

Improving Health Through Schools National and International Strategies

School Health Component of
WHO's Mega Country Network
for Health Promotion



World Health Organization

WHO INFORMATION SERIES ON SCHOOL HEALTH

IMPROVING HEALTH THROUGH SCHOOLS:

National and International Strategies

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INTRODUCTION

The reasons for promoting health through schools are clear. With more children than ever receiving a formal education, schools are an efficient way to reach school-age youth and their families in an organised way, and to ensure the individual growth essential for national development. In almost every community, the school is a setting in which many people learn and work. It is a place where students and staff spend a great portion of their time. It is a place where education and health programmes can have their greatest impact because they can reach students at influential stages in their lives -- childhood and adolescence. Schools are not merely one of the institutions and settings in which health can be created, but are among the most important.

What is not so well understood, however, is *how* best to improve health through schools. What *strategies* are most likely to achieve this goal? The World Health Organization (WHO) has prepared this resource to explore that question. The chapters that follow present the current health concerns among school-age children and adolescents, and the strategic responses of governments and international and national organisations to address those health issues through schools. In Chapters 3 and 4, representatives of international organisations and ten of the world's most populous countries describe their strategic approaches to school health. The final chapter describes the efforts of an international network aiming to strengthen and unite the work of the "mega" countries and their international partners.

In the world of business, strategic planning is defined as "a continuous process of systematically evaluating the nature of the business, defining its long-term objectives, identifying quantifiable goals, developing strategies to reach these objectives and goals and allocating resources to carry out those strategies." This process has also shown to be relevant and advantageous to organisations whose goal is to improve health and well-being. A strategic planning approach contributes to health promotion efforts in that it can help set directions, allocate resources and examine alternative courses of action. With health promotion, as with business, the results can be improved planning that leads to improved decision-making and improved results. The process can begin by addressing the following three questions: *Where are we today? Where are we going? And, how do we get there?* Such questions need to be asked by individual organisations and governments, but must also be asked collectively, by all of us working toward the common goals of health and education for all.

It is hoped that this compilation of school health strategies will reveal the extent to which strategic thinking is evident in the plans of international organisations and the world's largest countries, make clear the value of strategic planning in the area of school health, and elicit conclusions about how best to improve health through schools.

HEALTH STATUS OF SCHOOL-AGE CHILDREN AND ADOLESCENTS¹

During the past 50 years, the health of most children and young people between the ages of five and 19 has improved, at least in some ways. Their standard of living is generally higher, they are at risk of fewer infectious diseases, and they are better educated.

They are the children and adolescents who have survived the special risks of morbidity and mortality in the first five years of life and are not yet directly challenged by the health problems of adulthood. Of all the age groups, theirs is the healthiest, and it is one during which the foundations can be laid for a long and healthy life. Healthy children who become healthy adolescents are more likely to become healthy adults.

As children grow and become adolescents they demonstrate growing autonomy, and their decisions, behaviours and relationships increasingly determine their health and development. Yet while their self-reliance increases with age, older children and adolescents lack the status and resources of adults. This limits the range of health-related options open to them. An important feature that distinguishes them from adults is the initiation of risk behaviour. Adolescence is a time of experimentation. The transition from early childhood to maturity involves many hazards, some of which are increasing, and others that are new.

In addition to the personal choices and relationships young people make, the environment in which they live is a strong determinant of their health. Conditions in their homes, schools, communities and workplaces can either promote or detract from health, through such factors as the availability of clean water, exposure to toxic chemicals, a nutritious food supply and freedom from harassment and abuse. Such environmental conditions can affect health directly, or indirectly by influencing the decisions young people make.

Some health problems, conditions and behaviours are more prevalent among older children and adolescents than other age groups, and may influence their future health. Varying in prevalence from one country to another, these include maternity; sexually transmitted diseases, including HIV; other infectious diseases such as tuberculosis, schistosomiasis and helminth infection; mental health; substance abuse; road traffic accidents; injuries and suicide attempts.

Many of these are issues in developed and developing countries alike, and thus risk affecting all the adults of tomorrow. For these reasons, the health of this age group deserves more attention than it has received in the past. For while relatively few are likely to die at this age, many more may begin health-risk behaviours that continue into adulthood and ultimately increase their risk of premature death. The most obvious of these is tobacco use. Worldwide, most smokers begin before they are 19. It is also at about this time that other hazardous patterns may be established, such as poor nutrition, and alcohol and drug abuse. However, the 5 to 19-year period is also a time when health-related knowledge, skills, attitudes and values can be acquired. It is a long and unique period of continuous opportunity for healthy personal development and public health intervention.

¹Adapted from "Health across the lifespan." In World Health Report 1998: Life in the 21st century. A vision for all, World Health Organization, Geneva, pp 75-83.

In 1997, the world held approximately 1.7 million 5- to 19-year-olds, or almost 30 percent of the total world population of 5.8 billion. By 2025, they are projected to number at two billion, to represent one-quarter of a global population of 8 billion. Approximately 50 million of these young people will be in Africa.

Mortality

Only limited data exist on the **causes of death** for the age group 5-19 by region or for individual countries. The age groups tabulated are 5-14 and 15-24. For every country with reliable data, the death rate for young persons aged 5-19 is the lowest of any age group. While the risk of death is low, the available data show that in most countries, many of the leading causes of death are preventable, especially deaths related to intentional and unintentional injury. The leading cause of death for five to 14-year-olds varies by country and gender.

Diseases of Concern among Young People

Intestinal parasites are endemic in many developing areas. Treatment of helminth infection (trichuriasis, ascariasis) improves school performance. The prevalence of hookworm infection peaks around the age of fifteen. Because of the potential blood loss it causes, it can exacerbate anaemia in those whose diet contains inadequate iron.

While deaths from **malaria** tend to occur before the age of five, the disease takes its toll on the young working population because of its recurrent nature, and contributes to absence from work and school. Cerebral malaria is becoming more and more common in adolescents, perhaps due to decreased immunity, increased drug resistance, or the use of counterfeit drugs. Malaria is particularly destructive for young pregnant women as it exacerbates anaemia.

Schistosomiasis is the second most prevalent tropical parasitic disease after malaria. As transmission occurs through contact with water contaminated by infected snails, prevalence is highest in young people because of the contact they have with water sources: women fetching water and men swimming. In some African countries schistosomiasis is so common in young men that it is considered to be a sign of passage into adolescence. In young women, as well as causing anaemia it can result in social stigma which reduces chances of marriage. Detection is essential, since a single-dose treatment exists.

Tuberculosis has re-emerged as a major disease in young people in developing countries. If untreated, it can be fatal, and it tends to be more aggressive in this age group, leading from infection to development of the disease sooner. For example, the incidence of tuberculosis among 15 to 24-year-olds in the United Republic of Tanzania is 14 percent of the total number of new cases, and 11 percent of tuberculosis-related deaths occur in this age group.

Vaccine-preventable diseases

As a result of immunisation programmes, about eight out of ten school-age children and adolescents worldwide have been immunised against six major infectious diseases of childhood. Immunization schedules for basic vaccines vary among different countries. Many boosters are recommended during the school-age period. For example, boosters for BCG have been suggested in many countries at ages 5-7 and 11-14. A tetanus booster is recommended during adolescence, especially for pregnant women, and oral polio is also usually given once during school age. Recent studies on immunization in adolescents have focused on mass campaigns that target this age group, especially concerning hepatitis B.

Conditions and Lifestyles Affecting Health

Injuries

Mortality rates due to injury are higher for men than for women. For example, adolescent men aged 15-19 in South Africa are up to 2.5 times as likely to die from violent injuries as are women in the same age group. In the same country, injuries account for 57 percent of all deaths among 10-19-year-olds. A similar pattern holds for many developing and developed countries. Unintentional injuries such as those resulting from sports, falls and especially traffic accidents, are important causes of death in Nigeria, Singapore and the United States, for example. Other countries have a higher number of intentional injuries that result in death (e.g., some Latin American countries). Injuries happen less at home and more in sports contexts or school after the age of eleven. Boys tend to have higher rates of injury, and more broken bones, than girls. Women are at risk of violence from men they know, often their husband, partner, or ex-partner. In countries where reliable large-scale studies have been carried out, 20-67 percent of women report being assaulted by the man with whom they live.

Depression and Suicide

Adolescence is not an easy time psychosocially, and adjustment indicators are important. The Health of Youth study carried out in European countries found that depression, or the percentage of those reporting that they felt depressed once a week or more, was more common in boys than in girls, and varied considerably among countries. The first symptoms of mental illness emerge before the age of 25, for half of those who will be affected by it. The effects of unipolar depression and bipolar disorder have recently emerged as important, and can lead to problems in social interaction and to suicide in extreme cases.

Deaths from suicide are underreported because of a tendency to group them as accidental deaths or deaths from undetermined causes. Currently information is collected on suicides and parasuicidal acts (deliberate acts with non-fatal outcomes that attempt to cause or actually cause self-harm). In 10 community survey studies on adolescents published since 1986, the yearly prevalence of parasuicidal acts varied between over two percent and 20 percent. The differences in rates are due to different definitions and measurement issues. The prevalence of parasuicide is estimated to be 10-20 times higher than that of completed suicides. Three times more women than men attempt suicide, while three times more men than women succeed.

Tobacco and Substance Use

Adolescence and young adulthood are the periods most associated with the onset of **illicit drug use** worldwide. A European study on drug abuse in 13 cities found that by age 18 more than 20 percent had tried cannabis. Solvent use is reported in higher proportions among the under-15s. A study in the United States found that the period of highest risk for cannabis initiation was generally over by age 20, having peaked at 18. Cocaine initiation peaks later, between 21 and 24. Age patterns in Asia and Latin America are slightly different, although inhalant abuse is always concentrated among the youngest age group. In Thailand consumers of solvents are generally 15-19 years old. In Pakistan the age of onset of heroin use is just over 12, but cannabis is more widespread among those under 20. Research suggests that adolescents most prone to drug use are concerned with personal autonomy, are uninterested in conventional goals and receive less parental support and more support from friends. Peer use of the substance is a primary influence, and early onset of use is associated with more intense and wider use of other drugs later. A Brazilian survey of drug use in high school students found that violence in the home was the factor most frequently associated with the use of drugs. Young people who cannot see jobs or a better quality of life in their future sometimes use drugs to counteract extreme despair and frustration. The glamorisation of drug use through association with pop music culture, television and film portrayals has been noted in some countries.

The age of initiation to injectables is falling in **certain** population subgroups, such as street children, including those in inner cities of developed countries. In Pakistan the share of those who started using heroin between 15 and 20 years of age is reported to have doubled to 24 percent of those surveyed. In the Czech Republic 37 percent of new problem users are aged between 15 and 19, as are 50 percent of drug addicts in Bratislava, Slovakia. In Bulgaria the age of initiation has fallen from around 18 in the mid-1970s to 15 for heroin and 12 or younger for volatile substances. This pattern also occurs in the United Kingdom, where a survey found that 50 percent of 16-year-olds in north-western England had tried illicit drugs, and 20 percent were considered current users. In the United States, the average age for cannabis initiation is around 14 years, and approximately 2 percent of high school students have reported that they had injected illegal drugs. Male students are more likely than female students to report this behaviour.

Excessive **alcohol drinking** is likely to lead to traffic accidents, injury-related death and disability, and over time, serious degenerative disease of the liver. At least half of those who report drinking started before the age of 15, and a large portion of these started earlier than 12. In studies of high school students in Ghana, Kenya and Zambia, prevalence of drinking was 70 to 80 percent. A study of high school students in the United States showed that during 1990-1995 the proportion who had drunk alcohol on one or more of the past 30 days, declined from 59 to 52 percent, while the proportion who had five or more drinks of alcohol on at least one occasion on one or more of the 30 days preceding the survey declined from 37 to 33 percent during the same period.

Various studies report that the majority of smokers began **smoking** by the age of 19; in some cases the majority of smokers had adopted the habit by 12 years of age. The median age of tobacco use initiation in many countries is under the age of fifteen, and this age is decreasing. Young people are not only starting to use tobacco at an earlier age, but the daily consumption is also increasing as the economic situation in developing countries is improving. Evidence shows that persons who start using tobacco early have more difficulty quitting, are more likely to become heavy smokers and are more likely to develop a smoking-related disease. Given the health consequences, there is a clear need for smoking cessation initiatives targeted towards young people.

Nutrition

In developing countries, commonly used measures include **stunting**, which refers to being below the fifth percentile of the WHO height-for-age distribution. Stunting was found to have a prevalence of 27-65 percent in nine out of 11 studies. It occurs in early childhood, when rapid growth should normally occur. Children who are already stunted when they reach adolescence tend not to improve during adolescence. Furthermore, there appears to be a tendency for smallness to be perpetuated across generations. Thinness, or being below the fifth percentile of the WHO Body Mass Index (BMI) distribution for age, was only found to be prevalent in three studies. Its prevalence was 23-53 percent and in seven out of eight studies it was twice as prevalent in boys as in girls. BMI improved in girls throughout adolescence, but improved only in boys who had a low BMI at 10 years of age. This may be due to the delay of maturation caused by malnutrition, which is longer for boys than for girls.

Anaemia was identified as a very common nutritional problem in four out of six studies in which it was assessed (32-55%). While girls lose more iron through menstruation, boys may need more iron per kilogram of weight gained as they develop relatively more muscle during adolescence. It is possible that anaemia is responsible for the higher thinness rates in boys, although iron status does improve for boys as growth slows, and it deteriorates for girls, especially if they become pregnant. The consequences of iron deficiency are more serious for women, and they can include reduced levels of energy and productivity, impaired immune function, and increased maternal morbidity and mortality. Iron deficiency anaemia can be due to lack of iron in the diet, poor absorption of iron from food, or significant blood loss at delivery or because of hookworm infection. This is the most common type of anaemia. Causes of non-iron-deficient anaemia include malaria, thalassaemia, and

sickle-cell disease. Iron deficiency has a lower threshold, and as a result is prevalent in 82 percent of 5-14-year-olds. Anaemia affects about half of the 5-14-year-olds in certain regions. The established and emerging market economies have the lowest prevalence of anaemia, followed by the Caribbean. In all other places, every third child is anaemic. Measures that can improve the situation include vitamin A, iron, iodine and folate supplementation or fortification, delaying childbearing, and enhancing early childhood growth (6-18 months).

Eating disorders such as anorexia nervosa, bulimia and overeating are more common in the developed countries, as are inactivity and a sedentary lifestyle. In developing countries, the problems are mainly those of obtaining the right nutrients for optimal growth, while daily life tends to include more physical activity.

The extent to which young people are involved in physical activity is a growing concern in developed countries. **Obesity** is increasing, especially in the younger age group. Nutritional problems, especially overconsumption of fats or sugars, are taking their toll. The European Health of Youth study found that an average of 74 percent of 15-year-old boys exercised to the point of being out of breath and sweating more than twice a week outside school. Only 52 percent of girls exercised twice a week, and between the ages of 11 and 15, girls became less active.

Fertility

Age at first marriage is one of the most important factors influencing **adolescent fertility**. Populations with later age at first marriage tend to be more urban, have higher levels of education for women, and use family planning more than populations with younger age at first marriage. The percentage of women marrying before age 20 is declining in most countries in the world. However, early age at first marriage is still common in sub-Saharan Africa, where over 40 percent of women aged 15-19 have been married in many of the countries. The proportion of births to adolescent women that are unplanned is over one-third in 11 of 20 countries with reported data in sub-Saharan Africa and in 7 of 10 countries with reported data in Latin America and the Caribbean. The range is 9-48 percent in Asia and 20-52 percent in Latin America and the Caribbean; and the proportion is very high in the United States (73%).

Adolescents aged 15-19 gave birth to 17 million babies in 1997, and 16 million of these births occurred in developing countries in Asia, Africa, and Latin America and the Caribbean. In sub-Saharan Africa, Latin America and the Caribbean, only modest declines are being reported in age at first birth. All countries in Asia report a decline. More than 30 percent of women aged 20-24 in Latin America and the Caribbean and 50-60 percent of women aged 20-24 in most of sub-Saharan Africa have their first birth before age 20.

Adolescent fertility increases risks for both the mother and the child. For the adolescent, pregnancy is associated with increased risk of numerous pregnancy-related complications and higher maternal mortality. Adolescent mothers tend to discontinue their education and thus reduce their employment options. Their children are more likely to have a low birth weight, to be premature, injured at birth, or stillborn. The mortality rates of infants born to adolescent mothers are higher than for those of women who give birth at older ages.

By 2025, the adolescent fertility rate is projected to decline by about 40 percent in Africa, and 16 percent in Latin America and the Caribbean, although Africa will continue to have the largest adolescent fertility rate of any region (76 per 1000 women). The rate is expected to increase by 20 percent in Europe, and 8 percent in North America. The number of births to women aged 15-19 is expected to decrease from 17 million in 1997 to 16 million in 2025.

Unhealthy sexuality and its consequences

Sexual debut is taking place at younger ages, despite later marriages. Sexual experience before marriage is becoming more common, as are its consequences including sexually transmitted diseases (STDs) and pregnancy. Men are more likely to have sexual experience prior to marriage than women. The age of initiation of sexual activity is less than 18 in most countries of sub-Saharan Africa and around 20 years in Asia, Latin America and the Caribbean. In the United States, it is 16 years for male students and 17 for female students.

Contraceptive use has increased in most countries over the past 20-25 years, as family planning services have become more readily available, but has decreased in some. Trends in contraceptive use among currently married adolescent women vary by region. Of 13 countries in sub-Saharan Africa with available data, eight reported increases in use over time, and five had decreases. Of 11 countries in Asia, contraceptive use among currently married women aged 15-19 increased over time dramatically in eight, with little change in India, Nepal, and Pakistan. Eleven out of 14 countries in Latin America and the Caribbean showed an increase in use. Sub-Saharan Africa generally had the lowest, and Latin America and the Caribbean the highest levels of use.

As regards the contraceptive methods used by adolescents, a recent study in the United States found that young female students (aged around 15) prefer to use condoms. However, as female students become older, they are gradually less likely to use condoms and more likely to use birth control pills. While overall contraceptive use does not change, use of birth control pills more than doubles and condom use declines by over 30 percent. At the same time, current sexual activity increases from almost one-quarter around age 15 to almost half around age 18. This appears to signify a change in priority from protection against STDs, including HIV infection, to protection against unplanned pregnancy. Few students appear to be giving high priority to reducing the risk of both unplanned pregnancy and STD infection by using more than one effective contraceptive method, specifically condoms and birth control pills.

WHO estimates that one in 20 teenagers contracts a **sexually transmitted disease** each year. These include HIV/AIDS, gonorrhoea, syphilis, chlamydial infection and herpes. Young people are less likely to seek care for STDs, especially while they are asymptomatic, and the consequences of the delay or absence of care can have permanent health effects including sterility and death. The prevalence patterns for STDs in developing countries are up to 100 times those in developed countries for syphilis, 10-15 times higher for gonorrhoea, and 3 times higher for chlamydial infection. Incidence is also higher in developing countries. Among developing countries the rates in Africa are generally higher than those of Asia and Latin America. Human papilloma virus (HPV) can result in cervical cancer 5-30 years after the initial infection. The risk of getting HPV and cervical cancer in those who had intercourse around age 15 has been shown to be double the risk in those who do so after 20.

In 1997, 590 000 children under 15 became infected with **HIV**, bringing the total of those aged up to 15 infected to 1.1 million. One contributing factor is that one million children enter the sex trade every year. In most parts of the world, the majority of new infections are in young people between the ages of 15 and 24, sometimes younger. Girls appear to be especially vulnerable to infection, but Uganda has recently shown encouraging evidence that in some cities infection rates have halved among adolescent girls since 1990. Even there, however, rates remain unacceptably high, with up to one pregnant teenager in 10 testing HIV-positive. That rate is six times higher than in boys of the same age. These age and sex patterns are thought to be related to young women having older sexual partners, and the increased susceptibility of the immature female reproductive tract to infection. Because the median incubation period between infection with HIV and onset of AIDS is nearly 10 years, many 20 to 29-year-olds with AIDS may have been infected during adolescence. Surveillance of selected sexual and injecting-drug-use behaviours among adolescents can provide critical information about their risk of acquiring HIV infection.

Young people at special risk

The International Labour Organization estimates the number of **working children** aged between five and 14 at 120 million. The majority of these children are in developing countries (61% in Asia, 32% in Africa and 7% in Latin America). In many of these countries, children are traditionally incorporated into the work of their families as soon as they are capable, mostly on farms.

However, many millions of children are forced to seek employment outside the family. Studies indicate that in about 20 percent of cases, the child's income may be essential to an impoverished family's survival. The United Nations Economic Commission for Latin America and the Caribbean has reported that without the income of working adolescents aged 13-17 years, the incidence of poverty in that region would rise by 10 to 20 percent. Thus, many children can be found in hazardous industries, working long hours without rest, in conditions that are physically or mentally dangerous. They are at risk of occupational death or injury due to poor or non-existent safety standards, inattention, fatigue, poor judgement and inexperience in workplaces that have been designed for adults.

In developing countries, exposure to chemicals, especially pesticides, kills more rural children than the most common childhood diseases combined. Research shows that working children are six times more likely to be admitted to hospital than non-working children.

In the past decade an estimated two million children and young people have been killed in **armed conflict**, and three times that number have been seriously injured or permanently disabled. By the year 2000, at least 120 million young people could be vulnerable to the indirect effects of armed conflict. More than half of this estimate is made up by the risk in Africa and South-east Asia.

WHO's response

Regrettably, there are few data in most regions of the world that are aggregated to describe the health status of young people from the age of 5 to 19 years, on age-specific mortality and the leading causes of death, and on the underlying determinants. The available data are insufficient to assess fully the trends in this age group, but the preceding overview highlights some areas that are priorities for WHO and for the response of the international community. The implications of certain behaviours that begin early in life have put the focus on the 5-19 year old group as one in which investment is important in order to avoid the costly consequences. Those behaviours include smoking, alcohol abuse, drug use and poor nutrition, and are closely associated with what are projected to be the leading causes of death and injury in the year 2020: heart disease; road traffic accidents; violence; HIV; etc. Whether they contribute to higher prevalence of cancers, heart disease, diabetes, or liver failure or whether they lead to a higher number of accidental deaths and injuries, these behaviours are preventable. There is no reason this information should not be used to prevent future health problems, and this age group is at a perfect stage to intervene.

CREATING HEALTH THROUGH SCHOOLS

Schools: Ideal settings for health promotion²

The Ottawa Charter (1986) recognizes that, "Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love. Health is created by caring for oneself and others, by being able to make decisions and have control over one's life circumstances, and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members."

Some of the best opportunities for positively influencing the health of young people and preventing the initiation of the health risk behaviours described in the above chapter, are found in the school setting. The school is an extraordinary setting through which to improve the health of school personnel, families and members of the community, as well as students. It is a means to support the basic human rights of both education and health. It offers opportunities to achieve significant health and education benefits with investments of scarce education and health resources. It also offers highly visible opportunities to demonstrate a commitment to equity and to raising the social status of women and girls.

Primary school enrollments are increasing in nearly every part of the world. The main exception is in Sub-Saharan Africa, where enrollments are stagnating or declining. However, worldwide, schools reach millions of students and, through them, their families and communities.³ Therefore, as articulated by UNICEF, the formal education system is "the developing world's broadest and deepest channel for putting information at the disposal of families, school personnel, and community members as well as students".⁴

Schooling, alone, has been shown to be a powerful way to influence health, worldwide. Its impact may be clearly seen in benefits to maternal and child health. For example, in developing countries as the literacy rates go up, the fertility rates tend to go down. Literate women tend to marry later and are more likely to use family planning methods. Mothers with even one year of schooling tend to take better care of their babies, they are more likely to seek medical care for their children and to have their children immunized. Furthermore, all schools – no matter how scarce their resources – can help students and staff to learn to care for themselves and others, make decisions and have control over life's circumstances, and create conditions that are conducive to health. These are the qualities through which health is created and they are either encouraged or discouraged by a school's policies, management practices and social conditions.

WHO Expert Committee to Improve Health through Schools

To encourage educational and health institutions and agencies to coordinate their efforts to promote health through schools, WHO convened an Expert Committee on Comprehensive School Health Education and Promotion in Geneva, Switzerland, from 18 to 22 September 1995. The Expert Committee's primary objective was to make recommendations for policy measures and actions that WHO (including its Regional Offices), other United Nations agencies, national governments and nongovernmental organisations could apply to enable schools to use their full potential to improve the health of children and young people, school staff, families and community members.

² Adapted from "Health-Promoting Schools," *World Health: Magazine of the World Health Organization*, No. 4 July- August 1996, and "Health-Promoting Schools: Promoting the World Health Organization's concept of health," *Connect*, UNESCO International Science, Technology & Environmental Education Newsletter, Vol 23, No. 2, 1998.

³ UNICEF. State of the World's Children 1999: Education. New York.

⁴ UNICEF. State of the World's Children 1988. New York.

The Expert Committee's terms of reference were the following:

1. **To review** the global state of school health and how schools are influencing the health of preschool children, school-age children, non-students, school personnel, families and other community members.
2. **To identify opportunities for and barriers to strengthening school health programmes** at international, regional, district and local levels.
3. **To make recommendations aimed at strengthening school health infrastructure and school health promotion activities** that will:
 - maximize intersectoral action in support of them;
 - assist policy- and decision-makers in planning, implementing, and evaluating programmes;
 - encourage the research needed to improve and fill gaps in professional knowledge.

Conclusions of the review

WHO's Expert Committee on Comprehensive School Health Education and Promotion found major reasons why school health programmes should be further developed. The Committee concluded that there is a rich base of knowledge on which to act to develop and improve school health programmes. Furthermore, it concluded that research in both developing and developed countries demonstrates that "school health programmes can simultaneously reduce common health problems, increase the efficiency of the education system and advance public health, education and social and economic development in each WHO Member State."⁵

Barriers identified by the Expert Committee

The Expert Committee reviewed barriers to the development of school health programmes as identified by national, district and local education and health workers. Five broad barriers commonly identified at each organisational level are:

- ***Inadequate vision and strategic planning***

A clear vision of the potential benefits of school health programmes and how they might be realized is vital. Such visions motivate people to develop and implement solutions and to start a difficult process and see it through to the end. However, once a vision has been articulated, careful strategic planning is required to make it real. A vision without a plan is only a dream, whereas a plan divorced from a vision is lifeless and mechanical. Neither can yield any lasting, positive result without the other.

- ***Inadequate understanding and acceptance of school health programmes***

The need for school health programmes and the new educational, medical and environmental technologies which they involve are neither well understood nor supported by decision-makers in influential international, national and local agencies, or by the public at large. Indeed, such programmes can awake controversy, inasmuch as they are intended not only to teach facts, but also to assist students, staff, parents and members of the community to make specific changes in their behaviour. Even if it is agreed that such changes are worthwhile, they are often seen as secondary to other priorities.

⁵From, "Promoting Health through Schools: Report of a WHO Expert Committee on Comprehensive School Health Education and Promotion," WHO, Geneva, pp 23-24.

- *Inadequate collaboration and coordination among responsible parties*

Because health and education are closely linked, progress can occur only if the ministries of health and education, as well as their representatives at the provincial, district and local levels collaborate. However, even this is not enough, as too often these are the least well funded and well staffed ministries. Furthermore, the ministries of planning, development, transport – as well as others – have interests, capacities and responsibilities that can affect school health programmes. Additionally, since nongovernmental organisations have played important roles in improving the health and education of young people – and can become an even more important resource for doing so – their effective collaboration should be obtained.

- *Lack of a sense of ownership, responsibility and accountability for actions to improve school health programmes*

Without a sense of ownership of a process of change, it is hard to convince participants to feel a sense of responsibility. Without a sense of responsibility, it is difficult to expect accountability. Without accountability, it is virtually impossible to know if success is being achieved or how to adapt what is being done. This relationship holds at every level and across levels. When national governments declare school health programmes to be the responsibility of schools, but not give them the necessary resources, a barrier is created. When school principals and head teachers place the responsibility for change with teachers without allowing them to help determine the direction and processes for that change, a sense of ownership is lacking, and a barrier is created. Similarly, in intersectoral collaborations, when the roles of participants are poorly defined and no one feels a legitimate part of the process, a barrier is created.

- *Lack of resources (financial and human resources, materials and organisational infrastructure)*

The provision of resources for the health and education of children and adolescents is often given a low priority, which undermines the achievement of educational and health outcomes. Too few teachers and school personnel are educated and trained in the broad concepts of school health programmes and have the skills to implement them. Materials for teaching about health, such as curriculum and training guides, are not available in many schools. Even minimum facilities for latrines and safe water are not available in many schools, a situation rendering both health and education impossible.

Recommendations of the Expert Committee

The following recommendations of the Expert Committee, outlined below, were made with the recognition that:

- an investment in education is an investment in health
- the health of children significantly affects their ability to learn
- schools can be health promoting environments only if they are healthy organisations

1. ***Investment in schooling must be improved and expanded.***

Education is a fundamental human right. Therefore, every Member State must provide education in schools that meets the full range of children's learning and developmental needs, and should extend education to children who are not receiving schooling, including those who have physical or mental impairments.

2. ***The full educational participation of girls must be expanded.***

The enrolment and retention of girls in school lag significantly behind those of boys. Improving and expanding educational opportunities for girls is one of the best health and social investments a country can make. Every Member State and community must strive to break down the social, cultural, and economic barriers to the education of girls.

3. ***Every school must provide a safe learning environment for students and a safe workplace for staff.***

Too often the school environment itself can threaten physical and emotional health. The school environment must: provide safe water and sanitary facilities; protect from infectious diseases; protect from discrimination, harassment, abuse, and violence; and reject the use of tobacco, alcohol and illicit drugs.

4. ***Every school must enable children and adolescents at all levels to learn critical health and life skills.***

- focused, developmentally appropriate, skills-based health education in topics such as infectious diseases, nutrition, preventive health care and reproductive health;
- comprehensive, integrated, life skills education that can enable children to make healthy choices and adopt healthy behaviour throughout their lives;
- health education that enables young people to protect the well-being of the families for which they will eventually become responsible and the communities in which they reside.

5. ***Every school must more effectively serve as an entry point for health promotion and a location for health intervention.***

School should prevent when possible, treat when effective, and refer when necessary the common health problems of children and staff. They should:

- provide safe and nutritious food and micronutrients to combat hunger, prevent disease and foster growth and development;
- establish prevention programmes to reduce the use of tobacco, alcohol and illicit drugs, and behaviour that promotes the spread of HIV infection;
- treat when possible helminth, malarial, skin and respiratory infections, as well as other infectious diseases;
- identify and treat when possible oral health, vision and hearing problems;
- identify psychological problems and refer those affected for appropriate treatment.

6. ***Policies, legislation, and guidelines must be developed to ensure the identification, allocation, mobilization and coordination of resources at the local, national and international levels to support school health.***

This support includes:

- helping decision-makers and the public to understand that schools could provide the most cost-effective means to improve the health of children and thus to advance social and economic development;
- fostering active collaboration between the health and education ministries;
- developing school health committees and networks that include representatives of government agencies (such as transport, planning, agriculture and physical exercise and sport) and non-governmental organisations who can contribute expertise and resources necessary to improve comprehensive school health programmes;
- identifying, training and developing qualified staff at the national and local levels;
- establishing clear lines of responsibility and accountability for comprehensive school health programmes.

7. ***Teachers and school staff must be properly valued and provided with the necessary support to enable them to promote health.***

This support includes:

- providing the resources to train and enable existing teachers, school staff and school administrators to address the health and educational needs of students;
- involving universities, teacher-training colleges and relevant nongovernmental

- organisations in preparing new teachers, school staff and school administrators to promote the health of children and adolescents;
 - providing opportunities and facilities for teacher, school staff and school administrators to improve their own health.
8. *The community and the school must work together to support health and education.*
Families, community members, health service agencies and other institutions have an important role to play in improving the health of young people. At the same time, the school can play an important role in improving the health of the community as a whole. Such roles include:
- advocacy and support by the community for the development of the school as a healthy organisation;
 - active consultation and collaboration among families, the community and the school to improve the health of children and adolescents who attend school, as well as those who do not;
 - active participation by the school and its students in programmes to improve the health and development of the entire community.
9. *School health programmes must be well-designed, monitored and evaluated to ensure their successful implementation and outcomes.*
These actions include:
- developing or adopting in each Member State the most appropriate and affordable methods to collect data about children's health, education and living conditions, by age-group and sex;
 - emphasizing, whenever possible, research that draws on the knowledge and skills of local educators, students, families and community members;
 - developing methods for the rapid analysis, dissemination and utilization of data at the local level, where they can have the greatest impact.
10. *International support must be further developed to enhance the ability of Member States, local communities and schools to promote health and education.*
Such support includes:
- developing a global school health initiative, with concerted action by organisations such as WHO, UNESCO, UNICEF, UNFPA, the World Bank, the World Food Programme, Education International, the International Union for Health Promotion and Education and others;
 - coordinating among international organisations and Member States to share efforts, reduce fragmentation and duplication of effort, and establish a broad vision of comprehensive and integrated school health programmes.

INTERNATIONAL STRATEGIES AND EFFORTS

The promotion of children's health through schools is recognized at the international level as an important means of influencing health behaviour. It has been an important goal of WHO and other international agencies for more than 40 years – a goal which has gained significant momentum in recent years. This chapter describes the strategies currently employed by agencies working at the international level, including WHO (through its Global School Health Initiative, Regional Networks and Collaborating Centers), FAO, UNESCO, UNFPA, UNICEF and the World Bank.

WHO's concept of the Health-Promoting School

WHO defines a "Health-Promoting School" as a school that is constantly strengthening its capacity to be a healthy setting for living, learning and working. Common characteristics of Health-Promoting Schools are listed in Box 1. Health-Promoting Schools follow the principles and actions called for in the *Ottawa Charter for Health Promotion* (WHO, 1986). Specifically, they aim to build healthy public policies, create supportive environments, strengthen community action, foster the development of personal skills, and reorient health services to embrace health promotion in addition to clinical and curative services. Furthermore, Health-Promoting Schools embody a "comprehensive approach" to health promotion – a quality recognized as essential for effectiveness by the *Jakarta Declaration on Leading Health Promotion into the 21st Century* (WHO, 1987).

Box 1. A "health promoting" school:

- Fosters health and learning with all the measures at its disposal
- Engages health and education officials, teachers, students, parents and community leaders in efforts to promote health
- Strives to provide a healthy environment, school health education and school health services along with school/community projects and outreach, health promotion programmes, opportunities for physical education and recreation, and programmes for counseling, social support and mental health promotion
- Implements policies, practices and other measures that respect an individual's self-esteem, provide multiple opportunities for success, and acknowledge good efforts and intentions as well as personal achievements
- Strives to improve the health of school personnel, families and community members as well as students, and works with community leaders to help them understand how the community contributes to health and education.

The concept of the Health-Promoting School embraces WHO's holistic vision of health and gives consideration to *positive* as well as *negative* influences on health. It focuses equally on lifestyle and the physical, social and psychological conditions that affect health. It fully incorporates the notion of prevention, the need to focus on priorities and the importance of measurable outcomes, while recognizing that *prevention alone does not suffice*. Thus, Health-Promoting Schools go beyond the prevention model, activating the full organisational potential of schools to be healthy places in which to live, learn and work (UNESCO *Connect*, 1998).⁶

⁶ UNESCO, *Connect*: UNESCO International Science, Technology & Environmental Education Newsletter. Vol XXIII, No. 2, 1998.

The creation of Health-Promoting Schools demonstrates that people care about each other's sense of well-being as they care about reducing important health problems. Schools committed to promoting health help to reduce the fear of **getting to** school safely. They encourage boys and girls, and men and women, to treat each other fairly and respectfully. They stop people from bullying others. They ensure that someone is available to hold a child or adolescent who needs to be comforted. They create health when they enable students, staff, families and community members to: care for themselves and others; make healthy decisions and take control over their health; and create conditions that are conducive to health.

Health-Promoting Schools also help pupils, parents, staff and community members work together to set priorities and plan actions. They use information about the determinants of health and wellbeing as well as leading causes of death, disease and disability to generate commitments and support. They adapt evidenced-based interventions that foster healthy behaviour, such as seat belt use, active living as well as those that prevent the initiation of important health risks, such as tobacco use, unprotected sexual intercourse and drug or alcohol abuse. Furthermore, they monitor progress to help achieve their health objectives and use the findings to improve their efforts. Through their actions, Health-Promoting Schools acknowledge the value of promoting physical, mental and social well-being along with efforts to reduce health problems and risks. They serve as models of what many people want our world to be and offer positive qualities that many individuals and groups can support. While all schools can do much on their own, many schools will need help to model the kind of healthy and caring societies they hope to achieve (UNESCO *Connect*, 1998).

WHO's Global School Health Initiative

In 1995, WHO launched the Global School Health Initiative to mobilize and strengthen efforts to promote health through schools at the local, national and international levels. Together, the Ottawa Charter, the Jakarta Declaration and the recommendations of WHO's Expert Committee on Comprehensive School Health Education and Promotion laid the foundation for WHO's Global School Health Initiative. The Initiative is designed to improve the health of students, school personnel, families and other members of the community through schools. Its goal is to increase the number of schools that can truly be called Health-Promoting Schools.

WHO's Global School Health Initiative focuses on four broad strategies:

1. ***Building capacity to advocate for improved school health programmes***

WHO generates documents that consolidate research and expert opinion to help individuals make effective arguments for increased investment in school health programmes. For example, arguments are presented to help garner support for helminth control, HIV/STD prevention, tobacco use prevention, healthy nutrition, active living, life skills education, local action and the creation of a healthy psycho-social environment, along with other important issues that can be influenced by schools.

2. ***Creating Networks and Alliances***

WHO's Regional Networks for Health-Promoting Schools may be the world's most comprehensive and successful international effort to mobilize support for school health promotion. The first Network was initiated by the European Regional Office of WHO, the Council of Europe and the Commission of the European Communities in 1991. This Network has been an inspiration to other regional networks that have been developed with support from the Global Initiative.

3. *Strengthening national capacities*

WHO works with countries with large school-age populations to help health and education representatives collaborate in international and national efforts to improve school health programmes. These efforts are initiated in support of WHO's Mega Country Health Promotion Network (described in more detail in Chapter 5).

4. *Research to improve school health programmes*

WHO consolidates existing research to strengthen knowledge about interventions that can improve health through schools. It also fosters the development of ways to: 1) assess national capacity for school health promotion; 2) evaluate the extent to which schools become Health-Promoting Schools; and 3) monitor the health status of children and teachers.

WHO Regional Strategies⁷

WHO recognises that the success of the Global School Health Initiative rests on the extent to which partnerships can be formed to help schools become Health-Promoting Schools. Thus, the Initiative places high priority on establishing networks for the development of Health-Promoting Schools within WHO's regional jurisdictions. The following section describes the nature and scope of regional networks and the strategies used to create them.

The first regional network for the development of Health-Promoting Schools was formally inaugurated and opened for membership in 1992 by the European Regional Office of WHO (WHO/EURO), the Council of Europe and the Commission of the European Communities. In 1995, inspired by the success of the European Network, WHO's Global School Health Initiative, in collaboration with WHO Regional Offices, began actions to initiate networks in the other regions of WHO. Regional networks for the development of Health-Promoting Schools were promoted and fostered in the southern part of the Western Pacific (1995), Latin America (1996), Southern Africa (1996), South East Asia (1997) and the northern part of the Western Pacific (1997). Regional networks in the Western Pacific and Latin America began to take shape quickly, while the development of the Regional Network in southern Africa has been hindered by the civil crises that has affected the work of the WHO Regional Office for Africa. WHO will continue to develop additional networks among Francophone countries of Africa and English speaking countries of central Africa, and among countries in the Eastern Mediterranean by the end of the decade.

Currently, Regional Networks for the Development of Health-Promoting Schools vary in their level of development. **Table 1** summarizes the strategies of each of the networks, organised according to the five action areas of the Ottawa Charter. They serve as examples of the kind of supportive actions that can be undertaken through international networks. They also demonstrate the potential of large scale international strategies to encourage countries to increase national and local support for school health promotion.

⁷Adapted from Kickbusch, I. & Broesskamp-Stone, U., International Handbook for Health Promotion, Yale University, in press.

TABLE 1. REGIONAL STRATEGIES TO PROMOTE HEALTH THROUGH SCHOOLS

	<i>Building Healthy Public Policy</i>	<i>Creating Supportive Environments / Alliances</i>	<i>Personal Skills Development / Training</i>	<i>Country Support / Community Actions</i>	<i>Reorienting Health Services</i>
<i>Western Pacific (WPRO)</i>	<p>HPS included as integral part of "Preparation for Life" - one of the 3 strategies of WPRO's regional policy document - <i>New Horizons for Health</i></p> <p>Uses a regional logo for HPS</p> <p>Developed HPS Series, including:</p> <ul style="list-style-type: none"> * Report of Workshop on School HP, Sydney, Australia 1994 * Report of Workshop of School HP, Singapore 1995 * Report of Workshop for National Coordinators of HPS in Pacific, Fiji 1995 * Report of Working Group on the Devpt of HPS, Shanghai, China 1995 * Regional Guidelines for the Devpt of HPS - Framework for Action, 1996 	<p>Established interdivisional working group on "Preparation for Life" that fosters collaboration on school health within the Regional Office</p> <p>Initiated 2 Regional Networks of HPS: in northern part of the region and among islands of the Pacific</p> <p>Integrated HPS as part of the region's Healthy Island Initiative</p> <p>Created a Pacific Island Network on HPS, in workshop in Fiji in 1995</p>	<p>University of the Southern Pacific provides technical assistance to island coordinators in the HPS Network</p> <p>Australian universities are developing special training for school personnel and others in development of HPS</p> <p>National Health Education Institute, MOH, China is developing training for school personnel in projects aimed at implementing HPS</p> <p>Department of Health Education and Training, MOH, Singapore is providing training in peer approaches to school health ed.</p>	<p>Fostered development of HPS projects in Australia and New Zealand</p> <p>Providing support for HPS projects in China Laos, Fiji, Viet Nam, Papua New Guinea, Malaysia, Republic of Korea & American Samoa</p> <p>Health behaviour studies among school children have been initiated to guide the devpt of school health promotion</p> <p>Special projects are being used as entry points for the devpt of HPS (e.g. helminth reduction projects in two provinces in China, a leprosy project in China & malaria project in the Solomon Islands)</p>	<p>HPS is included in the 1998-99 country budgets in the region</p>
<i>Eastern Mediterranean (EMRO)</i>	<p>HPS is considered an entry point for health promotion</p> <p>Developed books on school health education, including:</p> <ul style="list-style-type: none"> * Teacher's Guide to Action-oriented School Health Curriculum * Teacher's Resource Books on Action-oriented School Health Curriculum (Books 1-6) * Guide to Implementing a National School Health Education Programme <p>Resource books have been translated into Chinese, French, Arabic and Croatian</p> <p>Regional Director, EMRO, and directors from UNESCO and UNICEF jointly visited MOE in countries implementing the Action-oriented School Health Curriculum</p>	<p>Convened a Study Group on Developing a Regional School Health Network</p> <p>Working with UNICEF and UNESCO to promote the use of Action-oriented School Health Curriculum in schools, homes and the community</p> <p>Working with UNESCO and UNESCO to help MOE implement the Action-oriented Curriculum in schools, and promote health through extra-curricular activities such as school health clubs</p>	<p>Providing support for school health education training and materials devpt, in collaboration with UNESCO and UNICEF</p> <p>Providing training targeted to teachers and physicians</p>	<p>Fostering the devpt of school health curricula and extra-curricular health promotion activities in Bahrain, Egypt, Morocco, Jordan and Sudan, including locally prepared learning packages to promote health in the home and community as well as the school</p> <p>Egypt has implemented the Action-oriented School Health Curriculum in all its schools</p> <p>Works with MOE to conduct needs assessments that are used to focus learning experiences and materials on issues relevant to health in countries and communities</p> <p>Developed guidelines for assessing implementation and effectiveness of the Action-oriented School Health Curriculum</p>	<p>School health education is included in the national budgets of most countries in the region.</p>
<i>South-East Asia (SEARO)</i>	<p>School health is linked with the Healthy Cities network in the region</p> <p>Developed and distributed Recommendations and Guidelines for Implementing and Strengthening Comprehensive School Health Education in the South-East Asia Region (1992)</p>	<p>Linking School Health with the WHO Healthy Cities Initiative</p> <p>Hopes to develop a regional plan to develop three sub-regional networks of HPS, beginning with sub-region 3 (?)</p> <p>Working with FINIDA to assist Namibia to plan school health and out-of-school health programmes for young people</p>	<p>Convened inter-country seminars and consultations on school health and HIV/STD prevention for representatives of MOH/MOE</p>	<p>Fostering the development of school health education in Nepal, Sri Lanka, and India, and the development of "little doctor" programs</p>	
<i>Africa (AFRO)</i>	<p>Would like assistance from WHO/HQ and Regional Offices to develop a regional plan for promoting the development of HPS</p>	<p>Hopes to develop a regional plan to develop three sub-regional networks of HPS, beginning with sub-region 3 (?)</p> <p>Working with FINIDA to assist Namibia to plan school health and out-of-school health programmes for young people</p>	<p>AIDS has served as a driving force to review the quality of school health curricula and to train teachers in health education and health promotion methods</p>	<p>Works with Cameroon, Benin, Ghana and Namibia to improve school health</p> <p>Planning a technical consultation on HPS with South Africa</p> <p>Wants to hold a meeting on school health in Botswana in the latter part of 1996</p>	<p>Looking for a strategy to develop investment in and maintenance of school health programmes</p>

	<i>Building Healthy Public Policy</i>	<i>Creating Supportive Environments / Alliances</i>	<i>Personal Skills Development / Training</i>	<i>Country Support / Community Actions</i>	<i>Reorienting Health Services</i>
<i>The Americas (AMRO)</i>	<p>Established an interdivisional working group on school health within the regional office</p> <p>Developed and distributed Recommendations and Guidelines for Implementing Integrated Approaches to School Health Education in Latin America (1994)</p> <p>Developed/translated school health related materials on:</p> <ul style="list-style-type: none"> * Conflict Management and Violence * Nutrition ("School Health and Nutrition in Latin America and the Caribbean: Challenges in the New Millennium"), in collaboration with the World Bank * Life Skills (translated into Spanish) <p>Advocated for inclusion of comprehensive school health on the political agenda during 1997 Summit of First Ladies</p>	<p>Two meetings on the devpt of Regional Networks for Health-Promoting Schools convened in 1996: for the Latin American and the Caribbean networks (12 countries became members of the Latin American Network in 1996)</p> <p>Nineteen countries participated in 1998 LANIHPS conference in Mexico City</p> <p>Working with the American Health Foundation to adapt/translate "Know Your Body" into Spanish and Portug.</p> <p>Working with UNDP, UNICEF and UNESCO on water and sanitation projects in the region. School sanitation is included in the Healthy Cities projects in the region.</p>	<p>School personnel receive environmental training by PAHO sanitary engineers</p> <p>Workshop on Life Skills will be included in the network development meeting in the Caribbean</p>	<p>Working with Argentina, Chile and Bolivia to ensure that school health is integrated into their efforts of school reform and decentralization. Also working with Mexico, Uruguay and Paraguay to foster the devpt of school health programmes</p> <p>Completed pilot tests of a tool for rapidly assessing national capacity to promote health through schools in Costa Rica and Bolivia</p> <p>Completed a Youth Risk Behaviour Survey in schools in Jamaica. Puerto Rico already conducted such a survey in collaboration w/ CDC, USA. Five new countries will take part in the YRBS this year.</p>	<p>Looking for a strategy to develop investment in and maintenance of school health programmes</p>
<i>Europe (EURO)</i>	<p>HPS has been formally endorsed by WHO/EURO, the Commission of the European Communities and the Council of Europe</p> <p>There is a regional office budget for promoting the devpt of HPS</p> <p>There is a regional logo for HPS</p> <p>HPS manuals / publications include:</p> <ul style="list-style-type: none"> * "Promoting Mental and Emotional Health in the European Network of HPS" * "Promoting the Health of Young People in Europe" * "Promoting Health in Second Level Schools in Europe: A Practical Guide" * "Democracy and the HPS" * Publication of the HPS newsletter, "Network News" * Update of the 1989 WHO/EURO-SHEG "Healthy Schools" as a WHO/EURO, CE, CEC publication * "Managing a HPS Project" * Publication of 10 HPS success stories * Update of the HPS Resource Package * Publication of three EVA reports on the technical aspects of evaluating HPS 	<p>The European Network of HPS (ENHPS) now includes 38 countries, 500 core schools and reaches approx 40,000 students. Another 1600 schools are linked to the network through national and sub-national arrangements</p> <p>The ENHPS is jointly sponsored by EURO, CEC and CE, which have raised \$1 mil. for network support and the devpt of HPS</p> <p>An annual business meeting is held which brings national coordinators together with sponsoring organizations</p>	<p>WHO/EURO provides technical support for training related to the devpt of HPS and network devpt and the CE provides financial support</p> <p>Translation, adaptation and training is provided on: Promoting Mental and Emotional Health in the ENHPS, Promoting the Health of Young People in Europe; and Promoting Health in Second Level Schools in Europe</p> <p>Strategic support is provided for the devpt of sub-regional training, exchanges and materials devpt.</p> <p>Training is provided in collaboration with CE and CCEE-NIS</p> <p>Training in evaluation is provided for specialists, researchers in school health promotion and national coordinators, and is linked to the EVA project</p>	<p>Participation of countries in the ENHPS fosters the support and endorsement of both the MOH and MOE</p> <p>WHO Member States are encouraged to foster the devpt of HPS through country visits, negotiations with MOH and MOE and ad-hoc training</p> <p>Over 20 international/national and keynote speeches were presented to promote the devpt of HPS</p> <p>Funds are raised to assist the devpt of country projects and networks</p> <p>A databank of HPS projects established</p> <p>An EVA evaluation of HPS in Hungary has been undertaken</p> <p>Countries are encouraged to take part in HBSC studies to develop and strengthen school health efforts</p> <p>Country-based integration and coordination between HPS and networks for HCP and CINDI is encouraged</p>	<p>Membership in the ENHPS requires the MOH and MOE to jointly endorse HP in schools</p> <p>HPS is included in WHO/EURO budget</p>

Strategies of WHO's Collaborating Centres for School Health

Since the days of the League of Nations, WHO has recognised that “an optimal way of promoting research and related activities should be through collaboration with national institutions within Member States.”⁸ For this reason, WHO has nurtured a large network of “WHO Collaborating Centres” which are deemed by WHO to be of high scientific and technical standing, and support the work of WHO programmes. WHO's Department of Health Promotion has established formal working relations with two institutions experienced in school health research and practice. The means by which those two Collaborating Centres support the work of the Global School Health Initiative are described below.

⁸ WHO Collaborating Centres: General Information. WHO Office of Research Promotion and Development, 1987.

Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, USA

The WHO Collaborating Centre on Health Education and Health Promotion among School-aged Children and Adolescents

Submitted by Jack Jones, Focal Point, Global School Health Initiative, WHO, Geneva

“Healthy people in a healthy world - through prevention” serves as the vision statement for the Centers for Disease Control and Prevention (CDC) in the United States of America. As the United States’ prevention agency, CDC works with partners throughout the nation and the world to promote health and quality of life by preventing and controlling disease, injury and disability. Five basic priorities guide CDC efforts now and in the future century:

- Strengthening essential public health services;
- Enriching capacity to respond to urgent threats to health;
- Developing and implementing a nationwide prevention network and program;
- Promoting women’s health; and
- Investing prevention strategies in our nation’s youth.

The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) at the CDC strives to enable all people in an increasingly diverse society to lead long, healthy, satisfying lives. NCCDPHP supports activities to:

- Prevent death and disability from chronic diseases;
- Promote maternal, infant and adolescent health;
- Promote healthy personal behaviours;
- Accomplish these goals in partnership with health and education agencies, major voluntary associations, the private sector and other federal agencies.

In 1988, CDC established the Division of Adolescent and School Health (DASH) in its National Center for Chronic Disease Prevention and Health Promotion. DASH uses a model of behavioural epidemiology to structure efforts to identify and monitor: critical health outcomes among youth; behaviours that contribute to those outcomes; potential cognitive determinants of such behaviours; and school policies and programmes that might influence such determinants. DASH also provides support to national, state and local agencies and organisations that have the capacity to help improve child and adolescent health. To evaluate and improve the impact of school health programmes, DASH conducts intervention research, dissemination research and program evaluation.

As the WHO Collaborating Centre on Health Education and Promotion among School-aged Children and Adolescents, DASH collaborates with WHO to improve health through schools.

DASH provides technical collaboration with international organisations by:

- Providing professional staff support to the Department of Health Promotion (HPR) in the WHO Cluster on Social Change and Mental Health, with expertise in planning, implementing and evaluating national programmes for school-aged children and adolescents.
- Collaborating with WHO programmes and Regional Offices in international, regional and national efforts to strengthen school health programmes, including education to prevent HIV infection, and other WHO programmes focused on school-aged children and adolescents.
- Participating in international efforts to plan and improve school health programmes and efforts to promote health among school-aged children and adolescents.

DASH collaborates with WHO and its Member States to build capacity to advocate by:

- Developing and disseminating resource materials designed to help individuals in international, national and local organisations use priority issues as entry points for the development of “health promoting” schools, act on the 10 principles and recommendations of WHO’s Expert Committee and make strong arguments for increased support of school health programmes.
- Developing scientifically accurate and appropriate guidelines, policies and materials to improve school health programmes, including education to prevent HIV infection, and to promote health among school-aged children and adolescents.
- Identifying, documenting and disseminating materials that consolidate expert opinion about the nature, scope, effectiveness and potential of school health programmes and successful efforts to promote health among school-aged children and adolescents.

DASH collaborates with WHO to mobilise public and private resources. This includes:

- Helping international organisations form alliances for concerted action in support of school health promotion.
- Efforts to acquire financial and technical support from public and private sources to establish and strengthen Regional Networks for the Development of Health-Promoting Schools.
- Collaborating with international organisations that have the capacity, experience and constituency, such as Education International, to strengthen school health programmes and efforts to promote health among school-aged children and adolescents.

DASH collaborates with WHO to strengthen national capacities. This includes:

- Collaborating with international organisations and Member States to assess national capacities for school health promotion, including policies, programmes, training and existing financial and technical resources, and to develop national plans to strengthen school health programmes.
- Efforts to provide technical and financial assistance to strengthen national capacities to promote health through schools and among school-aged children and adolescents especially in countries with the largest school-age populations and needs.
- Arranging travel and fellowships for representatives of WHO Member States and other organisations interested in strengthening their capacities to promote health through schools and among school-aged children and adolescents.

DASH conducts surveillance and evaluation research. Specifically, DASH collaborates with WHO, international organisations and WHO Member States to:

- Monitor progress and achievements in the development of WHO’s Global School Health Initiative.
- Establish and maintain systems to monitor the implementation and effectiveness of school health programmes and efforts to promote health among school-aged children and youth.
- Identify ways of establishing baseline data on the health status and health-related behaviours among school-aged children and adolescents.
- Increase access to research that can be used to improve school health programmes and efforts to promote health among school-aged children and adolescents.

Submitted by Cheryl Vince Whitman, Senior Vice President, EDC, and Director, HHD

Education Development Center, Inc. (EDC), is a nonprofit organisation dedicated to human development through education. Founded in 1958, EDC today has a staff of 450 people working with partners in the United States and in countries around the world. EDC applies research and education strategies to address challenges in health, education, and justice, especially in:

- early childhood education
- education reform and girls' education
- math, science, and technology
- language and literacy
- youth employment
- health promotion and disease prevention
- law enforcement and criminal justice

EDC is organised into a number of centres as administrative units, each with a distinctive mission and special focus. The largest division, which includes several centres, is Health and Human Development Programs.

Health and Human Development Programs – a Division of EDC

Mission

Health and Human Development Programs (HHD), with a staff of 85 people, is a division of EDC. HHD's mission is to **promote health and safety across the human life cycle** in settings where people live, learn, work, and play. HHD Programs spring from the belief that maximizing human potential at all stages in life has untold benefits for individuals, families, communities, and nations. Whether through prenatal care; nutrition interventions for young children; prevention of violence and alcohol, tobacco and other drug use for adolescents; reproductive health services for young adults; or programmes for healthy aging, people achieve their greatest potential when their health and safety needs are met.

HHD draws on expertise in EDC's other divisions to address issues related to health, such as teacher development, literacy, gender equity, and youth employment.

Goals

HHD embraces WHO's positive view of health as a state of complete physical, mental, and social well-being, not merely the absence of disease. To achieve its mission, HHD works with institutions around the globe, strengthening their capacity to implement effective, health-promoting policies and programmes. At the international, national, and local levels, HHD works to:

- **Generate new knowledge** through research and evaluation to determine the most effective strategies to promote health, prevent disease and high-risk behavior.
- **Synthesize and disseminate knowledge** by creating and distributing – through global channels – print and electronic products about effective policies, programmes, and strategies.
- **Apply knowledge** by designing and delivering professional development activities that enable others to implement effective strategies, with tools for assessment, planning, and evaluation.

History in School Health Programmes

HHD's work in school health dates back to the mid-1970s. With funding and guidance from the U.S. Centers for Disease Control and Prevention (CDC), HHD created one of the first life skills curricula for adolescents, *Teenage Health Teaching Modules* (THTM). After its development and national evaluation, HHD and CDC's Division of Adolescent and School Health together created the national infrastructure to build state and local capacity to implement THTM and other programmes. The Comprehensive School Health Network, now known as The National Training Partnership, managed by HHD, designs and delivers team training and technical assistance to all state departments of education and 17 of the largest school districts in the U.S. The Partnership also creates products, assessment tools and materials to inform and support state and local efforts.

In subsequent years, HHD expanded its initial focus in two ways. First, activities moved beyond classroom life skills instruction to include research and capacity building for all components of a school health program. Second, we have expanded geographically to join a variety of international partners and other countries in school health projects around the globe. For the last few years, on behalf of CDC, HHD has collaborated with 70 national U.S. organisations to define a vision for the future of coordinated school health programmes. Based on this work, HHD produced the book *Health Is Academic*, published in 1998 by Columbia Teacher's Press. The 300-page text is designed to assist decision makers in coordinating and strengthening policies and components of a school health program, such as curriculum, health services, mental health and counseling services, nutrition services, and parental involvement, to improve students' well-being and learning. Through professional development activities, HHD is currently transforming these concepts into action at the state and local level.

Research to evaluate the effectiveness of individual and combined components of school health programmes is a major focus of HHD's work. Recent research and evaluation of school- and community-based interventions have shown that activities that engage young people in actively caring for others in their communities, combined with classroom instruction, are more effective in reducing aggressive and violent behaviour than instruction alone (1, 2). Similarly, HIV prevention programmes in community clinics that combine the strategies of equipping young men and women with communication skills and offering peer group support and easy access to condoms have demonstrated (through redemption of free coupons) an increase in condom use and a reduction in rates of new infection (3, 4).

We continue our quest for knowledge and learning with others around the world. With our international partners, we continue to explore the question of which prevention and intervention policies and strategies are most effective in promoting and supporting positive health behaviors for young people in the school and community setting.

Based on a decade-long relationship with the Health Education and Health Promotion Unit at WHO, in 1998 HHD was designated as the WHO Collaborating Center to Promote Health through Schools and Communities. The primary goal of the Collaborating Center is to deliver services that strengthen the capacity of schools and communities worldwide to promote the healthy development of students, school personnel, families, and surrounding communities.

Working with WHO, other UN agencies, Education International (the international union of education workers), and ministries, schools, and non-governmental organisations in other countries, the Collaborating Center at HHD is engaged in a variety of activities to advance school health initiatives around the globe and to serve the Mega Countries.

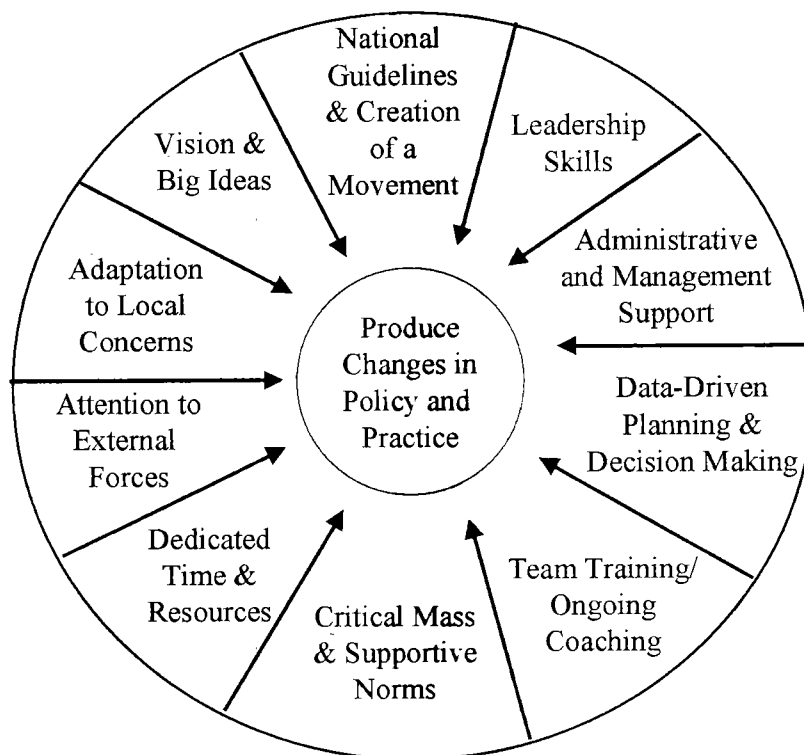
HHD's Approach to Facilitating Change

Working with major sectors and institutions—education, public health and health care, law enforcement, civic groups, parents, industry, and the media—HHD designs and delivers programmes that bring about change in policies, systems, and everyday practice. In partnership and learning with others, HHD promotes change at three levels:

- At the individual level, to adopt healthy behaviors and safe practices
- At the policymaker and practitioner level, to advocate for policies and deliver effective intervention strategies
- At the organisational level, to adopt policies, create structures and operating systems, and dedicate resources to support delivery of intervention strategies

Figure 1 illustrates the critical factors that HHD has found make a difference in creating change at all levels:

Figure 1
HHD's Experience:
Key Factors in Changing Policy and Practice



Revised from Cheryl Vince-Whitman (1996), "HHD's Approach to Changing Policies and Practice in Systems." Education Development Center, Inc., Health and Human Development Programs (HHD) Newton, MA: EDC ©1999 Education Development Center, Inc. All rights reserved. May not be reproduced without permission.

The more that program planners can address these factors, the greater the likelihood that they will produce the desired results in implementing new policies and programmes to promote health and prevent disease. Other researchers who have studied diffusion of innovation and technology transfer have found many of these same factors to be important (5, 6).

In the last year, the Mega Countries have come together to become part of a global community working to strengthen their own countries' policies and programmes that address the health needs of young people through schools. Consideration of some of these factors and the role of HHD as the Collaborating Center in facilitating the change process follows.

A clear vision or big idea can be instrumental in successfully moving education and health workers away from daily practices that can benefit from improvement to adopt new, more effective ones. Change, often resisted at first, takes time. It often requires the development of new working relationships and can involve changes in role or authority. More often than not, institutional change occurs as a result of outside influences.

A vision or big idea about the ways in which schools can improve student health and learning is an important factor in galvanizing human interest and motivation. Research has shown that big ideas requiring large changes are more likely to be embraced than small, incremental changes. According to several large education studies, the larger the scope and personal demand of the change – such as new organisational arrangements and behavior – the greater the chance for success. Or in other words, the greater the practitioner effort and energy expended in implementing a new practice, the greater the potential outcome (7).

Compared to the more narrow and traditional view of school health as classroom instruction, the broader vision of the entire school as “health-promoting” has begun to take hold in countries around the world. The vision of the Health-Promoting School is one that “fosters health and learning with all measures at its disposal” (8).

To assist Mega Countries as they develop a shared vision and promote it at home, HHD contributes by participating in technical meetings to define the terms and by creating materials to advance the idea of the Health-Promoting School and its practical application. Building on its 1995 role as secretariat for the WHO Expert Committee Meetings on School Health Education and Promotion (September 1995), HHD has created such products as *Promoting Health Through Schools* and accompanying slide shows and PowerPoint presentations for countries to adapt and use. Mexico, for example, drawing from and adapting the basic idea, has created its own comprehensive package of materials to market the idea of Health-Promoting Schools.

National guidelines and creation of a movement can stimulate and support action. Although local schools decide whether to adapt and deliver program innovations, there is little doubt that local efforts are often sparked by and rely on the presence of national policies and guidelines from ministries of education and health. Studies of physician behavior in the United States, for example, have shown that dissemination of national guidelines about proven clinical practices has produced a 10 percent increase in the number of physicians who adopt the recommended practice (9). In HHD's work, time and time again, schools and health agencies have attributed their participation in the implementation of innovative programmes to the desire to be part of a national or international movement, rather than taking part in a single, isolated activity.

The very creation of the Mega Country Initiative provides senior-level officials across ministries of education and health with access to peers in other countries to shape and energize a movement. There is a forum for countries to consider and discuss which international guidelines and recommendations they might use. For example, at the Mega Country meeting in June 1999, countries began to consider focusing their efforts on the recommended basic package of interventions for schools. They also considered the value of having all countries adopt policies for tobacco-free schools and communities.

HHD synthesizes research findings from hundreds of studies to inform policy makers and practitioners as they make decisions about how to address important health issues. Products such

as *Violence Prevention: An Important Element of a Health-Promoting School* for WHO's Information Series for School Health present findings and case studies of violence prevention programmes from around the world. *Reproductive Health Programs for Young Adults: School-Based Programs*, developed by HHD for the Focus on Young Adults Reproductive Health Project with USAID and Pathfinder International, presents similar information for all aspects of reproductive health programmes for schools.

Leadership skills move people in a direction that is genuinely in their long-term best interest. Leadership provides the inspiration and ability to galvanize and motivate people to achieve a mission and a goal; it does not waste scarce resources (10). For complex programmes such as the Health-Promoting School to succeed, leadership talent in schools and communities must be developed across levels in ministries and in local schools

Representatives from the Mega Countries have assumed leadership roles at the senior level in their respective ministries, and they have committed themselves to ongoing participation in the years ahead. Their role in their own countries is not only to cultivate leadership within their ministries, but also throughout the education and health systems. Providing tools for this process, HHD has created a manual for local school administrators, and education and health workers in developing countries: *Local Action: Creating a Health-Promoting School*. This product provides activities to develop a shared concept of a Health-Promoting School and outlines how to involve all sectors of the school and community, as well as parents. Case studies provide exciting examples of changes made by leaders from individual schools in countries around the world.

Concerning **administrative and management support**, several Mega Country reports later in this publication illustrate how senior policy makers from the education and health sectors, working with Education International, have created new coordinating mechanisms to work together at the national level. Because the Mega Country Initiative requires the participation of both ministries, either new coordinating mechanisms are beginning to take shape or existing ones are being strengthened. In July 1998, with WHO and CDC, HHD hosted in its Washington, D.C. office a meeting of representatives from ministries of education in the Mega Countries with leaders from Education International to consider joint school health activities and how to strengthen the role teachers play in health promotion. HHD's own coordinating mechanism has involved the secondment of a staff person from HHD at WHO headquarters for almost two years. This HHD secondee is the liaison from WHO headquarters to HHD and to specific countries.

HHD's focus on **data-driven planning and decision making** has produced the *Rapid Assessment and Action Planning Process (RAAPP)* in partnership with Indonesia and WHO. Seminal work took place with the Pan-American Health Organization (PAHO) in Bolivia and Costa Rica. The RAAPP is a set of data collection instruments and strategic planning processes that is being used with key informants from the national to the local level. Adapting the questions to suit its specific conditions, the Indonesian team is working with HHD and WHO to train Indonesian officials across ministries to collect and analyze the data on five core elements of infrastructure to foster Health-Promoting Schools: **policy, concept diffusion/marketing, management and coordinating mechanisms, technical expertise, and tracking and evaluation**. The Indonesia team will transform the findings into an action plan, using a national conference to share the plan and create a critical mass of people to advocate for its adoption. HHD will assist with technical sessions to impart knowledge and skills on how to address specific health issues.

Critical mass and supportive norms create new thinking and practices. People in groups tend to conform to normative behavior, the actions they believe -- and see -- that most people are carrying out. It is important to consider the social norms of practitioners in a ministry, as well as practitioners in a school. What are their beliefs, their daily practices, their view of the value of health to learning? Change cannot happen in ministries or in local schools, clinics, and communities

without enough people to create a critical mass – people who share the same beliefs and who are trained to carry out new practices. Professional development, therefore, needs to be delivered to teams of people who work together in an ongoing way.

Professional development of just one person from an institution is unlikely to produce change on the job. Returning from a one-time workshop to perform his or her role, enthusiastic and equipped with new knowledge and skills, the person may find few or no colleagues who have gained the same experience and who can support the change process.

Team training and ongoing coaching are important ways to create capacity within institutions. HHD believes that if training is to result in change, it must be based on an assessment of current capacity. Further, the experiences and wisdom of the trainee should contribute to the learning process through case studies and active problem solving. Ongoing coaching and mentoring are essential to support and guide people as they experiment with new practices.

To advance such training, HHD will develop a series of modules for educators and health workers. Each will cover specific prevention and intervention strategies; strategic planning and implementation methods with techniques to select, adapt, and deliver prevention and intervention strategies; leadership and management skills; evaluation and tracking procedures; and use of technology. Following face-to-face seminars, HHD will use multimedia and information technologies to extend delivery of these modules and sustain learning within and across countries.

Conclusion

Knowledge is the commodity for generating solutions to seemingly intractable problems. Knowledge and skills are the tools to facilitate change in individual behaviours and in policies, practices, and organisational systems. As a recent publication of the World Bank has so beautifully expressed, “Knowledge is like light. Weightless and intangible, it can easily travel the world, enlightening the lives of people everywhere. Yet billions of people still live in the darkness of poverty – unnecessarily. Knowledge about how to treat such a simple ailment as diarrhea has existed for centuries – but millions of children continue to die from it because their parents do not know how to save them” (11).

Schools, in partnership with parents and communities, can be powerful agents to promote health and prevent disease. In doing so, they also improve learning and the social capital of nations. By launching the Mega Country Initiative, by applying techniques in the change process, and by using new technologies to share and apply knowledge, WHO, HHD, and their partners aim to address some of the most pervasive health problems and “enlighten the lives” of more children, adolescents, teachers, and school staff around the world.

References

1. O'Donnell L, Stueve A, San Doval A, et al. (1999). The effectiveness of the Reach for Health community youth service program on reducing early and unprotected sex among urban youth. *American Journal of Public Health*, 82(2):176–181.
2. O'Donnell L, Stueve A, San Doval A, et al. (1998). Violence prevention and young adolescents' participation in community youth service. *Journal of Adolescent Health*, 24(1):28–37.
3. O'Donnell L, San Doval A, Duran R, O'Donnell C (1995). Video-based STD patient education: Impact on condom acquisition. *American Journal of Public Health*, 85:817–822.
4. O'Donnell C, O'Donnell L, San Doval A, et al. (1998). Reductions in STD infections subsequent to an STD clinic visit. *Sexually Transmitted Diseases*, 25(3):161–168.

5. Rogers EM (1995). *Diffusion of Innovation, Fourth Edition*. New York: The Free Press.
6. Backer TE, David SL, Soucy G (1995). *Reviewing the Behavioral Science Knowledge Base on Technology Transfer*. National Institute on Drug Abuse, Research Monograph Series 155, U.S. Department of Health and Human Services, National Institutes of Health.
7. Berman P, McLaughlin M (1975). The findings in review, Volume IV. In *Federal Programs Supporting Educational Change*. Santa Monica, CA: Rand Corporation.
8. Cohen S, Vince-Whitman C, with WHO/HPR/HEP staff (1997). *Promoting Health Through Schools*. The World Health Organization's Global School Health Initiative.
9. Cohen S, Halvorson HW, Gosselink CA (1994). Changing physician behavior to improve disease prevention. *Preventive Medicine*, 23: 284–291.
10. Kotter P (1988). *The Leadership Factor*, Free Press, MacMillan, Inc.
11. The World Bank (1998/1999). *Knowledge for Development, Summary*. World Bank Development Report. Washington, DC.

Strategies of Other International Organisations

WHO is not acting alone on the international stage of school health promotion. Other agencies of the United Nations appreciate the inextricable links between health and education, the increasingly important role that schools play in addressing health and the relevance of school health to their agency's mandate. Described below are the strategies employed by other international agencies which have dedicated significant time, resources and specialised expertise to improve health through schools.

Submitted by Peter Glasauer, Food and Nutrition Division.

The 1992 FAO/WHO International Conference on Nutrition recognised the importance of nutrition education in the fight to overcome hunger, malnutrition, and diet-related diseases throughout the world. Specifically, the Conference called for fully exploiting the opportunities of nutrition education, and stressed the importance of providing the public with the knowledge and skills necessary to secure their own nutritional well-being and make informed lifestyle choices.

Accomplishing this will require a broad-based range of actions that aim, concurrently, to expand and diversify the foods available to poor households while also informing and motivating the public to maintain or adopt healthful dietary and lifestyle patterns. The magnitude of the problems, coupled with the limited resources available for nutrition education, requires that such programmes be well-targeted, cost effective and delivered in a manner and setting that helps people relate to and adopt the messages promoted. Given the differences in food preferences and dietary habits among various population groups, the importance of identifying specific audiences and behaviours that can be targeted for nutrition education is also clear.

Schoolchildren as a special group

Accordingly, FAO recognises schoolchildren as a priority group for nutrition education, and views the school and its programmes as producing an ideal opportunity for stimulating action in broader community nutrition activities. The focus on schoolchildren is important because:

- appropriate nutrition is crucial for the healthy physical and mental development of the growing child and adolescent;
- schoolchildren are current and future consumers and need relevant education and information in order to form lifelong healthful eating patterns;
- as future parents schoolchildren will play an important role in the development of their own offspring; and
- as members of the family unit, schoolchildren provide an important link between school and parents as well as the community as a whole.

The promotion of lifelong healthy eating patterns: a food-based approach

FAO promotes healthful eating habits among various population groups by supporting national nutrition education activities, aimed at ensuring people's health and well-being. Nutritional well-being is dependent upon the consumption of a wide variety of good quality, safe foods in sufficient amounts to meet one's nutritional requirements within a hygienic environment and coupled with a healthful lifestyle. Since people's eating habits and lifestyles vary in different cultures throughout the world, FAO promotes a food-based approach to nutrition education, adapted to specific socio-economic and cultural contexts. This approach recognises the social significance as well as the nutritional value of food and stresses the multiple benefits derived from enjoying a variety of foods. Indeed, nutrition education is a much better tool for helping people develop healthful eating patterns when it moves away from the simplistic, but all too common, "good food/bad food" approach and instead, encourages and equips people to consider their total diet in relation to their preferences, individual lifestyle factors, physiological requirements and physical activity levels. Started early, this approach can contribute to the physiological, mental and social development of schoolchildren, enhance their learning potential, reduce nutritional disorders and contribute to the prevention of diet-related diseases later in life.

Key features of FAOs programme on nutrition education in schools

FAO's school-based nutrition education programme also aims to strengthen the school's position as a healthy setting for living, learning and working. In this regard, nutrition education in schools should be seen as a valuable entry point for building the capacity of both the school and community to respond to important food, nutrition and health needs. When coupled with the recognition that children learn best in a supportive environment that embodies and reinforces the principles taught, it becomes clear that nutrition education in schools should be more than just learning about food and nutrients (that is, nutrient requirements and functions, deficiency states, food sources, food preparation, hygiene and food safety, and care and feeding practices). Rather, nutrition education programmes should also address the broader socio-cultural, economic and environmental issues relevant to food security and nutrition in the home and community, and should include:

- advocacy and promotional activities that emphasise nutrition as one of the key-factors for physical and mental development, both for the current well-being of school children and for their future as adults;
- providing children with basic knowledge about food and nutrition, including food and nutrition topics in the school curriculum;
- providing a wide range of practical, community-based learning opportunities aimed at creating positive attitudes, skills, and behaviours. Such an approach could include, for example, school gardens, post-harvest food handling in rural schools, visits to food shops and markets in urban schools, learning about hygienic food preparation at home and school, and how to protect land and water resources;
- engaging nutrition and education officials, teachers, students, parents, and community leaders in the process of school nutrition education;
- implementing policies, practices and measures that encourage acquiring life skills and self-esteem for pupils; and
- striving to provide a healthy school environment with, for example, good school catering.

By simultaneously addressing pupils, teachers, school personnel, parents and the community, it is possible to accelerate improvement in both the learning and living environments of the students. FAO's strategy on nutrition education in schools fits well within the concepts of health promoting schools as defined by WHO.

Recognising schoolchildren - teachers - schools - parents - community as a whole

A comprehensive approach to nutrition education that includes the community, schools and homes can reach those who produce, process and market food as well as those who select, prepare, serve and consume it. FAO's nutrition education programme in schools aims to accomplish this by recognising schoolchildren - teachers - schools - parents - and the larger community as parts of an integrated whole and calls for providing nutrition education, information and communication to students, teachers, parents and, when feasible, the community.

Broadening the concept of the school as a setting for learning life skills, including nutrition and good dietary practices that also involve parents and the community, calls for full acceptance and collaboration with professionals and lay persons from the public sector (e.g., staff of youth centres) and private domain (e.g., vendors, operators of school canteens). This acknowledges their contributions to the physical and mental development of schoolchildren and encourages them to assume responsibility for ensuring that conflicts between school goals and community life are avoided or reduced to a minimum.

For urban schoolchildren, nutrition education in this context is seen as helping them find their way to healthful eating and activity patterns, increasing their capacity to make informed food, dietary and lifestyle choices in the midst of confusing information from different sources, such as the media, lay opinions from peers and parents, etc. For rural schoolchildren and communities, especially in developing countries, this might mean closing the knowledge and information gaps that contribute to malnutrition or prevent them from retaining positive traditional dietary practices or changing unhealthy ones. However, in both geographical and social settings, the aim is to instil schoolchildren with a life-long sense of responsibility for their own well-being.

FAO's current strategies to promote lifelong healthy eating habits through schools

FAO is assisting member countries to strengthen nutrition education in schools in several ways:

- **Advocacy and promotion.** FAO stresses the importance of school-based nutrition education in various fora throughout the world and vigorously encourages the development and strengthening of such programmes, independently or in collaboration with others.
- **Formulation and support of technical assistance projects.** FAO assists in the formulation and support of country-level projects which aim to review and update school curricula, nutrition education materials, assess the need for teacher training in this field and develop pilot activities in schools which are to be evaluated and replicated on a larger scale. Similar support is given to nutrition education in schools as a component within large-scale FAO-assisted rural development projects.

A current example of this is a large-scale FAO-assisted rural development project in a southern African country. This project has a community-based approach and aims at educating schoolchildren, families and other community members to promote nutritional well-being by first assessing the communities' needs, then involving school teachers, parents and pupils in the planning and implementation of activities which are relevant and can be supported and sustained with resources available in the community. For example, the revitalisation of school gardening is used as a tool for teaching practical activities, such as food production, post-harvest handling, crop utilisation and healthy eating. The project also assists schools in setting up Food and Nutrition Teams with the idea that they will jointly manage the gardens and take decisions on the use of school garden produce.

- **Development of nutrition education materials**

Materials for teachers, schools and the community, aimed at strengthening nutrition education will continue to be developed, partially based on the expressed needs of governments which have recently responded to a world-wide questionnaire. A planning guide for nutrition, health and education officials is being prepared to allow them to initiate, support and guide nutrition education activities in all schools in developing countries. This will be particularly useful in schools which have adopted the comprehensive approach of health promoting schools.

- **Promotion of FAO's general nutrition education information package**

"Get the Best from Your Food" is the theme of a global nutrition education initiative of FAO. This initiative encourages countries to develop simple, culturally-appropriate information campaigns that foster an appreciation of food and nutrition and assist consumers to make informed dietary choices. The "Get the Best from Your Food" package has been translated in various national languages and is also being promoted for use in schools to provide basic information and serve as a resource for developing more specific teaching and learning

materials. Collaboration with the private sector in this field offers new opportunities which can significantly benefit nutrition education in schools, especially where school policies are open to direct private sector involvement in education.

- **Collaboration with other research and training institutions and organisations**

FAO collaborates actively with various institutes in both developed and developing countries (for example, the Netherlands Nutrition Centre and the Karolinska Institute, Sweden) in producing teaching and training materials. FAO also assists member countries in formulating technical cooperation projects in collaboration with institutions and relevant government authorities. In addition, special efforts are being made to actively collaborate in the world-wide School Health Initiative, promoted by the World Health Organization (WHO) and its respective regional networks for health promoting schools. This collaboration should lead to more comprehensive nutrition education programmes that address the basic causes of food and nutrition problems and motivate students to seek sustainable solutions. The aim is to encourage lasting, positive effects on the food and nutrition situation of schoolchildren and to help them make healthful dietary and lifestyle choices throughout their lives.

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United Nations Educational, Scientific and Cultural Organization

Submitted by Armoogum Parsuramen and Anna Maria Hoffmann-Barthes, Section for Science and Technology Education, Division for the Renovation of Secondary and Vocational Education

The United Nations Educational, Scientific and Cultural Organization (UNESCO) is the specialised agency of the United Nations system responsible for promoting education, science and culture as means of laying the foundations for lasting peace and equitable development in all societies of the world.

Throughout its fifty years of existence, UNESCO has constantly sought to mobilise the political will of the international community for the two great educational causes - the right to education and the role of education in building a more caring world. These concerns, building on the four pillars that are the foundations of education – learning to be, learning to know, learning to do, and learning to live together, have been recently emphasised by the International Commission on Education for the Twenty-first Century in its report to UNESCO.

The Education For All movement to promote basic education and training to all children and adults was launched at the *World Conference on Education for All: Meeting Basic Learning Needs* in Jomtien, Thailand 1990. The challenge of achieving education for all is particularly daunting in nine of the world's most populous countries: Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan, which together account for half the world's population and 70 per cent of the world's illiterates. In 1993, leaders of these E9 nations, as they are commonly called, with the E referring to Education, met at an education summit in New Delhi and pledged to work together to achieve Education For All (EFA). Since 1993, almost all of these countries have increased their national spending on basic education, which is a major step in the right direction. As demography and education are so interdependent that one cannot examine one without discussing the other, it is also important to note that a significant drop in birth rates has also been made in some, but not all, of the E9 nations.

Education For All will attain its objectives only if it takes full account of the cultural and socio-economic environment and the interests of the groups concerned. The quality of education in its broadest sense appears as a prerequisite for ensuring equal opportunities, which equal access does not suffice to ensure. Education has a fundamental role to play in personal and social development, and school health promotion and education should, in this respect, be an essential part of every child's education, the fundamental right of every person. UNESCO is therefore closely collaborating with WHO in the field of school health and comprehensive school health education and promotion. The links to the WHO Mega Country Health Promotion Network, and notably its School Health Component, is thus very relevant to and fully supported by UNESCO.

UNESCO's comparative advantage in the field of education derives from its uniquely and extensive links with national education authorities, educational institutions and community-based organisations working for educational development. UNESCO is therefore in a position to influence education decision- and policy-makers with regard to curriculum renewal and the adoption of new teaching techniques. Through its teacher training and community-based activities, the Organization is also able to mould both formal and non-formal teaching and learning. Furthermore, UNESCO coordinates the functioning of several education networks.

All channels through which UNESCO normally works are being utilized to promote health and quality of life of all people, relying on close collaboration with its national and international partners. Various programmes and projects therefore encompass topics in relation to health, covering: **1. healthy school environments; 2. health education within the curriculum; and 3. delivery of school health services.**

Promoting safe and supportive environments for development of teaching and learning is an integral part of UNESCO's action, and includes assistance in providing comfortable and functional classrooms, adequate sanitary conditions of schools, a broad and balanced curriculum, caring interactions between and amongst staff and pupils, etc.

As for teaching and learning health, several programmes and projects of UNESCO are involved. Specific actions include fostering health and nutrition education in collaboration notably with WHO within the framework of the Global School Health Initiative, but also with other organisations. Specific projects concerning health education curricula and training for teachers to become health promoters are also underway. Whereas specific actions to address school health are vital, these could, and should be complemented by mainstreaming health issues throughout the school system. Actions in this field include integration of issues concerning preventive education, population education and reproductive health in collaboration with UNFPA, UNAIDS, UNDCP and EI, etc. in numerous programmes worldwide. Science and technology education comprising key global problems concerning environmental and health issues has the potential to improve the present and future well-being of all, and is fundamental to the improvement of economic and life-sustaining activities. This is why UNESCO too is fostering more strongly health and nutrition education within the context of science and technology education, based as they are on similar aims and pedagogical principles, and possessing a dynamic nature oriented towards a problem-solving approach based upon observation and questioning as well as provision of knowledge and skills for lifelong learning.

Although international efforts in promoting the access to education have resulted in an increase in the enrolment ratio of school-aged children at primary level, in the less developed region as a whole, only three out of four pupils can be expected to reach grade 5, i.e. completing at least the four years of school generally considered necessary for achieving sustainable literacy skills. For the least developed countries, these figures are only 1 out of 2 pupils. In order to reach children before they drop out of school and to forestall non-healthy lifestyles and unsafe practices among young people, UNESCO is also promoting issues related to health and nutrition, protection of the environment and to human values in the first four years of education, as well as nutrition, health care and emotional security in promoting the social and cognitive development of young children.

To learn effectively, children need good health, and it is now being recognised that malnutrition and poor health are important underlying factors for low school enrolment, absenteeism, poor classroom performance and early school dropout, notably in deprived areas, as reflected in the World Declaration on Education for All and Framework of Action. In its co-operative Programme with the World Food Programme (WFP), UNESCO assists in the preparation and evaluation of school feeding programmes in the developing world. These programmes address immediate nutritional needs of the children concerned, mostly that of temporary hunger affecting the pupil's attention span and learning capacity. In several cases, attempts are made to complement the provision of school meals with health and nutrition education, improvements of sanitary conditions at school or other interventions aimed at improving the health status of students.

The school system reaches a large number of children and young people, but it does not fully reach the most vulnerable among them. Outreach activities for street children therefore have a special place in UNESCO's action in this field. Denied affection, education and help, the lifestyles of these millions of children and adolescents who work and live on the streets lead to greater than average health problems, including notably increased risk of HIV infection and abuse of drugs.

Distance education and open learning are also important fields that have become key areas for exchange of experience and joint initiatives among the most populous countries. For these giants with millions of learners spread out, often over huge distances, high investments in hardware and software pay off because economies of scale allow a relatively low cost per child.

Distance learning is vital to reach minorities, nomads, school drop-outs – all those who are often the last frontier to be conquered by the education for all movement.

Health education can only succeed in the context of overall personal development. We cannot expect children and youth to protect themselves if they have no sense of their own worth. This struggle to promote the positive values inherent in accepting healthy life styles goes hand-in-hand with the struggle against intolerance and violence, which in the long run will help to promote the quality of life and a culture of peace in the minds of all people. The UNESCO Associated Schools Project (ASP), which for over 40 years has played a major role in educating young people to reject intolerance and to work instead for a culture of peace, tolerance and mutual respect and understanding, is also spreading the message of health education to around 5,200 institutions in over 158 countries.

In the field of advocacy, it should also be mentioned that the theme of health and nutrition is covered by one of the 12 thematic studies for the EFA 2000 Assessment and the World Education Forum to be held in Dakar, Senegal, April 2000. The EFA movement is widely recognised with 155 governments, 33 intergovernmental bodies, and 125 non-governmental organisations committed themselves to work towards Education for All.

In order to guide UNESCO's future specific activities in school health in general, and health and nutrition education in particular, and to offer suggestions to its Member States and to educators on how best to achieve these goals, UNESCO is relying on close co-operation with WHO and other international partners as well as governments of our Member States. The complexity of the issue surrounding school health requires an holistic approach and close co-operation is needed to successfully undertake actions in this field.

The mandate of the United Nations Population Fund (UNFPA) focuses on the broad area of population. The term "population" includes issues that relate to, or have their roots in demography, human ecology, reproductive health, human sexuality, gender equity, migration and a number of other areas and issues, especially those that relate directly to the size and spread of population, e.g., sustainable agriculture, poverty, rapid urbanization and so forth. All of these phenomena and issues have a bearing on the quality of life. In other words, they have a bearing on health as defined by WHO, both now and in the future.

Today, children are confronted at an early age by situations that require knowledge and decision-making skills for preventive action. Very often, for example, adolescents find themselves under strong peer pressure to engage in highly risky behaviour which can have serious implications for their lives. UNFPA perceives that it is vital to teach young people to become familiar with these issues and, to the extent possible, young people should learn to manage those phenomena that have the greatest direct relevance for their lives. For these reasons, UNFPA's key strategy (**Strategy No. 1**) for promoting the health of school children is to support population education, family life and sexuality education activities in school systems.

If one looks at the area of reproductive health, a major area in UNFPA's programme, it is easy to see that early pregnancy limits girls' education and employment opportunities. When drugs, alcohol and tobacco are also involved, early pregnancy carries with it an added danger of birth defects. The relatively recent spread of HIV/AIDS among adolescents is growing in importance, while the traditional problem of sexually transmitted disease among adolescents also continues to increase.

In 1994, the International Conference on Population and Development (ICPD) drew attention to these problems and urged countries and the UN system to assign high priority to the reproductive health needs of adolescents. The ICPD also endorsed the goal of Education for All, with special emphasis on the education of girls. Since then, a number of other major international conferences, such as the Fourth World Conference on Women, have drawn attention to the health and education needs of adolescents. UNFPA is funding population education in over 70 developing countries, while other donors are funding related activities, and governments around the world are building these activities into their school curricula.

Educators have long realized that traditional methods of instruction do not sufficiently prepare young people to meet challenges that have such an important bearing upon their lives. Population education stresses participatory teaching techniques that encourage students to reflect on the issues, and to think about the become sensitized implications of the issues and of their own behaviour. The aim is for children to learn to care about what happens to others as a result of irresponsible behaviour, to care about what happens to the environment, and so on, and to learn how to take decisions and action when the situation calls for it.

Although the range of topics addressed through population education is broad, reproductive health is considered one of the most important. It is an area that may be of great relevance early in life as well as in adulthood, and it is something young people can influence. It is an area that often sparks controversy. Still, experience has shown that it is possible to introduce some of the most important concepts in the area of reproductive and sexual health without arousing controversy. These include respect for others (especially persons of the other sex); self-esteem; the possibility of planning families and understanding that children are ideally born as the result of a conscious decision by loving and responsible parents; the importance of postponing the first pregnancy; and the ability to withstand peer pressure. A key ingredient in the success of these activities is the involvement and

support of parents and the community. Health systems, and health educators in particular, can play an important role in ensuring that support.

Learning What Works

Years of experience have resulted in a number of important “lessons learned” which are being used now to enhance population education. Qualitative evaluation, for example, enables educators to assess whether learning objectives have been met. If they have not, the evaluation/monitoring process, beginning early, guides educators in improving their performance before mistakes are perpetuated or repeated on a large scale.

In the 1970s, projects tried to teach demographic concepts to children without reference to the micro level aspects of population that were far more relevant to the learners. Results were, understandably (with hindsight), poor. Older children were somehow expected to be predisposed to practice family planning later because they learned something about population growth in school. This approach was not effective.

Although it is possible to include many issues under the population heading, attempting to cover a broad range of information may be counterproductive; when content is spread very thinly it can become diluted and children learn little, if anything at all. Priorities must be set according to the age and situation of the learner, and content must be clear and relevant to the individual learner. Otherwise, it may be easily forgotten. Learners must be able to see the implications of population issues for themselves and their future families. Then, they will be able to take actions that reflect their interests and concerns.

While facts and figures are important, attitudes and values determine children's outlook on life and their future behaviour. Since attitude formation is so important, and since it begins at an early age, it is important to introduce population education at the primary level. This has been done with success in a number of countries, and in some instances parents also participate in pre-school population education activities.

The Impact of Population Education

Many external factors contribute to changes in behaviour. It is therefore difficult to attribute causality to any one intervention or factor. The impact of population education on behavioural change is long-term, making it even more difficult to track, because longitudinal studies are expensive and, by definition, take a long time to complete.

The impact of population education over the long-term has not been studied in-depth. However, several promising signs are beginning to appear. Young couples surveyed in rural India have indicated that their decisions to practice family planning (significantly, postponing first pregnancy in some instances) were based on what they learned in school about health risks associated with early pregnancy. In China, pilot school projects reported that following exposure to population education, students who had agreed to postpone marriage were sticking to their agreement. China is now experimenting with approaches to sex education as a means of strengthening the opportunities for informed choice in the country's family planning programme.

Rural health officials in Bangladesh started to notice a sudden and steady influx of young couples coming to health centres to ask for family planning. The timing of this event coincided with the graduation from school of the first cohort of young people who had been exposed to several years of population education in the classroom. Other examples have been reported from Central and South America and other regions as well.

Where parents and the community have not been involved in launching activities, especially when

sexuality is a prominent part of the curriculum, controversy has occurred. However, the findings of numerous studies compiled by UNAIDS in recent years disprove the myth that sex education "teaches youth to have sex" and promotes premature sexual behaviour. The studies confirmed that:

- Sex education led to a delay in the onset of sexual activity or to a decrease in the number of sexual encounters;
- Youth who were already sexually active adopted safer practices after receiving sex education;
- Programmes advocating both postponement of sexual intercourse as well as condom use when sex occurs were more effective than those that only promoted abstinence;
- Sexuality education is most effective if begun before the onset of sexual activity;
- Access to counselling and contraceptive services did not encourage earlier or increased sexual activity.

Strategy No. 2: A Comprehensive Approach

The impact of population education may suffer when there is a conflict between what students learn in school and what they learn from other sources. The information about health, sexuality, and the responsibilities of parenthood that young people acquire from their peers or "in the street", and sometimes even from their families, may conflict with what they get from their teachers in school. This can negate whatever gains in learning might be made through population education efforts.

A comprehensive approach to population education can guard against misinformation. Such an approach ensures that students are reached through a variety of channels with messages that reinforce what they learn in school. It also implies the importance of involving the larger community, including parents, school administrators, the church, the mass media, and other concerned groups, in the development and promotion of population education programmes.

Strategy No. 3: Extra curricular activities

A third strategy, closely related to the first two, is the use of extra curricular activities tied to school programmes. These have taken the form of population clubs that meet after school hours to discuss issues of particular interest; contests, such as writing essays on population topics, an exercise requiring reflection and sometimes research, resulting in learning; and peer activities, often calling upon older students (sometimes university students) as peer educators.

In sum, UNFPA supports three strategies, all of which relate to each other, to improve population education in school systems, with its content prioritized locally, as the core.

United Nations Children's Fund

UNICEF Strategies to Meet and Protect Children's Rights to Education, Health, Hygiene, Nutrition and Development through Schools

Submitted by Bruce Dick, Senior Advisor Youth Health, Health Promotion Unit

The Overall Programming Context

UNICEF is guided by its Mission Statement and by the decisions of its Executive Board, many of which have made specific reference to children's education, health, hygiene, nutrition and development during the past decade, including those that focussed on Tobacco (1989), Safe Motherhood (1990), HIV/AIDS (1992), Family Planning (1993), Primary Environmental Care (1993), Gender Equality (1994), Water and Environmental Sanitation (1995), Education (1995), Health (1995), Child Protection (1996), and the follow-up to a number of international plans of action, such as those outlined during World Summit for Children and the International Conference on Population and Development.

UNICEF's Mission Statement emphasises that:

- the *Convention on the Rights of the Child* (CRC) provides the framework and focus for the organisation's advocacy and action (the CRC has now been ratified by all but two countries – it is the most widely and rapidly ratified convention of all time);
- women's rights are fundamental to children's rights, so UNICEF also needs to focus on the *Convention on the Elimination of all forms of Discrimination Against Women* (CEDAW), with a special emphasis on girls;
- while the well-being of all children is important to UNICEF, the organisation should give priority to those who are most disadvantaged.

UNICEF is promoting and developing a rights-based approach to programming, as its contribution to shaping a human development agenda for the future based on human rights principles such as equity, peace and justice; and including the over-arching principles outlined in the CRC – survival and development, non-discrimination, the best interests of the child, and participation (both a means and an end). Human rights are the ultimate purpose of development efforts, and at the same time they are a key ingredient to their success.

The specific details of UNICEF's programme support are determined through the country programming process that UNICEF Country Offices carry out with governments and other key partners at national level – something that will increasingly take place within the wider context of the UN Development Assistance Framework (UNDAF) and other efforts to provide governments with more coherent and peer reviewed support for their development priorities (e.g., Theme Groups, Sector Investment Plans).

A Focus on Enrollment and the Quality of Learning

For schools to have any impact on children's health and development children must, at a minimum, enroll and remain in school! While the overall trends are positive and the gender gap is in general decreasing, approximately 132 million of the world's 700 million primary school age children are still not in school. Most of these children are living in sub-Saharan Africa and South Asia, and about two thirds of the children who are not in school are girls.

UNICEF is committed to the World Declaration on Education for All (EFA), and has selected Universal Primary Education (UPE) as its priority for EFA efforts, emphasizing universal access,

completion of the primary stage by at least 80 percent of the primary school-age-children, and reduction of the gender gap by the year 2000. The UNICEF medium-term plan approved by its Executive Board stipulates an increase of basic expenditure from 10 percent of total programme expenditure in 1990 to 25 percent by the year 2000.

This focus on primary education is important because it provides the opportunity for learning basic competencies and life skills at an early age through methodical and systemic approaches. Primary education is principally offered through formal primary schools, but can also be provided through other approaches, including "second chance" education for young people and adults.

While the accomplishments have been impressive, many children are still not in school because of insufficient school places; poor quality and irrelevant content of the education available to them; families' inability to afford to send their children to school because of either direct or opportunity costs; and a lack of resources and capacity for nations to expand their formal education systems.

Many children are difficult to reach because they must work to support themselves or their families; they are the children of minorities, or face other forms of social discrimination due to class, gender, ethnic origin, disability or HIV status; are exposed to other forms of exploitation and abuse (e.g., child prostitution); or are living in conflict, emergencies or other situations which deny them the family and community support that is essential for meeting their rights to survival, development, protection and participation.

UNICEF education strategies include:

- Improving access to primary education and expanding complementary non-formal approaches for hard-to-reach groups, including improvements in the quality and relevance of what children learn in schools and an emphasis on non-conventional approaches for reaching adolescents, girls, working children and other particularly disadvantaged and vulnerable groups.
- Reducing gender and geographic disparities in enrolment and achievement, such as the UNICEF-sponsored community school project in the governorate of Assuit, Egypt, which has enabled hard to reach children, especially girls in remote rural areas, participate in basic education.
- Ensuring that Early Childhood Care for Survival, Growth and Development (ECCSGD) programmes provide a caring environment that encourages learning. Over 90 countries are participating in aspects of ECCSGD programmes, including special emphasis on parenting skills, home-based early childhood care and primary education. ECCSGD programmes are likely to be a central element of UNICEF's global agenda for children for the new millennium.
- Addressing the learning needs of adolescents and youth, especially those who missed a chance to participate in primary education, but including an increasing focus on secondary education in countries which have already achieved primary education for all.
- Focusing on learning achievement as an indicator of qualitative measurement – a UNICEF/UNESCO collaboration has initiated a "monitoring learning achievement project" in 20 countries worldwide, with the aim of measuring what and how much primary school children have learned.
- Promoting community participation and inter-sectoral linkages – wherever possible, schools should be the point of convergence where basic services, including safe water supply, environmental sanitation, health and nutritional services, health education, and recreational activities are provided and made available.

- Mobilising resources – for example over US\$50 million has been mobilised since 1994, that will be used to support systemic change in 21 African countries, encompassing such activities as gender sensitization, revised curricula, teacher training, and parent/community partnerships.
- Widening the network of partners focussing on education as an entry point for other social programmes.

A Focus on Health, Hygiene, Nutrition and Development

As more and more children are enrolled in school, and increasing numbers are making the transition from primary to secondary education, there is growing pressure to improve the efficiency of education systems and settings in order to meet the growing demands and changing needs and expectations of societies. This includes increased attention to the teachers, the curriculum, the teaching methods, the school environment and the pupils themselves.

School children who are malnourished, have worms or are anaemic do not learn well, and children who are expelled from school because of pregnancy do not learn at all. Health is important for learning in the same way that education is important for health. There is growing evidence and consensus that a few focused school-based interventions can have an impact on children's nutrition, health and development, on their behaviour and learning capacity; on the environment of the school; and on teachers' capacity to teach in interactive ways.

Schools are a central place in the community for meeting children's rights to health and development, by providing a safe and supportive environment; access to information and life skills, safe water and sanitation, health and nutrition services, sports and recreation; and opportunities to participate in decisions that effect their lives. In addition to schools' impact on the development of individual students, they can be a central point for development in communities, for disseminating information (e.g., AIDS, hygiene, clean water and sanitation), and for contributing to social change. School facilities may also be used after hours for a range of activities, for example catch-up classes; compensation for learning opportunities lost through past exploitation or abuse; or to provide opportunities for other community activities that could contribute to children's health and development.

UNICEF is supporting programmes in schools with a range of UN and NGO partners. It is promoting linkages between schools, communities and parents, and between teachers and health workers, and is encouraging children's participation. School-based interventions are a key component of UNICEF's programming approaches to meeting the health and development rights of children and adolescents, and they provide an important opportunity for intervening in the life-cycle and improving the future as well as the present (e.g., addressing anaemia or gender disparities).

Investing in primary and secondary schools in the developing world will be central to meeting children's rights, for confronting discrimination, and for preparing young people for their roles in civil society. UNICEF's 1998-2000 programme priorities include a focus on school-based interventions, with an emphasis on a minimum menu that includes policies (e.g., focussing on gender, HIV/AIDS discrimination, tobacco); water and sanitation; skills-based health and hygiene education/life skills; and specific health, hygiene and nutrition interventions.

Programme advocacy and support includes:

- ***Skills-based health education/life skills education*** – UNICEF provides support for age appropriate curricula that include a focus on a range of issues, such as hygiene, health,

nutrition, HIV/AIDS, parenting, **peace education**, environment and preparation for civil society. Effective programmes include **adequate** teacher training and teaching materials, and incorporation into national curricula. Such programmes are being supported in Zimbabwe, Uganda, the Caribbean, the Mekong countries, North Africa and the Middle East.

- ***Water & environmental sanitation*** – UNICEF supports the provision of safe water, sanitary latrines, hand-washing and garbage disposal in schools, and facilitates and strengthens environmental health and hygiene education, as contributions to disease prevention and the development of health promoting behaviours. Examples are found in Bangladesh, Colombia, Costa Rica, Guinea, India, Mozambique, Vietnam, Uganda, and West Africa. Studies show that access to sanitation facilities in schools has increased girl's school attendance.
- ***Child-centered extra-curricular activities*** – UNICEF supports a range of extra-curricular programmes, including child-to-child activities, school health clubs, and anti-AIDS clubs, in collaboration with NGOs like the World Organisation of the Scout Movement, and Red Cross and Red Crescent Societies, in countries such as Cameroon, Zambia and Uganda.
- ***Basic health, hygiene and nutritional interventions*** – UNICEF is promoting the implementation of selective interventions that are safe and effective and do not place an additional load on already over-burdened teachers: for example, the distribution of vitamin and mineral supplementation (e.g., Iron/folate, vitamin A) and anti-helminthics, and the promotion of hand-washing, in India, the Pacific, Tanzania, Ghana and Vietnam. Such programmes can also strengthen linkages between teachers and health workers.
- ***Policies*** that promote "health promoting" and "child-friendly" schools are being developed in countries such as Thailand, the Philippines and Moldova, in collaboration with WHO and other partners.

Challenges Ahead

Although much progress has been made, many millions of children do not have access to any form of education, many schools are not child-friendly, many schools do not have clean water or sanitation, and many children's cognitive development continues to be undermined by the worms that they have that could be so easily treated.

However, as enrollment in schools and non-conventional approaches to education increase, and as gender disparities decrease, the opportunities for safe and supportive places of learning to play a central role in their communities for meeting a wide range of children's rights will become increasingly important – the type of role that the health centre frequently played for child survival programmes.

It is axiomatic that many of the most disadvantaged children are not in school, and the fact that their rights to education are not met perpetuates the cycles of poverty, poor health and development. Alternative approaches to learning for disadvantaged children are being developed (from the experiences of BRAC in Bangladesh to the school-in-a-box that has been developed for emergency settings by UNICEF and UNESCO) and it will be important for these to incorporate elements that will also contribute to the children's health, hygiene and nutrition, and to the development that protects against the high-risk behaviours that undermine adolescents' health now and in the future (e.g., substance abuse, violence, and unwanted and unsafe sex).

What is done in schools for children's education, health and hygiene, nutrition and development needs to be seen within the context of other programme elements that will also be important for meeting children's rights, such as families, health services, NGOs, religious organisations, the media,

policies and legislation (see Table I). Getting different sectors to work together will continue to be a challenge, as will strengthening the linkages between schools and families, and between teachers and health workers. Meeting children's participation rights through schools also needs on-going support and development.

Table I: Meeting Adolescents Rights to Health and Development

Adolescent's Rights to Development	<i>Strategies for meeting/protecting adolescents rights to development</i>				
	National Policies, Laws and Planning processes	Adolescent - friendly and health promoting schools	Adolescent -friendly services e.g., health , juvenile justice, recreation	Outreach through NGOs, religious groups & CSOs – peers and families	News and entertainment media
Information and opportunities to develop life skills & capacities					
Equal opportunities to access and benefit from a range of services					
A Safe and supportive environment free from exploitation and abuse *					
Opportunities to participate and be heard					

* The safe and supportive environment includes the immediate physical and social environment of families, friends and service providers, and the wider environment of societal values and norms, policies and legislation -- key elements of child protection.

A compelling case for increased action in and through has now been made from a range of perspectives, sectors and organisations, and there is growing clarity about the interventions that are effective and do-able. The most important challenge now is to build on and expand the experiences of those countries that have succeeded in increasing children's access to quality education, and that have taken school-based interventions for health, hygiene, nutrition and development to some reasonable scale in a sustainable way.

The World Bank is now giving greater emphasis to social sector approaches that are child-centered, that target poverty and that are responsive to client country needs. School based health and nutrition programmes contribute to this new approach, and are endorsed in the Health, Nutrition and Population Sector Strategy and are in the current draft of the Education Sector Strategy (scheduled for completion in late 1998). Africa Region has a School Health and Nutrition Affinity Group and an articulated strategy. Latin America and the Caribbean Region also has a strategy paper, and has launched a joint initiative with the Pan American Health Organization to undertake operations and sector work in the Region.

The World Bank is seeking to coordinate information on school health and nutrition approaches through an International School Health Initiative based in the Human Development Network. This seeks to enhance the quality of school health and nutrition programmes by:

- Providing access to expert advice, particularly in and from client countries.
- Providing a clearinghouse for examples of good practice.
- Developing practical toolkits for implementation, based on actual experience.
- Making quality information available through the Internet, the World Bank intranet and the World Bank Advisory Services.
- Building partnerships with governments and international agencies, institutions and NGOs.
- Assisting task teams to prepare school health components for World Bank projects.

The World Bank has established collaborations in order to promote quality technical input into programme design. The Bank has a formal partnership with PAHO in LAC, and is in dialogue with WHO on technical support for Africa. Within the UN system, partnerships are being developed with UNICEF, UNAIDS and WFP, amongst others. Partnerships are also being created with bilaterals. For example, USAID is a co-sponsor of the International School Health Initiative, and DFID, UK, are co-sponsors of sector work on the out-of-school child. The Bank is also developing partnerships with NGOs, for example, Save the Children Federation, USA, and is a co-sponsor of the Partnership for Child Development and the Micronutrient Initiative.

The rationale for World Bank interest in school health and nutrition programmes includes the following issues:

- There are more school-age children, and more in school, than ever before
- School children are neglected by most health systems
- Freedom from disease promotes intellectual as well as physical development
- Healthy children get maximum benefit from their only opportunity for education.
- The benefits are greatest for the most disadvantaged – the girl child, the malnourished and the poor.
- The combination of an accessible population and an extensive trained workforce of teachers keeps financial costs to a minimum.
- Builds on the investment in early child development, and builds the basics for appropriate social behaviour in adolescence.

Experiences of good practice suggest that, in terms of World Bank Human Development strategy, school-based health and nutrition programmes should be simple and locally relevant, and should not overload already overstretched teachers or the curriculum. The following items might usefully contribute to such programmes.

- **Life Skills Training and IEC** – as part of a strategy to promote healthy lifestyles, and avoid violence, substance abuse, HIV/AIDS and teenage pregnancy.
- **Health Services** – as part of the Primary Health Care system, and providing screening for sight and hearing, simple health interventions (deworming, first aid) and referral.
- **School Snacks** – fortified with micronutrients and provided early in the school day.
- **Exemplary School Environment** – that supports health education messages about hygiene and sanitation
- **Equitable School Health Policies** – that ensure the rights of school children
- **Strategies Beyond the School** – that use the school as a community centre to provide services to out-of-school children.

A Knowledge Management Site has been established on the intranet to assist World Bank task teams to prepare school health and nutrition components for client governments. As part of the International School Health Initiative this site is being transferred to the external internet where it will be supported by a mail list for exchange of information among co-sponsors and subscribers.

The activities described above are intended to build and promote partnerships with technical agencies and to ensure the quality of technical advice to client governments. Bank operations in school health and nutrition involve the inclusion of this component within government projects or sector-wide approaches supported by Bank credit. Examples of operations include:

- SHN as part of **Education** projects that seeks to enhance participation in education. The overall project will enhance access by traditional means (build schools, train teachers, provide textbooks) but will also promote participation and learning through better health and nutrition, not least because EFA aims to reach the poorest children. Projects of this type (Guinea, Dominican Republic, El Salvador) range from US\$34 to 57 million, of which some four percent to nine percent is allocated to school health and nutrition.
- SHN as part of **Nutrition and Health** projects that seeks to improve growth and nutritional status. The US\$34 million Community Nutrition Project in Madagascar allocates 17 percent to school based snacks, micronutrient supplements and deworming.
- SHN as an identified use for **Community funds**. These are an increasingly important lending instrument, since they place the decision-making within the community. A central government agency is provided with finance which is released to local communities on the basis of specific requests made from a menu of options which typically might include school construction and bore-hole provision, and which increasingly now include support for school health and nutrition programming. Funds for SHN have been activated in Panama, the Philippines and Tanzania, but have yet to be evaluated.
- SHN as a component of **Sector Wide Approaches (SWAP)**. SWAP involves a partnership of donors which works with the government to support activities in an integrated fashion across a whole sector, rather than as separate projects. This new approach has obvious benefits but has proved slow to implement. SHN has been identified in SWAP assistance strategies (for example by Malawi, Ethiopia and Kenya) and is being developed jointly by USAID and the World Bank as a component of the Zambia SWAP.
- SHN as a **Learning and Innovation Loan (LIL)**. These new lending instruments are intended to allow governments to explore new approaches and strategies by providing modest (<US\$5 million) support through a fast track system. A LIL is being appraised with Colombia to support youth development in the community and schools.

Many of these operations are implemented with UN agencies (for example, UNICEF, UNDP, WFP, WHO) and NGOs (for example, Save the Children, CARE) at the country level. The World Bank has also supported the development of local inter-sectoral capacity to implement SHN programmes (for example, in Malawi) by grants from the International Development Fund.

Children as Health Promoters

From its inception in 1978 Child-to-Child has been an advocate of the Health Promoting Schools movement (we called them 'Health Action Schools') and the role of children in making these schools potent agents for change in their communities. As time has passed we have become more and more aware not only of the potential of the movement and of the part children can play in it, but, also of the need to understand the very complex nature of the contribution they can make. In this brief submission we attempt to synthesise some of that experience.

1. Schools serve children

The prime goal of school health promotion and of health promoting schools is to make children who attend school healthier and happier now and better able to grow up and to maintain that health and well being. With the wider definition of health which all who seek true development now adopt, it is vital that schools include newer aspects health alongside traditional content, such as personal hygiene, nutrition and disease prevention. Schools where children are frightened, where discrimination takes place and where the task of maintaining and preserving the environment are ignored are not truly health promoting. The promotion of mental, social and environmental health is a product of schools, and especially children, working together as a community. Thus health promotion goes far beyond classroom instruction.

Central to our attempts to promote health education to meet both children's needs now and later is the development of skills. These range from simpler hygiene and first aid skills to far more complex skills for learning and life such as analysing advertisements or learning to resist pressures from peers. Such skills and are taught through the methodology and approaches used by the school in and out of class. In simplistic terms the more challenges presented to children by that methodology, the more skills they will learn.

2. Children serve schools and communities

There are great expectations that children will pass on what they have learned in school to their families and communities, and, indeed they do so both formally and informally. The concepts of 'family' and 'community' are culturally determined and, in poorer contexts, the latter may well include children of the same age who have never attended school or who have dropped out early. In every case the quality and understanding of the health messages given to children is vital. There is nothing more potentially damaging than an enthusiastic child or group of children passing on a message which is garbled, misunderstood or just plain wrong. Unfortunately this happens all too frequently.

3. Perspectives on children's role as health promoters

In recent years the Child-to-Child movement has become increasingly aware that its name does not fully reflect what it does. Hence, we frequently use the additional title Children-for-Health. The more we understand the purpose and processes of involving children, the better health and educational outcomes will result. From the experience gained through Children-for-Health activities worldwide, three issues may be identified:

3.1. *Relationships and their complexities*

The process of communication is far more complex than a child 'taking knowledge home'. The following table indicates some of the different possibilities:

One Child	➡	spread knowledge to	➡	a younger child
	➡	teach skills to	➡	or younger children
Children in pairs	➡	demonstrate by example to	➡	same-age child /children
	➡	encourage	➡	a family or families
A group of children	➡	work together with	➡	the community

In every case, at different ages and in every culture the pattern of relationships is different. One older child can help a younger one with hygiene practices. Two children, reinforcing each other, can undertake a survey on mosquito breeding places. A group of children can put on a play about HIV/AIDS. Planners and teachers who are aware of these possibilities can develop them.

3.2 *Who benefits*

At first sight it is the recipients of child-action who appear to benefit most, but if actions are organised mainly on the 'loudspeaker principle', their benefits are far less than if the development of the individuals or groups who transmit the message are kept uppermost in mind. Once children have been involved in understanding, planning and developing the activities they are involved in, their motivation is raised, their enthusiasm increases and their life skills are developed. These benefits are likely to carry over to other aspects of learning and school life.

3.3 *Methodology and life skills*

Life skills, as we have indicated are developed through methodology such as group work of all kinds, role playing, drama and problem solving activities. Such methodology is not synonymous with 'activity learning'. It is possible to be active without thinking very hard. Consider the difference between looking at a picture to reinforce the fact that smoke enters the lungs and using a picture (for example, of a child handing a cigarette to another) as a basis for discussion, drama and role playing related to how it is possible to resist pressure in a peer group. Alternatively consider the difference between participating in a health campaign where roles are assigned, slogans ready made and drama planned by adults to planning that campaign in a group, with adult assistance only when required. In a health promoting school every effort needs to be made to encourage such child-powered action and actively to identify the life-skills that need to be developed.

Moreover, a methodology which links learning in class with action outside it bears certain characteristics because classroom learning is continually being validated against reality. This has caused trainers who work with the 'Children for Health' concept to suggest a four or six part methodology for approaching themes and topics in health education: **1** Recognising and understanding an idea; **2**. Finding out more about it (often by enquiry at home and in the community); **3**. Planning action possible by children (often differentiating what 'I' can do and what 'We' as a group of children can do); **4**. Taking action, individually and in groups; **5**.

Discussing and assessing action taken (evaluation) with a view to; 6. Doing it better next time. What is particularly interesting about this active methodology is that it takes place partly where children learn, in a classroom or a club meeting, and partly outside it, thus breaking down the highly artificial link between 'topic' and 'classroom period' on which so much school education unprofitably rests.

4. Implications of these concepts on school health education and promotion

The effective involvement of children as partners in health education and promotion raises three fundamental issues. In the first place it causes us to avoid rigid distinctions between the three categories commonly identified as components of comprehensive school health promotion. If children are to become involved in improving the *health environment* of the school and in improving the *health services* it can provide, by helping to provide first aid, to weigh and measure other children or to provide emotional help and support for those in need, are they not also receiving *health education* of the most effective kind, learning through doing?

Secondly, it helps to resolve the issue of whether health education is seen as a separate subject or integrated with other activities and subject areas, since though a small amount of separate instruction is likely to be desirable to establish key health facts and concepts, it cannot stop there. The 'child-powered' activity that helps the school to become a healthier and more stimulating place and that helps to develop learning and life skills in children cannot be confined and must, of necessity, extend across the curriculum, into the life of the school and from the school to the community. This means that every teacher and most especially school heads must see themselves as having some role in health promotion.

The third and final implication is on the definition of the school and its curriculum. If the role of school health promotion extends, as it must do once children are involved, to the home and family, the perspective widens. Should not the school, through its children, extend its concerns to those future children who need to be given the best possible start when they enter school? This opens the door to important topics such as the stimulation of young children through toys, games and language, nutrition messages such as frequent feeding and extra feeding after sickness as well as the hygiene and safety of toddlers. Many of these are effectively developed through Child-to-Child approaches. Those with children and grandchildren of their own will be well aware of the enormous power for good that eight- or ten-year-olds wield over their two-, three- or four-year-old siblings, as well as the great gains these older children accrue from the responsibility of helping.

NATIONAL STRATEGIES IN TEN OF THE WORLD'S MOST POPULOUS COUNTRIES

Efforts to improve health through schools are also underway within nations, by ministries of health and education and/or nongovernmental organisations. The reports that follow present school health strategies employed in ten of the most populated countries of the world. They have been prepared by representatives of each country's ministry of health or education, who are responsible for school health and working with WHO's Global School Health Initiative. These "Mega Countries" share many of the consequences of supporting a population in excess of 100 million, and the largest school-age populations in the world. However, as evident in **Table 2** below, they vary widely with regard to other characteristics, such as levels of economic development and educational attainment, resources, and prevalence of disease and death patterns. They may thus serve as relevant examples to many other countries not discussed in this book.

The reports indicate that almost all of the Mega Countries initiated school health efforts in the early or middle part of this century. Initial efforts typically consisted of student medical exams and curative services for children with common ailments or injuries. Health services for students is still a priority of the governments and non-governmental organisations working through formal or informal education systems of the Mega Countries. Most have adopted a system utilising student health cards, health assessments, screenings for priority ailments, and referrals, facilitated through links between schools and primary health centres or nearby clinics – though such systems are not always implemented nationwide.

Recent decades have seen efforts broaden to include disease prevention and health promotion efforts, primarily through the institutionalisation of health education in schools. Most Mega Countries have attempted to incorporate health education into the national curriculum, with development and coordination controlled centrally. Health education concepts have also been integrated into various subjects, such as language, social sciences, biology and population education in India, and home economics in Nigeria.

Most central governments have designated a minimum amount of curriculum time per week to be devoted to health education, including physical education (e.g., two hours per week in Indonesia; one hour every two weeks in China; 10 percent of primary school time in India). In many cases, schools or national school programmes have supplemented classroom lessons with extracurricular activities, such as school meal programmes, deworming efforts, vitamin supplementation, and peer health programmes like Indonesia's Little Doctors initiative.

A safe and healthy physical and psychosocial environment is generally recognised as an essential component of school health. Some countries have identified specific aspects of the school environment to address; for example, Bangladesh and Nigeria acknowledge the inadequacy of basic water and sanitation facilities and recreation space in many schools, and plan to upgrade facilities; all schools in Indonesia and China have been designated as smoke-free zones.

In most countries, a variety of government agencies (including ministries of health, education, family welfare, religious affairs) and, in some cases, NGOs (over 400 in Bangladesh), colleges/universities (such as the Institute for Child and Adolescent Health at Beijing Medical University) and international organisations (WHO, World Bank, UNFPA, etc.) play roles in school health. In addition, authority for school health does not always lie at the central level, but may fall under the purview of state governments. This is the case in India, for example, where central agencies play an advisory role to State Health Education Bureaus.

To facilitate coordination between the various players, several Mega Countries have established a national programme or coordinating committee for school health (e.g., a Task Force on National School Health Education in Nigeria; the School Health Coordinating Committee in Indonesia which unites four ministries; and the Federal Comprehensive School Health Promotion Programme in the Russian Federation). However, it is appreciated by most authors that effective mechanisms for cooperation are needed, particularly among the health and education departments.

Table 2. Statistical Profiles of the Mega Countries

<i>Region Country</i>	<i>Total population (millions) 1998⁹</i>	<i>Percent of population under 18 1996¹⁰</i>	<i>GNP per capita (\$) 1996</i>	<i>Net primary school enrolment/ attendance (%) 1987-97</i>	<i>Total fertility rate 1996</i>	<i>Maternal mortality rate 1990</i>
<i>Sub-Saharan Africa</i>						
Nigeria	121.8	51.9	240	59	6.1	1000
<i>East/South Asia and Pacific</i>						
Bangladesh	124.0	47.6	260	76	3.2	850
China	1,225.1	30.7	750	99	1.8	95
India	975.8	40.5	380	68	3.2	570
Indonesia	206.5	38.8	1080	97	2.7	650
Japan	125.9	19.7	40940	100	1.5	18
Pakistan	147.8	48.8	480	66	5.2	340
<i>Americas</i>						
Brazil	165.2	37.4	4400	94	2.3	220
Mexico	95.8	41.6	3670	98	2.9	110
United States	273.8	26.1	28020	96	2.0	12
<i>Europe</i>						
Russian Fed	147.2	25.1	2410	100	1.4	75
WORLD	3,608.9	408.2				

⁹ From, UNFPA's *The State of World Population 1998*, Demographic, Social and Economic Indicators.

¹⁰ Adapted from, UNICEF's *The Progress of Nations 1998: The nations of the world ranked according to their achievements in fulfilment of child rights and progress for women*.

Introduction and Demographics

Bangladesh was established as a republic in the Commonwealth of Nations in 1971. It is a predominantly rural country. With a population of about 122 million people, Bangladesh is among the most densely populated countries in the world (847 persons/km²). More than 60 million people live in absolute poverty, 50 million have no access to health services and more than 40 million adults, two-thirds of whom are women, are illiterate. The literacy rate is now 38 percent; 49 percent for men and 24 percent for women.

One-third of the population of Bangladesh (about 40 million) is composed of school-aged children and adolescents. Of these, about 23 million are enrolled in school. There are 112,000 schools; 96,000 are primary schools (kindergarten through 5th grade) and 16,000 are secondary schools (6th through 10th grade). Significantly more boys than girls are enrolled in school, and the higher the grade level, the higher the proportion of boys. About one-third of students enrolled in secondary schools are girls. Approximately 10 percent of all secondary school teachers are women.

There are about 500,000 teachers in Bangladesh, 315,000 of whom teach at the primary level. Primary school teachers receive training in 50 primary training institutes. Secondary teachers receive training at one of the 11 teacher training colleges located throughout the country. All of the primary training institutes and all but one of the teacher training colleges are publicly funded.

Government and Other Organisations with Responsibility for School Health

Most schools in Bangladesh are in the public sector. In public schools, health has been incorporated into a regular curriculum developed for all grade levels by the National Curriculum and Textbook Board (NCTB). The health curriculum includes many topics, including hygiene, sanitation, first aid, nutrition, school environment, food preservation, population education, dental care and parasitic disease. Special teaching materials, such as posters, are not available, and many teachers have expressed a need for further training in health education.

According to the United Nations International Children's Emergency Fund (UNICEF), about 415 nongovernmental organisations (NGOs) in Bangladesh provide informal education to children who are not enrolled in or have dropped out of public schools. In addition to government and private (including religious) schools, about 50,000 schools are run by NGOs. These schools employ approximately 50,000 teachers to instruct more than 1.5 million children and adolescents. In contrast to gender distributions in public schools, most of the teachers and 70 percent of the students in NGO schools are female. Many NGOs offer children health education, health services or both. These services typically use child-centred, activity-based participatory approaches.

In addition, development NGOs such as the Bangladesh Rural Advancement Committee (BRAC), Proshika, Dhaka Community Hospital, and the Underprivileged Child Education Programme (UCEP) have become intensively involved in school health programmes and have integrated health education with screening and referral services in their development programme.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

The Government of Bangladesh School Health Programme began in 1951 in Dhaka and Chittagong. By 1972, the programme had expanded to a network of 23 school health clinics, most of which were located in former district government headquarters. Two medical officers (MOs) and four

support staff are assigned to each of the clinics. The MOs provide clinical services to children in nearby schools. No transport or transport allowance is available for visits to schools outside each clinic's immediate area. This strategy is not only very costly but also means that only a small proportion of Bangladeshi students have access to school health services. Disease prevention and health promotion services are not systematically provided as part of the clinic system. However, many MOs provide one-on-one counselling in disease prevention to students who come to the clinics.

In June 1996, a project proforma was signed to implement a new School Health Pilot Project (SHPP) under the World Bank's Fourth Population Project. The project proforma was based on a master plan developed in 1993 by representatives of Bangladesh's Ministry of Education and Ministry of Health and Family Welfare. The master plan design was discussed, modified and approved in a special workshop.

The strategy of the SHPP emphasises disease prevention and health promotion services, with treatment provided through a referral system. The strategy is designed to benefit more students at a lower cost by providing essential health care through the cost-effective allocation of scarce resources. In addition to improving the health of school students, the new strategy will prepare students to properly care for their own children in the future and to promote health among their families and communities.

The SHPP will provide training in health education, first aid and vision screening for teachers in four districts: Comilla; Bogra; Faridpur; and Jessore. The school health clinic located in each district will be converted to a School Health Unit (SHU). Each SHU will have an MO, two public health senior staff nurses and support staff. Health inspectors, assistant health inspectors and health assistants will be assigned to visit schools twice a month. In addition, each thana (a police division serving as a unit of local administration) has an MO with responsibilities in school health. The roles of MOs and other staff will be strengthened by the SHPP.

The SHPP will include training-of-trainers courses for about 160 core trainers. Approximately 8,000 teachers and 200 health care personnel will also receive training in health education for children and adolescents. One teacher will be selected for training from each of approximately three-fourths of a cross-section of all schools (including government schools, NGO schools and religious schools). Teacher-training materials will also be provided to primary training institutes and teacher-training colleges.

Topics for training have been identified using the following methods: survey data; experiences of school health staff; problems identified in the country; the curriculum developed by the NCTB; and extensive discussions in two of the pilot project districts. Priority topics suggested for inclusion in initial teacher training include: safe water; sanitation; personal hygiene; first aid; treatment referral; vision screening; and population education. Other training topics that may be developed in the future include nutrition, immunisation, and prevention and control of respiratory infections, diarrhoeal diseases and other common illnesses.

The SHPP is expected to involve 22,000 students. Each student will receive a health card. In addition, referral forms will be used. Along with first aid training, a first aid kit also will be provided to each school. SHPP staff and others will develop and produce curriculum materials, including training manuals, a teacher's manual and other tools (e.g., flipcharts), and will conduct training. A Training Advisory Committee is being formed to support the development of curricula and training.

Committees at the national, district, thana and school levels will monitor activities of the SHPP. The programme is also being coordinated with the education sector and with related development activities, especially activities carried out through the United Nations.

Based upon experiences of the pilot project, the programme will be gradually expanded to other districts. A proposed 5-year school health programme for 1998-2003 will follow the design of the pilot project but will include additional services and training activities. The proposed programme will include health education, health services (such as deworming treatments and vitamin A supplementation), and water and sanitation interventions. It will be implemented district-wide in Comilla, Bogra, Faridpur and Jessore as well as an additional 17 districts that will include all districts that currently have a school health clinic or school health unit.

Specific objectives of the School Health Pilot Project in Bangladesh include the following:

Health education

- Assist the NCTB to develop and revise primary and secondary school health curricula and to select and produce health education materials. To help meet this objective, a national consultant from the World Health Organization could be assigned to work with NCTB.
- Assist teacher training colleges and primary training institutes with curriculum development and with teacher training. To meet this objective, one of the two MOs at the school health clinics can be recruited to work with teacher training colleges and primary training institutes.
- Train approximately 40,000 school teachers to provide instruction in various health topics such as safe water, sanitation, hygiene, prevention and control of diarrhoeal diseases, immunisation, nutrition and micronutrients; first aid; population education and reproductive health.

Health services

- Provide first aid services in schools and refer students with important health problems to providers trained in case management.
- Train approximately 1,000 health workers in approaches to epidemic and endemic disease control and in the use of the referral system and school health cards.
- Screen children for visual defects and take appropriate corrective action when possible.
- Provide deworming treatments once a year to all school children.
- Provide vitamin A supplementation once a year to all students in first grade.

School environment

- Provide a safe and healthy learning environment. This should include upgrading water and sanitation facilities.

Strategies for NGO schools

- Incorporate health, nutrition and population issues into NGO school curricula through the efforts of private development organisations and other NGOs.
- Provide basic and refresher training courses on health education and self-care to teachers in both urban and rural areas.
- Complement and supplement government school health programmes by ensuring the participation of parents, other family members and the community.
- Train groups of adolescent girls in each village to serve as support for local health service providers and support continuing education for these adolescents to further develop their knowledge and skills in communicating health messages and in practicing and promoting healthy habits.

- Empower the rural community by teaching rural residents about the importance of health activities for children.
- Conduct training-of-trainer courses on teaching health issues in the schools.
- Collaborate with the education department to implement Adolescent Family Life Education (AFLE) in the secondary schools.
- Provide adolescents with special training on AFLE and on helping to manage health service delivery sites.

Most NGOs are implementing health education programmes. For example, BRAC has produced a book entitled "Our Health," which is being used by teachers in the BRAC Nonformal Primary School. Topics covered in the book include: normal growth and development; healthy foods; healthy environment; common illnesses; maternal and child health; first aid; and family care. BRAC has also successfully introduced topics for adolescents such as: menarche and menstruation; personal hygiene; nutrition; immunisation; prevention of respiratory tract infections and sexually transmitted diseases; marriage; contraception; and prenatal care. Many NGOs are expanding their school health programmes to include more health education, disease prevention, health promotion activities and screening and referral services.

Lessons Learned

The following lessons have been learned in planning the SHPP:

- School health requires the active cooperation of multiple sectors of society, especially the education and health sectors.
- Teachers and health masters show great interest in expanding the school health curriculum but need input from those in the health sector to do so effectively.

The following are the lessons learned by NGOs in implementing school health programmes:

- NGO programmes can supplement and complement government school health programmes.
- Teacher training on school health needs to be provided locally.
- Demonstration and practical sessions are needed for teachers at health services delivery sites.
- NGO experiences in implementing school health programmes should be shared with government partners.
- Special trips to the nearest hospitals or health service delivery centres or clinics should be arranged to help school children better understand proper health care.
- Adolescents can be trained to cater to some of the health needs of the community.
- Health awareness must be raised among parents to help children practice healthy habits.
- School health programmes need to involve school committees and teachers associations health activities.
- NGOs have a wide role in coordinating various initiatives and policy dialogue at all levels.
- Coordinated, integrated health services will provide the best benefits to schoolchildren.

Current Challenges

The manuscript has identified the following challenges related to health promotion through schools:

- need to ensure the provision of sufficient teaching materials
- need to improve teacher training in health education
- improve efforts despite economic restraints.

References

UNICEF, 1995. *Meena--Saving a Life*. (Film PAL; in Bangladesi). United Nations International Children's Emergency Fund, New York.

UNICEF, 1995a. *Meena--Saving a Life* (Comic book that accompanies film). UNICEF, New York.

UNICEF, 1995b. *Meena--Three Wishes, Towards a Safe Environment*. UNICEF, New York.

UNICEF, 1995c. *Report on Evaluation of Sanitary Latrines and Water Supply Systems Constructed Under Phase II in Primary Schools*. United Nations International Children's Emergency Fund, New York.

MO/LGRD & UNICEF, 1995. *Improving Sanitation and Hygiene*. UNICEF, New York.

Mirza, T. *Development Sanitation Messages: A Report*. DPHE and UNICEF.

BRAC, 1995. *Report on Evaluation of Sanitary Latrines and Water Supply Systems Constructed under Phase II in Primary Schools, May 1995*. Bangladesh Rural Advancement Committee. (BRAC)

BRAC, 1994. *A Five Year Strategy for BRAC*. Bangladesh Rural Advancement Committee.

BRAC, 1997. *Brief on BRAC's Education Support Programme for Partner NGOs*. Bangladesh Rural Advancement Committee.

BRAC. *Programme Strategies and Interventions*. Health and Population Division, BRAC on AFLE for NFPE Schools and Adolescent Clubs, Disease Control and Prevention of RTI and STD/HIV.

BRAC, 1995. *Annual Report on Health and Population Division*. Bangladesh Rural Advancement Committee.

BRAC, 1994. *Non-Formal Primary Education: Annual Report 1994*. Bangladesh Rural Advancement Committee.

Development Research Partners, 1993. *Survey and Study to Design a School Health Programme for Bangladesh Including Preparation of a Master Plan*, Final Report. July 1993.

Family Planning Association of Bangladesh. *Population Education Curriculum for Out-of-School Youth*.

Family Planning Association of Bangladesh. *Pictorial Population Education Guidebook*.

UNDP, 1992. *Secondary Education in Bangladesh: A Sub-Sector Study*. United Nations Development Programme.

UNICEF, 1996. Review of Health Education and Development Contents in NCTB (Primary) and NGO Education Curricula and Use of Child-to-Child Approach in Government Primary Schools and By Select NGOs. United Nations International Children's Emergency Fund, New York.

UNICEF, 1993. *Training of Trainers (TOT) Manual*. Directorate of Primary Education and United Nations International Children's Emergency Fund, New York.

UNICEF. *Actions for Scouts and Guides on Oral Dehydration Therapy*. United Nations International Children's Emergency Fund, New York.

NGOs in Bangladesh: BRAC and BRAC's Programme Interventions.

Introduction and Demographics

Health promotion in the Brazilian context requires an approach strongly centered upon the concept of citizenship. It must embrace the empowerment of people for active participation in a democratic society, and prevent the perpetuation of inequality, injustice and social exclusion. In fact, building citizenship is increasingly understood as the backbone of school education. The principles of human dignity, equality of rights, participation and co-responsibility for social aspects of life constitute the framework in which we can promote health and protagonism for self care and collective health promotion.

Health promotion is understood as the central point for the integration of health into formal education. The provision of assistance is the responsibility of the National Unified Health System and its specific institutions and structures. The national guidelines for health education enforce a positive focus, centered in the development of critical consciousness about health; knowledge is centered upon corporal culture, self care and self esteem, solidarity and protagonism. This approach cannot be translated into ready-made prescriptions or models. It is the responsibility of formal education to provide the necessary elements and environment for the development of knowledge, among the students, about the importance and possibilities of being active subjects in the construction of the personal and collective status of health and well being.

Of course, vulnerability factors are important components to be considered when defining the health contents for compulsory education levels. Among elementary school students, there is a striking increase in unintended pregnancies, a significant incidence of sexual transmitted diseases and a premature experimentation of drugs, especially alcohol and tobacco. Morbimortality data show an impressive association between injuries and social violence.

Government and Other Organisations with Responsibility for School Health

The school health component of health promotion in Brazil must be considered in the context of both the educational and the health systems, and in accordance with legislation established by the 1988 National Constitution. In our political system, the 27 states and 5,715 cities have an important degree of autonomy in the implementation of the constitutional law and are responsible for the organisation and provision of most health and educational services.

National policies are defined at the central level and the state and municipal authorities are responsible for their implementation according to local legislation and political priorities. In the national government, the Ministry of Education is composed of five secretariats. Four correspond to the different levels of education: elementary, middle level, technical and third degree education. The fifth Secretariat is responsible for distance education programmes. All assume responsibility for the formulation of policies and strategies relevant at the national level as well as for the redistribution of resources to local administrative units. All elementary and middle level schools are within the responsibility of state departments of education and, in most states of the country, the decentralization process has already reached the municipal level.

The same process of decentralization is occurring progressively for the provision and management of health services. It is unified in principles and direction, but is decentralized in terms of management and execution. Today, more than 90 percent of the Public Health Services, accounting for around 50,000 units, are directly linked to state or municipal governments. The national level has the responsibility for the enforcement of the National Unified Health System and must

contribute to the state and municipal subsystems through technical support and redistribution of resources. Integral to subjects for all areas of policy making, health promotion and education are also the central focus of special programmes at the national level and constitute duties of the health departments at all levels of governance.

In the case of both health and education, private services are offered all over the country. Several non-governmental organisations are very active partners in the development of health promotion projects and continuous education of teachers.

The Law of Guidelines and Bases for National Education (LDB), December 1996, reinforces and broadens the duties of the public institutions with education, with especial emphasis on the first eight years of compulsory schooling. The main goal defined by LDB was the accomplishment of the universal right of access to formal education. To meet this challenge in a context of political decentralization, many initiatives have been taken by civil entities and educational authorities at the different levels of governance. In recent years, multiple strategies have generated new evidence on the problem. There is a growing understanding that the issue goes beyond the existence of school buildings or the mere enrollment of children into formal education. Positive results were visibly associated with local commitment to global infancy policies. Programmes like scholarships to the families, conditioned to permanence of children in school, have been implemented with significant impact.

The school census of 1999 has shown very relevant quantitative results by revealing that 95 percent of all Brazilian children are being enrolled into elementary school. In terms of numbers, the country now has 170,951 public elementary schools attending to 25,840,977 students. In this sense, policies for the universalisation of elementary school led to the achievement of the previous goal, approaching 100 percent.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

The primary challenge to the implementation of effective school health programmes is to guarantee the efficacy of policies for access, inclusion and permanence of children in school, at least during the eight grades of compulsory elementary schooling.

Indeed, the educational system has expanded satisfactorily, but the same cannot be said for quality and equity. Certainly, access to school has to do with the existence and geographic distribution of equipment, but this is only one among many contributing factors. The high levels of school drop-out have strong relations to other social components like early immersion in the informal working market. However, to persevere in school does not necessarily ensure a future of social inclusion. The formal educational system often does not offer valuable learning opportunities because it still carries pedagogical projects with weak connections to reality. The most important problem of education today is no longer the lack of places, but rather the poor quality of teaching.

To address the question of quality, the Secretariat for Elementary Education has elaborated National Curricular Parameters (NCP), by searching for local experiences and consulting educational teams, teachers and specialists. These parameters establish comprehensive guidelines for elementary education in the country and constitute the national referential for educating children and youth to promote conditions supportive to health through schools, in the context of building citizenship.

The top priority for the Secretariat of Fundamental Education of the Ministry of Education is the implementation of the content and methodological guidelines defined in the National Curricular Parameters. They form a consistent point of reference for a radical reform of goals, content and teaching within the first eight grades of schooling. This reform aims to apply the principles

enshrined in the Law of Guidelines and Bases for National Education and add emphasis to this commitment by viewing children not as would-be or future citizens, but rather as persons with citizenship rights now. This is the central premise of the project and the context in which education for health is integrated as an academic subject. On the one hand, the NCPs cover the compulsory subjects, namely: Portuguese language, mathematics, history, geography, natural sciences, art and physical education. On the other, the so-called "transversal themes", though they do not constitute specific school subjects, are the contents which ought to be deeply ingrained in all teaching and social activities within schools, namely: ethics, environment, cultural pluralism, sexual guidance, work and consumption and health. The criteria used to select these themes included their national scope, their social urgency, and the possibility of their being taught within the context of elementary education. The basic idea is that schooling must be made relevant to daily life and, by their very nature, highlighting these themes provides students with a broader focus for learning and engages schools directly in the process of building citizenship.

In this framework, education for health is defined as a transversal theme, not as an isolated discipline of the curriculum. Conceptualizing health as a permanent and dynamic construction of individuals and groups, the national referential enforces the necessity of empowering children and youth to act for healthy living as protagonists in the health/sickness process. In this sense, health must have its cognitive, procedural and attitudinal components incorporated into the whole range of academic areas. Understood as a methodological option, the transversal approach is a partner of the health promoting school because it calls for the engagement of every and all members of the school team and it highlights the continuous presence of health related issues within the settings of everyday school life.

In a country of more than 8.5 million square kilometers, distance education is achieving growing importance as a complementary resource for information, debate and continued-education of teachers. The production of videos (with supporting written materials especially developed for this purpose and sent to teachers by mail) is gaining momentum in the agendas of educational and health institutions. Considering its potential coverage, the distance educational system has deserved a structured action, including the provision of parabolic transmission, video and television sets to many schools with no other means of easy communication and access to information. At the moment, 60,000 public schools have their own equipment for reception of the National Secretariat of Distance Education programmes and access to other television channels.

In addition to the education system, the dissemination of television sets in the country is making this medium a very important one through which to raise awareness on health issues, (considering its presence in the life of almost every family and the resulting impact on the Brazilian culture). In the past 18 months, the Program for Health Education - created by the Secretariat of Public Policies of the Ministry of Health, has produced more than 100 videos for television transmission. The most relevant project, called "School Health", developed in coordination with the Ministry of Education, is designed to train elementary school teachers in health promotion for children and teenagers. The programmes are focused on life skills for health and low risk behavior choices.

The production of educational materials related to health has been a permanent proposal for governmental and non-governmental health organisations. However, we are only beginning to overcome the traditional approach of looking at students and the school team as little more than captive targets. With the evolution of educational and health promotion concepts, education for health is becoming recognized as a new knowledge, no longer focused on the prescription of lifestyles or the presumption that people learn how to take care of themselves through teaching of biology and technical information about disease transmission chains. Production and distribution of educational material with new concepts are being progressively treated as a coordinated task for both educational and health programmes.

Some specific threats affecting infancy and adolescence have deserved special programmes for

school members. AIDS prevention, for instance, has been the aim of very extensive and broad programmes developed and implemented through distance education and in-service workshops for school personnel organized in most states and municipalities of the country. The teaching of life skills for psychosocial competence is usually the focus of most continuing-education programmes developed for the prevention of HIV infection and substance abuse.

Current Challenges

Mechanisms are needed to continue the process of transforming law into reality. The universal right of education in healthy schools must continue to focus on equity because the conditions that generate social inequities are still pervasive. Indeed, unhealthy school environments and precarious infrastructure of the school buildings are not uncommon in the poorest cities and neighborhoods and there are strong disparities in teachers' wages throughout the country.

At this stage, it is necessary to incrementally expand the educational system in terms of quality and equity. A pressing problem to be addressed is the quality of the training courses elementary school teachers. It is necessary to surpass current standards of training for members teaching profession, and offer innovative and practical teaching methods. The most recent survey conducted by the Educational Evaluation System recorded 1.388 million practicing teachers in compulsory grades of the public educational system. Among those, four percent have not completed primary schooling themselves; four percent have only completed primary schooling and only 40 percent have university degrees.

To meet the current challenges, it is essential to develop a mentality of continuous education among teachers and educational institutions. This approach must be shared with health professionals to bring to formal education the renewed concepts and methods to promote healthier choices for life.

Lessons Learned

The importance of coherence and coordination among governmental and-non governmental programmes is the first and most essential lesson that should inspire future action. Partnerships between the educational and health sectors are increasing constantly at different levels of government and society, but it is only a beginning. There is enough evidence to show that focusing on isolated policies either does not work or, at best, produces little impact on social vulnerability. For example, the same families have problems keeping their children in school, getting permanent jobs and staying healthy.

Continuity of educational efforts is essential to effect individual lifestyles and a healthier society. Disruption in the development of programmes, from breakdowns in their financial and political systems, have demonstrated the importance of an education system with long-term goals and sustainability.

References

- Estatuto da Criança e do Adolescente*. Lei no.8.069/90, de 13 de julho de 1990. São Paulo: CBIA-SP, 1991.
- Ministério da Saúde. Lei 8080/90, Lei 8142/90, NOB 01/96. In: *O SUS e o Controle Social: Guia de referência para Conselheiros Municipais*, Brasília: Ministério da Saúde. Coordenação de Informação, Educação e Comunicação, 1998 p. 20-63.
- Lei de Diretrizes e Bases da Educação Nacional*. Lei no. 9.394/96, de 20 de dezembro de 1996.
- Constituição da República Federativa do Brasil*. São Paulo: Imprensa Oficial do Estado, 1998.
- Ministério da Educação e do Desporto. Secretaria de Educação Fundamental. *Parâmetros Curriculares Nacionais*. Brasília:MEC/SEF, 1998.

Ministério da Saúde. Secretaria de Políticas Públicas. Coordenação Nacional de DST e AIDS. Proposta de Ação para crianças e adolescentes escolarizados: Avaliação do período de 1994 a 1998 / Propostas para o período de 1999 a 2002. Brasília, 1999.

Castro, Maria Helena Guimarães de. *Avaliação do sistema educacional brasileiro: tendências e perspectiva*. Instituto Nacional de Estudos e Pesquisas Educacionais, 1998

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China has a population of over 1,223 million people. More than 205.5 million are students, and 10,179,000 are teachers. By the end of 1996, there were 741,130 schools, comprised of 1,032 colleges or universities (with about 3,021,000 students); 94,115 secondary schools (with 66,357,000 students); and 645,983 primary schools (with 131,952,000 students). Among the current 10 million primary and middle school teachers, nearly 20 percent work in rural areas, where teaching staff and facilities are relatively poor. Most of them are farmers who became teachers after graduating from junior middle school, even though they did not reach the qualification standards set by the Ministry of Education (MOE) (1).

China's illiteracy rate has dropped to a new low as the number of school dropouts continues to decline. The number of school dropouts among children between the age of six and 14 fell by nearly 10 percent between 1991 and 1996. In a major boost for education in the country, the overall literacy rate has dropped to just over 12 percent. A survey by the State Statistics Bureau has revealed that almost 18.4 million children in the 6-14 age range did not go to school in 1995, 14.51 million less than in 1990. The dropout rate among children in the age group fell to 8.4 percent in 1995 from 18.6 percent in 1990. Of the children who failed to attend school, most were girls. Although the enrolment rate of school-age children was almost 99 percent in 1996, many girls are not able to complete primary school. Many, especially those in poverty-stricken and ethnic areas, become labourers.

Government and Other Organisations with Responsibility for School Health

In China, a number of key health and education agencies play roles in school health. Some of these organisations provide policy and planning for health services; others provide day-to-day services. Examples of these agencies follow.

Health Agencies

- The Department of Health Legislation and Inspection within the Ministry of Health (MOH) is the national authority for school health. Responsibilities include: creating policy; developing national guidelines and school health standards; and inspecting and supervising the implementation of school health policies.
- The Institute of Child and Adolescent Health of Beijing Medical University is the national source of professional consultation and technical guidance for school health. The Institute has considerable experience in the school health setting. Its responsibilities include assisting the Department of Health Legislation and Inspection to develop policy, providing consultations and developing and pilot-testing the current health education syllabus for MOE.
- Health Bureaus at the provincial and lower levels are responsible for creating a policy environment, allocating resources, inspecting and supervising the implementation of health promotion programmes, and advising on student health issues.
- Health and Epidemic Prevention Stations at the provincial and lower levels provide: technical

support for health programmes; health care for schools; health education surveillance; and provision of referral services to students.

- Departments and Schools of Public Health in 34 medical colleges and universities provide government officials with advice on student health, perform research and provide educational programmes on school health.

Education Agencies

- The Department of Physical, Health and Art Education, in the Ministry of Education (MOE), provides policy on all aspects of education including health education. The commission oversees the implementation of approved policies, guides the use of resources devoted to education and provides funding to schools. The MOE is responsible for developing national guidelines on various aspects of education, including national curriculum requirements that all schools must fulfil.
- Departments of education at the provincial and lower levels implement policies and provide advice on the use of resources for education. Departments also provide funding to schools.
- Health care stations for students in primary and middle schools have been established in some cities. The stations provide consultations for education authorities on school health education.
- Provincial education colleges train primary and secondary school teachers.

Other Agencies

- Other governmental and nongovernmental agencies provide health services for students. Among these agencies are: the Coordinating Commission for the Welfare of Women and Children; the State Physical Culture Commission; the State Nationalities Affairs Commission; the Chinese Red Cross; the Chinese Association for the Disabled; the China Student Nutrition Promotion Society; the Institute of Health Education; and the Child and Adolescent Health Association.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

In China, children and adolescents have always been taught to care for their health. Beginning in 1949 with the establishment of the People's Republic of China, school health has taken shape under Chinese socialism and socioeconomic development. Many changes favourable to school health education have taken place. Strategies for change have included: creating a favourable policy environment; implementing information-based intervention programmes and health education curricula; establishing school health infrastructure and service networks; improving school environments; providing school health services; and increasing attention to school health in rural areas. We describe below two of the most important national strategies.

Creation of a Favourable Policy Environment

The Constitution of the People's Republic of China provides a solid foundation for improving child health and education and creating an environment and conditions that are beneficial to student health. In addition, the Chinese government has established various regulations and guiding principles for school health that set out the lawful rights and interests of children in families and schools. Examples include: the Compulsory Education Act of the People's Republic of China

(1986); the Law of Under-Age Protection of the People's Republic of China (1991); the Law of Infectious Disease Control of the People's Republic of China (1989); and the Food Hygienic Law of the People's Republic of China (1982).

In 1990, the State Council approved a set of regulations on school health. These regulations, which were promulgated jointly by the MOE and MOH, not only filled gaps in the laws with regard to school health but also provided important guidelines for establishing authority, tasks, and responsibilities for officials and professionals responsible for school health. The regulations address: school health management; curriculum setting; health education; school environment and facilities; mental health; nutrition and food hygiene; disease control; safety; health inspection; physical examination; health services; and special health services for girls and disabled students. In 1992, the National Programme of Action for Child Development in China was promulgated by the State Council. This programme gave objectives and a strategy to enhance the health of the population at birth and throughout childhood and includes components of education, health and nutrition in addition to measures for furthering the development of children in China.

In 1981, the Ministry of Health established the Technical Commission on Health Standards and the School Health Standards Subcommittee as one of the Commission's subcommittees. To date, 13 health standards have been approved and published. Another 16 standards have been submitted for publication, and others are currently being studied. Standards are concerned with school health and student health in a variety of areas, such as school environment and classroom hygiene. Some standards are concerned with regulating student health assessments. These include standards for keeping students' physical examination records and standards for health examinations for students being recruited for colleges and universities. Finally, standards have been established to screen for common diseases and conditions, including obesity and anaemia.

These laws, regulations and standards have collectively created a favourable environment for school health. China is a socialist country with a strong central government. Although there has been a shift toward a market economy system, the central government still plays a key role in national policy making. Therefore, laws and regulations established by the central government are crucial to providing a favourable health environment for students.

In 1996, the Central Committee of the Communist Party and the State Council convened a national working conference and issued the Decision of the Central Committee of the Chinese Communist Party and the State Council Concerning Health Reform and Development. The decision mandates a conscious commitment to improving school health, strengthens surveillance approaches for environmental hygiene to protect students' health, and calls for improvements in community health service and close attention to school health education. The decision has provided a solid foundation for further developing school health.

Development of Information-based Intervention Programmes on School Health

To overcome school health obstacles, the first step is to understand the determinants that affect students' health. Such information can influence the planning and implementation of intervention programmes.

A student health survey and annual health inspection systems have been established nationwide. These two systems allow for a clear, accurate and efficient characterisation of student health status and health problems. The survey and annual inspection systems also serve to evaluate outcomes of the programmes described in the following pages and help raise public awareness, draw on social resources and offer references for creating school health policies.

Surveys on the physical fitness and health of Chinese students (3). Since the late 1970s, national surveys of physical fitness and health of students have been carried out once every five

years. Surveys are conducted jointly by the MOH, the MOE, the State Sports Commission, the State Science and Technology Commission, and the State Nationalities Affairs Commission. Implementation involves multidepartmental cooperation, multidisciplinary research, establishment of a stable monitoring network, and training of school health personnel. The survey system is an important tool for monitoring physical fitness and health of students and collecting a range of critical information. Data from surveys are also used in formulating government policy, making decisions about resource allocation, and improving health and school environments.

The annual reporting system for school health (4). An annual reporting system was approved by the National Statistics Bureau (NSB) and conducted jointly by the MOH and NSB based on principles of the Statistics Law of the People's Republic of China in 1991. Report forms include 65 items in three categories: school health supervision; student health status; and illness-related student absences. Like the national surveys, the annual reporting system accesses information on school health that is used to formulate related government policy, make adjustments to resources, improve students' health, and create school environments conducive to good health.

In devising this system, the central government convened experts in all aspects of school health and held regular national workshops to discuss the following: policies; intervention programmes; projects; measurements; resource allocation; and implementation and evaluation. Several programmes and projects have been established, and great progress has been achieved during the last decade. The following programmes and projects have been developed and initiated:

- **Model Counties for School Health in Rural Areas (5)**

From 1988 to 1991, this programme was conducted with guidance from the MOH and MOE in 20 counties of 19 provinces throughout the country. The programme involved 1,850,000 schoolchildren. Achievements have included: the establishment of health care rules and a system for health care for rural schoolchildren; training for most school health workers, school nurses, and health teachers to enhance their professional capability and to enlarge the health care network for rural schoolchildren; development of formal and informal health education curricula; and initiation of comprehensive efforts to improve the health status of rural schoolchildren by preventing and treating common diseases.

- **School Lunch Programme**

Initial stages of the School Lunch Programme were developed and undertaken in the 1980s to promote the health of schoolchildren in Beijing, Hangzhou City, and Zhejiang province. This programme has been extended to many cities and counties throughout the country and has benefited thousands of schoolchildren. In 1996, MOH released Regulations on Hygiene Inspection for School Lunch to improve this programme further.

- **Comprehensive Prevention and Treatment of Common Diseases for Students**

In 1991, MOH and MOE launched a programme to control malnutrition, anaemia, obesity, oral health problems, helminth infections and trachoma among students in response to certain regulations, plans and technological specifications. This programme, which is scheduled to continue through the year 2000, has established numerous goals, strategies and measures. Technical specifications were also defined for quality control. A midterm evaluation has shown that students have gained remarkable benefits from the programme.

- **School Health Education**

In China, systematic health education for schoolchildren began in the 1980s and has since made great progress. *Regulations on School Health* and *Guidelines on Health Education for Students in Primary and Middle School* (1992) state clearly that health education should be an integral part of the curriculum in primary and secondary schools and that primary and secondary schools must devote at least one hour of class time every two weeks to health

education. Currently, about 90 percent of schools in urban areas and about 50 percent of those in rural areas have implemented regular health education courses. A sample survey conducted by the Institute of Child and Adolescent Health in Beijing, Zhejiang, and Heilongjiang provinces showed that full-time or part-time teachers were employed to teach health education courses at many schools (56.8 percent of primary schools and 95.2 percent of secondary schools), and the health and education sectors at provincial and county levels provided regular training for these teachers (6).

- **Soybean Action Programme**

This programme was initiated by the National Consultative Committee on Food and Nutrition and is supported by the health, education, and agriculture sectors as well as the food industry. The programme's main objectives are to improve the status of nutrition of schoolchildren by providing high-quality soybean products and to stimulate changes in food consumption for the whole population. Since its inception in the autumn of 1996, the programme has been implemented in 24 primary and secondary schools in 11 provinces. Among programme components are: the development of nutrition education; the provision of various soybean products for schoolchildren in pilot schools; and the mobilisation of social support for the nutrition programme in schools.

- **Health-Promoting Schools Programme**

The initiation of the global programme on Health-Promoting Schools is providing China with new opportunities to improve the health of students as well as the community. China intends to explore a new model of health promotion in schools designed to improve the health of all community members and to accommodate particularities of the Chinese situation. In 1995, the National Conference on School Health, financed by WHO and the Centers for Disease Control and Prevention in the United States, was held in Beijing. Approximately 200 people from MOH, MOE, and health and education sectors of 28 provinces participated in the conference. The conference focused on strengthening and enlarging China's efforts in school health and explored the feasibility of developing Health-Promoting Schools in China.

At present, several programmes are being conducted to transform numerous schools across the country into Health-Promoting Schools. These programmes, which are supported financially by WHO and the Chinese government, follow WHO guidelines with regard to: health education; improving environmental sanitation and mental health; control of intestinal helminth infection; and preventing HIV/AIDS. A National Coordinating Committee on Health-Promoting Schools should soon be established in Beijing. A national network system will be formed gradually.

The National Plan for Developing Health-Promoting Schools in China (1996–2000) as well as an implementation guide for the plan were drawn up recently. The plan and guidelines describe national strategies on Health-Promoting Schools and an award system to encourage participation. The plan is designed according to specific characteristics of China, and will thus be practical to implement.

- **Nonsmoking Schools Programme**

The programme was implemented in Beijing in 1996, with support from WHO and involved 100 primary and secondary schools and more than 100,000 schoolchildren. The programme is designed to help children understand the harm of smoking to themselves and others, acquire the skills necessary to quit smoking or avoid starting the habit, and to provide a nonsmoking environment in schools by prohibiting smoking in school for all students, teachers and other school employees. It is scheduled to continue until the end of 1997.

- **HIV/AIDS Prevention**

Health education is crucial for AIDS prevention. In 1996, China developed a peer education programme for HIV/AIDS prevention among college students in Beijing. Twelve universities participated in this programme, and about 1,200 students were trained as peer educators. A number of HIV/AIDS prevention and education programmes among younger students are also in progress, sponsored by WHO, UNDP, the United Nations International Emergency Fund, UNAIDS and other organisations.

Although school health programmes have achieved many successes, many health problems, such as those described below, still merit attention.

Declines in students' physical fitness indices. Comparison of data from the 1985 and 1995 national surveys (3,7) shows that students' physical endurance has declined. The index of endurance decreased among approximately 70 percent of age groups and was more pronounced in urban areas. The index of pliability and toughness is lower in about 81 percent of the age groups. Lung capacity has fallen and is lower among about 87.5 percent of the age groups. Lung capacity fell by 90 ml among 7–18-year-olds, and by 235 ml among 19–22-year-olds. The index of lung capacity/weight has also shown a prominent decline, especially among 8-year-olds.

Control of certain diseases and conditions. The rate of obesity and overweight is increasing. Obesity has become a major health problem in large and medium-sized cities. Comparison of data from 1985 and 1990 shows that the proportions of overweight and obesity increased from 2.75 percent to 8.65 percent among boys and from 3.38 percent to 7.18 percent among girls. The rate among boys in urban areas was up to 12 percent in 1995.

The rate of myopia is high and has shown an upward trend in rural areas. Although no clear increase in myopia has occurred among primary and middle school students in urban areas, the rate of myopia is still high. For example, in urban areas, myopia occurs among 22.8 percent of primary school students, among 55.2 percent of junior middle school students, and among 70.3 percent of senior middle school students.

There is a great need to improve students' access to dental care, especially in rural areas. The treatment rate for dental caries is low, especially treatment of caries in baby teeth, which occurred for only one percent of children aged 7–9 in 1995 (4).

Mental health problems. With the rapid socio-economic development in China, young people, especially those in urban areas, have become increasingly involved in problem behaviours related to mental health. These problems include: violence; substance abuse; early sexual behaviour; and running away from home. In 1992, a study involving 24,000 students aged 4–16 in 22 cities across China showed that the prevalence of problem behaviours in this population was 13 percent. Other studies showed that problem behaviour rates in middle schools were about 15–20 percent (8).

Lessons Learned

- **Dealing with a diverse set of health problems**

China is a large country with an enormous population. Natural environments, economic situations, and specific health problems vary widely from region to region. Students in rural areas may suffer more from malnutrition and helminth infection than students in cities. Students in southern China may need more health education for prevention of HIV/AIDS infection than students in northern China because of the higher prevalence of the disease in the south. The establishment of Health-Promoting Schools should take into account specific conditions of a given area and its schools.

- **Improving teacher training**

About 10 percent of teachers in primary schools, 30 percent of teachers in junior middle schools and 45 percent of teachers in senior middle schools have not met qualification standards set by MOE. However, these teachers continue working because many schools are in need of teachers. Unqualified teachers cannot be expected to take full responsibility for implementing school health programmes and health education. Training these teachers is a necessary step to promoting health in schools.

- **Providing financial support and multisectoral cooperation**

Another obstacle to sustaining Health-Promoting Schools is insufficient funding for many health issues. Resources for education are usually allocated by the government; schools have little input on how such resources are distributed. This obstacle may motivate schools to strengthen links with sponsors outside the education system. A rising social awareness of the need to promote health in schools may prompt funding from local communities or companies to support student health programmes and changes in school environment and facilities. All available resources should be used and should fulfil the special health needs of schools and surrounding communities.

The development of school health programmes requires an integrated effort of health and education departments. This intersectoral cooperation is essential. It has been shown that successful intersectoral cooperation means greater progress in programme development. In addition, international coordination is necessary to keep pace with other countries and for sharing experiences as well as advances in theory and technology related to promoting school health.

Current Challenges

The following have been identified as challenges to health promotion through schools in China:

- To increase the number of teachers who have attained qualification standards set by the Ministry of Education
- To try to address economic restraints and insufficient resources in order to continue and enhance programmes
- To improve efforts to meet diverse needs among the large population
- To increase coordination and integration efforts between health and education departments.

References

1. *State Statistical Bureau, People's Republic of China. China Statistical Yearbook (1997). Beijing: China Statistical Publishing House, 1996, 633-663.*
2. *State Council of China. The Child State of China. Beijing: The Council, 1996, 15-18.*
3. *Research Section of the Constitution and Health of Chinese Students. Research of the Constitution and Health of Chinese Students. Beijing: People's Education Press, 1993, 144-185.*
4. *Department of Health Inspection and Supervision of MOH. Annual Bulletin of Health Inspection 1996, 33-41.*
5. *Department of Health Inspection and Supervision of MOH and Department of Physical, Health and Art Education of SEC. "Summary of model counties for school health in rural areas". Chinese School Doctor 5(1991): 1-2.*
6. *A restricted publication from Department of Physical, Health and Art Education of State Education Commission (1996).*
7. *Research Section of the Constitution and Health of Chinese Students. Research of the Constitution and Health of Chinese Students. Beijing: People's Education Press (in press).*
8. *Tang, H., et al. "Analysis on influent factors of children's problem behaviours" [Chinese]. Chinese Journal of Mental Health 7(1993):13-15.*

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Introduction and Demographics

India is the most populous country in the world after China. In 1996, it had a population of 934 million, of which 121 million were in the 6 to 11 year age group. About 110 million children are enrolled in the country's 598,354 primary schools. In addition, India has about 176,772 middle schools; 73,127 secondary schools; and 25,045 higher secondary schools.

In 1996-1975, 62 percent of boys and only 47 percent of girls were enrolled in primary school. Similarly, greater proportions of boys than girls were enrolled in middle schools, secondary schools, and higher secondary schools. Female students accounted for 43 percent of primary school students; 39 percent of middle school students; and 34 percent of students in secondary and higher secondary schools.

Approximately 1,789,733 teachers work in primary schools; 1,195,845 in middle schools; and 1,542,360 in secondary and higher secondary schools. On average, there are nearly twice as many male as female teachers.

In 1991, the overall literacy rate in India was 52 percent; thus, nearly half of the population was illiterate. The literacy rate was higher among males (64 percent) than among females (39 percent).

Government and Other Organisations with Responsibility for School Health

The introduction of school health services in India dates back to 1909, when school children in the city of Baroda were first given medical examinations. However, in 1946, the Bhore Committee reported that school health services in India were practically non-existent. In 1953, a secondary education committee emphasised the need for schools to provide medical examinations and meal programmes for students. In 1960, the Government of India formed a School Health Committee to assess the standards of health and nutrition of school children and suggest ways to improve these standards. Since then, many state governments have provided funds for school health and school meal programmes. In spite of these efforts to improve school health, in India, as in other developing countries, school health services are inadequate because of a shortage of resources and insufficient facilities. For example, the *Fourth All India Education Survey (1987)*, found that many schools lack basic facilities for drinking water and sanitation.

The following government agencies share responsibility for school health in India:

- **The Ministry of Health and Family Welfare (MHFW)**

The MHFW is the primary national organisation concerned with physical, social and mental health of children. MHFW collaborates with various ministries and departments, including those concerned with social welfare, women's development, child development and rural development. It also collaborates with voluntary health organisations, such as WHO, UNICEF, the United States Agency for International Development (USAID) and the Canadian International Development Agency (CIDA). Within MHFW, the Mother and Child Health (MCH) section is primarily responsible for

monitoring children's growth and development. School health falls under the Directorate General of Health Services (DGHS), under the purview of state governments. The Central Health Education Bureau (CHEB) is the key organisation that oversees this component. All available health services, including school health services, are delivered through a network of primary health centres.

- **Ministry of Human Resources Development (HRD)**

The Department of Education under the Ministry of Human Resources Development is the central agency for promotion of education in India, including the school education. At state level, the implementing agencies are state departments of education. Every state has a Directorate of Education that actually implements the programme of school education.

- **National Council of Educational Research and Training (NCERT)**

NCERT sets guidelines for educational development. It also conducts research and training for manpower development and provides technical approval for syllabi up to the 10+2 level.

- **Central Board of Secondary Education (CBSE)**

CBSE controls the academic and examination systems; therefore, physical education and health education as school subjects are monitored by this board. CBSE oversees all guidelines for academic achievement and is responsible for the awarding of academic certificates.

- **State Council of Educational Research and Training (SCERT)**

SCERT, the state-level counterpart of NCERT, works with state departments of education.

- **State Boards of Secondary Education**

Every state has its own board of secondary education that controls the academic and examination systems at state level and award certificates. While some schools in the country are affiliated with CBSE, most schools are affiliated with their own state board of secondary education.

- **District Institutes of Education and Training**

These institutes oversee the training of primary school teachers and are also responsible for the inclusion of the school health component in the primary school curricula. Integrating health education into various subjects is a key element in the training of primary school teachers.

- **University Departments of Education**

Most of the universities have departments of education and are involved in teacher education and research. Health education is a component in the teacher training.

- **State Health Education Bureaus (SHEBs)**

Beginning in 1959, on the recommendation of the CHEB, the Government of India set up SHEBs in all the states and union territories to plan, implement and monitor school programmes.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

Education and health are the two most important sectors for national development and careful coordination between these two sectors is paramount. The National Policy on Education, created in 1986, and the National Health Policy, created in 1983, recommend prioritising school health education.

The National Policy on Education emphasises the need to support the overall development of the young child. The policy states that, because of the holistic nature of child development, Early Childhood Care and Education will receive high priority and be suitably integrated with the Integrated Child Development Services Programme wherever possible.

The National Health Policy focuses on developing an infrastructure to provide minimum basic health services that are readily accessible to all. The goal is to meet the challenge of "Health for All 2000 AD". If India is to achieve this goal, its children must acquire the knowledge, skills and attitudes necessary for good health and healthy lifestyle choices. Providing children with effective health education is crucial to improving the health status of their communities and nation at large.

To this end, the government has adopted several strategies:

- ***Establishing a School Health Education Division***

In 1958, the School Health Education Division was established within MHFW to strengthen health education programmes for young people. The division serves as a technical resource centre for NCERT, the Ministry of Education and Culture, and the Directorate of Adult Education. It also collaborates with these agencies and with state health and education departments and universities throughout the country. Functions of the division include:

- Interpreting plans, programmes and policies of the MHFW, the Ministry of Education and Culture, state governments and other key organisations to ensure that these plans, programmes and policies are properly reflected in education throughout the country
- Planning, strengthening and revising health and population education curricula to meet assessed needs at various levels
- Providing various organisations with consultative and advisory services that address the different components of the school health programme
- Coordinating school health plans and programmes being carried out in states and territories
- Monitoring school health programmes across the country
- Developing instructional materials that will strengthen the health education components of formal and informal education programmes
- Acting as a clearinghouse for information materials, projects and plans related to health education components of formal and informal education programmes
- Conducting pre-service and in-service education programmes for teachers.

- ***Integrating Health Education into School Curricula***

As a step towards strengthening health education in schools, the School Health Education Division has developed syllabi for classes IX and X of CBSE as a separate subject under physical education and syllabi for health education for classes XI and XII (vocational stream) of CBSE. The division has also developed health education syllabi for degree courses in physical education and syllabi for integrating health education into Bachelor of Teaching and Bachelor of Education degree programmes for elementary school teachers. In addition, the School Health Education Division has integrated a health education component into population education.

- ***Introducing Population Education into Schools***

A *Population Education Guide for Secondary School Teachers* was developed by the School Health Education Division for use by state health and education departments. The division has also produced brochures, handbooks and other materials on population education for use by National Social Service volunteers and primary and secondary school teachers.

- ***Providing a Framework for Health Education***

In 1988, in collaboration with the NCERT, CHEB published a document entitled *Health Education for School-aged Children—A Framework*. This document suggests objectives and content areas for health education at various school levels. The document also suggests guidelines for implementing, monitoring and evaluating a health education programme. *Health Education for School-Aged Children—A Framework* noted that schools need to organise and provide learning experiences that will enable students to achieve the following objectives:

- Develop a desire to be healthy
- Understand the meaning and concept of health
- Know the factors and conditions that promote or adversely affect health
- Develop attitudes and practices that promote health
- Take actions to promote their own health and the health of family members and others in the community.

Among the content areas suggested by the document are:

- Personal health, including rest, sleep, exercise and posture
- Environmental and community health
- Nutritional health
- Mental health
- Growth and development
- Prevention and control of disease
- Safety, first-aid and home nursing
- Family life and reproductive health
- Contemporary health problems (e.g., smoking and chewing tobacco, drug abuse and alcoholism) and special health problems of the community.

- ***Providing Health Education in Schools***

Health education in schools should not be the sole responsibility of a single teacher. All teachers should share the responsibility for helping students develop healthy lifestyles through healthful living. Teachers should watch students for signs of ill health and notify the parents of those who need to be referred to health personnel; monitor students' height, weight, vision and hearing; and maintain students' health records.

Health education concepts have been **integrated** into various subjects, including environmental studies, language, social sciences, biology, physical education and population education. It is taught consciously by the teachers of these subjects, keeping in mind the objectives for each level of education.

At the primary level, the emphasis is on developing healthy behaviours. Teachers provide examples of healthy behaviours they wish to develop among students and may develop a list of health practices to set goals for learning. Parental cooperation can be of immense value in achieving these goals. At the upper primary level, the development of healthy attitudes among the students is emphasised. At the secondary level, there is more emphasis on academic learning, however, self-learning is promoted through library assignments, field trips, arts and crafts, exhibitions, debates and public speaking.

NCERT recommends allocating 10 percent of school time for health and physical education at primary and upper primary levels and 9 percent at secondary level. CHEB and NCERT suggest that half of this time should be used for health education and the other half for physical education.

- ***Coordinating Efforts of Different Sectors***

Coordination between the education and health sectors at national and state levels is critical for effective implementation of health education in schools. At the national level, CHEB and NCERT have collaborated in developing the National Curriculum of Health Education. At the state level, education departments provide financial and administrative support for health education, such as by ensuring healthful school environments and supplementary nutrition programmes, and health departments provide health services to students.

- ***Training Teachers in Health Education***

All primary school teachers are given training in health education, however, this training is optional for secondary school teachers. Strengthening the health education component of teacher training programmes is currently a top priority.

- ***Developing Resource Materials***

Developing health education resource materials and using electronic and print mass media more effectively to promote health education among children are also important priorities. Accordingly, NCERT, CBSE, NSS volunteers and teachers have collaborated in the design and preparation of folders, posters, flipcharts and models for teaching health education to students at all levels. In the future, audio and video materials may be developed to disseminate health education messages.

- ***Implementing a Nationwide Special School Health Check-Up Scheme for All Primary Schools in India***

The school health check-up scheme, launched in 1996, targets India's 110 million primary school students, who are the most vulnerable to health problems. The plan, which requires close collaboration between the Department of Education and MHFW, is implemented simultaneously at all primary schools throughout the country for a 6-day period once a year. During these 6 days, teams of local paramedics administer medical check-ups to all primary schoolchildren to detect common health problems. Records are maintained for each child. If a child is referred to a doctor for further care, the doctor is asked not to charge for the referral.

- ***Providing Orientation Training for School Teachers***

Orientation training for teachers has been proposed to help teachers carry out their responsibility to the school health programme. This 7-day training programme would be implemented with the assistance of teachers from the district, SHEB, IEC Bureaus and MHFW.

Lessons Learned

Mobilise All Available Resources

The implementation of the school health check-up system, launched in June and July 1996, proved that in order for a significantly large national campaign to succeed, mobilisation of all available resources and community participation are required.

Implement Intensive School Health Education Projects

During 1989-1991, CHEB launched an intensive school health education project in three phases: planning, implementation and monitoring, and evaluation. The objective of the project was to improve the health and nutrition status of primary school children in rural areas through a comprehensive health education programme. The project, which involved 10,000 primary schools; 20,000 teachers; and 500 NSS volunteers in 10 states, provided a model that could be replicated throughout the country.

Integrate Population Education into School Curricula and Informal Education

From 1993 through 1996, the Department of Family Welfare carried out projects designed to: integrate population education into school curricula and textbooks; train teachers and other school staff; develop need-based material; and popularise small families as a norm. The success of these projects underlined the importance of integrating population education into existing curricula.

Integrate Population Education into Vocational Training Programmes

MHFW has undertaken the second phase of a project incorporating population education into vocational training to make adolescents and youth aware of population issues and their impact. Coordinators from each state and union territory were trained and provided with text materials and other supporting materials developed for this project. The overall feedback on the quality and appropriateness of the instructional materials has been very positive.

Current Challenges

Lack of Uniform Patterns and Standards in Implementation

Because health education comes under the purview of education and, therefore, the state, the central agencies have only an advisory role in the implementation of health education curricula. Although central agencies have suggested curricula for all stages of school education, the extent and effectiveness of the implementation is left to state governments. As a result, uniform patterns and standards for health education are lacking.

Lack of Trained Health Education Teachers

Schools are not required to employ professional health education teachers because health education is considered a nonscholastic subject. Moreover, health education is not compulsory for secondary school teacher training, and most teachers do not take health education. Ironically, schools have trained teachers in many other nonscholastic subjects such as art, craft and physical education.

Commitment to the importance of schools and teachers concerning promoting health among young people needs to be strengthened.

Inadequate Links between the Health and Education Sectors

Health is generally considered to be the business of doctors and health departments rather than teachers and schools. The lack of active interfaces between the health and education sectors hinders joint planning and action. Moreover, the prevailing narrow medical view of health that emphasises treatment rather than prevention further hinders the development of a balanced perspective on health education.

Lack of Sufficient Resources

The state sector has meagre resources to devote to education. In addition, each state has different priorities. Although HRD is the agency primarily responsible for education, it is not in a position to provide adequate funds.

Non-mobilisation of Nongovernmental Organisations (NGOs)

NGOs such as the Rotary Club and the Lions Club can play a vital role in shaping the health of a child. Unfortunately, in India, NGOs have not been mobilised to contribute to this effort.

Health Education and School Health—A Low Priority

Health education has low priority in the medical education curriculum. Similarly, the school health programme has low priority among national health programmes.

Lack of Nationwide Research in School Health

Little operational research has been conducted to determine the impact of the school health programme in India and to provide guidelines for future planning.

References

Health Education for School-age Children—A Framework. Central Health Education Bureau and National Council of Educational Research and Training, 1988.

Selected Educational Statistics. Department of Education, Ministry of HRD, Government of India, 1996–1997.

National Policy of Health, 1983. Ministry of Health and Family Welfare, Government of India, 1983.

National Policy on Education, 1986. Ministry of Human Resource Development, Government of India, 1986.

Bulletin on Rural Health Statistics in India, June 1996. Rural Health Division (DGHS), Ministry of Health and Family Welfare, Government of India, 1996.

Special School Health Check Up Scheme for All Primary School in India—Operational Guide. Department of Family Welfare, Government of India.

Annual Report 1995–96. Ministry of Health and Family Welfare, Government of India.

School Health—A Guide for Primary School Teachers (DGHS). Ministry of Health and Family Welfare.

Training of Primary School Teachers for School Health Programme—Guide for Training. DGHS, Ministry of Health and Family Welfare, Government of India, 1984.

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Introduction and Demographics

As the fourth most populous country in the world with a population of approximately 205 million, Indonesia has been struggling to ensure an education for its population of 43 million school-age children. Approximately 96 percent are currently enrolled to receive a formal education, and, for geographical reasons, the remaining individuals are educated through a scheme of informal, or out-of-school, education. There is a working relationship between the formal educational system and the out-of-school education in Indonesia.

Government and Other Organisations with Responsibility for School Health

For the most part, primary schools are run by the government. Facilities are the responsibility of local government while the teaching component is solely the responsibility of the central government through the provincial representative office(s). The curriculum is coordinated and directed centrally and should be implemented by all schools, including schools coordinated by the Ministry of Religious Affairs (Madrasah and Pesantren; Islamic religious schools and Islamic boarding schools). Approximately 16 percent of the school population is educated in institutions coordinated by the Ministry of Religious Affairs.

School health was first implemented in the national curriculum during the 1960s. For two decades, the programme primarily emphasised health services and relevant activities were the responsibility of the Ministry of Health. In 1983, a School Health Coordinating Committee (SHCC) was formed, consisting of the Ministry of Education and Culture (MOEC), the Ministry of Health, the Ministry of Religious Affairs and the Ministry of the Interior. The SHCC has outlined the following roles and functions for the four ministries:

- The Ministry of Education and Culture functions as the implementing agency for schools under its responsibility;
- The Ministry of Religious Affairs is responsible for implementing school health programmes in religious schools with the additional task of implementing religious education;
- The Ministry of Health is responsible for developing and deciding on health-related subjects to be taught in schools, helping to provide medical services and developing healthy school environments;
- The Ministry of the Interior is responsible for school construction and maintenance and other non-teaching facilities. It is important to note that the role of the Ministry of the Interior has become more important upon the formation of the SHCC in the provinces and districts.

Developments since the formation of the SHCC include:

1. Four-ministerial decision on implementation policy for school health, 1984.
2. Ministry of Interior instruction to the governors of 27 provinces on the formation of SHCC at Provincial and District level (Decision No. 445, 1987).
3. Director General for Primary and Secondary Education on the formation of SHCC secretariats (Decision No. 306, 1990).
4. Ministry of Education and Culture on school as a smoke-free zone (Decision No. 4, 1997)

5. Presidential instruction on supplementary feeding programme for school children (No.1, 1997).
6. MOEC decision on HIV/AIDS prevention education following Presidential Decision No 36, 1996.
7. Instruction of the Director General for CDC on New Scheme of School Immunisation, 1997.

At present, the SHCC plays an important role in developing "School Health Competitions" as part of the development of Health-Promoting Schools. There have been regular coordination meetings in each level of government, resulting in the improvement of health programmes in schools. When local, specific problems related to schools arise, they are supervised by the local government through relevant local institutions.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

Community Participation

The initiation of "School Health Competitions" in the subdistrict, district, provincial and national levels have stimulated community participation. Technical help, donations and school facility improvements have been achieved as a result of the increased community participation. Experience has shown that the PTA, alumni and local businesses are often the most ardent supporters of school improvements.

Curriculum Development

The national curriculum is developed at the central level by the Centre for Curriculum Development which is subordinate to the Research and Development of the Ministry of Education and Culture. However, the curriculum is revised only every ten years, with the most recent revision occurring in 1994. Even though the curriculum is reviewed and revised every ten years, adjustments can be made for certain subject matter as long as the standard subjects remain consistent.

Currently, two hours per week is dedicated to health and physical education. However, this is considered too short and insufficient. As a result, a new teaching model needs to be developed. Furthermore, extracurricular activities as well as a specific, local curriculum (which combined receive only 20 percent of the allocated time) should also be increased to improve the effectiveness of health education in schools.

Training of Personnel

Currently, there are no personnel specifically responsible for running school health within individual schools. Specialised teachers account for approximately 30 percent of school health education in classrooms while the remainder is taught by regular teachers.

Systematic teacher training in health and physical education has not been implemented, but there have been plans to initiate comprehensive teacher training for health education at 27 teacher training centres in the provinces. The training will include pre-service training to meet the current needs and demands of teachers. Modules for in-service training are currently being drafted by the SHCC.

Counselling Services

In certain schools, counselling is unofficially provided by appointed teachers. In a few schools, there have been certified counsellors who work part time to support the needs of students. Counsellor certification is awarded through a professional association.

Life Skills Training

Life skills training is part of intracurricular activities, but as time allocated for health education is insufficient, the practice of life skills training is mainly done through extracurricular activities (e.g., the “little doctor programme,” health promoters, pathfinder/pramuka, etc.). The Red Cross has played a significant role in extracurricular activities that provide life skills training and practice.

The Primary School Cluster System

The Primary School Cluster System has been developed as a means of multiplying the number of Health-Promoting Schools in Indonesia. In this model, one well-developed school (a nucleus school) will function as a “centre of excellence” for three to eight surrounding schools (satellite schools), and coordinate a Teachers’ Working Group and a Principals’ Working Group for all schools in the cluster. The cluster system, via the working groups, is designed to help improve the quality of education, enhance and improve competitive enthusiasm and spirit, facilitate professional development for educational staff and provide a stimulus for innovation.

Special Programmes in Health Promotion and Education

The following list is a summary of recent activities in Indonesia that have been implemented to improve health promotion and education efforts.

Deworming programmes that provide medication to children twice a year are now implemented in certain provinces in collaboration with local governments and private sectors. The programme has greatly benefited students, and the incidence of worm infections has decreased.

Supplementary feeding programmes, currently implemented in all underdeveloped areas, are based on the Presidential Instruction and its goal to improve local village economies. Under the programme, locally available food is prepared by the women’s associations and distributed to all targeted children every two days. Through this programme, hygiene problems have been identified in two schools but will soon be resolved. Voluntary school milk programmes cover only 10,000 children in the area of greater Jakarta. Indonesia spends almost USD 40 million per year for the supplementary feeding programme.

Child-to-child programmes are becoming the most popular programmes in each school. Training of “little doctors” is practiced at every school and have shown to be very successful.

Immunisation programmes against diphtheria, pertussis and polio are being adopted to cover all school children in 1998.

Dengue Haemorrhagic Fever eradication has been implemented in all schools by attempting to eliminate *aedes aegypti* breeding places.

HIV/AIDS prevention education is now being implemented in primary schools and up to the university level. It has become one of the priority programmes endorsed by the President.

Anti-narcotic and anti-smoking campaigns are being strengthened. In early 1997, the Ministry of Education and Culture made great progress by declaring all schools as “Smoke-Free Zones.”

Lessons Learned

- Proper steps need to be taken to cultivate healthy habits among schoolchildren, such as increasing awareness, formulating policy for legal support, and developing support systems such as teaching models, teaching facilities and trained staff.
- Dissemination of national policy requires dedicated human resources if it is expected to work well and over time.
- Reaching the target population, particularly with the high numbers of school drop-outs and out-of-school youth, demands special efforts if health promotion is to be successful.
- Environmental programmes for school are crucial for the support they offer to the adoption of healthy behaviour.
- Common criteria should be developed and used to measure the success of school health programmes, including such aspects as school management and health behaviour.
- New and innovative approaches to involve the teaching staff and students in health promotion efforts need to be encouraged and supported.
- PTA, alumni and local businesses are often ardent supporters of school improvements.
- Child-to-child and "little doctor" programmes are popular and effective.
- In-service and pre-service teacher training should teach the Health-Promoting School concept.

Current Challenges

The following barriers to current health promotion efforts in schools have been identified in this report:

- The difficulty coordinating a national programme considering: such a large number of schools and students; enormous diversity of cultures within Indonesia; the varying stages of development in different parts of the country; and the wide distribution of schools spread out among the many islands of the archipelago.
- The attitudes and understanding among decision-makers that healthy life skills development in schools are less important than other intellectual development programmes. For this reason, Physical Health and Education are not being taught in accordance with the present health promotion needs.
- Teachers responsible for developing healthy habits among school children are not readily available or their experience is very limited, e.g., there is a lack of certified school counsellors and other relevant health staff. In addition, a systematic teacher training in health and physical education has not been implemented, and teachers are in need of appropriate teaching models and materials.
- School environments are not always conducive to the healthy learning process and should be improved.

Prepared by the Ministry of Health, Under-Ministry of Prevention and Disease Control, General Directorate of Health Promotion, Mexico

Introduction and Demographics

Mexico is a Spanish-speaking country that is entering the category of "Mega Country," with its 97.7 million inhabitants, 49.6 percent of whom are male and 50.4 percent female. In a territory of almost two million square kilometers, characterised by a wide variety of climates ranging from desert and high plateau to tropical jungle, one can find urban, rural and Indian peoples whose customs and traditions form a pluricultural Mexico expressed through a wealth of music, dance, architecture, cooking, regional dress, arts and crafts, and fiestas and ceremonies of every type.

Mexico is divided into 31 states and the Federal District, where the Legislative, Judicial and Executive branches are concentrated, with a democratic government headed by a President. The population is distributed irregularly throughout the territory, with huge concentrations in some areas, such as the Federal District and its metropolitan area, and some state capitals, all contrasting with the dispersion of rural areas. The population density is 43 persons per square kilometer and average life expectancy is 73 years.

One quarter of Mexicans are school-age (4-15 years old). The school-age population totals 25,994,000 – 50.7 percent are male and 49.3 percent female. National illiteracy is 10 percent, with the number of illiterate women greater than that of men (3 to 2). Education and health care are guaranteed respectively by Articles 3 and 4 of the Mexican Constitution. These rights are understood as access to basic education and health-care services, as well as living in surroundings conducive to well-being.

Government and Other Organisations with Responsibility for School Health

Access to educational services has improved notably over the past 20 years, though it is estimated that 2.5 million Mexican children do not attend school for a variety of reasons, including: the large number of disperse human settlements with fewer than 500 inhabitants; difficult access over rough terrain; meager or deficient materials; financial or human resources; and migratory movements. To this should be added minors who abandon their education early to help support their family.

During the 1996-1997 school year, student registration was 22,698,124 in Basic Education, including preschool, primary and secondary, as can be seen in the following chart:

TYPE	LEVELS		
	PRESCHOOL	PRIMARY	SECONDARY
TOTALS	3,238,337	14,650,521	4,809,266
General	1,955,978	9,548,888	2,609,807
Indian	274,412	717,442	
Community courses	75,125		
CENDI	29,281	145,969	
State + autonomous	652,187	3,311,520	
Private	251,354	926,702	
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For workers			68,988
Secondary TV			756,664
Technical			1,373,807

Source: SEP, *Estadística básica del sistema educativo nacional: Ciclo 1996-1997*.

Education is provided by the State, its decentralised agencies and private institutions with authorisation and with official validation of studies.

Insofar as health-care services are concerned, they are offered through the Health-Care Sector, consisting of national, state and local government; the Ministry of Health (SSA), which attends to a potential populace of 28.9 million (open population); the Mexican Social Security Institute (IMSS), which provides services to 36.5 million members; the Social Security Institute for State Workers (ISSSTE), overseeing 9.1 million; and the National System for the Integral Development of the Family (DIF), responsible for social assistance, in addition to other public institutions and those from the private sector. Even so, it is estimated that about three million Mexicans have no regular access to services, due to the geographical, economic, demographic and cultural characteristics of Mexico.

The epidemiological panorama in Mexico is in a transition from infectious diseases to chronic and congenital diseases, influenced also by the diseases of poverty, such as malnutrition and diarrhea. This panorama likewise accounts for the main causes of morbi-mortality in school-age children.

MORBIDITY FROM 5 TO 14 YEARS OF AGE	GENERAL MORTALITY BY CAUSE FROM 5 TO 14 YEARS OF AGE
1. Traumatism, fractures and lesions 1. Diseases of other parts of the Digestive System 1. Diseases of the Respiratory System 1. Childbirth and obstetric causes 1. Congenital abnormalities 2. Infectious intestinal diseases 1. Poisoning and toxic effects 1. Burns 1. Diseases of the osteo-muscular system and conjunctive tissue 1. Diseases of the Circulatory System	1. Motor vehicle accidents 1. Malignant tumors (leukemia and encephalitis) 1. Diseases of the Central Nervous System (infantile paralysis and epilepsy) 1. Diseases of the Respiratory System (pneumonia) 1. Congenital abnormalities (heart and circulatory system) 1. Homicide and lesions causes by other persons 1. Intestinal diseases 1. From violence (regardless of intentional or accidental) 1. Nutritional deficiencies (protein-caloric malnutrition) 1. Diseases of other parts of the Digestive System

Source: *Anuario estadístico, SSA 1996.*

There are other problems not found among the first causes of morbidity, but which have a significant influence on children's learning and psycho-social development. First of all, the problem of nutrition, as well as those of eyesight and hearing, posture, and skin and mouth diseases. It is estimated that between two and three of every 10 schoolchildren are affected by these problems.

Structure and Functioning of Educational Services

Education is a public service provided through the National Educational System, which includes

- Students and educators
- Education authorities
- Plans and programmes, educational methods and materials
- State educational institutions and their decentralized agencies
- Private institutions with authorization or with official validation of studies Institutions of higher education granted autonomy by Law

The Ministry of Public Education (SEP), the institution heading the National Educational System, carries out functions of a normative nature within the context of decentralisation, so that, in the states, there is competition for the local organisation of services and the adaptation of educational content to their characteristics and needs.

The General Law on Education establishes that “education in Mexico is a fundamental means for acquiring, transmitting and spurring culture. It is an on-going process contributing to the development of the individual and to the transformation of society, and is a determining factor in the acquisition of knowledge and in the formation of Man so that he can have a sense of social solidarity.”

Education consists of three levels:

- **Basic education**
 - Preschool
 - Primary
 - Secondary
- **Middle-higher education**
 - *Bachillerato* or its equivalent
 - Professional education without a *bachillerato*
- **Higher education**
 - Bachelor's, normal education
 - Master's
 - Doctorate and post-doctoral studies

This also includes initial education, special education and adult education. The latter encompasses literacy, primary, secondary and formal job training. It is offered to those over 15 years of age to learn to read and write and do basic calculations. All the country's inhabitants should go through primary and secondary education, services provided by the State, for free.

Through the Program of Educational Development 1995-2000, education is framed within the concept of human development: “it seeks equal access to educational opportunities and establish conditions permitting its full use, it seeks to assure that education remains open also for future generations, according to a vision of sustainable development, it is directed toward encouraging participation and responsibility of the principal agents participating responsibly in all realms of social life. Moreover, it seeks to stimulate productivity and creativity in the performance of all human activities.”

The basic fundamentals spurring the Program of Educational Development are equality, quality and pertinence in education. It seeks to broaden the coverage of services and improve and strengthen programmes. Education cannot be disconnected from the needs and interests of those being educated. It has to remain pertinent to their conditions and aspirations and serve the maintenance and development of a populace. Quality is a constant effort in search of improvement, in which the teacher is a universal agent, so that his formation and continuing education are priorities.

To broaden coverage and improve the quality of education, the Educational Sector initiated the federalisation of education and Educational Reform. At present, new textbooks are being elaborated for students and teachers according to the new Plans and Programmes of Study and a strategy of training is underway to improve teacher performance, revalue them and encourage them to move up in their teaching career.

To attend to education, there are the following numbers of schools and teachers:

LEVEL	NUM. OF SCHOOLS	NUM. OF TEACHERS
Preschool	63,319	146,247
Primary	95,855	524,927
Secondary	24,402	275,331

Source: SEP, *Estadística básica del sistema educativo nacional.: Cursos 1996/1997*

Structure and Functioning of Health Care Services

The health care system in Mexico consists of public administration agencies, both federal and local, as well as individuals and organisations of the social and private sector which provide health-care services. Heading this system is the Ministry of Health.

Health care services are classified into three types:

- Medical Attention
- Public Health Care
- Social Assistance

The Ministry of Health provides services of medical attention and public health care, and sets guidelines on these actions for the institutions in the sector. Services are provided based on the General Law on Health Care and the following documents of a policy and normative nature.

- **Program of Health Care Sector Reform:** An instrument through which the government proposes to achieve the objectives proposed in the National Development Plan 1995-2000, which are "expanding social-security coverage, so as to avoid duplication in operating services and introducing incentives to quality in attention, increasing the efficiency of attention to the populace through the decentralization of services provided by institutions attending to this populace and granting essential health-care services to the populace not currently covered."

The reform of the sector has meant the decentralisation of health care services and, with it, the establishment of four essential, non-reducible actions, the exercise of which should be guaranteed in all states, to wit: **Public Health Care**, comprising Health Care Promotion and Preventive Services; **Medical Attention**; **Sanitary Development** and **Information Systems**.

To bring these services to the inhabitants that still do not have access to care, the **Basic Package of Health Care Services** was set up, comprising clinical, health care and health promotion intervention, capable of being implemented, low-cost and high-impact. This Package consists of 12 interventions for integral attention to health care.

- **Model for Health-Care Attention for the Open Population:** the objective is to "achieve the optimum organisation and functioning of State Health Care Services, so as to insure the populace of the availability and access to quality health care, with the full participation of users and service providers," by means of articulated and proper elements and actions, with well-defined structures and programmes with specific performance standards.
- **Mexican Official Standards:** to provide quality and efficient services. To date, 118 standards have been elaborated, setting down guidelines for actions related to attention and public health care.

Student and adolescent health care are services contemplated in these documents as a strategy for contributing to the physical, mental and social health in an organised and integral manner.

In the exercise of its function, the Ministry of Health is structured into three Under-Secretariats: Disease Prevention and Control; Intersectoral Coordination; and Sanitary Regulation and Development. The Under-Secretariat of Disease Prevention and Control, General Directorate of Health Care Promotion, is responsible for the School Health Care program, in coordination with agencies of the Ministry itself, and others from the Health Care Sector and from Education.

National Strategies and Approaches to Improve School Health

Within the context of decentralization, school health care, like all programmes, is developed at a normative level setting down guidelines and models, and at an applications level, which includes the states, which organize their efforts under these guidelines, but adapt them to their local characteristics, needs and resources.

Integral Student Health Care

The purpose of this program is to contribute to the protection and improvement of student health for their physical, mental and social development. The target is preschoolers 4-5 years of age and primary pupils 6-12 years of age, in addition to teachers and parents. The principles of the programmes are:

- Health as a social and cultural good, linked to educational efforts.
- Interrelationship of schools with their local and municipal surroundings
- Intersectorality
- Social and community participation
- Health care comprehensive approach

Its antecedents are diverse models and proposals that have been developing since 1882 by the Ministry of Public Education and health care institutions. Diverse documents and guidelines form the policy and social basis, such as:

- Articles 3 and 4 of the Constitution.
- General Law on Education.
- General Law on Health Care.
- Agreement on Educational Modernization.
- Official Mexican Standard NOM-009-SSA2-1993 for Developing Student Health.
- Program of Educational Development 1995-2000
- Program of Health Care Sector Reform

The main purpose of the program is to contribute to the care and improvement of the physical, mental and social health of preschool, primary and secondary students, as well as that of teachers and parents. The program proposed four directions for action:

- **Health care education**, oriented toward developing knowledge, attitudes, values and abilities to live healthily.
- **Detection and attention of health problems**, oriented toward priority issues, those interfering with learning, those causing absenteeism and learning problems, those influencing psycho-social development and those that can be detected in time in school.

- **Promotion of healthy environments**, which comprises the care of the physical environment made up of the building and installations, furniture and equipment, recreational and sports areas. Likewise, the social environment oriented toward those protective and risk factors having an influence in it.
- **Social participation**, which, beyond the contribution made by organized groups, institutions and authorities, seeks to train for participation, develop decision-making, responsibility in individual and environmental self-care and the **training of student-promoters**.

This program is being carried out nationwide, in approximately 25,000 preschool educational centers and 30,000 primary schools. At present, the activity being developed with greatest intensity is the detection of health problems in 1.4 million preschool children and 6 million primary-school students. It is estimated that about 200,000 teachers from both levels are intervening, working together with personnel from the health care units, which are the basic nuclei of the Model of Health Care Attention.

Wide participation is being promoted so as to provide eye-glasses or prostheses to those needing them, dietary help or treatment, as the case may be. To that end, strategies are being developed to link the school with the community and with government authorities.

This program is being developed among educational and health care sectors according to the Coordinating Bases for the Formulation, Development and Execution of the National Program of Promotion and Health Care of Students, signed in February 1989, and the Official Mexican Standard NOM-009-SSA2-1993 for Promoting Student Health, which works along the lines of education for the health care, prevention, detection and attention of health problems and the improvement of the school environment.

Nationwide, health care personnel, permanently in coordination with the SEP, are reviewing and elaborating proposals regarding the plans and programmes for studies, didactic materials, and textbooks in the area of health care and its promotion.

At present, in the operational area, there are advances in coordinating educational and health care systems, which are geared toward achieving joint planning of curricular and extracurricular activities in the school environment. Mixed working commissions are being formed at the national, state and jurisdictional levels.

Integral Adolescent Health Care

This program emerged in 1995, in light of the need to provide health care services by means of different strategies to this population group, constituting approximately one-fourth of the population. It has problems, needs and doubts of its own, with a sharp social and economic impact.

ADOLESCENT POPULATION 10-19 (THOUSANDS)	
10 - 14	10,812,136
15 - 19	10,461,082
TOTAL	21,273,218

Source: *Proyecciones de población*. CONAPO, 1995. SEP, *Estadística básica del sistema educativo nacional 1995-1996*.

Several institutions are working in favor of this age group, with a eye toward fundamental attention

to reproductive health and addictive problems, so that the General Directorate of Health Care Promotion implemented an integral program contemplating health care education, the detection and attention of problems affecting learning, as well as physical and emotional ones affecting adequate growth and development, and the promotion of a healthy social atmosphere.

The program deals with adolescent problems through the following focus:

- It considers that the origin of their main health problems is psycho-social, rather than biological.
- It gives more attention to the formative over the informative, and the preventive over the curative.
- It incorporates risk focus, permitting adolescents to learn to detect and resolve it.
- It encourages a gender focus, permitting the analysis, reflection and decision-making from an egalitarian and equal perspective.
- It promotes the inclusion of educational, informative, preventive, attention and promotion actions in developing healthy environments.

Development is through three modalities, permitting the inclusion of several groups of the adolescent population.

- **Adolescents studying in secondary schools**, fundamentally for educational actions, detecting problems, promoting healthy environments and seeking adolescent promoters in coordination with teachers.
- **Training of adolescent promoters**, so as to have solid, reflective and informed young people that can help their similar acquire knowledge about self-care and can promote attention to some problems detected, as well as participate in campaigns, brigades and organized groups working in favor of family and community health. Adolescents outside the educational system are many in number and have no access to information on measures favoring self-care. With the participation of adolescent promoters, information will reach these groups, activities reinforced with the handling and passing out information cards relative to their problem.

POPULATION IN SECONDARY SCHOOL		POPULATION OUTSIDE SCHOOLS
1°	1,754,000	395,000
2°	1,573,000	563,000
3°	1,359,000	761,000
TOTAL	4,687,000	1,719,000 (27%)

NOTE: Does not separate students who have flunked.

Source: SEP, *Estadística básica del sistema educativo nacional 1995-1996*.

- **Health care education for organized adolescent groups.** At present, didactic materials are being elaborated on health information for 150,000 youngsters doing their military service, an activity that will be reinforced more in subsequent years.

Health Promoting Schools

Mexico is participating in the movement of Health Promoting Schools, and took part in the conference of the Latin American Network of Health Promoting Schools, held in 1996 in San Jose, Costa Rica.

By participating in this initiative, the Ministries of Education and Health, in coordination with the Pan-American Health Organization, elaborated a project to convert the schools where the Integral Student and Adolescent Health Care programmes are underway into Health Promoting Schools, as well as to form a National Network to strengthen and connect them. This project began with the approval of the heads of education and health in February 1997 and took form nationally, with the following relevant aspects:

- Agreement among state heads of education and health care.
- Joint planning of SSA-SEP.
- Adoption of Model of Student Health Care in Mexico to set up Health Promoting Schools.
- Gradual transformation of schools from the Integral Student and Adolescent Health Care program into Health Promoting Schools, by an organized process.
- Certification of Health Promoting Schools.
- Creation of a Mexican Network of Promoting Health Schools.

Schools classified as Health Promoting Schools are those in which students, teachers and parents, together with the community and government authorities, work to improve education and health care, and the environments where they live, learn and develop through these actions:

- Health care education, through which students acquire knowledge, abilities, attitudes and values regarding health care from their teachers and health care personnel.
- Detection of problems affecting student health and which interfere with learning, such as nutritional, hearing and eyesight problems. This is done by organising health care services and seeking coordination with institutions and authorities so as to attend to and resolve these problems.
- Promotion of caring for and improving the physical and social environment.
- Social participation to achieve greater participation and better organisation of the educational community in carrying out these health care actions.

In setting up the Health Promoting Schools, the following stages were established:

- Application form by the school, manifesting its desire to be a health promoting school and that it can participate in September or January of each year.
- Elaboration of a diagnosis and participatory health care project, which should be prepared within the two months following the application date.
- Development of a participatory project, which can be set up for one or two years duration.
- Application for certification from the fifth month of the project, if there are significant advances, according to a report made by health care and education personnel.
- Certification of the school as a health promoting school, which will be renewed upon presentation of a new project.

To date, we have 292 schools that are advancing in their participatory project, so that they will be certified soon. Major growth is expected in the coming school years.

In support of setting up these schools, a manual, "Among All of Us, Take Care of Student Health," directed at teachers; an informative booklet describing the project to educational, health care and government authorities; as well as a promotional poster for schools were elaborated.

The Mexican Network of Health Promoting Schools is underway and, to that end, the

organisational bases have been elaborated, containing the objective, functions and structure of this network. It is based on the organisation of national, state and jurisdictional Intersectoral commissions so as to function better.

To achieve closer ties between schools and the community, this project has been coordinated with the Network of Healthy Municipalities, so that at least one school per healthy municipality is expected to be formed during the 98-99 school year.

Mexico hosted the 2nd Meeting of the Latin American Network of Health Promoting Schools, held in Mexico City from April 13-17, 1998, with the attendance of every country of Latin America, Cuba and the Dominican Republic. As host of this event, Mexico assumed the presidency of the General Board of the Network. As part of its commitments, Mexico participated in elaborating the document presenting this regional network and the first information bulletin.

The development of health promoting schools is an initiative that has been received enthusiastically by education and health care personnel, as well as by mayors and state-government heads.

References

1. Ejecutivo Federal, *Ley General de Educación*. *Diario Oficial* (Mexico, July 13, 1993).
2. *Programa Nacional de Salud 1984 - 1988*.
3. SSA, *Programa de Salud Integral del Escolar*. Dirección General de Promoción de la Salud. (Mexico, June 1995).
4. SSA, *Programa de Salud Integral del Adolescente*. Dirección General de Promoción de la Salud. (Mexico, 1996).
5. Ejecutivo Federal, Entidades Federativas de la República Mexicana, SNTE, *Acuerdo Nacional para la Modernización de la Educación Básica* (Mexico, May 1992).
6. OMS, *Promoción de la Salud Mediante las Escuelas. Iniciativa Mundial de Salud Escolar* (1996).
7. Ejecutivo Federal, *Programa de Reforma del Sector Salud 1995-2000* (Mexico: SSA, 1995).
8. Ejecutivo Federal, *Programa de Desarrollo Educativo 1995-2000* (Mexico: SEP, 1995).
9. Sistema Nacional de Salud, Anuario Estadístico. *Boletín de Información Estadística*, 14, I(1994).
10. SSA, *Modelo de Salud Escolar en México*. Dirección General de Promoción de la Salud (1996).
11. SEP-SSA, *Bases de Coordinación para la Formulación, Desarrollo y Ejecución del Programa Nacional de Promoción y Cuidado de la Salud de los Educandos* (Mexico, February 15, 1989).
12. SSA, *Escuelas Promotoras de la Salud en México*. Dirección General de Promoción de la Salud (March 1997).
13. SEP, *Estadística Básica del Sistema Educativo Nacional* (1995-1996).
14. Ejecutivo Federal, *Norma Oficial Mexicana NOM-009-SSA 2-1993 para el Fomento de la Salud del Escolar*. *Diario Oficial* (March 1994).
15. OPS/OMS, *Escuelas promotoras de la salud. Entornos saludables y mejor salud para las generaciones futuras* (Washington, D.C., 1998).
16. CONAPO, *Proyecciones de población por entidad. 1990-2010*. (September 1995).

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Introduction and Demographics

Nigeria, with an estimated population of 106 million is the most populous country in Africa, and the tenth largest country in the world today. With an annual growth rate of three percent, it is projected by the year 2050 to become the sixth largest country in the world with an estimated population of 244 million (UNFPA, 1998). A vast country with well over 300 ethnic groups, many local languages and varied religious associations, it is a country that cannot be stereotyped in terms of socio-cultural influences.

In present day Nigeria, there is an increasing incidence of poverty and worsening social conditions with gross disparities in the living standards of people, particularly in the rural areas. Economically, Nigeria is a country with a large number of rural farmers; the mainstay of the economy remains crude oil export and the gross national product cannot address the challenges posed by an ever growing population.

Basic health and social indicators show that although rates have improved tremendously in the past thirty years, some still remain high. For example, the infant mortality rate and maternal mortality ratio are 87/1000 live births (UNICEF, 1997). Almost 50 percent of the population is under 15 years, indicating a need for close attention to the provision of quality health care and education for young people. Adolescents between the ages of 10 and 19 years form about 20 percent of the total population.

Major health and social problems faced by these groups of young people in Nigeria include, among others, infections, especially malaria and helminthic infections, inadequate nutrition and its resultant effects, especially on the girl child, inadequate reproductive health information and services resulting in rising incidences of teenage pregnancies and its attendant effects, illegal and often criminally induced abortions, increasing incidences of STI/HIV/AIDS and its consequences. Others include harmful socio-cultural practices leading to early marriages and school drop-outs (Makinwa-Adebusoye, 1995; FOS, 1992; Dare et al, 1997; ARHF, 1998). There is also a rising incidence of drug and substance abuse (Ewoigbokan et al, 1997) as well as increasing violence especially in the urban and semi-urban areas and abuse of the rights of the child.

In Nigeria, about 70 percent of schools are owned and financed by the Federal Government. The amended National Policy on Education stipulates that all Nigerian children should complete free primary school education. From available data, about 70 percent of Nigerian children enrol in the primary schools nationwide, with gender disparities increasing from the secondary to the tertiary levels (UNICEF, 1997, Dare, et al, 1997). The teacher-student ratio in primary schools is estimated to be 1 to 30.

It is estimated that less than two percent of those who enrol in primary schools will ever attain tertiary education. Problems associated with the educational system in Nigeria include the deterioration of the quality and quantity of educational inputs in the face of an ever growing young population, and inequitable distribution of facilities nationwide (UNFPA, 1996).

In December 1996, the number of educational institutions by type and total pupil enrolment were published as follows:

Type	Number	Enrolment
University	36	236,261
Specialised Technical Institutions	3	2,161
Colleges of Agriculture	39	5,552
Polytechnics	45	140,953
Colleges of Education	62	82,247
Secondary Schools	7,104	4,448,981
Technical Colleges (Secondary)	118	54,571
Primary Schools	48,242	16,761,591

Government and Other Organisations with Responsibility for School Health

National School Health Education in Nigeria - An Historical Overview

1. School Health Services began in Lagos in 1929. Under this scheme, clinics were established by the Ministry of Health to provide curative services to school children with common ailments and injuries. (These services were later transferred to local government in 1979.) The health personnel that provided these services were drawn from existing health centres.
2. 1968, the Federal Ministry of Health, in collaboration with a WHO consultant, reviewed and advised the planning and implementation of the School Health Programme in Nigeria.
3. 1969, a publication for primary schools entitled, "The Teacher's Guidelines on Home and Health Science," was printed by the Federal Health Education Unit for the Lagos State Ministry of Education.
4. 1972, an annual health education seminar for Lagos Primary School Teachers was organised by the Public Health Department of the Lagos City Council.
5. 1979, school health education was discussed at a Regional Conference organised by WHO in Monrovia, Liberia.
6. 1985, a task force on National School Health Education as a component and strategy for primary health care (PHC) was established by the Federal Health Education Division, Federal Ministry of Health.
7. 1987, the use of primary school pupils for community education and mobilisation of PHC services was institutionalised.
8. 1991, school health education was introduced into the curriculum of primary schools.
9. 1995, a National Adolescent Health Policy was developed to address the various issues of concern among the target age group.
10. 1999, a National Strategic Framework on Adolescent Reproductive Health was developed in Nigeria with key stakeholders including young people themselves.
11. March 1999, the National Council of Education agreed at its 46th Annual Meeting to incorporate sexuality education into school curricula and directed relevant agencies to take steps to achieve this immediately.

National Approaches and Strategies to Improve School Health Programmes and Current Priorities

The nature of health problems in schools is a reflection of the health problems in the country. The prevalent diseases in Nigeria include malaria, malnutrition, measles, respiratory infections, diarrhoeal diseases and sexually transmitted diseases (STDs), including HIV/AIDS (National Health Policy, 1996). The findings of a recent study of health problems in a secondary school shows that these diseases are also prevalent among students. The study also showed that the health risk factors among students include drug use (32.3 %), alcohol (9.6%), and smoking (4.2%) (Ewoigbokhan, et al., 1997). Other studies have shown that a high proportion of in-school adolescents are engaging in sexual activity. The level of teenage pregnancy is high while their knowledge of reproductive health is poor (Makinwa-Adebusoye, 1992; Olaseha and Alao, 1993; Amazigo et al., 1997).

Nigeria embraced primary health care (PHC) as the key to health for all and formalised this philosophy in the National Health Policy proclaimed in 1988. Although the health policy was revised in 1996, PHC remains its main thrust.

Health education has been described as a central and fundamental part of all other components of primary health care. As a combination of planned social actions and learning experiences, health education is designed to enable people to gain control over determinants of health and health behaviour. Health education takes place in different settings, including the home, school and community.

Promoting healthy behaviours by providing relevant information and education through schools is one of the identified strategies to provide young people with required knowledge, skills and an enabling environment for the development of their psychosocial competence to effectively address the challenges of everyday life.

Udoh (1996) states that the school is a favourable setting through which to influence knowledge, attitudes and behaviour. Following are three main channels through which schools provide this opportunity.

1. Formal **health instruction**, consisting of:
 - curriculum development
 - determining approaches to health instruction
 - determining patents of health teaching
 - organisation of the lesson
2. Provision of **health services**, which can include the following:
 - health appraisal
 - follow-up services
 - communicable disease prevention and control
 - emergency care for injuries and sudden illness and
 - health of school personnel
3. Ensuring a **conducive learning environment** which includes a safe physical environment, healthful school day, and interpersonal relationships.

Although school health programmes became one of the strategies for promoting PHC, they have not yet been fully adopted, as the below analysis of three recommended strategies for improving health through schools indicates.

Health Instruction

In an examination of the status of health education in educational institutions in Nigeria, Udoh (1996) notes that there is no organised health education in the public primary school system. Health instruction is carried out only incidentally. The instruction component of health education is emphasised in secondary schools, but health education at this level is taught by teachers who have little or no professional preparation in health education. Health science is also taught as an optional subject at the senior secondary school level. At the level of colleges/universities, specialised subjects in health and physical education are taught.

A critical look at the design of curriculum for the teaching and learning of health education over the years shows that the content and methods used concentrate primarily on health information rather than participation and behaviour change among students. Though health education has been included in the primary school curriculum, replacing hygiene as a separate subject, it is still being taught in conjunction with physical education in the secondary schools. As it is, physical education is usually given more prominence. Other secondary school subjects which also provide health information include health science and home economics. These are not, and cannot be, seen as a substitute for health education which focuses on identification of health-related behaviour and risk factors and how to modify them (Adeniyi, 1993).

Oladimeji and Fabiyi (1993) recommended the inclusion of safety measures in school health education curriculum among others. Similarly, Adeniyi (1993) advocates that school health education curriculum contents should emphasise behavioural factors influencing health and diseases.

School Health Clinics

A major problem with the school health programmes in Nigeria is the dearth of school health clinics. The few school health clinics that exist are found in secondary schools owned and financed by the Federal Government. Very few non-governmental organisations (NGOs) provide reproductive health services and counselling for school-age adolescents.

Due to the dearth of school health clinics, routine medical examinations and public health screenings, treatment of common ailments, emergency care and health counselling of students are not currently adequate. Where school health clinics exist, the services are not comprehensive enough or are not organised to meet the needs of the students.

School health environment

The 1996 Progress of Nigerian Children report indicates that water and sanitation facilities are poor in some schools. The environment in some private schools is better, but often lacks adequate space for recreation.

Attempts have been and continue to be made to improve health through schools. The government has set aside a considerable amount of money for the rehabilitation of schools and health institutions in a commitment to bring about positive change in the status of health in schools.

Current Challenges

- To strengthen political will and financial commitment to support the implementation of school health programmes
- To make the health education curriculum relevant
- To ensure that school health clinics are adequate and functional
- To ensure teachers are well-equipped to teach health education
- To eliminate gender disparities in school attendance and performance and health outcomes
- To make the school environment conducive for learning

In view of the above challenges, the next two years will need to see a close review and strengthening of all components of the School Health Programme, including:

- a) Design and development of a national policy for the School Health Programme
- b) Reactivation of the National Advisory Committee on School Health Education which will be responsible for advising the government on policy and implementation
- c) Establishment of a central body within the Federal Ministry of Health or Education to monitor, coordinate and evaluate certain specific indicators of the School Health Programme to ensure that implementation is effective
- d) Review of the curriculum on School Health Education to make it comprehensive. The goal of this review is to make health education a separate and compulsory subject in all schools.
- e) Facilitate and support the establishment of functional school clinics and to strengthen existing school clinics.
- f) In addition, there must be strong and cordial collaboration between the Ministry of Health and the Ministry of Education.

Lessons Learned

- Collaboration between the Federal Ministry of Health and Education and other relevant agencies makes the School Health Programme more effective.
- A healthy school environment promotes good health and facilitates the learning process.
- Teaching health education as a separate subject in schools affects health-related behaviours of schoolchildren.
- Development of a school health policy serves as commitment by the government to implement and support the School Health Programme.

References

- Adeniyi, J.D. (1993). "Effective Teaching of Health Education in Primary School: The Challenge in the 90s." *Nigerian School Health Journal*, Vol. 8, No. 1: pp. 26-34.
- Amazigo, U., Silva, N., Kanfman, J., & Obikese, D.S. (1997). "Sexual Activity and Contraceptive Knowledge and Use Among In-school Adolescents in Nigeria." *International Family Planning Perspective*, Vol. 23, No. 1:28-33.
- Brieger, W.R., Ramkhrisna, J., Adeniyi, J.D., and Kale, O. (1988). "Health Education Intervention to Control Onchocerciasis in the Context of PHC." In Carlaw, R.W. and Ward, B.W. (Eds). Primary Health Care, the African Experience, Vol 2: 231-376.
- Ekeh, J.E. (1981). "Planning for Sex Education in Secondary Schools." In, *Official Report of the 1st International All African Conference in Health Education, 31 August - 5 September 1981*. Federal Ministry of Health, Lagos, Nigeria: 251-259.
- Ewoigbokhan, F.I., Akinpelu, T.A., and Idowu, S.A. (1997). "Health Problems of Senior Secondary School Students in Sagamu LGA of Ogun State." Unpublished dissertation, Department of Health Education, University of Nigeria, Nsukka.
- FMOH, (1988). *National Health Policy*. Federal Ministry of Health, Lagos, Nigeria.
- Federal Office of Statistics and UNICEF Nigeria, (1996). *Progress of Nigerian Children*. Lagos, Nigeria.
- Federal Republic of Nigeria, (1997). *Official Gazette*, No. 25 Vol. 84.
- Gidado, I. (1997) "Education for Development." An Address by the Secretary to the Federal Republic of Nigeria, Abubakar Tafawa Balewa University.
- Oladimegi, B.A. and Fabiyi, A.K. (1993). "Increasing the Awareness of Safety Measures Among Secondary School Pupils: The Ile-Ife Experience." *Nigerian School Health Journal*, Vol. 8, No. 2: 9-19.
- Omishakin, M.A. (1981). "Improving Health Education through Health Education and Preventive Medicine in Developing Countries." In, *Official Report of the First International All-Africa Conference on Health Education, 31 August-5 September 1981*. Lagos, Nigeria, Federal Ministry of Health, Lagos, Nigeria: 94-99.
- Udoh, C.O. (1996). "The College that is Health Education: An Inaugural Lecture." University of Ibadan, 1996.
- UNFPA (1998). *The State of World Population 1998: The New Generations*. United Nations Population Fund, New York.

School Health in Pakistan: National Strategies

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Demographics

POPULATION		BASIC INDICAT		HEALTH %	
Population	138,155,367	GDP	4.7 %	Access to safe water	65
Area	796,095 km	GNP	476 US\$	Access to sanitation	33
Density	173 / km	CBR	3.76	Access to health services	55
		CDR	0.99	Fully immunised Children	78
		G. RATE	2.77	Malnourished Children	51
		IMR	101/1000	Anaemia > 5	60
		MMR	30/10000		
		MALE/FEM	92 FEM/		
		RATIO	100 MALE		
		% below	25 %		
		poverty line			
		Literacy	37 %		

Status of Schools in Pakistan 1995

TYPE	NUMBER (x 1000)			ENROLMENTS (x 1000)		
	Male	Female	Total	Male	Female	Total
PRIMARY SCHOOLS	311.5	100.7	412.2	11592	5130	16722
MIDDLE SCHOOLS	62.5	40.4	102.9	2715	1425	4140
SECONDARY SCHOOLS	160.8	57.1	217.9	982	581	1563
HIGHER SECONDARY	11.66	7.4	19.06	367	262	629

Status of Schools in Sindh Province 1996

TYPE	NUMBER (x 1000)			ENROLMENTS (x 1000)		
	Male	Female	Total	Male	Female	Total
PRIMARY SCHOOLS	31726	5432	37158	150.7	725.6	2259.8
MIDDLE SCHOOLS	1321	558	1879	98.11	47.32	145.43
SECONDARY SCHOOLS	1025	397	1412	441.02	226.0	667.02
HIGHER SECONDARY	54	33	87	59.68	38.45	98.14

Status of Schools in Sindh Province 1996

TYPE	TRAINED TEACHERS			UNTRAINED TEACHERS		
	Male	Female	Total	Male	Female	Total
PRIMARY SCHOOLS	58724	22077	80801	24478	5423	29901
MIDDLE SCHOOLS	3960	2375	6335	2102	1402	3504
SECONDARY SCHOOLS	15088	10274	25362	4616	1927	6534
HIGHER SECONDARY	1744	1085	2829	413	344	757

Government and Other Organisations with Responsibility for School Health

- *The United Nations International Children's Emergency Fund (UNICEF)*, a well-known international collaborating agency, provides technical and financial assistance for the country's development programmes, especially those related to children. UNICEF also supports ongoing school health service (SHS) activities.
- *Save the Children Fund (SCF) UK*, Britain's largest international children's organisation, has been working in the desert area of Sindh since early 1988, initially providing emergency relief to drought-stricken people. SCF is now working to implement the Tharparker (desert) Rural Development Programme (TRDP). One of this programme's main objectives is to collaborate with the local government to establish an action-oriented school health education Programme in the primary and secondary schools in the project area.
- *The Agha Khan Health Services (AKHS)*, another international development agency, has been actively involved in providing school health services in Pakistan since 1978. In Sindh alone, AKHS provides coverage for almost 7000 schoolchildren a year.
- *Public special educational institutes*, which have their own board of governors and autonomy for policy making, offer limited SHS through a medical officer appointed to provide medical coverage for the students. Every divisional headquarter in the country has such public schools, and the student capacity varies from 500 to 2000 or more.
- *Cadet Colleges*, which are managed by the armed forces of the county, also provide limited SHS to their students through a health management structure that is built into the institution.
- *Sindh Employees Social Security Institution (SESSI)*, established in the mid-1970s to provide social security for the province's industrial employees, is responsible for providing health and education facilities for its beneficiaries. Because all social services provided by SESSI are under the same management, delivery of these various services is closely coordinated and integrated. Hence, SESSI provides limited SHS through its medical service delivery outlets.
- *Machinery schools*, present in most of Pakistan's big cities, are autonomous and provide a variety of medical services for their students. Although these schools initially provided only first aid and routine check-ups, they are expanding these services to include health education and thus cover selective areas of SHS.
- *Chain schools*, which are privately owned, have institutions in every big city of the country.

In keeping with their well-established standards for providing school services, they provide medical facilities for their students. With the change in trends, health education has become one of the most important features of their educational services. To follow the modern concepts of schooling, they are now trying to establish SHS in its initial form, although not so objective oriented.

Although these various school systems provide only limited SHS, their SHS programmes can be strengthened to become more service oriented, with proper human resource development, and better linked with the country's SHS system.

In addition, many local-level, nongovernmental organisations (NGOs) cover one or more components of SHS as part of their development activities, especially those pertaining to the education sector in their area of operation. Currently, none of these efforts are large enough to have a significant impact or regular enough to be considered for any strategic plan. However, those that are determined through rational assessment to be effective and sustainable can be magnified through proper training, intersectoral coordination and a viable linkage with the formal structure of the country's SHS.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

The School Health Services Programme was initiated in 1987. The basic goal of the programme is to provide prevention, health education and screening/referral services in the country's schools.

The country's seventh 5-year plan recommended that all children have a complete medical check-up when they enter school and a comprehensive quarterly check-up as long as they remain in school. The Programme has not made any appreciable progress during the seventh 5-year plan.

The country's eighth 5-year plan (1993-1998) recommended that the Programme be carefully studied and reoriented towards developing healthy lifestyles among schoolchildren. Although the eighth 5-year plan is nearly at an end, no obvious reorientation has been made in the Programme's implementation or its strategic plan because of frequent changes in the government and political instability during the period.

The ninth 5-year plan is now being developed, and we can hope for more attention to development programmes, including those of the health sector. The umbrella approach for the country's overall social development, called the Social Action Plan (SAP), does not define a recognisable role for the School Health Services. However, efforts are underway to strengthen the present SHS structure towards a more output-oriented role despite all constraints and lack of resources. To support these efforts, a package of specific strategies has been developed through the active assistance of the country's donor agencies to improve the quality of service delivery and thus provide better health coverage for school children.

The existing strategic approaches for Pakistan's development projects, including health projects, involve little participation of the communities at the peripheral level and of the public sector and NGOs at higher levels. This lack of participation has negatively affected the effectiveness and sustainability of these projects. To remedy this problem, the basic strategies have been modified through a participatory process involving the government, international collaborating agencies and representatives from civil society to accommodate the modern concept of development through a participatory approach.

A set of specific strategies that focus on particular areas of action or types of objectives has been identified. These strategies are organised in their focus from the community and the family up to the national level. Each will be carried out through one or more of the general Programme

approaches of advocacy, capacity building and service delivery. Taken together, they establish the conditions for achieving the desired Programme outcome through a high-quality process.

The strategies have been developed to be mutually supportive and reinforcing. The aim is to support the achievement of quantifiable country Programme goals through processes that are empowering and sustainable. The strategies will be implemented in ways that promote the testing of new approaches, learning from experience in different Programme areas and settings, and the development of a knowledge base to contribute to human resource development in the country. It is hoped that these strategies will improve the efficiency and quality of facilities under School Health Services. The following strategies have been adopted:

- *Support the Organisation of Communities to Take Action for Their Own Development*

This strategy includes specific actions of social mobilisation and capacity building, supported by activities of all the other strategies. Community members will be given information to heighten their awareness of "rights" issues with the goals to encourage them to: participate in the development process; create a demand for better services; and increase the use of quality services to ensure their expansion. Knowledge and information will be shared to strengthen the capacity of families and communities to better meet their own needs by taking advantage of services and other available resources.

- *Focus on Girls and Women*

The focus on girls and women is one of the overarching themes of the country Programme.

Support for relevant capacity building, advocacy and service delivery is required to help reduce gender disparity and enhance the status of women and girls. The gender imbalance in various segments of society will be addressed through advocacy to recruit more female workers from the grassroots to the decision-making levels. Specific activities will be carried out to increase attendance and improve the quality of primary education for girl students. Knowledge of reproductive health will be promoted, and support will be given for increasing the quality and coverage of reproductive health programmes. Education and social mobilisation activities will help to increase women's and girls' knowledge of their rights, their ability to realise their rights, and the recognition of these rights by other groups in society.

The aim is to ensure that follow up of the Fourth World Conference on Women is woven into the fabric of the country Programme. The active participation of women in community-based groups will be promoted. Information and training will be provided to build the capacity of women to perform these new roles. However, for women to become part of the mainstream of society, men must be helped to understand, accept and support this process.

- *Strengthen National and Local Processes for Assessment and Analysis.*

The capability of government counterparts at the national and district level will be strengthened to gather, analyse, present, use and share data on indicators of progress toward country Programme goals and objectives. Analysis of the information will contribute to an improved knowledge base to help guide future decision making. Locally specific information, particularly at the district level, will improve human and financial resource allocation. Disaggregated data will help in identifying disadvantaged groups and areas and in locating available financial and human resources, while improving the information flow to decision-makers and feedback to communities. With the help of international collaborating agencies, the government will participate in micro-planning as well as in reviewing and expanding existing systems to improve the quality, relevance and use of data in health and education.

District-specific surveys will be carried out for situation analyses down to the household level. Results will be incorporated into mapping and visualisation of a district profile, as well

as situation analyses of the target groups at the district level. These analyses will provide baseline information for monitoring progress and for preparing regular progress reports to be reviewed at federal and provincial levels.

The government will try to involve communities in monitoring the process, ensure feedback for corrective action, and develop a system to recognise successful efforts. At the district level, efforts are needed to better understand what types of information are used to make decisions and to increase the demand for improved information and knowledge. District officials will be provided integrated training to enable them to: improve their skills in accessing and using data; recognise the significance of inter-sectoral linkages; better manage resources including those for monitoring; and establish a process for active community participation.

- *Promote and Support the Institutionalisation of Partnerships Between the Government and Society*

The main objective of this strategy is to promote and support sustainable partnerships between people and the service providers at all levels of society. At the district level, information and training will be supported to promote an understanding of participatory approaches and to guide the incorporation of partnership agreements into the delivery of different services. Participatory, community-based mechanisms such as women's groups, youth groups, and integrated village committees for health, education, water and sanitation will be developed.

Many small-scale experiences of community participation in government programmes in Pakistan have produced close linkages between the people and the mobilisers. These projects have often been facilitated by NGOs, and organisational arrangements have, of necessity, frequently evolved in flexible and ad hoc ways. For wider coverage and long-term impact, these arrangements need to be consolidated and institutionalised through sustained mechanisms such as community-based organisations (CBOs). The government should support the establishment of mechanisms that are based on local situations and needs and that respect and empower people.

As a first step, successful models of village committees will be documented, assessed, and analysed, and then the granting of legal status to community-based organisations and committees will be advocated. Modalities for partnership will be developed to respect the independence of NGOs while ensuring that their efforts complement those of the government.

- *Strengthening the Country's Capacity to Deliver Services of Improved Quality and Increased Coverage*

Under this strategy, the demonstration of carefully selected direct service delivery will be supported to complement the advocacy strategy. The aim will be to test service delivery approaches that can be replicated on a wider scale with government resources. Some of these approaches are already known, and others will be identified based on experience in selected areas and emerging priorities in the country. Capacity building will include technical support for the strengthening of knowledge and skills. NGO staff and their government counterparts will be given technical training. Support will be provided to increase the country's capability for producing high-quality, basic items, to be provided as facilities under different development programmes. Based on analysis of management processes in the private sector, and in collaboration with UN agencies and donors, possible systemic reforms will be suggested to improve the quality and scope of services. These efforts will be linked to the strategies for assessment, analysis and support for fine-tuning policy.

- *Broaden and Mobilise the Resource Base for Action*

Improving the quality and coverage of services and increasing the capabilities of people to work more effectively for their own development require considerable human, organisational, and financial resources. Because of the extent of unmet needs in each of these areas, it is necessary both to broaden the resource base for achieving national objectives and to improve the use of existing resources. This strategy will directly support these aims through advocacy and capacity building. For example, at the local level, social mobilisation will emphasise the potential for, and benefits of, participation by communities and families in providing facilities, materials and labour. Experience has shown that if adequate services are provided to communities, they are willing to contribute their own resources.

Lessons Learned

- *An integrated approach to the implementation of SHS produces a better and more sustainable outcome*

School health services can best be imparted through an integrated approach. This maxim was illustrated at a school in Wahdat Colony, Hyderabad. In addition to providing primary-level education for children of both sexes, the school offers vocational classes for local women in the evenings. The school belongs to the Social Welfare Department, and the principal is a female officer in the Social Welfare Department.

The school principal took a very keen interest in the SHS activities and decided to use the resources at her hand to boost SHS. Because the principal was a social worker, she was particularly oriented with the ways and procedures of community education and mobilisation.

She mobilised the women's organisation affiliated with her school to participate in the efforts to improve SHS. The women's organisation helped in providing some of the resources required for SHS that could not be provided by the Health or Education Departments. The results were tremendous and included the following accomplishments:

- Implementing a system of periodic student check-ups
- Developing a system for recording the health status of individual students
- Establishing procedures for discussing a child's health problems with the child's parents. These procedures include providing the parents with information regarding the health problem and its appropriate management, rehabilitative measures and referrals for further care if necessary.

- *School Health Services should not only be provided but also be promoted whenever possible*

Providing SHS is not merely an official responsibility that ends with giving children their medical check-ups and imparting some lessons on health education. It also involves providing an atmosphere that fosters the students' complete well-being. The importance of promoting health development activities was illustrated by the experience of a school health medical officer in the Karachi central district. He had been educating schoolchildren about personal and environmental hygiene for some time but was discouraged by the results. As a result of his training in interpersonal communication skills and community mobilisation, he became aware that part of his role as a school health medical officer involved selling his ideas effectively. With the assistance of the school's headmaster, he developed a plan for awarding the title of "the student of the month" to the student who best kept himself/herself and the school uniform clean and tidy during that month. They developed an evaluation method and explained it to the students. Each month the Headmaster presents the winning student with

a small prize provided by the school teachers and the medical officer. To date, the results are encouraging. The MO and the school staff are now considering other activities for enhancing community participation in the promotion of SHS in surrounding schools.

- *Including teachers, students and parents in the development of strategies for SHS aids in identifying appropriate and practical methods of application*

Experiences from the Workshop on Action-Oriented School Health Education, organised by Save The Children Fund (UK) with assistance from the Education Department, District Health Office, and Agha Khan Medical University, resulted in more attention being given to practical approaches for designing and developing strategic plans for SHS. The workshop was held in Islamkot in the Thar desert, the most remote area of Sindh province. It marked the first time the teaching staff and their supervisors had been consulted about developing strategies for the Action-Oriented Health Education Programme in the area's schools. The workshop leaders expected little input from the teaching staff because most of the teachers and their supervisors were from a very remote area. In addition, health education was generally considered to be related more to medical science than to education. Astonishingly, the performance of those local teachers in the working groups was more helpful even than that of some of the medical experts in the field. Most of their suggestions and recommendations had weight because of their knowledge of local circumstances and their practical experience.

Another similar experience was obtained from an SHS needs assessment survey conducted in a school. The students in the higher classes responded well and had many helpful suggestions for improving the SHS programme.

Current Challenges

The following list summarises the challenges currently facing school health promotion in Pakistan:

- To strengthen implementation of policy in context of government and political instability;
- To overcome economic restraints and insufficient resources;
- To strengthen underdeveloped multisectoral and NGO collaboration;
- To increase access to training for personnel, especially women, and training materials;
- To define and strengthen links between Ministries of Health and Education and other government agencies.

References

- Bureau of Statistics, Government of Pakistan. *Pakistan Statistical Book 1995*.
- UNICEF. *The State of World's Children 1996*.
- Government of Pakistan and UNICEF. *Master Plan of Cooperation for 1996 - 1998*. “
- Shaikh, ZA. Health for All. 1994.
- Sindh Education Management Information System. Sindh Education Profile 1993 - 1996.
- Ministry of Health, Government of Pakistan. *Multiple Indicators Cluster Survey of Pakistan 1995*.
- Summary Release School Education Statistics of Sindh. Bureau of Statistics Planning and Development Department GOS.
- Sindh at a glance 1996. Bureau of Statistics P&D GOS.
- Workshop Report on Action Oriented School Health Education Islamkot, SCF UK.
- Working Paper/Project Paper on School Health Services in Sindh May 1996. Dr M. Sajan Memon.
- PC-1 For School Health Services Programme In Sindh 1994. DG Health Sindh.
- Reports of School Health Services Programme Sindh and Agha Khan School Health Services

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Introduction and Demographics

School health practice in Russia is an old tradition. As early as the Seventeenth Century, government documents outlined detailed recommendations on school hygiene. "Spiritual Regulations", produced in 1721, argued the need for medical services at schools and the observance of rules for school hygiene were stressed. In the 1870s in some provinces of Russia, sanitary inspector posts were introduced and included the supervision of school sanitation. In the last decade of the 19th Century, posts were established within the Ministry of Education for doctors to conduct medical and preventive work at colleges (institutions for professional training of 14-18 year olds).

Soon after the October Revolution in 1921, the Statute of Children and Teenagers' Health Care was issued by the People's Commissariat, in which tasks for the Commissariats of Health Care and Education were defined. In the first ten years of the Soviet State, many schools were built as the State instituted obligatory universal primary education. Hygienic standards of school buildings were elaborated. The main focus in the 1920-1940s was reduction of epidemics, infections and starvation.

In the 1950-80s, a state system of health care for school children was developed, and still exists today. The United Sanitary – Epidemiological Control Service was organised. Rules and norms regulating the number of lessons and also the conditions of schools were elaborated. All over the country, free breakfasts were introduced in schools. At city schools, medical posts were created and vaccinations and first aid were conducted in schools. Medical screenings were conducted to detect early exposure to some of the most common diseases among schoolchildren. Educational components of health were involved into the curriculum of primary and secondary schools.

During the period of *Perestroika* (1985 – 1995) in Russia and in republics of the former USSR, there appeared a great number of problems connected with health maintenance at school. Methods of financing schools and health institutions changed. As a result, economically deprived regions of Russia reduced their investments in social development, including the health of schoolchildren. Other regions with more resources were able to continue to build the school health programmes, including new sports and medical centres for schoolchildren.

In 1996, the population of the Russian Federation was approximately 148 million people. That year, about 21.1 million school children attended 67,446 primary, secondary and high schools; 14.7 million students were enrolled in 20,134 urban schools and 6.4 million were enrolled in 47,312 rural schools. About 1.6 million teachers provided instruction at these schools. Official statistics indicate that 0.4% of school-age children do not attend educational institutions for a variety of reasons.

Government and Other Organisations with Responsibility for School Health

Today, all activities related to health promotion in schools are organised and coordinated by the Ministry of Health Care (MOH) and the Ministry of Education (MOE). In the Ministry of Health Care, the Administration of Maternal and Child Health coordinates the work of different scientific and medical institutions, within in the sphere of child and adolescent health. Issues such as protection in schools, school-based nutrition and school sanitation and hygiene are under the control of another subdivision within the MOH: the State Sanitation and Epidemiological Control Service. The Ministry of Health Care is responsible for educating and training school physicians and other school medical staff and for creating a healthy environment in comprehensive educational institutions.

In the Ministry of Education, health questions are under the control of the Administration of Social Protection of Childhood, which coordinates the activities of different educational institutions. The Ministry of Education works with the health sector to elaborate national policies, strategies and programmes for school health education and promotion. The two ministries rely on the efforts of 89 regional departments of health and education and corresponding offices at municipal and local levels.

Two hundred and sixty preventive medicine centres execute preventive measures aimed at reducing illnesses. These centres cooperate with the centres of Sanitation and Epidemiological Control Service to help integrate efforts between government institutions, nongovernmental organisations and mass media.

Currently, the national government is guiding the development of an Interdepartmental Council on Health Promotion and Disease Prevention. The general objectives of the Council will be:

- To define, based on expert evaluations, current and long-term priorities and plan the activities aimed at promoting individual and public health;
- To coordinate efforts of the various ministries and institutions responsible for health promotion;
- To develop modern communication strategies and programmes at national, regional and local levels that can inform decision-makers and the community about objectives, targets and results of health promotion activities (including activities at schools and other educational institutions) and that create positive public opinion.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

Under the current political, economic and social conditions in Russia, the educational system is characterised by contradictions. Years of political reform have meant that all Russian citizens now have a constitutional right to obtain an education, including higher professional education. Political reform has also helped preserve the network of state and municipal educational institutions and establish a network of nongovernmental, state educational institutions. As a result, the Russian educational system has considerable potential to influence socio-economic development. Unfortunately, reforms in education (and in school health education especially) have been limited due to economic restraints.

General Strategy

The general strategy of health promotion in Russian schools is based upon a recently developed Federal Comprehensive School Health Promotion Programme. This programme is aimed at changing behaviours of children and adolescents by creating healthy school environments and broadening school health services. It is to be implemented across the country according to the specific needs of each region.

Each regional programme will have clearly defined goals for altering unhealthy behaviours (e.g., smoking, alcohol and drug abuse, unsafe sexual activity, inadequate physical activity) and for improving school environments and health services. Regional programmes will include all major components of school health projects, including efforts that reach not only students but their families and communities too.

Two Interactive Approaches to School Health Promotion

Currently, two interactive approaches are being developed to further school health promotion programmes. The first involves identifying specific needs of youth on the basis of epidemiologic and other research on health risk factors and behaviours. The second involves the development of intersectoral collaborative efforts and the establishment of stable coalitions and partnerships among government institutions, nongovernmental agencies and other public and private organisations.

Coalitions and partnerships must be created at all levels: national, regional, municipal and local. Collaborative relationships can be achieved by identifying priorities, setting common objectives and combining interests and resources of various partners. Central policy provides for cooperation with governmental and private organisations. Among these organisations are the Regional School of Arts (which sponsors drawing contests and exhibitions on health promotion), the Regional Palace of Culture (which provides health holidays and days of rest for families), the Puppet Theatre, the Regional Committee for Physical Culture, and the Sports and Tourism Centre.

These approaches can help overcome the following challenges to implementing school-based health education programmes:

- The great variation in socio-economic conditions and lifestyles of populations across different territories
- The increased independence of each region
- The bureaucratic barriers that exist in government institutions
- The need to formulate common policies and solutions, at national and regional levels, with regard to health promotion in schools.

Examples of School Health Education and Promotion

School health education can begin as early as preschool and should continue through subsequent grades. Preschool education in Russia needs revision and improvement to adequately cultivate the knowledge and skills necessary for developing healthy habits. This process can set the stage for programmes such as the "Bases for Healthy Lifestyles," which has been introduced in grades 4 to 11 of many schools, as part of a comprehensive school curriculum. The development and improvement, through research and practice, of this and other education programmes are important goals at many public health and educational institutions.

Examples of school health promotion efforts in different regions of the Russian Federation follow.

Murmansk. In the Murmansk Region, the Preventive Medicine Centre prioritises prevention activities that involve schools and youth organisations. These activities stress: careful planning and preparation of educational programmes for students and teachers; the creation of preventive programmes that are tailored to the needs of various population groups; and collaboration with public and private organisations.

The Preventive Medicine Centre in the Murmansk Region, in cooperation with the regional Institute of Educational Development, has been testing a new health education programme for preschool establishments and other schools since 1994. Based on a programme developed in the United States, called "Know Your Body," the Russian programme introduces the basics of primary prevention. A manual developed for schoolteachers provides guidance and teaching materials for the programme. The centre has also produced a manual for teaching "Basics and Activities for a Healthy Life." This manual fulfils requirements of the state programme and also includes information on the relation between health and climatic conditions of the region's Kola Peninsula.

A programme entitled "Valeology in Biology Teacher's Practice" programme has been developed for students of the Institute of Educational Development in the Murmansk Region. The programme consists of several units, each of which can be used in any of the Institute's departments.

A peer instructor programme called "An Adolescent to an Adolescent" has been developed based upon psychosocial research on health promotion. The programme, which is aimed at high school students and students in the first year of college, has been ongoing for two years. During this period, the Preventive Medicine Centre developed teaching methods and materials and established that young volunteers are the most effective communicators of health information among the young.

Cheliabinsk. Changes in Cheliabinsk include a programme involving 5,000 pupils with various developmental pathologies who attended regular secondary school classes in 1995–1996. In addition, thirty-seven classes for in-depth study of physical culture had been opened in general education schools by the beginning of the year. The number of physical education classes was increased considerably in 60 schools, and students' health care centres were opened in 17 schools. To date, 26 schools in Cheliabinsk have special valeological and medical groups. Particular attention has been paid to the arrangement of work spaces in schools and to children's games.

St Petersburg. A significant challenge to school-based health programmes is to provide early diagnosis and timely treatment for students' health disorders. In St. Petersburg, a system of social, psychological and medical assistance for monitoring children's development has been established in schools throughout the city. The system provides:

- Diagnosis of complex, current and individual health problems;
- Information about children's health, health problems and treatment;
- Consultation on health promotion and health problems for children, families and teachers;
- Methods for solving or ameliorating health problems and for modifying behaviours in the midst of changing social conditions;
- Support for children's rights in health education.

Today these functions are carried out by St. Petersburg's Consulting Centre, 19 district centres, various teaching organisations, and psychologists at educational establishments. Activities are coordinated by the Scientific-Methodological Council.

Perm. In Perm, several regional programmes have been established and guidelines published.

Programmes include "Moral and Sexual Education" (for schoolchildren in grades 1 to 10) and "Moral, Ethical, Sexual, Anti-Alcoholic, and Anti-Narcotic Education for Pupils of General Schools." Several manuals have been published, among them *Sexual and Health Education*, a guide for school nurses and teachers. In accordance with goals of the MOH/MOE health education programme, scientists at Perm Medical Academy, Pedagogical University and the Institute of Art and Culture have established protocols and recommendations for teaching sexual hygiene and sex education.

Preschool institutions in Perm are also taking a more active part in school health and have established the promotion of healthy habits and improvements in physical development as high priorities for preschool students.

Throughout Russia, health promotion initiatives in schools and colleges include optional classes on healthy lifestyles; and contests such as a "What Do I Know about AIDS" writing competition and a "Children of the World against Drugs" drawing competition. Teachers are developing a programme called "Control over the Creation of an Enriching, Healthy Environment." A number of schools are working toward becoming "Schools of Valeological Culture." All schools in the Karagai District have classes on moral and sexual education and sexual hygiene.

Health-Promoting Schools

In 1995, the Russian Branch of the European Network of Health-Promoting Schools (ENHPS) was established. This branch has since selected 15 experimental schools for health promotion (SHP) based on ENHPS criteria.

The SHPs are situated in eight regions across the country. Most of the schools are in ecologically unfavourable zones, which increases the responsibility of those who perform this work. Nine of 15 SHPs are combinations of preschools and regular schools. Currently, more than 20,000 pupils, representing between three and 18 different nationalities, are enrolled in SHPs.

Health promotion efforts at Russian SHPs include general programmes (e.g., a "Come to Know Yourself" programme for beginners and a programme for staff on health promotion, medical services, organising school meals and physical training) as well as special programmes set up and tested in particular schools. For example, the Nursery School-University Complex of Izhevsk is developing a programme of continuous valeological education for children, parents, and teachers and a model of a School-of-Health graduate. The People's School of Zhukovsky has set up two programmes: "Health and Education" and "Ecological Education as a Base for Bringing Up Physically, Intellectually, and Morally Healthy Children."

By now, most Russian SHPs have made positive changes toward promoting and maintaining children's physical and psychological health and development. The numbers of children who smoke or become involved in criminal behaviour have declined, and the number of girls with gynecological problems has decreased. At schools, achievements have increased and discipline has improved. Future plans include involving more children in sports, reducing the incidence of infectious disease, and reducing the number of conflicts among school children, teachers and parents.

Current Challenges

The manuscript has identified the following challenges related to school health promotion:

- creating effective mechanisms of interaction between education and health care institutions at the state and regional levels;

- creating easily reproduced projects in schools;
- monitoring of risk behaviours among schoolchildren in different regions of Russia;
- lack of common policies and solutions with regard to health promotion in schools;
- inability to provide early diagnosis and timely treatment for students' health disorders;
- reliable economic targets should be set to ensure compliance with Russian Federation laws related to education, including higher and postgraduate education, and to support the President's programme "Children of Russia"
- legislative and normative documents must be created to make national legislation consistent and uniform and to more clearly demarcate national and regional rights and obligations in providing education.

References

Abstracts of the Joint Russia-USA School Based Health Promotion Conference. June 6–7, 1996. Moscow, Russian Federation.

Jampolskaya, Y.A. Monitoring of physical development of children. [Russian.] *Gigiena I sanitaria* 1996;1:24–26.

Antipina, L.T.; Serdukovskaya, G.N. Evaluation of adolescents' health status in hygienic investigations. [Russian] *Gigiena I sanitaria* 1995;6:22–28.

School Health in the United States of America: National Strategies

March 1998

Introduction and Demographics

According to the U.S. Census Bureau, the population of the United States of America (USA) in 1995 was 262,755,270. Based upon data from the Statistical Abstract of the United States in 1996, a total of 50,776,000 children were enrolled in 112,314 elementary and secondary schools (including both public and private institutions) in the United States. The existing infrastructure that could be used to improve the well-being of young people in the United States includes roughly 55 state and territorial departments of education; 15,000 school districts; over 100,000 elementary and secondary schools; and 3,000,000 teachers. This support is available for students any school day for 13 of the most formative years of their lives (U.S. Department of Education, 1993).

Government and Other Organisations with Responsibility for School Health

A prominent characteristic distinguishing the educational system in the United States from many other countries in the world is the historical and ongoing emphasis on local control. There are about 15,000 individual school districts in the United States. In essence, there are 15,000 independent school systems functioning under elected leadership across the nation. School superintendents at the local and state level are selected by the voters in that geographic area. While there is some federal financial support and oversight, financial support and decision making primarily are a local responsibility. Thus, it is imperative to garner local support in order to successfully develop and expand school health programmes in the United States.

One of the most important functions of schools in the United States has long been to maintain and improve health (Means, 1975; Russell, 1975; National Education Goals Panel, 1991). In 1918, health was listed as the first of Seven Cardinal Principles of Education established for the United States (U.S. Department of the Interior, 1918). A Gallup Survey commissioned by the American Cancer Society in 1993 revealed that adolescents, parents and school administrators believed education about health to be equally or more important than other school subjects (American Cancer Society, 1994).

From the late 1800s until the late 1900s, a school health programme was conceived as having three components: health services; health education; and the health environment (Johns, 1973; Woodfill & Beyrer, 1991). During the 1980s, more sophisticated conceptions of school health programmes were proposed (e.g., Nader, 1990; Stone, 1990). Among the more recent models, the U.S. Centers for Disease Control and Prevention (CDC) conceives the school health programme to include eight interactive components, including: (a) health services; (b) psychological, counselling, and social services; (c) health education; (d) nutrition services; (e) physical education and other physical activities; (f) the psychosocial and biophysical environment; (g) health programmes for faculty and staff; and, (h) integrated efforts of schools, families and communities to improve the health of students and staff (Allensworth & Kolbe, 1987; American School Health Association, 1994; Kolbe, 1986). This model was developed, in part, to clearly identify distinct school functions that markedly influence health. The model thus serves to identify and involve: corresponding professionals who could work collaboratively as equal members of the school health team (Green & Kreuter, 1991); institutions of higher education that provide pre-service and in-service training for these professionals; and national professional associations that could work independently and together to improve school health programmes.

Schools in the United States cannot, and should not, be expected to address the nation's most serious health and social problems alone. Families, health care workers, the media, religious

organisations, community organisations that serve youth, and young people themselves must be systematically involved.

National Strategies and Approaches to Improve School Health Programmes and Current Priorities

To help improve all eight components of the school health programme, CDC is working with other federal agencies, national nongovernmental organisations, and state and local departments of education, health and social services to plan and implement four basic, ongoing, interrelated strategies. These strategies include: (a) identifying and monitoring critical health-related events and school interventions designed to influence those events; (b) synthesising and applying research to increase the effectiveness of interventions; (c) enabling relevant constituencies to plan and implement interventions; and (d) evaluating the implementation and impact of interventions over time.

- *Identifying and monitoring critical health events and interventions*

A model of behavioural epidemiology (Kolbe, 1988) conceptually structures efforts to systematically identify and monitor critical health outcomes among youth; behaviours that contribute to those outcomes; potential cognitive determinants of such behaviours; and school policies and programmes that might influence such determinants. Guidelines are then developed, based on synthesised findings from available research, to help constituencies plan and implement school policies and programmes that might most effectively improve measured determinants, behaviours and health outcomes. Public health surveillance mechanisms simultaneously provide data required to monitor relevant National Health Objectives for the Year 2000 (U. S. Department of Health and Human Services, 1990) and to monitor relevant National Education Goals for the Year 2000 (National Education Goals Panel, 1991).

In 1993, CDC published Adolescent health: State of the nation, volume one-- Mortality trends, causes of death, and related risk behaviours among U.S. adolescents (CDC, 1993). This report provided comparable data for the nation as a whole, and, more importantly, for each state in the nation, to describe the leading causes of death among 10 to 24 year-olds (i.e., motor vehicle crashes, other unintentional injuries, homicides and suicides) in each state and the extent to which a probability sample of high school students in the state engaged in behaviours that contribute to those deaths. In 1995, CDC published Adolescent health: State of the nation, volume two-- Pregnancy, sexually transmitted diseases, and related risk behaviours among U.S. adolescents (CDC, 1995b), which provided similar comparable national and state data about teenage pregnancies, live births, abortions, gonorrhoea and chlamydia infections, and AIDS cases in each state. The publication also provided a probability sample of high school students in the state engaged in sexual behaviours that contribute to the previously mentioned reproductive health outcomes.

The Youth Risk Behaviour Surveillance System, or YRBS, (Kolbe et al., 1993) was established by CDC to periodically monitor the incidence and prevalence of critical behaviours among youth across the six behaviour categories described earlier. Data from national, state and large city probability samples of high school students are generated every odd-numbered year. In 1993, 43 states and territories and 14 large cities generated such data (CDC, 1995a). Data from other populations of youth are generated less often. As part of the 1992 National Health Interview Survey, CDC collected such data from 12 to 21 year-olds (including youth who were and were not enrolled in school) in a nationwide probability sample of households (CDC, 1994a; CDC, 1994b). In 1995, comparable data were collected from students in a probability sample of the nation's colleges and universities.

Two organisations other than CDC are providing leadership for generating health education

standards for 4th, 8th and 12th graders (Joint Committee on National Health Education Standards, 1995), and for developing knowledge, attitude and skill measurement items to assess how well students have attained specified standards at each of the three grade levels (Council of Chief State School Officers [CCSSO], 1995). The Association for the Advancement of Health Education (AAHE) is coordinating the former, and CCSSO is coordinating the latter, as part of a national effort to create education subject matter standards from which states might select (U.S. Department of Education, 1991).

In 1994, CDC implemented the School Health Policy and Program Study (SHPPS) to begin monitoring critical state policies and programmes among all 50 states and the District of Columbia, and among probability samples of the nation's 15,000 school districts, and the nation's schools.

The SHPPS currently provides data about five components of the school health programme: health education (addressing each of the six categories of behaviour); health services; nutrition services; physical education; and selected aspects of the health environment (CDC, 1995c). In the future SHPPS will be expanded to provide data about the other three components as well.

- *Synthesising and applying research*

CDC also is developing a system to synthesise (Cooper & Hedges, 1994) and apply research in the six categories of behaviour listed above. For each category of behaviour, a research registry is being established to systematically compile studies about the effectiveness of interventions to influence the behaviour among youth. Consensus panels are convened to qualitatively summarise the compiled research and to describe characteristics of effective interventions (e.g., see "The effectiveness of school-based interventions to reduce sexual risk behaviours among youth," Kirby et al., 1994). Quantitative meta-analyses of research are conducted to identify characteristics of effective interventions, and econometric syntheses of research are conducted to assess the cost-effectiveness and cost-benefit of various interventions (e.g., see "The benefit cost of comprehensive school health education programmes," Rothman et al., in press). Findings from these syntheses are then interpreted into specific guidelines to increase the effectiveness of various elements of the school health programme (e.g., see "Guidelines for school health programmes to reduce tobacco use and addiction," CDC, 1994c). Finally, a process has been established to objectively identify interventions with credible evidence of effectiveness, and means are being developed to help constituents use findings from research to increase the effectiveness of their efforts.

- *Enabling constituencies to plan and implement interventions*

To implement effective school health programmes, public- and private-sector health, education and social service agencies at the national, state and local levels need to work together toward common goals. Education agencies have the mandate to improve education outcomes, the authority to establish education policies, and the organisational capacity to implement school programmes. Health agencies have the mandate to improve health outcomes, health resources, and strategies, and the expertise to prevent and address numerous health problems. Social service agencies have the mandate to support the disadvantaged, social service resources, and strategies and expertise to provide services for the disadvantaged.

At the national level, the U.S. Department of Health and Human Services (DHHS), the U.S. Department of Education, and the U.S. Department of Agriculture have jointly established a Federal Interagency Committee on School Health that includes representatives from more than 30 federal agencies, and have established a National Coordinating Committee on School Health that includes representatives from about 30 national nongovernmental organisations. In 1994, Secretary of Education Richard Riley and Secretary of DHHS Donna Shalala prepared and sent to the nation's state governors a "Joint Statement on School Health" declaring "... unprecedented cooperative efforts between our Departments ... [in] support of comprehensive school health programmes .

...,” and “... call[ing] upon professionals in the fields of education and health and concerned citizens across the nation to join with [them] in a renewed effort and a reaffirmation of our mutual responsibility to our Nation’s children” (Riley & Shalala, not dated).

In 1992, CDC began providing fiscal and technical support for selected state departments of education and state departments of health to jointly help local school districts implement all eight components of the school health programme. By 1995, CDC was providing such assistance to thirteen states: Arkansas, California, District of Columbia, Florida, Michigan, Minnesota, New Mexico, New York, Rhode Island, South Carolina, South Dakota, West Virginia and Wisconsin. In the future, CDC hopes to provide such support for all states.

CDC provides support for the selected states to establish a senior policy position in the office of the state superintendent of education (e.g., an assistant superintendent for school health, or at least an assistant to the superintendent for school health). The education-oriented senior policy position aims to provide leadership for helping local school districts improve and integrate all elements of the school health programme (e.g., comprehensive school health education, school health services, and school nutrition services). In addition, CDC provides support for the states to establish a senior policy position in the office of the state commissioner of health (e.g., an assistant commissioner for school health programmes, or at least an assistant to the commissioner for school health programmes). The goal of the health senior policy position is to apply the various resources of the state health department to help local school districts improve school health programmes (e.g., through immunisation programmes, Medicaid, and maternal and child health programmes). This increased capacity enables the state health and education agencies to jointly work with local school districts in the state to improve various components of the school health programme and gives each state the capability and flexibility to determine and pursue its own unique interests, needs and actions. To help provide national support for such state efforts, CDC provides fiscal and technical support for three national nongovernmental organisations to work together: the Council of Chief State School Officers (which represents the state school superintendents); the Association of State and Territorial Health Officials (which represents the state health commissioners); and the American Public Welfare Association (which represents state human services directors among others).

CDC also provides support for the state department of education to establish a position for helping school districts coordinate a comprehensive school health education programme. CDC provides support for the state department of education to help school districts implement categorical health education programmes to reduce sexual risks for: HIV infection; tobacco use; dietary patterns that cause disease; and physical inactivity. The principal function of the state coordinator of comprehensive school health education is to help school districts integrate these various categorical programmes as part of a comprehensive school health education programme.

To help provide direction and support for national, state and local efforts to improve school health programmes, CDC provides fiscal and technical support for the more than two dozen national nongovernmental education, health, and social service organisations, many of which have working affiliates at the state or local levels. A CDC staff person experienced in implementing school health programmes is assigned to work with each funded state to help that state accomplish the tasks described earlier, and to help the state identify and utilise assistance from other federal agencies and national nongovernmental organisations. Each year CDC convenes an Annual National School Health Leadership Conference to enable representatives from five types of agencies to collaboratively analyse and plan efforts to improve school health programmes. Participants include: (a) a team of representatives from the state education, health, and social services departments from each state; (b) relevant national nongovernmental organisations; (c) relevant federal agencies; (d) national organisations that represent higher education; and (e) philanthropies that provide leadership and support for school health programmes.

- *Evaluating the impact of interventions*

To evaluate and consequently improve the **impact** of school health programmes, CDC conducts three types of research: intervention research; dissemination research; and programme evaluation (Collins J, Rugg, Kann, Collins B, Banspach & Kolbe, in press). CDC supports *intervention research* to develop and evaluate promising theory-based interventions designed to reduce health risk behaviours among youth. For example, intervention research has evaluated the combined effects of classroom instruction; school environmental influences; peer and family involvement; and integrated school and community efforts to reduce sexual risk behaviours among youth (Schinke, Orlandi, Forgers, Rugg & Douglas, 1992; Main, Iverson, McGloin, Banspach, Collins, Rugg & Kolbe, 1994).

As interventions with credible evidence of effectiveness are identified, CDC supports *dissemination research* to assess the impact of efforts to help schools implement interventions they have chosen. For example, as part of its "Research to Classroom" project, CDC is studying the effectiveness of efforts to help schools implement HIV prevention programmes that have credible evidence of effectiveness.

Further, as school health policies and programmes are implemented by states, districts and schools, CDC supports naturalistic *programme evaluations* to assess and consequently improve the impact of these efforts (e.g., Academy for Educational Development, 1995; CDC, 1992).

Lessons Learned

Create a common vision

In order to establish the necessary infrastructure to address the health risk behaviours of young people in the United States, there must exist a common vision defining school health programmes and how they are to be implemented. Efforts to reduce behaviours that result in HIV infection, teen pregnancy, smoking and drug abuse, require careful planning, research, time and sustained energy. Health, education and social service professionals must work together as partners and focus their efforts to use limited resources most effectively. Given the emphasis in the United States on local control, the common vision must also support a philosophy whereby local decision-makers can implement programmes that accommodate the varying value systems held by citizens in their locality.

Identify priorities

Because the Youth Risk Behaviour Surveillance System measures the behaviours that significantly contribute to the leading causes of morbidity and mortality in the United States, the YRBS provides focus for U.S. school health efforts. The YRBS identifies specific behaviours among youth that cause the most important health problems. The YRBS assesses whether those behaviours are increasing, decreasing or remaining unchanged; and provides data that is comparable among national, state and local samples of youth. By focusing attention on the priority risk behaviours, societal efforts will most effectively use limited resources to improve the well-being of youth.

Identify interventions that work

Once the priority risk behaviours have been identified, the next step is to identify interventions that work. A systematic, research-based process for identifying the programmes that work will enable limited resources to be used most effectively.

Build capacities to implement interventions

The development of state infrastructure is also critical to the process. State infrastructure is the vehicle that channels technical assistance and support to local programmes. This process requires the attention and cooperation from both the departments of health and education.

Create partnerships for support

In addition, federal, state and local agencies must partner with national non-governmental organisations, private businesses, foundations and citizens from all sectors of society. It will take these organisations working collaboratively towards a common vision in a focused, sustained, concerted effort to improve the health of children across the United States.

Current Challenges

The manuscript has identified the following challenges to health promotion through schools in the United States:

- To increase support for a common vision defining school health programmes and improved capacities to implement interventions;
- To foster further research to identify effective school health programmes and implementation procedures;
- To strengthen state infrastructure;
- To maintain and advance collaborative efforts between federal, state and local agencies with national non-governmental organisations, private businesses, foundations and citizens from all sectors of society.

References

Academy for Educational Development (AED). (1995). Dade County Public Schools HIV/AIDS education programme: Final evaluation report. Washington, DC: AED.

Allensworth, D., & Kolbe, L. (1987). The comprehensive school health programme: Exploring an expanded concept. *Journal of School Health*, 57, 409-473.

American Cancer Society. (1994). Values and opinions of comprehensive school health education in U.S. public schools: Adolescents, parents, and school district administrators. Atlanta: Author.

American School Health Association. (in press). Guidelines for comprehensive school health programmes. Kent, OH: Author.

Centers for Disease Control. (1992). Handbook for evaluating HIV education. Atlanta, GA: Author.

Centers for Disease Control and Prevention. (1993). Adolescent health: State of the nation, volume one--Mortality trends, causes of death, and related risk behaviours among U. S. adolescents. Atlanta: Author [monograph series].

Centers for Disease Control and Prevention. (1994a). Health risk behaviours among adolescents who do and

- do not attend school-- United States. *Morbidity and Mortality Weekly Report*, 43, 129-132.
- Centers for Disease Control and Prevention. (1994b). Health risk behaviours among persons aged 12-21 years-- United States. *Morbidity and Mortality Weekly Report*, 43, 231-235.
- Centers for Disease Control and Prevention. (1994c). Guidelines for school health programmes to prevent tobacco use and addiction. *Morbidity and Mortality Weekly Report*, 43, [Recommendations and Reports].
- Centers for Disease Control and Prevention. (1995a). Youth Risk Behaviour Surveillance-- United States, 1993. *Morbidity and Mortality Weekly Report*, 44, (SS-1).
- Centers for Disease Control and Prevention. (1995b). Adolescent health: State of the nation, volume two-- Pregnancy, sexually transmitted diseases, and related risk behaviours among U. S. adolescents. Atlanta: Author.
- Centers for Disease Control and Prevention. (1995c). School Health Policies and Programmes Study (SHPPS): A summary report. *Journal of School Health*, 65, 289-353.
- Collins, J., Rugg, D., Kann, L., Collins, B., Banspach, S., & Kolbe, L. (in press). Evaluating a national programme of school-based HIV prevention. *Evaluation and Programme Planning: An International Journal*.
- Cooper, H., & Hedges, L. (1994). The handbook of research synthesis. New York: Russell Sage Foundation.
- Council of Chief State School Officers [CCSSO]. (1995). SCASS health education project review. Washington, DC: Author.
- Green, L., & Kreuter, M. (1991). Health promotion planning: An educational and environmental approach. Mountain View, CA: Mayfield, pp. 352-355.
- Johns, E. (1973). Health education in schools. *World Medical Journal*, 20, 5-9.
- Joint Committee on National Health Education Standards. (1995). National health education standards: Achieving health literacy. Atlanta, GA: American Cancer Society.
- Kirby, D., Short, L., Collins, J., Rugg, D., Kolbe, L., Howard, M., Miller, B., Sonenstein, F., & Zabin, L. (1994). School-based programmes to reduce sexual risk behaviours. *Public Health Reports*, 109, 339-360.
- Kolbe, L. (1986). Increasing the impact of school health promotion programmes: Emerging research perspectives. *Health Education*, 16, 47-52.
- Kolbe, L. (1988). Behavioral epidemiology of AIDS: An organizing model. In R. Kulstad (Ed.), *AIDS 1988: AAAS Symposia Papers*, 217-223. American Association for the Advancement of Science.
- Kolbe, L., Kann, L., & Collins, J. (1993). Overview of the Youth Risk Behavior System. *Public Health Reports*, 108, [Supplement 1] 2-10.
- Main, D., Iverson, D., McGloin, J., Banspach, S., Collins, J., Rugg, D., & Kolbe, L. (1994). Preventing HIV infection among adolescents: Evaluation of a school-based education programme. *Preventive Medicine*, 23, 409-417.
- Means, R. (1975). Historical perspectives on school health. Thorofare, NJ: Charles B. Slack.
- Nader, P. (1990). Comprehensive defined. *Journal of School Health*, 60, 133-138.
- National Education Goals Panel. (1991). The National Education Goals Report: Building a nation of learners. Washington, DC: U.S. Department of Education.
- Riley, R. & Shalala, D. (not dated). Joint statement on school health. Washington, DC: U.S. Department of Health and Human Services.
- Rothman, M., Ehreth, J., Palmer, C., Collins, J., Reblando, J., & Luce, B. (in press). The potential costs and benefits of selected components of comprehensive school health education programmes.
- Russell, R. (1975). Health Education. Washington, DC: National Education Association.

Schinke, S., Orlandi, M., Forgers, M., Rugg, D., & Douglas, K. (1992). Multicomponent, school-based strategies to prevent HIV infection and sexually transmitted diseases among adolescents: Theory and research into practice. *Research on Social Work Practice*, 2, 364-379.

Stone, E. (1990). Access: Keystones for school health promotion. *Journal of School Health*, 60, 298-300.

U. S. Department of Education. (1991). America 2000: An education strategy. Washington, DC: Author.

U. S. Department of Education. (1993). *Digest of education statistics*. Washington, DC: Author.

U. S. Department of Health and Human Services, Public Health Service. (1990). Healthy people 2000: National health promotion and disease prevention objectives. Washington, DC: Author.

U.S. Department of the Interior, Bureau of Education. (1918). Commission on the reorganisation of secondary education. *Cardinal Principles of Secondary Education*; 35, 11-15.

Woodfill, M., & Beyrer, M. (1991). The role of the nurse in the school setting: a historical perspective. Kent, OH: American School Health Association.

COLLABORATIVE EFFORTS TO STRENGTHEN SCHOOL HEALTH PROMOTION IN COUNTRIES WITH LARGE SCHOOL-AGE POPULATIONS

The WHO Mega Country Network for Health Promotion¹¹

The WHO Mega Country Health Promotion Network was initiated in 1996 as an integral part of the Five-Year Plan of Action for Health Promotion and Health Education, of WHO's Division of Health Promotion, Education and Communication. It is a response to recent socioeconomic, political and environmental trends impacting global health and development.

The Mega Country Network was organised to help countries prepare for the dramatic changes in the health needs of the world's population over the next two decades. In the developing world, noncommunicable diseases, such as cerebro-cardiovascular diseases, cancer and diabetes, are quickly replacing traditional enemies as the leading causes of disability and premature deaths. By 2020, tobacco is expected to kill more people than any single disease, surpassing even the HIV epidemic. Developing countries are also seeing rapid increases in the prevalence of chronic diseases, newly emerging infectious diseases, nonintentional and intentional injuries, mental health and environmental health. In many countries in Asia and Latin America, this "epidemiological transition" is already further advanced than many public health specialists appreciate.

Traditional problems such as infectious diseases, maternal and perinatal conditions, and malnutrition, are still prevalent in most developing countries, however, and continue to take a heavy and largely avoidable toll. This is despite remarkable success in their control over the past three decades. Currently, five out of the ten leading diseases are traditional conditions: pneumonia; diarrhoeal disease; perinatal conditions; tuberculosis; and measles. In developing countries, malaria must be added to this already daunting list. New and re-emerging diseases and the rapid failing of existing antibiotics and chemotherapeutics pose new threats to health.

Demographic changes like the rapid ageing of the world's population will also contribute to changing health needs. While the global population grows at an annual rate of 1.7 percent, the population over 65 increases by 2.5 percent each year. The health, economic and social aspects of ageing pose great challenges to both developed and developing countries. Meanwhile, developing countries also face a rapid increase in the proportion of young people under age 25.

It is crucial that the health sector and other sectors within countries show foresight in preparing for these challenges. The need is particularly urgent for the world's most populous countries, presented above in the previous chapter. Together, these Mega countries represent approximately sixty percent of the world's population. Governments in these countries have the potential to set clear goals and targets towards the enhancement of their own people's health and to provide leadership in promoting and protecting the health of the world's population.

WHO recognises that concerted action by governments and organisations is required to confront the threats associated with recent global trends. Collaborative efforts by the Mega countries can have a great impact on the health of the world's population. A health promotion network of the world's largest countries has the capacity, and now the opportunity, to provide a leading role in

¹¹ Adapted from Douglas, K. *Planning and Implementation Guide: Mega Country Health Promotion Network*, World Health Organization, Geneva, March 1998.

promoting health and to make a considerable contribution to better health for all in the 21st century. By entering into a relationship with other most populous countries, each country can achieve *added value* both in dealing with its own national health priorities, in building a strong health promotion infrastructure, and by combining to address transnational challenges to health. Planning and coordinating health promotion efforts may maximise or enhance the impact of individual efforts.

Purpose and Goals

Specifically, WHO's Mega Country Health Promotion Network is designed to respond to the challenge of the Jakarta Declaration: "to break through traditional boundaries within government sectors, between government and non-government organisations, and between public and private sectors." Its specific purpose is *to improve international and national capacity for promoting health and to enhance the health of Mega country populations*. The main goals for building a solid health promotion infrastructure within and among the Mega countries include:

- To improve the information base for health promotion;
- To mobilise resources for health promotion;
- To develop intersectoral collaboration;
- To address important health, population and setting challenges.

By building a network of the most populated countries that represent all levels of development, and linking these countries with relevant health, educational, and private industry partners both within and between countries, experiences can be exchanged, and resources can be used more efficiently to make health promotion efforts more effective.

Representatives of all ten Mega countries were able to meet during the third and most recent Mega Country Health Promotion Network meeting, in Geneva, 18-20 March, 1998. At this meeting, all representatives agreed upon a common framework for the initiative. The Mega Country Health Promotion Network will begin its collaborative effort around a number of goals that the project participants will tackle together, all intended to "bring health promotion to a larger scale." Following an initial planning phase of one year, the Network will be implemented over a five-year period, in five phases.

The School-Health Component of the Mega Country Network

In the early stages of the development of the WHO Mega Country Health Promotion Network, participants agreed upon the importance of addressing school health as a specialised area. All representatives attending the initial feasibility discussions in 1996 were interested in improving school health programmes on a large scale and agreed that school health experts should participate as a part of the network. A School Health Component of the Mega Country Network for Health Promotion was thus established, which became the first specialised area under the umbrella of the Mega Country Health Promotion Network. The meetings in 1996 and 1997 enabled such experts to identify ways to improve their programmes by working and learning from each other's experience. They agreed on the following goals for the School Health Component:

- To help each participating nation analyse and improve national strategies for enabling schools to implement effective school health programmes, including the involvement of relevant provincial and local agencies.
- To provide an efficient mechanism to help articulate and implement the WHO Global School Health Initiative in the world's most populous nations.
- To provide advice to WHO in further planning and implementing the Global School Health Initiative.

Activities of the School Health Component

Mega Country representatives from Bangladesh, Brazil, China, India, Indonesia, Nigeria, the Russian Federation and the United States of America had the opportunity to meet in Geneva in March 1998, where they discussed school health strategies and drafted a Work Plan for 1998-1999. The following are actions outlined in the Work Plan, consistent with the overall goals of the Mega Network:

1. ***Improve the information base for health promotion*** through publications such as this manuscript, a joint WHO/CDC School Health web-site, by monitoring youth risk behaviours among students in some of the Mega Countries and cross country comparable surveillance of youth risk behaviours, and by improving the communication and exchange of information between Mega Countries.
2. ***Mobilise resources for health promotion*** by actively involving ministries of education and teachers' organisations (unions); organising national conferences for school health, conducting rapid assessments of national capacities to improve health through schools which can contribute to the development of national plans, and developing funding proposals for work in collaboration with WHO.
3. ***Develop intersectoral collaboration***, particularly between the ministries of health and education, and working closely with teachers' organisations. An important challenge is to determine how to overcome problems of intersectorality and bureaucratic barriers within and between Mega Countries.
4. ***Address important health, population and setting challenges***; specifically by developing effective school strategies to prevent tobacco use and addiction and integrating those efforts into a broad school health program; and in general by disseminating existing WHO documents and materials.

Other specific activities that Mega Country representatives have highlighted as priorities for the school health component of the Network include cross-country research in school health, the demonstration of a pilot-project or strategy in interested nations, and WHO technical assistance for interested nations on specific problems, such as HIV/STD/pregnancy prevention.