

# WHO's Contribution to the Report for the Follow-up to the World Summit for Children

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**DEPARTMENT OF CHILD  
AND ADOLESCENT HEALTH  
AND DEVELOPMENT**

WORLD HEALTH ORGANIZATION

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## **UN Special Session on Children Report from the World Health Organization**

### Part I

#### **INTRODUCTION**

1. Leaders attending the 1990 World Summit for Children (WSC) committed themselves to an ambitious agenda, promising “to give every child a better future.” Of the 27 goals established to achieve this objective, 23 are in the health field. They are either concerned with protecting health through the environment and through services, such as prenatal care, safe drinking water and family planning, or, more often, with reducing exposure to specific risks to health, such as particular diseases and deficiencies. For too many children, childhood is still more a matter of damage-limitation, running the gauntlet between mortal dangers and obstacles, than of steady growth along a safe path from milestone to milestone. There is now also a growing recognition that adolescence, once reached, is not necessarily a period of vigorous good health, but also has its own specific risks and needs, which require dedicated programming and policies.

2. Ten years later, the balance sheet is mixed. Outcomes range from relative success to clear failure. The goals, often relating to very different circumstances and situations, were set in round figures. Interventions to achieve the goals vary. Some, like salt iodization or the eradication of polio, require vertical action, on a narrow front. Others, as for child mortality or primary education, imply more broadly-based interventions. Progress was necessarily uneven and in many cases shortfalls inevitable. They can be attributed to multiple political, economic, financial or environmental factors, often beyond the control of governments. In addition, national priorities and resource allocations are subject to many influences. Difficult choices and seemingly more pressing issues can relegate important areas of public health to lower status.

3. Yet health is a human right. Throughout the decade, working with its partners, WHO has moved to embed rights-based approaches in its policies and programmes. Every goal reached, and sustained, is a victory for human rights and every shortfall a violation of them. For children to enjoy the physical and emotional well-being they deserve requires more than health services. Just as health for all and a better future for mother and child require economic and social progress, so it has become clear that good health, for individuals and for communities, is necessary for sustainable human development. Synergy between health and human rights is vital to progress not only towards improving the health of children and adolescents but also to enhance their

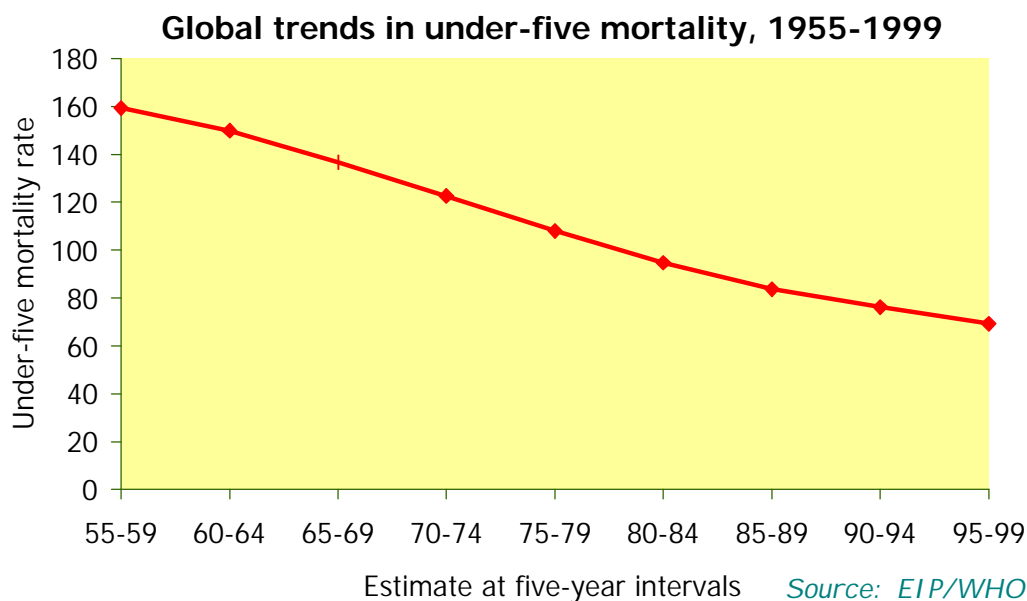
social and economic opportunities. This must be reflected in a higher priority attached to health in future governmental agendas.

4. Given the strong health focus of the 1990 WSC goals, this submission reports progress towards achieving the 1990 targets, together with information about WHO's role and contributions. In Part I, the goals have been grouped into five broad categories: child mortality and communicable diseases, sexual and reproductive health, nutrition, water and sanitation, and education. Since the targets set for all 27 goals have not been achieved, a summary analyzes the factors associated with progress, with a view to improving performance over the next decade. Part II focuses on the role of the Convention of the Rights of the Child (CRC) and the development of the rights-based approach adopted by WHO over the last decade. Part III looks ahead to the challenges of the future.

### **CHILD MORTALITY AND COMMUNICABLE DISEASES (Goals 1, 19-24)**

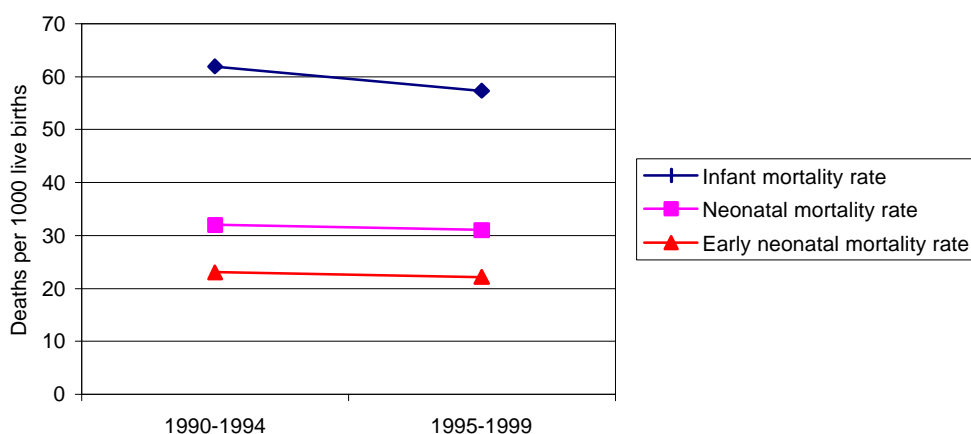
5. In 1999, 10.5 million children under the age of five died, compared with 12.8 million in 1990. Public health programmes, including those targeting the major causes of death, have made an important contribution to reducing mortality. Despite this remarkable reduction (Figure1), improvements in mortality rates have been unevenly spread throughout the world: 97% of all child deaths occur in developing countries, Africa and South-East Asia between them contributing nearly 70%, the Americas 4% and Europe 2% (Fig. 2). During the last decade, the child mortality rate declined 9% in Africa and 12% in South-East Asia - compared with 23% and 30% in Europe and the Americas respectively, though these figures hide great variation within countries.

**Figure 1**



6. A quarter of under-five deaths occur in the early neonatal period, i.e. during the first week of life. Deaths during this time are due to four major causes – infections, asphyxia and birth trauma, pre-term and/or low birth weight, and malformations. Since 1990, there has been less success in reducing early neonatal deaths than those during the rest of childhood, (Figure 2). However, for certain important causes such as neonatal tetanus, the reduction in deaths has been greater than in other areas, such as the proportion of babies born with low birth weight. There are several reasons why the neonatal mortality rate is still high; one is the slow progress made in improving the status of women. Early and late neonatal mortality (i.e. from birth to 27 days) is often determined by the same factors that contribute to poor maternal health: in addition to discrimination, women face poverty, poor nutrition, endemic infections, poor access to health care services thus, inadequate pregnancy, childbirth and newborn care. In areas and cultures where males are treated preferentially, fewer girls than boys survive. However, the burden of disease due to conditions originating in pregnancy and childbirth is much greater than that reflected in the number of deaths and morbidity during the neonatal period. Many deaths and disabilities occur later in infancy and childhood owing. Also, an infant often dies if the mother dies in childbirth.

**Figure 2: Infant and neonatal mortality 1990-1999**



Note: Infant mortality includes neonatal mortality which, in turn, includes early neonatal mortality.

7. Two new major threats to the lives of children have emerged since 1990. First, the massive spread of HIV/AIDS has slowed the decline in child mortality, particularly in Africa, and threatens to reverse it in the worst affected countries. Second, poverty and economic inequity have risen sharply in many of the least developed countries. Those most heavily indebted and least able to participate in the global market place have seen a decline in the resources available for health care. Again this has affected Sub-Saharan Africa in particular.

#### *Immunization*

8. Improving child survival is the result of efforts to reduce deaths due to specific causes, such as communicable diseases. In addition to the challenge of developing effective vaccines and drugs for diseases such as measles and diarrhoea,

improvements to health service delivery systems are also essential, to ensure that every child has access to potentially life-saving interventions. Immunization has made a major contribution, and remains the best and most cost-effective form of protection against polio, diphtheria, pertussis, measles, tetanus, and tuberculosis. The greatest gains were achieved in the decade leading up to the WSC, with coverage rates rising very rapidly from 35% in 1980 to 80% in 1990. Since 1990, coverage has been maintained at approximately 80%, although this global aggregate figure hides very low or even declines in coverage in some developing countries. The goal of raising coverage to 90% has not been achieved, and progress has been very unequal, with large disparities within regions and countries. Almost 20% of children (approximately 25 million infants per year) still have no access to immunization, with the lowest coverage in sub-Saharan Africa: in some countries, 70% of children are not fully immunized. A child in the developing world is ten times more likely to die of a vaccine-preventable disease than a child in the industrialized world. This lack of progress highlights the need to strengthen national capacity to sustain and take ownership of immunization initiatives which throughout the 1980s were largely externally driven. With the addition of new vaccines, national immunization programmes have also become more complex to manage. In many countries, decentralization and health reform have had adverse impacts on the delivery of immunization services. Donor fatigue is also a contributing factor.

#### *Poliomyelitis*

9. Extraordinary progress has been made in reducing poliomyelitis. Transmission has been interrupted in the WHO Regions of the Americas, Europe, and Western Pacific, and more than 175 countries are now certified to be polio-free. In 1999, only 7,090 cases of polio were reported, a greater than 95% decline from an estimated 350,000 cases in 1988. Polio was endemic in only 30 countries at the end of 1999, down from 50 countries one year earlier, in 1998. In contrast, reducing the number of endemic countries from 125 in 1988 to 50 in 1998 took ten years. However, polio transmission is likely to continue, however, in as many as twenty countries after 2000, albeit at low levels. This success can be attributed, first, to the creation of a strong interagency partnership which has provided advocacy, political commitment and financial resources to undertake and sustain the eradication initiative; second, proven implementation strategies have been adapted to diverse geographical, climatic, and socio-economic conditions; third, there are simple, quantifiable indicators for monitoring and evaluating progress towards eradication. Furthermore, the eradication effort has demonstrated countries' great potential for social mobilization and intersectoral collaboration in the national delivery of public health interventions to improve the health of children. In May 2000, WHO and its partners concluded that global eradication of polio in 2005 could be achieved with intensified efforts.

#### *Measles*

10. Over 30 million cases of measles and approximately 900,000 deaths still occur every year, making measles the leading cause of vaccine-preventable diseases. As the current vaccine is only 80-85% effective in the field, the WSC goal could not have been achieved even with 100% coverage. Between 1997 and 1998, coverage among children aged one year with the initial dose of vaccine declined from 79% to 72%. In 1998, 15 countries reported coverage below 50%, including ten in the African Region. Nonetheless, by the end of 1999, global measles morbidity and mortality were reduced by 63% and 83% respectively, compared with earlier figures. Most measles

deaths occur in those developing countries where vitamin A deficiency is common. The WHO Region of the Americas has set the goal of eliminating measles by 2000. The European Region and Eastern Mediterranean Regions have set the same goal for 2007 and 2010 respectively.

#### *Tetanus*

11. The situation regarding maternal and neonatal tetanus (MNT) is less clear. By 1998, 111 countries had reported eliminating MNT (defined as less than one case per 1000 births.) Despite this progress, MNT is estimated still to cause approximately 215,000 infant deaths and 30,000 maternal deaths annually. Of the 27 countries accounting for 90% of all cases of MNT globally, 18 are in Africa. Eliminating MNT has been problematic for a number of reasons. Definition of MNT elimination has itself created problems in monitoring: the method currently used is unclear and not standardized. Severe under-reporting of MNT cases and deaths makes not only targeting high-risk areas difficult but also mobilizing the necessary political and financial commitments in the face of competing health priorities. Moreover, MNT occurs mainly in remote areas with poor access to immunization services, antenatal care, and skilled birth attendants, and involves more than one public health intervention (i.e. not only immunization but also clean delivery practices.) The issue is now attracting renewed interest, particularly in Africa. Elimination can only be achieved by improving routine immunization programmes for women and children and enhancing health services in high-risk districts. Key elements will include streamlined and strengthened surveillance systems, availability of new technologies and vaccine, and heightened advocacy and fundraising efforts.

#### 12. *Diarrhoeal diseases*

In 1990, diarrhoeal disease was perhaps the largest single cause of preventable child death thus warranting the ambitious WSC goal of reducing deaths due to diarrhoea in children under five by 50%. While the figures conceal important inequalities between and within countries, as with overall child mortality, between 1990 and 1999 the number of child deaths world-wide caused by diarrhoea declined from 3 million to 1.5 million per year. Success can be attributed to consistent promotion of standardized case management in health facilities; guidance for families in the home management of the child with diarrhoea, especially emphasizing continued feeding and increased fluids; and the local production of ORS and use of oral rehydration therapy (ORT), backed by sound programme management with clearly defined strategies and interventions, target setting, planning and monitoring and evaluation.

#### *Acute respiratory infections*

13. Acute respiratory infections (ARI), mainly pneumonia, account for about 18% of under-five mortality. Accurate data are not available, but ARI remain the most common cause of child death in many countries. Bacterial infection is the primary cause of pneumonia in countries with high infant and child mortality. These infections are treatable, and WHO-sponsored projects have shown that 60% of deaths, representing about 23% of infant mortality, can be prevented by the selective use of affordable antibiotics. Like diarrhoea, ARI are common among children living with HIV/AIDS and the HIV epidemic is likely to make declines in ARI-specific mortality more difficult to achieve.

### *MTCT*

14. Among other factors affecting child mortality, particular attention over the past decade has turned to HIV/AIDS. Mother-to-child transmission (MTCT) accounts for almost all HIV infection in children. About two-thirds of mother-to-child transmission occurs during pregnancy or at the time of delivery and about one-third through breastfeeding. In 1999, over 500,000 infants were infected with HIV by MTCT. The most important public health intervention to prevent MTCT remains the primary prevention of infection in men and women of reproductive age. In addition, interventions to prevent transmission from HIV-positive women to their infants are under investigation; various regimens of antiretroviral drugs, in particular, have been shown to be highly effective in preventing MTCT.

### *Other communicable diseases*

15. Persistently high rates of infant and maternal mortality and low birth weight can also be attributed to communicable diseases which have resisted interventions, or spread more widely. Soil-transmitted helminths, including hookworm, still affect over one billion people worldwide. Schistosomiasis, which contributes to malnutrition, anaemia, growth retardation, cognitive impairment and increased susceptibility to other infections, particularly in younger children, is present in 76 countries, with 85% of the estimated 200 million cases in Sub-Saharan Africa. Before 1970, dengue, for which there is no specific cure and no vaccine available, was present in only nine countries, but by 2000 it is present in at least 36, putting 40% of the world population at risk of infection. While childhood immunization against TB (BCG) has some effectiveness in preventing severe forms of TB in children, it does not prevent the development of TB in adolescents and adults. TB is a major killer of persons with HIV.

## **Role of WHO**

### *Immunization*

16. Throughout the decade, in cooperation with its partners, WHO has developed policies, articulated operational guidelines and provided technical support to countries and other partners in pursuit of better health for the world's children. Developing and implementing plans of action for the Global Polio Eradication Initiative is a concrete result of these efforts. WHO has taken the lead in developing monitoring and certification standards, indicators, and systems to strengthen disease surveillance. It has also been responsible for collecting, analyzing and disseminating data and assuring the quality of vaccine supply, from both international and local sources. It has supported research into the development and assessment of new vaccines, as well as new immunization-related technologies. During the decade under review, the capacity and contributions of Regional Offices have evolved significantly in the area of immunization, and they now play an important coordinating role. As part of the effort to realize the full benefits of immunization, a major alliance of public and private sector organizations - the Global Alliance for Vaccines and Immunization (GAVI) - was formed in 1999, with the aim of ensuring that 80% of developing countries have routine coverage of at least 80% in all their districts by 2005. Critical issues on the agenda for the future include: (a) securing access to all children; (b) maintaining political commitment to immunization; (c) enlisting interagency coordination in countries; (d) identifying, training and deploying sufficient human

resources; (e) strengthening management and administration; (f) and further improving social mobilization.

#### *Diarrhoeal diseases*

17. WHO has led the way in the development and practical implementation of programmes throughout the world for the control of diarrhoeal diseases (CDD). During the 1980s and 1990s, almost all developing countries established programmes for the control of diarrhoeal disease. In most cases, WHO and UNICEF gave direct support for planning, training and evaluation. Over 240 management training courses were held and more than 500,000 health workers were trained in case management. Pre-service training in diarrhoea case management was introduced in medical and nursing schools. Working with UNICEF, WHO supported countries in establishing local production of oral rehydration salts (ORS). By studying family and community practices with regard to diarrhoea, information and education strategies and tools were developed and introduced.

18. Promoting and supporting breastfeeding helps to improve child growth and development and prevents childhood illness, in particular diarrhoea. During the last decade, in close collaboration with UNICEF and other partners, WHO has played a major role in several areas, including: (i) the development and promotion of the International Code of Marketing of Breast-milk Substitutes, now enshrined in WHO policy; (ii) the Baby-Friendly Hospital Initiative, which has been the foundation for important changes in hospital practice to enhance promotion of and support for breastfeeding; (iii) the development and implementation of training in breastfeeding counselling, including counselling about HIV and infant feeding.

#### *ARI*

19. During the mid-1980s, WHO and UNICEF developed and introduced a programme for the control of acute respiratory infections (ARI) drawing on an active programme of research and development and focussed on scientifically sound case management guidelines. It aimed to improve the recognition of ARI by families, to allow them to seek appropriate care promptly, to improve the quality of care for ARI in health facilities, and to ensure the availability of affordable antibiotics. The programme targeted 88 countries with infant mortality rates of 40/1000 or more. By 1995, ARI activities were in place in all or part of 59 countries. In about one third of these, ARI activities were introduced through combined CDD/ARI programmes.

20. Important lessons were learned from these activities. First, that more could be achieved for mortality reduction if a single disease approach were broadened to include other important causes of illness, including malaria and malnutrition, and the relationship between them. Second, that the technical approach developed for single diseases provided a starting point for action targeting the needs of the child as a whole, linking clinical care to physical and psychosocial development, disease prevention and health promotion. From this starting point, the strategy has focused on translating research into the practical tools and actions needed by countries, and working directly with national partners to introduce, monitor and evaluate their use. These were the objectives of Integrated Management of Childhood Illness (IMCI), in collaboration with UNICEF, which arose from a concern for equity and efficiency. Since 1996, IMCI has been introduced as the key strategy for child health services by more than 60 countries. IMCI emphasizes malnutrition as the most important

underlying cause of child mortality and morbidity and stimulates active disease prevention and health promotion, particularly breastfeeding and nutrition counselling. Evidence from IMCI's early implementation suggests that it is stimulating change and improvement in health care, and that communities are responding by making more use of health services.

21. The nature and form of the IMCI strategy have been much influenced by the lessons learned with CDD and the ARI programme, including: (a) the crucial value of establishing and maintaining a scientific basis for public health interventions; (b) the need to address a wider range of health and development issues for the child; (c) the importance of developing health interventions as integral components of the health system and in the context of efforts to strengthen the system; (d) the central place of family and community in assuring the health of the child and the need to use multiple channels in supporting the community; (e) the value of involving the full range of national health-related institutions and bodies in developing and implementing interventions; (f) the need to take advantage of the large and growing number of private, non-governmental and informal health care providers.

#### *MTCT*

22. Since 1998, efforts to coordinate prevention strategies for MTCT of HIV with partners has become a high priority. In May 2000, the World Health Assembly urged Member States to integrate interventions for MTCT into primary health care. Programmes are based on a three-pronged strategy of preventing infection among parents-to-be, providing family planning services and preventing transmission from HIV-positive women to their children through a package of measures including voluntary counselling and testing, anti-retroviral drugs, and counselling on infant feeding. The management of the health effects of HIV/AIDS in the infant and young child is covered in IMCI, which addresses illnesses most commonly associated with HIV infection. With UNICEF and other organizations, pilot projects are currently being implemented to assess the technical feasibility of MTCT prevention under conditions of scarce resources. Experience demonstrates that interventions to prevent MTCT can most effectively be implemented via a health system that also addresses needs of mothers and infants unrelated to HIV. In these projects, WHO provides technical support for local action and capacity building to ensure effective application of scientific advances regarding MTCT in field situations.

#### *Malaria*

23. Jointly convened actions against malaria during the last decade have focused on progressively increasing control activities at the country level by attracting donor support to national plans of action developed with WHO technical input. There has been new interest in the development of anti-malarial drugs, to overcome multidrug resistance. The Roll Back Malaria (RBM) initiative, launched by WHO, UNICEF, the World Bank and UNDP in 1998, is helping to create awareness of the link between malaria and poverty. The objective of RBM's preventive and curative strategies is to enable affected communities to halve their burden of malaria by 2010. The emphasis on community action for RBM can benefit other ongoing programmes, including IMCI and Making Pregnancy Safer (MPS) and target children and pregnant women.

## **SEXUAL AND REPRODUCTIVE HEALTH (Goals 2, 9,10,11,13)**

### *Antenatal and maternity care / maternal mortality*

24. In 1990, WHO/UNICEF estimated that approximately 585,000 women in developing countries died of pregnancy-related causes, while the corresponding figure for 1999 was 494,000 deaths, a 16% reduction. Poor or absent data from all but those countries with already low maternal mortality make trends difficult to analyze, but WHO estimates suggest that no country has achieved the WSC goal of a 50% reduction. The observed reduction in maternal mortality is due partly to improved health services and partly to fewer births. In some countries, intense effort over the last decade has led to significant improvements. However, in many developing countries where maternity services struggle to meet the needs of mothers in general, no special attention can be paid to adolescents, despite the fact that maternal mortality among girls under age 18 is two to five times higher than among women aged 18-25.

25. In 1990, some three-quarters of pregnant women received at least one antenatal care visit. Ten years later, very little has changed, although wide variation among countries exists. Similarly, the proportion of deliveries by skilled attendants has not increased, and half the women in the developing world still lack access to skilled birth attendants. Obstetrical services for timely management of complications are even less widely available. Countries have struggled with health sector reforms and other health system changes in the face of fiscal constraints, the growth of the private sector and deteriorating quality in the public sector. These changes have profound impacts on resource development and use, particularly on maternity services for disadvantaged populations.

### *Family planning*

26. Contraceptive use has risen in much of the developing world. Since 1990, contraceptive use by couples has increased 2% meaning that approximately 58% of the people aged 15-49 use modern contraception. However, the pattern is uneven. Some countries have reached ceiling levels of use but several of the largest countries (India, Pakistan, Nigeria and others) have far to go and some (sub-Saharan Africa) have very low levels of use. The slight improvement in contraceptive prevalence is mirrored by a 7.5% reduction in total fertility rate over the decade and a smaller age specific reduction of 2% among 15-19 year old women. These improvements can be attributed to increased access to quality family planning methods and services in the context of broader reproductive health services. Nevertheless, in most countries, significant groups, including adolescents, remain unserved. Recent estimates suggest that every year young women aged 15-19 have some 15 million pregnancies, and that in developing countries 20%-60% of these are mistimed or unwanted. While data are scarce, women under age 20 are estimated to undergo between 2 and 4.4 million abortions per year.

### *HIV/AIDS*

27. At the end of 1999, 34.3 million people world-wide were estimated to be living with HIV/AIDS and 15.7 million of them were women. During 1999, 4.7 million adults (2.3 million women) and 620,000 children were newly infected. The majority of new infections are occurring among young people under age 25. In the most heavily affected areas, HIV prevalence is higher among young girls than among boys of the same age. Ten years ago, few predicted such a high level of infections.

28. Despite substantial advances in technology, skills and country experiences in HIV/AIDS prevention and care, the epidemic continues to escalate dramatically in many parts of the world. In addition to ravaging families and communities, health systems in heavily affected countries are overwhelmed by the large numbers of persons seeking care and support. The health, education, agriculture and business sectors have been adversely affected as professionals and workers die, often in the prime of their productive lives. Vulnerability to HIV is heightened by a lack of respect for the fundamental rights of women and children, the right to information and education, the right to security and the right to health.

29. Sexually transmitted infections (STIs) are major causes of acute illness, infertility, long term disability, and death, with severe medical and social consequences for millions of men, women and infants. WHO estimates that 340 million new cases of syphilis, gonorrhoea, chlamydia and trichomoniasis occur globally every year. At least one-third of these occur in young people under age 25. Among women of childbearing age, STIs (excluding HIV) are second only to maternal factors as causes of disease, death and healthy life lost. Syphilis and gonorrhoea remain important causes of infant morbidity and mortality even though simple, cost-effective public health interventions (i.e. syphilis screening among pregnant women and prevention of ophthalmia neonatorum) have been available for decades. Finally, STIs increase the risk of both acquisition and transmission of HIV. Their prevention and treatment are therefore important contributors to HIV prevention.

## **Role of WHO**

### *Safe Motherhood*

30. Since the 1987 launch of the Safe Motherhood Initiative by WHO, UNICEF, UNFPA and the World Bank, much greater visibility has been given to the hidden inequity of maternal ill-health. The Initiative has taken an active stance on mobilizing resources, identifying individual and societal costs of maternal health, and highlighting human rights perspectives. WHO has supported extensive research into the magnitude and determinants of the burden of maternal and newborn ill-health and has developed and evaluated evidence-based practices. Numerous recommendations on norms, standards, tools, technologies to assist countries in revising health policies and services have resulted. In collaboration with its partners, WHO is providing multidisciplinary technical support to national safe motherhood programmes through eight regional support teams.

31. In the international public health arena, WHO's advocacy and contribution to the Joint WHO/UNFPA/UNICEF/World Bank Statement on Reduction on Maternal Mortality has led to consensus on prevention and management of unwanted pregnancies and unsafe abortion, and on the need for every woman to have skilled care in pregnancy and childbirth. Following WHO advice, the ILO Convention on Maternity Protection now recommends longer periods of maternity leave.

32. The recently launched Making Pregnancy Safe Initiative (MPS) is highlighting WHO's renewed commitment to reduce the global burden of unnecessary death, illness and disability associated with pregnancy, childbirth and the newborn

period. MPS builds on the Programme of Action of the International Conference on Population and Development and its first five-year review (ICPD+5), the Beijing Fourth World Conference on Women, and the Joint WHO/UNFPA/UNICEF/World Bank Statement.

#### *Family planning*

33. Expanding access to family planning requires global action in research and development and support for local service provision. WHO has been sponsoring research and development of safe, low-cost, and effective family planning and contraceptive methods, for both men and women. This includes female-controlled methods that both protect against sexually transmitted disease, including HIV/AIDS, and prevent unwanted pregnancy. In addition, WHO assists countries to follow internationally accepted ethical, technical and safety standards in all research and development as well as standards for manufacturing practices, quality control and product design, production and distribution. WHO has developed tools to assist countries with strategic planning for introducing new contraceptive technologies and improving the quality of family planning services.

#### *HIV/AIDS*

34. Since 1990, WHO has inspired global efforts against HIV/AIDS and STIs, initially through the Global Programme on AIDS (GPA), and since 1995 as a co-sponsor of UNAIDS. In 1999, the Initiative on HIV/AIDS and Sexually Transmitted Infections (HSI) was created to coordinate all WHO's HIV activities, for improved focus and efficiency. WHO's primary role continues to be supporting countries in strengthening their health system response to the HIV/AIDS epidemic and burden of STI. This includes guidance, training and technical support for voluntary counselling and testing, promotion of safer sex including the use of male and female condoms, case management of STI, blood safety, and prevention of MTCT. WHO also contributes to the global research effort for the development of vaccines and microbicides, as well as of new preventive and diagnostic technologies related to HIV/AIDS and STI. Finally, WHO has increased its efforts in the area of care and support of persons living with HIV/AIDS. In particular, specific activities have focused on the management of HIV and STIs among women, and among adolescents. WHO is also responsible for strengthening health information systems and epidemiological and behavioural surveillance to monitor the HIV/AIDS and STI epidemics. Since 1996, these activities have been conducted in close collaboration with UNAIDS and under the umbrella of the UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. During this period, efforts were undertaken to obtain a more detailed analysis of data particularly related to women, children and young people

#### *Adolescent health*

35. Adolescents are particularly vulnerable to unsafe pregnancies and STI, including HIV. WHO has facilitated the expansion of sexual and reproductive health services available to them, making what was previously a sensitive subject more open to discussion and action. WHO has been influential in raising the profile of adolescents' health and development within the international health community. It has been clear for some time that the various aspects of adolescent sexual and reproductive health cannot be meaningfully be separated from each other. Thus, 20 years before the 1994 International Conference on Population and Development

(ICPD) in Cairo, an integrated and holistic approach to adolescent sexual and reproductive health, including both pregnancy and STD-related issues, was developed and quickly led to multidisciplinary research and action. The results of early research in less controversial, biomedical, aspects of adolescent sexual and reproductive health (e.g. age of menarche in girls, spermarche in boys and the outcome of pregnancy during adolescence) and eventually in important programmatic issues (e.g. countering the false belief that providing sex education would encourage early sexual activity) provided powerful advocacy for action. In other areas related to sensitive issues and populations increasingly important for HIV/AIDS, e.g. injecting drug use among young and new drug injectors, WHO research and partnerships (e.g. the Global Research Network on HIV Prevention in Drug Using Populations) has informed the development of effective policies and programmes in many countries

36. WHO has also been instrumental in forging consensus on the key principles and practices of effective action. For example, WHO, in collaboration with UNFPA and UNICEF, jointly convened a Study Group on Programming for Adolescent Health in November 1995. The Group reviewed the scientific evidence regarding the effectiveness of key interventions for adolescent health; highlighted the essential factors and strategies needed to establish, implement and sustain programmes; developed a common framework for country programming; and recommended priority actions to accelerate and strengthen interventions for adolescent health, including the global and regional support needed at country level.

37. Strengthening the commitment and capabilities of others is another major contribution of WHO. A number of guidelines in adolescent health and development have been produced to assist in policy and programme development for partners and countries. WHO has also been active in developing the UNAIDS strategy for Young People and HIV/AIDS.

## **NUTRITION** (Goals 3, 12, 14, 15, 16, 18)

### *Malnutrition*

38. Progress towards the goal of reducing the 1990 prevalence of protein-energy malnutrition (PEM) among infants and young children by 50% has been exceedingly slow (Table 1.) The goal aimed at reducing the absolute prevalence of global malnutrition to 16.1% (i.e. 89.3 million under age five old children still malnourished). However, currently, an estimated 149.6 million children under age five, i.e. 26.7% of the world's children in this age group, are malnourished when measured by weight-for-age. Mild-to-moderate, rather than severe, malnutrition is a major factor in over 50% of the deaths of children under the age of five in the developing world. According to the best available estimates, between 1990 and 2000 the global prevalence of underweight pre-school children in all developing countries decreased from 32.1% to 26.7%. The largest improvement was in Asia, where it dropped from 36.5% to 29%, while in Africa it increased from 27.3% to 28.5%. The global reduction in the prevalence of stunted children (i.e. low height-for-age), from 39.8% to 32.5%, with a smaller reduction in Africa also shows some improvement, particularly in South America and the Caribbean (although there can be great disparities within countries). However, regarding wasting, or weight-for-height, global prevalence is estimated to have increased from 9.2% to 9.4%, translating into 50 million wasted children.

Table 1. Global and regional trends in the estimated prevalence of protein-energy malnutrition in underweight children under five, since 1980

Region	1980		1990		1995		2000	
	%	Million	%	Million	%	Million	%	Million
Africa	26.2	22.5	27.3	30.1	27.9	34.0	28.5	38.3
Asia	43.9	146.0	36.5	141.3	32.8	121.0	29.0	108.0
Latin America	14.2	7.3	10.2	5.6	8.3	4.5	6.3	3.4
Developing countries	37.4	175.7	32.1	177.0	29.2	159.5	26.7	149.6

39. Although this continuing global burden of malnutrition is rooted in poverty, underdevelopment and inequality, regional trends suggest additional reasons. In some areas, the drop in prevalence has not been as rapid as the rise in population. In Africa, for example, the actual number of malnourished children has risen reflecting population growth. In addition, natural disasters, wars, civil disturbances and population displacements have all contributed to continuing high rates of malnutrition in Africa.

#### *Low birth weight*

40. In both developed and developing countries, low birth weight (LBW) is probably the single most important factor affecting neonatal mortality and a significant determinant of post-neonatal mortality, morbidity and disability. Small size at birth or in infancy is associated with an increased risk of adverse health outcomes in adulthood. There are numerous causes of LBW, ranging from malnutrition throughout women's lives, and especially during pregnancy, endemic infections - especially syphilis and malaria, pregnancy complications and tobacco use. At the time of the WSC, the proportion of babies born with LBW was 17%; during the past decade it decreased to 16% (Asia 19%, Africa 14%, Latin America 10%, North America 7%, Europe 5%). Decreases in LBW rates were more substantial in countries measuring other improvements in health and status of women, namely better education, improved nutrition, improved access to better care, and control of endemic conditions hindering foetal growth. No change or increased rates are observed in countries which have the highest rates and the worst health indicators. One worrying trend affecting LBW rates is the increasing prevalence of tobacco smoking among women, especially adolescents.

41. Over one million child deaths annually are estimated to be due to not breastfeeding, or breastfeeding non-exclusively. Available data indicate an average of 30-35% of infants world-wide were exclusively breastfed during the first 4 months of life, with wide variations among different countries. Average rates of exclusive breastfeeding are 20% in Africa, 30% in Latin-America and the Caribbean, 41% in the

Near East and North Africa, and 44% in Asia, even though among developing countries as a whole, the rate of “any breastfeeding” remains high at 96%. Interventions, such as promotion, baby-friendly hospitals, and trained breastfeeding counsellors are effective in raising exclusive breastfeeding rates increase both nationally and in population subgroups.

42. Breastfeeding promotion has been affected by the HIV epidemic. An average of 16% of infants born to HIV-infected mothers may be infected through breastfeeding. Knowledge of this risk has curtailed promotion in affected countries. Yet, in resource-poor settings, the risk to an infant of not breastfeeding may be as great or greater than the risk of acquiring HIV infection. Exclusive breastfeeding and good breastfeeding technique may well reduce the risk of HIV transmission.

43. Increased commitment and resources, both in the health and non-health sector are essential to improve infant and young child feeding. The proposed Global Strategy on Infant and Young Child Feeding is an important first step towards achieving this goal. There is a need for countries to develop and implement comprehensive infant and young child feeding policies. Action should include renewed efforts to implement known interventions to promote and support exclusive and continued breastfeeding, and improve timely, adequate and safe complementary feeding practices, and increased attention to the support of optimal feeding for infants and young children in exceptionally difficult circumstances, such as in families living with HIV, emergency situations, and for other groups such as low birth weight infants, and children of adolescent parents.

#### *Iron deficiency anaemia*

44. Iron deficiency anaemia (IDA), affecting as much as one-quarter of the world's population, is particularly detrimental to mothers and children. In developing countries, IDA is also associated with other nutrient deficiencies (folic acid, vitamins A, B12), malaria, intestinal parasitic infections (especially hookworm, schistosomiasis and amoebiasis), and chronic infections such as HIV and tuberculosis. Among the poorest populations, monotonous diets based on cereals low in iron and with often high levels of absorption-inhibitors, exacerbate low iron stores, particularly among children and young women. Globally, 39% of children under two years and 52% of pregnant women are anaemic, more than 90% of whom live in developing countries. In addition, many children aged 5-9 years and adolescents also suffer from anaemia, although the data currently available for these ages are fragmentary. IDA has profound negative effects on human health and development: among infants and children, functional consequences include impaired psycho-motor development and co-ordination and scholastic achievement. Among adolescents and adults, IDA leads to reduced work capacity and decreased resistance to fatigue. Among pregnant women, IDA increases risks of maternal and foetal mortality and morbidity, and intrauterine growth retardation.

#### *Iodine deficiency*

45. A decade after the WSC, iodine deficiency remains a major threat to human health and development the world over, particularly among pre-school children and pregnant women in developing countries. Iodine deficiency results in goitre, stillbirth, and miscarriages, but its most devastating effects are mental retardation and deaf-mutism. These impairments translate into poor school performance, reduced

intellectual ability and impaired work capacity. This is the primary motivation behind the current world-wide drive to eliminate iodine deficiency disorders (IDD). Knowledge of their global magnitude has improved considerably since 1990. IDD is now identified as a significant public health problem in 130 countries, affecting a total of 740 million people, or 13% of the world's population. While remarkable progress is being made, nearly 50 million people are still affected by some degree of IDD-related brain damage, including cretinism. All WHO regions, in decreasing order of magnitude: Eastern Mediterranean, Africa, Europe, South-east Asia, Western Pacific, and the Americas, are affected.

46. The main strategy for IDD control – universal salt iodization (USI, defined as 90%+ of households using iodized salt) – was established as a WSC mid-decade goal in 1995. Salt has been chosen as a vehicle because of its widespread consumption and the extremely low cost of iodization. In high-risk areas, where populations cannot be easily reached by iodized salt, direct administration of iodine is an alternative, focusing on women and children. Over the last decade, extraordinary progress has been achieved by increasing the number of people with access to iodized salt. Whereas in 1990, only 46 countries had salt iodization programmes, by 1998 the number had increased to 93, more than 80% of which had adopted legislation on iodized salt. Overall, more than two-thirds of households living in IDD-affected countries now have access to iodized salt.

47. The challenge in the coming years is twofold: introducing salt iodization in the remaining 37 affected countries, and ensuring the long-term sustainability of IDD control programmes. Evidence that iodine deficiency may be reappearing in some countries where it was thought to have been eliminated underscores this need. The main constraints are: (a) iodized salt is not reaching all target communities, in particular the most disadvantaged; (b) the plethora of small-scale producers for whom salt iodization presents difficulties; (c) frequently unacceptable variations in the quality of iodized salt, reflecting inadequate monitoring; (d) lack of effective laboratory facilities in many countries for monitoring salt and urinary-iodine levels; (e) a transient increase in the incidence of hyperthyroidism following iodization.

#### *Vitamin A deficiency*

48. Vitamin A deficiency (VAD) is a major public health problem, particularly among pre-school children – of whom 140 to 250 million are affected - and pregnant women in low-income countries. An estimated 250,000 to 500,000 vitamin A deficient children become blind each year, and about half of them die within a year of becoming blind. In women, in addition to ocular lesions, VAD may contribute to maternal mortality and adverse pregnancy and lactation outcomes. VAD also increases vulnerability to other disorders, such as iron-deficiency anaemia and growth deficits in children and significantly increases the severity of illness, especially diarrhoea and measles. At present, VAD is estimated to be a public health problem in 118 countries. Africa has the highest prevalence of clinical VAD while the greatest number of clinically and sub-clinically affected children live in South-East Asia. Efforts to ameliorate VAD are based on 3-pronged strategy of supplementation, food fortification and dietary improvement.

49. Great challenges remain for the future: (a) nearly 20% of countries where VAD is likely to be a public health problem have not yet estimated its magnitude, and

therefore have not yet developed strategies for action; (b) in countries, the reliability of coverage data collected by regular health information systems is weak, so process indicators such as supplementation coverage or household-level purchases of fortified food products should be established and monitored regularly; (c) effective laboratory facilities for monitoring vitamin A status are lacking; (d) dietary improvement must be encouraged because it is a long term, sustainable approach that addresses not only VAD itself but also other micronutrient deficiencies usually associated with it.

## **Role of WHO**

### *Malnutrition*

50. WHO currently operates seven global nutrition data banks. WHO is uniquely qualified to undertake this specialized activity in view of its recognized expertise and independence among Member States, the international community, universities and professional bodies. The data banks cover: child growth and malnutrition; iodine deficiency disorders; vitamin A deficiency; anaemia; breastfeeding; obesity and body mass index (BMI); and national nutritional plans and policies of action. As a foundation of community health and development, nutrition has always been central to WHO's mandate, and by 1999, the organization had provided technical and/or financial assistance to 162 Member States.

51. Normative activities are also an important function. For example, WHO has recently completed a scientific review on the nutritional needs of young children and the specific feeding practices contributing to optimal nutritional status and healthy growth and development. This has contributed to the Global Strategy on Infant and Young Child Feeding which is being drafted by WHO in collaboration with UNICEF with the expectation that it will strengthen commitment to implement improved policies and practices regarding infant and young child feeding.

52. Widespread sub-optimal practice in hospitals and health centres in managing moderate and severe malnutrition contributes to continued high mortality from protein-energy malnutrition (PEM). Despite the decline in global prevalence of PEM, there has been little improvement in the survival of children with severe malnutrition. Key WHO efforts to reduce the burden of PEM include disseminating evidence-based practices focusing on improved oral rehydration salt solutions for treatment of dehydration, improved understanding of micronutrients' role in dietary management, and highlighting the growing evidence that physical and psychological stimulation can help prevent the long-term consequences of impaired growth and psychological development.

### *Breastfeeding*

53. In 1982, WHO established an international data bank on breastfeeding, as part of its regular nutrition surveillance activities. Indicators used at that time did not distinguish clearly between exclusive and non-exclusive breastfeeding. In 1991, new indicators were developed, and exclusive breastfeeding was clearly defined. Since the new indicators were introduced, breastfeeding patterns have become better understood and more readily comparable. Both the rarity of exclusive breastfeeding and the increased morbidity and mortality from giving any other foods or fluids, including water, during the first few months of life, have been recognised and quantified.

54. In 1991, following the WSC, WHO and UNICEF launched the Baby-Friendly Hospital Initiative (BFHI). Since then, over 16,000 hospitals and maternity facilities world-wide have been declared Baby-Friendly according to defined global criteria. New reassessment and monitoring tools have been developed to assist countries to sustain progress already achieved. The BFHI may increase rates of infants who have had some breastfeeding, but has less impact on exclusive or continued breastfeeding rates. In 1993, WHO and UNICEF developed a training course in breastfeeding counselling, for use in both the BFHI and the IMCI strategy. Training focuses on increasing health workers' clinical and counselling skills to help mothers initiate and maintain breastfeeding. Training has now been introduced in over 60 countries, and it has been shown that the skills it imparts are effective in increasing exclusive breastfeeding. A shorter course has been developed for policy makers and administrators.

55. Since the 1981 World Health Assembly adopted the International Code of Marketing of Breast-milk Substitutes, 160 Member States (84%) have reported to WHO on action taken to give effect to its principles and aim (83% of Member States in Africa, 97% in the Americas, 80% in South-East Asia, 63% in Europe, 95% in the Eastern Mediterranean, and 96% in the Western Pacific). National action includes adopting or strengthening legislation, guidelines for health workers or distributors, agreements with manufacturers, and monitoring and reporting mechanisms.

56. Where HIV is prevalent, health workers are often uncertain about how to advise mothers on infant feeding. In 1997 WHO, UNICEF and UNAIDS published a policy statement, and in 1998 developed guidelines for counselling HIV-positive mothers about the benefits and risks of a range of feeding options, including replacement feeding with formula, and exclusive breastfeeding. HIV-negative and untested mothers are encouraged and supported to breastfeed. A 3-day training course on HIV and Infant Feeding Counselling has been developed for use with training on breastfeeding, to give health workers the appropriate skills for counselling mothers in HIV-prevalent settings.

#### *Iron deficiency anaemia*

57. The WSC goal of reducing prevalence of iron deficiency among women by one third did not include any call for action to be taken against the condition among children and adolescents. In 1996, however, the WHO/UNICEF Joint Committee on Health Policy (JCHP) expanded the focus to include them. WHO policy identifies the multiple roles of IDA as a basis for the integration of interventions in child health (e.g. IMCI), safe motherhood, parasitic disease, malaria, sanitation and nutrition programmes. WHO has conducted research into the scope of the problem of IDA, and played an important normative role in co-operation with UNICEF and the International Nutritional Anaemia Consultative Group (INACG) in reviewing current knowledge on the functional consequences of IDA. Other activity has focused on producing guidelines for action, e.g. on the use of iron supplements to prevent and treat anaemia; on indicators for assessing IDA; on safety of iron supplements in malaria endemic areas, and implementation strategies. A holistic approach is needed, addressing all the factors contributing to anaemia. This means not only iron deficiency, but also other nutritional deficiencies and parasitic infections. For infants, breast milk is the main source of iron and therefore greatly contributes to increasing iron stores.

### *Iodine deficiency*

58. WHO has played a pivotal role in coordinating an international response for IDD, mobilizing national decision-makers and international partners, and providing strategic guidance. In 1990, the World Health Assembly took a pioneering step in urging action by Member States to eliminate IDD. High level monitoring of the situation continues as noted in the 1999 report by the Director-General on progress made by countries presented to the 52<sup>nd</sup> World Health Assembly. WHO plays a continuing key role in the partnership with UNICEF and ICCIDD to promote universal salt iodization.

### *Vitamin A deficiency*

59. In collaboration with UNICEF, WHO has provided support to countries to integrate vitamin A supplementation into National Immunization Days (NIDs) in the context of poliomyelitis eradication. Over the last five years, the number of countries distributing vitamin A through NIDs has increased dramatically to over 50 countries in 1999, amounting to 97 million doses. Campaigns for immunization against measles may offer similar opportunities. At both country and regional levels, WHO has assisted governments and agencies in establishing national VAD prevention and control programmes, in collaboration with UNICEF, the Micronutrient Initiative (MI) and the International Vitamin A Consultative Group (IVAGC). WHO remains active in normative work regarding VAD and has developed recommendations on safe dosage of vitamin A during pregnancy and lactation; revised dose schedules for vitamin A supplements; guidelines to integrate vitamin A supplementation with immunization activities; and coordination of research on the effects of vitamin A supplements on sero-conversion in childhood vaccines.

## **WATER and SANITATION** (Goals 4, 5, 25)

### *Water*

60. Although large numbers of people gained access to improved water supply services for the first time during the 1990s, the goal of universal coverage is still distant. The percentage of those with some form of improved supply rose from 79% (4.2 billion) in 1990 to 82% (5 billion) in 2000. While this result is encouraging, it still leaves 1.1 billion people without access to safe water. Despite the fact that water and sanitation are universal needs and basic human rights, it is estimated that every year 2.2 million people, most of them children, die from diseases associated with lack of access to water and sanitation and overall poor hygiene. In Africa, the percentage of people served increased from 57% to 62%. Lack of financial resources, inadequate cost-recovery and the inadequate operation and maintenance of water supply facilities have hampered universal access. This has been further aggravated by population growth and accelerated by urbanization. Between 1990 and 2000, the global population increased 5%, from 5.3 to 6.1 billion, but the global urban population increased by 25% and the rural population by less than 10%.

### *Sanitation*

61. The results of inadequate sanitation facilities cannot only be quantified in terms of sickness, death, and higher health costs, but also lower school enrolment and retention rates of girls. Between 1990 and 2000, the proportion of the world's

population with access to excreta disposal facilities increased from 55% (2.9 billion) to 60% (3.6 billion), far short of the target of universal coverage by 2000. While provision of sanitation services in developing countries has largely kept pace with population growth, meeting the increase in the need resulting from internal migration has proved impossible. In Africa, the percentage of the population with access to sanitation decreased slightly from 61% in 1990 to 60% in 2000. More than 80% of those without sanitation, some 2 billion in all, live in rural areas. Of these, 80% are in Asia, including 1.3 billion in India and China. While the reasons for the failure to reach the WSC goal are similar to those for water supply, sanitation is traditionally seen as a lower priority than water and so attracts less investment. Yet sanitation is important to prevent water-related diseases and also to human dignity. The current targets for the sector proposed by the Water Supply and Sanitation Collaborative Council (WSSCC) are: (i) to halve the proportion of people without access to water supply, sanitation and hygiene by 2015; and (ii) to provide access to these services for all by 2025. In order to achieve the 2015 target, an additional 2.2 billion people will need access to sanitation and 1.6 billion to water supply.

#### *Guinea-worm disease*

62. The threat of guinea-worm disease (dracunculiasis) through contaminated water is receding, and good progress has been achieved towards reaching the WSC goal of elimination by the year 2000. During the last 13 years, the number of cases reported world-wide (in 1999, a total of 96,293) decreased by 98%. Guinea-worm disease now exists in only 13 countries in Africa with one country accounting for two-thirds of all cases in 1999. Success can be attributed to the high level of political and societal support which efforts to eliminate it have enjoyed, especially at the central level, and to the synergy resulting from integration with campaigns against polio. Mass education campaigns to ensure that drinking water sources are not contaminated and that water is filtered often take place in remote areas and thus face logistic challenges in maintaining supervision and routine disease surveillance.

#### **Role of WHO**

63. WHO has been working with its partners to promote crucial aspects of water supply and sanitation, including water quality, technical and financial management, sustainability of services and progress monitoring towards universal access to safe water. It has produced health-based guidelines for drinking water based on risk assessments, and has promoted their use through capacity-building, the production of training materials, and networking with experts. Guidance on best practice to support the achievement of the safe and healthy conditions defined in the guidelines is in preparation. Innovative initiatives have been launched throughout the decade, including the AFRICA 2000 Initiative for Water Supply and Sanitation, which aims to promote universal coverage in the Region. At the same time, new conceptual and methodological tools are at hand, including community management, participatory methods for hygiene education and sanitation, low-cost technologies and private sector involvement. In cooperation with UNICEF, WHO also has an important role in global monitoring, and a global assessment of the sector at the end of the decade is currently in preparation, as is a strategy on water supply and sanitation for high-risk communities.

64. WHO has directed its efforts throughout the decade to emphasize the low-cost and community-based aspects of sanitation programmes serving those populations most at risk. This has included the development of participatory approaches to hygiene improvement, the promotion of health messages aimed at policy-makers and community residents, and continuous interaction with all relevant partners, including the WSSCC. Several useful best practice documents have been prepared and disseminated. WHO has actively participated in the WSSCC's Global Environmental Sanitation Initiative (GESI).

65. WHO has contributed to eradication of guinea-worm through co-ordination of activities and strengthening of surveillance systems in endemic countries, in close partnership with UNICEF, the Carter Centre and others. A unique role of WHO is the pre-certification and certification of interruption of transmission: to date 152 countries are certified free of dracunculiasis transmission.

67. However, growing concern about emerging environmental risks which may be related to new morbidities threatening children's health and development has led WHO to strengthen and integrate its activities in this area. A Task Force on Children's Environmental Health has been formed, complementary to existing water and sanitation programmes which promotes the recognition of problems linked to degraded environments, increased pollution, food contamination, and the interaction of chemical, physical and biological risk factors.

## **EDUCATION (Goals 6, 7, 27)**

68. 1990 WSC goals in education resonated with those of the World Declaration on Education For All (EFA) at Jomtien, Thailand. The review of progress carried out at the World Education Forum held in Dakar, Senegal in April 2000 reported that while many countries have made significant progress in extending school enrolment, 113m children are currently estimated not to have access to primary education, 880m adults remain illiterate, and widespread gender discrimination in education persists.

### **Role of WHO**

69. Good health and good education are interdependent. Links between the two are so strong that achieving satisfactory education without significant improvements in health is unlikely. WHO school health activities include four strategies: (i) consolidating research and expert opinion to describe the nature and effectiveness of school health programs; (ii) building capacity to advocate for the creation of Health-Promoting Schools (HPS) and using them to address priority health issues; (iii) strengthening collaboration between Ministries of Education and Health and other relevant organizations; (iv) fostering greater co-operation, including regional networks for the development of HPS and international alliances.

70. In 1999, WHO, UNICEF, UNESCO, the World Bank and Education International agreed to collaborate on the Focusing Resources on Effective School Health (FRESH) initiative. FRESH has 3 components: promoting school health policies, healthy school environments, and health education. This initiative calls for collaborative efforts among schools, communities, teachers, parents and students to

implement these components together, in all schools, to help prevent HIV infection and other health problems that affect learning as well as health.

71. Since 1990, WHO has been active in reviewing the literature and approaches to life skills education, acknowledged as one of five key intervention areas in the 1995 WHO/UNFPA/UNICEF Study Group on Programming for Adolescent Health. Whilst its promotion has primarily been through school-based curricula, the concepts and methods are increasingly used in efforts to reduce substance abuse and prevent HIV among out-of-school adolescents.

## **CONCLUSIONS**

72. The balance sheet emerging from this review of achievements over the past decade towards attaining the Goals set by the 1990 World Summit for Children is mixed. Despite some substantial gains for children and, in some cases, adolescents, progress has been slow in many areas. Broadly speaking (and allowing for gaps in information), comparison between the 1990 targets and progress to date gives the following picture:

### ***Success or relative success***

1. Reduction by 33% in infant and under 5 mortality – reduction of 16% for both in terms of rate
14. Virtual elimination of iodine deficiency disorders – countries iodizing salt increased from 46 to 93
19. Global eradication of polio - 95% decline in cases
21. Reduction of measles deaths by 95% from pre-immunization era – actual reduction 83% (but between 1997 and 1998, immunization coverage declined from 79% to 72%)
23. Reduction in deaths due to diarrhoeal disease by 50% – deaths reduced from 3m to 1.5m
25. Global elimination of guinea-worm disease – number of cases has decreased by 98% over the decade

### ***Outcome mixed***

4. Universal access to safe drinking water - increase from 79% to 82%
5. Universal access to sanitary means of excreta disposal – global increase from 55% to 60%, but still 2.2m deaths/year, mostly children, from diseases associated with poor hygiene.
10. Access by all couples to family planning – 2% increase in contraceptive prevalence in developing countries
11. Universal access to antenatal, delivery and postpartum care – little change; access to antenatal care remains at approximately 75 % and delivery at approximately 50%

### ***Distinct shortfall***

2. Reduction by 50% in maternal mortality rate – overall reduction by 16% in number but no change in terms of rate; no country thought to have achieved target

3. Reduction by 50% of severe and moderate malnutrition among children under 5 years - reduction only 17%
12. Reduction in low birth weight to less than 10% of live births – reduction from 17% to 16%
13. Reduction in iron deficiency anaemia in women by one-third of 1990 level – globally, 52% of pregnant women and 39% of children under two years still affected
15. Virtual elimination of Vitamin A deficiency – remains a problem in 118 countries
16. Empowerment of women for breastfeeding (100% breastfeeding) - all women exclusively breastfeeding for 4-6 months has been achieved in a few countries and project areas, but no overall global increase has been demonstrated
20. Elimination of neonatal tetanus by 1995 - 49 countries have still not reached elimination
24. Reduction in deaths due to ARI by one-third – no accurate data, but in many countries remains the most common cause of child death.

### ***Unknown***

7. Reduction of adult illiteracy to 50% of 1990 level
8. Protection of children in specially difficult circumstances (no measurable indicator) – probably marked increase in numbers, but no increase in protection
17. Growth promotion (no indicator given)
18. Household food security (no indicator given)
26. Expansion of early childhood education (no indicator given)
27. Skills for better living (no indicator given)

73. In this overview, based largely on global figures derived from national averages, variations among countries, regional differences within countries and, not least, variations within national populations between upper and lower socioeconomic strata, e.g. by income quintiles, do not appear. Greater attention to considerations of equity, as well as to gender, will be vital for future progress. Consistently poor performance in Sub-Saharan Africa, often the exception to signs of progress or promise elsewhere, calls for greater efforts.

74. From WHO's perspective, the successes are striking for their association with vertical programmes targeting specific diseases affecting children. Polio eradication and guinea worm elimination are the two most obvious examples. Similarly, progress towards measles reduction and elimination of iodine deficiency has resulted from applying specifically defined interventions through well-functioning delivery systems, immunization (and Vitamin A supplementation) in the first case and intervention with salt producers in the second. Child mortality reductions represent a cumulative effect of successes in reducing disease-specific mortality. However, the impetus from successful, technically sound programmes can be used to widen the scope of action to include illness prevention and health promotion in other areas. As such, small improvements in access to family planning services and more significant advances in control of diarrhoeal disease demonstrate successful integration of defined interventions (i.e. contraceptives, ORS) within broader delivery systems, i.e. reproductive health services and IMCI.

75. For the goals with mixed outcomes and shortfalls, WHO's analysis highlights technical shortfalls, i.e. the absence of effective interventions, and/or operational shortfalls, in particular, failure to ensure the delivery of demonstrably effective interventions to all who would benefit. These can be further subdivided into operational shortfalls within the health sector and those arising in other sectors which have health impacts.

76. Thus, progress towards goals regarding access to safe drinking water, sanitation and education has been hampered by operational shortfalls in other sectors, (water & sanitation and education respectively), while shortfalls in access to maternity care, and empowerment of women for breast feeding are health sector issues whose remedy will likely require resources and solutions at the level of health systems, supported by actions in other sectors.

77. For the nine goals where distinct shortfalls have been identified, one, reducing malnutrition, would appear to be a result of shortfalls in a non-health sector. Health systems shortfalls, particularly insufficient resources, appear to have hampered progress in meeting the goals for reducing maternal mortality, iron deficiency anaemia, vitamin A deficiency, neonatal tetanus, and ARI deaths. For two of the goals, reducing low birth weight and special attention to the female child, outcome indicators were poorly defined. For low birth weight, the 2500 gram definition was historically chosen as the 10<sup>th</sup> percentile of the birth weight distribution but may not be universally applicable in terms of focusing on the most cost-effective gains in birth-weight for all populations. For breastfeeding, the shortfall appears to be due to lack of leadership, commitment and resources in the health sector, as well as shortfalls in non-health sectors, including trade, employment, and education. For special attention to the female child, notwithstanding the vital importance of this goal, progress is difficult to assess in the absence of measurable outcome indicators.

78. Last, for two of these goals, technical issues contribute to the shortfalls. For neonatal tetanus, consensus regarding the use of the arbitrary rate of 1 case/1000 live births to define elimination remains elusive. For ARI, treatments or immunization are not available for all respiratory pathogens, so while further application of existing interventions may have been sufficient to make progress towards the 1990 WSC goal, there is an opportunity for innovation to develop additional interventions, including therapeutic agents and immunizations effective against bacterial and viral infections. However, most promising is progress through improvement in health systems, specifically more widely available inexpensive antibiotics and basic hospital care, including oxygen, for severe cases of bacterial and viral infection. Even though Hib and pneumococcal vaccines show promise especially with emerging anti-microbial resistance, basic curative services should have higher priority, as they address other diseases as well, e.g. malaria and malnutrition.

79. The six goals for which progress is unknown all lacked measurable targets or indicators.

## SUMMARY

- All goals, health and otherwise must be measurable with specified indicators and targets. Where reductions are proportional e.g. reduce deaths by 50%, baseline information must also be available for monitoring or explicit efforts made to gather such information.
- Vertical programs have been at the core of several notable successes, specifically communicable disease control programs. However, integrated surveillance and control of infectious diseases is more sustainable in the long run. Once-off major campaigns may have immediate success, but backsliding often occurs after the focused programmes have ended (viz. sleeping sickness in Africa), and the infectious disease burden may end up being even greater, since younger populations have no immunity. Moreover, many child and adolescent health goals may not be amenable to vertical programmes (HIV prevention being a notable example). Reproductive health and IMCI are examples of approaches that establish platforms for integrating multiple interventions. Building on these successes will require attention both to elaboration of interventions and to improved means of service delivery within and outside the health system. Interventions that families and communities can provide become increasingly important for older children and adolescents.
- To achieve health goals, attention to service delivery translates into strengthening health systems. This is vital to continue the momentum and to make significant progress towards health gains that consolidate and expand upon reduced prevalence of communicable diseases. Attention to the role of parents is essential in designing health services delivery, particularly for services targeted at infants and younger children. Moreover, the consolidation of democratic processes in many countries increases opportunities for participation by civil society in improving health systems.
- WHO's technical assistance does not typically target specific sectors of the population systems. Although the impact on the poorest or most vulnerable is limited by their access to services, the continuing emphasis over the decade on affordable care and home care has probably been instrumental in improving equity of access. Growing gaps in access to interventions for health by income, education, gender and ethnicity, both between and within countries, will make it necessary to readjust strategies and goals in future.

## Part II

1. The World Summit for Children (WSC) in 1990 was one of a series of conferences - one attracting the highest level of publicity and expectations - periodically convened under the auspices of the United Nations to carry the development process forward. As with other such gatherings, implementation of its decisions and results was the shared responsibility of both national governments and the United Nations system as a whole. Since 1995, ECOSOC has been responsible for the follow-up undertaken by Member States, and the Advisory Committee for Coordination (ACC) for the overview of UN agencies and programmes. Technical assistance provided to Member States by WHO is part of this development agenda. At the field level, it falls within the purview of the UN Resident Coordinator system, and since 1997, in a growing number of countries, within the United Nations Development Assistance Framework (UNDAF), introduced under the Secretary-General's reform. The assistance provided through UNDAF is based on the Common Country Assessment (CCA), carried out as a cooperation between governments and UN agencies. Through its strong presence in country offices, WHO has played a central role in these processes.

2. WHO's planning and programming of support to national child and adolescent health activities are guided by the need and obligation to ensure respect for the rights of children and adolescents. In this context, procedures for monitoring and promoting these rights through the UN human rights instruments and other mechanisms act as a channel for advocacy and practical support for WHO child and adolescent health activities. The United Nations Convention on the Rights of the Child (CRC) is the major instrument for monitoring and ensuring the rights of children and adolescents to health and health care and for mobilizing national and international support in this area.

3. During most of the last decade, and before the implementation of a specific work plan on the CRC in 1998, WHO's work in the area of child and adolescent health and development was already inspired, directly or indirectly, by the notion of the rights of the child. In this context, WHO's activities over the last ten years have been particularly relevant to four specific areas: (a) improving the chances of survival of infants and children in developing countries; (b) improving the quality of child health care and making it more widely available and accessible; (c) emphasizing the provision of essential information to the family as a basis for better child care at home through a range of health care programmes, especially IMCI; (d) directing concern to the psychosocial development of the child, to enable the child to benefit from education and the social aspects of development. In some regions, particular attention has been paid to child protection through efforts to prevent child abuse and neglect.

4. Regarding the rights of the adolescent, WHO has also used the CRC as a framework for programming for adolescent health and development since the early 1990s. The main emphasis has been on enabling adolescents to develop their full potential in safe, supporting environments, protected from threats to physical and psychological health. The CRC has been explicitly used in planning the following activities: (a) ensuring that full weight is given to the adolescent's views and guaranteeing his or her right to be heard; (b) providing protection from all forms of

abuse; (c) guaranteeing access to good quality health care that serves the adolescent's special needs; (d) providing appropriate education and guidance, in ways consistent with the adolescent's evolving capacity; (e) using the media to benefit the adolescent and protecting him or her from any possible negative influence. These rights provide underlying principles to guide the planning and programming process.

5. In the early 1990s, the focus of WHO activity related to the CRC was mainly on providing data to the United Nations Committee on the Rights of the Child. Following the restructuring of the Organization in 1998, the Department of Child and Adolescent Health and Development (CAH) adopted a framework for initial CRC activities to provide WHO with a basis for future policy on child and adolescent rights. Three key areas of work were identified: (i) internal capacity-building in child rights for WHO staff, in the context of child and adolescent health; (ii) strengthening support to the CRC reporting process and national implementation of the CRC; (iii) collaboration with external partners to promote and address the rights to health and health care of children and adolescents.

6. To further understanding and knowledge about the application of CRC to the work of WHO and its technical assistance, CAH has developed an orientation course on the subject, intended primarily for internal use, but with a view to adaptation for a wider range of health professionals and other actors at a later stage.

7. Technical support to the CRC reporting process and to countries in their implementation efforts is another important aspect of WHO's work in this area. Since early 1998, CAH has provided more than 40 WHO commentaries on initial and periodic State Party health reports to the Committee on the Rights of the Child. These interventions have offered an opportunity both to highlight child and adolescent health and development issues in countries under consideration by the Committee and to offer concrete advice on action needed to address the problems identified. As a result, the Committee has increasingly encouraged countries to seek technical support from WHO, e.g. on the Integrated Management of Childhood Illness (IMCI), through specific recommendations. In the context of its technical assistance, and in cooperation with UNICEF and other partners, WHO has initiated discussions at country and regional level with selected countries about ways of strengthening the reporting process. Topics range from providing support for the preparation of reports to consultations on the health-related recommendations made by the Committee.

8. In addition, WHO is increasingly collaborating with other UN agencies and with NGO and civil society partners to increase awareness about the relationship between the CRC and child and adolescent health. It is developing information and training materials directed to a wide audience, and providing technical support to partners in the area of child rights, e.g. assisting the International Federation of Medical Students Associations (IFMSA) in its child rights training programmes and other related activities.

9. The CRC has also inspired programmes in the growing area of children's environmental health (CEH). Several international fora, such as UNCED (1992), the G8 (1997), and the London Declaration (1999) have expressed growing concern about environmental threats to children's health and development, and have prompted a recognition of their special vulnerability to pollutants. The WHO Task Force recently

dedicated to this area addresses environmentally-related problems which increase the global burden of disease, particularly in developing countries, where vulnerability may be aggravated by poverty. The Task Force also considers new, emerging health issues, such as degraded environments, increased pollution, food contamination and the interaction of chemical, physical and biological risk factors. This will lead in time to appropriate preventive and curative strategies in a growing field which is attracting considerable public interest and partnership opportunities, e.g. in cooperation with the ILO and others regarding the health risks associated with child labour.

## **INTRODUCTION**

1. Over the decade since the 1990 WSC, two powerful currents have converged to provide a framework for renewed energy and commitments to the world's children and adolescents. First is the human rights basis for defining goals for the world's children, embodied most directly in the CRC, but also increasingly central to notions of health across the life cycle. Second is the convergence of opinion on the high priority of poverty reduction within the global development agenda. In an era marked by a globalization of commerce, particular attention is due to populations and nations left behind and the repercussions for their welfare.

2. The goal of reducing inequity provides a platform for improving health through advances in both these areas and also highlights the virtuous cycle inherent in health's links with human rights and poverty reduction. Thus, children and adolescents in good health are better able to exercise their rights under the CRC, including their right to education. At the same time however, such rights can not be fulfilled if the health and development of children and adolescents are not addressed from within the framework of the CRC, e.g. focusing on, *inter alia*, the best interest of the child, the child's right to have his or her views being taken into account, and the principle of non-discrimination. Efforts to reduce inequities in health status must be facilitated with rights based perspectives for health system organization and delivery. Similarly, while poverty is associated with multiple health problems, including higher rates of communicable disease and psychosocial development problems, and poorer access to health services, health is itself a vital contributor to poverty reduction. As an example, health enables children and adolescents to attend school and to be ready and able to learn, thus assisting them in exercising their rights and increasing their human capital.

3. Human capital development is central to a brighter future for children and adolescents. For these age groups, human capital is often thought of as synonymous with education. Education is clearly necessary but cannot be sufficient as the sole focus of efforts to develop the human capital of children and adolescents. In short, health and education are two sides of a coin, inseparable in their synergy for advancing development, expanding the opportunities for children and adolescents in the communities where they live.

4. Health and education are not only integral to human capital formation and human development more broadly but are typically provided with substantial public sector roles in financing and providing services. Over the decade since the 1990 WSC, social sector reform, often in response to macroeconomic crises, has further strained overloaded systems. Slow or negative growth of public financing for health and education translates all too often into an exacerbation of pre-existing inequities as cutbacks in education and health affect those who are poor and whose rights are least often considered. Regardless of the pathway, both of these outcomes have direct effects on children as people needing care or seeking to develop and learn. Moreover, they also affect children via effects on households; a household faced with rising

school fees and falling income often faces no choice but to forego education for the children therein.

5. WHO supports a New Agenda for Children that will address the needs of children and adolescents at each of three key stages in their lives. First is a good start to life, nurture, care and a safe environment enabling them to survive and to be physically competent, mentally alert, emotionally secure, socially competent and able to learn. Second is ensuring all children have access to and complete a good quality basic education. Third, is providing opportunities for adolescents to develop fully their individual capacities, empowering them to participate in and contribute to their societies.

6. WHO's contribution to advancing this agenda is embedded in three themes applying across the three stages: cumulative individual development, developing effective interventions, and service delivery systems that embody the four CRC principles of non-discrimination, the best interests of the child, the right to life, survival and development, and respect for the views of the child.

7. The first two decades of life are a time of cumulative development for the individual. For example, a physical environment that ensures secure access to clean water and air reduces risks of death and disease, thus increasing the potential return on education spending via improved cognitive development, school performance, and eventual earning power. Similarly, educating girls equips them for a broader range of roles in their households and communities, empowering them not only for these roles but also improving the likelihood that their children will be born at healthier birthweights, with longer intervals between births, and receive more effective parenting.

8. Interventions to realize the New Agenda are not simply a matter of doing more of the same. WHO's analysis identified technical and operational shortfalls since the 1990 WSC. Overcoming these will require both innovation yielding new interventions such as drugs or vaccines but equally important, operational innovation in how to deliver services more effectively and more explicitly guided by the CRC's principles. A fundamental reorientation towards activities with demonstrable benefits that reduce poverty and inequity coupled with a focus on functional outcomes will lead to more effective efforts and a greater return on what will always be scarce resources. As children grow to become adolescents, multisectoral programming becomes become more critical to achieving health and development outcomes.

9. For service delivery, the fundamental challenge is designing sustainable systems that embody the four principles and deliver quality services. The changing role of the State from that of sole financier and provider of services to one of stewardship with or without provision, creates opportunities to ensure that children, adolescents and their parents participate in ensuring that delivery systems are accessible, responsive, and effective.

## GOOD START

10. The synergy between poverty reduction, advancing human rights and health begins before the birth of a child with efforts to ensure adequate maternal nutrition and an environment free of elements deleterious to the health of women including violence, tobacco smoke and unsafe drinking water. As an example, reducing maternal to child transmission (MTCT) of HIV requires not only health systems strengthening but technical innovation – new, more cost-effective and easy to administer agents – and social norm shifting so that those who may be infected with HIV are able to seek care without stigmatization. Similarly, reducing malaria among pregnant women improves pregnancy outcomes for both mother and infant. Reducing the persistent substantial burden of maternal mortality not only saves individual lives but also spares children and families the loss of significant members.

11. Specific interventions at this time are often said to focus on child survival: immunization and micronutrient supplementation to give two examples. Yet there is much more to both. Consider immunization - a cost-effective intervention that has saved millions of lives around the world. Immunization programs, by drawing on multiple sectors and actors not only save lives but they also establish a framework for social mobilization and cooperation around achieving human development goals. For health systems, strengthening immunization systems can have spillover effects by improving health systems that can benefit populations, and particularly poor populations, independent of whether they are immunization-eligible children.

12. In a globalized world, infectious diseases can spread with accelerated speed, heightening the importance of local capacity in countries and the need for regional coordination. Emphasizing enhanced equity as a key right highlights three major challenges: extending immunization coverage to the 30 million children born each year who are not benefiting from basic immunization, expanding the immunizations available to all the world's children, thus closing the gap between children in developed and developing countries, and increasing investment for interventions effective against diseases prevalent in poor countries, including diarrhoea, ARI, HIV and malaria. Persistence of all three not only exacerbates poverty by consuming resources for treatment and making people sick enough to be unable to attend school, work, or participate in community life, but also does so directly and indirectly through adverse effects on households, further limiting the full expression of the rights of children and adolescents even if they themselves are not sick.

13. Improving the health of children translates into income for households for other purposes. Polio's impending eradication will yield an estimated annual savings of \$1.5 billion that would otherwise be spent on care for people infected by the polio virus. Similarly, efforts to improve health system responsiveness such that children can be seen without long delays, be diagnosed competently, and purchase or receive appropriate effective treatments in a setting where they are treated with dignity and fairness translate into more time available to care-giving family members, time that can be used for their own human capital formation, income generating activity or pro-social activities.

14. Nutrition plays a fundamental role in human health and development and like psychosocial development traverses the 3 life stages considered in the evolving

Agenda. Malnutrition is implicated in nearly 50% of all child deaths. During infancy and early childhood malnutrition adversely affects brain function, impairing cognition and behaviour. Efforts to improve infant and young child feeding and address micronutrient deficiencies require action across sectors to halt the vicious downward spiral of malnutrition's reinforcement of poverty and poverty's continued exacerbation of malnutrition. Nutritional status is a recognized indicator of poverty and progress in socioeconomic development that has, or has not, been achieved.

15. For children who survive their first, most vulnerable years of life, early encounters with people and the environment shape their intellectual development and how they interact with others. Responsive caring, and play and communication with mothers and other family members improve physical growth, reduce illness and increase survival probability. The ability to form, maintain and conclude interpersonal relationships are crucial for health. Secure bonds with caregivers during infancy and childhood establish the base for separation and exploration and the foundation for emotional self-regulation, skills building and development of social, moral, cognitive competencies which become crucial for healthy behaviours during adolescence.

16. In light of these developmental considerations, comprehensive interventions to support families and communities in fostering the development of all children are vital. For health services, this means support for mothers to initiate and sustain, effective training for health workers to counsel parents on ways to stimulate child development, commitment to community-based activities to promote the health, nutrition and psychosocial development of children, and assessment and early intervention programs for children whose development is slowed and those with learning difficulties

17. Environmental risks to the prenatal and postnatal development of the child are increasing. New knowledge has highlighted the extreme vulnerability of the foetus and the newborn child to the effects of a wide variety of contaminants, which in many parts of the world have grown during the last decade in variety, complexity and quantity. When the nervous system of the foetus and the infant is still developing, exposure in utero or soon after birth to new forms of pollution, such as neurotoxicants present in the air, food or water, may be linked to the increasing number of children who display learning, development or behavioural disabilities, or to the magnitude of childhood morbidity attributable to chronic lung diseases. These negative impacts on growth and development may be aggravated by poverty. New research should provide a basis both for dissemination of information about the threats and for specific measures to protect the environment of children thus giving them the opportunity for a healthy start.

18. A 'good start' for a child thus requires effective health sector interventions delivered in such a way as to reduce inequity, support to families and communities to build environments where children matter and, consistent with the life cycle emphasis, arrival at school alive, well, cognitively unimpaired and ready to learn.

## **BASIC QUALITY EDUCATION**

19. Given the long road that remains to reach the goal of universal primary education for all boys and girls in the world, it is tempting to consider education to be synonymous with formal schooling. Formal schooling is one example of a vital investment in human capital - valuable in itself but also essential to increase rates of return on other inputs, (e.g. trained workers are needed to use complex machinery, literate rural people are more likely to be able to benefit from agricultural extension efforts).

20. Health is vitally linked to education at several levels: the obvious one that healthy children are 'ready to learn' and have fewer school absences, but also that health in general within a household frees caregivers, overwhelmingly women, for other tasks. These include attending educational activities from which they may have been systematically excluded as children. Other health links arise because formal education systems and curricula provide vehicles for health education of children and communities. Further downstream, educated, healthy adolescents are likely to be able to participate more effectively in civil society as they seek adult roles.

21. A growing body of evidence linking nutritional status and educational performance highlights the need for intervention to monitor nutritional status and where necessary, provide micronutrient and caloric supplementation. To the extent that nutrition is a marker of poverty, supplementation not only improves the health of poor children but by facilitating their school performance increases the opportunities they will have to escape poverty.

22. Improving the health and learning of school children through school-based health and nutrition programmes is not a new concept. Many countries have school health programmes, and many agencies have decades of experience. These common experiences suggest an opportunity for concerted action by a partnership of agencies to broaden the scope of school health programmes and make them more effective. WHO, UNICEF, UNESCO and the World Bank are jointly proposing a common framework for action to increase the coverage and quality of school health programmes. The framework is structured around a core group of cost-effective components wherein each component stresses the importance of addressing the young person's health as an important factor for achieving any country's educational goals. The shared view, based on experiences developed in the past decade, is that a group of four components should be made available together in all schools. These are: a) health related policies in schools; b) provision of safe water and sanitation facilities; c) skills-based health education; and d) school based health and nutrition services.

23. School health services are another link between health and education. While the rationale for providing health services in schools is obviously strong, programming for many of these would benefit from rigorous evaluation and updating to reflect evidence-based best practices. In addition, linking the infrastructure and trained personnel of school health services to out-of-school youth offers a chance to expand the rights-promoting effects of health information and engagement to all youth. For both in-school and out-of-school youth, ensuring that school health services are oriented to the best interests of the child/adolescent and that they reflect young people's growing capacity for autonomous decision making regarding health

often requires substantial change from perspectives more akin to heavy-handed top-down direction.

24. Approaches to education differ, in part reflecting local conditions and cultural factors. Nevertheless, a biological metaphor is apt - education, whether formal schooling or not, will be most valuable if it renders the student like the 'stem cell' - a cell capable of multiple developmental outcomes. For education, this means an emphasis on skills that will be valuable in adapting to changing social and personal circumstances. Where financing choices must be made, focusing more on general education and less on vocational education is likely to increase the adaptability of the resulting human capital. There also need to be multiple points of entry and flexibility to accommodate interruptions in formal schooling particularly for women and children whose families are engaged in seasonal labour.

25. In some developing countries, in particular sub Saharan Africa, HIV/AIDS threatens progress in extending education and developing human capital. Adult deaths from HIV/AIDS are decimating the ranks of not only teachers but also parents and adults more generally. Certainly, actions reducing the burden of HIV/AIDS among adults in communities benefit the children and adolescents of those communities. But that may not be enough, as teachers die faster than they can be replaced and more and more children, benefiting from a good start, are ready to learn.

26. The response to this situation will be multifaceted but two elements deserve particular mention for their realization lies outside even the broadest notions of health or education. First is establishing and sustaining mentoring/modeling environments outside school and family units both to augment formal schooling and to buffer the losses of adults as teachers and parents within communities. Second is the opportunity for an augmented role for information technology (IT) in formal schooling to offset in part the loss of teachers. This opportunity highlights the importance of addressing the 'digital divide' as the relative scarcity of IT infrastructure in many developing countries coupled with a dwindling pool of teachers will be a double blow to the education of children and adolescents, rooting them ever more deeply in poverty.

27. While much of the focus during the second five years of life is appropriately on education, children do not spend all of their time in school. Safe environments for play and social integration are integral to child development and this means not only freedom from injuries but also exposure to positive role models. Key issues in this regard include making places where children play and live smoke-free, not only to prevent lung disease but also to remove the norm-setting effects of adult smoking, and taking steps to eliminate the worst forms of child labour which, for many children, deny them the right to an education and in turn, to a future with more opportunity to escape poverty.

28. Middle childhood is often a time of increased risk for injuries and violence. Children live in an environment all too often made for adults in which they come in contact with many objects and products not designed to assure their safety. Resultant injuries, road traffic injuries, drowning, burns, interpersonal violence, war injuries and falls can be life-threatening or limit children's capacities to develop, especially in resource poor countries. Child abuse in the family and in institutions is all too

common: WHO recently estimated that annually 40 million children are suffering from child abuse world wide. Adoption of self-destructive, risky behaviours often becomes more likely in abuse victims, from early and increased sexual involvement and exposure to older and multiple partners, to substance abuse, suicidal ideation, and the intention to run away. Policy, educational and counselling interventions are called for to reduce the risks to children and address the consequences.

## **ADOLESCENT DEVELOPMENT**

29. Adolescence is a critical formative life stage – a time for building human capital, (both social and personal skills important for ensuring future livelihood and functioning), establishing a sense of identity, forming commitments to broader society and deepening pro-community values, exploring sexuality and confronting the health-compromising and life-compromising opportunities presented to young people (i.e. opportunities to leave school, engage in violence, and health risk behaviours). For these reasons, WHO welcomes the important inclusion of adolescents on the New Agenda - a major step forward since 1990.

30. In addition, adolescent development underlies the prevention of health problems whose seeds are sown during adolescence and have their major consequences in adulthood. These include health behaviours determining non-communicable disease risk, (e.g. tobacco and alcohol use, diet, exercise frequency) and attitudes towards violence which may predispose the adolescent and those around him/her to injury. Addressing mental health problems (depression, epilepsy, suicidal behaviour) at the earliest stage will reduce subsequent morbidity at a substantially reduced cost to the individual and society. During adolescence, gender differences in development and specific health behaviours become striking, so sensitivity in developing and implementing interventions is vital, coupled with explicit emphasis on reducing gender inequities.

31. For a long time young people were thought of in problem focused terms. This approach typically targets reducing health-compromising behaviours (i.e. substance use, adolescent pregnancy; violence) and environmental risks (poverty; neighbourhood violence; family dysfunction). Programmes based on this individual deficit-oriented approach have yielded mixed to disappointing results in sustaining behaviour changes among adolescents. An emerging alternative conceptualizes and promotes core elements of human development known to enhance health and well-being, including promotion of assets both in individuals and in communities. This positive development approach also reflects the growing capacities of adolescents for safeguarding their own rights and acting in their own best interests.

32. The social environment of adolescents is of utmost importance to adolescent development. Recent work in developing and developed countries has identified a number of protective and risk factors which are commonly associated with the most important adolescent health outcomes and amenable to intervention. Most interesting are protective factors occurring in families and communities: connection - positive, stable emotionally close relationships with significant others; regulation - the imposition of structure around behaviour, so that adolescents and adults have some notion of boundaries, beyond which are sanctions; psychological autonomy - the encouragement of a sense of self and identity, where thoughts and feelings and values

are valued by adults; opportunity - access to all sorts of institutions, personal and cultural resources; belief systems - that provide adolescents with ideas and beliefs consonant with pro-social values. These factors are compatible with values held in many developing countries and efforts to address them are met with considerable interest. However, more work is required to specify, elaborate and test programme interventions.

33. There are compelling economic arguments for addressing the health of adolescents. The traditional health focus on sexually transmitted infections, tobacco and alcohol use, and injury prevention gains emphasis from the need to reduce premature mortality and thus further contractions of potential labour pools, markets and the age-sex pyramid. From an economic perspective, adolescents also develop consumer habits that tend to prevail into adulthood.

34. In addition, improvements in the health of school-going adolescents improve their school attendance, cognitive performance and thus, lead to greater productivity. Improving the health of younger workers will result in greater productivity gains as the benefits accrue over a longer period of productive work. Adolescent health also safeguards previous investments in child survival and education of those children who have survived to become adolescents. And prevention pays off - data from the US indicate that each dollar spent on prevention activities aimed at adolescents averted 14 dollars of future health care costs.

35. For health services, the best interests of the adolescent have real significance in reorienting service delivery to ensure that health services are accessible to adolescents and delivered in ways that do not subvert the rights of adolescents to health information and services to community expectations that exacerbate poverty, bolster inequity and deny the rights of adolescents, particularly females. Adolescents' evolving capacities translate into a reasonable claim to be consulted on how such services are delivered and monitoring the responsiveness of services to adolescent clients can be a fundamental change in ensuring that their best interests are paramount.

36. Over the past 5 years there have an increasing number of initiatives in developing countries to improve service provision to adolescents. There is ample evidence that adolescents do not utilise health services broadly due to the organisation of services and health worker attitudes and skills. These recent initiatives have attempted to address barriers to use of services, but little attention to date has focused on help/health seeking behaviour of adolescents, the quality and range of services, and the health system issues such as scale and sustainability, financing, public/private mix of provision.

37. Policy measures are important for adolescent health and development in order to limit adolescents' access to dangerous substances, particularly tobacco, alcohol, and firearms; to protect adolescents from exploitative work situations, (young women in particular are vulnerable through the growth in the informal, unregulated sector); and to ensure access to necessary health information, services and commodities, in particular, those related to sexual and reproductive health and nutrition.

38. An adolescent-friendly society is one which rewards initiative over personal connections or at least creates opportunities for advancement open to those who by virtue of poverty or other reasons lack such connections, particularly with regard to access to secondary and post-secondary education and credit. Ensuring the rights of adolescents to hold and express opinions in matters affecting them is an important precept in effective programming for adolescent health and development. Attention to policies that promote and safeguard civic participation provides a means through which adolescents can both perceive and observe adult roles that will provide meaningful lives through which they can develop as individuals and contribute to their communities. Moreover, for healthy development, adolescents require opportunities to make contributions to their communities and be recognized for them both to build skills and to enhance self-efficacy.

### **Health systems: intervening effectively across the life-cycle**

39. Across the stages of growth and development of children and adolescents, health service delivery is vital to secure their rights to life, survival and development. Because health systems are so central to the interventions of health care, WHO strongly supports efforts to improve technical expertise, responsiveness, and equity in health systems. Many children and their families, particularly the poor face large inequalities in access to health care. Without access to quality health care, these children are deprived the benefits of potentially life saving treatment of neonatal diseases, severe bacterial infections, ARI, diarrhoea, measles, malaria and malnutrition. Ensuring access to care and adherence to good medical practices requires a well functioning health referral system.

40. Reducing and preventing mortality and morbidity from common childhood illness must be a priority in all health systems, for both developed and developing countries. Integrated service delivery in child health is a strategy to address the major causes of childhood deaths through an integrated and cost-effective approach. WHO, UNICEF and others have been instrumental in developing IMCI (Integrated Management of Childhood Illness), but much work remains to be done to ensure that more of the world's children benefit from IMCI.

41. The integrated approach of IMCI increases technical efficiency in health care service delivery by increasing diagnostic and classification accuracy and rational drug use. Implementing IMCI responds to patient and caregiver needs by increasing the quality of services and access through decreased waiting times and ensuring access to drugs. IMCI offers the potential to enhance equity by improving the average level of services and thus extending to the poor and those living outside urban areas an increased likelihood of quality services.

42. Resources needed for implementation of IMCI overlap with those needed for other components of a basic package of health services, e.g., drugs and supplies, supervision and monitoring, transport for referral, human resources. An additional key element is IMCI's emphasis on district-level capacity building, as IMCI requires a competent district health management team with responsibilities and authority for planning, decision making, budgeting and monitoring. With this decentralization of management functions, Ministry of Health focus shifts to the stewardship roles of

policy formulation, strategic planning, standard setting, legislative and regulation mechanisms, multi-sectoral coordination, monitoring and controlling quality of health care.

43. In addition to equitable service provision, the financing of any health system has equity implications. For services provided to children and adolescents, financing approaches must account for the degree to which the recipient of services is a child and thus often reliant on household income and resource allocation. Lowering financial barriers to child and adolescent health services also contributes to closing the gender gap between boys and girls by relieving families from the need to ration financial resources for health services among their children.

44. Within the health system, availability of and access to drugs are necessary conditions for a functioning health service delivery system, and need to be addressed by future health system development. Irregular or lack of access to essential drugs at health facilities is a problem in many developing countries, denying children and adolescents demonstrable health benefits of treatment, particularly for communicable diseases, and leaving many of the poor with a choice between public facilities where drugs are free but not available and a private marketplace where drugs are available but not affordable to a large proportion of the population, compounded by diagnostic and prescribing practices of highly variable quality. Improving drug availability requires coordination to avoid duplication of activities among different health care activities and programmes through improved management. Improving the basic functions of drug management (selection, procurement, distribution, and use), will lead to a sustainable system that ensures that essential drugs are available at the facilities where those who will benefit from them receive health services. Adequately equipped health facilities and trained personnel are also essential for health service delivery.

45. Over the next decade, there is likely to be a need for increased research and development for vaccines to combat pneumococcus, RSV, HIV and perhaps malaria. Examination of the cost effectiveness of their introduction in various settings will be important to determine operational sustainability. Antimicrobial resistance may well pose additional challenges in the near future and require increased availability of second line drugs at reasonable prices and indeed the development of new drugs.

46. Finally, the health sector plays an important role in influencing other sectors to take action to address other determinants of child and adolescent health and development.