

DISABILITY

Factors that have contributed to the rise in disabilities in the Americas include the aging of the population, malnutrition, accidents, alcohol and drug abuse, extreme poverty, war, social violence, the displacement of population groups, and natural disasters. The rise in emerging, reemerging, and chronic diseases also is responsible for causing disabilities.

There are approximately 85 million disabled persons in Latin America. Probably more than one-quarter of the Region's total population is directly or indirectly affected as family members, friends, or members of the community. Accessibility and mobility are the leading problems confronting the disabled population, with architectural and urban-living barriers making it difficult for the disabled to enter the labor market and carry out daily activities.

In analyzing the status of rehabilitation efforts in the Americas, several factors must be considered, including those outlined in this paragraph. First, sectors involved in rehabilitation have developed with little coordination, and have advanced more in health and education areas. Second, the quality of life for disabled persons and their families is further diminished by the fact that much of this population segment lives in poverty. Advances in occupational rehabilitation also have not kept pace with those in medical and educational rehabilitation, and the disabled have only been partially incorporated into rehabilitation programs and services in the Region, with only 2% of this group having access. Only 78% of the countries have institutions charged with developing rehabilitation policies, only 51% have rehabilitation programs, and only 62% have enacted legislation specifically dealing with the issue; most countries have no registration system for disabilities and rehabilitation. In addition, research in this area has been extremely limited. Human resource training in the Region has mainly concentrated on physical and occupational therapists, and the number of general health personnel that has received rehabilitation training is very low. Finally, social security programs cover occupational risks, illnesses, and accidents, and disability pensions that benefit the urban wage-earning population.

The leading causes of disability are associated with health and the environment. In the area of health, they include congenital defects, chronic diseases, malignant tumors, infectious diseases, nutritional deficiencies, and parasite infestation, as well as problems related to fetal development and childbirth. Environmental causes include pollution—such as an indiscriminate pesticide use on crops—and its effect on health. Other causes are violence, inadequate measures to prevent occupational or traffic accidents, psychological and emotional trauma due to armed conflict, and anti-personnel mines.

Most of the countries have established rehabilitation services in tertiary health care centers, but there is a shortfall of these services at secondary and primary levels of care. The limited availability of orthosis and prosthesis shops and the scarcity of

other accessories or devices that can help the disabled aggravate the problem.

A strategy for establishing community-based rehabilitation services has been widely promoted in the Region's countries for the last 20 years; this approach is designed to ensure that disabled persons receive comprehensive care. With PAHO's cooperation, it has been implemented in most of the countries, although it is still not a priority in the health plans. The greatest progress has been made in Argentina, Brazil, Colombia, Cuba, Mexico, Nicaragua, Venezuela, and English-speaking Caribbean countries. Special projects also were launched in Bolivia, El Salvador, Guatemala, and Honduras, and work is under way to implement the strategy in indigenous areas of Bolivia, Guyana, Peru, Venezuela, and in the Miskito area of Nicaragua and Honduras.

Under the framework of the Ottawa Treaty for the destruction and ban on the use, stockpiling, and production of anti-personnel mines, the governments of Canada and Mexico set up a program for the comprehensive rehabilitation of victims of anti-personnel mines in Central America. PAHO joined the effort as an organization that specializes in health and has a regional rehabilitation program. To date, El Salvador, Honduras, and Nicaragua are part of the program, which not only covers mine victims, but any disabled person requiring medical care and reintegration into society.

FOOD AND NUTRITION

In the Region of the Americas, problems of undernutrition increasingly coexist with problems of overnutrition. Undernutrition primarily affects infants and young children under the age of 2 years, manifesting as stunting and anemia. Overweight and obesity are becoming increasing problems among adults, contributing to hypertension, cardiovascular disease, and type II diabetes.

Nutrition in Infants and Young Children

Breast-feeding and Complementary Feeding Patterns and Trends

The period of greatest risk of malnutrition coincides with the period of breastfeeding and complementary feeding. Although most women in Latin America breastfeed and do so for a relatively long period of time, breastfeeding practices are far from optimal. The duration of exclusive breastfeeding, the behavior most associated with reduced infant morbidity and mortality, is far less than the 6 months recommended by WHO (127) (Table 8). Little is known about complementary feeding practices in the Region. Data from Mexico and Peru, however, show that young children's diets are lacking in energy, iron, and zinc (128).

While national programs to support breastfeeding have been successful (129–131) and the WHO/UNICEF Baby-friendly

Hospital Initiative has been widely implemented throughout the Region, enforceable legislation on the International Code of Marketing of Breast-milk Substitutes is still not in place in a number of countries. Only Brazil, Costa Rica, the Dominican Republic, Guatemala, Panama, Peru, and Uruguay have enacted legislation encompassing all or nearly all of the provisions of the Code. Argentina, Barbados, Bolivia, Chile, Dominica, Ecuador, Grenada, Guyana, Jamaica, and Trinidad and Tobago have adopted a voluntary code or health policy encompassing nearly all the provisions of the Code, but with no enforcement mechanisms. Several other countries have legislation regarding various provisions of the Code, and several have drafted laws or are studying how best to implement the Code. Most Latin American and Caribbean countries are members of the Codex Alimentarius Commission, which determines the labeling and content of foods for infants, as well as the appropriate age for introducing complementary foods.

Undernutrition

Undernutrition in the form of stunting (low height-for-age) and underweight (low weight-for-age) is often a contributing factor to common childhood diseases, and as such, is associated with many causes of death of children under 5 years of age. Chronic undernutrition, as measured by stunting, is the most prevalent form of undernutrition in the Region. The age-specific risk pattern for stunting (from birth to 24 months of age) is similar for all countries in the Region, despite widely varying levels of stunting. The period of risk of acute undernutrition is from 3 to 24 months of age, though this is not a serious problem in the Region. After 24 months of age, mean weight-for-age values in the Region are above the reference value, indicating the presence of overweight.

HIV and Infant Feeding

The demonstration of HIV transmission through breastfeeding has complicated infant feeding recommendations. Mother-to-child transmission of HIV, the main cause of pediatric HIV/AIDS, is a growing problem in Latin America and the Caribbean, where over 10,000 cases have been reported (132). Recognizing breastfeeding as a significant and preventable mode of HIV transmission, UNAIDS, together with WHO and UNICEF, issued new guidelines on HIV and infant feeding in 1998 (133).

Micronutrients

Although great strides have been made in addressing micronutrient deficiencies in the Region, they continue to be highly prevalent. Iron deficiency anemia, vitamin A deficiency, and iodine deficiency have received the most attention.

The most easily recognizable sign of iron deficiency is nutritional anemia, which affects 77 million children and women in Latin America and the Caribbean, including 6 million infants, 13

million preschool-age children, 31 million school children, 23 million women of reproductive age, and 4 million pregnant women (134). It is the most prevalent nutritional deficiency among infants and young children in the Region, ranging from 9% in Chile (135) to 33% in Mexico and Argentina (136), and is the leading cause of anemia in the Region. Several countries in the Region use targeted fortification of complementary foods and/or milk for young children to reduce the prevalence of anemia in this age group (135, 137). In many communities, iron deficiency is also a problem among adolescents.

In addition to iron deficiency, there are other non-nutritional causes of anemia, such as menstruation, genetic anomalies (e.g., sickle cell anemia), and infectious diseases that destroy red blood cells (e.g., malaria). Parasites, such as hookworm, and consequent blood loss are another cause of anemia. Given the extent and scope of iron deficiency in the Region, programs with broad coverage to increase iron intake, including increased consumption of iron-rich foods, food fortification, and supplementation, are needed.

Most countries in the Region fortify wheat or corn flour with some combination of iron and B vitamins, including folate, niacin, riboflavin, and thiamin. Several also fortify margarine, milk products, and sugar, with vitamin A. In the developing world, the Latin American and Caribbean countries are leaders in food fortification due to their well-developed food industries; growing urbanization and the use of industrially processed foods; government and public acceptance of food fortification with micronutrients; and the passage of legislation to support fortification efforts.

Because of the high iron requirements of pregnancy, gestating women need daily iron supplementation. However, despite norms calling for this practice and large-scale programs targeting pregnant women in the Region, for the most part, supplementation strategies have not been successful due to low levels of coverage and compliance.

When consumed during the periconceptional period, folic acid plays an important role in preventing neural tube defects in infants, one of the most common forms of congenital malformation. Food fortification is one strategy used to increase folate levels among women of reproductive age. Most countries in the Region fortify cereal flours with folic acid with the aim of reducing the incidence of neural tube defects.

Vitamin A deficiency is the most important cause of childhood blindness in developing countries, and at subclinical levels, contributes significantly to high morbidity and mortality due to common childhood infections. Though clinical vitamin A deficiency is still evident in Brazil and Haiti, in the Region of the Americas, vitamin A deficiency manifests mainly as a widespread subclinical disease in many countries, where more than a quarter of all children under 5 years of age are estimated to be affected.

Recent studies show that 15% or more of preschool-aged children are affected by subclinical vitamin A deficiency in the Dominican Republic, Ecuador, and Mexico, and that subclinical

deficiency persists in children under 3 years of age in Colombia, Guatemala, Honduras, and Peru. Subclinical vitamin A deficiency has also been a problem in Bolivia and Northeast Brazil, although no recent national data are available to assess the extent of the problem; several other countries also lack recent data to confirm the presence or lack of subclinical vitamin A deficiency as a public health problem.

Prophylactic supplementation of high-dose vitamin A is the most widespread intervention against deficiency of this micronutrient, though food fortification with vitamin A is slowly becoming more extensive.

Over the past decade, all of the countries in the Region for which vitamin A deficiency is a problem have started to implement vitamin A supplementation programs. Important programmatic achievements include the incorporation of vitamin A supplementation into immunization activities to increase coverage among young children, and supplementation of postpartum women. In addition, there is increasing awareness of the need to strengthen supplementation programs through integrated efforts and regular monitoring, as is seen in the greater involvement of staff from different health programs in supplementation activities.

In most of the Region's countries, coverage rates for first-dose vitamin A supplementation among children under 1 year of age were generally above 60% during the period 1998–2000 (Figure 8). This has been the result of linking vitamin A supplementation with immunization campaigns.

The coverage for the first dose of the annual series of vitamin A supplements among children over 1 year of age, on average, is not consistently as high as the coverage rates among infants. Reaching children targeted for vitamin A supplementation becomes progressively difficult with age, as contacts with regular health services become less frequent. Coverage rates for the second dose of the annual series of vitamin A supplements are extremely low in most of the countries of the Region. Vitamin A supplementation of women at the beginning of the postpartum period is a relatively new strategy being implemented by some countries.

At present, interprogrammatic coordination to increase vitamin A supplementation coverage and education in dietary diversification are being widely promoted in the Region. In addition to reinforcing the link with the Expanded Program on Immunization (EPI), vitamin A supplementation is being incorporated into other programs, such as the Integrated Management of Childhood Illness (IMCI).

Food fortification with vitamin A is a central strategy for vitamin A deficiency reduction in several countries and is being adopted by many others. Currently, El Salvador, Guatemala, Honduras, Nicaragua, and Venezuela have ongoing food fortification programs that include fortification with vitamin A, particularly of sugar. Central American countries, which have the most extensive experience with food fortification, have achieved significant improvements in vitamin A status.

In the Region of the Americas, all countries at risk of iodine deficiency have implemented national salt iodization programs. However, programs in Belize, Bolivia, Cuba, El Salvador, Nicaragua, and Paraguay need to be strengthened, and programs in the Dominican Republic, Guatemala, and Haiti need to be greatly reinforced. Nearly all countries have access to either locally produced or imported iodized salt. Because of the commitment of the salt industry and public sector involvement in developing national programs for the prevention and control of iodine deficiency disorders, salt iodization has reached 90% of the homes in Latin America, making this the highest coverage reached in the world. Bolivia, Colombia, Ecuador, Peru, and Venezuela have already been certified as free of iodine deficiency disorders.

The Obesity Epidemic in the Americas

Non-communicable diseases, particularly cardiovascular diseases, diabetes, and certain cancers, now rank as the leading cause of death in the Region of the Americas. Overweight and obesity—which are due to a positive nutritional balance in which intake and energy savings exceed energy expenditure—are a common denominator in these diseases.

Some of the changes in morbidity and mortality patterns caused by chronic diseases originate with changes in the population's diet and physical activity patterns. This is reflected in the Region's current obesity epidemic.¹ Where information is available, the prevalence of overweight among school-aged children is between 25% and 30% (139).

Obesity is distributed differentially by sex and social class. Women have higher obesity rates than men, and there also is a negative relationship with social class, which is greater among women. While more women tend to be overweight, it is important to note that the higher on the social gradient a woman is, the lesser the difference. This could be explained by the fact that women experience cultural pressures to be thin, as well as because women tend to adopt positive eating habits earlier than do men (139).

In women 14–49 years old, higher levels of education and higher socioeconomic levels have a differential effect on the probability of obesity. In the Region's poorer countries, such as Haiti, more education and higher income levels have a positive correlation with obesity; on the other hand, among United States women of Mexican descent, more education and higher income levels protect against obesity. Thus, higher income has a positive effect on obesity, while more education has a protective effect. In Peru's urban population, the protective effect of education is greater for women than for men.

A sedentary lifestyle is a factor conducive to obesity worldwide, especially in cities. Physical activity levels tend to be low in

¹To define overweight and obesity, WHO recommends using the Body Mass Index (BMI), which is derived by dividing weight (in kilos) by height (in meters squared). The following classification is used: low weight, ≤ 18.5 ; normal, 18.5–24; overweight, 25–29; and obesity, ≥ 30 .

the Region of the Americas, particularly among low-income sectors. A 1993 survey conducted in Chile showed that only 24% of the population participated in any sport (more men than women); 61% of young persons 8–14 years old participated in some type of sport, compared with 22% of 45-year-olds (140). These patterns of physical activity are very similar to those reported in the United States (141), in the 1997 Sports Survey of Peru (142), and in Brazil.

It is important to stress the positive effect of citizen alliances in the Region, such as “Agita São Paulo” in Brazil and “Muévete Bogotá” in Colombia, which encourage the population to be physically active. Along those lines, PAHO and the Centers for Disease Control and Prevention (United States), working with various organizations in the Region, established the Physical Activity Network of the Americas in October 2000; the network will coalesce and bolster various efforts to promote physical activity in the Region. Also worth highlighting are efforts of local or neighborhood governments to protect and/or create safe spaces for recreation and leisure activities.

MENTAL HEALTH

In the countries of the Region, there is great concern about and a growing need to respond to the challenges presented by the increasing burden of mental health disorders. There is general agreement that action should be directed towards the promotion of awareness regarding the prevalence, causes, and prevention of mental health conditions, as well as the adoption of appropriate treatment practices. Beyond their health effects, these disorders have serious repercussions on the individual's role and participation in society.

Prevalence of Mental Disorders

The SABE survey found that the prevalence of depression among the respondents ranged from a low of 4% in Georgetown, Barbados to a high of 18% in Montevideo, Uruguay.

The subregions of Central America, the Caribbean, and a large part of the Andes, have suffered several devastating natural disasters, such as hurricanes, floods, earthquakes, and volcanic eruptions. Such events have a strong impact on the mental health of the affected populations. A study examining the risk of developing mental disorders, levels of violence in the post-disaster period, and rates of health service utilization found that 20% of the survey population had suffered a major depressive episode and that 11% suffered from posttraumatic stress (143).

Costs and Burden of Mental Disorders

Knowledge about the economic consequences of mental disorders is still limited, especially in developing countries. However,

economic studies show that work impairment accounts for a significant part of the economic impact of mental health problems. For example, a study in the United States showed that psychiatric disorders are responsible for 1 billion lost days of productivity per year in the civilian workforce (144). Furthermore, several studies show that depression has both a greater length of disability and disability relapse than comparison medical conditions.

Policies and Services

Despite the importance that mental disorders have on the global burden of disease and their influence on society's development and productivity, mental health is not a priority when it comes to resource allocation. Most persons who suffer mental disorders do not have access to health services or do not seek care. In the United States, for example, more than half of those experiencing mental disorders do not receive adequate care (145).

The 1990 Declaration of Caracas represents an important advance in the effort to incorporate mental health into primary health care, establish community mental health services to gradually take the place of psychiatric hospital services, and protect the rights of persons suffering from mental disorders. In 1997, as a result of a resolution adopted by PAHO's Directing Council (DC40.R19), the ministers of health of the Americas unanimously endorsed the principles established in the Declaration of Caracas and committed themselves to promote mental health and deal with the most prevalent mental disorders.

Advances in mental health include the fact that 64.5% of the countries of the Americas have specific policies dealing with mental health, 80.6% have mental health plans, and 67.9% have enacted mental health legislation. On the other hand, available data show that although the average available resources for mental health in the Americas exceed the worldwide average, stark deficiencies remain in most aspects (Table 9).

The percentage of the national health budget assigned to mental health varies considerably from country to country, ranging from less than 1% to 11%, but it tends to be low in most countries. For example, 30.8% of countries assign less than 2% of the budget to mental health, 46.2% assign between 2% and 5%, and only 23.1% assign more than 5%. The financing of mental health services comes from taxes in 66.7% of the Region's countries, from social security funds in 16.7%, from user fees in 13.3%, and from private insurance in 3.3%.

The Declaration of Caracas and the adoption of Resolution DC40.R19 notwithstanding, in most of the countries, mental health services continue to be offered mainly in large and centralized psychiatric hospitals. And, although most of the Region's countries carry out mental health activities in their primary health care services, only 66.7% of them treat severe conditions at these services, and only 41.9% train primary health professionals in mental health. The number of psychiatric beds is 3.3 per 10,000 population; 47.6% of them are in psychiatric hospi-