PART II:

PROGRESS IN IMPLEMENTING THE WORLD SUMMIT DECLARATION AND PLAN OF ACTION

Health, nutrition, water and sanitation

The 1990 World Summit for Children saw “the enhancement of children’s health and nutrition” as a “first duty.” Consequently, of the seven major goals adopted by the World Summit for Children, four were in the closely related areas of health, nutrition, water and sanitation – as were 20 of the supporting goals.

This broad approach reflected the recognition, since the International Conference on Primary Health Care in 1978 at Alma Ata, Kazakhstan, that many of the factors which determine how healthy we are lie outside the health sector. This understanding helped shift the focus from curative to preventive interventions and from hospital treatment to community care and public health. Efforts during the 1980s in water and sanitation, nutrition and food security, education, early childhood development and for children in especially difficult circumstances were underpinned by this new approach.

The decade following the World Summit brought fresh insights. Notably, the two-way relationship between health and poverty was better understood: Just as low income is a contributing factor to poor health and malnutrition, so poor health and malnutrition are key reasons for the persistence of poverty. However, many developing countries, and those in transition from centrally planned to market economies, found great difficulty in acting upon these insights. For the most part, they did not manage to focus their programmes and resources on the most disadvantaged children and families, nor did they alter their policies to take account of the experience of previous decades.

Extraordinary progress has been made in polio eradication. More than 175 countries are now polio-free.
Both gains and unfinished business from the 1990s are summarized in the balance sheets within the sections that follow.

**Child health**

### Child Health Balance Sheet

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<th>Goal</th>
<th>Gains</th>
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| **Infant and under-five mortality:** reduction by one third in infant mortality and U5MR | More than 60 countries achieved the U5MR goal.  
- At the global level U5MR declined by 11 per cent. | U5MR rates increased in 14 countries (9 of them in sub-Saharan Africa) and were unchanged in 11 others.  
- Serious disparities remain in U5MR within countries: by income level, urban vs. rural, and among minority groups. |
| **Polio:** global eradication by 2000 | More than 175 countries are polio-free. | Polio is still endemic in 20 countries. |
| **Routine immunization:** maintenance of a high level of immunization coverage | Sustained routine immunization coverage is at 75 per cent for three doses of combined diphtheria/pertussis/tetanus vaccine (DPT3). | Less than 50 per cent of children under one year of age in sub-Saharan Africa receive DPT3. |
| **Measles:** reduction by 95 per cent in measles deaths and 90 per cent in measles cases by 1995 as a major step to global eradication in the longer run | Worldwide reported measles incidence declined by almost 40 per cent between 1990 and 1999. | In 14 countries, measles vaccination coverage is less than 50 per cent. |
| **Neonatal tetanus:** elimination by 1995 | 104 of 161 developing countries achieved the goal.  
- Deaths caused by neonatal tetanus declined by 50 per cent between 1990 and 2000. | 27 countries (18 in Africa) account for 90 per cent of all remaining neonatal tetanus. |
| **Deaths due to diarrhoea:** reduction by 50 per cent | This goal was achieved globally, according to WHO estimates. | Diarrhoea remains one of the major causes of death among children. |
| **Acute respiratory infections (ARI):** reduction of ARI deaths by one third in children under five | ARI case management has improved at the health centre level.  
- The effectiveness of HIB and pneumococcus vaccines is established. | ARI remains one of the greatest causes of death among children.  
- Vertical, single-focus ARI programmes seem to have had little impact. |
INFANT AND UNDER-FIVE MORTALITY

The first goal of the World Summit for Children was, between 1990 and 2000, to reduce the infant and under-five mortality rate by one third or to [between] 50 and 70 per 1,000 live births respectively, whichever is less. In the world as a whole, the under-five mortality rate (U5MR) declined by only 11 per cent over that period. However, more than 60 countries achieved the targeted one-third reduction. These include most of the countries in the European Union and North Africa, as well as many in East Asia, Oceania, the Americas and the Middle East.

It is true that global rates of infant and child mortality have been declining steadily for the past half-century and many of the countries that achieved the goal enjoyed economic prosperity for much of the 1990s. Strikingly, however, some rich countries did not achieve the goal while some very poor countries did. The countries that succeeded did so because of specific child-friendly policies and programmes. In some cases, unfortunately, this hard-won success was later overwhelmed by war, economic crisis, natural disasters and, especially, the devastating impact of HIV/AIDS in sub-Saharan Africa.

The global averages of childhood mortality rates are still far too high. More than two thirds of the infant deaths that occur each year are of newborns. Newborns die from the same causes that kill their mothers, such as poor maternal health and lack of adequate care during pregnancy, labour and delivery. But there are other risks for the newborn, including lack of essential care, infections, birth injury, asphyxia and problems related to premature births. Large-scale health interventions, such as immunization and the use of oral rehydration therapy (ORT) to combat diarrhoea, tend to save children aged one to four years rather than those in the first year of life.

National child-mortality figures often mask great disparities. Death rates are higher among poorer children than among the better-off. The children of those excluded or disadvantaged due to their ethnicity or to other factors are also markedly more vulnerable. It also appears that the gulf between child death rates in urban and rural areas worsened during the decade.

POLIO

Extraordinary progress has been made in polio eradication. More than 175 countries are now polio-free. In 2000, fewer than 3,000 cases of polio were reported, a huge decline from an estimated 350,000 cases in 1988. At the end of 2000, polio was endemic in only 20 countries, down from 125 countries in 1988.

This achievement is the result of a remarkable global partnership led by the World Health Organization (WHO), UNICEF, the US Centers for Disease Control and Prevention (CDC) and Rotary International, involving governments, the pharmaceutical industry and mobilization at all levels of society. The commitment of national leaders to polio eradication and the provision of personnel and financial resources to carry out National Immunization Days (NIDs), conduct mop-up immunization activities and assure surveillance for all possible cases of polio have been critical to this vast progress.

In countries suffering from civil wars, agreements for ceasefires and ‘days of tranquillity’ have been achieved to allow NIDs. In some of the larger countries that
are a reservoir for polio, NIDs have been an occasion for massive mobilization both nationally and across borders. These are magnificent examples of the effectiveness of international cooperation.

Transmission of the polio virus is likely to continue in 20 countries after 2000, albeit at low levels. In May 2000, WHO, UNICEF, Rotary International, CDC and other partners concluded that, by intensifying efforts, all polio transmission could be interrupted by 2002, with eradication certified by 2005. But this requires continued resolve and perseverance on the part of the international community until the very end, when polio will enter the annals of history as the second disease eradicated from the earth, following smallpox. Polio’s eradication will save the world $1.5 billion a year, which can be directed to immunization activities against other diseases.

**IMMUNIZATION**

From a global immunization rate in 1980 of under 40 per cent of children fully immunized, coverage rates are today approximately 75 per cent. The goal, therefore, to achieve and sustain a global rate of 90 per cent has not been reached.

Around 30 million of the world’s children are still not routinely vaccinated and there are large disparities in rates among and within countries. The lowest coverage is in sub-Saharan Africa, with only 47 per cent of children receiving DPT3 – lower than a decade ago. A major reason for the decline in this region is that donors have provided fewer resources – especially for training, surveillance and logistics – while national budgets have not increased enough to cover these shortfalls.

Millions of children continue to die as a result of not being vaccinated against major childhood killers – diphtheria, tuberculosis, pertussis, measles and tetanus. Inadequate funding has meant that many countries have been unable to introduce vital new vaccines. In addition, vaccines for hepatitis B, *Haemophilus influenzae* type B (a leading cause of pneumonia and meningitis) and yellow fever are not yet widely available in many of the countries that need them most.

Some 25 countries significantly increased their own financing of immunization services between 1995 and 2000. The Vaccine Independence Initiative, established
by UNICEF and WHO, contributed to this increase by creating a revolving fund to help developing countries buy – in their own currencies – high-quality, low-cost vaccines in the large quantities needed to reach and sustain universal child immunization.

In 1999, the partners of the Global Alliance for Vaccines and Immunization (GAVI) – the Bill and Melinda Gates Children’s Vaccine Program at PATH, UNICEF, the World Bank, WHO, national governments, the Rockefeller Foundation, and representatives from the pharmaceutical industry – committed themselves to assist in sustaining immunization and to support countries in introducing new and under-utilized vaccines.

About a billion injections are given to women and children each year through national immunization programmes. Surveys by UNICEF and WHO have revealed a disturbing pattern of unsafe injection practices that can put the lives of children, women and health workers at risk. WHO, UNICEF, the United Nations Population Fund (UNFPA) and the Federation of Red Cross and Red Crescent Societies have now adopted a global policy on injection safety, designed to address the risks, which calls for the use of auto-disable syringes for all immunizations by the end of 2003. The auto-disable syringe has a safety device that prevents its reuse.

**Of all the vaccine-preventable diseases, measles still kills the most children.**

**Measles**

The annual reported incidence of measles declined by almost 40 per cent between 1990 and 1999 because of the widening public health use of the measles vaccine. But even this reduction is far from sufficient. Of all the vaccine-preventable diseases, measles still kills the most children. Because measles is so contagious, vaccination coverage levels need to be above 90 per cent to stop transmission of the virus. But in 1999, measles coverage was reported to be below 50 per cent in more than 14 countries. Even when the disease does not kill, it can cause blindness, malnutrition, deafness and pneumonia. A high dose of vitamin A protects a child from some of the most serious consequences.

**Neonatal Tetanus**

Significant progress was made in combating neonatal tetanus over the decade. In 1990, neonatal tetanus caused 470,000 deaths, but by 2000, immunization efforts had lowered this to 215,000, more than a 50 per cent reduction.

By 2000, of 161 developing countries reporting, 104 had achieved the World Summit goal of eliminating neonatal tetanus. Another 22 countries are close to achieving elimination. However, neonatal tetanus remains a public-health problem in 57 countries and is a major cause of neonatal mortality. Neonatal tetanus occurs most commonly in those countries with the lowest income levels and the weakest development infrastructure.

To complement routine immunization services in high-risk areas, all women of childbearing age are being provided with three properly spaced rounds of tetanus toxoid vaccine. This effort, along with the promotion of clean birth-delivery practices and the strengthening of surveillance for neonatal tetanus, will bring total elimination closer.
**DIARRHOEA**

One million fewer children now die from diarrhoeal dehydration each year than in the early 1990s. Although the World Summit goal of a 50 per cent reduction in diarrhoeal mortality has been achieved, diarrhoea nevertheless remains one of the major causes of death among children.

Much of the success in reducing diarrhoeal mortality in all regions can be attributed to the greater reliance on oral rehydration therapy (ORT), involving either prepared packs of the rehydration solution and/or recommended home fluids, and use of increased fluids and continued feeding for home management of child diarrhoea. If ORT is to work, it depends a great deal on family behaviour: The services available need to be used and the prescribed course of treatment followed correctly. But the best ORT programmes have also been soundly managed and carefully monitored. ORT use rates have increased in every region, including sub-Saharan Africa; three quarters of the countries for which there is data improved ORT use over the decade.

The credit for the reduction in diarrhoeal deaths during the 1990s is partly shared by other interventions, including the promotion of breastfeeding, measles immunization, micronutrient supplementation and increased access in some regions to clean water and improved sanitation. Further advances on these fronts should drastically reduce diarrhoea-related deaths among children in the years to come, as should raising the rate of effective ORT use, home management of diarrhoea and dysentery, and the development and introduction of a rotavirus vaccine.

The understanding that diarrhoea cannot be treated in isolation has led to the development of a more integrated approach to the management of childhood diseases and malnutrition. The Integrated Management of Childhood Illness (IMCI) initiative was developed in 1995 by WHO and UNICEF since, despite the gains made, many children continued to die without receiving medical care. The initiative focuses on training health workers in the case management of a range of childhood diseases; improving health systems, including the availability of drugs, supplies and equipment; and promoting a set of key family and community practices that, based on scientific evidence, contribute to child survival and healthy growth.

**ACUTE RESPIRATORY INFECTIONS**

Acute respiratory infections (ARI) remain the most common cause of child deaths in many countries, and the World Summit goal of reducing such deaths by a third has not been attained.

Included under ARI are infections in any area of the respiratory tract, including the nose, middle ear, throat, voice box, air passage and lungs. Pneumonia is the most serious manifestation of ARI. Bacterial infection is the primary cause of pneumonia in countries with high infant and child mortality. These infections are treatable: It is estimated that 60 per cent of ARI deaths could be prevented by the selective use of affordable antibiotics. Because the widespread abuse of antibiotics spawns resistant bacteria, health authorities are reluctant to permit families to use antibiotics without prescriptions. Many ARI deaths continue to occur at home. In
the majority of the 73 countries for which there is relevant data, more than half of the children with ARI were not taken to an appropriate health facility. Studies by WHO have shown that the case-management approach to detecting and treating pneumonia could significantly reduce child deaths: In this model, all sick children are examined for danger signs and appropriate treatment is diagnosed. The best community-based health programmes teach caregivers to recognize ARI, especially pneumonia, and to seek timely treatment outside the home – if available.

MALARIA

Leaders at the World Summit for Children highlighted the difficulties in combating malaria but did not adopt a specific goal to address it. This disease has re-emerged as a major cause of child mortality. It contributes to severe anaemia in children and is a leading cause of low birthweight.

The global Roll Back Malaria campaign was launched in 1998 by WHO, UNICEF, the United Nations Development Programme (UNDP) and the World Bank. Since then, most countries in Africa and many in Asia have developed strategic plans for malaria control. Their priorities include galvanizing global and national partnerships, strengthening national health systems and mobilizing resources. The Roll Back Malaria campaign aims to support and promote the nationwide use of insecticide-treated mosquito nets by pregnant women and children; to promote anti-malaria prophylaxis treatment during pregnancy; and to improve the diagnosis and treatment of malaria among children through ensuring that their families have access to early, effective and affordable treatment within their homes and communities.

The relatively simple intervention of providing insecticide-treated bednets could greatly reduce malaria mortality and morbidity. Bednets are little used in most malaria-endemic countries; even where children already sleep under a net, the percentage of treated nets is negligible. Some countries, however, have improved access to treated bednets by removing taxes on them and thus reducing their cost.

Community-based efforts for the timely treatment of children and others with malaria can also reduce deaths and illness. For families and children to have access to early, effective and affordable treatment, anti-malarial drugs need to be made available in health centres and community pharmacies close to home.

LESSONS LEARNED IN CHILD HEALTH

Most children under five die from just one or more of five common conditions – diarrhoeal dehydration, measles, respiratory infections, malaria or malnutrition – for which treatment is relatively inexpensive.
a health provider who can examine and diagnose, make a decision on appropriate treatment, give basic drugs for the most common problems, refer the child to a hospital if needed and offer the right advice about how best to prevent and manage illness in the home.

Immunization continues to be one of the most practical and cost-effective public-health interventions. Immunization coverage has levelled off during the 1990s primarily because:

• Some countries have failed to secure domestic and international resources for immunization;
• The financing of immunization services has not been sufficiently protected in some countries undertaking reforms of their health sector;
• Some public-health systems have been unable to reach very poor families, minorities and those living in remote locations, or have been dislocated by conflict; and
• The potential of National Immunization Days (NIDs) as a supplement to immunization programmes has not been fully exploited.

Immunization systems in many developing countries are still fragile and of uneven quality. There are growing concerns about the safe administration of injectable vaccines. These challenges will need to be addressed if today’s great opportunities for the large-scale introduction of new and improved vaccines are not to be missed.

If disease is to be controlled over the long term, a strong system for delivering routine immunization and a wider package of health services are essential. But routine immunization also needs to be complemented by targeted immunization activities. And while most countries should be able to finance their own immunization programmes, some of the poorest nations will need financial support for the foreseeable future.

To reduce child mortality, family and community practices in child health and nutrition need to be improved, health workers better trained and the health system strengthened. Effective health services can ensure that all children have access to basic health care and medicines, nutritional supplements, bednets and other lifesaving supplies. They also make it possible for sick children who need more care to be referred for treatment. Community-based health programmes can reach children and families who are often beyond the reach of formal health services.

Last but not least, communication is vital: Conveying to parents the key information about how to manage diarrhoea at home – or how to recognize pneumonia or malaria and seek timely care from someone with medical training – will save many children’s lives.
Nutrition

Good nutrition is essential for the survival, health and development of children. Well-nourished children perform better in school, grow into healthier adults and have longer life expectancy. Well-nourished women face fewer risks during pregnancy and childbearing, and their children set off on firmer developmental paths, physically and mentally.

Malnutrition, a silent emergency, was recognized by the World Summit as a contributing factor in half of all deaths among young children. The reduction of child malnutrition by half in a decade was one of the most ambitious goals ever set for children.

A key strategy in pursuing this goal was that of enabling families and communities to understand the causes of malnutrition and to take informed action to address them. This community-based strategy was built on experiences from Tanzania, Thailand and other countries that had made rapid progress in reducing malnutrition levels. It saw the three pillars of improving nutrition to be sufficient food intake, freedom from illness and adequate family care. This strategy influenced policies and the understanding of malnutrition in many countries during the 1990s – as did the Integrated Management of Childhood Illness initiative, which has been implemented by a large number of governments and NGOs.

Some of the most successful initiatives of the decade were on promoting breastfeeding and addressing deficiencies in the key micronutrients. Three key micronutrients were identified at the World Summit: vitamin A, iodine and iron. Experience has shown that micronutrient deficiency, also known as ‘hidden hunger’, can be prevented through supplementation and through the fortification of food – provided the technical obstacles can be surmounted and ways found of distributing the supplements. In the 1990s, vitamin A and iodine programmes were such notable successes that they focused attention on other micronutrients, such as zinc.

At the World Food Summit, convened in 1996, leaders from 186 countries committed themselves to halving the number of hungry people by the year 2015. The Rome Declaration on World Food Security, which reaffirms the “right of every individual to adequate food,” has provided a further opportunity to mobilize resources and action.

CHILD MALNUTRITION

In 1990, 177 million under-fives in developing countries were malnourished, as measured by low weight-for-age. Estimates suggest that 150 million children were malnourished in 2000. The prevalence of malnutrition among under-fives in developing countries as a whole decreased from 32 per cent to 28 per cent. The goal to reduce malnutrition in under-five children by half has therefore been only partially achieved.
## Nutrition Balance Sheet

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<th>Goal</th>
<th>Gains</th>
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<td><strong>Malnutrition:</strong> reduction by half of severe and moderate malnutrition among under-five children</td>
<td>Malnutrition declined by 17 per cent in developing countries. South America achieved the goal with a 60 per cent reduction in underweight prevalence.</td>
<td>150 million children are still malnourished, more than two thirds of them in Asia. The absolute number of malnourished children has increased in Africa.</td>
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<td><strong>Low birthweight:</strong> reduction of the rate of low birthweight (less than 2.5 kg) to less than 10 per cent</td>
<td>To date, 100 developing countries have low-birthweight levels under 10 per cent.</td>
<td>Over 9 million newborns in South Asia and over 3 million newborns in sub-Saharan Africa each year are of low birthweight.</td>
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<td><strong>Vitamin A deficiency:</strong> virtual elimination by the year 2000</td>
<td>More than 40 countries are reaching the large majority of their children (over 70 per cent) with at least one high-dose vitamin A supplement a year. UNICEF estimates that as many as 1 million child deaths may have been prevented in this way in the last three years alone.</td>
<td>In the least developed countries, 20 per cent of children are not receiving even one high-dose vitamin A supplement – and the majority of those who get one dose do not receive the required second dose. Now that many countries are discontinuing National Immunization Days, a new distribution system for vitamin A needs to be found.</td>
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The most remarkable progress has been in South America, which registered a decrease in child malnutrition rates from 8 per cent to 3 per cent. Progress was more modest in Asia, where rates decreased from 36 per cent to 29 per cent and the number of underweight children under five years of age fell by some 33 million. Even this relatively limited achievement probably had a significant positive impact on child survival and development. Still, more than two thirds of the world’s malnourished children – some 108 million – are in Asia. Among the major underlying causes of malnutrition in Asia – especially in South Asia, where the prevalence is highest – are the poverty, low educational level and disadvantaged status of women, including the poor care of mothers during pregnancy. Unfavourable child-care practices, discrimination against girls and high population density are other important factors.

In sub-Saharan Africa, despite progress in a few countries, the absolute number of malnourished children has increased. The major constraints have included extreme poverty, chronic food insecurity, low levels of education, inadequate caring practices and poor access to health services. Weaknesses in public sector administration and, at times, a lack of commitment to supporting local initiatives have hampered the implementation of nutrition policies aiming to empower families and communities. Conflicts, natural disasters and the HIV/AIDS pandemic have greatly worsened the situation.
GOAL | GAINS | UNFINISHED BUSINESS
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**Iodine deficiency disorders:** virtual elimination | Some 72 per cent of households in the developing world are using iodized salt, compared to less than 20 per cent at the decade’s beginning. As a result, 90 million newborns are protected yearly from significant loss in learning ability. | There are still 35 countries where less than half the households consume iodized salt.

**Breastfeeding:** empowerment of all women to breastfeed their children exclusively for four to six months and to continue breastfeeding, with complementary food, well into the second year of life | Exclusive breastfeeding rates increased over the decade. Gains were also made in timely complementary feeding and continued breastfeeding into the second year of life. | Only about half of all infants are exclusively breastfed for the first four months of life.

**Growth monitoring:** growth promotion and regular growth monitoring of children to be institutionalized in all countries by the end of the 1990s | A majority of developing countries have implemented growth monitoring and promotion activities. | Growth-monitoring information is often not used as a basis for community, family or government action.

**Household food security:** dissemination of knowledge and supporting services to increase food production | The number of people in developing countries lacking sufficient calories in their diets has decreased marginally. | In sub-Saharan Africa, about one third of the people lack sufficient food.

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Reducing malnutrition among infants and young children will require significant improvements in mothers’ levels of education, and in their health and nutrition, especially during pregnancy. Where child malnutrition is a major problem, rates of low birthweight are often also excessively high. This demands a renewed focus of policies on both the mother and the child.
One of the supporting goals adopted at the World Summit for Children was that all countries should institutionalize child growth monitoring and promotion (GMP). A majority of developing countries have adopted GMP activities. A major difficulty at all levels, however, has been linking the information generated from the regular weighing of children to decision-making about child malnutrition. In some countries, GMP activities have also suffered because of infrequent contacts between community health workers and families.

**LOW BIRTHWEIGHT**

Weight at birth reflects the intrauterine experience. It is a good indicator not only of the mother’s health and nutrition status, but also of the newborn’s chances of survival, growth, long-term health and psychosocial development. Low birthweight – less than 2.5 kg – can be caused either by premature birth or by intrauterine growth retardation. In developing countries, the latter predominates, stemming from many factors, including maternal malnutrition, malaria, sexually transmitted infections and teenage pregnancies.

Newborns of low birthweight are more likely to die. Those who survive have impaired immune functions, increased risk of disease and tend to remain malnourished with less muscle strength in the long term. They may also suffer cognitive disabilities, with lower intelligence rates, attention-deficit disorders and hyperactivity. In school, children who suffered from low birthweight may not perform as well as other children. As they become older, they suffer chronic diseases at higher rates.

Reducing the rate of low birthweight to less than 10 per cent was among the most challenging goals adopted at the World Summit. In 1990 it was estimated that the proportion of all newborns of low birthweight was 17 per cent. Many infants in developing countries are still not weighed at birth, but the best available estimates suggest that 100 developing countries now have rates of less than 10 per cent. At the regional level, Latin American and the Caribbean (9 per cent), East Asia and the Pacific (8 per cent) and the CEE/CIS and Baltic States region (9 per cent) have lowered their rates to less than 10 per cent, only slightly above the 6 per cent found in industrialized countries. The situation in two other regions is dramatically different. Sub-Saharan Africa has a rate of 12 per cent; more than 3 million newborns each year weigh less than 2.5 kg. In South Asia, 25 per cent of newborns are of low weight, more than 9 million babies.

The problem calls for an integrated approach to improving antenatal care. Apart from general pregnancy monitoring, measures likely to reduce low birthweight include eliminating parasitic worm infections in women, micronutrient supplementation, food supplements and preventing malaria and smoking during pregnancy. Reducing the incidence of teenage pregnancy would also help.

**Between 1998 and 2000 alone, vitamin A supplementation may have prevented 1 million child deaths. Fortunately, coverage is highest in the areas that need it most.**
VITAMIN A DEFICIENCY

Most people know that a lack of vitamin A can lead to irreversible blindness. But long before blindness occurs, a child deficient in vitamin A faces a 25 per cent greater risk of dying from common ailments such as measles, malaria or diarrhoea. Vitamin A improves a child’s resistance to infection and helps reduce anaemia and night blindness. Vitamin A is found in meat, eggs, fruits, red palm oil and green leafy vegetables – but these foods are often expensive for poor families. In some countries, staples like flour and sugar are now fortified with vitamin A and other micronutrients. Alternatively, children between 6 and 59 months of age can be given two high-dose vitamin A capsules every year at a cost of just a few cents.

The World Summit target was the virtual elimination of vitamin A deficiency and its consequences, including blindness, by the year 2000. Until the mid-1990s, however, little progress had been made. In 1996, 11 countries had vitamin A supplementation coverage rates of 70 per cent or more for one high dose. By 1999, 43 countries had achieved such rates. Of these, 10 countries conducted two high-coverage rounds of supplementation for all children under five years of age, thereby achieving the goal of virtual elimination of vitamin A deficiency. Fortunately, coverage is highest in the areas that need it most. Between 1998 and 2000 alone, vitamin A supplementation may have prevented 1 million child deaths.

Several factors lie behind this progress. In 1997, a coalition of donors, technical experts and agencies identified supplementation as the way forward and highlighted the fortification of food as holding great promise. The agencies informally recommended that countries with a child mortality rate greater than 70 per 1,000 live births should immediately begin to distribute vitamin A supplements.

The large-scale distribution of vitamin A capsules has tended to take place through National Immunization Days – with the capsules often provided by the same community volunteers and health workers who distribute the polio vaccine. This has ensured that children receive at least one of the two high-level doses of vitamin A they need each year. However, the polio immunization campaigns will soon be ending in many countries and new distribution systems need to be found.

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Vitamin A supplementation, developing world, 1999

* Regional averages for the Middle East and North Africa, and Central and Eastern Europe/Commonwealth of Independent States were not calculated because the available country data cover less than half of each region's children under five years.

IODINE DEFICIENCY DISORDERS

Iodine deficiency is the leading cause of preventable mental retardation. It can have devastating effects on pregnant women and young children. During pregnancy, even mild iodine deficiency can damage foetal development and result in retardation, including impaired speech, hearing, motor development and physical growth. In severe cases, it can cause a mental and physical condition known as cretinism. In both adults and children, chronic iodine deficiency causes goitre, a disorder characterized by the swelling of the thyroid gland. Even mild iodine deficiency is dangerous: Where mild iodine deficiency is prevalent, the average intelligence quotient of a population can be lowered by as much as 13 points. The alarming implications for the progress of entire nations are obvious.

The World Summit goal was to virtually eliminate iodine deficiency disorders (IDD) by the year 2000. In 1990, about 1.6 billion people were estimated to be at risk of iodine deficiency. Some 750 million people suffered from goitre and an estimated 43 million were affected by some degree of brain damage as a result of inadequate iodine intake.

The simple process of iodizing salt can eliminate iodine deficiency. The aim is to provide people with the equivalent of a mere teaspoonful of iodine over a lifetime. Salt has been routinely iodized in much of the industrialized world since the early 20th century, but in the developing world, even as recently as 1990, fewer than 20 per cent of people consumed iodized salt.

The success of global iodization efforts means that 90 million newborns each year are now protected from a significant loss in learning ability. Approximately 72 per cent of households in the developing world are using iodized salt. In 35 countries, however, less than half of the households consume iodized salt.

The highest levels of salt iodization are in Latin America (88 per cent). The lowest are in the CEE/CIS and Baltic States region, where salt used to be adequately iodized but now just over a quarter of households consume iodized salt. IDD has resurfaced as a public-health problem in many of these countries. South Asia still has 510 million unprotected people and there are over 350 million more in East Asia and the Pacific. As shown by major progress in even the poorest regions, however, universal salt iodization is a feasible goal which should be pursued vigorously. Given sufficient commitment, IDD can be eliminated by 2005.

Levels of iodized salt consumption, 1995-2000

INFANT AND YOUNG CHILD FEEDING

Notable progress was made during the 1990s towards the goal of empowerment of all women to breastfeed their children exclusively for four to six months, and to continue breastfeeding, with complementary food, well into the second year. (The global recommendation now is for exclusive breastfeeding for six months, and the World Health Assembly passed a resolution to this effect in May 2001, urging Member States “to strengthen activities and develop new approaches to protect, promote and support exclusive breastfeeding for six months.”) The rate of exclusive breastfeeding for the first four months of life increased by 4 percentage points. Timely complementary feeding (at six to nine months) improved by 15 per cent. The proportion of infants breastfeeding at one year of age is high, at 80 per cent, but improved only slightly. The biggest overall improvements occurred in the Latin America and Caribbean region, where the proportion of babies exclusively breastfed for the first four months of life went up from 28 per cent to 41 per cent. The highest levels of complementary feeding and continued breastfeeding are found in the least developed countries.

There were four main areas of support to breastfeeding. First, the Baby-Friendly Hospital Initiative (BFHI), launched in 1992, supported appropriate breastfeeding practices through the health care system – it has been implemented in more than 15,000 hospitals in 136 countries. Second, the implementation of the International Code of Marketing of Breast-milk Substitutes protected mothers and infants in some countries from harmful marketing practices – 21 countries have adopted all or most provisions of the Code into their legislative systems, and another 26 have incorporated many of its provisions into their laws. Third, maternity-protection measures enabled working mothers to breastfeed their infants and helped ensure their place in the workforce without discrimination. And fourth, at the national level there was stronger coordination and leadership of efforts to protect and promote breastfeeding.
Despite all this progress, there are some obstacles that will have to be overcome if the World Summit goal is to be achieved. Hospitals that have not yet adopted BFHI must somehow be brought on board. Most of these are private hospitals, where the influence of the infant-food industry remains strong. Breastfeeding often remains a ‘poor relation’ in the health care system. There is also a need for local support groups, to reach every woman in her own community.

The risk of transmitting HIV through breastmilk has emerged as another constraint. Recent reports indicate that transmission of HIV may be lower among exclusively breastfed infants than among those partially breastfed, but more research on this issue is urgently needed. Advocacy is required to emphasize that the Code is vitally important for protecting the health of both breastfed and artificially fed infants.

The success in regulating the marketing of breastmilk substitutes has led to increased attention on the promotion of complementary foods. New mothers often receive free samples of cereal-based foods and, because of illiteracy or confusing labels, can be misled into introducing these foods too soon. Industrially processed foods are often wrongly presented as the only way to provide an infant with a balanced diet. The World Health Assembly has urged the use of safe and adequate amounts of local foods, in addition to continued breastfeeding, from the age of six months.

**Household food security**

A supporting goal of the World Summit was to ensure household food security by disseminating knowledge and supporting services towards increasing food production. Food security at the household level is necessary if there are to be sustained improvements in the nutritional well-being of children and their families. Developing the skills and providing the services to improve agro-pastoral production, especially through better technology, can play a vital part in ensuring that food security. The Food and Agriculture Organization of the United Nations (FAO) estimates that the number of people in developing countries who were undernourished decreased from 841 million in 1990-1992 to 792 million in 1996-1998. The gains were smallest in sub-Saharan Africa, where 34 per cent of the people were still undernourished. (There are a few countries in other regions where over 35 per cent of people remain undernourished.) Conflict and natural disasters have contributed to food insecurity in many parts of sub-Saharan Africa. But there are also everyday problems that apply right across the region, such as limited access to improved technologies and seasonal inputs, labour shortages among women-headed households and insufficient know-how among those with small landholdings.

Children and women constitute a large proportion of the undernourished population and they remain the most vulnerable to food insecurity. Children and women constitute a large proportion of the undernourished population and they remain the most vulnerable to food insecurity. Serious inadequacy in diet during pregnancy can have lasting repercussions on the mother and the development of the child both before and after birth. Even in households that have adequate access to food or income, the share of food for women and children,
especially for girls, can be inadequate. Overworked parents often have difficulty in feeding young children frequently enough. Undernourishment among girls and women is compounded by their lack of control over productive resources and exclusion from decision-making.

Although food insecurity affects a larger portion of the rural population, low-income and unemployed families in urban areas are also vulnerable. And in the 1990s, HIV/AIDS has devastated countless families, eroding household incomes and nutritional well-being.

LESSONS LEARNED IN NUTRITION

Important strategic shifts and breakthroughs occurred in addressing malnutrition in children during the 1990s, with the focus shifting towards specific low-cost interventions. In particular, the dramatic progress in universal salt iodization and vitamin A supplementation showed how much can be achieved given the right combination of factors: political will, adequate national and international resources, capacity development and careful monitoring. Sustaining these achievements must remain a top priority.

But the high levels of undernutrition in children and women in sub-Saharan Africa and Asia (especially South Asia) still pose a major international challenge to child survival and development. As in child health, experience suggests that the best results come when the provision of basic services is combined with support to community and family initiatives, including making more information available for local decision-making. Many successful small-scale programmes that evolved in the 1990s need to be expanded – and the reasons why they have not expanded thus far need to be better understood.

There is more awareness now of the critical link between women’s nutritional well-being and children’s survival, growth and development. The next step is for policies and resources to be focused on critical stages in the lives of girls and women – the primary-school years, adolescence and pregnancy. Improved nutrition among women and girls and the prevention of low birthweight are key to breaking the intergenerational cycle of malnutrition.

If there are to be further advances in infant and young child feeding, mothers will need places in which they can easily breastfeed their infants. The ILO Maternity Protection Convention 183, adopted in 2000, provides a long-awaited opportunity to improve the conditions of working mothers, including those in casual, part-time and domestic jobs. The Convention’s provisions set out a minimum standard for working women everywhere. More generally, breastfeeding is increasingly understood to be important not just for the life of the infant but also for the child’s long-term health and psychosocial and cognitive development. In HIV-affected societies, clear infant-feeding policies need to be further developed and communicated to mothers. Measures to protect, promote and support breastfeeding in emergency situations are also vital.

The global partnership that spurred action on vitamin A in the last years of the 1990s, with support from the Government of Canada, other donors and UN agencies, needs to be sustained. Further expansion of coverage is essential. As National Immunization Days are being phased out around the world, new ways to deliver
vitamin A to children need to be devised. Child health days, in which vitamin A is
distributed as part of other interventions such as growth monitoring or routine
immunization, are a promising alternative. Initiatives aimed at fortifying food will
also be essential to ensuring child nutrition.

To eliminate iodine deficiency disorders requires permanent vigilance: Salt
iodization should continually be monitored, as should the iodine status of the
population, and information should be provided to families about the benefits
of iodized salt.

**Women’s health**

The 1994 International Conference on Population and Development, held in Cairo,
had an important impact on child-health policies – and also gave new impetus to the
reduction of maternal mortality. By bringing the issue of reproductive health to the
fore, it paved the way for the life-cycle approach to human development that would
emerge later in the decade.

But progress in improving the overall status of women has been slow. WHO
identifies this as one of the primary reasons why mortality in the early neonatal period
has not declined as rapidly as in later stages of childhood. The low status of women
in many countries is also reflected in the rapid spread of HIV and the slow pace in
reducing maternal mortality.

The achievement of ‘safe motherhood’ – which entails provision of and easy
access to family planning, antenatal care, safe delivery, essential obstetric care, basic
maternity care, primary health care services and equity for women – would sub-
stantially reduce both maternal mortality and long-term disabilities resulting from
pregnancy and childbirth. Over 15 million women a year develop such long-term
disabilities, a staggeringly high toll.

**Maternal mortality**

Measuring maternal mortality is difficult but WHO, UNICEF and the United
Nations Population Fund (UNFPA) estimate that around 515,000 women die every
year as a result of pregnancy and childbirth. Nearly half of these deaths are in sub-
Saharan Africa, about 30 per cent in South Asia, 10 per cent in East Asia and the
Pacific, 6 per cent in the Middle East and North Africa, and about 4 per cent in Latin
America and the Caribbean. Industrialized countries account for less than 1 per cent
of these deaths.

The global average of the maternal mortality ratio (MMR) is estimated to be
400 maternal deaths per 100,000 live births. The ratio is highest by far in sub-
Saharan Africa (1,100), followed by South Asia (430), the Middle East and North
Africa (360), Latin America and the Caribbean (190), East Asia and the Pacific (140),
and CEE/CIS and the Baltic States (55). In comparison, the ratio for industrialized
countries is only 12 deaths per 100,000 live births.

MMR is a measure of the risk of death a woman faces every time she becomes
pregnant. A comprehensive risk assessment takes into account both the probability
of dying as a result of childbearing and the average number of births per woman –
the ‘lifetime risk’. Women in countries with both high fertility and high maternal mortality run the highest lifetime risks. As shown in the accompanying table, a woman’s lifetime risk of dying from maternal causes is highest in sub-Saharan Africa at 1 in 13, compared with 1 in over 4,000 in the industrialized countries and 1 in 75 for the world as a whole. Clearly, in Africa, as well as parts of Asia and the Middle East, women are literally ‘risking death to give life’.

### Woman’s Health Balance Sheet

<table>
<thead>
<tr>
<th>Goal</th>
<th>Gains</th>
<th>Unfinished Business</th>
</tr>
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<tbody>
<tr>
<td><strong>Maternal mortality:</strong> reduction of the maternal mortality ratio by half between 1990 and the year 2000</td>
<td>• There has been increased awareness of the causes of high maternal mortality, but little tangible progress.</td>
<td>• There is no evidence that maternal death ratios have declined significantly over the last decade.</td>
</tr>
<tr>
<td>• 515,000 women still die every year as a result of pregnancy and childbirth. A woman in sub-Saharan Africa faces a 1-in-13 chance of dying during pregnancy and childbirth.</td>
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<tr>
<td><strong>Family planning:</strong> access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many</td>
<td>• Contraceptive prevalence increased by 10 per cent globally and doubled in the least developed countries.</td>
<td>• Every year, adolescents give birth to 13 million infants.</td>
</tr>
<tr>
<td>• The total fertility rate has declined from 3.2 to 2.8.</td>
<td>• Only 23 per cent of women (married or in union) in sub-Saharan Africa use contraceptives.</td>
<td>• Access to reproductive health education remains a challenge.</td>
</tr>
<tr>
<td><strong>Childbirth care:</strong> access for all pregnant women to prenatal care, trained attendants during childbirth and referral facilities for high-risk pregnancies and obstetric emergencies</td>
<td>• Modest gains were made in both antenatal care and births assisted by a skilled health worker in all regions except sub-Saharan Africa.</td>
<td>• Essential obstetric care services are lacking.</td>
</tr>
<tr>
<td>• Coverage of delivery care is only 36 per cent in South Asia and 42 per cent in sub-Saharan Africa.</td>
<td></td>
<td></td>
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<tr>
<td><strong>Anaemia:</strong> reduction of iron-deficiency anaemia in women by one third of 1990 levels</td>
<td>• Most developing countries have iron supplementation measures for pregnant women.</td>
<td>• Available evidence shows little change during the 1990s in the prevalence of anaemia among pregnant women.</td>
</tr>
</tbody>
</table>
There is no evidence that MMR in most parts of the world has declined significantly over the decade, and the World Summit goal of reducing it by one half was not achieved. The rate is difficult to ascertain, hence attention has focused on process indicators, such as the percentage of births attended by skilled health personnel. Although some modest gains were made in improving delivery care, this has mainly occurred in areas where maternal mortality is less severe.

The vast majority of maternal deaths are caused by complications arising during pregnancy, birth or post-partum. The single most common cause is post-partum haemorrhage. Sepsis, complications of unsafe abortion, prolonged or obstructed labour and the hypertensive disorders of pregnancy, especially eclampsia, also claim lives. Because these complications can occur without warning at any time during pregnancy or childbirth, timely access to and use of high-quality obstetric services are essential.

Providing skilled attendants (doctors, nurses and midwives) able to prevent, detect and manage major obstetric complications – together with the equipment, drugs and other supplies they need – is one of the most important factors in preventing maternal and neonatal deaths. The available data show that just over half – 53 per cent – of all births in the world are assisted by a skilled health attendant. The lowest levels are in South Asia (36 per cent) and sub-Saharan Africa (42 per cent). The highest levels outside industrialized countries are in Latin America and the Caribbean (85 per cent) and CEE/CIS. Trend data available for 51 developing countries show that there has
been a modest increase in assisted births between 1989 and 1999. Progress was greatest in the Middle East and North Africa, followed by Asia and Latin America and the Caribbean. In some countries of sub-Saharan Africa, the proportion of assisted births has actually gone down.

Studies have shown that many of the life-threatening complications of pregnancy and childbirth are difficult to predict or prevent, and WHO reported in 1992 that many of the standard components of antenatal care are not effective in reducing maternal mortality. Antenatal care remains, however, an excellent means of providing complementary services: for example, preventing mother-to-child transmission of HIV, prophylaxis and treatment of malaria and providing micronutrient supplements.

**FERTILITY AND FAMILY PLANNING**

The World Summit called for *access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many.* During the second half of the 1990s, the goal of many family-planning efforts shifted from simply reducing fertility to helping couples plan their families. Comprehensive reproductive health care was emphasized, including good quality, voluntary and confidential family-planning information and services, and an emphasis on improving the quality of care. The world’s total fertility rate is now at 2.8, down from 3.2 at the start of the decade. In regional terms, sub-Saharan Africa has both the highest fertility rate and the highest teenage fertility rate.

Adolescent pregnancy is alarmingly common. Every year adolescents give birth to 13 million infants. Girls aged 15 to 19 are twice as likely to die from childbirth as women in their twenties; and those under age 15 are five times as likely to die. Being a teenage mother also limits a girl’s education and income prospects.

Approximately two thirds of the world’s women of reproductive age who are married or in union are now using some form of contraception, up from 57 per cent in 1990. Although there are large regional variations, with 23 per cent of women in sub-Saharan Africa using contraceptives compared to 84 per cent of women in East Asia and the Pacific, contraceptive use is increasing in every region. Least developed countries experienced the largest increase, with contraceptive use nearly doubling over the decade.

**IRON-DEFICIENCY ANAEMIA**

Iron deficiency is by far the most prevalent form of malnutrition in the world. A leading cause of anaemia, iron deficiency affects the health of women and children and the economic performance of nations. The World Summit goal of *reduction of iron-deficiency anaemia in women by one third of the 1990 levels* is closely linked to improving maternal health.

Information on the prevalence of anaemia among pregnant women is limited, but the available evidence suggests that, despite supplementation efforts, there has been virtually no change since 1990. In the mid-1990s, prevalence levels among pregnant women in South-East Asia and sub-Saharan Africa were estimated to be as high as 79 per cent and 44 per cent respectively. However, there are some indications that the prevalence of severe anaemia may have been reduced.

The main intervention to reduce anaemia has been the distribution of iron-folate supplements to pregnant women through the public-health system. A number of
governments in developing countries have made these supplements available using their own and donor resources. Iron supplementation is potentially a feasible strategy because supplements have a proven impact on anaemia and cost only about $1.50 per 1,000 tablets.

Iron supplementation has, however, not been a very effective strategy because supplies have not always been available in sufficient quantity, some women did not comply with the recommended daily intake because of side-effects, and information provided by health staff was sometimes inadequate. Furthermore, women often sought antenatal care at a relatively late stage in pregnancy when pre-existing anaemia and its consequences are more difficult to address. New strategies are needed to tackle this serious problem.

LESSONS LEARNED IN WOMEN’S HEALTH

Priorities in safe motherhood programmes during the 1990s were not always clearly defined, and the interventions were not always well focused. Some programmes took a broad approach, giving equal emphasis to raising women’s status, improving maternal health services and expanding emergency care. These efforts were sometimes too ambitious and expensive for governments with limited donor support.

Experience has shown that training traditional birth attendants without back-up from professionally trained health workers is not likely to be effective in reducing maternal mortality. For many years, however, governments and agencies invested in training traditional birth attendants as a way of providing services at the community level for maternal health care.

Clearly, the main causes of maternal death cannot be predicted or prevented through antenatal care alone – curative care is essential. Access to skilled attendants is desirable but immediate access to essential obstetric care is the crucial factor in saving lives. Governments must therefore aim to ensure not only that women seek and have access to antenatal care, but also that high-quality essential obstetric care is available to all women during pregnancy and childbirth.

Child spacing and family planning reduce a woman’s chances of unsafe pregnancies and consequently her chances of maternal death. However, they do not reduce a woman’s chances of complications or death once she is pregnant.

Reducing anaemia remains a major challenge and can only be achieved through a combination of interventions. Technical constraints need to be overcome so that supplementation during pregnancy can be expanded. This supplementation should include other nutrients, because anaemia can be due to deficiencies in vitamin A, zinc and vitamin B12, as well as iron. Food fortification is another strategy that is being pursued, and new partnerships with the food industry are being forged. Prevention of malaria and parasitic worms should be part of an overall strategy to reduce anaemia, covering young children as well as women.

Safe drinking water and sanitation

Unsafe drinking water and poor sanitation are among the major causes of child deaths, illnesses and malnutrition. Studies have shown that improvements in safe
### Water and Sanitation Balance Sheet

<table>
<thead>
<tr>
<th>Goal</th>
<th>Gains</th>
<th>Unfinished Business</th>
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| **Water: universal access to safe drinking water** | • 900 million additional people obtained access to improved water supplies over the decade.  
                                                   |                                                                                                                                                                                                     | • Some 1.1 billion people still lack access. Global coverage increased by 5 percentage points, to 82 per cent.  
                                                   |                                                                                                                                                                                                     | • Water-quality problems have grown more severe in a number of countries.  
                                                   |                                                                                                                                                                                                     | • Access in low-income areas remains poor, especially in informal settlements.  
| **Sanitation: universal access to sanitary means of excreta disposal** | • 987 million additional people gained access to decent sanitation facilities.  
                                                   |                                                                                                                                                                                                     | • 2.4 billion people, including half of all Asians, lack access. Global access increased by 10 percentage points.  
                                                   |                                                                                                                                                                                                     | • 80 per cent of those lacking sanitation live in rural areas.  
| **Guinea worm disease: elimination**       | • The number of reported cases has declined by 88 per cent. The disease is now eliminated in all regions except one country in North Africa and 13 countries in sub-Saharan Africa.  
                                                   |                                                                                                                                                                                                     | • Momentum towards the elimination of guinea worm disease needs to be maintained.  

Water supply, and particularly in sanitation and hygiene, can reduce the incidence of diarrhoea by 22 per cent and resulting deaths from it by 65 per cent. A similar impact is likely on cholera, hepatitis, parasitic worm infections and trachoma.

The World Summit for Children, recognizing the unfinished work of the International Drinking Water Supply and Sanitation Decade of the 1980s, re-endorsed the goal of achieving universal access to safe drinking water and sanitary means of excreta disposal. Revised estimates from the 2000 WHO/UNICEF Global Water Supply and Sanitation Assessment suggest that, taking population growth into account, the number of people lacking access to these basic services has remained essentially unchanged. Although large numbers of people gained access to improved water supply services for the first time during the 1990s, universal access is still a long way off. The percentage of people with some form of improved supply rose from 77 per cent in 1990 to 82 per cent in 2000. This leaves more than 1 billion people without access to safe water.

Between 1990 and 2000, the proportion of the world’s population with access to sanitation facilities increased from 51 per cent to 61 per cent. An estimated 2.4 billion people still lack access to improved sanitation.
Sub-Saharan Africa has the lowest safe drinking water access, at 54 per cent. Its overall sanitation coverage has been static and is also estimated at 54 per cent. South Asia’s safe water supply access is relatively good at 87 per cent, but it has by far the lowest sanitation coverage, at 37 per cent. Asia, with 61 per cent of the world’s population, accounts for the vast majority of people without access to improved services.

Chemical contamination of water supplies emerged as a grave concern during the 1990s. One of the most serious problems was the contamination of drinking-water sources by naturally occurring inorganic arsenic in Bangladesh and other parts of South Asia. Arsenic does great damage to human health. The response to it has included: identifying wells that draw on contaminated aquifers and working with families to ensure that such sources are not used for drinking or cooking; providing alternative sources; and involving affected communities in the search for and management of alternative sources. Another naturally occurring chemical contaminant – fluoride – poses threats to people in a number of countries, including China and India, though in this case household filters can help protect people.

Sanitation has historically been viewed as a lower priority than having a safe water supply and so has attracted less investment. Population growth and urbanization have also made it more difficult to provide adequate sanitation for all. Between 1990 and 2000, the global total of people living in urban areas increased by 25 per cent, while the number living in rural areas increased by less than 10 per cent. The Global Environmental Sanitation Initiative, launched in 1998, has sought to raise the profile of sanitation and hygiene practices among governments, development planners and other professionals.

Several international organizations, including UNICEF, WHO, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Bank and Education International, have encouraged increased attention to the health of children in schools and have launched the FRESH initiative – Focusing Resources on Effective School Health. FRESH is part of the effort to create a school environment in which children can learn and flourish. School health – including clean water, separate toilet facilities for girls and boys and hygiene education – is a key component of a child-friendly learning environment.
Impoverished families are most likely to lack access to clean drinking water and adequate sanitation. The price paid by such families is extraordinarily high in terms of ill health and of time and energy spent collecting water from distant sources – burdens that usually fall on women and girls. The participation of women in solving local water supply and sanitation problems is increasingly seen as crucial to developing successful programmes. Governments are partnering with community organizations to raise matching resources to improve local water supplies.

**GUINEA WORM DISEASE**

Over the past decade, the world has witnessed a 88 per cent decline in the number of reported cases of the highly debilitating guinea worm disease (dracunculiasis). In a highly successful effort, the disease has been eliminated in all regions of the world except for one country in North Africa and 13 in sub-Saharan Africa. Sudan accounts for nearly three quarters of the remaining reported cases.

Because the foremost requirement is the provision of clean drinking water, there are no substantial technical barriers to guinea worm eradication. However, clean water provision needs to be combined with effective health education. Improvements in existing rural water supplies, water filters and community health education also need to be implemented in countries with new cases.

Case-containment measures are particularly useful in areas where the levels of guinea worm are already low. Where the disease is still widespread, surveillance needs to be strengthened with village-level participation.

Guinea worm eradication efforts have contributed to the wider services available to communities and their successful methods can be used by community-based health programmes to reach marginalized populations. In addition, the reporting of cases has been a cost-effective form of village-level monitoring and the use of maps for guinea worm surveillance has benefited planning in other programmes.

The great strides that have been made towards the goal of guinea worm eradication are the result of a broad and effective coalition involving United Nations and bilateral assistance agencies, Global 2000 of the Carter Center, the private sector, NGOs, national ministries and political leaders – all of whom have supported people in endemic areas to rid themselves of this parasite. This momentum – and the high level of political and financial support – needs to continue until full eradication is reached.
LESSONS LEARNED IN WATER AND SANITATION

Overall progress towards the water and sanitation goals has been mixed. But it is unquestionably those countries and regions affected by conflicts, large debt burdens, lack of investment resources and weak institutional capacity that have faced the greatest difficulties. These problems are most severe in sub-Saharan Africa, where people still suffer from guinea worm disease, the final eradication of which has been delayed by conflict and lack of safe water supplies in some of the most endemic areas.

Water quality needs to be more effectively monitored to ensure that health hazards are avoided. This can be done by introducing basic testing for bacteriological contamination. Selective chemical testing on the basis of local problems can be very effective and costs little if appropriate technology is used.

Sector-wide approaches (SWAPs) to water supply and sanitation may bring major improvements in investment and efficiency levels, but must work in concert with strategies in health, nutrition and education. Schools can help kick-start community action, for instance. Teachers can serve as leaders and role models, not only for the children, but also for the wider community. Schoolchildren can influence family members and whole communities to improve sanitary conditions and hygiene practices.

Community management and hygiene are critical to ensure that water and sanitation services result in sustained improvements in children’s lives. Longer-term benefits will not be realized unless water and sanitation infrastructure is effectively used and maintained. Clean water may be available in the household but if hand-washing and other hygienic practices are not routine, health benefits will not materialize. Not least because of their direct implications for child survival and development, household water security, environmental sanitation and adequate hygiene practices need to be priorities for the next decade.

HIV/AIDS

The scale of the HIV/AIDS pandemic now exceeds the worst-case projections made in 1990. Worldwide, the number of people living with HIV or AIDS is 50 per cent higher than the figure projected in 1991. Sub-Saharan Africa has the highest seroprevalence, with 70 per cent of all new infections in the world. The rapid spread of the virus in the Caribbean, Eastern Europe and Asia is of urgent concern, but every region is experiencing rising numbers of infections.

HIV/AIDS has emerged as the greatest immediate threat to children and women in sub-Saharan Africa. The HIV/AIDS crisis both exacerbates and deepens many of the interlocking problems that affect much of the region, including poverty, discrimination, malnutrition, poor access to basic social services, armed conflict and the sexual exploitation of girls and women. The epidemic has strained capacities at all levels, for example, by the deaths of parents and of trained personnel. Life expectancy
is plummeting in the most severely affected countries, with infant and child death rates rising. Health services are already overwhelmed by the influx of AIDS patients. Furthermore, education is at risk due to the deaths of many teachers and the pressures on children to stay at home to care for AIDS-affected family members.

Political leaders and activists in some countries – including Brazil, Senegal, Thailand and Uganda – have openly confronted the pandemic and taken energetic steps to combat it. Several other countries in sub-Saharan Africa and South-East Asia are following their lead. But essential public awareness and preventive measures have not yet been implemented on a sufficiently wide scale, even where the threat or effects of HIV/AIDS are very serious.

**THE IMPACT OF HIV/AIDS ON CHILDREN**

Children face several threats from HIV/AIDS – becoming infected themselves, being orphaned, being affected by the consequences to their families and communities.

Every minute, six young people between the ages of 15 and 24 become infected with HIV – more than 8,000 a day. By 2000, more than 10.3 million young people were infected, of whom nearly two thirds were girls and young women. It is estimated that in the year 2000, 500,000 children under the age of 15 died of AIDS and 600,000 children in the same age-group were newly infected with HIV; in addition, 2.3 million children lost their mother or both parents to AIDS. Of the estimated 36.1 million people living with HIV/AIDS, more than 95 per cent of whom are in developing countries, 16.4 million are women and 1.4 million are children under 15. Despite the fact that about one half of new infections are occurring among young people, the majority of young people – especially adolescent girls and young women – are not sufficiently aware of the risks they face and lack the skills to protect themselves.

Transmission through pregnancy, delivery or breastfeeding is responsible for more than 90 per cent of HIV infections in infants and children under the age of 15.

As HIV/AIDS spreads and more people become infected, the number of children affected by the disease increases. Since the beginning of the pandemic, more than 13 million children have lost their mother or both parents to AIDS before reaching the age of 15. Never before in human history has such a vast number of orphans been left with little or no adult protection and care. The scope and complexity of development challenges and threats to the rights of children orphaned by AIDS are staggering.
EVOLUTION OF MAJOR HIV/AIDS POLICIES, STRATEGIES AND PARTNERSHIPS


The strategic priorities in the global effort to combat HIV/AIDS include ensuring effective leadership and coordination; alleviating the social and economic impact of the pandemic; reducing the vulnerability of particular social groups to HIV infection; achieving targets for prevention; ensuring that care and support are available to infected and affected people; making anti-retroviral drugs affordable and accessible; and mobilizing financial resources. Special efforts will be needed to prevent HIV infection among young people as well as the transmission of HIV from mother to child, and to ensure protection, care, access to basic services and income support for orphans and children in families that have been hard hit by AIDS.

Numerous bodies have established guidelines for the management of HIV infection in adults, pregnant women and children. In most industrialized countries, where there is broad access to HIV care and support, including medication, the application of HIV care standards has led in recent years to significant decreases in mortality, and to similar declines in progression from HIV infection to AIDS.

These guidelines have not been widely applied in developing countries for a number of reasons, including the expense of drugs, the lack of medical infrastructure and the limited availability and uptake of voluntary counselling and testing.

Despite this, a number of countries, most of them in sub-Saharan Africa, are beginning to prevent mother-to-child transmission of HIV through a range of promising interventions. Among these are access to adequate antenatal care and voluntary counselling and testing; administering anti-retroviral drugs during pregnancy and delivery; improving care during labour and delivery; counselling and support for HIV-positive women in deciding how to feed their babies; and psychosocial support and care for opportunistic infections. These interventions are expected to expand quite rapidly.

The care and support of women (including pregnant women), children, adolescents and family members living with HIV infection – including HIV-specific prevention and treatment of opportunistic infections – are important for several reasons. The availability of HIV care and support is likely to boost the use of voluntary counselling and testing services; maintaining the health of HIV-infected parents (and prolonging their lives) will ease the stresses on children; and reduction in viral load can lower the risk of transmission to others.

LESSONS LEARNED IN HIV/AIDS PREVENTION AND CARE

Full-scale political commitment is essential if HIV/AIDS programmes are to be successful. Some regions and countries still do not fully recognize the gravity of the threat posed by the HIV/AIDS pandemic, and well-designed advocacy efforts have often been needed to ‘break the silence’ and reduce the stigma and discrimination
associated with the disease. There must also be significant investment at global, national and community levels in effective HIV prevention and care.

Basic knowledge about HIV/AIDS does not always lead to less risky behaviour. Experience has shown that the chances for behavioural change improve when information campaigns address the attitudes, values and skills needed to protect oneself.

It is important to build partnerships for HIV/AIDS prevention and care that include young people as well as opinion makers such as religious and traditional leaders. There need to be opportunities for adolescents, including those orphaned and affected by AIDS or infected with HIV, to participate in prevention efforts, peer education and mass mobilization – both to enlist their support and to put their specific needs on the political agenda. Service providers need access to accurate information and the skills to use interactive methodologies to work with and for adolescents. Meanwhile, the pressing needs of children affected by the pandemic – who may have lost parents, become destitute or been left without access to school and health services – should be a priority on every agenda. This will take a committed effort from all concerned – from government agencies and NGOs to local communities and caregivers. The rights of these children must be restored through special protection measures – as in any major humanitarian crisis.

**Adolescent health and development**

The situation of adolescents, especially those struggling amid crushing adversity, has drawn increasing attention in the decade since the World Summit for Children. There is a growing understanding that, far from being the ‘burden’ that some adults believe them to be, the youth of the world are an immeasurably rich resource. Adolescents’ rights to health and development are central to controlling a whole range of immediate threats like HIV/AIDS, substance abuse and violence, and also to combating a host of other problems that can threaten not only their lives but those of their children.

Adolescence is a critical period in shaping a child’s future, for it is during these years that young people develop a definitive sense of self, which occurs as they acquire social values, form civic commitments and become increasingly aware of matters of sexuality and fertility. The HIV/AIDS pandemic has helped raise public awareness of the importance of adolescence, for stemming the disease hinges on whether young people have the knowledge and skills – and access to the services they need – to help them reduce their risk of infection.

Dropping out of school, behavioural problems such as violence and drug addiction, teenage pregnancies: All of these are readily associated with adolescence, but the potential of adolescents as creative, energetic actors and leaders for positive social change has been widely underestimated. Teenagers’ problems often stem from their increasing marginalization from the world of adults, their vulnerability and the
inadequacy of social, economic and political systems to cater for their needs and aspirations. The participation of adolescents in society needs to be encouraged and supported – and their views and contributions solicited.

If the health risks faced by adolescents are to be reduced, they must be given access to accurate information. They must have the opportunity to build both life skills and livelihood skills. They must have access not only to services for reproductive health but also to voluntary and confidential counselling and testing for HIV/AIDS. Above all, they must be able to live in a safe and supportive environment.

Tobacco addiction has become a significant childhood problem, with people being lured into smoking at ever earlier ages. The success of some industrialized countries in reducing nicotine addiction and the promotion of smoking has yet to be replicated in the rest of the world. But there is evidence that many countries are giving increasing priority to prevention programmes for young people. NGOs, health centres and the media are using drama, radio and television to disseminate information about health to young people.

Schools offer another important setting for adolescent participation, for providing young people with guidance and support and for developing positive values and skills. In several regions, teachers, NGOs, peer educators and facilitators are being trained to offer life-skills education. Life skills are being included in some school curricula, mainly on a pilot basis, and also in peer education initiatives. Programmes to prevent and reduce substance abuse among young people are also being introduced. However, access to and use of voluntary and confidential testing and counselling for HIV/AIDS remain low among adolescents – and especially adolescent girls, one of the groups most at risk of contracting HIV.

LESSONS LEARNED IN ADOLESCENT HEALTH AND DEVELOPMENT

Health-promotion efforts among young people must become a high priority. Service providers (including young people) need accurate information – but they also need skills in using interactive methods to work with adolescents to reduce risks.

The unfortunate tendency to view adolescents in a negative light should be directly countered by emphasizing their ability to make positive contributions to society – in their homes, schools, communities and on the national stage. Adolescent participation is essential to policies and programmes that hope to have an impact on such problems as HIV/AIDS and drug use, which undermine the health of young people now and in the future.

Evolution of health, nutrition and water and sanitation policies and strategies during the 1990s

Some countries stand out for having prioritized child health in their allocation of resources. On the whole, however, national investment in basic health services has not lived up to the promises made by world leaders in 1990.

Given the shortfall of resources, the greatest successes of the decade have been in ‘vertical’ programmes targeting specific diseases affecting children, such as polio, guinea worm and measles. These programmes were able to mobilize public interest,
media attention and donations and put pressure on national leaders to produce results – and the results themselves could be easily measured.

These single-focus interventions, however successful, do not replace the need to strengthen health systems in developing countries, nor do they represent adequate attention to the total needs of young children, adolescents or families. But targeted programmes can serve as catalysts for broader improvements to the health system and, being mostly preventive in nature, they may reduce demand on overworked and underfunded health care services.

During the 1990s, however, broader-based strategies to strengthen health systems were also established. The Bamako Initiative attempted to strengthen health systems by providing a minimum package of health care and basic drugs at affordable prices through some cost-sharing between providers and users and community participation in management. The Initiative revitalized local service delivery in some parts of Africa – and was extended to other continents. The Initiative has led to improved and sustained immunization coverage and other preventive activities, as governments have increased their capacity to provide essential drugs and vaccines. Even in countries facing severe economic distress, revitalized basic health care facilities have been able to offer a variety of services, including the provision of essential drugs. These efforts have not only improved the well-being of whole populations, they have also empowered individuals and families to assume responsibility for their own health and welfare. In that sense, the Bamako Initiative has been a major step towards democratizing the working of primary health care.

While the Initiative has been recognized as a cost-effective, sustainable approach to revitalizing health systems, it relies on users paying something directly for services. Some studies have shown that the introduction of user fees has deterred a significant number of people. This happened particularly where such fees were not accompanied by improvements in service quality or where exemptions were not made for families and children unable to pay.

There has been considerable reform of the health and water sectors in the 1990s, often involving decentralization to provincial or district levels. Decentralization has contributed to a new concern for integrity and accountability in the public sector. New methods have emerged for involving local communities in managing and monitoring service provision in health, clean water supply and other public services.

However, decentralization has too often gone hand in hand with cuts in central funding for supervision, monitoring, training and the supply of drugs, vaccines and spare parts. Without adequate support from the centre, decentralized child health and community water services are at risk of deteriorating. And with privatization, a two-tier system has emerged in many countries whereby the better-off enjoy the latest technologies, while the poor receive minimal care from inadequately financed public facilities. The poor, rural and most remote sections of the population offer little economic incentive to private providers and are thus hit particularly hard by cuts in public spending on health.
Concern for better coordination of aid has led to new forms of collaboration between governments and donors, known as sector-wide approaches (SWAPs), many of which are in the health, education and water sectors. SWAPs aim to provide a comprehensive framework for the development of policy and programming in the sector over a period of several years.

Health is becoming more of a global public concern. International integration in trade, travel and information has accelerated the cross-border transmission of disease and the transfer of behavioural and environmental health risks. Intensified pressures on global resources of air and water have led to shared environmental concerns. These trends have both positive and negative implications. The Ebola crisis in 1994, followed by sensationalist coverage in the media, led to greater awareness among politicians and the general public of the potential dangers from disease. Such awareness may lead to increased international action on health issues. On the other hand, it may contribute to increased xenophobia and investment to protect the already privileged.

The 1993 World Bank *World Development Report* re-emphasized the health-related goals of the World Summit for Children. It also applied economic analysis to health policies, introducing the concept of ‘the global burden of disease’, which has helped clarify priorities for cost-effective health spending. It made the case for public sector involvement in the financing of public health and a minimum package of essential clinical services, especially for the poor. In subsequent years, the World Bank became the single largest external financier of health activities in low- and middle-income countries and an important voice in national and international debates on health policy. The Bank has been a strong supporter of both health-system reform and SWAPs.

Despite the call in the World Summit Plan of Action to encourage collaborative research to tackle the major problems facing children, the allocation of research funds has not improved over the decade. If anything, there has been a worsening mismatch between those diseases considered research priorities and those that have the greatest impact on world health. For instance, pneumonia and diarrhoeal diseases constitute 15.4 per cent of the total global disease burden but receive only 0.2 per cent of total global investments in health research. There are some notable exceptions, however. WHO has supported research into the development and assessment of new vaccines, while the private sector has devoted considerable resources to the development of drugs to combat HIV and treat AIDS. Two important technological advances – the Internet and mapping software – have contributed to health research and planning in developing countries.

The holistic vision of the Alma Ata International Conference on Primary Health Care remains strongly relevant, as the close relationship between the many factors affecting child health has become clear and as concerns about the viability of health systems have deepened. Continuing examples of holistic approaches include the Integrated Management of Childhood Illness initiative, the Bamako Initiative and
the Focusing Resources on Effective School Health (FRESH) initiative.

Programmes focused on single priorities continue, however, to gain attention and support. Two key examples are the Global Alliance for Vaccines and Immunization (GAVI) – a coalition of organizations formed in 1999 in response to stagnating global immunization rates and widening disparities in vaccine access between countries – and the Roll Back Malaria campaign, which has set an ambitious goal of halving malaria-related mortality by the year 2010. The guinea worm disease eradication effort shows how a programme with an original single purpose can broaden its focus: It has brought clean water to many remote communities and mobilized them to seek better health overall, while expanding to fight river blindness and other diseases.

Priority actions for the future in health, nutrition, water and sanitation

Globally, there has been substantial progress towards some of the goals set by the World Summit for Children in health, nutrition, water and sanitation. Polio and guinea worm disease are near eradication; deaths from neonatal tetanus and diarrhoea have been halved; and salt iodization and vitamin A supplementation protect millions of children and adults from deficiencies of these critical micronutrients. These successes are compelling evidence of what can be achieved.

The best results for children come from a mixture of vertical health interventions and community-based programmes. For the delivery of services such as polio immunization or vitamin A supplementation, vertical programmes are most effective. However, experience from many countries shows that to improve and sustain the overall health and nutrition of children and women, along with such vertical interventions there must be community-based, family-oriented efforts. Such programmes have proved successful in the home-based management of diarrhoea and, on a more limited scale, in the maintenance of water sources and in addressing child malnutrition – but they have to be adequately resourced. Locally adapted communication strategies are also required to reach out to and empower the most vulnerable communities.

Even though the ultimate responsibility for ensuring children’s rights to health and nutrition lies with national governments, these rights cannot be fulfilled without the involvement of public, private and civic actors at all levels of society. National and local governments must be strengthened in their capacity to deliver services, assure quality and make resources available. Simultaneously, there must be greater emphasis on family practices and community participation. The access of all families to basic services and essential commodities must be assured and a supportive environment encouraged to promote changes in attitude and behaviour that will benefit children.

Over the past decade, the resources needed to achieve the goals for all children have simply not been forthcoming. Total public investments in children’s health and nutrition, and in clean drinking water and sanitation, have sometimes decreased alarmingly, especially in the least developed countries. We need to find new ways of
mobilizing resources for children, such as the use of public-private partnership frameworks. But we must also be more accountable for the use of the resources that are made available, if the considerable progress for children made during the 1990s is to be carried forward – and the unfinished business taken care of.

**KEY ACTIONS IN THE IMMEDIATE FUTURE**

*Flexible, responsible health delivery systems*

Integrated packages of core interventions should include:

- Traditional vaccines;
- New and improved vaccines, such as hepatitis B, Hib and the pneumococcal vaccine;
- Vitamin A and other micronutrient supplements;
- Impregnated bednets in malaria-affected areas;
- Essential drugs and supplies.

Services for mothers and newborns must also be reinforced. These include:

- Antenatal services, including malaria prevention, tetanus immunization, food and micronutrient supplements and measures to prevent mother-to-child transmission of HIV;
- Skilled attendance during and after birth to identify and refer obstetric complications, prevent tetanus, asphyxia and infections in newborns, and ensure birth registration.

*Family- and community-based interventions in health, nutrition, water and sanitation*

Experiences from many countries show that community participation is vital if the health and nutrition of children and women are to be improved and sustained. Families and communities have both a right and a duty to take charge of their own and their children’s health. A major shift is required in the thinking of many governments, service providers and international agencies, who need to offer real opportunities for participation and to mobilize adequate resources in support of family- and community-based actions.

At the household level, such actions should include:

- Preventive efforts, such as hygiene promotion and insecticide-treated bednets;
- Good nutritional practices, including breastfeeding and complementary feeding;
- Improved care of illnesses, such as pneumonia, malaria, diarrhoea, measles and HIV/AIDS;
- Psychosocial stimulation for young children.

At the community level such efforts should include:

- Mechanisms for assuring adequate supplies of basic drugs and health supplies, access to safe water and sanitation, coupled with community participation in delivery systems, planning and financing;
- Community-led information systems, such as child growth monitoring, as a basis for good decision-making;
• Training and support for community health workers, including auxiliary midwives;
• Transport services to eliminate potentially fatal delays in obstetric and other emergencies.

Public services and family- and community-level activities need to be closely linked through:
• Communication strategies that reach out to all communities and families, especially the most isolated and vulnerable;
• Participatory social audits that assess community views of service delivery and build the influence of service users, including children and women, into health, nutrition, water and sanitation service planning, management and monitoring.

Successful local efforts to promote family and community practices in health, nutrition and hygiene need to be accelerated and expanded.

**A stronger focus on adolescent health and development**
To prevent health risks among young people, priority must be given to:
• Ensuring that they have access to accurate information;
• Creating opportunities for adolescents to build their skills and develop confidence, contacts and self-esteem;
• Providing youth-friendly health services that include reproductive health services, as well as voluntary and confidential counselling and testing for HIV/AIDS;
• Creating safe and supportive environments in which young people can participate and contribute.

**An intensified global and local effort on HIV/AIDS**
Global mobilization, with clear targets and adequate financing, is needed to halt the ravages of HIV/AIDS. This effort should include:
• Prevention, including educational and information services for young people;
• Reduction of mother-to-child transmission of HIV, which necessitates the expansion of antenatal services;
• Care and support for people with AIDS, including the provision of affordable medicines and drugs through appropriate delivery systems;
• Measures to strengthen the ability of women and girls to protect themselves;
• Special assistance for children orphaned by AIDS, including access to social services, the strengthening of family and community capacities to care for orphans, and legal and administrative measures to protect orphans from abuse, exploitation and discrimination.

National and local leaders need to be pressed to ensure that there are sufficient resources and support for these priority actions for children. In the 1990s, this was achieved in part through programmes of action for children. Whatever form such programmes take in the future, all sectors of society must participate in well-focused efforts, with specific targets, to realize children’s and young people’s rights to health and adequate nutrition, supported by basic services, including clean water supplies and sanitation.