 2004 –March 2004 : Vol. 29 No. 6

Health

FOR THE MILLIONS



Adolescents

Publisher's Note

Over decades, the State has played a significant role in health sector. With the growing process of Globalization and the influence of New Economic Policy, there is tremendous pressure to replace this arrangement, and put the social sector in market place. There can be little doubt that the greatest economic force now sweeping through the health care system worldwide is that of the market. Health is a vital human good and Medicare plays a key role in promoting it. Totally commercializing it even for the sake of choice and efficiency runs a potent risk of submitting it to the market-forces. The integrity of medicine itself is at stake. Thankfully for the poor in most developing countries the State still remain principal provider in Health Sector. We need to appreciate the importance of advocacy for people-centered health from this backdrop.

Health policies need to grow, develop and be continually creative to meet the changing needs of the situation. Unfortunately, most States lack the sensitivity, and dynamism to quickly respond to these challenges. This underlines the importance of sustained advocacy on health policy, to ensure that they are sustainable, people-oriented and relevant. This is particularly true for the developing world, where a large section of the population does not have well-defined and strong enough platform to air their frustration against inadequate social policies.

The importance of urgent and sustained global advocacy for restoration of fundamental values of Alma Ata – people-centered, holistic and sustainable health care can not be overstressed. The challenge to health in the new millenium will be to recognize that in no country in the world, the private sector has been the answer to health problem of the population. Even in the United States, forty seven per cent of the population is without health insurance coverage. Secondly, there is an imperative need to acknowledge that health improvement is less an outcome of medical technology than of living standards. Health improvements based on narrow technical interventions are bound to be chimerical. Thirdly, the macro-economic policies of globalization, liberalization and privatization, which are increasing the exploitation of low-income countries and communities around the globe, have had profoundly deleterious effects. Finally, it is simply not true that we do not have resources to pay for health for all. It is estimated that the cost of providing basic health care to the world's population will amount to 25 billion dollars. This is about what Western Europe spends on cosmetics, and a fraction of the 400 billion dollars, that the world spends on armaments annually.

We obviously need a new paradigm of health care far removed from the current bio-medical model and closer to a socio-political and spiritual model. Currently, health care has become a commodity that can be bought and sold in the market; it is no longer an organic part of community care as it once was in traditional society. The 'germ theory' needs to be replaced by a model, where the human being is regarded as central and helped to regenerate a sense of well-being, and fitness in his or her life situation. Interestingly, most of the traditional systems approach health from this holistic perspective.

We need to urgently revive the spirit of Alma Ata otherwise we the public health practitioners can be blamed by the posterity of suffering from collective amnesia.

HFM wishes its readers a Very Happy and Healthy New Year

It is with sadness that I have to inform the readers of HFM about Tejal's leaving VHAI, as she has moved to Mumbai. In her tenure as Editor of HFM, Tejal showed immense spirit and motivation.

HFM's new editor is Ms. Neetu Kapasi. She brings with herself years of experience in the field of health, nutrition and communication. Being an UGC lecturer, Neetu has also spent good few years in teaching and writing on health related topics.

We hope that she will continue to receive the support of our readers, especially at a stage when she is learning the strings of editing a bimonthly journal with a long history.

Editorial

Our country is witnessing rapid strides in economic growth. Manifested through jet speed industrialization and urbanization. Vision to see India, as the fastest growing country and counted among the ranks of developed nations, is the moving force behind all this. We are even, wanting to see India free of poverty, illiteracy, religion, caste system, gender disparity – equipped with modern physical and social infrastructure – in a healthy and sustainable environment. But problems staring at our faces, on the dawn of this new era, apart from many others, as a sequel to the aforementioned processes is the neglect of our young generation's health. There lies a huge gap between dreams and reality, and its the roadmap for our youngsters to follow.

India being the youngest of all nations on the globe has an added advantage, these young minds are its wealth. Adolescents so called 'Young Adults' account for 22.8% of our population. This implies that about 230 million Indians are adolescents in the age group of 10 to 19 years. To our further surprise, this percentage of India's adolescent population makes 2/3rd of the world's total adolescent population.

Their education and health status, their readiness to take on adult roles and responsibilities, and the support they receive from family, community and government will determine their own future and fate of our country. The significant role of this population in enabling India to achieve its developmental goal of population stabilization is something; we all can't overlook. Depicting the importance of their reproductive health and in turn the progress of our nation.

But reality lies in the fact, that none of the existing health policies or programmes are specifically targeted towards them! Millions of adolescents are unaware of their own rights, incapable of recognizing their own creativity, they are living under hazardous conditions, carrying risks, which could directly impact their as well as India's physical, emotional and mental well-being.

A huge percentage of adolescents and young people in India are faced with the prospects of early marriage and children-bearing, child-labour, incomplete education, and the threat of HIV/AIDS. Majority of girls gets married much before the age of sensibility. Giving birth to children, even before they realize the meaning of 'motherhood'. Many of the low-birth weight babies born to teenage mothers don't even see their first birthday. One usually finds child workers catapulted from childhood straight into adulthood. They grow into adults without adolescence touching them and youth reaching them.

Despite of growing with diverse experiences, they have a common thread running through all of their lives, and that is the hope for a better future. By addressing their needs one would not only be contributing to the socio-economic development of the country but also to other societal concerns like social harmony, gender justice, population issues, and improving the quality of life of our people. Failing to act, on the other hand, will incur tremendous costs to individuals, societies and the country at large, leading us to shame for the mere lack of will, direction and determination. This generation will not forgive us for the opportunities lost.

Adolescents need help, to help us in turning our dreams of successful India, into reality. But are we equipped to provide this young generation with the opportunity to realize its creative potential? Will we be able to do justice to them? Will timely investment in this age group be able to add wings to the flight of our future imagination?

HEALTH FOR THE MILLIONS
February –March 2004, Volume No.29 No. 6

Publisher
Alok Mukhopadhyay

Editor
Neetu Kapasi

Editorial Advisory Committee
Mira Shiva, P.C. Bhatnagar,
Bhavna Mukhopadhyay,
Taposh Roy

Creative Team
Bhavna Mukhopadhyay
Tamal Basu
Subhash Bhaskar

HFM Trustees
V.V. Dongre
Dr S. N. Simha
S. Santiago
Rami Chhabra

Managing Trustee
Alok Mukhopadhyay

HFM subscription rate

Year(s)	Rs	US$
One	240	40
Three	700	110
Five	1100	185
Life Subscription	2600	365
Single Copy	40	7

(Attractive free gifts available with each subscription)

Address for Correspondence

Health for the Millions Trust
C/o VHAI
B-40 Qutab Institutional Area
New Delhi 110 016
Phones: 26518071, 26518072, 26965871, 26962953
Fax: 26853708
Email: vhai@vsnl.com
vhai@sify.com

CONTENTS

REGULAR FEATURES

Erratum

In the HFM issue of October-November 2003 & December 2003-January 2004, there was a printing error in volume number. Volume No. 30 of the issue should read Volume No. 29.

Population and Social Developmental Policies

Dr. Francois M. Farah

Voluntary Health Association of India (VHAI) celebrated its 29th Annual General Body Meeting (AGBM) at IIFT, New Delhi on 9th & 10th October 2003. The meeting started with keynote address on Reproductive Child Health and Population Issues by Dr. Francois M. Farah, Country Representative, UNFPA. This article complied by Neetu Kapasi is a brief of his presentation. Dr. Farah's paper gave us inspiration to take out this month issue of HFM "Adolescents". The issue is an effort to put some light on their lives and highlight the status of this generation. Adolescents are not only our future, but they are our present, our strength and our direction.

Population is not about numbers. It is about people. It is not only about statistics and figures. Population and development in totality are about a large perspective of the right conditions and environment for people, individual men and women to grow as healthy citizens, and live a decent life. It is about ensuring equal access to basic social services including education and health/reproductive health. From the time of life in mother's womb to birth, passing through infancy, childhood, adolescence, adulthood and ending with old age, population is all about the right to live with dignity at all phases.

The whole spectrum of life cycle in population can be covered through population and social policies. The prime goal of a population policy is to improve the general well-being of population in harmony with the physical and social environment, beyond improving per capita income. Thus, a population policy must form an integral part of over-all social development policy, and be explicitly related to such goals as better education, better health care, full employment, and rationalization of reproductive behavior.

Concepts and approaches towards defining population and social development policies have gone through significant change in 1950s, 1960s, and subsequent decades. Today's policy issues are better defined compared to what they were earlier, posing unique challenges. It's time for us to grab these opportunities and take immediate action.

Most population policies prevailing throughout 60s and 70s were premised on economic development theories and defined human beings from a consumers and producers perspective. The number was thus perceived as a burden first and policies were suggested to reduce the number of consumers through systematic family planning programmes. Quality of life was considered as dividend of producers in the numerator over consumers in the denominator. Reducing the number of consumers would therefore optimize use of available resources and produce a higher output. A number of policy provisions were proposed to control the population growth through a smaller family size or a one-child policy. This emphasis on the reduction in numbers, especially of those who produce less, yet consume equally was to a large extent at the genesis of the population control concept for curbing growth.

The prime goal of a population policy is to improve the general well-being of population in harmony with the physical and social environment, beyond improving per capita income.

Two decades later, population policies witnessed an interesting development and were redefined from a human development perspective, with a strong emphasis on the human development component i.e. increasing qualifications of producers or investment in producers to increase quality dividend. It was during 1980s, that the debate on social development policy gathered a significant momentum with stress on health, education, and investment in the economy as a whole. That was the time when the human development index came about parallel to increased discussions and acknowledgment of the women's empowerment concept. It was realized at

this point that women's education and empowerment could meet population stabilization goals.

The human development approach of population policies further evolved into a social policy thinking from a equal rights, human rights and social equity perspective redefining the goals of development, and making it not only human and sustainable but also humane and freedom premised. The series of the 1990s UN Conferences clearly redefined population and social development policies from human rights, social equity perspective, and recommended a comprehensive approach to social and economic development.

Such policies would of necessity include the poor and the under-served and the marginalized sections of society such as women, children, aged and disabled people. These policies would focus on social development as an ultimate goal and would be articulated around the four major functions of a social policy. They are summarized as follows: First, putting people at the same starting point in life and providing equal access to basic social services including health/reproductive health, education, shelter, water, and sanitation etc. Second, provide equal access to social, economic and other opportunities by removing all discrimination hurdles, and creating an environment of equal opportunity by instituting regulatory mechanisms. Third, to ensure the same, instituting the social and legal regulatory instruments to check social abuses and discrimination. Last, but not the least, enabling the marginalized groups who have been left behind, to catch up with the mainstream.

it's also essential to view these policies in light of current population growth and dynamics realities. Irrespective of control measures adopted so far for curbing growth, population in India is still on the rise. A glance at the anatomy of this growth clearly shows a large chunk almost two thirds due to population momentum, which implies that existing population will continue to grow, despite of the continuous decline in fertility rate. Another component of the growth is due to the unmet needs, and the lack of access to basic reproductive services.

A particular feature of today's India's population structure is the significant percentage of the young people. Of these, adolescents in the age group of 10-19 represent 22.8%, which is almost 2/3rd of the world adolescent population. This group, which is the future of the country, requires immediate attention and design of special programmes to meet their overall health, reproductive health and social development needs.

Dr. Francois M. Farah is Country Representative-India, UNFPA.

Overview of adolescent life

Neetu Kapasi

Introduction

What happens to India's future depends, to a larger extent, on the decisions taken by our adolescents as they enter the phase that shapes destiny of the world's largest democracy. 230 million adolescents in the age group of 10 to 19 years account for 22.8% of our nation's population (Planning Commission report, 2001). Gordon Gibbons commented "The winds and the tides always favour the ablest navigators." This is true for country like India, which has the demographic advantage of having the highest percentage of young population - the most productive and skillful segment, and added advantage of their demand across the world. In years to come, India will have the highest number of people in the younger age group, and this will continue till 2050. With additional 47 million people between 2010 and 2030 in the working age group, India will have an edge over many countries like France, while they face workforce shortages. These statistics are beginning of a new trend. The realisation of this opportunity will involve strong action from the government, civil society and nation as whole.

These under-20's are our present as well as our future. Investing in their well-being must be one of the best and most important actions that

can be taken today, especially actions to make sure these young people enter adulthood with the right kind of knowledge and information. Its time to empower them, so they grow into responsible adults and build India as number 1 nation in the world.

Today, adolescents have diverse experiences given the different political, social, cultural, and economic realities they face in our communities. Yet, there is a similar vision in everyone's eyes to see a bright and shining future. This hope is bolstered by the Millennium Development Goals agreed to by our leaders in the year 2000 to reduce extreme poverty and hunger, slow the spread of HIV/AIDS, reduce maternal and child mortality, ensure universal primary education, and improve sustainable development by 2015.

Within the framework of human rights established and accepted by the global community, certain rights are particularly relevant to adolescents, and the opportunities and risks they face. These include gender equality and the right to education and health, including reproductive and sexual health information, and services appropriate to their age, capacities and circumstances.

The commitment is further strengthen by promises of our Tenth Five Year Plan, towards our young generation. Actions to ensure these rights can have tremendous practical benefits: empowering each individual, ensuring their well-being, stemming the HIV/AIDS pandemic, reducing poverty, stabilizing population, bringing mortality rate down, improving reproductive health, eradicating gender disparity, educating the nation, fighting for peace, and improving prospects for social and economic progress. Addressing these challenges is the need of this hour and development priority. Failing to act, on the other hand, will incur tremendous costs to individuals, societies and the nation at large.

The actual interpretation of adolescence as a phase of life remains a social construct that differs between cultures. In India there is a resistance to the concept of 'adolescence' especially for girls.

Adolescents are entitled to enjoy all basic human rights – economic, social, political and cultural – but their inability to exercise these rights places the urgency on policy makers and community to implement separate measures for ensuring their rights. Concrete and comprehensive steps have to be taken for addressing challenges faced by adolescents. Towards this government and civil society have to commit themselves strongly and then only we can achieve our millennium developmental goals.

Defining 'adolescents'

Adolescence is generally understood as the period of transition from childhood to adulthood and describes both the developments to sexual maturity, experimentation, and adult mental processes to a move from earlier childhood socio-economic dependence towards relative independence. The term 'Adolescence' derives from the Latin word 'Adolescere' which means 'to grow into maturity'. It also means 'to emerge' or 'achieve identity.' The most challenging and critical time of one's life, adolescence brings novelty and excitement of new experiences, including taking important life decisions related to career and a life partner enrapture, while on the other side, growth spurts and emotional changes often torment adolescents plunging them into a sea of turmoil.

In addition, strong need to establish an identity and self-image also emerge at this stage. Wherever positive stimulation and a congenial environment have been provided, adolescents have risen to the occasion and done us proud. They yearn 'to right all wrongs', 'fight for justice' and 'do the right thing'. They are keen to be recognised as useful productive and participating citizens of society. Their contribution in the struggle for independence, the environment movement, national literacy campaign and campaigns against plastic bags, and firecrackers are only some examples (Report of the Sub-group for Tenth Five Year Plan, 2001).

The actual interpretation of adolescence as a phase of life remains a social construct that differs between cultures. In India there is a resistance to the concept of 'adolescence' especially for girls. Their vulnerability due to poor educational and nutritional status, STDs and HIV/AIDS infections, socialization process and patriarchal system, gender inequality, early marriage, early pregnancy, all affect their normal growth and development. Infact, the very concept of adolescence is not valid, if viewed on a boarder spectrum. Various factors contributing to this are - early marriage concept, which mark the beginning of adulthood straight after childhood,

children trapped in child-labour - maturing to support their families, drop-outs from school because of sex discrimination or poverty, children holding guns rather than indulging into play due to increasing terrorism and conflict, and lack of awareness of this age group.

However, the viewpoints regarding the age group that may be considered as 'adolescents' are many and varied. The World Health Organisation (WHO) includes individuals between 10 and 19 years of age in its definition of adolescents. The United Nations (UN) takes into consideration a much larger age range by defining the age interval of 10-24 years as youth. The department of Women and Child Development of the Ministry of Human Resource Development, Government of India, in its Integrated Child Development Scheme (ICDS), includes all those between the ages of 11 and 18 years as adolescents: whereas the Constitution of India and labour laws of the country consider people up to the age of 14 as children and the Reproductive and Child Health programme mentions adolescents as being between 10-19 years of age. It is observed that the age limits of adolescents have been fixed differently under different programmes keeping in view the objectives of that policy/ programme. However, keeping in view the totality of adolescents and the characteristics of this age group, it is felt that it would be most appropriate to consider adolescence as the age between 10-19 years.

Being an important period of laying foundation for adulthood in planned manner, adolescence requires attention from policy makers, governmental programmes, society and families. The time has come for us, as a nation to seriously think about providing the right stimulus, role models and environment for adolescents, in order for them to become assets for nation building. They have the potential; now is the time to provide them with the opportunities.

Population profile

Scanning through the population distribution of our country one finds, children between the age group of 10-19 i.e., adolescent population represents the largest and most rapidly expanding segment. India's adolescents forming 22.8% of country's entire population constitutes 23% of world's total adolescent population. This makes 2/3rd of the worlds most fertile and vulnerable population resides in India.

It is estimated that over the next two decades the number of adolescents, as well as their share as a proportion to the total population will be large because of the high fertility in the eighties, and the population momentum in the nineties. In years to come India will have the highest number of people in the younger age group and this will continue till 2050. With 325 million people, representing nearly 25 per cent of the population by 2020, being in the 20-35 age group, gives the benefit not merely of a young working age group but also of growing market. Indicating a perfect mix of economic and demographic factors depicting India in the fast lane.

The realisation of this opportunity should call for inculcation of skills, strengthening the education system and major reforms in HRD. As the most pressing challenge facing us in the coming years will be to provide every Indian with the opportunity to realize his or her full creative potential. If we succeed we achieve our goals or else create millions of liabilities for years to come, for which our future generations will never forgive us. We have to make ourselves committed towards adolescents of our country, so that their talents and potentials are utilized for the benefit of the nation.

The group of adolescent includes wide range of backgrounds: they are affluent, poor, migrants, school-going, dropouts, sexually exploited, working adolescents, group of special needs, besides married parents. The specific issues related to adolescent group thus vary on the basis of sex and age (10-13, 14-16 and 17-19) representing stages of growth and development, besides their background.

Within this paradigm of population, characterised by distinct physical and social changes, the separate health, education, economic, and employment needs of adolescents cannot be ignored or overlooked. But surprisingly, this group constituting one fifth of our total population holds not even one-health policy or programme in their favour. They are benefited usually as a by-product of objectives of some other programmes. From last many decades, the focus of health related policies and programmes have been on child (under five) or mother. So far adolescents have not received the attention they deserve because of the relatively low morbidity and mortality rates of this age group. However, in view of the sheer numbers (230 million), adolescents as a group, merit special attention.

Sex ratio

The ratio of females to males, according to the 2001 Census is 933:1000 - a disturbing indicator of gender discrimination. State-wise sex ratios vary from 1088 in Kerala, 964 in Karnataka, 990 in Chatisgarh to unbelievable 821 in Delhi and 861 in Haryana and 874 in Punjab. Indicating 32 million missing women, who would otherwise be living today, if it was not for this inhuman practice. Out of the 12 million girls born in the country each year, 25 per cent or 3 million do not get to see their 15th birthday according to a UNICEF Report of 1995. The strong 'son preference' in India which manifests itself in the neglect and exploitation of girls and women has led to the adverse sex ratio. The sex ratio for adolescents in the 13-19 age group declined from 897.7 in 1981 to 884.2 in 1991. There is also evidence to show a high level of female mortality in the age group of 15 to 19 years implying high maternal mortality amongst teenage mothers.

Age-specific mortality

Adolescents are not focussed in most of the health policies and programmes as they are considered a healthy group and figures of low adolescent mortality rates supports it further, when compared to older age groups or children (0-4 years). However, the pervasiveness of gender discrimination in India, lower nutritional status of females, early marriage and high fertility, and early child bearing (leading to maternal mortality) contribute to a wide difference in mortality rates in adolescent females and males. In the older adolescent age group, female mortality is significantly greater than male mortality, as female adolescents begin to experience problems of early pregnancy, the effects of malnutrition and anemia. About 13 per cent deaths of females below the age of 24 years are related to pregnancy and childbirth causes (Central Statistics Organization, 1999). Similar trends also prevail in the rural and urban age groups. If this continues, it is speculated that the number of females in future will become shamefully low in the country, and ultimately leading to the downfall of society, and the downfall of civilization itself.

Policy makers must strongly address issue of gender discrimination and high levels of female adolescent mortality through focussed programmes that aim to lift women's status, and target on problems such as early marriage and childbirth.

Education and literacy

There is a strong and positive relationship between proper educational endeavour and the overall growth, and development of adolescents. The level of education is correlated to the other social development indicators such as fertility, lower infant and child mortality, lower population growth and stabilization in return, higher age of marriage, higher life expectancy, and greater participation in work force.

The overall literacy situation of India reveals a positive picture from 51.63% in 1991 to 65.38% in 2001. The gain by 13.75% is sign of steady progress towards literacy and progress. However, still a huge difference of 21.68% between males (75.96%) and females (54.28%) prevails, depicting gender disparities. This difference continues at regional level as well. In Kerala for example female literacy rate is as high as 87.86%, while in Bihar its as low as 33.57% for females and 60.32% for males. There are similar variations and some inexplicable difference in other States.

While literacy rates both for males and females have been increasing, the gender gap between males and females in 1991 is less than 10% as against more than 20% in earlier years. A positive trend however is that female literacy rose by 24 percentage points between 1981 and 1991 for girls in the age group of 10 to 14 years and by 22.5 percentage points for girls in the age group of 15 to 19 years. The corresponding increase for boys was only 10.2 and 9.2 per cent respectively.

As far as educational attainment is concerned, Table 2 indicates that over half of all males aged 15-24 have completed middle school education compared to one third of all females. The poor attendance and high drop out rates in the adolescent age groups are a cause of grave

TABLE 1: Percentage of literates by age and sex

Age	1961		1971		1981		1991	
	Male	Female	Male	Female	Male	Female	Male	Female
10-14 years	54.4	28.4 5	9.8	38.1	66.8	44.8	77	68.8
15-19 years	52	23.8	63.4	37.7	66.1	43.3	75.3	65.8

Source: CSO, Youth in India, 1998

TABLE 2: Education attainment: % who have completed:

Level	Total	Male	Female
Primary School (10-14)	43.3	48.5	37.8
Middle School (15-19)	44.2	54.1	34.8
High School (20-24)	41.9	55.8	29.4

Source: National Family Health Survey (International Institute of population Sciences, 1995)

concern. Lack of accessible middle schools in rural areas, unimaginative curricula, dysfunctional schools, disinterested teachers; early entry into the work force due to economic reasons, social attitudes, and expectations are some of the factors which account for low enrolment and high drop out rates for adolescents. For adolescent girls the additional reasons are - the burden of sibling care, early assumption of domestic responsibilities, physical and sexual insecurity, early marriage, distance from schools, inadequate facilities of toilets leading to difficulties for girl students during menstruation, absence of female teachers, and parental educational levels. In urban settings too, the gender disparities in school enrollment and completion show similar trends, though they are not as pronounced.

There is massive attrition in the education system. The drop out rates in classes I to X is around 70%, and only 40 to 60% pass class X & XII examinations. Further there is growing evidence to show that given the poor quality of schools and teaching, we have been churning out semi- literates. Among the concerns expressed by the rural and urban poor is that schooling also results in little appreciation of dignity of labour. Adolescents, irrespective of their academic performance tend to aspire for white-collar jobs. Thus almost 90% of the adolescent population are therefore perceived as 'unemployables' instead of being an asset to the country.

In a vast majority of families economic and socio-cultural pressures coupled with the limited availability, and accessibility of educational opportunities lead to the exclusion of adolescents, especially girls from education. Being out of school, boys enter the world of work and start worrying about earning. Girls suffer the double burden of entering workforce and are also confronted with matrimony and childbearing. The adolescent boys contribution is measurable in economic terms leading them to earn greater respect, and develop an attitude of superiority over their female counterparts.

In the absence of educational programmes that addresses their employment and self-development needs, both adolescent boys and girls especially those out of school have little opportunity to grow into self-confident, aware and healthy persons. The formal school system has little to offer to the dropouts and out-of-school adolescents. Dwindling non-formal programmes, such as they are, only cater to the elementary stage. There is presently nowhere that their real life education needs are met i.e. understanding and critically reflecting on their lives, exploring opportunities for employment/ self employment, skill training, confidence building etc.

Health and nutrition

Adolescence is the phase of rapid and significant biological changes. This is the period of opportunities for growth and development but also of risks to health and well-being. The rapid growth that occurs in adolescence demands extra nutritional

TABLE 3: Drop out rate (per cent) at different stages of school education

Year	Primary I-V classes)		Middle (I-VIII classes)		Secondary (I-X classes)	
	Girls	Boys	Girls	Boys	Girls	Boys
1970-71	70.92	64.5	83.4	74.6	NA	NA
1980-81	62.5	56.2	79.4	68	86.6	79.8
1990-91	46	40.1	65.13	59.12	76.96	67.5
1994-95p	37.79	35.18	56.53	50.02	73.78	67.15
1996-97p	39.37	38.35	51.89	52.77	66.82	73.04
1998-99p	41.22	38.62	60.09	54.4	NA	NA

p – Provisional
Source: CSO, Women and Men in India 1996; MOHRD, Selected Educational Statistics 1998-99.

requirements, thus making nutrition as significant indicator of adolescence health.

This is explained by the fact that it is during this period adolescents gain up to 50% of their adult weight, more than 20% of their adult height and 50% of their adult skeletal mass. Most of the current programmes of Government are focussed either on pregnant and lactating mothers or pre-school children. Adolescent nutrition has not been given the attention it deserves, except for a limited nutrition programme for adolescent girls under the Integrated Child Development Services Scheme run by the Department of Women and Child Development. In fact, it is during the spurt in growth during adolescence that malnutrition can be remedied – a fact little recognized even today (Report of the sub-group for the Tenth Five Year Plan, 2001)

In under-nourished children rapid growth during adolescence may increase the severity of under-nutrition. Iron is deficient in almost all age groups. Adolescent girls need additional requirements of iron, to compensate for physiological blood loss. Anaemia is also a problem for adolescent boys due to rapid growth and development of muscle mass. Naturally the shortfalls create more vulnerability for adolescents. This poor nutrition is often cited as the major reason for the delay in the onset of puberty in Indian adolescents. Pre-pregnancy anaemic status of adolescent girls is crucial and has long-term inter- generational consequences. Anaemic adolescent mothers are at a higher risk of miscarriages, maternal mortality and giving birth to stillborn, and low birth weight babies.

Within the typical gender stratified social structure in India, adolescent girls are especially disadvantaged. They are trapped in a viscous cycle of poor nutrition, excessive burden of work, early marriage, childbirth, high maternal mortality and morbidity. In terms of food intake, access to health care and growth patterns, they are worse off than their brothers. If India wishes to achieve the goals of Health for all and adequate Nutrition for All, it must attend to the problem of undernutrition among adolescent girls.

Evidence also show that there has been an increase in obesity during the last two decades among adolescents especially in affluent groups both of rural and urban areas. Accompanied with rise in problems like hypertension, diabetes, cardiac arrest and stress. Adolescents are facing health threats at such an early age due by changing environment of urbanization and globalization. Now the challenge is to combat both undernutrition and over-nutrition.

Adolescents knowledge regarding reproductive and sexual health is limited, more so in rural areas. Most of the adolescent girls do not have knowledge of puberty or menarche, till its onset and also unaware of their physiological changes during adolescence phase. This lack of knowledge about reproductive health – including the emerging threat of HIV/AIDS –

may have grave consequences for the country. The health related behaviours that our adolescents adopt such as smoking, sexual behaviours, alcohol, and substance abuse need urgent priority too.

Adolescent groups are the vigour means and extremely important producers, who will form the main workforce of India tomorrow. Thus, their health status, education, and awareness will determine the economics of our country.

Adolescent reproductive health

The ages from 10-19 are rich in life transitions. How and when young people experience these vary greatly depending on their circumstances. At age 10, the expectation in most societies is that children live at home, go to school, have not yet gone through puberty, are unmarried and have never worked. By their 20th birthday, many adolescents have left school and home. They have become sexually active, married and entered the labour force.

The lack of knowledge about reproductive health, including the emerging threat of HIV/AIDS and the changing environment is affecting relationships, and demand on adolescents as adults. They are becoming products of confused information, western morals, peer pressures, lack of programmes and strong influence of mass media.

We the policy makers, communities, leaders, social activists and families need to create an atmosphere which is positive and friendly for these young people to bloom, and acknowledge their unique health and information needs.

Age at marriage

Despite of the new wave of late marriage across the globe, 82 million girls in developing countries who are now aged 10 to 17 will be married before their 18th birthday. In India itself 50% of girls get married much before the age of maturity, marking the onset of reproductive behaviour and sexual activity. Age of marriage; therefore has far reaching consequences on fertility rates, child bearing, infant and maternal mortality and many such issues. This further is highly co-related with education levels, poverty, lack of employment opportunities, parental desire to ensure sexual relations within marriage, and image of girl as homemaker, wife and mother.

In India, the legal age for marriage is 18 for females and 21 for males. Still in many parts of country, early marriage for girls is a religious and social imperative. Thirty per cent of adolescents in the age group of 15 to 19 years are married and in the age group of 25 to 29 years 94 per cent are married. The age at marriage is about two and half years lower in rural areas compared to urban areas (NFHS-1998-99).

Early marriages are common in Madhya Pradesh, Andhra Pradesh, Rajasthan and Bihar, where more than 50% of young women aged 15-19 are married. In Haryana and Uttar Pradesh, 40-44% of young women aged 15-19 are married. Women in Kerala, Punjab, Goa, Maipur, Mizoram and Nagaland tend to marry later, and in these states fewer than 15% of girls aged 15-19 are married. The percentage of adolescents married before they are 18 is 68.3% in Rajasthan, and 71% in Bihar as against 17% in Kerala and 11.6% in Punjab. (NFHS-1998-99).

Adolescent groups are the vigour means and extremely important producers, who will form the main workforce of India tomorrow. Thus, their health status, education, and awareness will determine the economics of our country.

The age at which people get married reflects their role as adults and their contribution towards community. Early marriage violates a number of human rights and especially for girls. This in turn severely affects the risks faced by infants, children, society and productivity of nation.

Sexual activity and behaviour

Considering the highly conservative attitudes towards sexual behaviour in India, number of studies have reported findings of early sexual activity initiation occurring outside the institution of marriage, particularly for boys. They are also more likely to approve of premarital sexual relations for themselves; and have more opportunities to engage in sexual relations. Both adolescent boys and girls who engage in sexual activity often begin with zero or little knowledge of sexuality, reproductive health, safer sexual practices, or their right to refuse and abstain (Jejeebhoy, 1996).

Little is understood about adolescent's sexual awareness, behaviour, their attitudes and what they see as their reproductive and sexual health needs. The available data suggests that between 20 and 30 per cent of all males and

up to 10 per cent of all females are sexually active during adolescence before marriage.

Adolescents usually view their sexuality positively, but some early sexual experiences may be accompanied by feelings of anxiety, shame and guilt. They want to keep their relationships secret, for fear of adult, and society disapproval. Many are ignorant of their bodies and how reproduction works; they know little about different kinds of sexual activity and the consequences. They often have no knowledge of, or access to, family planning services, and are at risk of an unwanted and unprotected pregnancy or acquiring a sexually transmitted disease.

As our own system and conservative pattern of relationships do not provide right atmosphere for adolescents to grow healthy, most of them get their information from the media and their peer groups; this may be inaccurate or misleading, and even encourage risky behaviour. Failure to provide enough information to enable adolescents to protect themselves from harmful effects and to develop the foundation for healthy, responsible sexuality and reproduction must be interpreted as a contravention of their human rights. Further increasing the length and breath of all our existing problems in country.

Fertility rate

Adolescent fertility in India occurs mainly within the context of marriage and this makes the age at marriage of paramount importance for fertility rates. As a result of early marriage, about half of all young women are sexually active by the time they are 18; and almost one in five by the time they are 15. If this magnitude of teenage fertility in India is considered: well over half of all women aged 15-19 have experienced a pregnancy or a birth (Jejeebhoy, 1996).

A progressively large share of all births occurring in the country occurs to women aged 15-19: 11 per cent in 1991, 13 per cent in 1981 and 17 per cent in 1992-93 (International Institute for Population Sciences, 1995). Age specific fertility rates are given in a time series in the table below.

TABLE 4: Age specific fertility rates in India

Age group	1980	1990	1992	1993	1995
15-19	88.2	83.1	74.4	69.6	55.2
20-24	246.1	237.0	235.2	234.4	238.4

Source: CSO, Women and Men in India 1998.

UNFPA in its profile 'Adolescents in India' in the year 2000, revealed that adolescent fertility rate for India is 116 births per 1000 women in the age group of 13-19 years, with the rate in rural areas being twice as high at 131 than in urban parts of the country. The adolescent fertility varies greatly between states. In the age group of 13 to 19 years, adolescent fertility is 153 births per 1000 in Madhya Pradesh, 143 in Haryana, 141 in Maharashtra, and as low as 38 in Kerala.

The impact of western culture, restrictions by society on relationships between boy and girl, misleading information through magazines and cyber world, curiosity, and experimentation of this age along with unprotected sexual activity is leading to increase in fertility among unmarried adolescents too, particularly in urban areas.

Nationally not more than 7.1 per cent of married women aged 15-19 using contraception, compared to 21 per cent among slightly older women aged 20-24. But 30 per cent of these married women aged 15-19 expressed desire to delay the next birth or childbearing (NFHS. 1992-93).

In totality pregnancy at young age exacerbates their own poor reproductive health and the poor survival chances of the infants they bear. Without education, without a skill or opportunity for employment, and with relatively poor health and nutrition, they are caught in a web of ignorance, poor reproductive health, life-long economic dependency, physical seclusion, early marriage and frequent childbearing.

The only door to freedom is empowerment of women, be it a daughter, mother or wife. Educating one woman means educating the whole family. And what is true of families is also true of communities and, ultimately, whole country. To stabilize our country's growing population we have to target on making educational facilities accessible to all individuals with special emphasis on girls and women.

Reproductive health risks of early marriage and childbearing

Adolescents facing pregnancy and childbearing are exposed to number of risks. Age at which they are physically growing, time that demands additional nutritional inputs, if comes in heel with pregnancy, and its additional requirements can have severe consequences to their reproductive system. This combined with high maternal and neonatal mortality rate, pregnancy complication, and low-birth weight baby adds to the whole situation.

Adolescents are more likely to experience adverse pregnancy outcomes than older women. 10 per cent of all adolescent pregnancies end in miscarriage or still-birth compared to 7 per cent among older women. Also infants of adolescent mothers are more likely to experience higher perinatal and neonatal mortality than infants of older women (NFHS, 1992-93).

On the other hand unprotected sexual behaviour among adolescents too can have severe implications, particularly for adolescent girls through unwanted pregnancy, abortions and HIV/AIDS. Poor access to contraception and contraceptive failure, lack of information, and also the incidence of rape contribute to the high rate of abortion among adolescents (Ministry of Health and Family Welfare, Country Paper, 1998).

Reasons for abortions vary from family spacing and son preference for married adolescents to social stigma for unmarried adolescents. While abortions are legal under the Medical Termination of Pregnancy act (MTP) 1972, yet the number of illegal providers of abortions services are very high.

Most of these problems can be prevented by appropriate Adolescent Reproductive Health (ARH) services. Currently there aren't many such programmes and services for adolescents and also lack of reproductive counselling centers, and receptiveness of society makes it further difficult in providing them help.

Maternal mortality

Adolescence being the growing phase puts additional requirements on one's body in terms of nutrition for full growth. At this point pregnancy means double demand and extra pressure, in return making the adolescent girl prone to pregnancy complications. The inter-woven problems of gender discrimination, poor nutrition, early marriage, high fertility, early child bearing, illiteracy, low societal status, and many other prejudices towards girls and women together leads to millions of maternal death in India. In general, young adolescents are twice as likely to die as women older than 20 from pregnancy related causes (Mehta, 1998). Socio-cultural factors, such as the stigma attached to unwed motherhood and therefore, the prevalence of abortions only serves to increase the incidence of mortality.

Maternal mortality beside, affecting life and health of adolescent girls have severe intergenerational effects. Early age of marriage coupled with poor physical and nutritional status, low weight pregnancy, and lack of proper medical care

results in babies suffering from low birth weight. Stating high prevalence of infant mortality among adolescent mothers. Further, emphasizing on urgent need of accessible ARH facilities in every corner of our country.

Sexually transmitted diseases and HIV/AIDS

Young people have high rates of sexually transmitted diseases (STDs) and the incidence among adolescents has been increasing noticeably in recent years. The most common among adolescents are gonorrhoea, chalmydia, syphilis, herpes, genital warts and HIV. In India alone the number of people living with HIV/AIDS is approaching five million. Of this youth, ages 15-24, are the fastest growing segment of the newly infected population, with one youth infected every 15 seconds. Young people between the ages of 10 and 25 make up 50 per cent of all new infections, with shift of this epidemic towards women and young people (Population Foundation of India, 2003).

This disturbing trend clearly points out, the lack of knowledge about STDs and how to prevent them among youngster, high sexual behaviour patterns, and low levels of contraceptive use. Unprotected sexual behaviour among adolescents can have severe consequences, particularly for adolescent girls through unwanted pregnancy, maternal mortality (due to early childbearing), abortions and HIV/AIDS.

TABLE 5: Age-wise break-up of drug users

Age group	No. of abusers	Per centage
12-17	778	4.54
18-23	2373	13.86
24-30	5178	30.25
31-45	6041	35.30
46-60	2142	12.51
61+	600	3.5
All India	17112	100

Source: MOHFW Country Paper for the South Asian Conference on Adolescents, 1998

Adolescents' ignorance about sexual and reproductive behaviour is compounded by reluctance among parents and teachers to impart relevant information. In both rural and urban slums, mothers expect their adolescent children, particularly daughters, to remain uninformed about sex and reproduction. Sex and puberty are considered to be embarrassing, distasteful and dirty subjects, not to be discussed with their adolescents daughters (Bhende, 1995).

Empowering this age group is crucial in turning back the epidemic. The government has recognised this and the National AIDS Control Organisation is actively working to spread AIDS awareness in schools and colleges through integration of AIDS training into the curriculum. National Aids Control Programmes has recognised the need to go beyond high-risk groups, and address behaviour change in the general reproductive age-group, which includes young people.

But this whole knowledge on STDs and HIV/AIDS will be ineffective, unless adolescents are rightly equipped with the social skills to negotiate sexual behaviour and understand the importance of preventive behaviour, especially girls. This age group which is most receptive and responsive to their own needs can surely make a difference if investment at the right time and right age is made. If we fail to do so, millions of families will be left behind without sons or daughters, and many children without a mother or father.

High risk behaviour

Adolescence, the age of experimentation, adventure and exploration is known to be vulnerable to number of risk causing behaviours like substance abuse especially drug abuse, pre-marital sexual activity and antisocial behaviour. In 1993-94, 4.54% of drug users were in the age group of 12-17 years and 13.86% were in the age group of 18-23 years. The actual age of first use of drugs is known to be as low as 5 years. Also a considerable number starts taking drugs when they are still minors. There is ample evidence to show that a majority of first time drug users belong to adolescent group. As this age group is known for forming life long habits, such early use of drugs usually leads to addiction for life.

Its well established that the use of drugs is closely associated with anti-social behaviour and higher crime rates, as well as increased risk of contracting HIV/AIDS. Needle sharing for drug use is highly known for spreading the HIV virus directly into the blood stream. Further, mixing it with sex provides a way for spread of HIV to wider population. Even alcohol abuse can fuel young minds to engage in risky sexual activity, increasing the spread of HIV epidemic. Making the whole situation very sensitive.

Many adolescents start getting depressed due to academic failures. Their inability to find meaningful avocations, increasing pressures from family, and peer group compounds this trend of risky behaviour.

While generally one can say that the low education and economic levels have been the main causes for juvenile delinquency, the percentage of adolescents (to the total juveniles) coming from low-income group (Rs.500 per month) households declined from 54.1% in 1994 to 45.3% in 1997. On the other hand, the share of the middle-income group delinquents (Rs.1000 to 2000 per month) rose from 11% in 1994 to 15.4% in 1997. The other interesting factor is that children living with parents/guardians constituted 90.1% of the juveniles apprehended, while the share of homeless children was only 9.9% (Crime in India, 1997: National Crime Records Bureau, GOI).

At this point what we need is substance abuse awareness, adolescent counseling, educational information and health services, reinforced by right to education for all.

Violence and crime

Violence and crime crosses cultural and socio-economic lines, taking new shape each day ranging from eve teasing and abduction to rape, incest, prostitution, battering and sexual harassment. It occurs in homes, schools, workplace and other public places. The perpetrators are usually—but not always—male. They can be family members, neighbors, teachers, schoolmates, and on occasion, strangers. Because it is an exploitation of power,

adolescents and young people are more vulnerable to violence and crime than adults.

A need to establish an identity and self image, pressures of making major life decisions pertaining to career and life partner, and taking on socio-economic responsibilities without autonomy and support lead to conflicts which adolescents, particularly boys are not equipped to handle. Resulting in frustration and extreme cases of suicide.

Research on adolescent violence in India is limited; very little is written about the same. Violence against women and girls is a neglected area beside the fact that it is a growing phenomenon across the globe. Partially defining women's capacity to protect themselves against STDs, pregnancy and unwanted sexual intercourse, which directly affects female reproductive health.

Crimes are perpetuated both on adolescents and by adolescents. Adolescent girls are definitely the more disadvantaged, though adolescent boys also suffer abuse. Physical, mental and psychological violence against adolescents both at home and outside is spreading like fire and is a matter of grave concern. Some major causes are the social custom of dowry, low status of women and girls in society, false sense of superiority of adolescent boys and young men, and the desire to show-off and take revenge. Even though these cases remain under silence and community pressure, they are slowly eating away our morals and values.

As a result of globalisation of electronic media, increasing sex and violence in films, and bombardment of images promoting violence and consumerism, rape, blackmail of young women for sex, and harassment at the work place are steadily on an increase. The number of girls apprehended for crime, particularly prostitution increases sharply at adolescence in the 16-18 age group. Tracing its roots in poverty, migration, tourism, illiteracy, lack of employment, globalization of trade, urbanization and liberalization.

Psychological concerns

It is during the period of adolescence that potentialities are realised, abilities and skills developed, and habits and attitudes formed. In today's fast moving world the psychological concerns of adolescents are accentuated by parental discord, rapidly changing social and cultural values, increasing exposure to global media, different life styles, and exposure to different cultures.

Work force participation

Despite child labour being illegal for children below 14 years, it is commonly practised in all parts of the country. Adolescent participation rates in the labour force are relatively high. The 1994-95 National Sample Survey Organisation found that the work force participation rate among rural adolescents aged 15-20 years was 77% for young men and 31% for young women. They are employed in occupations ranging from work in glass factories to domestic labour, bidi-making, gem-polishing, coir-making, paper bag manufacturing, embroidery, zari embroidery, and the lock, glass and carpet industries. Many adolescents work in the agricultural sector or for local village industries as a part of a family labour force. In urban areas, girls form a large part of the unorganized sector working as domestic help. Besides receiving unequal wages, working girls are more vulnerable to sexual abuse and violence than older women.

India's employment statistics present a disturbing picture. The 10th Planning Commission document has already warned that at present the country's infrastructure won't be able to provide jobs for new entrants or clear the backlog. Unemployment may go up from 9.21% in 2002 to 9.79% in 2007.

It is paradoxical that on the one hand there is growing unemployment and lack of awareness about career options and on the other hand there are many new avenues and areas for employment. Adolescents are often led or driven into vocations and careers unrelated to their aptitude and suitability often under parental and societal pressure specially with regard to traditional careers like engineering, medicine, teaching etc. There is almost a complete lack of career guidance to adolescents and their parents.

Adolescents of our country will surely help us realise the vision of India 2020. Only if we empower them, expand their capabilities, offer more opportunities, invest in their education and health, and promote gender equality.

Conclusion

Adolescents living in difficult and sensitive situations have very distinct and special needs. Lack of focussed policies, programmes and services for adolescents; clearly reflects absence of their health and developmental priority from the governmental agenda. This age group making 1/5th of our total population, requires great understanding and collective efforts from the

government, leaders, parents, families, and educators to separately address their concerns and needs. The very first step should be to generate and increase availability of reliable data and information on adolescents. This would serve as a tool of advocacy and guiding force for future actions. Secondly, policies and programmes should keep in mind diversity of their experiences, living conditions, changing scenario, social behaviours, conflict and disaster situations, along with impact of urbanization and migration, lack of education, dearth of vocational training and employment opportunities, and increasing gender discrimination. At the same time, it is equally important not only to make adolescents' beneficiaries, but also valuable partners in the process of planning, national development and decision making.

Adolescents of our country will surely help us realise the vision of India 2020. Only if we empower them, expand their capabilities, offer more opportunities, invest in their education and health, and promote gender equality.

References

Behavioural Epidemiology and Demographic Research Branch, Division of Reproductive Health, Centres for Disease Control – Adolescent Sexual Activity and Childbearing in Latin America and the Caribbean: Risks & Consequences, USA, 1992.

CEDPA – Facts on Asia and Country Profile, "Girls' Rights: Society's Responsibility – Taking Action Against Sexual Exploitation and Trafficking", Mumbai, 1997.

Central Statistical Organisation – Youth in India: Profile and Programmes, 1998, Government of India, New Delhi 1998.

Central Statistical Organisation – Women and Men in India 1998, Government of India, New Delhi, 1999.

CHETNA –Health, Education and Development of Adolescents – CHETNA's Perspective, 1998.

Department of Child and Adolescent Health and Development - Progress in Child and Adolescent Health and Development: Activities of the former Division of Child Health and Development and the Adolescent Health and Development Programme in 1998, WHO, 1999.

Department of Child and Adolescent Health and Development – CAH Progress Report 2000, WHO, 2001.

Family Planning Association of India – Annual Report 1998, Mumbai, 1999.

International Institute for Population Sciences – National Family Health Survey 1992-93, Mumbai, 1995.

International Institute for Population Sciences – National Family Health Survey 1998-99 (PRB datasheet), Mumbai, 2000.

International Planned Parenthood Federation – Understanding Adolescents: An IPPF Report on young people's sexual and reproductive health needs, UK, 1994.

Janshala (GOI-UN) Programme, Ministry of Human Resource Development, Department of Elementary Education & Literacy – Educating Adolescent Girls: Opening Windows, Government of India, New Delhi, 2001.

Jejeebhoy, J.S., Adolescent Sexual and Reproductive Behaviour: A Review of the Evidence from India, ICRW Working Paper No. 3, Mumbai, 1996.

Jejeebhoy S – Adolescent Sexual and Reproductive Behaviour: A Review of the Evidence from India. Social Science and Medicine, 1998

MAMTA – Adolescence health and Development in India – An Action Approach: MAMTA – Health Institute for Mother and Child, 2001.

Mehta, S. – Responsible Sexual and Reproductive Health Behaviour among Adolescents. Theme Paper prepared for United Nations Population Fund sponsored South Asia Conference on the Adolescent, July 21-23, New Delhi, 1998.

Ministry of Health and Family Welfare – India Country Paper prepared for United Nations Population Fund sponsored South Asia Conference on the Adolescents, July 21-23, Government of India, New Delhi, 1998.

Ministry of Health and Family Welfare – Annual Report, 1998-99, Government of India, New Delhi, 1999.

Ministry of Health and Family Welfare, Department of Family Welfare – Reproductive Child Health, Government of India, 1998.

Ministry of Human Resource Development, Department of Women and Child Development – India Nutrition Profile, Government of India, New Delhi, 1998.

Ministry of Human Resource Development, Department of Secondary and Higher Education, Planning, Monitoring and Statistics Division – Selected Educational Statistics 1998-99, Government of India, New Delhi, 2000.

Ministry of Human Resource Development, Department of Higher and Secondary Education – Annual Report 1999-2000, Government of India, New Delhi, 2000.

Population Reference Bureau – HIV/AIDS in India, Population Foundation of India, New Delhi 2003.

Planning Commission. Report of the Working Group on Adolescents for the Tenth Five Year Plan (2002-2007). Government of India. New Delhi. 2001.

Planning Commission – Tenth Five Year Plan (2002 - 2007), Volume 1, Government of India, New Delhi, 2002.

United Nations Development Programme – Human Development Report 2000, New Delhi, 2000.

UNFPA – Adolescents In India - A Profile, UNFPA, New Delhi, 2000

UNFPA – State of world population 2003 – Investing in adolescents' health and rights – UNFPA, 2003

Ms. Neetu Kapasi is a nutritionist and a programme officer with VHAI and the editor of this health journal.

Do the National Policies in India address adolescent health?

Dr. Mridula Seth

Adolescents comprise a sizeable proportion of the Indian population. Nearly 230 million, comprising 22.8% of the population, fall in the age group of 10-19 years[1]. There is lack of clarity on the age group comprising adolescents by different organizations. It is often confused with young people, defined between the age group of 15 to 24 years.

The importance of adolescent health is underestimated because the only criterion used is the current levels of mortality and morbidity, which for this age group, does not seem to be a major concern. However, if we consider health as a state of physical, mental and social well-being, the need for addressing their concerns related to health definitely call for programme interventions. Similarly, health-risking behaviour adopted during adolescence and youth such as smoking, sexual behaviour, alcohol and substance abuse have long-term impact, not only on these young people and their families, but also on the public health system and the national economy. Thus, preparing our adolescents to face adulthood smoothly, safely and positively is an investment for generations to come.

The need of this hour is to clearly describe the success and effectiveness of interventions for adolescents, in the context of their transition to adulthood, and the knowledge, capacities and opportunities that they need, and will benefit from[2].

Background

Policies, laws and programmes at national, local and even institutional level falls under the general category of "Policies". Through policies, issues get prioritized and addressed. Providing a framework to translate intentions into actions through programmes, policies do give direction and willingness to address the issues. Backed by political will, policies ensure availability of resources for implementing programmes. Development of policies provides strategic opportunities for institutionalizing a package of health and other developmental support for people. These opportunities arising once in few years should be capitalized to the maximum.

The National Youth Policy approved in December 2003, has a focus on youth covering the age group 13-35 years and has included adolescents from 13-19 years as a distinct group. The policy identified eight key areas of concerns for youth; health occupying the most prominent place with focus on general, mental and spiritual health; AIDS; sexually transmitted diseases; substance abuse; and population education.

The country witnessed some perceptible changes in policy environment during the last decade, on issues related to adolescent reproductive health. The National Behavioural Surveillance Survey[3] by the National AIDS Control Organsiation (NACO) reported casual sex encounter among 15-24 year olds. Vulnerability of these young people to HIV has brought large attention to urgently reduce their unsafe sexual behaviour and requirements of strong political commitment. The Prime Minister, Mr. Atal Bihari

Vajpayee also urged the parliament in 2001 to consider HIV/AIDS, as the most severe public health problem facing the country.

India is a signatory and has endorsed all the International Conferences and Conventions that have influence on the policies related to adolescents. Of these, the most noticeable ones are - International Conference on Population and Development (ICPD), Convention on the Rights of the Child (CRC), and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). ICPD+5 recommendations substantially contributed in highlighting adolescent sexual and reproductive health. On the same note, events like declaration of an International Year or a decade focused on issues like gender equality have affected policy initiatives of the country. Altogether, highlighting the importance of commitment from policy-makers and advocacy efforts for public awareness.

The relevant policies of the various Ministries and Departments are mentioned in Table 1. Whether they address adolescents' concern is the real question in front of us.

Table 1: National Policies relevant to adolescents

Ministries/ Departments	*Policies*	*Goals*
Ministry of Health and Family Welfare		
Health	National Health Policy, 2002	Provision of an acceptable standard of good health amongst the general population of the country through equitable access to health services.
Family Welfare	National Population Policy, 2000	Population stabilization at a level consistent with the requirements of sustainable economic growth, social development and environmental protection.
National AIDS Control Organisation	National AIDS Prevention and Control Policy, 2000	Prevent the epidemic from spreading and reduce the impact of the epidemic not only upon the infected persons but also upon the health and socio-economic status of the general population at all levels.
Ministry of Human Resource Development		
Education		
Elementary Education and Literacy Secondary and Higher Education	National Policy on Education, 1986 (as modified in 1992)	Equalizing education opportunities in the age group of 15-35 years, free and compulsory elementary education for all children upto 14 years of age, and functional literacy to adult illiterates.
Women and Child Development	Draft National Policy and Charter for Children, 2001	Adequate services to children both before and after birth and ensure physical, mental and social development (NPC, 1974)
	National Policy for the Empowerment of Women, 2001	Advancement, development and empowerment of women.
Food and Nutrition Board	National Nutrition Policy, 1993	Improve nutritional status of people by increasing purchasing power, providing basic services and devising a security system for protecting the most vulnerable groups (women and children)
Ministry of Youth Affairs and Sports		
Youth Affairs and Sports	National Youth Policy, 2003	Galvanize the youth to rise up to the new challenges, keeping in view the global scenario and motivating them to be active and committed participants in the exciting task of national development.

Policy analysis

Adolescents are included in the general population category in most of the national policies and their needs are addressed according to the policy focus. The following review is an attempt to examine adolescent health issues addressed in some of these national policies.

Table 2: Adolescent health addressed in the Policies

Policies	*Policy extracts*	*Remarks*
Adolescents in the National Health Policy	**Situation analysis**	
	❖ Persistent incidence of macro and micro-nutrient deficiencies, among women and children *(1.7);* The social, cultural and economical factors inhibiting women from getting access to existing public health services *(2.20.1)*; Women, along with other under-privileged groups handicapped due to disproportionately low access to health care *(4.20.1).*	Adolescents not identified separately but grouped with children or pregnant women. Need for specific programmes targeted at women's health recognized.
	❖ School and college students most impressionable targets for imparting information with regard to health promoting behaviour (2.14.2).	Focus on disseminating information relating to 'health' and 'family life' and not skill building. Adolescents in non-formal education not prioritized.
	Strategies	
	❖ Priority to school health programmes aimed at preventive – health education; providing regular check –up and promotion of health-seeking behaviour (4.14.2)	Age specific health needs of the adolescent groups not included.
	❖ Efforts to bring about behaviour change to prevent HIV/AIDS and other life-style diseases (2.14.1); Inter personal communication and traditional media to bring about behavioral change (4.14.1)	Adolescents not identified as a target group. Illiterate population targeted through IEC.
	• Public health programmes need high visibility at the decentralised level in order to have an impact (2.14.1); Specific targets for association of PRIs / NGOs /Trusts in activities (4.14.1).	Participation of PRIs recognised but role of youth organisations not mentioned.
Adolescents in the National Population Policy	**Situation analysis**	
	❖ Over 50% girls mainly below the age of 18, resulting in a typical pattern of "too early, too frequent, too many." Around 33% births occurs at intervals of less than 24 months resulting in high IMR (9)	Problem of early marriage, teenage pregnancy and spacing addressed. Recommendations for enforcing the Child Marriage Restraint Act for reducing teenage pregnancies. Promotional and motivational measures considered for couples below the poverty line who marry after the legal age of marriage.
	❖ Discriminatory childcare leads to malnutrition and impaired physical development of girl child. Under nutrition and micronutrient deficiency in early adolescence goes beyond mere food entitlements.... (15); Low social and economic status of girls and women limits their access to education, good nutrition as well as money to pay for health care and family planning services (17).	Problem of social injustice and gender discrimination recognised. Need for higher retention of girls in schools emphasized.

Policies	Policy extracts	Remarks
	❖ Special requirements of adolescents comprise information, counseling, population education; making contraceptive services accessible and affordable, and nutritional services through the ICDS (26).	Health package for adolescents recommended as operational strategy but not spelt out. Nutritional services through the ICDS programme recommended. Strengthening primary health centres and sub-centres recommended as a strategy to provide counseling to adolescents and newly weds. However, needs of unmarried adolescents not adequately addressed.
	Strategies	
	❖ The needs of adolescents including protection from unwanted pregnancies and sexually transmitted diseases (STD) have not been specifically addressed in the past. Programmes should encourage delayed marriage and child bearing and education of adolescents about the risks of unprotected sex (26).	Adolescents recognised, as an under-served population group with special sexual and reproductive health needs. Critical role of adolescents in population stabilization recognized.
	❖ Provide integrated interventions to adolescents in pockets with unmet needs of urban slums, remote rural areas, border districts and tribal populations (NPA vi C4).	Marginalized adolescent groups prioritized in terms of geographical location and reach of services.
	❖ Need to undertake national campaigns on population related issues via women and youth organisations (36).	Involvement of youth and other social sectors recommended for IEC.
	❖ Utilize self-help groups to organize and provide basic services for reproductive and child health care, combined with ongoing ICDS (NPA i, ii); Pre-school activities must be widened to include MCH services (NPA 8)	Adolescents not identified as a separate group for economic activities. Needs perceived primarily in the context of maternal and child health.
Adolescents in the National AIDS Prevention and Control Policy	**Situation analysis**	
	❖ Majority of Injecting Drug Users (IDUs) are youth 15-25 (5.10)	Risk to adolescents addressed and 'Harm Minimization' approach involving education and services recommended.
	❖ STDs among women though highly prevalent, are suppressed because of the social stigma attached to the disease (5.4.ii)	Gender discrimination recognized.
	Strategies	
	❖ Prevent women, children and socially weak groups from becoming vulnerable to HIV infection (3 vii)	Adolescents not identified as a vulnerable group. Beside the fact, that HIV/AIDS has become a disease of young people, with young adults aged between 15-24 accounting for half of the some million new cases of HIV worldwide.

Policies	Policy extracts	Remarks
	❖ AIDS education should be imparted through curricula and extracurricular approach; network of youth organisations (5.2.3)	Even addressing their needs (information, skills and services) and assistance from them in curbing this epidemic not realized.
	❖ Protection of human rights to safeguard human dignity (6)	Peer education as a strategy advocated. Specially packaged programmes for students, out-of-school youth and sexual partners of migrant workers recommended. Widespread abuse of human rights and discrimination against people living with HIV/AIDS recognized. Measures for adopting a rights-based approach recommended.
Adolescents in National Education Policy	**Situation analysis**	
	❖ NPE has focus on children and adolescents for equalizing educational opportunity, ensuring universal free and compulsory elementary education and reduction of illiteracy. POA stresses on need for quality improvement, common school structure for all stages and renewal of curriculum.	National Curriculum Framework, 2000 (NCF) highlights issues related to remove gender bias in curriculum/text books, linking education with life skills to fight challenges related to teenage pregnancy, AIDS and health problems.
	❖ Vocational education – Health education at the primary and middle levels will ensure commitment to family and community health and lead to health related vocational course (5.18).	Decentralization and involvement of paramedics provides scope for creating employment for youth in the health sector. Exposing adolescents to career options is an important area of concern.
	Strategies	
	❖ Population education must be viewed as an important part of nation's strategy to control the growth of population, starting at the primary and secondary level, programmes should be modulated and inform youth and adolescents about family planning and responsible parenthood (6.16)	Role of adolescents in population stabilization and parenthood recognized. Focusing on 'informing' youth rather than targeting skill building and behaviour change.
	❖ Elements to promote values such as equality of sexes, observance of small family norm and scientific temper (3.4)	Visualizing education as a tool in promoting women's empowerment and equipping her with choice of family planning.
Adolescents in the National Nutrition Policy	**Situation analysis**	
	❖ Increased food production does not by itself necessarily ensure nutrition for all (II); Prevailing patterns of intra-household food distribution, particularly in rural areas, affect nutritional status of women and children (III B)	Inequities recognized at the macro and micro level. Gender discrimination acknowledged.
	❖ Iron intake lower than recommended level in adolescents girls (III 7C);	Adolescent girls identified as a vulnerable group.

Policies	Policy extracts	Remarks
	Strategies	
	❖ Reaching adolescent girl within the ambit of ICDS should be intensified for a safe motherhood status (IV C)	Need perceived only in terms of motherhood, leaving adolescent boys and girls as individuals.
	❖ Integration of nutrition and health education into the school curricula and nutrition programmes. Health education important for overall nutrition also (IV vi)	Malnutrition and under nutrition addressed through educational interventions.
	❖ Active community involvement not only in terms of being aware of services available but also driving maximum benefit by giving timely feedback at all levels (IV xiv)	Community participation strategies identified including generation of demand. However, adolescents and youth not identified as stakeholders.
	❖ Periodical monitoring of nutritional status of adolescent girls below the poverty line (IV viii)	Mechanism for Nutritional Surveillance through National Nutrition Monitoring Bureau (NNMB) advocated.
	❖ Improvement in the status of women through education, employment (IV xvi)	Importance of inter-sectoral coordination highlighted. Need for tackling cycle of poverty recognized, for education and improved health status.
Adolescents in the National Policy for Empowerment of Women	**Situation analysis**	
	❖ Discrimination against girl children, adolescents girls and women persist (1.8)	Gender discrimination in different stages of life recognised.
	❖ Critical link between health of adolescent girls, pregnant and lactating women with health of infants and children (6.6)	Nutritional need of women at all stages of life cycle recognised.
	Strategies	
	❖ Changes in laws relating to ownership of property and inheritance laws by evolving consensus in order to make them gender just (2.3)	Property rights in a patriarchal system contributing to the subordinate status of women recognised. Changes will have long-term impact on adolescent boys and girls.
	❖ Equal access to education for women and girls; special measures to create a gender sensitive educational system; address sex stereotyping (6.1)	Importance of education for social empowerment recognised.
	❖ Violence arising from customs, traditions, accepted practices to be dealt with; measures to deal with trafficking women and girls (7.1)	All forms of violence against women and girls addressed.
	❖ Legal – Judicial system will be made more responsive and gender sensitive especially in cases of domestic violence and personal assault (1.11)	Gender-based violence recognized as a problem requiring legal action.
	❖ Women-friendly personnel policies to encourage women to participate effectively in developmental process (3.1)	Need for supportive environment and positive discrimination in favour of women recognised.

Policies	Policy extracts	Remarks
	❖ Special attention to needs of women and girls at all stages of the life cycle (6.2)	Needs of Adolescent girls addressed.
	❖ Reproductive rights to enable them to exercise informed choices, STDs tackled from a gender perspective (6.2)	Gender sensitive rights approached.
	❖ Registration of marriages to be made compulsory (6.3)	Early marriage recognized as a problem of infant and maternal mortality.
	❖ Laws against prenatal sex selection and practices of female foeticide (8.1)	Rights of the girl child recognised.
	❖ Partnership with voluntary sector organisations (16.1)	Adolescents not identified as stakeholders.
	❖ Media used to portray images consistent with human dignity of girls and women (9.1)	Removal of gender stereotypes encouraged.
Draft National Policy and Charter for Children	**Situation Analysis**	
	❖ Measures to address problems of infanticide and foeticide, especially for female child and all the other emerging manifestations, which deprive the girl child, her right to survival (1.a.)	Following the pledge in the National agenda of Governance, the policy and charter make the intent explicit to remove the structural causes related to all issues affecting children's rights in the wider societal context. Right to survival of children, especially girls realized.
	❖ Measure to cover, under primary health care, facilities and specialized care and treatment, for all children of families below poverty line (2.b.)	Disadvantaged groups prioritized for services.
	❖ At the secondary level, state shall provide access to education for all and provide supportive facilities from the disadvantaged groups. (7.b.); Ensure that all educational institutions function efficiently and are able to reach universal enrollment, universal retention, universal protection and universal achievement (7.c.); Measures to ensure that education is sensitive to the rights of girl child and to children of various cultural backgrounds (7.e.)	Right to education with positive discrimination in favour of girls. Cultural diversities addressed.
	❖ Ensure that offenses committed against the girl child, including child marriage, forcing girls into prostitution and trafficking are speedily abolished (11.a.); Undertake measures, including social, educational and legal, to ensure that there is greater respect for girl child in the family and society (11.b.); Measures to ensure that the practice of child marriage is speedily abolished (11.c.)	Denial of rights recognized. Gender-based discrimination and violence addressed.
	❖ Provide the necessary education and skills to adolescent children so as to equip them to become economically productive citizens, special programs will be undertaken to improve the health and nutritional status of adolescent girl (12)	Term "adolescent children" focused on early adolescents. Health needs of boys not addressed.

Policies	Policy extracts	Remarks
National Youth Policy and Adolescent Health	**Situation Analysis**	
	❖ The policy will facilitate a multi-dimensional and integrated approach with the State agencies striving to accelerate the formulation and implementation of programmes (2.2)	Decentralised approach envisaged.
	❖ Youth of the country should enjoy greater participation in the process of decision-making and execution at local and higher level (2.3)	Active participation of youth, including adolescents, visualized at all levels.
	❖ Youth in the age group of 13-35 years covered with sub-groups 13-19 years and 20-35 years (3.1)	Adolescents as a sub-group considered. However, the grouping is not in line with the national data reporting system i.e., 10-14 years and 15-19 years. Early adolescents (10-13) not included.
	❖ Youth empowerment through education, nutrition, leadership development and equality of opportunity (5.1); Inter-sectoral approach pre-requisite for dealing with youth related issues (5.3); Gender justice through education, access to services including reproductive health and decision making process to productive resources and economic opportunities (5.2)	Integrated approach for youth development and empowerment. Move towards a right based approach. Diverse needs recognizing coordination between policies, programmes and delivery systems of various Ministries, Departments and other agencies.
	❖ Information and Research network to facilitate formulation of focused youth development schemes and programmes (5.4)	The Rajiv Gandhi National Institute for Youth Development (RGNIYD) recognised as apex Information and Resource Centre. State Youth Centres and Youth Development Centres for local youth recommended. Only role of NYKs clearly identified.
	❖ Key sectors of youth concern: education; training and employment; health and family welfare; preservation of environment and wild life; recreation and sports; arts and culture; science and technology and civics and citizenship (8.1)	HIV/AIDS, STD, substance abuse and population education included in health component. Nutritional needs of young women and adolescents recognised.
	❖ Holistic approach towards health, mental, physical and spiritual after careful assessment of health needs (8.4.1)	Need based programming advocated.
	❖ State-sponsored and free counseling services for youth, particularly adolescents (8.4.8); HIV/AIDS – Adolescent being highly impressionable are prone to high-risk behaviour; two pronged approach of education and awareness for prevention and proper treatment and counseling for cure and rehabilitation; Establishment of adolescent clinics in large hospitals (8.4.11)	Psychological problems of adolescents recognised. Training and capacity building of professional groups including NGOs recommended. Information on reproductive health as part of the curriculum and setting up clinics in rural areas to address health needs of adolescents recommended.

Policies	Policy extracts	Remarks
	❖ Population education – Adolescent age group to be sensitized in regard to age for marriage, first pregnancy, spacing and limiting size of family (8.4.13)	Responsible parenthood emphasized; need for ante-natal, natal and post-natal services of quality recognized.
	❖ Young people as "Health Promoters" (8.4.14); "Peer Education" an important element in promoting health services (8.4.15)	The scope of population education expanded to include strategies related to adolescents and young people as beneficiaries as well as change agents.
	❖ National Youth Centre to provide young people a common platform to express opinions. State Youth Centres on similar lines (8.7.2)	Role of arts and culture as a vehicle for promoting ideals and values visualized. This could be effectively utilized for meeting the diverse needs of adolescents and youth.

Synthesis

Adolescents as a distinct group have been recognized only in the last few years. Thus, most of the national policies included them either in the general category, as children, or in the category of women, in case of adolescent girls. Their vulnerability in terms of special health needs have not been prioritised. Even the recently approved National Youth Policy has not clearly identified strategies for adolescents, though the policy includes 13-19 year olds as a distinct category. The draft national policy and charter for children 2001 mentions provision of education and skills of "adolescent children", a newly coined term, showing lack of clarity on the age group. Variation in understanding adolescence and needs of this age group persists, and will need to be clearly spelt out for identifying strategies in meeting the diverse needs of adolescents.

Themes Addressed in policies

Diversity – regional disparities have been addressed for access to services of the general population. Recognition of diversity is based on geographical location prioritizing rural, tribal and slum populations in most of the policies addressing equity issue. Diverse needs of youth, including adolescents, have been addressed in the youth policy encompassing physical, mental and spiritual health. Counseling needs have also been recognized. However, needs of married female adolescents as part of the health, population and nutrition policies have been addressed primarily related to maternal and childcare, leaving behind needs of unmarried adolescents to a great extent.

Gender - most of the policies acknowledge gender discrimination and have addressed the issue. Using a life cycle approach, the girl child and adolescent girl has received attention of policy makers. However, needs of adolescent boys especially related to sexual and reproductive health require focus. Trafficking of girls and sexual abuse has received attention mostly in the context of HIV/AIDS. In totality, the importance of these issues for health and growth of both adolescent boys and girls are not recognized. Similarly, gender-based violence has been recognized only in the policy for empowerment of women.

Participation - the importance of youth participation has been addressed only in the youth policy clearly stating the goal as "working with youth, not for youth". Even though several policies have included decentralization as a principle and have identified local groups that can be involved, very few have actually identified youth organizations as partners in the development process.

Poverty - the need for education and vocational skills for equipping young people especially from the disadvantaged groups has been recognized in the Youth, Education and Children policies. Poverty affecting nutritional status of adolescent girls has been a concern reflected in the Health and Nutrition policies,

with recommendation of periodical nutritional status monitoring of adolescent girls below the poverty line through the mechanism of NNHB, advocated in the nutrition policy. But, direct issues of gender disparity, early marriage, neo-natal mortality, illiteracy altogether leading to adverse status of adolescent girls is not focused.

Rights - the issue of rights has been addressed primarily in the context of children's right to education, health, nutrition, survival and protection of girl child from trafficking and sexual abuse. Protection of human rights to safeguard human dignity has been included in the National AIDS prevention and control policy. Reproductive rights for informed choices have been mentioned in the policy for empowerment of women. Even though needs of young people are beginning to be recognized, the rights-based approach has yet to be effectively acknowledged.

Multi-sectoral approach - addressing diverse needs of young people calls for a multi-sectoral approach that has been recognized in the youth policy. The strategies and institutional mechanisms of several policies reflect linkages across and within ministries and departments for convergence and synergy. However, there is need for greater clarity for operationalising the strategies.

Conclusion and way forward

In a large country like India, central policies provide framework and guidelines. However, successful actualization of national policies depends to a large extent on the effective role of the State Governments that follow the central policies with state specific policy guidelines to address their own concerned issues.

Except Kerala, no other state has done work in terms of specific policies for adolescents. Even in states where the population policy mentions adolescents, it is primarily in terms of their sexual and reproductive health needs within the context of marriage or perceiving them as future parents[6]. Whereas, the need is to address adolescents more holistically to meet their socio-cultural and economic needs which significantly affect their health and development.

Although several policies have recognized the importance of health education, there is need for a paradigm shift from merely information giving to building skills of adolescents to enable them make informed choices affecting their physical, mental and social health. Since HIV/AIDS prevention among young people is a universally recognized good practice strategy to curb the epidemic, it is important to recognize the importance of providing information as well as services to married and unmarried adolescent boys and girls. Policies are silent on the component of adolescent/youth friendly services.

Although several policies have recognized the importance of health education, there is need for a paradigm shift from merely information giving to building skills of adolescents to enable them make informed choices affecting their physical, mental and social health.

Policies should focus on gender equity, which means including males too. Unfortunately, our policies target adolescent girls, ignoring the adolescent boys and their vulnerability to STDs, HIV/AIDS, role in family planning, migrant jobs and other health concerns.

The policies have not given due recognition to the power and rights of this generation to assist in change and development. Be it HIV prevention, education, drug abuse or reproductive health, adolescents as change agents are not fully acknowledged.. Even where good policies exist, there are gaps in implementation in terms of allocation of resources. Thus, the challenge is not only to formulate a sensitive policy, but also to ensure that the programmes adequately reflect the strategies for achieving the goals of development and empowerment.

Several programmes have been undertaken at the national and state level for translating policy recommendations into action. The Reproductive and Child Health (RCH) programme will be entering into the second phase. The draft Programme Implementation Plan (PIP)[7] reflects the need to address adolescent health. The consultative processes adopted for designing the programme will result in pilot initiatives in a phased manner, which will take into consideration heterogeneity of adolescent groups and the needs of unmarried adolescents to counseling and contraceptives. Testing the effectiveness and feasibility of models through research is needed for future programming [8].

A Working Group set up by the Planning Commission on adolescents provided substantial inputs for the Tenth Five Year Plan and the recommendations are reflected in the National Youth Policy 2003. India, the youngest nation in the world, today lacks a separate policy for its adolescents. Walking their way forward into adulthood, these youngsters need support and direction. These national policies and programmes require a greater sensitivity to the environment in which they are functional. They must necessarily address the dominant norms, values and ideologies of the existing system. Largely, working towards attitudinal and behavioral patterns to result in change and not continuity. Whether in the years ahead, we have a separate policy for adolescents or not, it is important to have a nodal department to coordinate and monitor policies and interventions for adolescents. The Ministry of Youth Affairs & Sports will have to play an active role in this respect to address the diverse needs of adolescents through convergence of efforts of different ministries and departments.

Dr. Mridula Seth is Technical Adviser (Adolescents and Youth) with UNFPA, India.

For adolescent health concerns to be addressed at the grassroots level, policies need to be translated at the state and district level to reach the actual stakeholders. Building a supportive environment is very important at each level. The stakeholders include policy makers, educational administrators, teachers, parents, panchayat members and health service providers. Adolescents themselves need to be involved as peer educators in programming.

Furthermore, for increasing political commitment, evidence-based advocacy is vital. Media has to influence public opinion by conducting a compelling dialogue with policy makers. Review of existing national and state policies and programmes is needed to assess the status, gaps and scope of convergence of different agencies., All this would require more information by adolescents and for adolescents on their needs, concerns and utilization of services. Political will, inter-sectoral coordination, community participation, NGOs commitment, and involvement of adolescents themselves in the development process is essential. To meet the needs of adolescents as a distinct group, their voices need to be heard, energies channelized and their dreams fulfilled for a better tomorrow.

References

1. Planning Commission. Report of the Working Group on Adolescents for the Tenth Five Year Plan (2002-2007). Government of India. New Delhi. 2001.
2. Population Council and UNFPA. Report of the Adolescent and Youth Sexual and Reproductive Health Workshop. May 2002. UNFPA and Population Council, New York. 2003 pp 10
3. The National AIDS Control Organisation (NACO) and UNICEF. Knowledge, Attitudes and Practices of Young Adults (15-24 years). NACO and UNICEF. New Delhi. 2002
4. Monitoring the AIDS Pandemic (MAP) Network 2001.Report presented at the MAP Meeting in Melbourne, Australia. 4 Oct 2001. In State of World Population Report. UNFPA, New York. 2003, pp 52
5. NCERT. National Curriculum Framework. New Delhi. 2000.
6. Mamta. Adolescent Health and Development in India: An Action Approach. New Delhi. 2001
7. Ministry of Health and Family Welfare (MOHFW). RCH 11 and Family Planning: Programme Implementation Plan (PIP) (Draft). New Delhi. 2003
8. Jejeebhoy, S. and M. Sebastian. Actions that protect: Promoting sexual and reproductive health and choice among young people in India. Population Council. New Delhi. 2003 pp 34

Status of adolescents: Glimpses from states of India

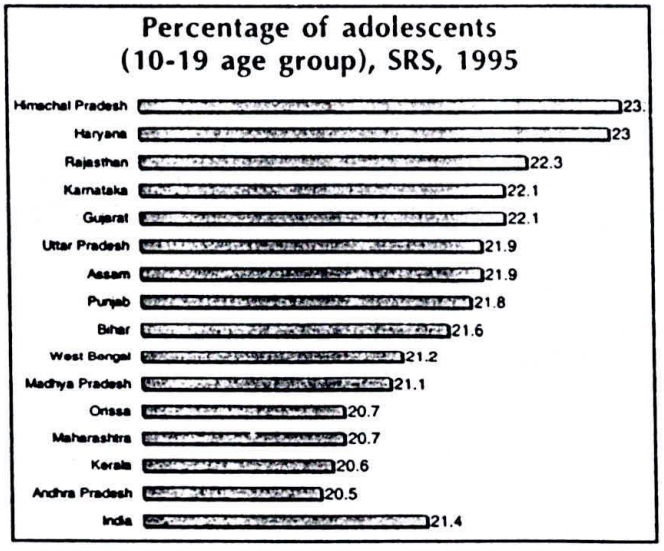
Shrabanti Sen

Background

Adolescence is a concept encompassing physical and emotional stages of transition from childhood to adulthood, and in turn a crucial period for healthy development in both psychological and physical terms. Today adolescents account for about one-fifth of India's population and half of them are girls. Despite the critical importance of the adolescence period in every woman's life, until recently, little effort has been made to accurately address and analyze the specific conditions, and needs of adolescent girls with an aim to redress the situation (*UNICEF, UNFPA, 1998*). The nature of adolescence varies significantly by age, sex, marital status, cultural context etc. As a group, however, adolescents in India have always been neglected in someway or the other. It's only recently that the specific problems of adolescents are getting recognized.

Profile of adolescents in India

As adolescents and their concerned issues are getting ignored over and over again, till date very little data or information has been collected on this group. Sources like National Family Health Survey and Sample Registration System provides some amount of information. But, unfortunately, none of these sources are informative enough. Government also very innocently keeps on sidelining this issue. In Reproductive and Child Health (RCH) too, adolescents are scarcely included.



Of more than 100 million total population in India, an estimated 21 % are in the 10-19 age group and 10 % are in the 15-19 age group. Distribution of adolescents varies from a minimum of 20 % in Kerala to a maximum of 23 % in Himachal Pradesh (SRS, 1995). Meaning, at least one fifth of the population in all of the major states comprises of adolescents.

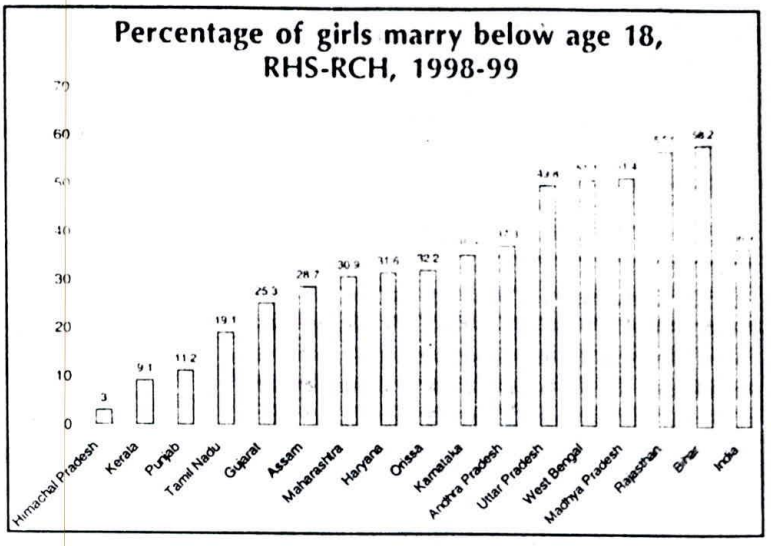
"The girl in every woman precedes and shapes the woman in her. And to the extent to which girlhood is denied, liberated and foster, womanhood perishes or prospers." (*Sohoni, N.K., The Burden of Girlhood: A Global Inquiry into the Status of Girls, Third Party Publishing Company, California, 1995)*

Critical issues among adolescents

In India adolescent girls receive the least attention of all, even though they have to grow rapidly from childhood to adulthood for taking up marriage responsibility, and in a short span of time to motherhood for rearing the family. In this whole process, they primarily face problems like high rates of anemia, early pregnancies, unsafe deliveries, frequent reproductive tract infections (RTIs), and vulnerability to HIV/AIDS. Its mainly their lack or no access to information that makes them more vulnerable.

Adolescents and marriage

Despite the rising age of marriage and laws prohibiting early marriage, half of all the Indian women aged 20-24 are married by the time they are 18 and a quarter by the time they are 15. In general, the median age at marriage is 16 years but the actual range varies from state to state. In Andhra Pradesh, Bihar, Madhya Pradesh and Rajasthan, over half of the girls in the 15-19 age group are married (NFHS-II, 1998-99). According to a study by International Institute for Population Sciences, 1995, 14 per cent of all girls aged 15-19 are married, and about half of them are sexually active by the time they are 18 years old.

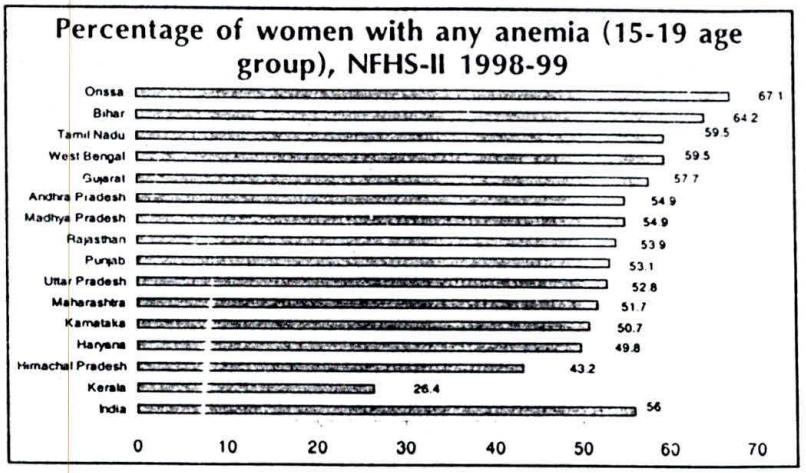


Rapid Household Survey – Reproductive and Child Health (RHS-RCH), 1998-99, also reveals alarming truth on the age of marriage for girls. **37 per cent of the girls in India are getting married before attaining 18 years of age.** Himachal Pradesh (only 3 %) followed by Kerala (9 %) have the least percentage of girls married before age 18, where as, two of the BIMARU states i.e. Bihar (58 %) followed by Rajasthan (57 %) shows maximum number of girls getting married before the age of 18.

Adolescents and anemia

Due to the poor nutritional status of the average Indian adolescent, the biological onset of adolescence may occur later compared with other developed countries. However, marriage and consequently the onset of sexual activity, and fertility occur earlier in India than in other regions of the world. The cultural and social system usually exerts tremendous pressure on girls to get married upon reaching menarche. Consequently, adolescent females are thrust early into adulthood, frequently soon after regular menstruation is established, and before physical maturity is attained (Jejeebhoy, 1996).

Shrabanti Sen is a programme officer in VHAI and is currently doing her Ph.D in Population Studies (Demography) from the International Institute for Population Sciences, Mumbai.



In India **more than half (56 %) of the women in the 15-19 age group are suffering from various types of anemia.** The scenario varies among the states. Orissa has a shocking situation with 67 percentage of women suffering from anemia in the 15-19 age group followed by Bihar at 64 percentage. Kerala shows 26 per cent of the women suffering from various types of anemia in the referred age group, which is the lowest amongst the states (NFHS, 1998-99).

Few More Facts About adolescents in India extracted from NFHS-II, 1998-99

1. 33 per cent of the married women are in the age group of 15-19; where as, only 6 per cent of the married males are found in this age group.

2. 28 per cent of the adolescents in the 10-19 age group are illiterate, and only 7 per cent are found to have completed higher secondary.

3. Lifestyle indicators clearly show that 9 per cent of the older adolescent boys aged between 15-19 are caught by habit of taking pan masala or chewable tobacco, and another 4 per cent have adopted smoking.

4. Only 10 per cent of the married adolescents of age 15-19 use any method of contraception.

5. Shockingly only 37 per cent youths of age 15-24 reported to have heard of HIV/AIDS

Adolescence is a period of innocence, and ignorance of various issues at this age makes it comparatively more vulnerable. Adolescents as separate age group along with their problems have received little or no attention in India. Until recently when NGOs, funding agencies bothered to recognize and include adolescents in their main activities, its only then that Government came around. Accounting for 1/5th of total population, adolescents are the future of our country. Holding the power to change, they will surely give us better and improved tomorrow. Thus, negligence on part of this proportion of the population will result in major consequences in the future.

Data Sources Used:

National Family Health Survey (NFHS – II), 1998-99

Rapid Household Survey - Reproductive and Child Health (RHS – RCH), 1998- 99.

Sample Registration System (SRS), 1995.

Adolescence in urban India

Dr. Peggy Mohan

Background

I have always felt that a writer with a patient's perspective on a condition could offer new and precious insights. Not the least of these is empathy, the chance of reaching out to readers as fellow travelers. A patient's perspective is also a chance to notice different things as important, and to raise different questions from those a medical expert would be drawn to—the kind that might not have clear answers.

In 1997 VHAI asked me to write a book for adolescents in India. In English, so this meant for urban adolescents, semi-westernized, but not really served by the literature written abroad for western adolescents. At that time my own child was going through an urban Indian adolescence of her own, so I had some experience and current focus, and a researcher's curiosity about making use of this new perspective. Being open had earned me a great deal of dialogue and feedback from my daughter and her friends, and this persuaded me to go further, and take on writing the book for VHAI.

I clarified first with myself that I was ready to write a book *for* adolescents, not *about* adolescence. Even so, parents who read the book couldn't help seeing me as another parent, and some did not like me getting into topics they themselves would have been uncomfortable dealing with. But these were precisely the things adolescents were asking me about!

There was another reason why I felt I shared a perspective with urban adolescents in India and not with their parents. I myself am from an Indian community in the West Indies. When I came to live in India in 1979, I had found India alien and a lot like the transitional world my father must have grown up in, in the West Indies as it had been then. But I found my daughter's life in Delhi during 1990s amazingly like my own adolescence in the Trinidad of the 1960s, where urban teenagers were opening up to North American culture, wearing short pants, going to the swimming pool, disco-dancing, and cautiously beginning to "date". While our parents agonized about whether all this conflicted with our "Indian" culture, and sometimes abruptly stopped us in our tracks. I felt I had seen it all before and lived it. I was also determined to avoid the authoritarian discipline my parents had taken with me, and try a little empathy instead.

The group of adolescents, VHAI and I interacted with was drawn mostly from Class 9, from different schools in Delhi, though there were also younger and older adolescents interacting with us more informally. Their questions and suggestions, sometimes handed to us in writing, unsigned to preserve confidentiality, gave a good picture of the life and concerns of urban adolescents in present-day India.

Except for the section on sexually transmitted diseases, which I also think I wrote mechanically, everything else in the book reflected our adolescents' questions and concerns. Broadly speaking, they wanted three kinds of information: about the physical and emotional changes they were going through; about relationships; and they wanted discussion of problems they were facing with their parents and families.

Physical changes

The CBSE Tenth Board syllabus for Science does address the issue of sex education, but very briefly, and in biological language that leaves you visualizing bacteria multiplying in a petri dish. Words like *gamete* and *zygote*! All the adolescents I talked to knew that this was gross evasiveness, and found it amusing, but they did not know from where to get the information they needed. They were curious, and had discussed their physical changes among themselves quite openly, but each one still felt like something of a freak, and less attractive than during pre-adolescence. What they missed was information that would link their experiences to those of others in their age group, and give them a sense of normalcy. And together make sense as a larger explanation of something that they were actually going through.

The most significant psychological change in adolescence is that of becoming "self-conscious". Able to look at yourself from the outside and to imagine how you look to others.

The changes during adolescence cannot be dismissed with a quick road map of how to conceive and produce babies. At any rate, the very idea of adolescence is of a period, when one is not ready to start having babies, but when there is a still lot of change going on, away from just *being a* child towards being able to *have* a child. Adolescence is the time when you walk through childhood into adulthood. Adolescence involves a number of other things, like pimples, body hair and body odor that also asks for explanation. Reason being they do not, at the outset, seem designed to enhance the prospect of forming relationships and becoming parents. As well as perplexing things like the deepening of the male voice, not in a smooth descending scale, but by "breaking" remains unexplained. No boy I talked to could describe—let alone explain—the voice changes he was experiencing. And all this was sadly unaddressed in their textbooks.

Lacking information, adolescent brains were working overtime, sometimes with bizarre results. Lumpy breasts or two breasts growing at different rates, though all perfectly normal, were suspected to be symptoms of cancer. And there was no useful information on menstrual periods. Why did some girls find them painful? Why was there so much variation between girls in the heaviness of the flow? What was the reason why adolescent girls were steered away from tampons?

Boys, too, often had to fall back on information from the grapevine, which played on their insecurities and guilt about their growing sexuality. What was a "normal" penis like? Did a boy lose some of his strength whenever he ejaculated? And was one drop of semen really "equal to a hundred drops of blood"?

Psychological and emotional changes

The most significant psychological change in adolescence is that of becoming "self-conscious". Able to look at yourself from the outside and to imagine how you look to others. This involves a lot of lonely introspection, and without realistic images of normal adolescents to go on, an adolescent comes face to face with the distorted images generated by the Market and Media.

There is a lot of danger in wanting to look like the most successful models. First of all, models nowadays tend to be very tall and have abnormally long limbs. This sets them apart from at least 90 per cent of what we find in our society. They are chosen as models for this very reason. The Market needs icons that require the Market's help, if you want to measure up! It has to sell products to survive. All magazines, newspapers, cyber sites and movies depict the lean, slender model or actress figure. Leaving no other choice of role model for our youngsters. Second, and more dangerous, models tend to be abnormally thin. Today's models are thinner than 90 per cent of the healthy people in any society. Some are so thin that they look weak and starved, which they often are. Media tops the same by reporting their diets as success mantra for our young generation to follow.

It is extremely difficult for a healthy person to get this thin, even by sensible dieting and exercise. Your body will simply resist losing too much weight by going into "starvation mode" to conserve weight, and your metabolism will drop, so that you burn less energy in everything you do. Your body wants to live!

When a young person still manages to get so desperately thin, it is generally because they have beaten the body's natural defenses against starvation through disorders like bulimia nervosa, or more dangerously, anorexia nervosa.

India has begun to catch up fast to the worldwide obsession with thinness. Adolescent

girls, some of them already painfully thin, openly bemoan the fact that they look "fat". While the word anorexia is lightly bandied about between friends, there is very little understanding about what it is, and very little medical experience in India to connect a girl's "glamorous" thinness with the fact that she menstruates only once every four months, if at all. Or to grasp that she just can't see how she really looks. She actually *sees* all that fat that isn't there. This is something new in India, new enough that gynecologists are often not alert to these signs of psychiatric distress. And it is something so new that parents, while admiring and encouraging their daughter's thinness, cannot see the deadly disorder it is based on.

What is lost sight of here is that a certain amount of fat comes simply from being female. Female hormones distribute fat over girls' body, especially on the hips, breasts and thighs, while the dominant male hormone, testosterone, creates muscle. The lean and fit look promoted by the media and increasingly, even by doctors is actually not a female look at all! But confronting these media images is not easy—too much money is riding on thinness for the Market and media to back off easily. And, like sacrificial lambs, our adolescents get there first and take the brunt of the attack!

Another noticeable emotional change in adolescence is the onset of hormonally driven moods. Moods are something adolescents are conscious of, but their basis in physiology is not well understood. Some girls do take note of a dip in their mood, in the week before their period, but without a sense of its normalcy, they take it as something that ought to be within their control.

India is just beginning to wake up to suicidal behavior among adolescent boys and girls, driving themselves under the stress of Board Exams. In the media too, this is seen as having to do with the exams themselves, or the stress of an overloaded syllabus. But in reality, this extreme reaction is also a very adolescent response to stress, and a self-consciousness that can be so damning that it calls out this final option of suicide.

The actual event that elicits the stress and sense of defeat may be the exams, but the plunge to suicide is typical of adolescent mood swings. Recently, concerned activists have begun to set up helplines, in Indian cities, for students feeling so much stress that they put their own lives at risk. Providing them a platform to open up and discuss. The confidentiality of this approach does draw a number of adolescents to phone in, since they want to talk about their problems, and talking face to face with parents and friends all too often elicits only embarrassed dismissiveness. If you don't talk about the problem, the logic goes away. Leaving our children with no choice, else to trust their confused mind. Parents pile on the pressure, convinced that everything in their child's future life hinges on Board Exams. And peer perception can add to this cruelly. Making young minds victim of impractical demands and deadlines.

How many adolescents who attempt or succeed at suicide were depressed to start with? It is not easy to find out, because depression would reflect on one's family and genes. Far easier for families to point a finger, futilely, at the larger educational system. Imagine timely information and guidance would have saved how many lives!

Pre-relationships

The first signs of an interest in relationships are those wistful distant attractions known as "crushes". Our adolescents talked about them in an almost matter or fact way, as though they expected them to happen. As they proceeded from pre-adolescence to actual adolescence, their crushes became less secret, and more openly discussed in the secrecy of their friend-circles. These crushes existed not just among co-ed school students, but also, and sometimes more fervently among those going to boys-only and girls-only schools.

Another manifestation of the increase in all-round but unfocussed sexuality is the interest in books based on relationships, or just on plain sex. The book stores and pavement sellers' stacks abound with what is actually soft-core pornography, which appeals to girls, and which is based on love relationships. The girls I spoke to were disdainful of overt pornography. But the number of Internet porn sites accessed attests, clears the distant sexual curiosity that besets adolescents and even adults!

This distance, in India, is not merely a function of adolescence. It is also linked to the persistent

separation of the sexes, particularly outside the English-speaking class, even into young adulthood. Many a times our culture and community together silently put bars. This fascination of distance manifests itself in some strange ways. For example, completely one-sided relationships are also formed, where a young man marks out a young woman as "his" girl. He never actually speaks to her, and she may have no idea that he even exists. But among his circle of friends it is known that she is off limits to everyone else, and boys outside that circle come to know she is "taken" if they try to approach her. There can be nasty atavistic scenes between boys, with threats of violence, which make no sense at all to the girl involved. Or one day, out of the blue, she might find a young man offering her a gift, on a chartered bus they both go in every day, and insisting that she take it. And everyone else in the bus knows what it is about, except her.

In urban India, in families where adolescents have a modicum of freedom to rebel, the well-known struggle takes place, where adolescents try to create their own space.

Less benign is that thing quaintly called "eve teasing". This too is linked to feelings of frustration, of boys being deprived not so much of sex as of female company. Since they have been brought up to believe that a "good" girl would not want to talk to them, they try to get girls' attention by provoking them, on the street and in buses.

Bollywood films are full of such scenes, of the young hero meeting the heroine in just this way,

following her on a street, maybe on a bicycle, and making comments at her, while she fends them off, but in the process she has to speak to him. The ritual behavior is clear: he is allowed to make that sort of approach (public space or male space!), and she is obliged to show her good character by rejecting all his advances. But sometimes there is a breakthrough, and she takes him seriously at the end, and stands alone thinking about some clever thing he has said.

In real life these scenes are not so innocent. The frustration and conditioning are too strong, and these encounters end up expressing the boy's contradictory wishes, for contact with girls as well as an acute dislike for girls. In these cases there is usually a further element: a class divide, where the girl is visibly from a better off family, and otherwise off limits to the boy making the move. So his resentment is based not only on her being female, but also on the impossibility of his own upward mobility, something larger and not linked to her personally at all.

The topic that provoked our adolescents to send the most unsigned queries was masturbation, fraught as it was with taboos. I was surprised at how much our adolescents were discussing it among themselves, even girls. Though some girls were blissfully ignorant about what it was all about - often the same girls who were the most attracted toward boys!

Clearly some of the discussion in foreign books on sex had trickled down, and many adolescents knew what masturbation was "all right". Still, boys were not yet free of the perils of the grapevine. Many had sneaking worries that masturbation might be "habit forming", "be associated with pimples", "lead to insanity", "reduce the quantity of semen", generally "weaken boys" and "make it difficult to enjoy sex with another person". But there was less despair than I expected, and more of a wish for confirmation and reassurance that they were not going off the track.

Relationships

There were two sorts of relationships that occupied major space in our adolescents' minds: love relationships with boyfriends and girlfriends, and relationships with their own parents.

The urban Indian phenomenon of co-educational schools has done much to bring boys and girls together in their adolescence, and make it possible for them to see each other as something more substantial than just distant objects of fantasy. It has also helped in promoting a greater sense of equality between

the sexes. Our adolescents reported the clear existence of two-way relationships, mostly not mentioned to parents. These were ritually started by an act of "proposing", followed by a period of "going around" together. Much of this activity took place in school, but there was a lot of activity on the phone too.

For most, by the time relationships turned sexual, the big conflicts with the parents were over, and they knew how to handle things discreetly. Still, most girls had strong misgivings about actually getting into sex before marriage—culturally, it felt alien.

One experience adolescents in urban India fear, and which surely affect how and where they plan to meet, is being apprehended by the police while sitting together in public space: a park, or a parked car. The peace can be nastily disrupted by the appearance of a policeman, pretending to be affronted by this culturally inappropriate behavior on the young people's part, and threatening to take them both to jail.

This is usually no more than a way of extorting money from them, logic being, if the couple has to sit together in public space like this, they must not be married. Therefore they must be afraid of their parents coming to know of their relationship. The young couple, too, even if secure that their parents would be supportive, know that they would be unsafe in jail, where they would be exposed to the police (who are not culturally uncomfortable with things like rape and extortion).

When I wrote my book I was careful never to imply that all love relationships must be heterosexual, because they aren't. There are some adolescents who are gay or lesbian. And there are others who pass through same-sex orientation as a phase, often if they are in girls-only or boys-only schools, particularly boarding schools. This means that same-sex attraction and same-sex relationships are reasonably common, and often more casually talked about, or joked about than treated with alarm by "straights"—those attracted to the opposite sex.

The really problematic relationships for adolescents in urban India seem to be the ones with their parents. Our adolescents railed against parental restrictions and parental lack of trust, not only in the context of their love relationships, but in everyday matters. In urban India, in families where adolescents have a modicum of freedom to rebel, the well-known struggle takes place, where adolescents try to create their own space.

Why didn't this take place in their grandparents' generation, or in rural India? There seem to be two reasons. One, you need a little openness from parents, or from other parents in the peer group—for this kind of conflict to come to the surface. Earlier, and in today's villages, the family hierarchy was and is very rigid: you simply did not question elders. So a lot of adolescent rebellion just got squashed.

Also, in our grandparents' generation, and in today's villages, people got married earlier, during adolescence, and had their own families to look after early, often without even leaving home. They were not frustrated and kept away from sex: they had relationships, they were adults, with all the responsibilities (and sometimes with the independence too).

This prolonged adolescence, and delayed marriage, is a new thing in India, and we haven't really had a chance to think this out. Our concepts of "Indian culture" still hark back to the time when young people did not have the pressures and the alienation they have now. Urban girls, who must compete with boys in Board Exams, are often cast in the same traditional mould as rural girls when it comes to conforming to sexual double standards. And yet, it is true that urban India has moved on unevenly, such that public space is still less safe for adolescent girls than for boys. Parents worry about the physical safety of a daughter out on the roads at night.

Transition

The contradictions of transition are a good and open-ended note to close on. There is danger, but there is also change going on. Our adolescents' struggling and questing for independence are teaching them the strategies; they will need in forming the new society urban India.

Though it seems strange to say this, the present conflict between adolescents and their parents is actually a good thing. It does not do adolescents any good to remain helplessly obedient. Just as it does not do adolescents any good, either, if their parents simply give in and agree to everything they say. What adolescents need from parents is a "reality check", a clear line of thinking to measure themselves against, and a chance to discuss things.

While it is hard for parents to take this in the beginning, the end result is something wonderful: young adults who are strong and independent, and whom their parents can depend on. This is the way it happens!

Dr. Peggy Mohan is an eminent educationist and author of the book 'Adolescence to walk you through' published by VHAI.

Reality in Shivpuri

Dr. S. K. Singh

Shivpuri is one of the most backward districts not just in the state of Madhya Pradesh (MP), but also in the country. Well known for its tigers and rich minerals, Shivpuri is also very popular for early marriages and sale of young girls. Largest Bedia tribal population engaged in prostitution has been living here for decades. It is also dacoit-affected district, where apart from kidnapping for ransom, dacoits have been regularly forcing communities to send girls as a commodity for their pleasure. Hundred and thousands of adolescent girls, who become victim in hands of sexual abuse, carry burden of these traumatic experiences silently throughout their life.

Literature defines adolescence as a period of rapid physical, psychological and social maturation, the period extending from puberty to the attainment of full reproductive growth. But unfortunately, here in Shivpuri and many other villages of India, the concept of adolescence especially for girls doesn't exist. For most of them each day is similar, full of humiliation, and violence with no ray of hope. Walking straight from childhood into adulthood they are trapped in hands of early marriage, child-labour, sexual discrimination, poverty and illiteracy. Most of the adolescent girls and boys are not even aware of their physical, psychological and emotional developmental needs. Growing under difficult circumstances with no information, they fall prey to societal pressures. Rather than blooming at this most beautiful period of life, adolescent girls in villages are often caught dressed barely in half clothes as casual labour, doing household work, looking after their siblings or grazing their goats.

Sambhav's real life experiences

Sambhav is implementing the Khoj Poject in Shivpuri district. It aims at improving the overall living conditions in the communities through information sharing, promoting the community based organizations, and generating demands on the system for adequate delivery of services. The project also aims at preparation of the community level leadership through training and exposure. With main thrust on tribal and unorganized rural poor population, the project team is working in 25 villages covering a population of approximately 30,000.

Finding adolescent girls trapped in hands of cruel, but actual and harsh situations are daily affairs in these villages. The following mentioned realities are some of their experiences, and a true picture of living conditions.

- Time when most of the adolescents grow exploring their surrounding, and try solving mysteries of this age, here in Shivpuri adolescent boys and girls are deprived of authentic and adequate knowledge about changes at this age. This phase is a daunting process for them. Especially true in the case of girls whose world gets curbed, controlled, and at the same time complex during adolescence. On the other hand, socio-economic demands, as well as, social progress gradually require them to play more active role at home.

- All the girls are highly discriminated in the family. Especially, when it comes to accessing the health services, there is no comparison between what a boy gets and what is left over for the girl. Ignored and neglected by day to day circumstances, they are sulking within themselves. Unheard by family and community they have actually reached a stage, where they

can not express their personal, health or emotional problems to anyone.

- Age when most of the adolescent girls indulge in fun and play, and explore to unfold new things, girls in Shivpuri bear the burden of family responsibilities. Leaving their childhood behind, they care for young siblings, carry water, cook for the entire family, and do all the household work without experiencing the age of innocence.

- Restrictions on girl's mobility are put once she is about 10 or 11 years old. Not allowed to go anywhere, she spends her day doing household tasks and whole life within the four walls of home. Whereas, boys have full freedom to do what they like, go where they want, and even commit crimes, leaving girls to be victim of gender discrimination. One often finds boys busy playing cards, listening to music or simply chatting with friends, while girls are invisible all over the village with no one to hear and share them.

- Unaware of their reproductive anatomy and physiology, they have no clue about what causes menses or how pregnancy takes place. Undernourished and anemic they remain unequipped with information on growth that takes place during this crucial phase of adolescence.

- There is not even one family or community practice/mechanism for counseling and educating the adolescents on various aspects of sexuality, reproduction, responsible behaviour, and physical and emotional needs. Forcing them to live with misconceptions for the rest of their life.

- The most critical dimension in the process of growing up during adolescence relates to social relationships. Adolescents expand and redefine relationships with parents, peers and members of the opposite sex. This is the time when they build trust and attain sense of self-esteem. But, here in villages of Shivpuri the situation is totally different. There exists no place for relationship between girls and boys before marriage; rarely you'll find them interacting at community level. Seen with frowns and suspicious, relationships are a taboo in this community.

- When it comes to child labour and exploitation, the situation is worse than one can imagine. Saharia and Dalit girls start working at a very young age. Getting paid just half of the adult rate, they live under ignorance. Among Gurjers and Dhakads too, adolescent girls are often seen engaged in cattle rearing and agriculture-related work.

- Sexual and physical abuse seems to have been living here for decades. Commonly one finds girls being assaulted at workplace. Money being openly used for enticing girls to accept sexual advances of the employers and their associates. At stone quarry sites too, one often spots tribal girls been caught in the hands of contractor. The scars of this abuse are embedded so deep, that they leave lasting impression on girl's psyche.

- A very obvious gender bias operates in case of education as well. Among these communities girl child education occupies no priority. Most of the girls haven't even experienced a single day in classroom. Caught in web of illiteracy, early marriage, high fertility, violence and sexual abuse, they spend all their life with experiences and memories of discrimination.

The most critical dimension of the process of growing up during adolescence relates to social relationships. Adolescents expand and redefine relationships with parents, peers and members of the opposite sex. This is the time when they build trust and attain sense of self-esteem.

- Early marriage for girls and boys is a ritual here. Despite laws that specify the legal age of marriage for girls as 18 years and for boys 21 years, cultural pressures often force parents to marry them off at a very young age. Significant numbers of girls become mothers by the time they are 13 or 15 years old. High fertility at this age is the reason of great concern, since most of them at adolescence are physiologically immature for reproduction. Childbearing at such young age also poses health risks on both mother and child, contributing to maternal mortality, increasing incidence of low birth weight babies, and neonatal morbidity.

- The large joint family setup in which we all use to live is gradually crumbling, resulting in withering away of the support structure that is required in rearing a child. At the same time adolescent boys and girls often find themselves unprepared for

parenthood. Result, irresponsible and uninformed parents neglecting their child's health, and adding on to the neonatal morbidity and mortality.'

On the whole, adolescent girls in Shivpuri are subject to various forms of violence, be it domestic, dowry harassment, kidnapping, abduction, trafficking or sexual abuse at home, public and work place. Living in dangerous and endless risks they are waiting to exhale every second!

Interventions to support adolescents

Understanding the importance of adolescence period as a time of tremendous opportunity, as well as, of risk our programmes focus greatly on adolescent girls. At Sambhav, we are continuously making an effort for addressing their health, education, social needs to bring harmony, gender parity, economic development, and quality life for all of them. The activities include monthly meetings of adolescent girls' groups, Yuva Mandals or adolescent boys' group, where health and developmental issues are discussed. Regular sports activities, painting competitions, vocational courses etc. are also undertaken.

- We encourage formation of Self Help Group (SHGs) among women and adolescent girls, to promote interaction and interpersonal sharing. The project has 68 women SHGs. These groups are playing pivotal role by advocating gender equality. Leaders from groups serve as role model for the girls to follow. We also strongly believe that women SHGs plays an important role in inculcating qualities like dignity and leadership among girls. Real example of this is when once, all the village girls courageously got together, and launched an anti liquor movement within the communities. They even mobilized a signature campaign to draw attention of the Chief Minister towards growing consumption of the liquor in the tribal areas.

- Creating awareness on constitutional and legal guarantees for adolescent girls and women.

- Disseminating scientific information about basis of sex determination in mother's womb.

- Organizing informal discussions with adolescent girls on their health problems and sensitizing them on physical, emotional, social and behavioural aspects of growth. We are doing this with help of VHAI's educational Kit 'Towards Better Adolescence'.

- Prioritizing health of adolescent girls Sambhav is reaching out with message of reproductive Child Health (RCH) by organizing series of medical camps. The female doctor from the District Hospital is invited for these camps. Girls are provided counseling and medical treatment on various health issues. These camps have been highly appreciated to support adolescent girls and women with right education, and at the same time have been very successful too.

- Interactive group sessions with adolescent girls help in answering their queries, and make them aware about human rights.

- Theatre activities are regularly arranged to sensitize communities on rights and problems of adolescent girls.

- We are constantly enhancing their self-esteem, confidence and leadership qualities by organizing activities like game, singing and dancing competition, and other cultural programmes.

- Discussions on sexual behavior and how to deal with sexual harassment with support of women activists and trainers are helping all the girls.

- Wide spread information campaigning on the matters of child rights, rights of girl child, punishable act like female feticide and sex determination, non-judicious abortion of female fetus, and health and nutritional care of women and adolescent girls.

- Spreading message of gender equality in school and colleges through exhibition, lectures and film shows.

These approaches altogether are helping us in achieving success to great extent. Through our educational programmes 150 girls have already completed their grade five education. Making difference in everyone's life, we feel proud to see adolescent girls and women openly discussing their problems, practicing personal hygiene, and inquiring on methods of family planning. Each day we see a new wave of change in community, when girls speak for themselves, fight for their own rights, and earn their living to stand on their feet independently! They are slowly and gradually changing the reality of their lives.

Dr S.K. Singh is the Director of Sambhav, an NGO based in Gwalior.


प्राथमिक बाल विकास
स्थल
प्रावस

Adolescents on the fringe in urban poor India

Dr. Sunil Mehra and Dr. Deepti Aggarwal

Introduction

Adolescence as a term or a distinct phase of life has only recently been recognised across the developing countries. India, being no exception too had limited understanding of 'adolescence' due to the restricted information on this phase in the rural context. Closer review of the past work in the country strongly suggests that this phase meaning 'to grow or mature' has by and large been subsumed under the category of child or married adults. Delay in the onset of puberty (due to poor nutritional status), and prevalence of early marriage (signifying adulthood) explains the scenario well.

The recent UNFPA report 2003, *' Making I Billion Count '*, cautions that the largest generation of adolescents in history-1.2 billion aged between 10-19, is stepping into adulthood, faced with risks of deadly diseases, curtailment of education, early marriage, unwanted pregnancy, and poverty. This is also a reflection of what; we in India are going through. Based on the presumption that we continue to experience the fertility decline as projected in the population momentum, the decade of 2000 will witness the largest number of adolescents ever seen before or expected to be seen in future. This is well reflected in **Table 1.**

Presently adolescents comprising about 1/5th of India's population (ignored in the policies and programmes and caught in hands of no focussed investment). Totalling to approximately 230 million boys and girls, it is a number too big and too significant in the national health and development context. It is the understanding about the lack of emphasis on this age group, which might really be the turning point for achieving 'health for all' goals much faster.

We would like to state that the lack of reliable data and information on the adolescent age group is a major impediment in undertaking any review on adolescents. Disaggregation of data on the basis of age is in the age groups of 0-15 years or 15-24 years, with adolescents rarely considered as a distinct age group in official statistics. Emphasis on youth (15-35 years in India) subsumes the older adolescents into this broad and large category. Also the existing data are rarely disaggregated in intraurban location or

Year	Age group								
	10 - 14 years.			15 - 19 years			20 - 24 years		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1991	52,487 (11.95)	46,749 (11.48)	99,236 (11.73)	43,482 (9.90)	38,701 (9.51)	82,183 (9.71)	37,754 (8.60)	36,538 (8.98)	74,292 (8.78)
1996	57,939 (11.95)	51,606 (11.48)	109,545 (11.73)	47,999 (9.90)	42,721 (9.51)	90,721 (9.71)	41,676 (8.60)	40,334 (8.98)	82,010 (8.78)
2001	63,566 (12.14)	59,339 (12.14)	122,905 (12.14)	57,675 (11.01)	51,389 (10.52)	109,064 (10.77)	47,731 (9.11)	42,489 (8.70)	90,220 (8.91)
2010	54,452 (9.10)	51,838 (9.19)	106,290 (9.14)	59,928 (10.01)	57,482 (10.19)	117,410 (10.10)	62,714 (10.48)	58,070 (10.30)	120,784 (10.39)
2016	56,698 (8.74)	53,763 (8.75)	110,461 (8.74)	53,792 (8.29)	51,079 (8.31)	104,871 (8.30)	58,414 (9.00)	56,205 (9.14)	114,619 (9.07)

Source: Population Projections, Registrar General of India, 1996
Figure in Parenthesis is Percentage Share of Total Population

socio-economic criteria. Data sets as DHS (in India NFHS 1998/99) disaggregate by "urban " and "rural", but go no further. Thus, the slum population and the poorest squatters are statistically identical to middle class, and wealthy urban dwellers. In this article, an effort has been made to present data specific to adolescents in urban slums, from varied sources, wherever available.

Development, population movement and adolescents (young people)

Development processes do not occur homogeneously, as they tend to be localized, and create differences between geographic areas, and encourage population movement. Since the visionary announcement by McLuhan in the 1960's about the arrival of the global village, globalization is increasingly occurring. Even the rural households that seem to live by subsistence farming alone are no longer doing so, and are increasingly dependent on links (marketing of production and migration of rural youth) to urban areas, for remittances and capital to purchase new inputs required for agricultural intensification. Push and pull factors triggered by enhanced communication further encourage movement. For example, soap operas are not just seen for their stories, but are carefully observed by rural viewers who take note of the electricity, running waters, refrigerators and other modern amenities. These millions on the move, both spatially and socially, are continuously attempting to improve the situation for themselves, and their families.

Young people, particularly those from rural and low-income communities, are becoming increasingly attracted by the diverse offerings of the cities and especially economic ones. With parallel shortage of skilled and unskilled labour, these cities provide them ample opportunities for earning a livelihood and aspire for better lives. Opening doors to meet new people, learn new skills and adopt new behaviours, urban atmosphere allows them to escape from the constraints of traditional societal norms or cultural rules. Exactly in tune with what our young generation desires!

India's urban population and adolescents

India has the fastest growing segment of urban population, believed to be doubling or even tripling from mid –1990s figures of 250 million and expected to touch 660 million by 2025, placing India only second to China in urban growth (EHP Activity report). This growth in numbers is most likely to affect poor urban communities, as cities increasingly attract young people from rural settings and since they happen to be the most fertile section of the population, the growth becomes self- perpetuating (Rossi-Espagnet, Goldstein).

In the face of rapid urbanisation, the civic amenities are unable to keep pace making life difficult for the urban poor communities. Approximately 23 urban centres in the country, holding over a million inhabitants each, are estimated to have 30-40% of urban dwellers living in extreme poverty. These low-income communities residing in slums, tenements, shantytowns or squatter settlements, share common characteristics of population density, poverty, squalor, lack of services, and socio-cultural heterogeneity. Most of them being illegal tenements, lose their eligibility for water, sewage, electricity, education, infrastructure, and other municipal services, making factors such as marginalisation, illiteracy, class or caste status, and political interest determine their fate (*EHP Activity report 109*).

Challenges and risks faced in adolescent years

It may be noted that for the purpose of this article most of the issues mentioned below have been dealt at an introductory level. However they need a more detailed review on their own for a better understanding of complexities of these issues and their impact on the lives of adolescents.

The problems faced by adolescents in urban poor communities are more or less the same as faced by most adolescents in any developing country irrespective of the urban or rural settings. However adolescents living in urban poor areas are especially vulnerable as most of them:

- Are denied the opportunity to complete their education.
- Have no stable homes or support systems, and are living on the streets in the absence of basic infrastructure and exposed to the risks of malnutrition and disease.
- Lack access to basic services including health and education facilities.
- Work for long hours for little pay, and are exposed to hazardous work processes.

- After being displaced from their native villages, they live in slums or shantytowns where traditional values, and community structures are impossible to maintain.
- Vulnerable to sexual abuse or violence.
- Are denied the same opportunities for development as some of their peers.

Malnutrition

Across the communities, families usually recognize nutritional requirements of infants and children, completely ignorant of increased nutritional needs of adolescents to even consider it as a priority. Increased nutritional demands in the face of accelerated growth spurt and increased physical workload coupled with unmet nutritional need leads to chronic energy deficiency, anemia, and results in impaired physical development (sometimes manifested as stunting). In many cases, malnutrition prevalent in childhood is likely to be carried into adolescence, which provides the last, and the final opportunity for growth.

For adolescent girls, apart from growth spurt, factors such as onset of menstruation, early marriage and pregnancy, childbirth, and motherhood create an extra demand on nutritional requirements. Most of them already being anaemic find it difficulty to face challenges of pregnancy and lactation. The shortfall results in further depletion perpetuate a cycle of health problems that passes from one generation to the next. Thus, programme interventions targeting their health are essential to compensate early deficiencies and ensure normal growth of girls. In case of adolescent boys, under nutrition or malnutrition affects their ability to be productive citizens and contribute to the country's development process.

General health problems

Adolescents in urban poor areas are by and large subject to same illnesses as children or adults. Some of these are concerns related to the process of growing up. Less likely to recognise their own problems, adolescents in most of the cases don't even know where to seek treatment. They too face illnesses associated with poor sanitation and unhygienic living conditions. It will not be incorrect if one states that very little national data is available for the morbidity and mortality patterns/distribution of common or adolescent specific diseases/illnesses in this age group.

Early and unprotected sexual activity

While information on sexual activity and behaviour is limited, a consistent finding from existing studies is the significant level of premarital sexual activity, mainly among adolescent males. A disturbing trend is the lack of contraceptive use (due to cost, inaccessibility, lack of information) and the knowledge of sexually transmitted infections. Of these, many adolescents who become sexually active, without being aware of the risks and consequences are facing results of coercion or pressure. The largest risk posed by unsafe sex is infection with HIV/AIDS. Young people are increasingly at the centre of this epidemic, both in terms of transmission and impact. Over 50% of all new HIV infections in India are reported among young adults below 25 years.

It is estimated that 60-90% of street children in Mumbai are sexually active. About 20% of street boys in the 16-20 age group visit commercial sex workers regularly and 80% periodically. Another study conducted in slums of Chennai found 80% of youth engaged in pre-marital sex; 85% of the same group reported to have never used condoms *(www.indianngos.com)*.

Despite stringent controls on the mobility, and activity of unmarried adolescents particularly females; opportunities do exist for sexual relationships, sometimes with adverse consequences on young people's health and lives. Liaisons tend to be secretive, and awareness of safe sex, and the protective nature of condoms are limited. Opportunities for social interaction, and even the development of sexual relationships

immediate ones, it directly demonstrates the failure of our system to meet every child's basic rights as stated in Child Rights Convention. These include inadequate provision of information, and opportunities to develop life skills, poor access to education and health services, an environment that is neither safe nor supportive, and last but not the least inadequate and ineffective participation in the society.

Adolescents deprived of their rights quickly get caught into web of high risk behaviours like - substance abuse, unwanted or unsafe sex, unhealthy eating habits/lack of nutritious diet, leading to situation of accidents and violence. This is compounded by lack of knowledge or skills, no access to services, and the unavailability of support that they need from their families or communities directly **impacts them** physically, mentally and socially.

Critical issues for prime attention

Some of the critical issues requiring urgent attention include education, health services, vocational training, employment opportunities, basic infrastructure and civic amenities. All of these have a direct or indirect bearing on the health of adolescents.

It is well documented that outcomes of poverty, illiteracy and poor health interact with each other. Low levels of literacy adversely affect health awareness and thus the quality of life. The consequences are reinforced by the fact that children of young and illiterate parents tend to face the same cycle of deprivation and under nutrition as experienced by their parents. Illiteracy holds people back even in the most basic day-to-day activities. Inadequate schooling prevents adolescents from taking advantage of new opportunities, for example, jobs in the emerging knowledge-based industries.

It becomes difficult for illiterate or less-educated adolescents to obtain information about basic health care. Poor health and lower survival rates reduce the incentive for parents to invest in children's education. Apart from formal schooling, adolescents further need education, which reflects the complexity of their lives. This includes livelihood training, entrepreneurship, negotiation skills, gender equity, and health and nutrition-all aspects of preparing for a self-reliant individual.

Infrastructure provision in urban slum areas has a multiple effect. Provision of adequate water supply, sanitation and electricity improves the health status, and enhances the productivity of the community. Such infrastructure provision provides a security of tenure, and leads to investments from the dwellers in shelter and environment improvement through the mobilisation of internal resources. This in turn provides a nurturing environment for children as well as adolescents, to meet their physical and social needs. It facilitates a supportive environment conducive for promotion of social justice, gender equality, participation in community life as well as healthy, crime free communities where they are protected from labour, abuse and economic exploitation.

Child labour especially among adolescents continues to remain a poverty issue since education and health care are the cornerstones of social development and economic progress. Working at the expense of attending school, they never develop the skills and training, one requires for contributing towards the economic progress of our country. Premature and extensive engagement in work can damage adolescents' health and social development thus perpetuating the cycle of poverty. Further diminishing their work capacity, child labour lowers productivity, and reduces their financial earnings.

Future threats

The adolescent population will continue to grow in absolute numbers even if the fertility rate continues to decline. As mentioned earlier, the number of adolescents in urban India will continue to increase, since there is a population momentum inbuilt into this segment of the population. Given the various factors, which enhance the vulnerabilities of these adolescents, the incidence of HIV/AIDS will continue to rise unless there is adequate provision of health and education facilities along with better life opportunities for them. Unless the poor nutritional status of adolescents and especially young mothers becomes a priority issue to be addressed through programmes and services, the health and development of future

generation remains at stake with risk of transmission of physical, social and economic disadvantages into the next generation.

Roadmap to follow

Broad policy reforms are required in order to deal with situation of adolescents in urban poor communities, which are a result of various interrelated factors.

The World Bank report (*World Bank country Report, 1997*) suggests that it would be important for anti-poverty programmes in India to bestow at least a proportion of benefits on urban poor class. The financial resources can be best invested to increase access to health and education services that can equip them for the life ahead.

Comprehensive reforms of agricultural policies are essential to broaden the base of growth, increase agricultural productivity, improve living standards of the rural poor, and reduce their migration.

Targeting government spending to primary education, reducing communicable diseases, improving water and sanitation and reducing household insecurity through public health programme resulting in better family health, smaller family size, and healthier children for educated women.

Analysis have shown that health education concerning basic hygiene, the value of better nutrition, and preventive care such as public health campaigns against tobacco/drug use, and spread of HIV-AIDS and other sexually transmitted diseases; is an important part of encouraging behavioural changes needed for long term improvements in health outcomes.

Access to sanitation and especially private access to water is a major determinant of vulnerability to or protection against various

Some steps for immediate action that would particularly benefit adolescents

- Strengthening national capacity in data collection, compilation, updating and analysis of quantitative and qualitative data on adolescents. Create a national age specific / sex specific /urban-rural specific, disaggregated / married / unmarried/ adolescent database on various health determinants.
- Formulating a comprehensive national strategy and programme of action to address the multidimensional needs of adolescents in urban slums, and involve adolescents in all stages of planning and implementation.
- Adolescents in urban poor environments need much more intensive input to understand their health status, concerns and programmatic understanding.
- Adolescent counselling and guidance centres to be established in all urban slum areas in partnership with NGOs and Private/Public institutions. STDs like HIV/AIDS prevention and support, reproductive health knowledge, vocational training etc., should form an integral part of this effort.
- Integrating adolescent health especially pregnancy, childcare, contraception, nutrition and personality development in our existing health care system. Ensure access to quality health services that are gender sensitive and adolescent friendly. Reorient and enhance skills of health providers to address this important area.
- Enforcing girl child school retention preferably till 18 years and incorporate life skill education in all schools.
- Recognizing and promoting the rights of adolescents, including their rights to education, to enter into marriage with free and full consent, to have their views taken into account in matters that concern them, and their right to decide when to have/not to have children, and the number and spacing of these children. (Rights Bound Approach)

illnesses and diseases. Combating communicable diseases, and expanding the traditional public health interventions of guaranteeing safe water and sanitation, as well as disseminating information on basic hygiene and the value of preventive care, would deliver the highest gains from public health spending.

Adolescent phase is the last and final chance for catching onto growth. It is important to realize that the nutritional requirements of the adolescents are high, and has as significant an impact, as on children below five years. Specific reforms are required to consolidate various nutrition programmes, and to advance a nutrition strategy which encompasses/includes the adolescents (at least the early adolescents) amongst the beneficiaries. Programmes like the ICDS and the RCH which have targeted children and pregnant women and lactating mothers by providing a package of services including health education, growth monitoring, health check-ups and immunization, referral and supplemental feeding would do well by including adolescents as beneficiaries, as most of these services are urgently needed by them.

All these findings bring into sharp focus that the effectiveness of safety nets in protecting the poor, depends heavily on that of the delivery of some crucial services such as education, water, hygiene, sanitation and public health, which are not strictly the part of the safety net.

Reference

Bezbaruah S, Janeja MK, in Adolescents in India: A profile, UNFPA, September 2000

Rossi–Espagnet A, Goldstein GB, Tabibzadeh I (1993). Urbanization and Health in developing countries: a challenge for Health for all. World Health Statistics Quarterly 44: 186-245.

Population Movements, Development And HIV/AIDS: Looking Towards The Future, Fifth International Congress On AIDS In Asia And The Pacific, Kuala Lumpur, 99, UNOPS, UNDP.

Barett A., and Beardmore R., poverty reduction in India: Towards building successful slum-upgrading strategies. Discussion paper for urban futures 2000 conference Johannesburg, South Africa, Available on the world bank site: http://wbln0018.worldbank.org

Frey S, Cousins B, Olivola K, in Activity report 109:Health of children living in urban slums in Asia and Near East: Review of existing literature and data. Prepared for the Asia &near East bureau of USAID under EHP project 26568, May 2002

Gwatkin R.D., Rustin S., Johnson K., Pande P.R., Wagastaff A., in Socio- economic differences in health, nutrition and population in India, HNP, Poverty thematic group, World Bank, May 2000

Adolescent Friendly Health Services: An Agenda For Change, WHO, October 2002

Youth health-for a change, UNICEF, 1997

World bank country study, Reducing poverty in India: options for more effective public services, The World Bank, Washington D.C 1998.

Nutritional Status of Adolescents Girls and Women of Reproductive Age. Report of Regional Consultation Geneva, World Health Organization, SEA/NUT/141 1998; p 3.

Kanani S,Causul P. Nutrition health profile and intervention strategies for underprivileged adolescent girls in India: A selected Review. Indian journal maternal and child health, 1990; 1(4): 129-133

Sexual Behaviour Among Unmarried Adolescents In Delhi, India: Opportunities Despite Parental Controls, Mehra S, Savithri R, Coutinho L, Presented at XIV International AIDS Conference, Barcelona, 2002.

Jejeebhoy, S, "Adolescent sexual and reproductive behaviour: A review of the evidence from India." In Radhika Ramasubban and Shireen Jejeebhoy (Eds.). Women's reproductive Health in India. 2000, Jaipur and New Delhi: Rawat Publications, pp. 40-101.

Sexual Behaviour among adolescents and young people in India: some emerging trends, working paper series no.3, MAMTA health institute for mother and child, 2002

Sexual violence and young people: the human rights approach, working paper series no.5, MAMTA health institute for mother and child, New Delhi, 2003

HIV/AIDS Resources: Children, young people and HIV, Facts and Figures. www.indianngos.com

Dorabjee J,Sarin E ,Singh S, Deepak V in Rapid situation assessment of dug use in Delhi. Sharan-Society for service of urban poor, New Delhi , 2001, Pg.3.

India poverty consultation workshop, world bank and UNDP, India habitat centre, New Delhi January 5-6, 1999

State of world population 2002, Population, Poverty and Global Development Goals: the Way Ahead, available on www.unfpa.org/swp

Mehra S., Agrawal D., in Adolescent health Determinants for Pregnancy and Child Health Outcomes among Urban poor, in press (Indian Pediatrics).

Dr. Sunil Mehra is the Executive Director of MAMTA-Health Institute for Mother And Child, New Delhi. It is a NGO working on adolescent health and development issues in the urban slums of Delhi and many other states of India. Dr. Deepti Agrawal is the Senior Programme Manager in the organization.

Voices from Kashmir

After emergence of the Democratic Government in J&K State, the health status started a gradual march towards betterment. Health infrastructure was created in various parts of the state, to make health facilities accessible for every individual. Things began to take shape and the state started flourishing. It was at that juncture of the late 80's, when militancy placed its foot in the valley. Everything came to halt. Tourism, health, growth, education, job opportunities, markets, and even day to day life got affected particularly in Kashmir valley. Hope vanished and terror reflected in everyone's eyes.

Access to various governmental services including health became difficult. Most of the time, the health centres remained empty, without doctors and other health functionaries. Reasons for the same are well known to all. Militancy and danger for life, were number one on the list. Medical specialists like surgeon, gynaecologist, pediatrician, anesthetist etc. as per orders were suppose to report daily on duty for the district hospitals in the rural areas, but in actual practice they never turned up. Even, the acute shortage of medical supplies, surgical instruments, and other diagnostic equipments continued in government hospitals. And if ever, patients found treatment in these hospitals, they had to compulsorily spend exorbitant amount to get the routine investigations done at private clinics.

In these circumstances, it became extremely difficult for the people to get proper medical care. Women, especially pregnant mothers were suffering like never before. They were deprived of proper antenatal care, which gave way to number of other complications like- anemia, calcium deficiency and hypertension. The incidence of pre eclampsia, eclampsia, ectopic pregnancies, post- partum hemorrhage, stillbirths, neonatal, and prenatal deaths made news waves everyday in rural and backward areas.

Observing this grim health situation in the J&K State, particularly in Kashmir valley caused due to the turmoil, Voluntary Heath Association of India (VHAI) in 1997 under the supervision Shri Alok Mukhopadhyay, Chief Executive, VHAI boldly initiated number of activities. Mass Health Camps and

Health Awareness Programmes marked the beginning to make health related services available all over the Kashmir Valley. The same was followed by seminars and a series of mass interactions with various health specialists, doctors, experts, and social activists to improve the reach of health care facilities, particularly in rural areas.

In 1999 Jammu & Kashmir Voluntary Health Association (JK-VHA) with financial support from VHAI, New Delhi initiated a Community Health Programme in five backward villages of Budgam District under the Shehjar Khoj Project and in June 2000 the second Community Health Programme under the Shadab Khoj Project was started in Pulwama District of Kashmir.

The foundation-training programme was organized by JK-VHA from 23rd of September to 14th of October 1999, wherein; the Village Development Committee identified 13 educated adolescent girls within the Shehjar Khoj Project area of Budgam. Selected girls received complete training in the area of community health, and were further given practical exposure in Government Lal Ded Maternity Hospital of Srinagar. Subsequently another batch of 12 adolescent girls from Wakherwan and Gongoo villages of the Shadab Khoj Project got trained in the District Hospital of Pulwama.

Today all these adolescent girls are working as Village Health Worker (VHW) in their own capacity under various projects. Their work entails daily house to house visits with the TBAs for creating awareness on health, hygiene and sanitation, along with providing treatment for minor ailments. Over the period of time, these girls have tremendously contributed towards Kashmir's health. At this young age they are dedicatedly working under severe circumstances of militancy towards improvement of the valley. Many of them regularly communicate with us, their stories of success. The extracts enlisted below are some of the experiences and feelings of these young and enthusiastic workers in the field, especially while mobilizing other adolescent girls like them and women into forming SHGs for income generation. This also in the process leads to their empowerment.

Muneera (VHW Zoohama, Budgam)

It all began in 1999 after my 11th class exams. Like many other girls, I was also spending most of my time at home. But things changed when one day Mir Saab (Mr. A. M. Mir) came to our village with Shehjar Khoj Project and offered me an opportunity to work for the betterment of our community. Frankly speaking, I had no knowledge of health and hygiene, and any kind of exposure outside my own village was completely out of question. I knew nothing about VHAI and the nature of work I was suppose to do. I was a bit confused too, but the desire to bring in a change pushed me. Also, I perceived this chance as a way to fulfill my dream of a better, beautiful and healthy Kashmir.

Within few days I was called for an interview, after which the details of my work, area and project were explained. Soon, I received training in health, hygiene and sanitation to begin my work in the village Zoohama. I was only 18 years old and became a butt of risqué jokes, reason being, sexual discrimination and societal taboo for an unmarried girl to talk on issues concerning reproductive health, pregnancy and childcare.

I would like to share with you an incident that increased my pride and *Izzat* in the village.

Today, everyone in the village is proud of me. Now, no more nasty comments, infact what I usually hear is 'here come our doctorni ji'.

A lady in our neighboring area had a history of giving birth to weak and sick children. During my daily home visits as a VHW, one day I found she was pregnant again. This made me convince her for getting regular health check-ups and counseling done. I enrolled her in Shehjar OPD for regular treatment and constant monitoring. The whole village was amazed to see her enjoying healthy pregnancy. Within a few months time she gave birth to a healthy child, who was quite unlike the ones she had given birth before. This incidence gave a big turning point to my career and earned me respect. Today, everyone in the village is proud of me. Now, no more nasty comments, infact what I usually hear is 'here come our doctorni ji'.

Nighat (VHW Dadompora, Budgam)

I joined as a VHW in 1999 under Shehjar Khoj Project, Budgam after passing my 12th class with science stream from higher secondary school. Let me admit, that I knew nothing about various health problems particularly of adolescent girls and pregnant

women. The villagers were unaware too, about the importance of immunization like BCG, Polio, DPT and Measles for their children. The situation was so worse, that villagers were using banks of river as latrines and downstream people were using the same water for preparation of their meals and drinking purpose. Result was regular outburst of stomach and respiratory infections.

After getting trained as Voluntary Health Worker (VHW), I gained loads of knowledge on various issues of health, hygiene and sanitation. I also acquired basic education and knowledge on community health to be promoted in my village. But when I began my work, there was hardly anyone to believe in me. During my daily visits, people were tough, had fixed notions, and never co-operated. My messages of health particularly of pre and post-natal care were unheard for months and months. I even tried motivating some adolescent girls about the adverse effects of early marriages. Got on to educating them and helped them form various Self help Groups (SHGs).

I would say its not my success story, but the story of courage and patience in every individual of our villages to change his/her circumstances, surrounding and overall health. I am just a medium, but real agent of change are all those, who are continuously making efforts to lead a healthy life.

It was hard to make place for myself and preach my work, but gradually success came my way. Our dedicated and motivated efforts in the Shehjar Khoj Project made many adolescent girls literate and helped them attain training in crafts. Today, they are independently doing variety of craft work to earn their living and in return gaining respect among their families and society. Everyday gender discrimination towards female child is decreasing to quite some extent. Female feticide, which was prevailing secretly, is also declining. I see people washing hands before their meals and drinking boiled water. No more latrines on the banks of river. Children are happy and healthy. On whole it's an achievement for the village.

I would say its not my success story, but the story of courage and patience in every individual of our villages to change his/her circumstances, surrounding and overall health. I am just a medium, but real agent of change are all those, who are continuously making efforts to lead a healthy life.

Shabnum (VHW Surasyar, Budgam)

I discontinued my studies after 10th standard due to my father's death. This cruel destiny played havoc on our domestic conditions, things became worse, and each day was difficult to pass with endless problems on our head. Until one day, Shehjar Khoj Project team came to our house and persuaded my mother to allow me for joining the Project. Due to the prevailing social constraints, my mother was in a fix, whether to allow me or not, but then after realizing the adverse conditions at home she reluctantly agreed, and I was enrolled in the Shehjar Khoj Project as volunteer at the age of 17 years.

My working helped in improving our economic conditions at home. Besides joining the project, I got the opportunity to serve the ailing people of my village in difficult days of militancy, when Government Medical Institutions were ill equipped to function properly. Our team started baseline data survey amongst villagers for ascertaining their health conditions, education status, available amenities, and other demographic details. We faced various difficulties; some people suspected us to be Indian agents (looking for militants), while others were unhappy sharing their personal information with us. However, we continued our efforts and worked with best spirit, and dedication to complete our survey.

Training under Shehjar Project provided all the adolescent health workers with an opportunity to experience life outside the State, work confidently and boldly. All of us are now further educating the illiterate adolescent girl and women, making them aware about various health problems, and even helping them form income generating SHGs.

I am very content, doing my job as a VHW. The feeling that I had extended my hand to people, when the village was passing through thick shadows and horror of insurgency, gives a true meaning to my life. Even though I have faced a lot of humiliation and harassment both in the hands of militants and

paramilitary forces, but my motivation built in me by our project team leader helped me sail over all problems. I am no longer a timid shy orphan girl. I am very thankful to the Chief Executive of VHAI, New Delhi, and other senior staff members for running the Shehjar Project in our villages.

Zubeda (VHW, Nawhar)

I was born to a tailor in an average rural family. My father has studied upto primary school whereas; my mother is an illiterate. All her life she looked after domestic affairs and our two cows. My parents went through lot of hardships and tough times to educate me till 11th class. With time and death of our cows, monetary situation at home became difficult, and soon my education was stopped. Even though, my younger brother continued his studies. Not much pronounced, sex discrimination did exist in our family and village.

This whole incidence shattered my dream of becoming a doctor. I was a helpless, and caught by unproductive household work.

But as its said, 'there is always sunshine after the rain', soon brightness came my way, when my name was suggested for voluntary work. I was only 19 years old, when I first appeared for an interview. So nervous and shy, that I could not speak my name. Yet, gathered all my courage to say that I was really interested in this kind of work.

After selection along with other batch mates I received training in community health, hygiene and sanitation. Everything was new and each day was an experience. Gradually, I gained confidence in performing my role as VHW in Shehjar Khoj Project. Though, in the whole process, I received endless humiliation, threat and abuse from many groups, who suspected my intentions to be of a spy in paramilitary forces. But I never stopped.

Still, remember the most terrifying evening, when four unknown-armed people entered our house, and shot my father with bullets. Thank to my training, I provided him first-aid immediately, and rushed to the hospital. He recovered and returned home after one month. Since then people call me 'Dr. Zubeda'. I am proud for saving his life, and all the work I am doing for improving the health conditions of our villagers, and especially young girls and women.

Arshida (VHW, Rinzipora Village)

I grew up with a story of how my mother cried when I was born, fainted when she gave birth to my younger sister and felt blessed on her third child being born as a boy. My brother was pampered by all the family members in comparison to my younger sister and me.

This live example of gender discrimination at home motivated me to work for women and girls, who have been facing endless health problems in community due to their ignorance, illiteracy and poverty. I joined Shahdab Khoj Project as VHW. In the project, I received training on community and mental health as a counselor. This equipped me to treat people suffering from minor physical and mental tensions.

I remember once I had gone on a training camp to other city and on my return, I learnt that Ameena (my classmate in school) had passed away due to some disease in early adolescent age. This personal tragedy motivated me to focus completely on health care for adolescence girls. Today I am helping many girls to overcome their situations, problems and circumstances.

Another incidence, which changed my life, was of my own brother. He was 17 years old, unemployed, and pressurized by his peer group to join the on-going militancy, which he finally did. Family members lost their balance and tried all possibilities to contact him, but failed. Within few months time, the local police and BSF officers came to our village and handed over his dead body. It was the saddest day of my life, seeing my brother lying in one corner, and my parents under severe shock on the other side. Somehow, I gathered myself and with help from other psychosocial worker of team, fought all odds for almost a year. Today my parents are still trying to come in terms with the lose.

I am proud of the work I am doing; helping people in my village overcome the trauma that the current militancy has brought upon us. Large numbers of young people have died in this turmoil, leaving helpless families behind. I am trying to make a difference in their life, by helping them overcome this whole situation.

I remember my father saying, "You have to prove that girls can also do a good job and earn name for their family", while I was joining my VHW job. Now, my work is speaking it all.

The Missing Children

Ashish Bose

It is tragic to note the high rates of infant and under-five mortality among the children in the SAARC countries and also in other developing countries. Given below in table is a glimpse of the detailed data presented in the latest UNICEF publication: **The State of the World's Children 2004**

Highlights of the report as presented by UNICEF:

- Girls' education is one of the most crucial issues facing the international development community. The report is a call to action on behalf of 121 million children who are out of school around the world today, 65 million of whom are girls. Despite thousands of successful projects in countries across the globe, gender parity in education – in access to school, successful achievement and completion - is as elusive as ever and girls continue to systematically lose out on the benefits that an education affords.
- The report findings clearly show, how universal education has been considered a luxury rather than a human right, economic development programmes have focused on economic performance rather than human welfare, and limited policies have looked only to the education sector when identifying solutions.
- Girls' education is so inextricably linked with the other facets of human development that to make it a priority is also to make progress on a range of other fronts: health and status of women, early childhood care, nutrition, water and sanitation, reduction of child labour and other forms of exploitation, and Peaceful resolution of conflicts
- Educated mothers have healthier, better-nourished children, according to a review of extensive evidence from the developing world. Each extra year of maternal education reduces the rate of mortality for children under-five by between 5 and 10 per cent.
- Countries that have achieved gender parity in education face a new challenge: finding ways to expand social expectations for their educated girls.
- **The 'reverse gender gap'** - Although the global gender gap clearly puts girls at an educational disadvantage, it is important to recognize that in some regions – including much of the industrialized world – it is boys' disaffection with school that is a cause for concern. In a minority of countries, there are fewer boys than girls enrolled in school: a 'reverse gender gap'.
- **Investing in girls' education** - Girls' education is an ideal investment. It adds value to other social development sectors, eases the strain on the health-care system, reduces poverty and strengthens national economies.

Basic Indicators in Selected Countries, 2002

Countries	Under-5 mortality rate (per 1,000 live births)	Infant mortality rate (under 1 year per 1,000 live births)	Life expectancy at birth (years)
China	39	31	71
SAARC Countries			
Bangladesh	77	51	61
Bhutan	94	74	63
India	93	67	64
Maldives	77	58	67
Nepal	91	66	60
Pakistan	107	83	61
Sri Lanka	19	17	73
Regions			
Industrialized countries	7	5	78
Developing countries	90	62	62
Least developed countries	158	99	49
World	82	56	63

Source: Compiled from UNICEF: **The State of the World's Children 2004**, *New York, 2003, pp. 102-105.*

Professor Ashish Bose is Honorary Professor at the Institute of Economic Growth, Delhi and a member of the Independent Commission on Health in India. He is also a member of the Committee on 'Vision 2020' set up by the Planning Commission.

Africa isn't dying of AIDS

Rian Malan, Cape Town

'Statistics are often the lowest form of lie' once said Mark Twain, but when it comes to HIV/AIDS, we suspend all skepticism. Some of you might think why? AIDS is the most political disease ever. The world has been fighting about it since the day it was identified. The key battleground is public perception, and the most deadly weapon is the estimate. In 1985, a science journal estimated 1.7 million Americans to be infected with AIDS virus, with 'three to five million' soon likely to follow. Oprah Winfrey on her famous show even told the nation, that by 1990 'one in five heterosexuals will be dead of AIDS'.

Botswana estimated population of 1.4 million in 1993. Today, this figure is under a million and heading downwards. Statistics revealed Botswana to become the first nation in modern times, which will die literally out of AIDS. But on the contrary, Botswana latest census show population growing at the rate of about 2.7 per cent a year. In the last decade the total population has risen to 1.7 million. If anything, Botswana is experiencing beyond AIDS, it is this minor population explosion. Similarly over hyped figures of AIDS in Tanzania turned wrong, as the new census show population growing at the rate of 2.9 per cent a year. Even, in the district of Kagera, population growing at the rate of 2.7 per cent a year before 1988, accelerated to 3.1 per cent this year. Whereas, figures show AIDS epidemic to be peaking here. Uganda's census tells broadly the same story.

This decline in AIDS impact is less devastating than most figures show, but this is not reality. In Africa, the only good news about AIDS is bad news, and anyone who tells you positive story is branded a moral leper, bent on sowing confusion and derailing 100,000 worthy fundraising drives. Looking around, it seems AIDS fever is nearing the danger level and that some calming thoughts are called for.

The very first question that comes to our mind is who were these estimators? For the most part, they worked in Geneva for WHO or UNAIDS, using a computer simulator called Epimodel. Every year, all over Africa, blood would be taken from a small sample of pregnant women and screened for signs of HIV infection. The results would be programmed into Epimodel, which transmuted them into estimates. If so many women were infected, it followed that a similar proportion of their husbands and lovers must be infected, too. These numbers would be extrapolated out into the general population, enabling the computer modelers to arrive at some vague figures of deaths.

Reporting on AIDS in Africa became a quest for anecdotes to support Geneva's estimates, which grew to 9.6 million cumulative AIDS deaths by 1997, rising further to 17 million after three years.

At that time, South Africa was the only country where more than 80% deaths were routinely registered to attempt and produce national estimates of mortality, and judge computer-generated AIDS estimates against objective reality.

Professor Ian Timaeus of the London School of Hygiene and Tropical Medicine, in the year 2000 joined a team of South African researchers bent on eliminating all doubts about the magnitude of AIDS impact on South African mortality. Sponsored by the Medical Research Council (MRC), the team's mission was to validate (for the first time ever) the output of AIDS computer models against actual death registration in an African setting. The MRC team was granted privileged access to death reports. The first results became available in 2001 and they followed- 339,000 adult deaths in 1998, 375,000 in 1999, and 410,000 in 2000.

This was grimly consistent with the predictions of rising mortality, but the scale was problematic. Epimodel estimated 250,000 AIDS deaths in 1999, whereas, there were only 375,000 adult deaths in total that year — far too few to accommodate the UN's claims on behalf of the HIV virus. In short, Epimodel had failed its reality check. It was quietly shelved in favour of a more sophisticated local model, ASSA 600, which yielded a 'more realistic' death toll from AIDS of 143,000 for the calendar year 1999. At this level, AIDS deaths were about 40 per cent of the total — still a bit high, considering there were only 232,000 deaths left to distribute among all other causes. Modeled AIDS deaths and real deaths were

reconciled, and the MRC ground-breaking labour was published in June 2001.

Towards the end of 2001, the vaunted ASSA 600 model was replaced by ASSA 2000, producing estimates even lower than its predecessor. ASSA 2000 claimed only 92,000 AIDS deaths in total, for the calendar year 1999. This was just more than a third of the original UN figure, while experts claimed ASSA 2000 to be very accurate.

But it wasn't. In December 2001, ASSA 2000 was retired too. A note on the MRC website explained 'modeling is an inexact science and that the number of people dying of AIDS has only now started to increase'. Furthermore, said the MRC, 'there is a new model on the way, one that would probably produce estimates about 10 per cent lower than those presently on the table'.

People are dying, but this doesn't spare us from the fact that AIDS in Africa is indeed something of a computer game. When you read, 29.4 million Africans are living with HIV/AIDS, it doesn't mean that millions of living people have been tested. In real life picture, the computer model assumes 29.4 million Africans to be linked via enormously complicated mathematical and sexual networks.

However, modelers are the first to admit that this exercise is subject to uncertainties and large margins of error. Larger than expected, in some cases.

Year back modelers produced estimates that portrayed South African Universities as crucibles of rampant HIV infection, with one in four undergraduates likely to die within ten years. Prevalence shifted according to racial composition and region, with Kwazulu-Natal Institutions worst affected and Rand Afrikaans University (still 70 per cent white) coming in at 9.5 per cent. Real-life tests on a random sample of 1,188 RAU students rendered a startlingly different conclusion: on-campus prevalence was 1.1 per cent, barely a ninth of the modeled figure. 'Doubt is cast on present estimates,' said the RAU report, 'and further research is strongly advocated.'

A similar anomaly emerged when South Africa's major banks ran HIV tests on 29,000 staff employees earlier this year. A modeling exercise put HIV prevalence as high as 12 per cent; real-life tests produced a figure closer to 3 per cent.

Such mutterings have been heard throughout southern Africa — the epidemic is leveling off or even declining in the worst affected countries. UNAIDS has been at great pains to rebut such ideas, describing them as 'dangerous myths'.

Why would UNAIDS and its massive alliance of pharmaceutical companies, NGOs, scientists, and charities insist that the epidemic is worsening if it isn't? A possible explanation comes from New York physician Joe Sonnabend, one of the pioneers in AIDS research. Sonnabend was working in a New York clap clinic when the syndrome first appeared. He went to form the American Foundation for AIDS Research, when many of his colleagues started exaggerating the threat of a generalized pandemic with the view to increase AIDS visibility, and add urgency to their grant application. Sonnabend said, 'the AIDS establishment is extremely skilled at the manipulation of fear for advancement in terms of money and power'.

With such thoughts in the back of my mind, I feel that AIDS is a real problem in Africa. Governments and sober medical professionals should be heeded when they express deep concerns about it. But, there are breeds of AIDS activist and AIDS journalists who make the whole situation sound hysterical. To hear them talk, AIDS is the only problem in Africa, and that the only solution is to continue the protest until free access of AIDS drugs is defined as 'basic human right'.

Ask them, what about those people who are dying of diseases that could be cured for a few cents if medicines were only available. About 350 million Africans — nearly half the population — get malaria every year, but malaria medication is not a basic human right. Two million get TB, whereas in reallity spending on AIDS research exceeded spending on TB by a crushing factor of 90 to one. As for pneumonia, cancer, dysentery or diabetes, they aren't bothered.

I think it is time to start questioning some of the claims made by the AIDS lobby. Their certainties are so fanatical, the powers they claim so far-reaching. Their authority is ultimately derived from computer-generated estimates, which they wield like weapons, overwhelming any resistance with dumbfounding atom bombs of hypothetical human misery. Give them their head and they will commandeer all resources to fight just one disease. Who knows, they may defeat AIDS, but what if we wake up five years hence to discover that the problem has been blown up out of all proportion by unsound estimates, causing upwards of $20 billion to be wasted?

HFM NEWS

Tobacco affecting children's health

Nearly 55,000 children join the club of tobacco consumers in the country every day, while 77 lakh Indian children below 15 years of age take tobacco on a regular basis according to WHO. Former Director-in-chief of Bihar Health Services and president of National Organisation of Tobacco Eradication, Bihar chapter, Dr. Mahavir Das said, "India was the third biggest producer of tobacco and nearly 5,78,800 tonnes raw tobacco were produced every year in the country. Nearly 20 crore men and 4.50 crore consume tobacco in one form or another". Quoting World Health Organisation (WHO) figures, Dr. Das said eight lakh Indians in the productive age group die due to tobacco consumption every year. Three lakh youths in the age group of 15 to 24 join the large club of tobacco consumers every year and 33 per cent of the total cases of cancer were caused by tobacco consumption.

At least 43 lakh of coronary heart ailments are caused by tobacco consumption. In India, 40 per cent of people consume tobacco through "bidis" while 30 per cent through cigarettes. Tobacco is also consumed through non-smoking medium like tobacco chewing and others. WHO estimates that nearly 700 million or almost half of the world's children breathe air polluted by tobacco smoke particularly at home.

Source: Central Chronicle, Bhopal, 15 December 2003

Plan to privatise State Hospitals

The Karnataka state government is planning to privatise government hospitals, chief minister S.M. Krishna announced "The government is even considering starting hospitals with private investments to ensure that medical services reach the most remote villages".

Privatisation will improve government hospitals and help provide better treatment to rural people," he further added. The chief minister was confident that better services at government hospitals would attract more patients to these hospitals rather than turning them away. Mr. Krishna also said,"Tele-medicine which has been introduced in some district government hospitals, would be extended to all district hospitals".

"We had initially introduced super speciality treatment for some diseases like heart ailments at a few district hospitals. These services will now be extended to all district hospitals," he added further. On the steps taken by the government in the health sector to improve the lives of the people, the chief minister said that the state has collected Rs.7 crore under the Yeshasvini health insurance scheme and released Rs.4.5 crore to farmers.

Source: Asian Age, New Delhi, 17 December 2003

Draft Bill on HIV/AIDS soon

The draft of the country's first comprehensive legislation on HIV/AIDS is in the process of being completed and will be presented to the Government. Prepared by a group of eminent lawyers, health activists and officials, it provides for effective steps in educating people as well as taking preventive and curative steps to deal with the burgeoning problem.

Parliamentary approval may not be immediately forthcoming in view of the coming elections. "With Parliament likely to be dissolved soon, the proposed legislation is likely to be held up for sometime", said Kapil Sibal, Rajya Sabha MP and a member of the group working on the legislation.

According to both Mr. Sibal and Senator Pallone, the pandemic, unlike other epidemics, required measures such a educational programmes for prevention and understanding the disease. "Unless a legislation is in place clearly specifying the rules towards containing the spread of the disease at different levels, we may not bring down the number," said Mr. Sibal.

Expressing deep concern at India not being a part of the Global Fund, which has a $15billion corpus announced by the U.S. President, George W. Bush, towards fighting the disease, Mr. Sibal said it was absolutely necessary that India be included in the list because it needed international support to fight AIDS. "There are about five million affected people, who need help."

Frank Pallone, Democrat from New Jersey and a leading member of the India caucus, said he would mobilise support for India's inclusion.

Source: The Hindi, New Delhi, 12 January 2004

Health subsidies in India have a pro-rich bias: World Bank

A World Bank report on health policies in South Asia has accused India of maintaining an abysmally low per capita health expenditure and allowing a pro-rich bias to creep into subsidy allocations.

The voluminous report, *Health Policy Research in South Asia*, edited by Abdo S Yazbeck and David Peters, has pointed out that the poorest 20 per cent capture 33 per cent. The only exception in the pro-rich pattern of health expenditure is Kerala. "Kerala has a more equitable health system than North India," Yazbeck remarked while releasing the report. He pointed out that the country's per capita spending on health was one of the lowest in the world – comparable only with that of Rowanda, the African country being ravaged by a civil war.

Among the other startling findings of the report is the failure of the consumer redress mechanisms to the disadvantage of the poor in India. The governments throughout the region lack the regulatory capacity needed for monitoring. The report flays the country's management of consumer complaints in the majority of hospitals. "In 90 per cent of the cases, the time taken to resolve the conflict went well beyond the stipulated period of 90 days," it said.

Yazbeck said that calling for privatising the health sector in the country was meaningless since 82 per cent of all health spending was private. Majority of the state governments have displayed a pro-rich orientation in formulating their health policy.

The report suggested a strong consumer movement to reverse the trend and make the health programme directed towards the masses. Among the South Asian countries, Sri Lank alone has done remarkably well in providing an effective healthcare system, the report said.

Source: Times of India, New Delhi, 9 January 2004

Health Scheme for unorganised sector approved

The Union Cabinet today approved the Social Security Scheme for workers of the unorganised sector that will benefit 370 million workers.

The scheme, which provides for family pension, personal insurance to cover death or total disability for the workers and universal health insurance scheme for a worker and his family, is part of the ambitious Unorganised Sector Workers Bill. The scheme, to be implemented by the Employees Provident Fund Organisation (EPFO), will be initiated in 50 districts as a pilot project – covering capitals of States and Union Territories – before it is approved as a Bill after two years. The implementation of the scheme will not entail an additional cess on petroleum as would have been necessitated had the scheme been passed in the form of a Bill. Talking to reporters after the approval of the scheme, the Union Labour Minister, Sahib Singh Verma, said the unorganised sector workers had been given social security under the scheme as the passage of the Bill would have taken a lot of time since it had to be routed through the Standing Committee.

"Any practical problems faced during the implementation of the scheme will be incorporated in the draft Bill which will be tabled in Parliament after two years," he said, adding, the Bill had already taken a lot of time to reach the Cabinet stage and it was in the interest of the workers to avoid any further delay.

Keeping in its purview the workers not covered under the provisions of the Employees Provident Fund, the scheme provides a flat rate registered pension of Rs.500 per month on retirement (60 years) or permanent and total disablement, to the widow on the death of the worker or to his orphans with the possibility of enhancing or reducing the amount depending on the contributions of the worker. The scheme will cover all workers in the unorganised sector drawing wages not more than Rs.6,500/- per month and will be financed by the contributions from workers at the rates of Rs.50/- per month in the age group of 18-35 years and Rs.100/- per month in the age group of 36-50 years.

The contribution from the employers will be Rs.100 per month in the first age-group and Rs.200 per month in the second and the Government contribution will be at the rate of 1.16 per cent of the monthly wages of the worker or the national floor wage, which is presently Rs.1,800/- per month per worker.

Source: The Hindu, New Delhi, 8 January 2004

Civic body focus on mosquito control

Chennai recorded more than 29,000 malaria cases last year, an increase of nearly 7 per cent compared to 2002. This has brought to focus the need to address the problem at its root – attack the source of breeding of mosquitoes. In November last, 4,275 malaria cases were reported in the city, the highest in a single month, even as the Chennai Corporation continued to carry out regular fogging and spraying of insecticides.

The civic body has now trained its guns towards controlling the breeding of malaria-causing mosquitoes. Beginning from November, it has penalised 410 houseowners for leaving their overhead tanks, wells and cisterns uncovered, under the provisions of the Tamil Nadu Public Health Act, 1939. The penalty for violation is Rs.50.

Incidentally, dengue cases too rose to 560 last year, compared to 127 in 2002. 'Aedes aegypti', the mosquito that causes dengue, has the same breeding source as 'anopheles stephensi', the malaria vector. Entomologists said it was time the civic body adopted permanent measures for malaria control. Fogging and spraying of insecticides were interim measures that have, over the years, become the Corporation's mainstay in anti-mosquito operations. Known to be neuro-toxins, prolonged use of these chemicals could have an adverse impact on people's health, they said.

S. Vincent, senior lecturer in Zoology and Faculty Advisor, Enviro Club, Loyola College, said the civic body should concentrate on stormwater drains to prevent mosquito breeding while the summer operations should also continue. Use of bio-pesticides along with the chemicals should be introduced. Biocides from neem extracts have been successfully tested in many places and their effect, although slower than the chemicals, was consistent. He mooted a consortium of various bodies, including the Corporation, the Malaria Research Centre and the Loyola College, to evolve a network for a collaborative approach to a permanent solution.

Source: The Hindi, Chennai, 11 January 2004

Deaths due to TB

As per WHO Global Annual TB Surveillance Report, it is estimated that about 4.17 lack patients die of TB every year in the country i.e. about 1/minute. The Revised National TB Control Programme (RNTCP) widely known as DOTS, which is a WHO recommended strategy, is being implemented in a phased manner, with the objective of achieving cure rate of 85% of new sputum positive cases. Under the DOTS Programme drugs are provided under supervision and patients are monitored so that they complete their treatment. Drugs are provided free of cost in patient-wise boxes.

The project districts have reported a cure rate of more than 80%, which means more than 8 hour of every 10 patients diagnosed and put on treatment under the revised strategy are successfully treated. This is double that of the earlier programme. TB death rates have reduced from 29% to 4%.

DOTS coverage is being rapidly expanded in the country. From 20 million coverage in 1998, about 760 million population has been covered at present. It is envisaged to cover 850 million population by 2004 under the revised strategy and the entire population of the country by 2005.

Source: Rajya Sabha, Unstarred Question No.1289, 15 December, 2003

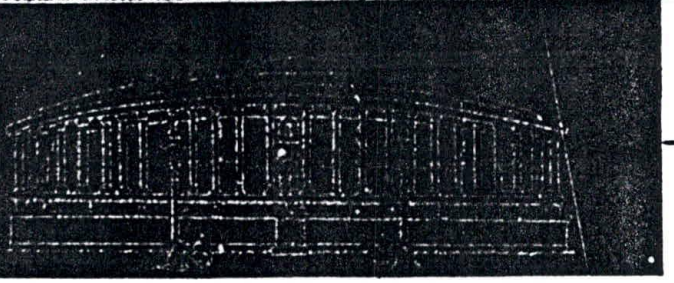
Obituary

Dr. Shristi Shukla

1960 - 2003

What is death?
It's nothing, but my slipping away in room next door....
I have gone there to find solutions to my endless problems...
As how, I myself don't know!
Death is nothing, but transformation of life into something what I call concrete....
Call me with my old name, say things like you use to
I am around you, just little far....thou
Please don't shed tears...as I feel I am drifting apart
I am in you, around you....so call me by my name.....
I promise to surround you with my whisper and tales
Don't be sad, as you have to carry my work....
Don't stop you got a long way to run.....
Say my name and restructure this world..
I am around you....
Stand tall and live with my name....SHRISTI -it's the starting point of life

Health issues in the Parliament



Free treatment of HIV positive children

The Government has proposed to provide treatment of eligible HIV positive children below 15 years of age with effect from 1st April 2004 in government hospitals of six high prevalence states, namely Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Karnataka in a phased manner.

Deliberations have been initiated with Pharmaceutical Industry, producing anti-retroviral drugs to find out the modalities for reducing the prices of anti-retroviral drugs for treatment of HIV/AIDS patients. Government has also initiated dialogue with the Confederation of Indian Industries and Federation of Indian Chamber of Commerce and Industry for mobilisation of resources to strengthen training and diagnostic facilities in government hospitals.

Source: Rajya Sabha, Unstarred Question No.516, 8 December 2003

Anti diabetic drug Phenformin

The drug 'Phenformin' was withdrawn in USA in 1977 because of occurrence of lactic acidosis with the use of the drug. The matter was then examined in consultation with experts in India and the experts opined that lactic acidosis reported in the West is not common in Indian Population and the drug was effective as an oral anti-diabetic drug. The drug remained available in Spain, Italy, Mexico and some other parts of Europe and continued to be marketed in India also.

The drug Phenformin has however, been now prohibited for manufacture and sale in the country with effect from 1st October, 2003 vide Gazette Notification GSR 780 (E) dated 01.10.2003 on the recommendations of Drug Technical Advisory Board (DTAB) which on reconsideration of the matter opined that as large number of oral drugs for treatment of diabetes are now available in the country, the continued marketing of Phenformin may be stopped.

Source: Lok Sabha, Starred Question No.33, 3 December 2003

Monitoring of ultra sound diagnostic clinics

As ultrasound machines can be misused for detecting the sex of unborn child, leading to female foeticide, their use has been explicitly brought within the purview of the Pre-conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 after its amendment with effect from 14.2.2003.

States/UTs have been directed to sell the ultrasound machines to the persons whose centre/clinic is registered under the Act and send regular reports to the concerned Appropriate Authorities of State/UT. Department of Family Welfare has also issued advertisement in about 1100 newspapers all over the country about the amendments made in the PNDT Act regulating sale of ultra sound machines/imaging machines to clinics registered under the Act. Further, the National Inspection and Monitoring Committee constituted at national level to take stock of the ground realities in the field is also visiting centres/clinics to check the records of uitrasound done on pregnant woman required to be maintained under the Act.

As per the reports received from States/UTs 21,667 clinics have been registered under the Act, 191 ultrasound machines are reported to have been sealed and seized on violation of the law. 418 complaints have been filed in the Courts/Police against violators of the law.

Source: Rajya Sabha, Unstarred Question No.526, 8 December 2003

Janani Suraksha Yojana

The government proposes to introduce a new Scheme in the name of "Janani Suraksha Yojana" in near future. Besides the reduction of maternal and infant mortality, the scheme intends to protect female foeticide. Towards this, it aims at providing incentive to increase institutional delivery. The scheme will focus necessarily in those States/UTs where rate of institutional delivery is low. Modalities of the Scheme are under finalisation.

Source: Rajya Sabha, Unstarred Question No.519, 8 December 2003-12-23

Mashelkar Committee Report

The Expert Committee headed by Dr. R. A. Mashelkar has submitted its report to Government in two parts. An interim report was submitted in August 2003, dealing with penalties for various offences under the Drugs and Cosmetics Act, 1940. A summary of the recommendations contained in the interim report is annexed.

Government has initiated steps to bring forth a legislation for amending the Drugs and Cosmetics Act on the lines suggested by the committee.

The Committee has submitted the final report to the Government in November 2003. The report is under examination.

Annexure

As regards penalties for offences provided in the Drugs and Cosmetics Act 1954, the Committee has recommended that:

a. The penalty for sale and manufacture of spurious drug that causes grievous hurt or death should be enhanced from life imprisonment to death. Even the penalty for manufacture and sale of spurious drugs that do not cause grievous hurt or death should also be made more severe.

b. The offences related to spurious drugs should be made cognizable and non-bailable. The bail, if considered by the court should be granted only after a period of three months.

c. The penalty for not disclosing the source of purchase of drugs by a dealer should be made stringent.

d. A provision should be included in the Drugs and Cosmetics Act to enable the Central and State Governments to designate special courts for speedy trial of spurious drug cases.

e. A provision for compounding of offences should be included in the Drugs and Cosmetics Act.

f. Under Drugs and Cosmetics Act, besides the Drug Inspectors, Police should also be authorized to file prosecution for offences related to spurious drugs.

Source: Lok Sabha, Starred Question No.28, 3 December 2003

Ban on dangerous pesticides

Pesticides banned in various countries of the world are being used in India. They are Alachlor, Aluminium Phosphid, Benomyl, Captan, Carbaryl, Carbofuran, Carbosulfan, Dicofol, Dimethoate, Diuron, Endosulfan, Fenarimol, Fenpropathrin, Lindane, Linuron, Malathion, Methomyl, Methoxy Ethyl Mercury Chloride, Methyl Parathion, Monocrotophos, Oxyfluorfen, Paraquat Dichloride, Phorate, Phosphamidon, Pretilachlor, Triazophos, Tridemorph, Thiomethon, Thiram, Zinc Phosphide and Ziram. These pesticides are used in crops for which, they have been recommended by the Registration Committee constituted under Section 5 of the Insecticides Act 1968.

The banning/restricting of pesticides depend on the agro-climatic conditions and agronomic practices of different countries. Most of these pesticides have been reviewed by the Government of India by constituting Expert Committee which have recommended the continued use of these pesticides. Further, based on the recommendations of such Expert Committees, the Government of India has banned 27 pesticides.

In addition the Government has adopted Integrated Pest Management (IPM) encompassing cultural, mechanical and biological methods and need-based use of pesticides, as the cardinal principle and main plan of plant protection in the country. The Government of India has sanctioned grants-in-aid to States for establishment of 29 State Bio-control Laboratories in various states.

Source: Lok Sabha, Starred Question No.19, 2 December 2003

Manipur VHA

Observance of World AIDS Day 2003

Manipur Voluntary Health Association observed the World AIDS Day 2003 at Thoubal Mela Ground. More than 300 youth and women had participated in the programme. In the context of the observance, Sumang Leela, street theatre group played messages on the prevention and control of HIV/AIDS.

A three- day follow-up training programme was organised by MVHA in collaboration with Child Welfare Ashram, Jiribam from October 9 to 11, 2003 at premises of Child Welfare Ashram, Jiribam. Altogether 25 participants participated in the programme from 13 different villages of the sub-division. The main activities of the programme were-

- To identify the problems faced by the health workers.
- To utilise the services of the health worker in their respective areas.
- To capacitate the health workers to overcome the prevailing problems.

Goa VHA

The Voluntary Health association of Goa carried out a prescription survey to understand the irrational drug prescription practices. Towards this purpose 990 prescriptions are already collected, and coding of these prescriptions is in progress. To follow up on the same VHAG organised a seminar on Rational Drug Usage in January 2004.

VHAG intervened in a dubious Hepatitis-B camp, and brought to the notice of FDA how shady organisations were making money at the expense of innocent people by holding unauthorised immunisation camps.

Another significant activity carried out by VHAG was a survey at Pokharmal, a village in South Goa where the health and sanitation needs of an entire village were profiled. Places where there were no doctors or paramedics even as the Government made claims of 100% accessibility of health facilities for all, were also highlighted. Details and data of survey on Pokharmal were published in all leading newspapers of Goa.

Sikkim VHA

8-day VHAS health camp

The Voluntary Health Association of Sikkim (VHAS), in coordination with the Department of Health and Family Welfare, Government of Sikkim, conducted a 8-day long camp on Indian System of Medicines and Homeopathy from 4-12 November 2003 at Singtam in East and Mangan in North Sikkim.

More than 10, 000 people visited and benefited from the camps in different ways. Among these, people 3409 availed the facilities of free treatment in Ayurvedic and Homeopathy camps.

The Department of ISM&H, Ministry of Health & Family Welfare, Government of India, sponsored the programme. The main objectives of the camps were to provide free check-up with treatment, to generate awareness amongst the people regarding alternative systems of medicines for which, they will have choice for health care, to teach on locally available medicinal herbs and plants for minor ailment treatment, and last but not the least the camps aimed to raise levels of general health awareness on preventive health care.

Kerala VHA

The 32nd Annual General Body Meeting (AGBM) of the Kerala VHA was held on 23rd August 2003 at Chaithanya Pastoral Centre, Thellakom, Kottayam. The annual celebration was inaugurated by Hon'ble Supreme Court Judge Sri K.T. Thomas and presided over by Fr. Jose Nellickatheruvil, President. Sri Thomas Chazhikadan, MLA formally launched the Medical Establishment Protection Scheme (MEPS) of Kerala VHS. A panel discussion on the pertinent issues faced by hospitals in Kerala was conducted. Mr. P. V. Thomas, Board member was the moderator of the programme. Dr. George F. Moolayil, Convenor Medical Establishment Protection Scheme presented the topic – advantages of MEPS over other such schemes.

Meghalaya VHA

Workshop on reproductive child health

A two-day workshop on reproductive and child health was organised at Ri Khasi Free Morning Upper Primary School, Nongstoin, West Khasi Hills on 16th and 17th September 2003. The programme was organised in collaboration with Western Cultural and Social Welfare Association and supported by Voluntary Health Association of India. 64 participants from Nongstoin and adjoining areas attended this workshop.

The purpose of the workshop was to provide adequate knowledge about various aspects of reproductive child health and its significance in the overall health of an individual and the community at large. The workshop covered important topics like women's health, family planning, pregnancy and child birth, breast feeding, abortions and its complications, RTI and STDs.

Workshop on substance abuse and drug abuse

A two-day workshop on Substance Abuse and HIV/AIDS was held at Jowai on the 26th and 27th of September 2003. The Workshop was conducted at the Drop-in-Centre, Mission Compound and was attended by representatives from various NGOs in Jaintia Hills and also by teachers and parents of addicted children, and spouses of addicts. The Workshop was organized by VHAM in collaboration with the Mar Chaphrang Development Society, Jowai and was supported by the Voluntary Health Association of India. The purpose of the workshop was to bring about an understanding on the various aspects surrounding addiction and its relation to HIV/AIDS. Involvement of both the community and the families concerned, together with the schools helped in identifying areas of concerns, and action plan to be adopted in fighting this problem in the society.

Kashmir VHA

VHAI organises two-day training programme

Voluntary Health Association of India (VHAI) organised a two-day training programme of school teachers of Gongoo and Wakherwan cluster of villages of Pulwama district for creating health awareness. The field staff of both the Shadab and Shehjar Khoj Projects also attended the training programme. The training programme has been organised in collaboration with Directorate of Education aimed at sensitizing the school teachers in the identification of different ailments of school children.

The programme was inaugurated at Higher Secondary School, Pulwama. The role of VHAI in creating health awareness amongst the school teachers and rural masses in general was lauded. Mr. A. M. Mir, State Co-ordinator of VHAI gave brief account of community health initiatives taken in Pulwama and Budgam districts during last five years. An exhibition of VHAI publications was also organised at Pulwama.

Publications by VHAI on adolescents

1. Adolescent girl: Mysteries of adolescent (English & Hindi)

This booklet by Dr Amla Rama Rao, is meant to be a companion book for the adolescents. The information helps them to know more about their physical and psychological changes. The knowledge in the booklet also address doubts in the minds of growing adolescents, their parents and teachers about the changes that transform them physically and mentally at this age into adulthood.

2. Mysteries of adolescence

This booklet is second in the series. Adolescents had generated most of the ideas themselves during the workshops organized by VHAI. This booklet deals with the physical and psychological changes in adolescent boys and girls. The questions and doubts that arise in the minds of the young ones have been answered in a story form. Some aspects of human sexuality and the diseases transmitted by irresponsible sexual behaviour have been touched upon without giving many details.

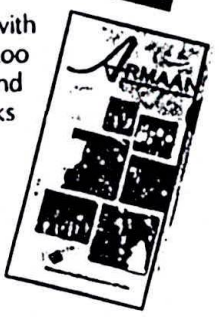
3. Adolescence – to walk you through

This book, by Dr. Peggy Mohan, tries to answer all the questions that comes to young adolescent mind in crucial years of growth. The information in the book helps them come to terms with the physical changes as well as the emotional upheavals during the transition phase of their lives.

4. Towards Healthy Adolescence

This adolescent kit is an attempt to bring together educational, social and health concerns of adolescents on one platform. The resource kit can be used by educational institutions (schools and colleges), health workers, youth, development workers, and even those involved in building human resources and addressing gender concerns. It can be used as a tool for training, awareness and advocacy about the "special" needs of adolescents.

5. Armaan (Video Film)



Armaan is the film on growing girls covering the psychological changes associated with age of adolescence. A fragile time ... full of self-discovery and doubts. For far too many girls in India, adolescence is not only the end of innocence, it is also the end of spontaneity and joy but does it have to be so? This is the question the film asks us.

6. Aparajita (Video Film)

The film "Aparajita' explores the issue of gender discrimination through life of an adolescent girl. The movie is a sensitive portrayal of her trail and tribulations, quest for education, and her effort to overcome the odds of society.

7. Kasba – Udaan (Video Film)

Like most children, Vidya and Anand are caught unaware by the changes that adolescence brings in its wake... Some cope, while others like Vidya are swept away by the winds of change. It is a sensitive age and a very critical phase of life, but is our society geared to treat adolescence sensitively?

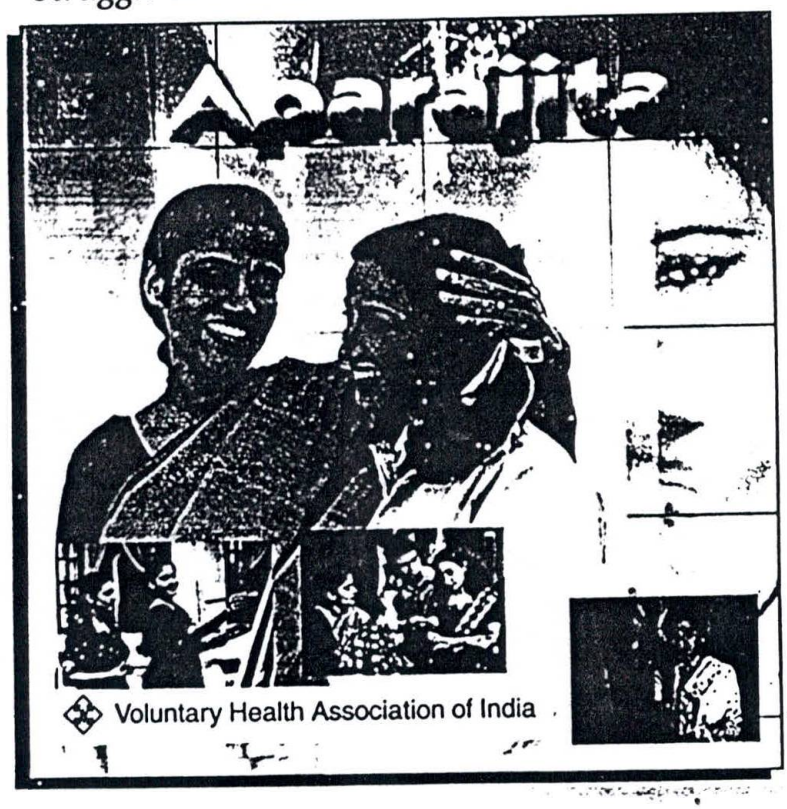
8. Udaan (Audio)

Why does childhood come to a halt so abruptly during adolescence? Why is our society so harsh towards adolescents? A plain simple answer to these is the lack of awareness and information, for most of the taboos are nurtured by ignorance. 'Udaan' the audio in question seeks to rectify this lapse and provides information to young adolescents on the changes (physical, psychological, emotional and social) they should be ready to face with the onset of adolescence.

ISSN:0970-8685 Price: Rs. 40 /- RNI: 28527/75

Aparajita

A film about an adolescent girl's struggle to overcome the odds



Our society plagued with virus of gender discrimination, affects life of million girls and women each day. Unheard and invisible they die silently within the dark four walls of their home. The future of a society, which has lesser and lesser number of mothers, wives, sisters and daughters, is doomed. We need no less than a war like effort to alter this highly disturbing situation. The film **'Aparajita'** is one such effort to bring some light into their lives.

Movie explores the issue of gender discrimination through life of an adolescent girl. The film **'Aparajita'** is a sensitive portrayal of her trail and tribulations, quest for education, and her efforts to overcome the odds and assume her true identity. A young girl, who dreams to make it big in life but faced with discriminatory societal barriers, fights the hardest of all problems with her grit and determination.

Highly appreciated by all ministries it is translated in 19 different regional languages with aid from Indian government.

Director:
Raman Kumar

Story and Creative Directions:
Alok Mukhopadhyay

Producer:
Voluntary Health Association of India

Screen Play:
Vinita Nanda

Star Cast:
Kanwaljit Singh, Seema Biwas, Renuka Sahane, Divya Dutta, Avtar Gill and others

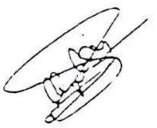
Copies available at:
Distribution Section, VHAI

Voluntary Health Association of India
40, Qutab Institutional Area, New Delhi 110016

...on behalf of the Health for the Millions Trust, New Delhi at Printo-O-Graph, 372/5 Gobindpuri, New Delhi -19.

ECONOMIC AND POLITICAL WEEKLY

A Sameeksha Trust Publication | October 11-17, 2003 | Vol XXXVIII No 41 | Rs 45.00



Financial globalisation and developing countries

Some empirical evidence

India's growth chase: high aspiration, low inspiration

India, CDM and Kyoto Protocol

Redefining manufacture: intrusion of excise into VAT

Structural breaks in Indian macroeconomic data

Prototype carbon fund and clean development

Girl Child Disadvantage

Girl child survival: tunnelling out of chakravyuha

What do sex ratios and child mortality risk data reveal?

Sexual and reproductive health needs of married girls

Married adolescent girls: a neglected majority

Sex ratios and 'prosperity effect': what NSSO data show

http://www.epw.org.in

Sexual and Reproductive Health Needs of Married Adolescent Girls

This paper collates available evidence on the situation of married adolescent girls and also sheds light on ways their sexual and reproductive health situation and choices differ from adult women. Findings strongly argue for measures that delay marriage and recognise the special vulnerabilities of married adolescent females. There is a need to raise awareness among girls, parents, teachers and community leaders, but more importantly, there is also a need to hold the government accountable for enforcing the legal age of marriage for girls. Further programmes to enhance married girls' autonomy within their marital homes and those that encourage education and generate livelihood opportunities need to be simultaneously developed.

K G Santhya, Shireen J Jejeebhoy

I Introduction

While there is growing programmatic and research interest in addressing the sexual and reproductive health situation and needs of adolescents in India, the thrust is implicitly on the unmarried, rather than on the married as well. Yet the evidence is that sexual activity among adolescent females in India takes place overwhelmingly within the context of marriage. For example, as many as 34 per cent of adolescent girls aged 15-19 are already married and presumably sexually active, while fewer than 10 per cent of unmarried girls are reported to be sexually experienced [IIPS and ORC Macro 2000; Jejeebhoy 2000]. Not only are larger proportions of adolescents sexually active within a marital context, but also, as is well known, married adolescents are far more likely to experience regular sexual relations than are unmarried sexually active adolescents. The relative lack of focus on this large segment of married adolescent girls has been justified on the grounds that their needs are legitimately met in services available to adult women. Yet it is very likely that the sexual and reproductive health situation, the ability to exercise informed choice and hence the needs of married adolescent girls are quite different from those of married adult women (or unmarried adolescent girls), and that the unique needs of this large group of sexually active women remain un-served. The period of adolescence marks an abrupt transition in the lives of large numbers of Indian girls – many experience marriage, a break with natal family and familiar social networks, and co-residence with the husband's family, with which few are familiar, and in which a subordinate position must be adopted, new pressures to initiate childbearing as swiftly as possible, and in many cases new health problems, many of which relate to sexual and reproductive matters. Despite the enormity of this transition, little is known about the lives of married adolescents and data that enable comparisons of the situation and needs of married adolescents with those of unmarried adolescents or married adult women are sparse.

This paper synthesises the available evidence on the situation of married adolescent girls and sheds light on whether sexual and reproductive health situation and choices differ from those of adult women and ways in which they differ. Where data are available, we will draw comparisons of married adolescent girls with married adult women, and, if possible, unmarried adolescents. The paper first assesses the evidence on the sexual and reproductive health situation of married adolescents, and then explores factors that may pose obstacles to good health, namely, their relative autonomy and ability to exert choices in their sexual and reproductive lives, and care-seeking behaviours experienced by them.

Evidence presented in this paper comes largely from the recently conducted National Family Health Survey (1998-99) and from a variety of case studies that have addressed the situation of married adolescent and young women in small geographical areas. We start with a few words of caution and a recognition of the limitations of this paper. For one, while married adolescents in India are not homogeneous and their situation and needs vary widely by setting educational status and other factors, what is presented here focuses largely on the overall picture and may obscure these disparities. Second, the situation of married adolescent males is excluded: among them, in contrast to girls, only 6 per cent of boys aged 15-19 was married, compared to some 20-40 per cent who are reported to become sexually experienced in a pre-marital relationship [Kulkarni 2002; Jejeebhoy 2000]. Finally, for the purposes of this paper, where comparisons are drawn, married adolescents refer to those aged 15-19 and adults to those aged 20-34, unless specified otherwise.

II Magnitude

Despite laws (Child Marriage Restraint Act of 1978) advocating 18 as the legal minimum age at marriage for females in India, large proportions of females continue to marry well before that age, as evident from Table 1 [IIPS and ORC Macro 2000]. Although marriage age is clearly rising among younger cohorts, as recently as 1998-99, one in three adolescents aged 15-19 was already married, and one in seven was married by age 15. Regional disparities are particularly pronounced, with northern states reporting considerably larger proportions married in adolescence than southern states. The examples of Uttar Pradesh and Tamil

Nadu presented in Table 1 are indicative of this wide divide in marriage age: while in Tamil Nadu, a quarter of women aged 20-24 had married before the legal age of 18, over three-fifths of those in Uttar Pradesh (62 per cent) were married by age 18. Findings suggest thus that of the roughly 50 million adolescent females in India [United Nations 2001], some 17.5 million are sexually active within marriage.

III
Sexual and Reproductive Health Situation

As mentioned earlier, the evidence on the sexual and reproductive health of married adolescents is sparse. What is available focuses largely on pregnancy and reproduction and less on other aspects of health and choice: sexual risk behaviours, reproductive tract and sexually transmitted infections or non-consensual sexual relations, for example. Summarised below is a review of what is known about the situation of married adolescents.

Pregnancy and Childbearing

Sexual and reproductive health of adolescents in India is conditioned to a large extent by the strong pressures newly married young women face to prove fertility as soon as possible after marriage. Indeed, for many, the only way to secure their positions in the marital home is through fertility and particularly the birth of a son. It is not surprising then that more evidence is avail-able on the topic of pregnancy and motherhood in adolescence than any other aspect of their sexual and reproductive health.

The evidence suggests that pregnancy and childbearing occur before many adolescents are physically fully developed, and may expose them to particularly acute health risks during pregnancy and childbirth. Adolescent fertility rates are high: roughly 107 births take place per 1,000 girls aged 15-19 and the fertility of this age group makes up 19 per cent of the nation's Total Fertility Rate [IIPS and ORC Macro 2000]. Table 2 confirms that significant proportions of adolescents – over one in five – give birth by age 17, the age below which obstetric risks appear to be particularly elevated. Not only does childbearing occur early among married adolescents, but subsequent pregnancies also tend to be closely spaced. The National Family Health Survey reports that the median closed birth interval among adolescents was 24 months, compared to 29 months among those aged 20-29 [IIPS and ORC Macro 2000]. The experience of early and closely spaced childbearing is particularly risky for adolescents because large proportions are anaemic and may not have reached physical maturity – nearly 15 per cent of ever-married adolescent women were stunted, and about one-fifth had moderate to severe anaemia. The extra nutritional demands of pregnancy come at the heels of the adolescent growth spurt, a period that itself requires additional nutritional inputs. Any shortfall could result in further depletion of the already malnourished adolescent [Jejeebhoy 2000].

It is estimated at the global level that girls aged 15-19 are twice as likely to die from childbirth as are women in their twenties, while girls younger than age 15 face a risk that is five times higher [United Nations Children's Fund 2001]. Moreover, more adolescent girls die from pregnancy-related causes than from any other cause [Population Reference Bureau 2000]. Evidence from community and facility based studies reiterate that maternal deaths are considerably higher among adolescents than older women. Estimates derived from a community-based study in rural Andhra Pradesh reported that in the 1980s the maternal mortality ratio experienced by adolescents was almost twice that of women aged 25-39 (1484 versus 706-736 respectively – Bhatia 1998). Hospital based studies reiterate these differences. A national study conducted by the Indian Council of Medical Research (ICMR) of 43,550 women in 10 facilities reports that maternal mortality among adolescents was 645/1,00,000 live births, compared to 342/1,00,000 in adult women aged 20-34 years [Krishna 1995]. Similarly, a study in Mumbai indicates that while the maternal mortality ratio among women aged 20-29 was 138 per 1,00,000 live births, adolescents experienced considerably higher ratios – 206 per 1,00,000 live births [Pachauri and Jamshedji 1983].

While mortality is the tip of the iceberg, other adverse outcomes are also experienced. For example, the neonatal mortality rate was 63.1 per 1,000 live births among infants of adolescent mothers compared to 40.7 among women aged 20-29 [IIPS and ORC Macro 2000]. Damage to the reproductive tract, pregnancy complications, peri-natal and neonatal mortality, and low birth weight have also been observed (see for example, Kulkarni 2002; Hirve and Ganatra 1994). Several facility based studies, for example, report higher levels of pregnancy related complications – including eclampsia, pregnancy induced hypertension, intra-uterine growth retardation and premature delivery – among

Table 1: Proportions of Females Married in Adolescence, by Age, 1998-99, NFHS

	15-19	20-24	25-29
India			
Proportion ever married	33.6	78.8	94.5
Percentage married by age 13	4.7	8.9	12.1
Percentage married by age 15	14.3	23.5	29.2
Percentage married by age 18	–	50.0	58.9
Percentage married in adolescence (by age 20)	–	67.1	74.9
Uttar Pradesh			
Proportion ever married	39.9	87.0	97.7
Percentage married by age 13	8.0	16.8	20.8
Percentage married by age 15	19.8	36.0	42.6
Percentage married by age 18	–	62.4	73.7
Percentage married in adolescence (by age 20)	–	76.5	86.7
Tamil Nadu			
Proportion ever married	23.7	67.7	91.8
Percentage married by age 13	0.2	0.5	1.5
Percentage married by age 15	2.8	3.7	8.1
Percentage married by age 18	–	24.9	32.1
Percentage married in adolescence (by age 20)	–	49.4	56.0

Source: IIPS, India and ORC Macro 2000; 2001; 2001a.

Table 2: Percentage of Currently Married Adolescents Giving Birth by Exact Age

	15-19 Year Olds		
	15	17	No Birth
Overall	16.2	20.9	52.2
Residence			
Urban	11.2	22.2	52.9
Rural	17.0	20.7	52.1
Education			
Illiterate	20.2	22.7	47.2
Primary	18.6	21.3	51.2
Secondary+	7.1	17.2	62.3
Region			
North	16.2	20.0	54.2
South	16.2	22.5	48.8

adolescents than among older women [Pachauri and Jamshedji 1983; Swain et al 1993; Mishra and Dawn 1986, Sharma and Sharma 1992; Pal et al 1997]. The national study cited earlier also reports that risk of sepsis in abortion was higher among adolescents than older women [Krishna 1995].

Reproductive Tract and Sexually Transmitted Infections

Few studies have specifically addressed reproductive tract or sexually transmitted infections among young people in India. One notable exception is a community-based study of RTI prevalence among 451 married women aged 16-22 in rural Tamil Nadu. Findings underscore the extent to which infections go unnoticed in this outwardly 'low risk' population: 49 per cent of women in the study suffered from one or more RTI, not counting cases of infertility, urinary tract infections and prolapse. Clinical and laboratory examination diagnosed 18 per cent with an STI, including chlamydia, trichomoniasis, and syphilis. Wives of truck drivers and army personnel seemed more likely than other women to experience sexually transmitted morbidity, suggesting that husbands' unsafe sexual behaviours may have transmitted infections to their young wives; so also duration of marriage and parity appeared to enhance women's risk of infection, suggesting possibly the role of iatrogenic factors associated with unhygienic delivery [Joseph et al 2002]. Similarly, a study of HIV among married women attending STD clinics in Pune shows that 13 per cent of all women were HIV+; multivariate analysis suggests that, after controlling for socio-economic and husband's characteristics, adolescent women (and those aged 20-29) were considerably (but not significantly) more likely to be HIV+ than were older married women [Gangakhedkar, Bentley, Divekar, Gadkari et al 1997]. And recent estimates suggest that almost 1 per cent of young women (15-24) in India are infected with HIV, compared to 0.5 per cent of young men and 0.8 per cent of the population at large [UNICEF, UNAIDS and WHO 2002] – the overwhelming majority of these women are undoubtedly married.

Unmet Need for Contraception

Married adolescents are far less likely than adults to use contraception (Table 3), and this may well reflect their desire to become pregnant. Indeed, while only 8 per cent of adolescent women were practising any form of contraception in 1998-99, 45 per cent of older women aged 20-34 were; and differences are starker (5 per cent and 40 per cent) when use of modern methods of contraception is considered. What is disturbing is the finding that adolescents are also more likely to report unmet need for contraception: 27 per cent of married adolescents, compared to 19 per cent of adults reported an unmet need for contraception, the majority for delaying the next birth.

Non-Consensual Sexual Activity

Studies rarely shed light on sexual experiences within marriage. The few small qualitative and admittedly unrepresentative studies do suggest that sexual coercion may not be unusual among adolescent brides. Retrospective information from older women on their experiences as newly married adolescents highlights the sexual vulnerability of newly married – usually adolescent – women. In in-depth investigations in Mumbai, for example, women recalled that they were totally unprepared for and ignorant about sexual intercourse, and described the first sexual experience as traumatic, distasteful and painful. The use of force was frequently mentioned [George and Jaswal 1995; George 2002]. In rural Gujarat too, in-depth interviews indicate that for 62 of 69 women, the first sexual experience was traumatic [Joshi et al 1998]. Similarly, a study of abortion related decision-making among married women in rural Uttar Pradesh reports that the vast majority here too recalled early sexual encounters with their husbands – again usually in adolescence – to be characterised by male sexual coercion and female submission [Khan et al 1997]. A recent study in rural Maharashtra reported that 86 per cent of married adolescents reported that the first sexual experience was frightening and 8 per cent that it was painful [Apte 1997]. A qualitative study of recently pregnant women – either pregnant for the first time or new mothers in the post partum period, the majority of whom were adolescents – in Baroda and Kolkata reports that regardless of when and where they first learned about sex, the event of first intercourse was frightening for young women: *"I felt very scared as I had never experienced such a thing before. The thought of being with a man made me feel scared"* [Haberland et al 2001].

IV
Factors Underlying Poor Sexual and Reproductive Health Situation

Lack of Awareness

Several studies have reported that adolescents in general – and irrespective of marital status – are poorly informed about sexual and reproductive health matters. With regard to menstruation for example, many young women report that they were unaware until menstruation was first experienced, and then were informed no more than its mechanics and the social practices surrounding it [Jejeebhoy 2000]. Similarly we have seen that few married adolescents were aware of sexual intercourse or what was expected of them once married. Isolated from new ideas (for example, 45 per cent of married adolescents compared to 39 per cent of adult women were not regularly exposed to any media) and supportive networks, married adolescent girls are correspondingly less likely to be aware of central sexual and reproductive health issues. While awareness of contraceptives is nearly universal among both married adolescent and adult females, awareness about specific contraceptive methods, especially reversible methods that are more suitable for adolescents, is relatively limited among adolescents. For example, only three-fifths of married adolescents were aware of condoms, compared

Table 3: Contraceptive Practice and Unmet Need for Contraception among Adolescent and Adult Women

	15-19 Years	20-34 Years
Current contraceptive use:		
Per cent using any method	8.0	45.5
Per cent using a modern method	4.7	40.0
Per cent using a traditional method	3.3	5.2
Per cent expressing an unmet need for contraception		
Per cent for spacing and limiting	27.1	19.2
Per cent for spacing only	25.6	10.1
Per cent for limiting only	1.6	9.1

to nearly three-fourths of adult women. Age specific differences with regard to awareness of AIDS were similarly wide: fewer than one-third of married adolescents compared to more than two-fifths of adult women had ever heard of AIDS. Additionally, among those who had heard of AIDS, two-fifths of married adolescents were unaware of modes of transmission, compared to fewer than one-third adult women. Extrapolating from these differences between adolescents and adults, it is likely that awareness of sexual and reproductive health matters in general – including for example danger signals of pregnancy, or discharge as a symptom of morbidity – may be equally constrained among married adolescents compared to adults.

The importance of conveying health-promoting messages to young women early in their reproductive careers clearly serves to protect them as they make the transition to adulthood and beyond. As one young woman in Baroda said "One experience was enough for me to learn a lot. I did not need anyone to advise me anymore, in fact, I started giving other first time mothers advice. Every little thing that I learned in my first pregnancy was useful in my second pregnancy" [Haberland et al 2001].

Limited Exercise of Informed Choice

The patriarchal family in India is typically age and gender stratified [Karve 1965]. Within the family, women have relatively little power and young and newly married women – usually adolescent – are particularly powerless, secluded and voiceless in matters relating to their own lives. Direct evidence on the extent to which married adolescents are constrained from exercising choices in sexual and reproductive matters is even more limited. Here we rely on both those studies that directly address this issue and those that explore their relative lack of autonomy more generally and whose findings may be extended to the sexual and reproductive arenas.

With regard to marriage related decision-making, arranged marriage and extensive dowries continue to characterise marriage in much of India, both north and south. A recent case study exploring marriage patterns among successive cohorts of women in rural Uttar Pradesh and Tamil Nadu concludes that for the overwhelming majority in both settings, irrespective of age, caste or religion, marriages were arranged either by parents alone or with relatives and matchmakers. Yet subtle differences did emerge, and substantial minorities of women reported having a say, or being consulted in these decisions. While the familiar regional disparities persist, with Tamilian women exerting far more autonomy in these decisions than north Indian women, age specific differences are also evident within each setting. Most obvious is the finding that younger cohorts in south India exerted considerably more of a voice than older cohorts in marriage related decision-making than did older women. For example, among south Indian Hindus, proportions reporting a say in marriage decisions increased from 33 per cent among the oldest cohort (aged 32-39) to over half (53 per cent) among the youngest. Muslims report somewhat less spectacular increases correspondingly, from 25 per cent to 37 per cent. In contrast, cohort specific changes among women from Uttar Pradesh, irrespective of religion are modest. No more than a handful of even young women in Uttar Pradesh – one in ten Hindus and one in eight Muslims – continue to have no say or veto powers in this decision [Jejeebhoy and Shiva Halli 2002].

In-depth interviews with first-time pregnant women and first-time recently delivered mothers in Baroda and Kolkata reiterates this finding. Young women reported that they rarely had any say in marriage decisions; the more typical response was: "Did I get the chance to say anything? Could I say anything after my parents took the decision? What could I have done? (18-year old recently delivered mother in Kolkata)". Some young women implied moreover that they were married early against their will at the behest of their parents: "at that time I did not want to marry as it was too soon. So I told my mother about it but she did not agree and said that I will have to get married early. So then as I liked him I said yes (17 year old in Baroda)". There was some evidence, however, that practices may be changing: in Kolkata, eight out of 30 couples reported that they had made the decision on when and whom to marry independently [Haberland et al 2001; Santhya et al 2001].

After marriage, adolescents face huge constraints on their autonomy in the marital home. Table 4 shows, for example, that although decision-making authority is limited for women in general, married adolescents are particularly unlikely to participate in household decisions, whether those relating to major purchases, or own health care. What is notable is that age plays a more powerful role in enhancing decision-making authority than other socio-demographic factors, including education – compared to an uneducated married woman aged 15-19, an uneducated older woman is significantly more likely to have decision-making authority than a secondary schooled adolescent for example.

Few studies address exercise of sexual and reproductive choice in a more direct way. One of the few studies that addresses sexual negotiation among young married women in India highlights young women's lack of decision-making authority in matters relating to sex: young women revealed that they were routinely told that it was their duty to provide sexual services to their husbands: This man has brought you here, if not for this, why has he brought you. You have to do it [George and Jaswal 1995]. In in-depth explorations with young women on sexual decision-making primarily in regard to pregnancy and postpartum abstinence in Baroda and Kolkata, almost half appeared to have a major say, while over one-third reported that their

Table 4: Decision-Making Authority: Percentage of Women Involved in Household Decisions, by Age and Socio-Demographic Characteristics, 1998-99, NFHS

Characteristics	Percentage Involved in Decision-Making Concerning					
	Own Health Care		Purchase of Jewellery		Visits to Parents/ Natal Kin	
	15-19	20-34	15-19	20-34	15-19	20-34
Overall	38.7	49.3	39.9	50.7	37.4	46.2
Residence						
Urban	39.8	55.9	43.2	57.3	39.8	51.6
Rural	38.4	47.0	39.3	48.4	36.9	44.2
Educational status						
No education	36.8	45.7	37.8	46.9	35.8	42.2
Primary	39.5	48.6	40.6	51.1	36.8	45.9
Secondary+	41.6	55.2	43.3	56.3	40.7	52.2
Cash employment						
Working for pay	41.2	52.9	42.7	56.1	37.6	50.7
Working without pay	37.0	43.0	35.9	44.8	35.5	40.3
Not working	38.3	49.0	39.8	49.6	37.6	45.3
Region						
North	36.2	44.8	38.0	46.3	36.2	42.2
South	41.5	54.9	42.4	56.8	39.0	51.6

husbands had the final say on whether and when to have sex [Haberland et al 2001]. Reinforcing lack of decision-making is the lack of awareness of sexual, contraceptive and reproductive matters on the one hand and of communication or intimacy with husbands on the other. The role of the husband has been noted in several studies of decision-making related to the use of contraception or health expenditure: for example, in a study in rural Maharashtra, of 40 adolescents who reported the use of a modern contraceptive, while the majority (23) made the decision jointly, in 12 cases the decision was made by the husbands alone, and in five more by the women alone. Husbands also seemed to be the ones to take abortion related decisions: "I don't want her to have a child for another two years. If she does conceive in between, I will make her abort the baby." At the same time, several women suggested that reproductive decision-making was beyond the control of both adolescents and their husbands – even where adolescents and their husbands would have liked to delay pregnancy, the decision to practise contraception was often overruled by mothers-in-law: "But I am against them (contraceptives) as they cause problems. I will not allow my daughter-in-law and son to use them." In general mothers-in-law were adamant and girls felt pressured to prove their fertility – in comparison it was one third of husbands who wanted to delay their wives' first pregnancy but were over ruled [Barua and Kurz 2001].

Exercise of choice is constrained also by the threat and experience of domestic violence. Several studies have documented that significant proportions of married women face beating and mistreatment in the marital home (see for example, Jejeebhoy 1998; Vijayendra Rao and Bloch 1993). Here there is little variation by region of the country or age of the woman. At the national level, for example, reports from the NFHS (though there may be considerable under-reporting in this survey) suggest that, among those who were married for two or more years, some 16 per cent of married adolescents were beaten or mistreated in the 12 months preceding the survey, compared to 13 per cent of older women. There is evidence that the threat and experience of violence tends to delay reproductive health decision-making and care seeking on the one hand and is associated with adverse pregnancy related outcomes on the other (see for example, Jejeebhoy 1998a). Though reported by only a few, young women in Kolkata narrated instances where exercise of sexual choice were met with threats of remarriage and quarrel: "I decided to stop it since I used to feel uneasy while having sex with a big abdomen. But my husband used to get angry if I told him that I did not want to have sex. He used to tell me that he would remarry if I refused to have sex with him. I tried to explain to him, but he did not want to listen. He used to get angry if I refused and we had some tiffs on this issue. I had to give in to his demands after a few days and our tiffs were resolved. We continued in this manner till my ninth month. I had feelings of discomfort but I had to accept my husband's wishes" (18 year old, recently delivered mother). [Santhya et al 2001].

Evidence is emerging, however, that attitudes are changing, at least among college students: large proportions of both male and female students argued that women must make reproductive decisions, 78 per cent and 79 per cent of males and females respectively agreed that women have the right to refuse sex, and almost the same percentage reported that a man cannot force his wife to engage in sexual relations against her will [Barge and Mukherjee 1997].

Limited Mobility and Social Interactions

Limited mobility and isolation from familiar networks further limit the ability of married adolescent to have a say in their own lives. National level evidence suggests, for example, that adolescents are systematically less likely than older women to have the freedom to visit different places without permission, as observed in Table 5. Again, the effect of age is somewhat more powerful than that of education in enhancing freedom of movement. In in-depth interviews, married adolescents in Kolkata report that their freedom of movement became more curtailed after marriage, that in the natal home, they were freer to move about, engage in economic activity outside the home. At the same time, young women in Baroda and Kolkata reported that social networks had shrunk following marriage, and interactions were restricted to the family itself. Exposure to new ideas that comes from interaction with others was thus far more likely to be restricted among these young women than among their husbands who were not so restricted, their unmarried peers and of course, older women. Even those young women who reported some contact with women in their neighbourhood indicated that the interaction was typically limited in content: "Just about the village and if there is anything that has happened in someone's house... What else will we talk? (18 year old in Baroda)" [Haberland et al 2001; Santhya et al 2001]. Access to resources, similarly, is consistently more limited among married adolescents than among older women.

Limited Access to Health Care

Lack of autonomy within their marital homes also very likely means that married girls have limited access to health care. Evidence presented above shows that the first delay in seeking care – the decision-making process – is significantly affected by women's powerlessness, and this may be more acute in the case of adolescents than adult women (see, for example Barua and

Table 5: Mobility and Access to Resources: Percentage of Women Reporting Freedom of Movement and Access to Money, by Age and Socio-Demographic Characteristics, 1998-99, NFHS

Characteristics	Percentage Not Needing Permission to Go to a Market		Percentage Not Needing Permission to Visit Friends		Percentage Access to Money	
	15-19	20-34	15-19	20-34	15-19	20-34
Overall	13.8	28.1	10.2	20.8	45.6	58.1
Residence						
Urban	21.2	42.1	14.8	29.7	55.0	72.3
Rural	12.5	23.3	9.4	17.8	44.0	53.2
Educational status						
No education	11.1	22.3	8.7	17.5	39.2	49.5
Primary	14.4	28.3	10.6	20.1	47.0	56.7
Secondary+	18.4	36.9	12.7	26.3	57.1	71.8
Cash employment						
Working for pay	17.9	35.9	13.9	27.4	45.0	61.5
Working without pay	12.9	22.2	11.9	17.7	39.6	47.4
Not working	12.8	26.1	8.9	18.7	46.9	58.7
Relationship to HH head						
Wife	19.0	30.4	13.8	21.6	51.6	65.3
Daughter	12.4	28.5	9.3	22.0	47.2	58.6
Daughter-in-law	11.5	20.0	8.3	14.9	41.5	59.3
Region						
North	7.6	18.2	6.2	14.1	43.7	54.0
South	25.6	44.1	17.7	31.3	50.2	65.6

Kurz 2001: Santow 1995). By and large, the real decision-makers continue to be the husbands or mothers-in-law, and even educated women are not always likely to be the main decision-makers when sick [Ganatra and Hirve 1995].

Direct evidence on the extent to which health seeking among adolescents is more compromised than that among adult women – while sparse – is, however, mixed. From the evidence, we might tentatively postulate that if the health need relates to childbearing – whether pregnancy or perceived difficulties in conception – action is prompt, whether or not the woman herself plays a decision-making role. For other reproductive health matters – treatment for gynaecological symptoms or symptoms of infection, seeking contraception or counselling for example – health seeking may not be as prompt and may be more directly linked to the woman's own decision-making role in the family.

Pregnancy Related

Pregnancy related care is far from universal in India and adults and adolescents alike are unlikely to receive care during pregnancy, delivery or in the postpartum period. The evidence on pregnancy related care seeking among adolescents as compared to adult women is, however, mixed. For example, the *National Family Health Survey* suggests that despite the elevated risks they may face, adolescent women are about as likely as older women to obtain care during pregnancy, delivery and the post-partum period, as is clear from Table 6. Table 6 clearly shows that age is consistently unrelated to health care practices, and far less likely to influence practices than are other indicators such as educational status, rural-urban residence and region. Of course, the effect of age may well be underestimated in these data, since adolescents will be significantly more likely to experience a first pregnancy – one that is known to be both higher risk and more likely to attract timely care than later pregnancies – than are older women.

As mentioned above, given the emphasis on childbearing and proving fertility, pregnancy related care is likely to be prompt irrespective of the woman's own decision-making role. Moreover, the practice of returning to the natal home for the first birth may well play a protective role in timely health seeking among pregnant adolescents. The attention she can demand and obtain at the natal home are quite different from the care she can obtain in her husband's home (see for example, Basu 1995). A case control study, also in Maharashtra, India, showed, for example, that young women who delivered in their parental homes were significantly less likely to die than women who delivered in their husband's home (odds ratios 0.4). The study concludes that young women delivering in the natal home are far better equipped to express the experience of a danger signal, and families are far more likely to respond in a timely fashion than among women delivering in the husband's home, that families may be more likely to make timely health interventions in their daughters and sisters, and to incur expenses to save their lives, than their daughters-in-law and wives [Ganatra, Coyaji and Rao 1998]. In short, because of the value placed on childbearing on the one hand, and the practice of returning home for the first delivery on the other, pregnant adolescents appear to overcome the powerlessness married adolescents face in their husband's home with regard to fertility related care seeking.

Infertility is deeply feared and evokes the threat of mistreatment, abandonment or the presence of a second wife. The recent study cited earlier of the health seeking behaviours of young married women in rural Maharashtra, suggests that this is an area in which women's own health concerns coincided with those of their mothers-in-law or husbands, or both and in general, women were persuaded to seek care of faith healers, and if unsuccessful, follow this with allopathic treatment. Thus, of 89 girls who had not yet conceived despite cohabitation and non-contraception, only seven had sought allopathic care [Barua and Kurz 2001].

Other Reproductive Health Needs

The situation is quite different when adolescents experience symptoms of gynaecological morbidity or reproductive tract infection. The evidence suggests that relatively small proportions of adolescent women experiencing symptoms of morbidity or infection actually sought care for the condition. For example, the study of gynaecological morbidity among married adolescents in rural Tamil Nadu suggests that two-thirds of women with symptoms did not seek care, and among those who did, over three in four sought treatment from unqualified sources, such as home treatment or untrained private practitioners [Joseph et al 2002]. Similarly, in rural Maharashtra, while half (51 per cent) of married adolescents reported a gynaecological problem, only half of these

Table 6: Maternal Health Care Practices among Adolescent and Adult Females

Characteristics	Percentage Receiving at Least One Ante-Natal Check-Up		Percentage Institutional Delivery		Percentage Attended by Trained Health Personnel		Percentage Receiving Postpartum Check-Up*	
	15-19	20-34	15-19	20-34	15-19	20-34	15-19	20-34
Overall	67.7	65.8	31.8	35.0	41.6	43.4	18.1	16.4
Residence								
Urban	86.0	86.3	61.0	66.6	69.4	74.5	17.8	20.7
Rural	63.8	59.3	25.7	25.0	35.7	33.6	18.1	15.8
Educational status								
No education	54.8	47.7	18.7	15.2	27.2	22.7	13.9	12.9
Primary	78.9	75.3	37.5	36.9	49.0	46.5	25.8	21.3
Secondary+	88.0	90.8	56.7	66.2	67.9	75.6	26.1	26.3
Cash employment								
Working for pay	72.6	67.7	24.9	29.1	35.0	37.1	21.8	20.6
Working without pay	54.0	55.4	21.7	17.2	33.8	25.2	16.0	13.6
Not working	66.9	67.0	35.5	39.5	44.8	48.1	16.8	15.7
Region								
North	54.0	52.5	21.7	22.2	31.2	31.4	11.8	11.9
South	90.6	92.6	49.7	61.8	60.4	68.8	32.9	33.1

Note: * The denominator is non-institutional births during the three years preceding the survey.

sought appropriate treatment [Barua, and Kurz 2001]. At the national level, similarly, NFHS data suggest that while somewhat fewer adolescents than adults reported symptoms of abnormal vaginal discharge (26 per cent and 32 per cent among those aged 15-19 and 20-34 respectively), adolescents are considerably less likely to seek care for this condition: 26 per cent compared to 37 per cent. Findings from the study in rural Maharashtra confirms, moreover, that care is unlikely to be sought unless feelings of embarrassment and shame in discussing sexual matters were overcome: indeed, to the extent that mothers-in-law perceived a gynaecological condition to be a threat to ability to conceive, they were likely to encourage their daughters-in-law to seek appropriate care [Barua and Kurz 2001].

Although significant proportions of adolescent women express a desire to delay the first and postpone subsequent pregnancies, and large proportions expressed an unmet need for contraception, access to appropriate contraception is frequently thwarted by family pressures. In the qualitative study on first-time pregnant and recent first-time mothers, cited earlier, young women reported situations where in-laws forced young couples to discontinue contraception:

> My father-in-law went to my room to see his son and he noticed 2 pills. He asked my husband "Who is taking these pills?" My husband said your daughter-in-law. Then my father-in-law said, "Does she want to die? Why is she taking all these? Just throw them out otherwise she will never conceive. Her health will be affected, and she will bloat up". Then my mother-in-law came and told me "why are you taking these? If you take these there will be deposition of fat on your abdomen and you will not be able to conceive (16 year old recently delivered mother in Kolkata) [Santhya et al 2001].

In addition to family pressures, contraception can also be thwarted by lack of attention from health workers and other providers who tend to overlook this group until they are further advanced in their reproductive careers. Even after giving birth, adolescent mothers were far less likely than older mothers to receive family planning advice in the course of post partum checkups: 19 per cent of adolescent mothers compared to 30 per cent of adult mothers received advice about family planning, despite the fact that these young women are particularly likely to need counselling on birth spacing and contraception [IIPS and ORC Macro 2000].

V
The Way Forward

Evidence on the situation of married adolescent girls in India is admittedly sparse, but several conclusions may be drawn. For large proportions of young women, marriage and childbearing occur in adolescence before physical maturity is reached and are accompanied by malnutrition, obstetric risks and lack of decision-making and mobility to acquire pregnancy, contraceptive and other reproductive health services, and little autonomy over sexual and reproductive lives. Significant proportions experience risky pregnancies and forced sex, are vulnerable to sexually transmitted infections (STIs) usually from their husbands, and experience an unmet need for contraception. Exercise of reproductive choice is limited and in many instances care seeking is constrained.

It is likely, moreover, that they are more vulnerable and more inaccessible than adult women but comparative evidence here is somewhat mixed and very sparse. For one, it is undisputed that married adolescents are more likely than adults to experience adverse pregnancy outcomes, but these appear to be more likely to be attributable to physiological immaturity than such factors as lack of decision-making and limited health seeking. Second, although unmet need for contraception is considerable among adolescents – perhaps greater than that observed among adults – no special efforts have been made to overcome their lack of decision-making or constraints on their ability to seek services in this regard. And third, when adolescents experience symptoms of reproductive tract infection or other gynaecological morbidity, they face huge obstacles in seeking treatment for these: while many of these – shyness, embarrassment, cost, perceptions that these are normal and self-limiting conditions and so on – are common to women irrespective of age, it does appear that adolescent women may be moderately less likely to seek care. Exercise of reproductive choice is undoubtedly limited and extrapolating from data on decision-making and mobility patterns, adolescents may be far more constrained among adolescents than among adult women. Appropriate health seeking, finally, is highly context dependent: while married adolescents appear to be as likely as adults to obtain pregnancy related care, they may be less likely to be able to access contraceptives on the one hand and obtain treatment for symptoms of reproductive tract infections on the other.

Findings argue strongly for programmatic measures that delay marriage and recognise the special vulnerabilities of married adolescent females. There is a need to raise awareness among girls, parents, teachers, and community leaders – through school and community based programmes – about the negative impact of early marriage and pregnancy on women and children's health. Promising findings are reported by a non-governmental organisation in India that has implemented small-scale life skills programmes for out of school youth, particularly females, using a combination of non-formal, family life and vocational education, along with the provision of services, as well as opportunities for participants to learn to use banks and public transport, to participate in recreational activities and to receive leadership training [Levitt-Dayal et al 2002]. A follow-up of alumnae one to three years following the training suggested that, compared to young women who did not participate, alumnae were more likely to remain in school, to have greater decision-making authority within their families – particularly with respect to decisions about marriage and whether to continue their education. Alumnae also demonstrated higher levels of self-esteem, assertiveness, mobility, and exposure to media and new ideas. Among married women, participants were more likely to marry at age 18 or older, and were more likely to obtain appropriate care during pregnancy, compared to those who had not participated in the programme.

Aside from community level action, equally, there is a need to hold government accountable for enforcing the legal age of marriage for girls.

Simultaneously, programmes need to find ways to enhance married girls' autonomy within their marital homes, to encourage education and enhance girls' life and negotiating skills and also help generate livelihood opportunities. Given the low status of married adolescent girls in many communities, programmes must target not only young married women, but also more powerful family decision-makers, such as husbands and mothers-in-laws.

On the reproductive health front, evidence suggests that providers be trained to recognise married adolescent girls as a 'high

risk' group. Providers need to offer information, counselling and services in ways that consider girls' lack of power within their husbands' families. Services are needed that reach out beyond the clinic to enable young women to seek prenatal visits and adequate obstetric care, and, with careful training, to obtain counselling or services relating to coercion and violence, as well as STI symptoms.

This review highlights the knowledge gaps that remain. In many instances, the available evidence derives from small-scale studies that may not be generalisable to young people at large. To make informed policy decisions, we need more social science and operations research to understand how the situation and needs of married adolescents differ from those of married adults and unmarried adolescents. Equally we need to better understand whether and why the sexual and reproductive health needs of married adolescents remain unmet, why informed choice continues to elude them and how services should be structured to overcome the social, cultural and economic constraints that married adolescents face. This paper provides strong support for investment in married, no less than unmarried, adolescents – health promoting practices and negotiation and communication skills developed in adolescence will have far reaching effects on the health of women and the extent to which they make informed choices concerning their own lives.

Address for correspondence:
santhya@pcindia.org
shireen@pcindia.org

References

Apte, Hemant (1997): 'Adolescent Sexuality and Fertility: A Study in Rural Western Maharashtra' in Population Council (compiled) Summaries of Research Undertaken/Planned on Male Involvement, papers presented at the workshop on research related to male involvement in reproductive health and contraceptive use, unpublished.

Barua A and K Kurz (2001): 'Reproductive Health-Seeking by Married Adolescent Girls in Maharashtra, India', *Reproductive Health Matters*: 9, 17: 53-62.

Ganatra, B R and S S Hirve (1995): 'Unsafe Motherhood: The Determinants of Maternal Mortality', *Journal of the Indian Medical Association*, 93.2: 34-35.

Ganatra, B R, K J Coyaji and V N Rao (1998): 'A Community-Cum-Hospital-Based Case Control Study on Maternal Mortality', Final Report, *Bulletin of the World Health Organisation*, 76, 6 (December) pp 591-98.

Gangakhedkar, R, M E Bentley, A D Divekar, D Gadkari, S M Mehendale, M E Shepherd, R C Bollinger and T C Quinn (1997): 'Spread of HIV Infection in Married Monogamous Women in India', *Journal of the American Medical Association* 278 (23):2090-92.

George, A (2002): 'Embodying Identity through Heterosexual Sexuality – Newly Married Adolescent Women in India', *Culture, Health and Sexuality*, 4, 2: 207-22.

George, A, S Jaswal (1995): 'Understanding Sexuality: Ethnographic Study of Poor Women in Bombay', Women and AIDS Programme Research Report Series No 12, International Centre for Research on Women, Washington, DC.

Haberland, N, L McGrory and K G Santhya (2001): First Time Parents Project, Supplemental Diagnostic Report, Baroda (Unpublished)

Hirve, S S, B R Ganatra (1994): 'Determinants of Low Birth Weight: A Community-Based Prospective Cohort Study', *Indian Paediatrics*, 31, 10:1221-25.

IIPS and ORC Macro (2000): *National Family Health Survey (NFHS-2)*, 1998-99, India, IIPS, Mumbai.

– (2001): *National Family Health Survey (NFHS-2)*, India, 1998-99, Uttar Pradesh, IIPS, Mumbai.

– (2001a): *National Family Health Survey (NFHS-2)*, India, 1998-99, Tamil Nadu, IIPS, Mumbai.

Jejeebhoy, S (1998a): 'Associations between Wife-Beating and Fetal and Infant Death: Impressions from a Survey in Rural India', *Studies in Family Planning* 29(3):300-08, September.

– (1998b): 'Wife-Beating in Rural India: A Husband's Right? Evidence from Survey Data', *Economic and Political Weekly*, 23(15):855-62, April 11.

– (2000): 'Adolescent Sexual and Reproductive Behaviour: A Review of the Evidence from India' in R Ramasubban, S Jejeebhoy (eds), *Women's Reproductive Health in India*, Rawat Publications, Jaipur.

Jejeebhoy, S, Shiva Halli (2002): 'Marriage Patterns in Rural India: Influence of Socio-Cultural Context', (Unpublished).

Joseph, A, J Prasad, S Abraham (2002): 'The Risk of Infection: Gynaecological Programmes Among Young Married Women in Tamil Nadu' in S Bott et al (eds), *Adolescent Sexual and Reproductive Health: Evidence and Programme Implications for South Asia*, World Health Organisation, Geneva.

Joshi, A et al (1998): 'Male Involvement in Seeking Abortion Services in Rural Gujarat', paper presented at the South Asian Initiative in Reproductive Health Research, Colombo.

Karve, I (1965): *Kinship Organisation in India*, Asia Publishing House, Mumbai.

Khan, M E, J W Townsend, R Sinha, S Lakhanpal (1997): 'Sexual Violence Within Marriage: A Case Study of Rural Uttar Pradesh', presented at the Annual Meeting of the American Public Health Association, Indianapolis, US.

Krishna, U R (1995): 'The Status of Women and Safe Motherhood', *Journal of the Indian Medical Association*, 93(2):34-35.

Kulkarni, S (2002): 'The Reproductive Health Status of Married Adolescents as Assessed by NFHS-2, India' in S Bott et al (eds), *Adolescent Sexual and Reproductive Health: Evidence and Programme Implications for South Asia*, World Health Organisation, Geneva.

Levitt-Dayal, M, R Motihar, S Kanani, A Mishra (2002): 'Adolescent Girls in India Choose a Better Future: An Impact Assessment' in S Bott et al (eds), *Adolescent Sexual and Reproductive Health: Evidence and Programme Implications for South Asia*, World Health Organisation, Geneva.

Mishra, S and C S Dawn (1986): 'Retrospective Study of Teenage Pregnancy and Labour during a 5-Year Period from January 1978 to December 1982 at Durgapur Subdivisional Hospital', *Indian Medical Journal*, 80, 9:150-52.

Pachauri, S and A Jamshedji (1983): 'Risks of Teenage Pregnancy', *Journal of Obstetrics and Gynaecology*, 33, 3: 477-82.

Pachauri, S, K G Santhya (2002): 'Contraceptive Behaviours among Adolescents in Asia: Issues and Challenges' in S Bott et al (eds), *Adolescent Sexual and Reproductive Health: Evidence and Programme Implications for South Asia*, World Health Organisation, Geneva.

Pal, A, K B Gupta and I Randhawa (1997): 'Adolescent Pregnancy: A High Risk Group', *Journal of the Indian Medical Association*, 95(5):127-28

Population Reference Bureau (PRB) (2000): *The World's Youth 2000*, Measure Communication, Population Reference Bureau, Washington, DC.

Santhya, K G, L MCGrory and N Haberland (2001): 'First Time Parents Project', Supplemental Diagnostic Report, Kolkata (Unpublished).

Saintow, G (1995): 'Social Roles and Physical Health: The Case of Female Disadvantage in Poor Countries', *Social Science and Medicine*, 40(2):147-61.

Sharma, V and A Sharma (1992): 'Health Profile of Pregnant Adolescents among Selected Tribal Populations in Rajasthan, India', *Journal of Adolescent Health*, 13, 8: 696-99.

Swain, S, K N Ojha, A Prakash and B D Bhatia (1993): 'Maternal and Perinatal Mortality Due to Eclampsia', *Indian Paediatrics*, 30, 6: 771-73.

United Nations (2001): *World Population Prospects: The 2000 Revision, Volume II: The Sex and Age Distribution of the World Population*, United Nations, New York.

UNICEF, UNAIDS, WHO (2002): *Young People and HIV/AIDS: Opportunity in Crisis*, United Nations Children's Fund, Joint United Nations Programme on HIV/AIDS, World Health Organisation, Geneva.

UNICEF (2001): *The Progress of Nations 2001*, United Nations Children's Fund, New York.

Vijayendra Rao, Frances Bloch (1993): 'Wife-Beating, Its Causes and Its Implications for Nutrition Allocations to Children: An Economic and Anthropological Case Study of a Rural South Indian Community', World Bank, Policy Research Department, Poverty and Human Resources Division, Washington, DC.

Adolescent sexual and reproductive health in South Asia: an overview of findings from the 2000 Mumbai conference

Sarah Bott and Shireen J. Jejeebhoy

Conference background

The World Health Organization (WHO) defines adolescents as the age group 10–19, a definition used throughout this volume. The meaning of adolescence as a cultural construct has been understood in many different ways throughout the world, however. In general terms, it is considered a time of transition from childhood to adulthood, during which young people experience changes following puberty, but do not immediately assume the roles, privileges and responsibilities of adulthood. The nature of adolescence varies tremendously by age, sex, marital status, class, region and cultural context. As a group, however, adolescents have sexual and reproductive health needs that differ from those of adults in important ways and which remain poorly understood or served in much of the world.

Moreover, social, economic and political forces are rapidly changing the ways that young people must prepare for adult life. These changes have enormous implications for adolescents' education, employment, marriage, childbearing and health. Adolescents are increasingly spending more time in school, experiencing puberty at younger ages, marrying and having children later than in the past. Neglect of this population has major implications for the future, since reproductive and sexual behaviours during adolescence have far-reaching consequences for people's lives as they develop into adulthood.

In South Asia, by the end of the 1990s, both researchers and governments had begun to shed their traditional ambivalence towards young people's sexual and reproductive health, and a growing body of empirical evidence and government interest provided an opportunity to take stock of the sexual and reproductive health situation of youth in the region. In response, HRP[1], ISRRF[2] and IRR[3] jointly organized an international conference in November 2000 entitled: "Adolescent Reproductive Health: Evidence and Programme Implications for South Asia", held in Mumbai, India. Although international organizations subdivide Asia in different ways, this conference focused on five South Asian countries, namely, Bangladesh, India, Nepal, Pakistan and Sri Lanka. Insights from other Asian settings were also presented, notably from China and Thailand.

1 HRP stands for the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction.
2 ISRRF stands for the Indian Society for Research on Reproduction and Fertility.
3 IRR stands for the Institute for Research in Reproduction.

The conference aimed to review the evidence on adolescents' sexual and reproductive health situation, needs and perspectives in South Asia, to learn from programme successes and failures in the region, and to identify acceptable yet effective ways to respond to adolescents' unique needs. The conference addressed a number of central questions, including: What are adolescents' needs in regards to sexual and reproductive health? How can we increase their ability to make informed reproductive choices? How do we enhance their access to reproductive health services that are acceptable, unthreatening, and affordable? What kind of information do they need in order to exercise these choices and access services? How an we tailor programmes to deliver information and services? And, how can programmes improve communication between adolescents and adults?

This conference brought together researchers from different disciplines, as well as service providers, programme managers, government representatives, policy-makers, representatives from international and donor agencies and, most importantly, young people themselves. Participants came from more than 13 countries, including South Asia, other Asian countries such as China, Indonesia, and Thailand, and countries beyond the region such as Chile, Colombia, several European countries and the United States of America. The agenda included 42 full presentations, 12 brief abstract presentations, comments from nine discussants and 72 poster presentations, supplemented by panel discussions among young people themselves and policy-makers.

In an attempt to record the evidence and insights that emerged from the conference, organizers asked the conference participants to write summaries of their presentations. As a result, this volume contains summaries of 40 of the 42 major presentations and two of the three panel sessions. This overview chapter provides a brief social and demographic profile of adolescents in South Asia, together, where possible, with information on other Asian countries—China, Indonesia, the Philippines, Thailand and Viet Nam—to enable readers to place South Asia within the larger Asian context. This is followed by a review of the entire collection of papers contained in this volume.

Profile of adolescents in South Asia

Of the estimated 1.2 billion adolescents in the world today, nearly half live in Asia, and nearly one in

Table 1. Demographic profile of adolescents in South Asia and other selected Asian countries

ountry	Estimated population aged 15–19 circa 2000 (thousands)	Estimated population aged 10–19 circa 2000 (thousands)	Adolescents aged 15–19 (% of total population)	Adolescents aged 10–19 (% of total population)
South Asia	**135 163**	**281 840**	**10**	**21**
Bangladesh	15 089	31 816	11	23
India	100 963	209 148	10	21
Nepal	2 373	5 116	10	22
Pakistan	14 841	32 117	11	23
Sri Lanka	1 897	3 643	10	19
Other Asian Countries				
China*	100 760	218 497	8	17
Indonesia	21 564	43 355	10	20
Philippines	8 145	17 087	11	23
Thailand	5 807	11 345	9	18
Viet Nam	8 275	1 784	11	22

*Note: Not including data for Hong Kong Special Administrative Region of China.

Source: United Nations (2001) *World Population Prospects: The 2000 Revision. Volume II. The sex and age distribution of the world population.* New York, United Nations.

four (282 million) live in South Asia. Adolescents aged 10–19 comprise over one-fifth of South Asia's population (Table 1). Within the region, Bangladesh and Pakistan have the greatest proportion of adolescents, while India has the greatest absolute number.

Though the situation of adolescents varies widely within the region and within individual countries, literacy and school enrolment rates among adolescents have risen in all South Asian countries over the past couple of decades. In Bangladesh, India and Pakistan, for example, the proportion of women aged 20–24 who report seven or more years of education is dramatically higher than the proportion of older women aged 40–44 who do so, as illustrated by Figure 1.

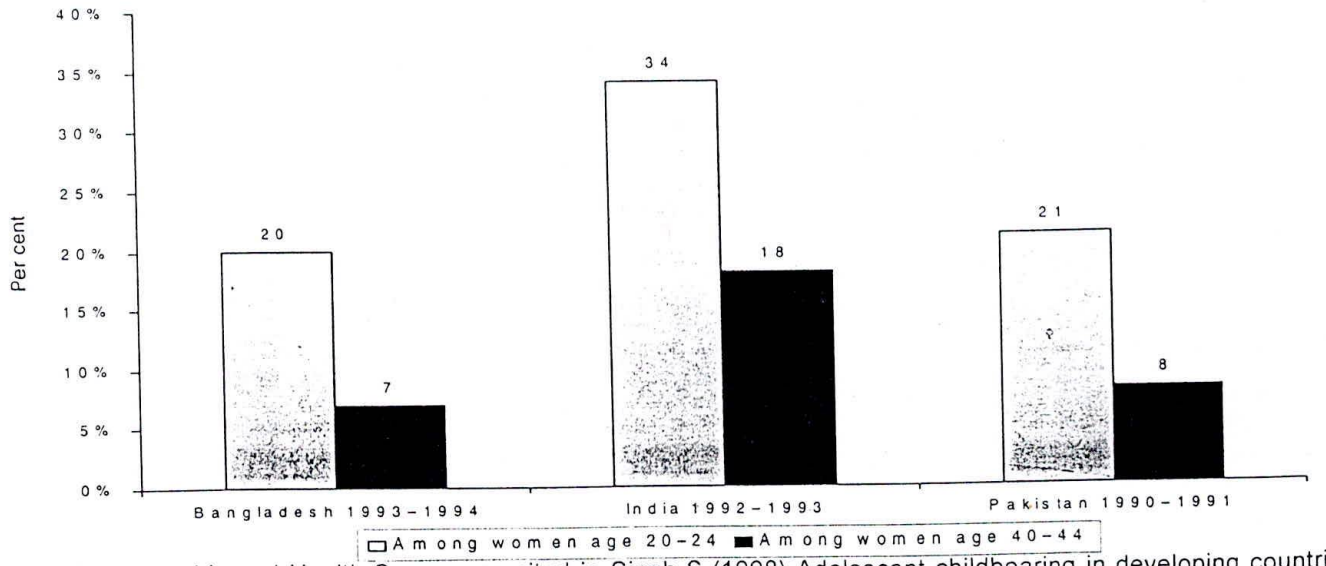
Nevertheless, according to United Nations estimates, secondary school enrolment ratios remain low in most South Asian countries, except Sri Lanka, and large proportions of teenage girls aged 15–19 remain illiterate. It is important to note that geographic disparities are wide within individual countries. Differences between the sexes are also wide, particularly in Bangladesh and Pakistan where secondary school enrolment ratios for boys are nearly double those for girls (Table 2).

The majority of older South Asian adolescents are not in school, except in Sri Lanka (Table 2). Some are unemployed, while others work for pay, or work without remuneration in households, family farms and businesses. Surveys suggest that labour force participation rates are relatively high—both among older adolescents aged 15–19 and among younger adolescents aged 10–14 (Table 3). In Bangladesh, for example, a 1995–1996 survey found that over one-quarter and one-third of younger adolescent females and males were economically active, as were about half and two-thirds of older adolescents, respectively. Labour force participation of younger adolescents is also high in other countries—among males in Nepal and Pakistan, for example. By ages 15–19, large proportions of South Asian males (36–66%) and females (21–49%, excluding Pakistan) are engaged in economic activity. Rural adolescents are more likely to work and less likely to study than their urban counterparts. Caution in interpreting sex specific figures is advised since surveys can underestimate girls' contributions to household labour and consequently their economic activity rates (see, for example, Jejeebhoy, 1993).

Health status of adolescents in South Asia

As noted in the global overview by Paul Van Look, adolescence is generally a period of life free from both childhood diseases and the ravages of ageing. Consequently, as in other settings, mortality rates

Figure 1. Per cent of women with 7+ years of education, by generation



Source: Demographic and Health Surveys as cited in Singh S (1998) Adolescent childbearing in developing countries: a global review. *Studies in Family Planning*. 29(2):117–163.

among adolescents and young people in this region are generally lower than those observed at younger and older ages. However, unlike in other countries, adolescent and young women in the countries of South Asia, with the exception of Sri Lanka, experience somewhat higher mortality rates than males at the same ages (Table 4). Disparities are particularly evident among young people aged

Table 2. Secondary school enrolment and illiteracy rates among adolescents in South Asia and other selected Asian countries, 1995–1997

Country	Secondary school enrolment ratios (% of # enrolled to # in applicable age groups		Per cent of teens aged 15–19 who are illiterate	
	Boys	*Girls*	*Boys*	*Girls*
South Asia				
Bangladesh	25	13	58	71
India	59	39	20	44
Nepal	51	33	26	51
Pakistan	33	17	56	74
Sri Lanka	72	78	9	10
Other Asian Countries				
China	74	67	3	8
Indonesia	55	48	2	3
Philippines	77	78	4	1
Thailand	38	37	1	2
Viet Nam	48	46	7	7

Source: Population Reference Bureau (2000) *The World's Youth 2000.* Washington, DC, Population Reference Bureau, Measure Communication.

Table 3. Labour force participation rates of adolescents and youth by sex and age group

Country and year	Females (%)			Males (%)		
	Aged 10–14	Aged 15–19	Aged 20–24	Aged 10–14	Aged 15–19	Aged 20–24
South Asia						
Bangladesh (1995–96)*	28.1	47.8	58.7	37.8	65.5	82.0
India (1991)*	5.1+	26.2	33.5	5.7+	43.8	74.7
Nepal (1991)*	28.0	49.0	54.0	18.1	49.2	80.0
Pakistan (1999)**	5.8	9.6	11.7	16.5	51.1	85.5
Sri Lanka (1999)***	3.1	21.2	50.6	3.3	35.8	87.1
Other Asian countries						
China (1990)*	na	68.3	89.6	na	61.5	92.6
Indonesia (1999)***	na	90.6	53.8	na	45.5	33.6
Philippines (1999)***	na	25.8	52.7	na	45.1	81.0
Thailand (1999)***	8.3++	29.1	67.9	9.0++	37.7	77.9
Viet Nam (1989)*	37.4++	73.3	88.8	29.5++	67.4	94.4

* International Labour Organisation (1998) *Yearbook of Labour Statistics 1998.* Geneva, ILO.

** International Labour Organisation (1999) *Yearbook of Labour Statistics 1999.* Geneva, ILO.

***International Labour Organisation (2000) *Yearbook of Labour Statistics 2000.* Geneva, ILO.

+ Aged 5–14; ++ aged 13–14.

na: not available.

15–19 and 20–24, and this may well be explained by the poorer reproductive health of females in these countries.

Gender disparities in health are particularly significant in South Asia. In terms of food intake, access to health care and growth patterns, girls are worse off than their brothers. Disparities become evident soon after birth, and, by adolescence, many girls are grossly underweight (Jejeebhoy, 2000). Adolescent girls contribute long hours to the household economy, but their activities are largely invisible and undervalued since they draw no income. Gender roles and expectations have such a profound impact on the lives of adolescents that nearly every author in this collection explores some dimension of the ways in which gender roles affect adolescents' lives.

Adolescent sexual and reproductive health in South Asia

Two papers in this collection provide comprehensive overviews of South Asian adolescents' sexual and reproductive health, namely, a regional overview by Ena Singh and a national overview of the Indian situation by A.R. Nanda. Together, these papers outline the many factors that undermine adolescents' ability to make informed sexual and reproductive choices in South Asia. For example, South Asian societies have traditionally placed high priority on preserving young women's chastity before marriage—a concern that has important implications for their education, age at marriage, autonomy and mobility. Seclusion norms are widespread in the region from puberty onwards. As a result, adolescent girls in many South Asian settings are unlikely to have much exposure or physical access to the outside world. Few services cater to their needs for health care, nutrition, vocational skills, economic opportunities or information. A sizeable proportion of women in South Asia marry well before age 18, and early pregnancy further exacerbates their poor reproductive health and the poor survival chances of the infants they bear. These papers also highlight the factors that prevent boys from making informed decisions, including lack of knowledge about sex and reproduction, and social pressure to have sex

Table 4. Age-specific death rates of adolescents and youth by sex and age group

	Females (%)			Males (%)		
Country and year	Aged 10–14	Aged 15–19	Aged 20–24	Aged 10–14	Aged 15–19	Aged 20–24
South Asia						
Bangladesh (1986)	1.1	2.3	3.1	1.7	2.0	2.2
India (1997–98)	1.4	2.5	3.8	1.0	1.8	2.7
Nepal (1986–87)	6.6+	4.1++	3.3+	4.3++		
Pakistan (1996–97)	2.5	1.9	3.9	2.6	1.9	2.9
Sri Lanka (1995)	0.4	0.9	1.0	0.5	1.7	3.6
Other Asian countries						
Philippines (1991)	0.6	0.7	0.9	0.7	1.2	2.3
Thailand (1997)	0.3	0.6	1.1	0.5	2.1	3.3

+ Aged 5–14 ++ aged 15–24, further breakdown not available.

Sources: ***Bangladesh:*** United Nations (1997) *Demographic Yearbook 1995*. New York, United Nations (ST/ESA/STAT/SER. R/26); ***Philippines, Sri Lanka, Thailand:*** United Nations (2000) *Demographic Yearbook 1998*. New York, United Nations (ST/ESA/STAT/SER. R/29); ***India:*** International Institute for Population Sciences & Macro (2000) *National Family Health Survey (NFHS-2) 1998–99: India*. Mumbai, International Institute for Population Sciences; ***Nepal:*** Central Bureau of Statistics, Nepal (1995) *Population Monograph of Nepal*. Kathmandu, Government of Nepal, Table 1.4, p. 33; ***Pakistan:*** Hakim et al. (1998) *Pakistan Fertility and Family Planning Survey 1996–97 (PFFPS)*. Islamabad, Pakistan, National Institute of Population Studies (December).

under unsafe conditions, placing them at risk of sexually transmitted infections.

The other papers in this collection explore all these dimensions in more depth, including papers from Bangladesh, China, India, Pakistan, Nepal, Sri Lanka and Thailand. The first half of the collection presents empirical evidence about adolescents' situation and needs that form the basis for programmes and policies discussed in the second half.

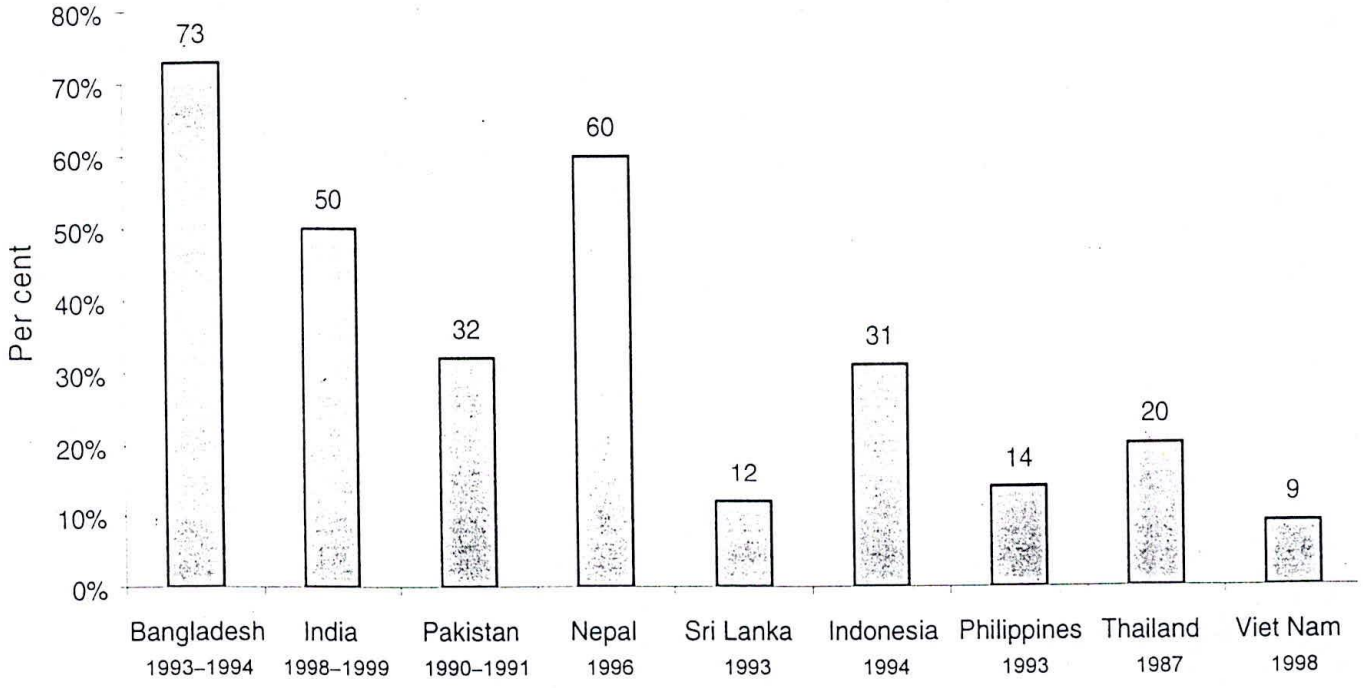
Married adolescents: the health consequences of early marriage and childbearing

International attention on adolescent sexual activity tends to focus on *premarital* sex. However, in South Asia, sexual debut among adolescent girls occurs largely within marriage. Despite rising age at marriage and laws prohibiting marriage before age 18 for women and before age 21 for men in most South Asian countries, the majority of women marry as adolescents in Bangladesh, India and Nepal (Figure 2 and Table 5). Correspondingly, most South Asian women experience sexual debut as married adolescents. Moreover, large surveys have found that almost half of all women aged 20–24 are married by age 15 in Bangladesh, as are nearly one-fourth (24%) in India and one-fifth (19%) in Nepal. In contrast, South Asian boys rarely marry as adolescents. For example, the recent National Family Health Survey (NFHS-2) in India found that only 6% of adolescent boys were married (Kulkarni, this volume).

Over the past decade, adolescent fertility has dropped in nearly all South Asian countries. However, due to the persistence of early marriage, pregnancy during adolescence is still common (Figure 3 and Table 7). The 1996–1997 Bangladesh Demographic and Health Survey found that 14% of 15 year-old girls were either already mothers or pregnant with their first child (Mitra et al., 1997). Many girls become pregnant before they reach physically maturity, which has adverse health consequences, both for young women and their children.

Several papers in this collection explore the social context and health consequences of early marriage

Figure 2. Per cent of women aged 20–24 married by age 18 in South Asia and other selected Asian countries



Sources: National Demographic and Health Surveys from various years as noted. Figures cited in the following sources: ***India:*** International Institute for Population Sciences & Macro (2000); ***Pakistan:*** Blanc & Way (1998); ***All other countries***: De Silva W (1998).

Table 5. Per cent of women aged 20–24 married by age 15, 18 and 20 in South Asia and other selected Asian countries

Country and year	By age 15 (%)	By age 18 (%)	By age 20 (%)
South Asia			
Bangladesh (1993–1994)	47	73	82
India (1998–1999)	24	50	na
Nepal (1996)	19	60	76
Pakistan (1990–1991)	na	32	na
Sri Lanka (1993)	1	12	24
Other Asian countries			
Indonesia (1994)	9	31	48
Philippines (1993)	2	14	29
Thailand (1987)	2	20	37
Viet Nam (1998)	1	9	31

na: not available.

urces: National Demographic and Health Surveys from various years as noted. Figures cited in the following urces: ***India:*** International Institute for Population Sciences & Macro (2000); ***Pakistan:*** Blanc & Way (1998); ***All other countries***: De Silva W (1998).

Table 6. Median age at first marriage and per cent of teenage girls ever married

Country and year	Median age at first marriage among women aged 20–24	Per cent of girls aged 15–19 ever married
South Asia		
Bangladesh (1996–1997)	15	50
India (1998–1999)	18	34
Nepal (1996)	17	44
Pakistan (1990–1991)	20	25
Sri Lanka (1993)	24*	7
Other Asian countries		
Indonesia (1997)	20	18
Philippines (1998)	na	8
Thailand, na	na	17
Viet Nam (1998)	22.5	8

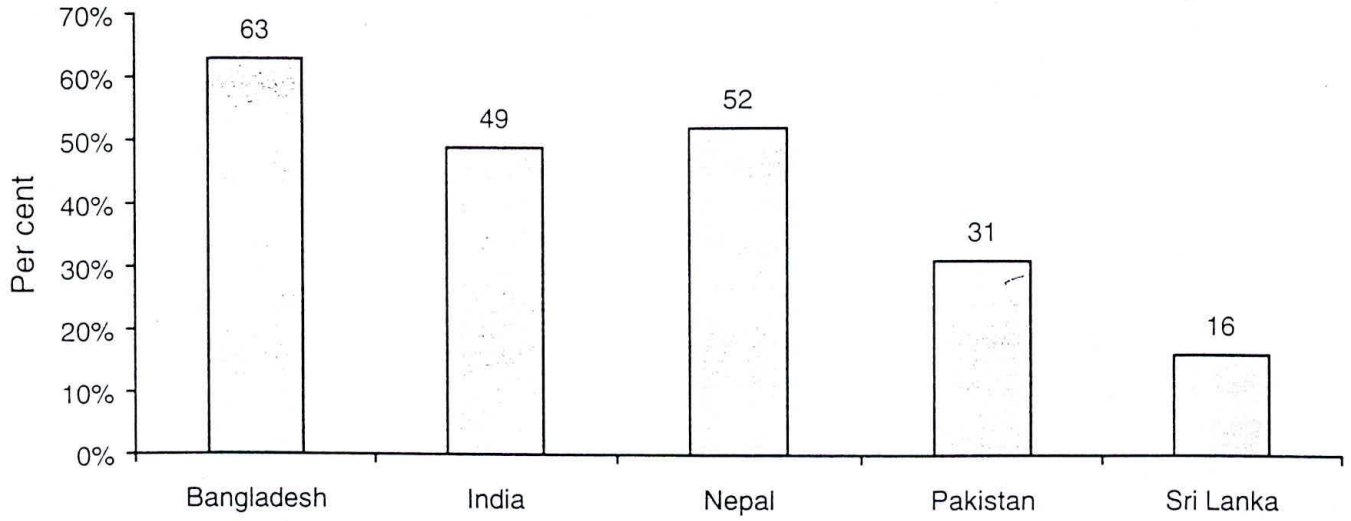
* Among women aged 25–29; na: not available.

Sources: National Demographic and Health Surveys various years as noted. Data cited in following sources: ***Sri Lanka:*** De Silva W (1997); ***Thailand:*** Population Reference Bureau (2000); ***All other countries:*** www.measuredhs.com.

and childbearing. Kulkarni and Adhikari each present a national profile of married adolescents' reproductive health in papers from India and Nepal, respectively. Kulkarni analyses data from the 1998–1999 National Family Health Survey, India (NFHS-2), that focus on young women aged 15–19, while Adhikari draws from published and unpublished research on women aged 15–24, including the 1996 Nepal Family Health Survey.

These papers describe a situation applicable to many South Asian settings (with the possible exception of Sri Lanka). Surveys from the late 1990s suggest that over two-fifths of adolescent girls in Nepal and nearly one-third of those in India have ever been married. Both Adhikari and Kulkarni present evidence that a substantial proportion of young girls enter marriage already malnourished. For example, a study from three rural areas of Nepal found that 72% and 45% of girls aged 10–14 and 15–18 were stunted and undernourished. In India, the NFHS-2 found that nearly 15% of ever-married adolescent women were stunted, and about one-fifth had moderate to severe anaemia.

Figure 3. Per cent of married women aged 20–24 who gave birth by age 20, from national surveys in the 1990s.



Source: Population Reference Bureau (2000) *The World's Youth 2000.* Washington, DC, Population Reference Bureau, Measure Communication.

The combination of poor nutrition and early childbearing expose young women to serious health risks during pregnancy and childbirth, including damage to the reproductive tract, maternal mortality, pregnancy complications, perinatal and neonatal mortality and low birth weight. International analyses suggest that, at the global level, girls aged 15–19 are twice as likely to die from childbirth as are women in their twenties, while girls younger than age 15 face a risk that is five times as great (United Nations Children's Fund, 2001). These sources report that more adolescent girls die from pregnancy-related causes than from any other cause (Population Reference Bureau, 2000). Kulkarni and Adhikari support such findings with data from India and Nepal. For example, studies from Nepal found higher rates of obstetric morbidity among adolescents than among adult women, as

Table 7.Childbearing among adolescents in South Asia and other selected Asian countries

Country	Per cent of women aged 20–24 who gave birth by aged 20*	Per cent of TFR attributed to births by mothers aged 15–19*	Teenage fertility rate (births per 1000 girls aged 15–19) circa 1999**	Per cent of births to women aged 15–19 attended by trained personnel*
South Asia				
Bangladesh	63	18	140	14
India	49	18	107	34
Nepal	52	13	117	14
Pakistan	31	9	100	17
Sri Lanka	16	5	21	82
Other Asian countries				
China	8	1	15	na
Indonesia	31	11	57	32
Philippines	21	6	43	51
Thailand	24	20	76	61
Viet Nam	19	5	na	76

na: not available; TFR: total fertility rate

Sources: *Population Reference Bureau (2000) *The World's Youth 2000.* Washington, DC, Population Reference Bureau, Measure Communication. **World Bank (2001) *World Development Indicators.* Washington, DC, World Bank.

well as a 25–66% higher incidence of low birth weight among children of adolescent mothers. Both authors report considerably higher rates of neonatal and infant mortality among children of adolescent mothers. Despite greater risks, both authors cite evidence that adolescents do not receive more antenatal or intrapartum care than older women. Adhikari argues that adolescent girls in Nepal actually receive less prenatal care than older women.

The social context of early marriage

Within the age- and gender-stratified family structure that characterizes much of South Asia, young, newly married women are particularly powerless. The average adolescent bride is unlikely to have had a say in the decision about whom or when to marry, whether or not to have sexual relations, and when to bear children. On the contrary, society often places strong pressures on young women to prove their fertility, and, in many settings, bearing sons is the only means by which young women can establish social acceptance and economic security in their marital homes. Lack of autonomy within their marital homes often means that married girls have limited access to health care or participation in decisions about their own health. For example, Kulkarni notes that in some Indian states, such as Maharashtra and Madhya Pradesh, fewer than one-third of adolescent women surveyed reported any involvement in decision-making about their own health.

Two papers in this collection focus on the social context of married adolescents. Both Chowdhury (Bangladesh) and George (India) present qualitative findings from small-scale, in-depth studies with select groups. Findings from these studies are not necessarily representative of larger populations, but they provide an important complement to the quantitative evidence, by describing experiences of new wives and mothers in their own words.

George highlights young wives' lack of sexual autonomy in a review of two qualitative studies among poor urban women in India. Those studies gathered retrospective data from women who married as adolescents. Most women in these studies reported that they were unprepared for, and ignorant about, sexual intercourse until the first night with their husbands. Many experienced some form of sexual coercion, and many described their first sexual experience as traumatic, distasteful, painful and involving the use of physical force.

Chowdhury presents preliminary findings from a study on first-time parents in Bangladesh. Women reported that they did not have a choice as to whom or when to marry, or when to begin childbearing. As echoed by many papers in this collection (for example, see Rashid), many male and female respondents told researchers that they would have liked to have waited longer before getting married. Lack of decision-making authority permeated all aspects of young women's lives—including food intake during pregnancy, workload, mobility, and access to health care. Young women reported heavy workloads during pregnancy, which only increased after the birth of their child, and some expressed great unhappiness about their situation.

Other papers in this collection explore the context of early marriage as one among many issues that concern adolescents. Though it was not the central focus of their research, Waszak, Thapa and Davey describe similar experiences involving young married women in Nepal, based on 71 focus group discussions. Young women suggested that young pregnant girls often have low priority when food is distributed in their husbands' family. Heavy workloads are common and supported by local beliefs such as: "the more you work, the lighter your body becomes and easier it is at delivery". Newly married girls are expected to tolerate sexual coercion from their husbands, to prove their fertility as soon as possible after marriage, and to allow family elders to limit their food intake and health care during pregnancy.

Many authors in this collection argue that girls who postpone marriage and stay in school longer are better off than those who marry early. This is not only because they will reach physical maturity

before childbearing, but also because they may be better able to negotiate with their in-laws and voice their own needs.

Social and economic factors behind early marriage

Many papers in this collection examine why early marriage persists in South Asia. Again, such research findings tend to emerge from qualitative studies that cannot be generalized to the tremendously diverse population of South Asia as a whole. Furthermore, it is important to note that marriage trends are in flux, and average age at which girls marry in South Asia is rising. Nevertheless, this collection of studies offers important insights into the factors that contribute to early marriage among girls—in the words of both adolescents and their parents.

Rashid presents findings that emerged from focus group discussions in the Nilphamari district of Bangladesh. In this district, girls still marry as young as age 11. Mothers explained that the main reason for early marriage was parents' fear that daughters would be raped, become pregnant or elope. The knowledge that a girl has had premarital sex (even resulting from rape) can ruin the status and reputation of the entire family. Respondents suggest that attitudes towards early marriage may be changing, as parents increasingly appreciate the value of education and the negative health consequences of early childbearing. Nevertheless, they noted that parents who wait too long to marry their daughters often face community pressure, including derogatory comments from community elders. Chowdhury also cites evidence that early marriage of girls in Bangladesh may stem from financial pressures, a father's death or a large of number of daughters.

Waszak, Thapa and Davey analysed focus group discussions (FGDs) held in 11 districts in Nepal. During FGDs stratified by age, sex, marital status and residence, researchers explored gender norms that affect work, education, marriage and childbearing among young people aged 14–22. On the one hand, respondents suggested that families have increasingly recognized the benefits of education for girls (though parents still generally invest more resources in sons). On the other hand, families face social pressure to marry their daughters early as a way to protect their "character". The longer a girl stays at home, the longer she is at risk of running away or having a love marriage—all of which could bring dishonour on the family. Adolescents described norms that condone premarital sexual activity among boys, but ruin girls who do the same. Parents' fear about their daughters' sexual chastity often pressures them to end their schooling and arrange early marriages. Marriage usually ends a girls' education, because her increased household responsibilities are generally incompatible with attending school. The respondents also described how gender norms pose different challenges for young men. Pressure to achieve financial stability before marriage often forces them to delay marriage, increasing pressures and opportunities for young men to engage in unsafe sexual activity.

Attitudes and risk behaviours of unmarried adolescents

Given highly conservative attitudes about sex in South Asia, few studies have successfully elicited information on sexual behaviour. Most explore premarital rather than marital sex, men's behaviour rather than women's, and young people's current experiences or retrospective experiences of adults. Samples tend to be small and drawn from urban areas rather than rural communities or slums. Results, therefore, tend to be unrepresentative of the general population. While generalization is difficult, findings of the few available studies (see for example, Jejeebhoy, 2000, for India; or Abraham, this volume) generally suggest that between 20% and 30% of young men and between 0% and 10% of young women report premarital sexual experience. Sexual initiation occurs earlier than many assume, and is often unplanned and unprotected. Moreover, as noted in many papers in this volume, substantial proportions of young men report having sex with sex workers—usually without condoms.

Several papers in this collection present findings on the sexual behaviour and attitudes of South Asian adolescents before marriage, including studies from Bangladesh, India, Nepal, Pakistan and Sri Lanka. Understandably, these studies are quite diverse, having used different methodologies among diverse populations. Study populations included low-income urban college students in India, young people from provincial settings in Pakistan and a nationwide sample in Nepal. Methodologies ranged from a combination of qualitative and quantitative in India and Sri Lanka, to a pilot survey in Pakistan, and focus group discussions in Nepal and Bangladesh.

Studies suggest that most South Asian adolescents have conservative attitudes towards marriage and sex. For example, in studies from Bangladesh, Nepal and Sri Lanka, young people told researchers that they generally disapprove of love marriages, premarital sex (particularly by girls), and often for that matter, social interaction between unrelated women and men. In some cases even the hint of a friendship with a boy can ruin a girl's reputation, her marriage prospects and the social status of her entire family. While few studies have considered social constraints on adolescent boys, it is clear that their behaviour is less closely supervised than that of girls. Many young people feel that society condones premarital sexual activity among boys and even puts social pressure on boys to become sexually active at an early age.

Rashid presents findings from discussions with adolescents in Bangladesh about love and romance. Most adolescents did not approve of "love" (*prem*) and instead felt that young people should marry whomever their parents chose for them. They described heavy sanctions and punishments that befall girls discovered to be involved in sexual relationships. Nevertheless, some respondents expressed attitudes that—in the author's view—were "considered unthinkable for previous generations". For example, some had secretly fallen "in love". Many distinguished between "pure" love as a relationship that leads to marriage, and "impure" love as a relationship that does not lead to marriage or involves sex.

Abraham presents focus group discussion and survey data gathered among low-income, urban college students aged 16–18 and 20–22 in Mumbai. Young respondents reported friendships with members of the opposite sex, despite strong parental disapproval of such behaviour. The author describes different categories of friendship, including platonic (*bhai-behen*), romantic with the intention of marriage ("true love") and transitory sexual relationships ("time pass"). The boundaries of these categories are fuzzy, as is the extent of physical intimacy. Authors note that many researchers have not adequately explored different kinds of sexual activity. While only 26% of young men and 3% of young women reported penetrative sex, as many as 49% and 13%, respectively, reported other forms of physical intimacy. Young women almost unanimously reported monogamous and committed relationships. By contrast, young men reported a range of partners, including sex workers and "aunties" (older married women in the neighbourhood).

Silva and Schensul report considerable premarital relationships between young men and women in Sri Lanka, according to survey data gathered among low-income youth and university students aged 17–28. Contrary to what the authors expected, this study found that university students were somewhat more likely than less educated young people to oppose premarital sex among women. Similar to the study among Indian college students, young men were considerably more likely than young women to approve of premarital sexual activity. Unlike the Indian case, however, differences between women and men reporting a "love partner" (not necessarily a sexual partner) were marginal. Over 50% of both young women and young men reported having such a partner. This study found that young people generally preferred behaviours perceived to protect female virginity, such as inter-femoral and other forms of non-penetrative sex. Even so, as in India, a large

number of young boys and men reported sexual relations with commercial sex workers.

Bhuiya and colleagues present findings from a community-based survey in two rural sites in Bangladesh, which found relatively lower rates of premarital sexual activity among 2626 unmarried adolescents aged 13–19. In this study, 9% of 1462 boys and three of 1164 girls had ever engaged in premarital sexual relations. (Two of the three girls reported forced sex.) Once again, evidence suggests that sexual relations are often unsafe and sometimes non-consensual. Two-fifths of the sexually experienced males reported sex with commercial sex workers. Less than one-quarter of sexually experienced males reported condom use at first sex. Twelve per cent reported a sexually transmitted infection (STI) symptom in the previous six months, and 6% (7 adolescents) reported having experienced coerced sex.

Non-consensual sexual activity among adolescents

As a taboo subject, sexual violence is rarely reported or studied. Hence it is difficult to estimate how many young people suffer from sexual abuse, violence, coercion, incest, rape or sexual trafficking. Nevertheless, evidence suggests that a disturbingly large number of adolescent girls and boys are subjected to coercion in South Asia. Several small studies suggest that sexual coercion and rape often occur within marriage, and adolescents may be more likely to experience such violence than older women. Sexual coercion can have considerable health consequences, including sequelae related to unsafe abortion.

Many papers in this collection cite evidence of sexual coercion against young people, including Waszak, Thapa and Davey (Nepal), George (India), Bhuiya et al. (Bangladesh), and Qazi (Pakistan). Three papers from India explore sexual coercion in more depth, including papers by Ramakrishna et al. among street boys in Bangalore, by Sodhi and Verma among young people in a low-income area of Delhi, and by Patel et al. among school-going adolescents in Goa. None of these studies was designed to explore sexual coercion exclusively; instead they focused on coercion as one of several risk behaviours. Given the sensitive nature of the topic, researchers typically learned the most about these experiences from in-depth interviews rather than surveys.

As one might expect, evidence suggests that street children are highly vulnerable to coercion. Ramakrishna and colleagues offer insight into the context of coercion among street boys in Bangalore, a city with an estimated 85 000–100 000 street children. Using a variety of qualitative methods and sample recruitment strategies, their study found that some 74 of 121 street boys aged 9–21 were sexually experienced. Forty had their first sexual experience by age 12. A large proportion of boys reported coercive experiences, both as victims and perpetrators, often involving exchange of money, gifts or other favours, as well as physical force. Sexual coercion is so pervasive on the streets that street boys rated rape and forced sex as among the most pleasurable ways of seeking sexual gratification. Authors argue that social conditions, poverty and drug use shape concepts of sexuality and coercion among street boys.

Sodhi and Verma's study among low-income adolescents in Delhi, India, supplements this profile of coercion. During 71 in-depth interviews with youth, respondents described widespread verbal harassment of women as well as 32 instances of sexual coercion, including forced sex. Both girls and boys reported experiences of coercion, including cases in which girls were forced to engage in sex against their will, sometimes with multiple partners. Double standards are pervasive, and young women who experience forced sex often face severe reprisals should their experience be disclosed. Some are even forced to continue coercive relationships under threat of disclosure from the perpetrator. Echoing other studies in this collection, young married women also reported widespread marital rape, which they tended to view as "normal" male behaviour.

Patel and colleagues present the findings of a survey that explored the prevalence and consequences of abuse and violence among 811 students in the first year of higher secondary school (average age 16). Researchers asked adolescents about forced or unwanted verbal or physical sexual coercion in the last 12 months. As many as one-third of students—both male and female—reported a coercive experience in the past year, and 6% reported forced sexual intercourse. Nearly half of all adolescents who experienced coercion reported more than one such experience. Students and friends were the most commonly reported perpetrators, followed by strangers, neighbours and others; abuse by parents and teachers was also reported. Most suffered the abuse in silence. The authors found strong associations between forced sex and and a number of variables, including poor school performance, self-reported mental and physical health and subsequent consensual sexual relations.

Together these studies suggest that for many young people, homes, schools and neighbourhoods do not provide a safe and supportive environment. Societal norms and double standards often perpetuate violence by condoning harassment and abuse perpetrated by young men, while blaming victims. Their findings suggests that researchers and service providers need to pay more attention to factors such as violence and sexual abuse that impact young people's mental and emotional health.

Adolescents' use of condoms and contraceptives

In light of evidence that substantial proportions of South Asian adolescents are sexually active, many papers in this collection explored the extent to which adolescents take measures to protect themselves from unwanted pregnancy and STIs. At the global level, adolescents are far less likely than adults to use contraception, either in or out of marriage. Not all contraceptive methods are suitable for adolescents, and those that are appropriate may be inaccessible or simply unavailable. Not surprisingly therefore, a substantial proportion of sexually active adolescents—both married and unmarried—have an unmet need for contraception and are at risk of STIs, including HIV/AIDS.

While an array of contraceptive methods exists, evidence of their suitability, safety and efficacy among adolescents is incomplete. Questions remain about their clinical performance and their effects on adolescents who have not reached physical maturity. Meirik reviews the existing literature on these issues, which suggests that certain methods, such as Depot-medroxyprogestrone acetate (DMPA) and the intrauterine device (IUD), are not advisable for adolescents. While evidence is still inconclusive, some data suggest that DMPA may reduce adolescents' bone mass, thereby increasing the risk of fracture later in life. Concerns about the IUD arise from its possible link with increased risk of pelvic inflammatory disease (PID), to which young women are at higher risk than adult women. In contrast, recent evidence demonstrates that combined oral contraceptives do not adversely affect either the maturation of the hypothalamic-pituitary-ovarian system or the risk of breast cancer later in life, as was previously feared. The author argues that combined oral contraceptives and male condoms are clearly safe for adolescents. However, he notes that only condoms offer dual protection against unwanted pregnancy and STIs, including HIV.

Pachauri and Santhya's review of available data on married adolescents' contraceptive use in South Asia confirms that the proportion of married adolescents who use contraception in these countries remains low, even though significant minorities of young women say they want to delay or space births. In large surveys, 41% of sexually active married adolescents aged 15–19 in Nepal reported an unmet need, as did 16% in Bangladesh, 14% in India and 8% in Pakistan (Table 8). In India, Nepal and Pakistan, fewer than 10% of married adolescent women or their partners practise contraception, compared to about one-quarter in Bangladesh and one-fifth in Sri Lanka

(Alan Guttmacher Institute, 1998). In addition, discontinuation and failure rates for contraceptive use are more pronounced among adolescents than among older couples.The authors argue that the unmet need for reversible methods is particularly great. They cite the example of India where the leading method used by married adolescents is sterilization, a method that, by definition, cannot be used to delay or space births.

Few studies have looked at the extent to which adolescents protect themselves from pregnancy or STIs during pre- or extra-marital sexual activity. The few studies that have done so generally focus on young men's use of condoms, including papers in this collection by Tamang and Nepal (Nepal) and Abraham (India). Tamang and Nepal offer a rare look at factors that inhibit condom use among young, unmarried men aged 18–24 in border towns of Nepal. That study found that nearly one-third of respondents initiated sexual activity before age 18, and more than one-fourth reported "casual" sexual relations in the previous 12 months, including with commercial sex workers. Less than half of the respondents who engaged in casual sex reported condom use in their last sexual contact. Alcohol consumption was strongly associated with unprotected sex. When researchers asked young men why they did not use condoms, however, the most common responses were that they did not feel at risk; they expressed fatalistic attitudes or they thought that condoms would reduce pleasure.

Abraham's study also found that male college students in Mumbai used condoms rarely and irregularly. Despite the fact that most sexually experienced young men reported multiple partnerships, fewer than one in six young men who engaged in sexual relations with a casual partner said that they "always" used a condom. All those who admitted to having sex with commercial sex workers reported having used a condom at least once. The majority, however, used them rarely, and not a single student reported regular use of condoms during sex with sex workers. Meanwhile, few young people perceived themselves to be at risk of contracting an infection. The author notes that young women seem oblivious to the possibility that the unprotected sexual behaviour of their future husbands may eventually expose them to infection, even if they themselves practise strict abstinence before marriage.

Numerous factors contribute to low contraceptive use rates among adolescents, ranging from lack of knowledge to gender imbalances that prevent communication between partners and exclude young women from decisions about when to have children. Pachauri and Santhya note that while adolescents' awareness of at least one method of

Table 8. Current contraceptive use among adolescents (aged 15–19) in South Asia and other selected Asian countries

Country, year of survey	Per cent of married women aged 15–19 currently using any method of contraception	Estimated per cent of women aged 15–19 with an unmet need for contraception
South Asia		
Bangladesh 1997	33	19
India 1998–1999	8	27
Nepal 1996	7	41
Pakistan 1996–1997	6	23
Sri Lanka 1987	20	na
Other Asian countries		
Indonesia 1997	36	9
Philippines 1998	18	32
Thailand 1997	43	na

Sources: All figures from Demographic Health Surveys cited in Pachauri & Santhya (2002).

contraception is nearly universal in South Asian countries (with the exception of Pakistan), adolescents are not necessarily aware of reversible methods that might be most appropriate for their situation, such as oral contraceptives or condoms. Furthermore, many young couples do not know how to obtain such methods or understand how to use them correctly. As many papers in this volume illustrate, adolescents who want to protect themselves from pregnancy and STIs/HIV face a host of obstacles including lack of access to services, poor quality of care, and provider attitudes that adolescents find threatening, disrespectful or indiscrete.

w studies have explored the ways that provider attitudes may inhibit contraceptive use among unmarried adolescents. Two papers in this collection shed light on this issue, including Gao et al. (China) and Naravage (Thailand). Gao and colleagues provide a rare look at provider attitudes in China. They report that as many as 40% of providers disapproved of supplying contraceptives to unmarried young people. Their findings suggest that even in settings such as China, where family planning is so well accepted, provider attitudes may discourage sexually active unmarried youth from using methods to protect themselves against unwanted pregnancy or STIs.

Emergency contraception (EC) has increasingly been recognized as a useful backup method for adolescents who have unprotected sex, but few studies have explored the acceptability or use of EC among youth in South Asia. The paper by Naravage suggests that misinformation and barriers to access may undermine the potential benefits of EC. The study found that both distributors and purchasers had a poor understanding of how to use EC correctly. Furthermore, young women told researchers that they were reluctant to purchase EC for fear of disclosing the fact that they were sexually active. Many purchasers reported using EC incorrectly or using it on a regular basis, which is contrary to its intended purpose. These findings suggest that the introduction of EC must be accompanied by clear and accurate instructions, as well as efforts to raise awareness among both potential users and distributors about how to use EC correctly and how to choose a contraceptive method that is appropriate for regular or long-term use.

Unplanned births and induced abortion among adolescents

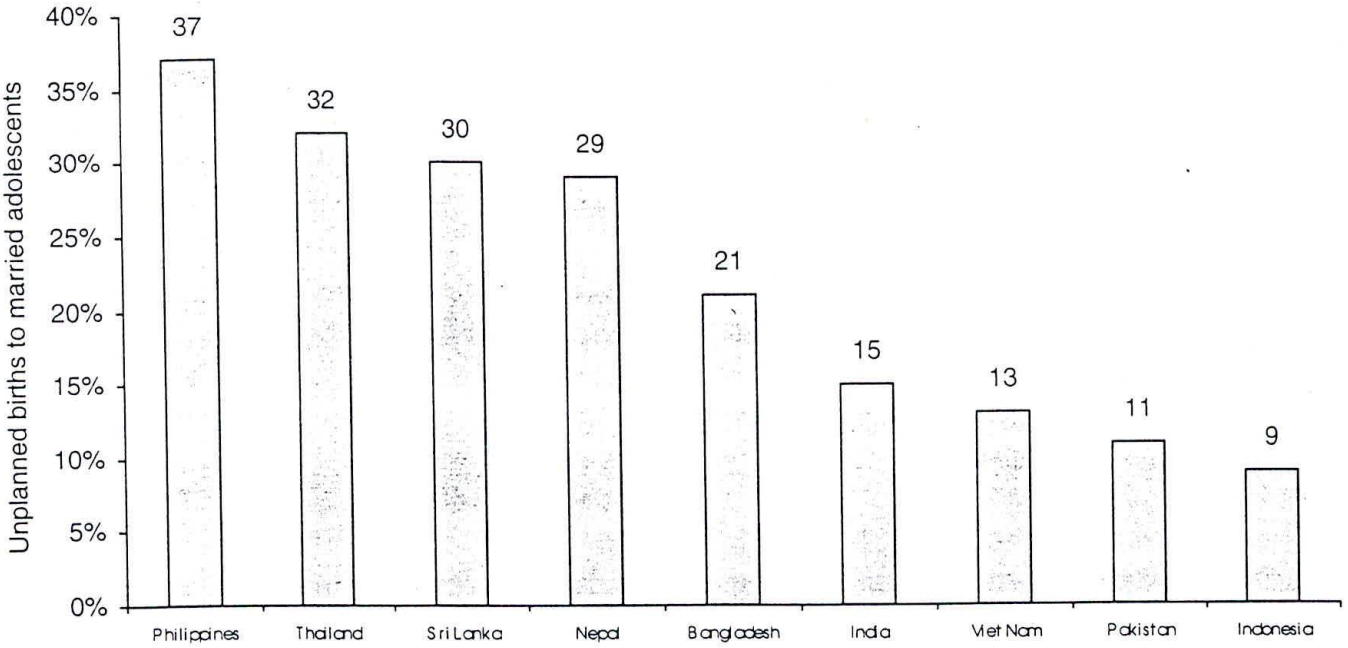
Because so many adolescents have sex without protection (both in and out of marriage), the proportion of adolescent births that are unplanned, unwanted or mistimed is relatively high, as illustrated by Figure 4, reprinted from Pachauri and Santhya (this volume).

Worldwide, many unplanned births end in induced abortion, often under unsafe conditions. Data on the numbers of adolescent abortions are scarce, but estimates for developing countries range from 1 to 4.4 million (McCauley & Salter, 1995). Some evidence suggests that adolescents—particularly unmarried adolescents—are more likely than older women to seek abortions from untrained providers, to undergo second trimester abortions and to suffer complications. Fear, shame and lack of access to both services and resources inhibit adolescents from seeking safe and early abortions on the one hand, and from seeking care in case of complications on the other (Bott, 2000).

The abortion scenario varies considerably within South Asia. In India, abortion has been legal since 1972, but limited availability and poor service quality keep safe abortion beyond the reach of most poor women. In Bangladesh, abortion has been available since 1999 for up to 12 weeks of gestational age in the form of "menstrual regulation", and large proportions of women use these services. In Sri Lanka, abortion is legally restricted, but available, and women have access to relatively safe services. In Nepal and Pakistan, it remains severely restricted and women who undergo an abortion are liable to prosecution.

Few studies have explored the context of abortion among young women in South Asia. The majority

Figure 4. Per cent of births to married adolescent girls that are unplanned in selected countries of South Asia and South-East Asia



Sources: Figure reprinted with permission from Pachauri & Santhya, this volume, Figure 3, p. 111. Data for: ***Bangladesh:*** National Institute of Population Research and Training et al. (1997); ***India***: International Institute for Population Sciences (IIPS), Macro International (2000); ***Indonesia:*** Central Bureau of Statistics (CBS), Indonesia et al. (1998); ***Nepal:*** Pradhan A et al. (1997); ***Pakistan and Thailand:*** Alan Guttmacher Institute (1998); ***Philippines:*** National Statistics Office (NSO), Philippines et al. (1999); ***Sri Lanka:*** Department of Census and Statistics, Sri Lanka et al. (1998); ***Viet Nam***: National Committee for Population and Family Planning (NCPFP), Viet Nam et al. (1999).

of these studies have been hospital-based rather than community-based, urban rather than rural, and conducted among married women rather than all women. Two papers in this collection, Akhter (Bangladesh) and Ganatra & Hirve (India) present rare data on adolescent abortion. Their evidence paints a disturbing picture.

Akhter reviews various studies from Bangladesh. Because abortion services are available only up to the 12th week of pregnancy, women who want such services must recognize their pregnancy as early as possible. This poses a major obstacle for adolescent girls who may not recognize their pregnancy or find the resources to access services in time. Akhter reports that while adolescents constituted 9% of women who received services from "menstrual regulation" clinics, they constituted 15% of those rejected by the clinics, presumably because their pregnancies were too far along. As a result, many adolescent girls are hospitalized for complications of induced abortion after undergoing an abortion by traditional birth attendants or after attempting to self-induce. About half of these girls resorted to unsafe methods such as inserting a solid stick or rubber catheter, or ingesting medicines. Researchers observed life-threatening complications such as severe infection, mechanical injury to the cervix or vagina, and evidence of a foreign body having been inserted into the vagina, cervix or uterus. Awareness and prior practice of contraception were found to be limited among young women in the study.

Ganatra and Hirve describe a rare community-based study of abortion in a rural Indian setting. The study found that young women age 15–24 constituted over half of all abortion-seekers in the area. About 14% of married women who had recently experienced an induced abortion were younger than age 20, and another 40% were aged 21–24. Although abortion among unmarried women in India is a highly sensitive topic, researchers were able to identify 43 unmarried adolescents who admitted to having had an induced abortion. Their results suggest a number of important differences

between married adolescent and adult abortion-seekers. First, adolescents reported considerably less decision-making authority than older abortion-seekers. They were less likely to have been allowed a major role in the decision, more likely to have been coerced into an abortion, and conversely, more likely to have faced opposition from their families. As in Bangladesh, young women's knowledge about and use of contraception were limited, yet their need to space births was a leading reason for seeking abortion. Finally, providers were more likely to insist on spousal consent from younger abortion-seekers than from adult women, even though such consent is not legally required.

..ıe study found several important differences between married and unmarried adolescent abortion-seekers. While no evidence indicated that ***married*** adolescents delayed seeking services compared to older married women, it was clear that ***unmarried*** adolescents sought abortions further along in their pregnancy than their married counterparts. While married adolescents preferred the private sector, unmarried adolescent abortion-seekers reported higher use of traditional providers as a result of less family support, less money, and concerns about confidentiality and provider attitudes. Adolescents tended to believe that abortion services were not legally available to ımarried women. Researchers also found that some providers charged unmarried women a higher price for their services. Regardless of marital status, however, almost three-quarters of adolescent abortion-seekers reported post-abortion morbidity. Drawing on findings from other studies, the authors suggest that deaths related to abortions and unwanted pregnancies account for a significantly larger proportion of pregnancy-related deaths among adolescents than among older women. They also noted that suicides related to unwanted pregnancy constitute a substantial portion of maternal deaths in the area.

Reproductive tract and sexually transmitted infections among adolescents

In his address to the 6th International Congress on AIDS in Asia and the Pacific, Peter Piot, the Executive Director of the Joint United Nations Programme on HIV/AIDS (UNAIDS), stated his conviction that, "Asia and the Pacific hold the key to the global future of the epidemic". Compared to the African region, many Asian countries have seen only limited spread of HIV. Nonetheless, several worrisome indicators suggest that South Asia is at risk of sharp future increases in the numbers of HIV/AIDS cases. Estimates suggest that nearly four million people were living with HIV/AIDS in India by the end of 2000, and some surveillance sites in Southern India have found that more than 2% of pregnant women are infected with HIV (Monitoring the AIDS Pandemic & Joint United Nations Programme on HIV/AIDS, 2001). Sex workers throughout the region are at higher risk, as are men who purchase sex, and their wives. As several studies in this collection suggest, this situation poses a serious concern for male adolescents, young men and their future wives.

In their global overview, Mane and McCauley discuss the physiological, behavioural and social risk factors surrounding STIs/HIV among adolescents. They point out that physiologically, adolescents are more vulnerable to STIs than adults, and girls are more vulnerable than boys. Gender power imbalances, societal norms, poverty and economic dependence all contribute to young people's risk of STIs. Many young people lack control over the choice of their marital and sexual partners, how many partners they have, the circumstances and nature of sexual activity and the extent to which sex is consensual or protected. Many lack information about condoms or are unaware of the risk. It is not surprising, therefore, that global estimates suggest that more than half of all new HIV infections occur among young people age 15–24. Mane and McCauley note that the pandemic also has an impact on young people who live with an HIV-infected parent. For these young people, adolescence ends prematurely. They often face early withdrawal from school and entry into economic activity, stigma, poverty and psychological suffering from losing a parent.

Few researchers have studied reproductive tract

infections (RTIs) or STIs among South Asian adolescents. Nonetheless, evidence suggests that young people constitute a neglected but high-risk group. The typical STI patient is a young man barely out of adolescence (modal ages are 20–25), of relatively low socioeconomic status. Likewise, the proportion of young women attending STI clinics has been increasing (see, for example, Ramasubban, 2000).

Girls who marry early begin sexual activity when they are physiologically more vulnerable to infection. Boys who have unprotected sex expose not only themselves but also their future wives to infection. Since discussion of sex is taboo, young people often lack reliable information and misconceptions abound. Gender imbalances ensure that girls are particularly uninformed about their bodies and STIs. With limited power to negotiate safer sex, young women in South Asia are at risk of STIs/HIV no less than young men. Young people who experience an STI suffer not only health consequences, but also shame and social stigma. Fear of reprisal often prevents young people from getting timely treatment for an STI, thus worsening the situation and facilitating HIV infection.

Several studies in this collection highlight the prevalence of reproductive tract infections, including STIs among adolescents, particularly among girls. Kulkarni and Adhikari cite evidence from India and Nepal that adolescent women report relatively high rates of gynaecological morbidities—of particular concern in settings where girls have limited access to adequate health care. The 1998-1999 NFHS-2 in India found that nearly two in five ever-married adolescent women reported some reproductive health problem.

Joseph and colleagues present a rare community-based study of RTI prevalence among 451 married women aged 16–22 in rural Tamil Nadu, India. This study found alarming levels of morbidity. As many as 49% of women in the study suffered from one or more RTI, not counting cases of infertility, urinary tract infections and prolapse. Clinical and laboratory examination diagnosed 18% with an STI, including chlamydia, trichomoniasis and syphilis. Researchers found that wives of truck drivers and army personnel seemed more likely than other women to experience sexually transmitted morbidity, although the multivariate analysis found that length of marriage was the only statistically significant variable. These data clearly suggest that husbands' unsafe sexual behaviours transmit infections to their young wives—an alarming finding, given that many infected women are asymptomatic and are unlikely to seek medical care even when symptoms do appear. In fact, the authors report that two-thirds of women with symptoms did not seek care, and among those who did, over three in four sought treatment from unqualified sources, such as home treatment or untrained private practitioners.

Even when adolescents seek care, a host of barriers may prevent them from receiving appropriate care. Ranjha and Hussain carried out research on the *Hakims* who provide services at "Sex Clinics" throughout Pakistan and much of South Asia. These clinics are more accessible and perceived to be less judgmental than public sector facilities. They are often the first place that adolescents seek care. A nongovernmental organization (SAHIL) in the area found that more than half of the adolescents seeking counselling services at their centres had previously sought care from *Hakims* at local sex clinics. Researchers found that *Hakims* were poorly informed about sexual and reproductive health matters and lacked even the vocabulary to address sexual and reproductive health issues. They knew little about STIs, their diagnosis or treatments. Their services reinforced myths and misinformation and bordered on outright quackery. The medicine they prescribed contained potentially dangerous substances such as appetite stimulants, steroids, male and female hormones, and narcotics. Additionally, researchers posing as mystery clients reported incidents of sexual harassment by the *Hakims*.

Awasthi, Nichter and Pande report findings from an innovative, interactive programme designed to

raise awareness of risk behaviours and sexually transmitted infection among some 377 boys residing in a slum in Kanpur in north India. As other studies have shown, a sizeable proportion of boys had engaged in sexual activity, some with casual partners and some with sex workers. Misperceptions concerning disease transmission were widespread, and condom use minimal. The intervention included three educational sessions using a host of communication strategies, such as "teaching by analogy" and responding to questions dropped anonymously in a sealed letter box. Messages drew upon previously conducted qualitative research with young males and used analogies drawn from events that were familiar to these urban slum residents. Exposure to the intervention succeeded in significantly reducing misconceptions about STI transmission among participants—for example, that one can only be infected by having sex with a prostitute. The intervention also raised awareness of basic facts such as the asymptomatic nature of STIs and the days during a woman's cycle when she is least likely to become pregnant. The intervention made some headway in changing the misconception that taking medicines before or after sex, using a vaginal birth control tablet or washing the penis after sex with disinfectant would reduce chances of acquiring sexually transmitted infections. In short, the study monstrated that to be effective and acceptable to young men, STI education requires innovative and confidential approaches that address both medical and cultural concerns.

Communication between adolescents and adults about sexual and reproductive health

Adolescents in South Asia tend to be poorly informed about their own bodies and matters related to sexuality and health. The information they have is often incomplete and confused. Low rates of schooling, limited access to sex education and attitudes that prohibit discussion of sex exacerbate their ignorance. As gatekeepers who should play a central role in enabling adolescents to protect their health, parents often obstruct rather than facilitate informed choice. Adolescents commonly report that discussions with parents about sex or reproduction are taboo. In both rural areas and urban slums, parents often want and expect their adolescent children, particularly daughters, to remain uninformed about sex. Educational systems also tend to be ambivalent about sex education, though this has begun to change in the wake of the HIV/AIDS pandemic. In many cases, sex education continues to stress biological and scientific information over broader issues of sexuality. Teachers often find the topic embarrassing or shameful, and may avoid such issues, even in schools that supposedly teach a family life/sex education curriculum. As a result of adults' reticence to address these issues, young people tend to rely on peers and mass media for information about sex, reproduction and STIs including HIV/AIDS.

Qazi presents data from a pilot survey in Pakistan that explored knowledge about sex and reproduction among adolescents aged 13–21 . The survey found that adolescents' knowledge tended to be limited, with many misconceptions regarding pregnancy, contraception and STIs (including HIV/AIDS). The study also found that although sex and pregnancy were considered taboo topics of discussion, many young people do indeed discuss them, often with peers. Qazi points out that in the conservative setting of Pakistan, parents are often reluctant to discuss matters of sex and reproductive health with their adolescent children, and many young people do not turn to their parents for such information.

Bhuiya and colleagues cite similar survey data suggesting that communication between parents and children on topics of sexuality and reproduction in Bangladesh is limited—particularly between parents and boys. The study found that although a majority of girls had discussed reproductive health issues with their mothers, very few boys had discussed such matters with their parents or other family members, (2% with fathers, 3% with mothers and 6% with other family members).

Three papers, namely those by Rashid

(Bangladesh), ul Haque and Faizunnisa (Pakistan) and Masilamani (India), explore communication between adolescents and adults based on focus group discussions in Bangladesh and Pakistan, and more informal discussions and programme experience in India. In all three settings, parents reported embarrassment about discussing issues with adolescent children—including menstruation. They generally preferred to leave this responsibility to textbooks, teachers and others. In all three settings, parents argued that they themselves lacked the knowledge and even the vocabulary to discuss such sensitive issues. As a result, Rashid reports that many young girls knew nothing about menstruation before it began. Unable to ask for help from their parents, many believed that they were sick or dying. Concern for the sexual security and chastity of daughters dominates parental relationships with adolescent girls. This concern leads to close supervision of daughters and strict limits on their mobility. In contrast, sexual activity among adolescent sons tends to be condoned. In many cases, as Masilamani notes, parents believe that talking to adolescents about these matters will imply approval of premarital sexual activity. Adolescents perceive discussions with parents about sexual and reproductive topics to be taboo and express embarrassment at the prospect. As a result, adolescents tend to get their information from peers and the media, despite the fact that adolescents often express a desire to be able to turn to parents for information and counsel. These papers clearly suggest a need for educators and parents to improve their ability to communicate with young people.

A fourth paper describes family relationships and the extent to which these can be dominated by fear and violence. Bella Patel Uttekar and colleagues present findings from a study of domestic violence in the homes of 382 adolescents aged 10–19 living in a slum area of Allahabad, India. The authors describe a situation in which adolescents' home environments are frequently characterized by high levels of physical and verbal violence perpetrated by fathers against mothers and children. As many as 49% of boys and 16% of girls reported that they themselves had been beaten by their fathers, and a quarter reported that their mothers were verbally abused or beaten. Clearly, intra-family dynamics of this nature can severely impede the ability and willingness of adolescents to communicate with parents on any threatening topic, let alone sexual issues.

Programmes that address the sexual and reproductive health of adolescents

Equipping adolescents to make informed sexual and reproductive choices requires multi-pronged activities, including efforts to enhance knowledge and awareness, change attitudes and strengthen skills, such as the ability to negotiate with peers, partners and family members. At the facility level, programmes have tried to design "youth-friendly" services. At the household and community level, programmes have tried to enhance parents' ability and willingness to communicate with adolescents. Through a multitude of ways, programmes have tried to educate young people, build life skills and address the myriad of concerns that young people express that go beyond sexual and reproductive health.

Authors in this collection highlight several broad, but important lessons learned from adolescent programmes. First, evidence suggests that youth are reluctant to patronize clinics. Hence, the programmes that do not reach out beyond the clinic facility are unlikely to reach many young people. Second, in the process of preparing for adulthood, young people face a plethora of challenges and concerns, and projects intended to enhance the exercise of informed sexual and reproductive choices among them need to be delivered within the context of other issues that adolescents consider to be relevant to their immediate needs. Finally, effective programmes need to use multiple strategies. Most effective programmes have not limited themselves to family planning, clinical services or education alone. They combined multiple strategies, including education, counselling, and building links with services, to

name but a few. The rest of this chapter reviews the papers in this collection that focus on programme experiences and recommendations.

Family life and sex education programmes

A variety of educational programmes are under way in the region, implemented by both the public and nongovernmental sectors. According to a recent UNAIDS report, in the wake of new epidemiological evidence about the spread of HIV/AIDS, as many as 25% of schools in India will have launched AIDS education programmes by 2001 (Monitoring the AIDS Pandemic-MAP & the Joint United Nations Programme on HIV/AIDS, 2001). Chakrabarti reviews population and sex education programmes within the formal and informal educational sectors in India. With UNFPA funding and government collaboration, the National Population Education Project reached about 154 million students in 2000. She argues that such programmes must complement sex education with strategies such as telephone counselling, peer counselling, life skills education, health camps, and efforts to change attitudes and awareness among teachers and parents.

In addition to governmental efforts to educate youth, the nongovernmental sector has designed many innovative sexuality education programmes throughout South Asia, many of which use the strategies that Chakrabarti recommends. Case studies in this collection illustrate such efforts, including programmes run by Indian nongovernmental organizations (NGOs), such as the Family Planning Association of India (Brahmbhatt) and Parivar Seva Sanstha (Tewari & Taneja), that work in schools, colleges, non-formal education sectors and community-based centres. Activities include counselling centres that offer services individually, in groups, by correspondence, telephone hotlines and a variety of peer-led activities. In addition, they direct their programmes at gatekeepers, such as parents, teachers and service providers. Both programmes underscore the importance of flexibility to youth-friendly services. Aside from convenient locations, affordable fees, and specially trained staff, central elements of programmes aiming to communicate with youth are anonymity and drop-in hours.

Rashid describes the efforts of BRAC, an NGO in Bangladesh that provides reproductive health education in conjunction with a three-year non-formal education programme conducted for adolescents who have never attended school. Introduced in the last year of the three-year programme (and corresponding to the government secondary school programme), the curriculum informs adolescents about puberty, reproduction and contraception and sensitizes them about gender equity and responsible relationships. Tiedemann and DasGupta describe similar efforts among youth organizations (namely the Scouts and Guides Associations) in West Bengal, India. This programme is designed to use the "learning-by-doing" approach of the Associations. The programme involves providing education, building links with local health providers and training Scouts and Guides to become peer leaders. Since large numbers of youth sign up to become Scouts and Guides in West Bengal, the programme hopes to reach thousands of young people.

In short, all these programmes include a range of activities intended to enhance young people's knowledge and communication skills, change attitudes, dispel misconceptions, prevent risky behaviour and address traditional gender norms. A typical curriculum addresses physiological changes during puberty, menstrual hygiene, reproduction, contraception, gender equity, and skills needed to manage relationships. In communities where early marriage for girls is common, programmes often provide premarital counselling and sensitization on responsible parenthood. Nearly all organize peer education, along with strategies to reach parents, teachers and service providers. Many emphasize counselling services, including face-to-face counselling, written correspondence and telephone counselling. They all aim to communicate with young people in direct, non-judgmental yet culturally sensitive ways.

A number of papers in this collection describe evaluations of programmes that inform adolescents about sexual and reproductive health issues. Tiedemann and DasGupta describe the evaluation plans—including a study/control design—that will be used to evaluate the programme among Scouts and Guides in West Bengal. Papers by Teiwari & Taneja and by Rashid report tentative observations of changes in awareness among adolescents exposed to education programmes. Both report a considerable increase in awareness of issues relating to sex, contraception and infection. In addition, Rashid describes how adolescents exposed to the programme reported improved menstrual hygiene as well as attempts to break down communication barriers between themselves and their parents—in particular about their request to delaying early marriage. Nevertheless, several conference participants noted that programme evaluation remains a weakness of many NGOs. They argued that policy-makers and donors need rigorous evidence about which strategies have produced results and are therefore worth scaling up.

Building self-efficacy among adolescents

Many programmes include "life skills" either as one component or as the central focus of their work. In the early 1990s, the World Health Organization defined life skills (World Health Organization, 1993; 1994) as the "abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life". WHO identified a group of core life skills that include problem-solving, decision-making, goal setting, critical and creative thinking, values clarification, communication skills, inter-personal and negotiation skills, as well as self-awareness, self-esteem and understanding how to cope with stress.

Papers by Seth, and Levitt-Dayal and colleagues describe life skills programmes in India. Seth describes a programme that trains teachers to conduct life skills programmes among youth in rural Rajasthan. Anecdotal feedback from participating teachers suggested that such training empowered trainers to communicate sexual and reproductive health information more effectively and with fewer inhibitions. Preliminary observations also suggest that such training may benefit teachers themselves, as well as young people. Levitt-Dayal et al. describe programmes in rural Gujarat, rural Madhya Pradesh and periurban areas of Delhi that aim to enhance life skills among young women. These programmes use a combination of nonformal, family life and vocational education, combined with the provision of services. They give young women the opportunity to learn to use banks and public transport, to participate in recreational activities and to receive leadership training. These programmes are among the few that have evaluated the impact of their efforts by gathering follow-up data among their alumnae and among a control group of girls who did not participate in their programmes. Compared to controls, alumnae were more likely to remain in school and to have greater decision-making authority within their families, particularly with respect to decisions about when to marry and whether to continue their education. The alumnae demonstrated higher levels of self-esteem, assertiveness, mobility and exposure to media and new ideas. Married alumnae were also more likely to have married at age 18 years or older, and were more likely to obtain appropriate care during pregnancy, compared to those who had not participated in the programmes.

Making health services accessible and friendly

While the need to provide accessible and friendly services to youth is generally acknowledged, there is less clarity about what is meant by "youth-friendly" services. What is evident is that in most settings, adolescents face obstacles in accessing health services. Reviewing the global situation, Epstein, and Chandra Mouli highlight the many obstacles that may discourage young people from seeking health care. These include an inability to access services independently from their families, fear of discovery by family or community members, inconvenient locations and hours, long waits at clinics, high costs, and providers whom

adolescents perceive to be threatening, judgmental or unwilling to respect their confidentiality. Using survey data from Bangladesh, Bhuiya and colleagues underline adolescents' reluctance to use health services. They hold the perceived unfriendliness of providers responsible for much of this reluctance. Only 1% of adolescents surveyed had visited a facility in the prior six months, and concerns about how they would be treated were clearly an issue. Only 15% of boys and 1% of girls believed that providers would treat them with respect if they sought contraceptive services, and 26% and 7%, respectively, believed that providers would treat them respectfully if they sought care for STI symptoms. The adolescents' perceptions of pharmacies were similar, if not worse.

The literature often mentions the need for services to be "youth-friendly", but this term is not always clearly defined. However many authors (such as Epstein, Mehta, Poonkhum, Brahmbhatt, Tewari & Taneja and Chandra Mouli) note that, when asked, adolescents generally cite a number of fundamental characteristics that make services "youth-friendly". These include special hours or settings for adolescents, convenient access, a place that does not look like a clinic, a place used by their peers, affordable fees, drop-in hours, staff who are empathetic, knowledgeable and trustworthy, staff that are non-judgmental and non-punitive, and services geared towards young people's needs and interests. Epstein points to adolescents' need for related services such as counselling in managing friendships, partner and family relationships, and life skills development activities that help young people develop practical and applied skills in many areas of life.

Few organizations in South Asia have implemented, let alone evaluated, models for delivering such "youth-friendly" services—although such efforts seem to be on the rise. Chandra Mouli describes a number of models of youth-friendly services: integrated comprehensive services that offer a range of services including sexual and reproductive; community-based health facilities that provide stand-alone sexual and reproductive health services (such as those offered by Marie Stopes International or Profamilia) or those that are offered through a district or municipal health system; community-based centres that offer an array of personal development activities and a limited health focus; and outreach activities designed to enhance access to services. Chandra Mouli stresses that priorities in adolescent-friendly health services need to vary according to the nature of the health services provided and to the specific adolescent group to be reached. For example, approaches that make services friendly to sexually active males may not be wholly adaptable to girls in their early adolescent years. In short, programmes must be tailored to meet the special needs of the adolescents who are being addressed, keeping in mind such issues as social and cultural sensitivities, feasibility and sustainability. Clearly, strategies should be adapted to different sociocultural and programme settings, but what is needed are supportive policies, involvement of the community and adolescents in the design of services, and competent and committed providers.

This volume includes several case studies of youth-friendly services. Bhuiya and colleagues describe efforts to establish "youth-friendly" services in existing NGO clinics, complemented with other outreach efforts in north-west Bangladesh. That project introduced designated hours for adolescent clients, strengthened privacy and confidentiality, expanded the range of services offered, and made an effort to ensure that physicians have the skills to provided counselling. They supplemented these services with efforts to educate community members, provide telephone counselling and establish community-based reproductive health programmes for young people.

Two case studies from Thailand (Poonkhum) and India (Mehta) describe efforts to set up "youth-friendly" services in specially designated areas within government hospitals. These programmes involved remarkably similar preparatory steps, activities and experiences. Both designed the projects based on discussions with adolescents.

Counselling on a variety of topics was the cornerstone of the projects. To avoid using the term "clinic", the project in Thailand delivered services in "adolescent-friendly rooms". Services were free and offered during extended hours. Both maintained confidentiality through anonymous record-keeping. The projects developed training materials and fact sheets (India) or manuals containing frequently asked questions (Thailand). In addition, they trained peers, teachers and parents on reproductive health knowledge and life skills. In Thailand, the project promoted its services with the help of radio DJs who had a wide following among adolescents.

Preliminary findings from both interventions suggest that establishing adolescent-friendly services at government hospitals is feasible and sustainable. However, both found it difficult to attract adolescents to the hospital setting, despite efforts to promote the services widely. Both found that adolescents preferred telephone counselling rather than face-to-face services, probably because it provided greater privacy and anonymity. In Thailand, the Department of Health has considered setting up services in sites outside hospitals that would be more acceptable to adolescents.

Reflecting on lessons learned from experiences around the world, Epstein suggests that the public sector may not be the best entity to deliver such services. In many settings, adolescents perceive NGO services to be less threatening and more acceptable than public services. Furthermore, the public sector tends to take the clinic-based approach, the limitations of which are illustrated by examples in this collection. Several innovative programmes have explored alternatives in the private and NGO sectors, such as training pharmacists or doctors in the private, for-profit sector to serve adolescents, providing counselling and contraceptive services at workplaces and military sites, setting up emergency drop-in centres, offering special hours or facilities for boys, developing long-term adult/adolescent mentoring programmes, and providing discussion opportunities for young couples on marriage and parenthood. Given the limited success of public sector programmes, Epstein argues for a model in which governments support NGOs to scale up successful adolescent reproductive health services.

Regardless of the approach used, Epstein argues that cross-referrals are crucial, because adolescents' needs go beyond the capacity of any one sector. For example, hotline services need to establish formal agreements with other services, such as pharmacies, private physicians, neighbourhood depot holders, abuse/violence crisis centres, mental health counsellors, lawyers and legal services centres, micro-credit facilities, or job training programmes in order to best serve the needs of adolescents. Such cross-referrals require considerable cooperation across public and private sectors and between organizations that provide different services to youth.

Finally, Epstein points out that existing programmes are rarely designed in ways that facilitate rigorous evaluation. Evaluations of adolescent programmes tend to rely on pre- and post-intervention assessments of reproductive health awareness. Because most programmes focus on small populations and evaluations do not include comparisons or controls, it remains difficult to determine whether an outcome is directly attributable to the programme alone, and therefore, whether a finding has programme or policy implications. Furthermore, while many programmes measure changes in knowledge, few are able to measure behaviour change, which would be a more important indicator of success. Epstein argues for building rigorous evaluations into all stages of programmes—a recommendation that has major implications for those who fund programmes, because it would require investing substantial resources in evaluation.

Conclusions

This overview has sought to provide a profile of the sociodemographic and sexual and reproductive health situation of adolescents in South Asia. More significantly, it has attempted to record the

evidence and insights that emerged at the conference and to synthesize from these a summary of what is currently known about the sexual and reproductive health risks and challenges faced by adolescents and young people in the region. The findings generally emphasize the considerable risks that adolescents continue to face, extending from unsafe or unwanted sexual activity to such consequences as unwanted pregnancy, abortion and infection, and from misperceptions to a lack of life skills and wide gender power imbalances. They also underscore the vast obstacles that must be overcome in order to access contraceptive and other reproductive health information and services.

At the same time, however, several encouraging signs are evident. The sexual and reproductive health needs of adolescents and young people are firmly on national agendas in the South Asian region. There is growing recognition that adolescents themselves must be given a role in articulating and designing such programmes. Finally, a growing number of programme experiences already exist that appear to respond successfully to young people's sexual and reproductive health needs in innovative and acceptable ways.

Nonetheless, throughout this volume, authors suggest ways in which policy-makers, programme managers, researchers and service providers could do more to improve the lives of South Asian adolescents. The final chapter of this collection summarizes their recommendations—both for research and programmes. These recommendations should be seen as a call to action by all those who care about the well-being of the next generation.

References

Alan Guttmacher Institute (1998) *Into a New World: Young Women's Sexual and Reproductive Lives.* New York, Alan Guttmacher Institute.

Blanc A, Way A (1998) Sexual behavior and contraceptive knowledge and use among adolescents in developing countries. *Studies in Family Planning*, 29(2):106-116.

Bott S (2000) Unwanted pregnancy and induced abortion among adolescents in developing countries: Findings from WHO case studies. In: Puri CP and Van Look PFA, eds. *Sexual and Reproductive Health: Recent Advances, Future Directions*. Mumbai, New Age International (P) Limited, Publishers.

Brown A, Jejeebhoy SJ, Shah I, Yount KM (2001) *Sexual Relations Among Young People in Developing Countries: Evidence from WHO Case Studies.* Geneva, World Health Organization, Department of Reproductive Health and Research (WHO/RHR/01.8).

Central Bureau of Statistics (CBS), Indonesia et al. (1998) *Indonesia Demograhic and Health Survey 1997*. Calverton MD, USA, Macro International.

De Silva W (1997) The Ireland of Asia: Trends in marriage timing in Sri Lanka. *Asia-Pacific Population Journal,* 12(2):3–24.

De Silva W (1998) *Socio-economic change and adolescent issues in the Asian and Pacific region, Report and Recommendations of the Expert Group Meeting on Adolescents: Implications of Population Trends, Environment, and Development*. Bangkok, ESCAP (Asian Population Studies Series, No. 149).

Department of Census and Statistics, Sri Lanka (1988) *Sri Lanka Demographic and Health Survey 1987*. Columbia MD, USA, Institute for Resource Development/Westinghouse.

Department of Census and Statistics, Sri Lanka (1995) *Demographic and Health Survey 1993 Sri Lanka*. Colombo, Department of Census and Statistics, Sri Lanka.

Hakim A, Cleland J, Bhatti MH (1998) *Pakistan Fertility and Family Planning Survey 1996–1997. Preliminary Report.* Islamabad, Pakistan, National Institute of Population Studies and London School of Hygiene and Tropical Medicine.

International Institute for Population Sciences, Macro (2000) *National Family Health Survey (NFHS-2) 1998–1999: India*. Mumbai, International Institute for Population Sciences.

International Labour Organisation (1998) *Yearbook of Labour Statistics 1998*. Geneva, International Labour Organisation.

International Labour Organisation (1999) *Yearbook of Labour Statistics 1999*. Geneva, International Labour Organisation.

International Labour Organisation (2000) *Yearbook of Labour Statistics 2000*. Geneva, International Labour Organisation.

Jejeebhoy S (1993) Family size, outcomes for children and gender disparities: A case of rural Maharashtra. *Economic and Political Weekly*, 28(35):1811–1822.

Jejeebhoy S (2000) Adolescent sexual and reproductive behaviour: A review of the evidence from dia. In: Ramasubban R, Jejeebhoy S, eds. *Women's Reproductive Health in India*. Jaipur, Rawat Publications.

Macro International (2002) Demographic Health Surveys, Stat Compiler [Online data base available at http://www.measuredhs.com].

McCauley AP, Salter C (1995) Meeting the needs of young adults. *Population Reports*, Series J, No. 41, Vol. XXIII, 3 (October).

Mitra SN, Al-Sabir A, Cross AR, Jamil K (1997) *Bangladesh Demographic and Health Survey 1996-1997*. Dhaka, Bangladesh, National Institute of Population Research and Training (NIPORT).

Monitoring the AIDS Pandemic (MAP), Joint United ations Programme on HIV/AIDS (2001) *The Status and Trends of HIV/AIDS/STI Epidemics in Asia and the Pacific, Provisional Report*. Melbourne, Australia, MAP, UNAIDS. [Available at: www.unaids.org/hivaidsinfo/statistics/MAP/index.html]

National Statistics Office (NSO), Republic of the Philippines (1999) *Philippines National Demographic and Health Survey 1998*, Manila, NSO and Macro International.

National Committee for Population and Family Planning (NCPFP), Viet Nam (1999) *Viet Nam Demographic and Health Survey 1997*. Hanoi, NCPFP.

Nepal Central Bureau of Statistics (1995) *Population Monograph of Nepal*. Kathmandu, Central Bureau of Statistics.

Pachauri S, Santhya KG (2002) Reproductive choices for Asian adolescents: a focus on contraceptive behaviour. *International Family Planning Perspectives*, 28(4):186–195.

Population Reference Bureau (2000) *The World's Youth 2000*. Washington, DC, Population Reference Bureau, Measure Communication.

Pradhan A et al. (1997) *Nepal Family Health Survey 1996*. Kathmandu and Calverton, MD, Nepal Ministry of Health, New ERA and Macro International, Inc.

Ramasubban R (2000) Women's vulnerability: The recent evidence on sexually transmitted infections. In: Ramasubban R, Jejeebhoy S, eds. *Women's Reproductive Health in India*. Jaipur, Rawat Publications:280–330.

Singh S (1998) Adolescent childbearing in developing countries: a global review. *Studies in Family Planning*, 29(2):117–163.

United Nations (1997) *Demographic Yearbook 1995*. New York, United Nations (ST/ESA/STAT/SER. R/26).

United Nations (1999) *World Population Prospects: the 1998 Revision. Volume II: The Sex and Age Distribution of the World Population*. New York, United Nations.

United Nations (2000) *Demographic Yearbook 1998*. New York, United Nations (ST/ESA/STAT/SER. R/29).

United Nations Children's Fund (2001) *The Progress of Nations 2001*. New York, UNICEF.

World Health Organization (1993) *Increasing the Relevance of Education for Health Professionals*. Geneva, World Health Organization (WHO Technical Report Series, No. 838).

World Health Organization (1994) *The Development and Dissemination of Life Skills Education: an Overview*. Geneva, World Health Organization (MNH/PSF/94.7).