

Differences by Age and Sex

The characteristics of the external causes of death vary significantly by age group, as shown in Table 35, and the differences are observed in all countries. With very few exceptions, deaths from external causes, in all age groups, are much higher for males than for females.

External causes accounted for 3.3% of mortality for those under 1 year old in the Region in 1994. Accidents represented 91.5% of these causes (89.1% for boys and 93.6% for girls), and the remainder were attributable almost entirely to homicide. Accidents are the only group of causes of infant mortality in which rates are higher for females than males. Similarly, the only age group with more female than male fatalities due to external causes is that of infants under 1 year old. Accidents include, notably, motor-vehicle traffic accidents (6.4%), accidental drowning and submersion (2.9%), and accidents caused by fire (2.9%). The most frequent cause of infant mortality due to external causes, however, is to be found in the "other accidents" group, namely obstruction of the respiratory tract or accidental mechanical suffocation, usually caused by inhaling objects or vomit.

In the 1–4-year age group, external causes represented 21.3% of total deaths in the Americas in 1994. The main causes are motor-vehicle traffic accidents, accounting for 21.6% of external causes, accidental drowning and submersion (19.6%), accidents caused by fire (8.1%), and homicide (6.9%). Among other accidents, accidental mechanical suffocation and accidents related to electric shock account for an important portion of externally caused deaths, as seen in the under 1-year age group.

In 1994, in the 5–15-year age group, 45.7% of all deaths were due to external causes, the principal cause being motor-vehicle traffic accidents (37.6%), which account for almost 17% of all mortality in that age group. Another major cause is accidental drowning and submersion. Over 50% of the deaths by accidental drowning and submersion are concentrated in the 5–14-year-old age group, accounting for almost 15% of external causes and 6.5% of all deaths. This category is followed by homicide (10.5% of all external causes). Suicide is in fourth place, accounting for 3.7% of deaths due to external causes.

The age group with the highest number of deaths from external causes is the 15–44-year age group. In 1994, 63.9% of male deaths and 42.5% of female deaths from external causes in the Region occurred in this age group. The sex differentials are considerable in this age group: external causes are responsible for 51.7% of male deaths and only 24.5% of female deaths. For men, the main external cause is homicide, accounting for 39.5% of the total, followed by motor-vehicle traffic accidents (25.0%) and suicide (12.5%). The proportions are lower for drowning (4.4%) and accidental poisoning

(3.3%). For women, the main external causes of death in the 15–44-year age group are motor-vehicle traffic accidents (36.8%), homicide (23.2%), suicide (15.0%), and accidental poisoning (4.7%).

In 1994, in the 45–64-year-old age group, external causes accounted for 10.9% of male mortality and 5.1% of female mortality in the Region. In that age group, the most important external causes for males were motor-vehicle traffic accidents (27.1%), homicide (22.1%), suicide (16.8%), accidental falls (6.0%), and accidental poisoning (3.6%). For females they were motor-vehicle traffic accidents (32.7%), suicide (15.4%), homicide (10.6%), accidental falls (5.5%), and accidental poisoning (4.2%).

Finally, for the population aged 65 and over, external causes represented only 2.5% of total deaths in the Region in 1994 (3.0% for men and 2.0% for women). For men, the main causes were motor-vehicle traffic accidents (23.5%), accidental falls (21.6%), suicide (17.6%), homicide (6.9%), accidents related to complications from medical treatment (3.9%), and accidents caused by fire (2.6%). For females, the main external causes of death in that age group were accidental falls, accounting for 38.5% of the total. Next in line were motor-vehicle traffic accidents (18.6%), accidents related to complications with medical treatment (6.1%), suicide (5.1%), homicide (3.2%), and accidents caused by fire (3.0%).

BEHAVIORAL DISORDERS

Consumption of Alcohol, Tobacco, and Other Psychoactive Substances

General Analysis

The abuse of many legal and illegal psychoactive substances is one of the Region's most serious health problems. Alcohol and tobacco, both legal, have the highest rates of continuous or occasional use among substances that lead to dependency.

The countries with the highest consumption of illegal substances reduced the number of people who used drugs in the last 30 days, or "users in the last 30 days." In the United States, for example, this group of users decreased from 25 million to 12.8 million between 1979 and 1996, according to estimates by the United States Department of Health and Human Services. In the United States there also are 110 million alcohol drinkers and 55 million tobacco users. In 1995, more than one-third of high school seniors used tobacco—the highest figure since 1970—representing an estimated 3,000 new cases each day. This figure is all the more alarming, considering that smokers in these age groups are eight times more likely to use illegal drugs and five times more likely to become

TABLE 35
Proportional mortality from external causes, by age and by sex, Region of the Americas, 1984 and 1994.

		Total		<1 year		1-4 years		5-14 years		15-44 years		45-64 years		65 years and over	
		1984	1994	1984	1994	1984	1994	1984	1994	1984	1994	1984	1994	1984	1994
External causes (total)	M	12.8	13.6	1.6	2.6	14.0	20.3	43.2	48.2	54.6	51.7	10.1	10.9	3.0	3.0
	F	4.7	4.5	1.5	4.2	10.6	22.4	28.5	41.9	23.6	24.5	4.6	5.1	2.0	2.0
	T	9.1	9.4	1.6	3.3	12.4	21.3	37.2	45.7	44.9	44.0	8.0	8.7	2.5	2.5
Intention undetermined ^a	M	7.7	8.2	7.3	7.8	6.0	7.4	6.2	7.2	8.2	8.5	8.1	8.7	5.5	3.4
	F	6.0	6.4	5.6	4.8	6.7	4.8	6.2	5.4	7.1	7.4	6.8	6.8	3.7	6.0
	T	7.3	7.8	6.6	6.1	6.3	6.1	6.2	6.5	8.1	8.4	7.8	8.3	4.8	4.9
Motor vehicle traffic accidents (% of external causes)	M	27.2	25.5	7.5	7.5	22.5	25.1	35.9	37.7	28.7	25.0	25.5	27.1	21.6	23.5
	F	29.9	31.4	8.5	5.5	23.4	18.0	41.5	33.2	37.3	36.8	31.8	32.7	18.5	18.6
	T	27.9	26.8	7.9	6.4	22.9	21.6	37.6	36.0	30.1	26.9	26.9	28.4	20.4	21.4
Drowning (% of external causes)	M	6.4	4.9	4.0	3.6	23.8	24.6	18.5	17.3	6.1	4.4	3.9	3.4	2.5	2.1
	F	4.6	3.7	3.9	2.5	20.1	14.5	13.1	9.4	3.6	2.8	2.6	1.7	1.3	1.1
	T	6.0	4.6	3.9	2.9	22.3	19.6	16.8	14.3	5.7	4.2	3.6	3.0	2.0	1.6
Accidental falls (% of external causes)	M	5.3	5.3	2.5	2.3	4.0	3.4	3.9	3.3	2.6	2.2	5.8	6.0	19.1	21.6
	F	12.5	14.3	2.3	1.8	3.2	2.3	3.5	2.2	1.9	1.6	6.2	5.5	37.8	38.5
	T	7.0	7.3	2.5	2.0	3.7	2.9	3.8	2.9	2.5	2.1	5.9	5.9	26.6	28.8
Accidents caused by fire and flames (% of external causes)	M	2.3	1.4	6.8	3.3	12.2	9.0	4.3	2.9	1.3	0.8	2.2	1.6	3.4	2.6
	F	4.6	3.1	7.6	2.6	14.3	7.1	7.0	3.6	2.8	1.9	3.9	2.7	4.5	3.0
	T	2.8	1.8	7.2	2.9	13.0	8.1	5.1	3.2	1.6	0.9	2.6	1.9	3.8	2.8
Accidental poisoning (% of external causes)	M	2.1	3.0	4.4	2.3	3.5	2.4	1.2	1.1	2.1	3.3	2.0	3.6	1.8	1.4
	F	3.3	3.5	4.3	1.5	4.6	1.7	2.1	1.2	3.8	4.7	3.5	4.2	2.1	1.6
	T	2.4	3.1	4.4	1.9	3.9	2.0	1.5	1.1	2.4	3.5	2.3	3.8	1.9	1.5

TABLE 35 (continued)

		Total		<1 year		1-4 years		5-14 years		15-44 years		45-64 years		65 years and over	
		1984	1994	1984	1994	1984	1994	1984	1994	1984	1994	1984	1994	1984	1994
ExAccidents related to medical care (% of external causes)	M	0.9	0.8	1.8	1.5	0.6	0.7	0.2	0.3	0.2	0.1	1.4	1.2	4.0	3.9
	F	2.8	3.0	2.0	0.9	0.3	0.4	0.5	0.4	1.1	0.9	3.8	3.4	6.0	6.1
	T	1.3	1.3	1.9	1.2	0.5	0.5	0.3	0.3	0.3	0.3	1.9	1.7	4.8	4.8
Other accidents (% of external causes)	M	21.5	15.2	62.0	68.6	28.0	26.9	27.7	21.5	19.3	11.9	23.4	18.0	23.3	20.3
	F	19.0	16.0	61.2	78.8	28.1	50.0	22.3	38.2	14.2	13.0	17.4	23.7	19.4	22.8
	T	21.0	15.4	61.6	74.2	28.1	38.3	26.0	27.9	18.4	12.0	22.1	19.1	21.8	21.5
Subtotal accidents	M	65.7	56.1	89.0	89.1	94.6	92.1	91.7	84.1	60.3	47.7	64.2	60.9	75.7	75.4
	F	76.7	75.0	89.8	93.6	94.0	94.0	90.0	88.2	64.7	61.7	69.2	73.9	89.6	91.7
	T	68.4	60.3	89.4	91.5	94.4	93.0	91.1	85.7	61.0	49.9	65.3	63.8	81.3	82.4
Suicide (% of external causes)	M	12.3	12.8	0.0	0.0	0.0	0.0	2.2	4.0	11.7	12.0	16.6	16.8	17.4	17.6
	F	11.9	10.9	0.0	0.0	0.0	0.0	2.5	3.3	16.6	15.0	20.7	15.4	6.4	5.1
	T	12.2	12.4	0.0	0.0	0.0	0.0	2.3	3.7	12.5	12.5	17.5	16.5	12.9	12.2
Homicide (% of external causes)	M	21.5	30.5	8.6	10.3	5.1	7.8	5.9	11.7	27.5	39.5	18.9	22.1	6.4	6.9
	F	11.0	14.0	7.8	6.3	5.6	6.0	7.3	8.4	18.5	23.2	9.7	10.6	3.4	3.2
	T	19.0	26.8	8.2	8.1	5.3	6.9	6.4	10.5	26.0	36.9	16.9	19.5	5.2	5.3
Legal intervention and operations of war (% of external causes)	M	0.5	0.6	2.4	0.6	0.3	0.1	0.2	0.2	0.5	0.8	0.3	0.2	0.5	0.1
	F	0.4	0.1	2.4	0.1	0.4	0.0	0.2	0.1	0.2	0.1	0.4	0.1	0.6	0.0
	T	0.4	0.5	2.4	0.4	0.3	0.1	0.2	0.1	0.5	0.7	0.3	0.2	0.6	0.1

^a Excluded from the total to calculate proportional mortality by type of cause.

excessive drinkers. In 1992, cocaine use in the United States was approximately 300 metric tons, two-thirds of which was used by people chemically or psychologically dependent on it. Since 1991, the number of new cocaine users has stabilized at approximately 500,000 per year. The number of new marijuana users rose from 1.4 million to 2.3 million between 1990 and 1994.

In Canada, the cost of smoking has been estimated at more than US\$ 7,700 million (US\$ 2,100 million in health expenditures). Other countries in the Region, with support from WHO and the World Bank, are preparing such estimates, as a way to counteract the tobacco companies' argument that tobacco sales benefit the countries' economies. WHO estimates for 1997 indicate that health problems attributable to smoking caused nearly 675,000 deaths in the Americas (500,000 in the United States, 100,000 in Latin America, 40,000 in Canada, and 35,000 in the English-speaking Caribbean).

High mortality rates from cirrhosis of the liver continue to be seen in various areas of Chile, Mexico, and Puerto Rico, although in the rest of the Region the situation appears to be stabilizing. Both Argentina and Uruguay have reduced daily alcohol consumption and deaths from cirrhosis, and it should be noted that Argentina, a country with nearly twice the population of Chile, has half the number of deaths from that disease.

There is an apparent inconsistency in the data from locally conducted surveys and reports on the demand for medical assistance and indirect indicators that relate to a critical mass of people dependent on illegal substances. This seems to indicate that, unlike consumers of tobacco, alcohol, and other legal psychoactive substances, illegal-substance users are not homogeneously distributed in the population.

Review of Indicators

The magnitude of substance abuse has not been uniformly assessed in the Region, although some countries have conducted representative surveys of the population. The number of heroin users in the United States has stabilized at 600,000, and since 1989 some 1,300 kg of this drug have been confiscated yearly. In Canada the amount of confiscated cannabis resin, used to prepare hashish, rose from 15,785 kg in 1992 to 56,639 kg in 1993. That same year, fairly low quantities of heroin were confiscated: 154 kg, compared with 99 kg in 1991 and 114 kg in 1992. The confiscation of 2,713 kg of cocaine in 1993 in Canada suggests that this country consumes one-tenth as much cocaine as the United States.

The Statistical Summary of the Organization of American States (OAS) indicates that a total of 1,112,720 kg of marijuana was confiscated in the Region in 1993, which suggests some degree of stabilization, compared with almost 1,875,415

kg recorded in the early 1990s. Mexico ranks first, with 495,000 kg confiscated, followed by the United States, with 382,000 kg, and Colombia, with 127,867 kg. The amount of cocaine confiscated has remained relatively stable in the Region (213,000 kg in 1989 and 251,142 kg in 1993). The United States and Mexico vie for first place with respect to the quantities of cocaine confiscated, with 110,693 kg and 46,159 kg, respectively. Consumption of uncut cocaine in the United States is estimated at approximately 290,000 kg, a figure that has remained stable since 1986. The Rand Corporation estimates that in the United States, two-thirds of the cocaine is consumed by habitual users and the remainder is occasionally used for recreational or experimental purposes, or as a stimulant.

Table 36 shows the per capita alcohol consumption up to 1990 in selected countries in the Americas. As may be seen, the increase has been modest.

In Latin America, the prevalence of alcohol consumption is extremely high, and several surveys report the persistence of "problem drinkers," that is, people who frequently become intoxicated. These drinkers are detected by means of specially designed instruments, such as the short alcohol consumption scale in Chile, or the questionnaire for the diagnosis of alcoholism used in Colombia and other countries, both of which are validated for the countries in which they are administered. In Colombia WHO's Complete International Diagnostic Inventory (CIDI) also was used to identify alcohol-dependent persons. The number of problem drinkers in Chile is significant; the short alcohol consumption scale yielded positive diagnoses in 24% of the cases, 35.6% of men and 11.1% of women. Similarly, the questionnaire administered in Colombia produced figures for alcoholism and high-risk drinkers (problem drinkers) of 12.0% and 9.9%, respectively. Most countries reported that some 6% to 8% of the population over 12 years of age are dependent on alcohol and almost 10% are heavy drinkers. This means that a high percentage of the population periodically gets drunk and experiences social, psychological, and work problems associated with this behavior. Although no continuous and reliable figures are available, accidents and violence of all kinds related to behavior stemming from alcohol consumption have been often described. Table 37 shows consumption levels in selected countries, according to several surveys.

Table 38 shows per capita cigarette consumption in the various regions of the world, according to distribution criteria prepared by WHO. The drop in consumption between 1980–1982 and 1990–1992 (2.8%) is noteworthy, and it could be speculated that the smoking epidemic in the Region of the Americas appears to have peaked in the first half of the 1980s. Given this, tobacco-related morbidity and mortality will continue to be observed throughout the remainder of the present century and, should this trend persist, at least

TABLE 36

Total per capita consumption of alcohol, in liters, selected countries of the Americas, 1970, 1975, 1980, 1985, and 1990.

Country	1970	1975	1980	1985	1990
Argentina	13.28	12.8	11.6	8.9	7.5
Bolivia	1.74	2.13	2.30	...	...
Brazil	1.82	1.99	2.55	1.4	3.4
Canada	6.07	8.11	8.61	7.9	7.4
Chile	6.11	5.75	6.72	6.3	6.4
Colombia	2.19	2.18	2.68	2.6	3.0
Costa Rica	2.23	2.04	3.03	...	2.6
Cuba	1.59	2.14	2.26	3.1	3.6
Dominican Republic	1.49	2.08	2.54	...	...
Ecuador	0.94	1.70	1.92	...	...
El Salvador	0.89	1.36	1.31	...	...
Guatemala	1.89	2.61	2.52	...	...
Honduras	1.16	1.31	1.60	...	...
Mexico	2.01	2.27	2.59	2.6	3.0
Nicaragua	2.78	2.66	2.30	...	...
Panama	2.85	3.10	3.12	...	...
Paraguay	2.35	2.36	3.66	1.9	2.0
Peru	2.21	2.65	2.38	1.6	1.4
Puerto Rico	9.31	8.41	...	...	...
United States	6.87	7.76	8.26	8.0	7.4
Uruguay	5.71	6.49	4.15	5.3	5.7
Venezuela	4.02	4.17	4.37	3.1	3.3

through the first quarter of the twenty-first century, when life expectancy and chronic noncommunicable diseases will have increased.

Similarly, most countries that recently conducted surveys have shown a marked decline in tobacco consumption. In Colombia, for example, tobacco consumption in the month before the survey declined from 21.3% in 1992 to 18.5% in 1996. This indicator remained virtually unchanged in Costa Rica (18.6% in 1990 and 18.3% in 1993) and in Mexico (26.0% in 1990 and 25.1% in 1993). The disparity between lifetime use of tobacco and use during the month before the survey in the United States is significant, with an observed difference of 45%. This reflects a net reduction in smoking in the years following the Surgeon General's Report in 1964. Table 39 shows the prevalence of smoking in the population over 12 years of age.

In other countries, lifetime prevalence rates of tobacco use and rates for consumption in the last year are not very different from those referring to recent use; thus, although the prevalence is not as high, many smokers are still tobacco-dependent. Nonetheless, the per capita cigarette consumption in the Region has fallen, dropping from 2,550 in 1972 to 1,600 in

TABLE 37

Percentage of the population older than 12 years that consumes alcohol, according to several surveys, selected countries of the Americas.

Country (year)	Some time	Last year	Last month
Bolivia (1992)	68.7	58.9	42.1
Canada (1994)	88.2	72.3	...
Chile (1996)	83.7	70.3	46.7
Colombia (1996)	...	59.8	35.2
Costa Rica (1995)	62.3	40.3	24.8
Mexico (1993)	74.6	51.6	42.9
Paraguay (1991)	36.5	31.6	25.8
Peru (1997)	84.6	74.2	40.7
United States (1994)	84.2	66.9	53.9
Venezuela (1996)	80.5	66.0	28.8

1992. This drop in daily consumption may be attributable to price and income variations.

Table 40 shows the estimated prevalence of tobacco consumption for men and women, based on data provided by the countries to PAHO. Although the data are not completely up-to-date, they represent a good indication of the situation in the Americas.

These figures represent an important factor in the morbidity and mortality from causes attributable to tobacco in terms of total annual deaths. Moreover, the changes in the epidemiological profile in developing countries will increase the prevalence of noncommunicable diseases; that, combined with increased longevity, will have a strong impact in the future, given the critical figures of average cigarette consumption in the Region.

Illicit drug consumption in countries involved in drug production or drug trafficking presents a similar picture, although figures in this case are relatively modest in comparison with those for countries identified as those with the greatest demand. Table 41 presents prevalence data on the consumption of illicit substances in selected countries.

It is noteworthy that the lifetime prevalence for consumption of mate, or coca tea, in a cocaine-producing country such as Bolivia was 59.9% and previous-month consumption was 16.7%. Similarly, 14.3% of the population engaged in the chewing of coca leaves, and the medicinal use of coca was estimated at 13%; both figures corresponded to consumption in the last 30 days. Save for the United States and Canada, every country surveyed reported that heroin use was unusual. In Mexico, a drug-producing and drug-trafficking country, lifetime prevalence was 0.1% (and nonexistent during the last month and year). Colombia reported 12,576 users (compared with 343,000 who have used coca paste and more than 1 mil-

TABLE 38
Global and Regional estimates and trends in cigarette consumption among adults
15 years of age and older, 1970–1972 to 1990–1992.

WHO regions and countries	Average annual per capita consumption			Annual percentage change		
				1970–1972	1980–1982	1970–1972
	1970–1972	1980–1982	1990–1992	1970–1972 to 1980–1982	1980–1982 to 1990–1992	1970–1972 to 1990–1992
Region of Africa	460	570	590	2.1	0.3	1.2
Region of the Americas	2,580	2,510	1,900	–0.3	–2.8	–1.5
Region of the Eastern Mediterranean	700	940	930	2.9	–0.1	1.4
Region of Europe	2,360	2,500	2,340	0.6	–0.7	0.0
Region of Southeast Asia	850	1,140	1,230	2.9	0.8	1.8
Region of the Western Pacific	1,100	1,610	2,010	3.8	2.2	3.0
Industrialized countries	2,860	2,980	2,590	0.4	–1.4	–0.5
Developing countries	860	1,220	1,410	3.5	1.4	2.5
World	1,410	1,650	1,660	1.6	0.1	0.8

Source: World Health Organization. *Tobacco or health. A global status report.* Geneva: WHO; 1997.

lion males who have used marijuana). In the United States, lifetime prevalence is 1% (nearly 2 million people) and the figure for consumption during the last month is 0.1% (117,000 people). According to the latest survey, the total population currently addicted to heroin is roughly 600,000, which indicates that many cases are in remission.

It can be concluded, with minor variations, that there is a trend toward less consumption of illicit substances in developing countries. The trend is even seen in the United States, the country with greatest consumption, where the total use of illicit substances is 34.4%: 31.1% (nearly 98% of the total) is connected with marijuana use. Further studies are needed on

specific populations and users in problem areas, in order to determine the sociocultural conditions underlying this phenomenon. In some areas of intense drug trafficking, such as the Caribbean, Nicaragua, and Honduras, an increase in the use of crack cocaine has been reported in recent years. An assistance program was recently launched for these regions with the collaboration of the Inter-American Drug Abuse Control Commission (CICAD) of the OAS. This program includes community-based methods for conducting situational analyses and epidemiological surveillance.

Several studies are examining the application of the Drug Use Screening Inventory as a way to determine risk factors and protective factors. The studies, which have been conducted in the Central American countries, Chile, Colombia (Medellín), the Dominican Republic, and Venezuela, point to a close association between common risk factors and drug use in the last month among student populations. Important among these factors are age (increased use with age), sex (greater propensity among males), problems at school, impulsive behavior and behavioral disorders, and association with peers involved in drug use. The common protective factor in all countries and for all drugs is good family life.

There are substances that can be gateways to the world of drugs, such as alcohol, tobacco, or both. Teenagers who had consumed alcohol, tobacco, or both were more apt to use marijuana and cocaine than those who had not. Age of initiation, therefore, represents a critical variable in prevention efforts.

TABLE 39
Percentage of the population older than 12 years old that consumes tobacco, selected countries of the Americas.

Country (year)	Some time	Last year	Last month
Bolivia (1992)	46.8	34.1	24.9
Canada (1994)	54.5	27.0	...
Chile (1996)	70.2	47.5	40.4
Colombia (1996)	38.8	25.9	22.2
Costa Rica (1995)	35.2	18.3	17.5
Mexico (1993)	45.4	...	25.1
Paraguay (1991)	...	...	24.3
Peru (1997)	62.1	42.0	31.7
United States (1994)	73.3	31.7	28.6
Venezuela (1996)	31.8	25.7	24.4

Source: Country reports.

TABLE 40
Estimated prevalence (%) of tobacco consumption in men and women, selected countries of the Americas, in descending order.

Position	Country (year)	Men (%)	Women (%)
1	Dominican Republic (1990)	66.3	13.6
2	Bolivia (1992)	50.0	21.4
3	Cuba (1990)	49.3	24.5
4	Peru (1989)	41.0	13.0
5	Uruguay (1990)	40.9	26.6
6	Argentina (1992)	40.0	23.0
7	Brazil (1989)	39.9	25.4
8	El Salvador (1988)	38.0	12.0
9	Chile (1990)	37.9	25.1
10	Guatemala (1989)	37.8	17.7
11	Honduras (1988)	36.0	11.0
12	Colombia (1992)	35.1	19.1
13	Costa Rica (1988)	35.0	20.0
14	Canada (1991)	31.0	29.0
15	United States (1993)	27.7	22.5
16	Paraguay (1990)	24.1	5.5
17	Bahamas (1989)	19.3	3.8

Source: Country reports.

Mental and Psychosocial Disorders

Current Care Needs

The epidemiology of psychiatric disorders and psychosocial problems (such as violence) in the Region indicates that these problems are extremely widespread and that no country is immune. In the United States, the Epidemiological Capture Area study (ECA), which employed a standardized diagnostic method known as the Diagnostic Interview Schedule (DIS), encompassing several urban and one rural population (N = 19,640), reported a lifetime prevalence rate of 32% and an active case rate of 20% in the 12 months prior to the survey (1991) (172). In a more recent study that employed the standardized CIDI, which included a random sample of the entire United States population, the following aggregate rates were found: lifetime, 48.0% and past year, 29.5%. Among men, the respective rates were 48.7% and 27.7%, and among females, 43.3% and 31.2% (173). In Canada, a 1998 study conducted in the city of Edmonton, using a similar method to ECAs, yielded a lifetime prevalence rate of 33.8% (174). A study in Ontario Province in 1994, consisting of home interviews of people 15 to 64 years of age, found a prevalence rate of 18% for the year prior to the survey for men and 19% for

women (175). In 1993, a multicenter study in Brazil reported estimated prevalence rates ranging from 19% to 34% for a series of psychiatric disorders. In Chile, the lifetime prevalence rate estimated in a 1993 study was 33.7% (176). In Mexico (177) a lifetime prevalence rate of 22% was reported. Of the 13 diagnostic categories studied, depression and alcohol dependency were most frequently associated with lifetime prevalence rates in men: 5.3% and 4.9%, respectively. In women, depression was more frequent, with a lifetime prevalence rate of 11.3%, followed by simple phobias (5.8%). A national survey published in Colombia in 1997 used the second CIDI version as a diagnostic tool. This study explored 16 diagnostic categories, with the most frequent rates of lifetime prevalence for both sexes related to tobacco dependency (28.3%), major depression (19.6%), and alcohol abuse or dependency (16.6%) (178). These aggregate rates were based on calculations of selected psychiatric disorders and, consequently, the entire series of disorders, as listed in the International Statistical Classification of Diseases and Health-related Problems, Tenth Revision (ICD-10), is not included.

Children are not exempt from psychiatric disorders. A study conducted in Puerto Rico reported a 16% prevalence rate for moderate and serious psychiatric disorders (179). In the absence of studies in other countries, this rate was projected for the Latin American and Caribbean population, yielding a figure of at least 17 million children aged 4 to 16 who are probably affected by disorders requiring intervention.

The prevalence rate for epilepsy in Latin America ranges from 1.3% to 5.7% of the total population (180). In Latin America and the Caribbean, the prevalence rates for affective disorders and schizophrenic psychoses are 4.1% and 1.1%, respectively, while in the United States they are 11.3% and 0.5%, respectively (173). It is estimated that some 3% to 5% of the total prevalence rates cited consist of serious disorders that require care from the mental health services.

Data on the frequency and distribution of some disorders in the English-speaking Caribbean have been recently compiled (181). Studies to measure the incidence of schizophrenia were conducted in Trinidad and Tobago in 1993, in Jamaica in 1994, and in Barbados in 1995. They showed rates of 0.24 per 1,000 in men and 0.19 in women; 0.11 per 1,000 for both sexes, and 0.28 per 1,000 for both sexes combined. Two studies that assessed the prevalence rate for this disorder were conducted in Trinidad and Tobago and in Dominica. In Trinidad and Tobago the rates were 0.34% among persons of African origin and 0.12% among persons of East Indian origin, with an overall rate of 0.32% for men and 0.18% for women, while in Dominica the prevalence rate for schizophrenia was estimated at 0.85% in 1990.

The World Bank estimates that 8.0% of disability adjusted years of life lost to mental disorders in Latin America and the Caribbean are attributable to these disorders, a greater pro-

TABLE 41
Prevalence (%) of consumption of illicit substances in the population older than 12 years old,
selected countries of the Americas.

Country (year)	Some time		Last year		Last month	
	Marijuana	Cocaine	Marijuana	Cocaine	Marijuana	Cocaine
Bolivia (1994)	2.5	1.2 (1.2)	0.6	0.2 (0.3)	0.2	0.1 (0.2)
Canada (1994)	23.1	3.8	7.4	0.7		
Chile (1996)	16.7	2.6 (2.0)	4	0.8 (0.6)	1.2	0.3 (0.2)
Colombia (1996)	5.4	1.6 (1.5)	1.1	0.4 (0.3)		
Costa Rica (1995)	3.9	0.9	0.5	0.2	0.3	0.1
United States (1994)	31.1	10.4 (1.9)	8.5	1.7 (0.6)	4.8	0.7 (0.2)
Mexico (1993)	3.3	0.5	0.5	0.2	0.2	0.1
Paraguay (1991)	1.4	0.1	1.4	...	...	...
Peru (1997)	6.4	1.9 (3.1)	1.0	0.2 (0.7)	0.6	0.1 (0.5)
Venezuela (1996)	3.2	1.5 (0.7)	1.7	0.7 (0.4)	1.0	0.5 (0.3)

Note: Figures in parentheses indicate consumption of crack cocaine or coca paste (free-base cocaine).

portion than for cancer (5.2%) or cardiovascular diseases (2.6%) (182). It also has been estimated that 5 of the 10 leading causes of illness in the world in 1990 were psychiatric in origin, and that depression was the most frequent (183). In Chile, a similar study found that of the 15 leading causes of disability adjusted years of life lost from illness, 4 were psychiatric in origin (alcohol dependency, with 3.02% of the total, followed by depression, 3.01%; Alzheimer's disease, 2.42%; and psychosis, 2.36%); 5 more were of a psychosocial nature (13). The economic burden of psychiatric disorders is equally high in the United States, where the cost of depression was estimated at US\$ 43 billion in 1990 (185).

Rather than being random, the distribution of mental health problems among the population appears to show an inverse relationship between socioeconomic class and psychiatric disorders as a whole—the lower the socioeconomic level, the higher the rate. Needs also are particularly high in the population groups at greatest risk, such as indigenous populations and groups that are the victims of displacement, persecution, or war. It is also true that only in a minority of cases have persons with a problem sought care from the health services. For example, a study conducted in the United States (173) showed that only 42% of those with some lifetime psychiatric disorder had gone to a health service to seek assistance.

Future Care Needs

As the number of persons at risk for psychiatric disorders increases with the growth of the population, the need for psychiatric care in the countries at the beginning of the twenty-first century is expected to increase from current levels. It is estimated that by the year 2000, 88 million persons will be suffering from some mental or emotional disorder in Latin America and the Caribbean (186); by 2010, 2 million more with schizophrenic disorders and more than 17 million with affective disorders are expected to join their ranks.

Mental Health Policies and Services

Psychiatric care treats both disturbances in the development of the psyche and the personality and functional or organic disturbances in the mind. Psychiatric care also encompasses the promotion of mental health, the prevention of psychiatric disorders, and efforts to alter psychosocial factors related to health and human development.

Both specialized and general health services, especially primary care services, provide psychiatric care. Primary care services absorb most of the demand, because they are more

accessible and because people tend to view them more favorably, as they are not associated with a mental hospital.

The incorporation of psychiatric care into the primary care strategy has progressed considerably in Latin America and the Caribbean since 1990. The development and use of simple technology to identify and manage patients with emotional disorders at the primary care level and within in-service education, supported by specialized services, have contributed greatly to extend psychiatric care coverage. Almost every country has endeavored to promote this approach by conducting research, developing manuals, and providing training.

Psychiatric care provided by specialized and general health services is insufficient to cover all of the population's needs and demand. Some of the deficit is covered by community-based arrangements, although the degree to which these means are relied upon varies from country to country. The Region's health systems, especially since 1990, have begun to link their psychiatric services to activities undertaken by the general public, such as support networks, self-help groups, and consumer organizations. This citizen involvement in psychiatric care has given rise to a vigorous and broad-based movement in the United States and Canada. The movement has spread to Latin American and Caribbean subregions, visibly taking hold in some countries such as Argentina, Brazil, Costa Rica, Mexico, Panama, and Uruguay. Even so, the demand far outstrips the services' current capacity.

Overall, psychiatric services are neither fully accessible nor of the highest quality. In response, a movement to modify the structure and function of psychiatric care—dubbed the Initiative for the Restructure of Psychiatric Care—has emerged in the Region in 1990. Most of the Latin American and Caribbean countries are participating in the initiative, which is designed to shift psychiatric care toward the community and away from mental hospitals, where most of it rests. In so doing, the initiative tries to make maximum use of the potential within the community to restore mental health, take advantage of various models of care (psychiatric care in general hospitals, convalescent homes, etc.), and overcome the problems that now beset mental institutions in most of the countries of the subregion.

Psychiatric care in Latin America and the Caribbean must contend with obstacles inside and outside the health services. Mental health care and mental illness are not generally considered priorities by health authorities in the countries of the Region, a fact that translates into meager budgets and limited activities in this field. Health authorities and professionals still harbor reservations about new approaches to primary prevention and, in particular, care for mental disorders. These attitudes are as much a result of the social stigma surrounding those who suffer from such disorders as they are of the training received by mental health service providers, which usually takes place in mental hospitals. The Initiative for the

Restructure of Psychiatric Care is an attempt to overcome this situation, and changes can already be seen. In 1997, the Directing Council of PAHO backed the initiative and urged the Member Governments to support it fully. Psychiatric services in almost all the English-speaking countries of the Caribbean are making steady headway in this direction.

ORAL HEALTH

Dental caries, oral cancer, and oral manifestations of HIV/AIDS are the gravest oral health problems in the Region. Dental caries are the most common problem, particularly among children. The lack of appropriate prevention and treatment programs in various parts of the Region continues to contribute to tooth loss among adults and the elderly. During the 1990s, the prevalence and severity of dental caries has begun to decline, however.

About 5% of all malignant tumors correspond to cancer of the oral cavity and pharynx. Despite the manifestation of pre-malignant signs and direct access to the mouth and pharynx through visual and tactile inspection, in many cases the lesions are diagnosed after they have spread and metastasized extensively. Consequently, only 50% of persons with oral cancer survive the fifth year after diagnosis.

HIV infection has particular importance, because it causes lesions in the oral cavity and the virus can be transmitted in dental clinics and laboratories.

Dental Caries and the DMFT Index⁴

Epidemiological surveillance of dental caries in the Region of the Americas is carried out through clinical cross-sectional surveys in specific population groups (cohorts), following protocols established by WHO (187). WHO has set a prevalence of no more than three decayed, missing, or filled teeth (DMFT ≤ 3) in 12-year-old children as a worldwide goal for the year 2000.

Table 42 shows the prevalence and severity of dental caries in 12-year-old schoolchildren from various countries in the Region. It uses the DMFT index from epidemiological studies carried out in the 1970s, 1980s, and 1990s and compiled from various sources. Figures from most studies carried out during the 1970s and 1980s come from WHO's Global Oral Health Databank⁵ (188), the medical literature (189–201), official

⁴ The DMFT index measures the total number of decayed (D), missing (M), and filled (F) teeth as a result of dental caries. The index is disaggregated by age or specific age groups.

⁵ These data are published in "Dental caries levels at 12 years" and distributed periodically by WHO's Oral Health Program.