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Implementation of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)

For the Pan American Health Organization (PAHO), implementation of the ICD-10 in the countries of the Region of the Americas is considered an important part of a larger process entailing the review and improvement of vital statistics. The process will attempt to take advantage of the introduction of the new Revision to ascertain training and adjustment needs, and will serve as a catalyst in regard to filling them.

Specific aspects concerning the implementation of the ICD-10 are presented below, in addition to broader topics linked with vital statistics.

Training of Coders

With PAHO support, subregional workshops were held during 1995 in Jamaica, Mexico, Paraguay, Trinidad and Tobago, and Venezuela. The purpose was to provide training in ICD-10 for experienced coders familiar with earlier revisions to enable them to serve as trainers in their respective countries. Delegates from Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela participated in these workshops. Training workshops were also held in Brazil, with the participation of coders from all states in that country.

The workshops were conducted by the three WHO Collaborating Centers for Classification of Diseases in the Region: the Venezuelan Center for Classification of Diseases (CEVECE), the Brazilian Center for Classification of Diseases (CBCD) and the Center for the Classification of Diseases for North America (NAC-NCHS).

Through the PAHO/WHO Country Representations, the following countries of the Region have announced the year in which they will begin coding mortality data using the ICD-10: English-speaking Caribbean, Brazil, Dominican Republic, Paraguay, and Venezuela: 1996. Argentina, Belize, Chile, Cuba, Ecuador, El Salvador, Mexico, Nicaragua, Peru, and Uruguay: 1997. United States of America: 1999. There is no official confirmation from the remaining countries.

National workshops were held in the majority of countries during 1996. Some of these were offered by CEVECE with PAHO support, among them, one held in Nicaragua in August and one in Ecuador in October. Another took place in Peru in September, with PAHO support. Other countries are offering workshops conducted by coders trained in the subregional workshops. Workshops are scheduled for early 1997 in Panama and Colombia.

A workshop has also been held in the city of O Grove in Galicia, Spain, presented by the Director of CEVECE and the PAHO Regional Adviser on the ICD, with the participation of coders from all parts of Spain. The Spanish government reports that a decision has been made to implement the ICD-10 in 1998 for both mortality and morbidity.

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Automated Selection of the Underlying Cause of Death

In the 1960s, the NCHS (National Center for Health Statistics of the United States) developed a system for automated selection of the underlying cause of death, called ACME (Automated Classification of Medical Entities). This system, which was designed to run on mainframe computers, has been used in many countries for ICD-8 and ICD-9, with some national adaptations.

In addition to the advantage of providing standardized criteria for applying the selection rules and thereby increasing the comparability of data, automated selection of the underlying cause of death, either as a function of the processing system for mortality data or as an independent program, facilitates the study of multiple causes, significantly enhancing the usefulness of the data.

The result is a change in the typical profile of the coder, who assumes a simpler, more rapid role in coding *per se*. Because of his knowledge and experience, the coder can enter data, check its consistency, and validate and analyze the data.

In recent years, the United States and other countries have been developing instruments to automate the coding process, even using systems to enter diagnostic terms directly without first coding them using the ICD system.

One of the national versions for automated selection of the underlying cause of death, adapted to Latin America, is the SCB (Selection of Underlying Cause), developed in Brazil (CBCD/DATASUS) for the Ninth Revision, which is available in Portuguese and Spanish.

However, given the widespread use of the ICD-10 in the hemisphere programmed for 1996 through 1998, broad implementation of a version for automated selection of the underlying cause of death for ICD-9 becomes unnecessary.

Furthermore, because the changes from the ICD-9 to the ICD-10 are very extensive, involving not only expanded codes but modifications in the selection rules and in the interpretation of acceptable sequences of causes as well, rapid adaptation of the versions for automated coding of the underlying cause of death from the Ninth to the Tenth Revision is impossible. It is anticipated that the so-called "decision tables" (i.e., codes, rules, and interpretations) for the ICD-10 will be available by the second half of 1997.

Condensed Lists of Causes of Death Based on the ICD-10

Although the ICD-10 provides some "special lists" for tabulating mortality and morbidity data, none of them is comparable to the PAHO-6/61 list, prepared for the Ninth Revision, whose purpose is to permit an overview of the mortality profile, based on two levels of aggregation (six large groups of causes, with internal subdivisions).

The data must be tabulated for each list furnished by the ICD-10 in order to study its suitability for different approaches to the analysis of mortality. A list comparable to the 6/61 list is also being drawn up for the ICD-10, with a view to formulating a basic list that can maintain the sequence of the historical series, as published by PAHO in *Health Statistics from the Americas.*

In this respect, the PAHO Health Situation Analysis Program (HDP/HDA) has prepared the 6/65-ICD-10 (PROVISIONAL) list, equivalent to the 6/61-ICD-9 list, which will be distributed for use and evaluation to the countries that already have data coded with the Tenth Revision.

Improving Vital Statistics

As mentioned earlier, the implementation of the ICD-10 represents an opportunity to develop a broad process for reviewing and improving health statistics, especially those based on mortality data. In this respect, the key points are as follows:

a) Review and Revision of Death Certificate Forms

As the primary source of information on mortality, the death certificate form should be as suited as possible to the two basic functions that it must fulfill: legal/civil and statistics/health.

Since most countries use different forms for fetal and non-fetal deaths, the review includes a proposal to unify the forms, and to check the variables and the concepts behind them, as well as their purpose, formulation, and adaptation to the objectives of the ICD-10—for example, to include a question about the existence of a pregnancy in the case of female deaths and a fourth line in the section on the medical diagnosis. Models from several countries are being utilized to stimulate discussion. HDP/HDA has a collection of certificates and corresponding legislation from countries of the Region.

b) Issuance/Revision of Certificates of Live Birth

Only a few countries have information systems on births that are similar to those used for deaths, with a birth certificate. In this area, the forms from several countries are being used to contribute to the discussion on issuance and revision of certificates of live birth.

c) Review of the Legal Framework of the Civil Registry

Discussions are being promoted on the legal framework of the civil registry, a key component in information systems on vital statistics. In many countries, the legislation is too specific; this can make it difficult to introduce changes in the model certificates or forms, in the institutions involved, or in the flow of information.

Furthermore, the legislation often barely mentions "compulsory" variables, providing instead details on each variable, which also makes refinements or updating difficult.

The review looks for ways to facilitate civil registration, formulating suggestions to be presented to the competent agencies. Certificates from different countries are also being used as support.

d) Review of Information Flows/Decentralization

The health sector reform process under way in virtually all countries, the decentralization process, and current technological developments imply the need to review the concepts that underlie the information systems, in terms of data flows and the role of each level in generating, transmitting, processing, and using data.

It is very important to promote the use of data at all levels—local, subnational, and national. However, coding of the underlying causes should not be decentralized at all local levels, especially if it is done manually, as is the case in practically all the countries of the Region. Coding can be done at the intermediate level —state, province, department, region. The use of data at the local level does not require selection of the underlying cause, because it is more immediate and determines activities in epidemiological surveillance and disease control. Also, because there is less data, which permits an individual analysis of each death, with all its diagnoses. It is also very expensive and difficult to keep coders adequately trained and supervised at every local level.

e) Reformulating the Data Processing Systems

Implementation of the ICD-10 represents a timely opportunity for changes to the data processing systems, not only because of the switch from the Ninth to the Tenth Revision but also because of the changes in death certificate models and the modernization of technology.

As support for the automated processes to ensure data consistency, the PAHO Health Situation Analysis Program has created a DBF file containing all ICD-10 categories with an abbreviated description of up to 40 characters, an indication of the number of characters in each, and comments on how each category could be used as the underlying cause of death. Another file contains all the categories (3 characters) and subcategories (4 characters) with the constraints on their use (impossible, code not used, or unlikely) as the underlying cause of death or with respect to sex and/or age.

These files are being given to the countries, and discussions are being held on their utilization and adaptation to each country's needs and on the consistency of the data in the data processing systems. The files are also useful tools for reviewing the manual coding of the underlying cause.

Other aspects of the data processing systems that have been reviewed are the basic definitions of outputs (tables) and the decentralization process.

f) Studies on the Coverage and Quality of Data

During missions to countries, the need to promote specific studies to evaluate the coverage and quality of the data is discussed, in keeping with each country's individual situation. What is usually available is a general estimate of underreporting for the country. However, the underreporting of mortality is almost never the same for all ages and tends to be higher for both the very young and the very old; nor is it homogeneous from region to region within a single country.

It would be extremely valuable for purposes of data analysis to have parameters for adjusting/projecting data and indicators, based on knowledge of the specific constraints in terms of quality and coverage. In addition, the results would make it possible to plan specific activities or programs in the countries to overcome such constraints.

Another aspect discussed is the use of nonmedical information on causes of nonviolent deaths. In some countries of the Region, such information is coded without distinguishing it from medical information.

The recommendation is that medical information on the cause(s) of death be tabulated separately from nonmedical information, because the nature and characteristics of the information are different. As a rule, diagnostic skills are far less developed among nonmedical personnel, who almost always limit themselves to the most obvious or terminal manifestations of the disease and not the underlying cause. This is not true for external causes, where the underlying cause is not the type of injury that caused the death, but the circumstances that determined it—for example, the type of violence (hit by a car, murdered with a gun, drowned in a river, etcetera). In such cases, a physician is not needed for the specific information.

The most appropriate way to handle the general tables, national and international, is to consider nonmedical diagnostic information on nonviolent causes of death as "unknown cause." Such information is significant at the local level, but it is not generally comparable at the national level and even less so at the international level.

g) Analyzing Data and Disseminating Information

In most countries, the basic (if not the only) way in which mortality data is available and disseminated is the publication of mortality statistics yearbooks. Discussion of these publications revolves around the characteristics of the data, how tables and other forms of presentation are prepared, the level of aggregation and disaggregation, the

types of data and/or appropriate indicators, among others.

The discussions also address the ways in which users access data—for example, electronic media, on line consultations, information dissemination through networks like the Internet, and special tables for users. Emphasis is also placed on the need to provide, together with the data itself, information on the characteristics, coverage, and possible limitations of the data.

Within the time available, a brief analysis is made of the country's mortality profile, with discussion of the uses of the data, ways to adjust it, projections, and estimates necessary in view of limitations or deficiencies in data quality or coverage.

Source: Division of Health and Human Development, Health Situation Analysis Program (HDP/HDA), PAHO.

NEW PUBLICATIONS

Brazilian Epidemiology Journal

The *Brazilian Journal of Epidemiology* has the objective of stimulating the scientific development of epidemiology and providing the elements for improving the quality of epidemiological practice in the health services. Linked to the *Associação Brasileira de Pós-Graduação em Saúde Coletiva (Abrasco)*, the Journal intends to maintain the double commitment of the Association to scientific development and the transformation of practices.

As the target public consists of researchers and professionals in the health field, it is expected that the journal will be widely disseminated; thus, articles will be published in Portuguese, Spanish, or English. The Journal is scheduled for publication every four months beginning in 1997. The editors invite everyone's collaboration with the journal. Original articles should be addressed to the scientific editor at the following address:

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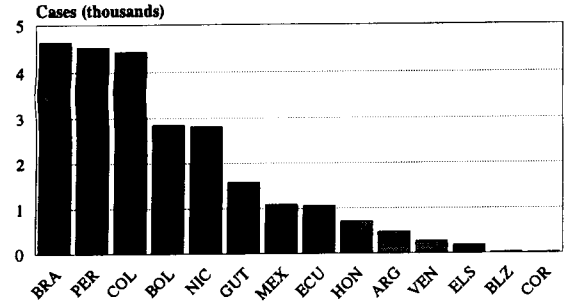
Cholera Situation in the Americas, 1996

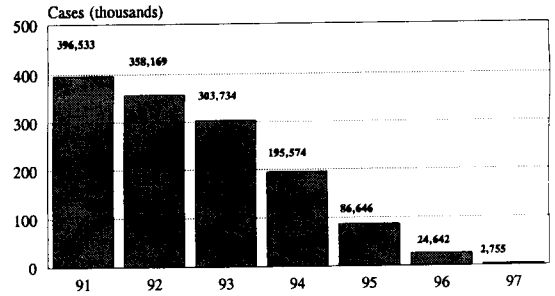
In 1996, 17 countries in the Hemisphere reported a total of 24,642 cases and 350 deaths from *Vibrio cholerae* 01 (Figure 1). Compared to the 86,646 cases and 890 deaths reported in 1995, there was a 72% reduction in cases and a 60% reduction in deaths from the disease in 1996. The distribution of cases by country is illustrated in Figure 1. In 1996, the number of cases reported continued the downward trend observed since 1991 (Figure 2 and Table 1).

Figure 1: Number of cholera cases, by country, Region of the Americas, 1996 *



Source: Ministries of Health
* Reports received by PAHO up to 31/12/96

Figure 2: Number of cholera cases reported, Region of the Americas, 1991-1997*



Source: Ministries of Health
*Reports received by PAHO up to 22/02/97

In 1996, Brazil, Peru and Colombia (countries that share borders) had the greatest number of cases: 4,634, 4,518, and 4,428, respectively. Nicaragua, with significantly fewer cases (2,813), reported the greatest number of deaths (107). In the past three years, French Guiana, Guyana, Suriname, and Panama have been cholera-free, and the disease has not spread to the Caribbean countries and Canada.

In 1996 the average case-fatality rate for cholera in Latin America (deaths/cases) was around 1.4%.

Based on the epidemiological reports received from 4 January to 22 February 1997 (epidemiological week 8), eight countries in the Hemisphere reported 2,755 cases and 34 deaths from cholera. During 1996-1997, four countries in the region have witnessed a significant re-emergence of the disease. The following is a brief description of the current situation in each country.

Argentina

During the first five months of 1996, Argentina experienced an epidemic of cholera that peaked in February and was concentrated mainly in Salta Province. The epidemic was responsible for 422 cases and five deaths, with the last case reported on 25 May. During October (epidemiological week 41) another outbreak of the disease was reported raising the cumulative total for the year to 474 cases, or 2.5 times the total number of cases reported in 1995 (188 cases). As of 15 February 1997, Argentina reported 405 cases, the majority of them (95%) along the Bolivian border with Salta and Jujuy.

The National Commission for the Prevention and Control of Cholera in Argentina has been responsible for programming and coordinating joint activities in border areas. It is also in charge of information exchange and analysis, promoting meetings of the local border commissions and defining the strategies for prevention and control in populations at risk. The Commission has also been engaged in supervision and has actively collaborated in work related to case management, laboratory diagnosis, the training of health workers, food control, and basic sanitation construction in high-risk areas.

Bolivia

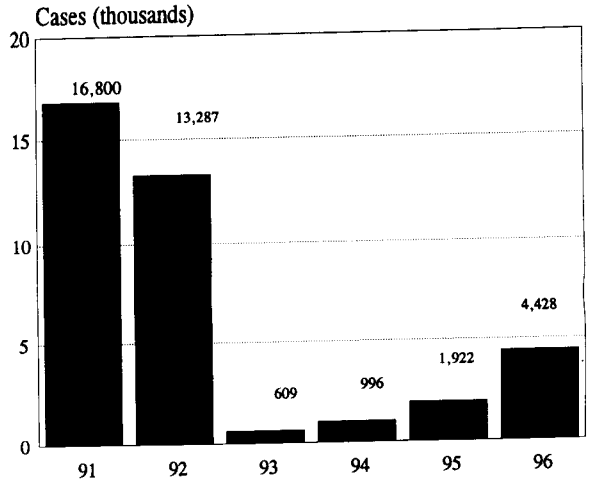
In 1996, Bolivia reported a total of 2,847 cases and 68 deaths. Since October 1996, the country has been experiencing its sixth cholera outbreak which is likely to persist until April or May 1997. The municipalities most affected are Tarija, Beni Chuquisaca, Santa Cruz, and Cochabamba. Yacuiba, on the border with Argentina, has been declared an emergency zone. Between 29 December and 16 January 1997, Tarija reported 482 cases and one death. Street sales of food and beverages have been suspended in the municipality since there is suspicion that this practice is responsible for the outbreak. As of epidemiological week 8, the cumulative total for cholera cases in 1997 was 946 and seven deaths, with a marked decline beginning in week 3.

A team of professionals from the National Health Secretariat was formed to conduct joint activities that will make it possible to control the outbreak and improve epidemiological surveillance in the country. Support at the operational level has been provided in the following areas: clinical and maintenance of a chlorine generator. Bolivia is collaborating with the Argentine authorities in the preparation of a PAHO technical cooperation project.

Colombia

In 1996 Colombia was struck by a cholera epidemic that chiefly affected the Atlantic Coast and the mid-Magdalena region; endemic behavior persisted in the Pacific Coast area, and outbreaks and isolated cases occurred in the Amazon and Andean regions. Along the Venezuelan border, there were no cases reported in the Departments of Arauca, Vichada, and Guainia; however, the Departments of Guajira, César, and Norte de Santander were affected. In 1996, the Department of Guajira accounted for 32% of the cases and 54% of the deaths from cholera in Colombia. The drought, the migration of salt miners in June, and the lack of drinking water and critical excreta disposal, were the main causes of the epidemic in that department. Colombia reported a total of 4,428 cases and 70 deaths in 1996—a 130% increase in cholera cases over 1995 (Figure 3).

Figure 3: Number of cholera cases reported, Colombia 1991-1996



Source: Ministry of Health, Colombia

Venezuela

In 1996, after a two-year hiatus, cholera was reported in Venezuela in the municipality of Páez in the State of Zulia. This outbreak was associated with the consumption of raw seafood and initially involved nine people. During epidemiological week 51, the epidemic reached the Federal District causing 16 reported cases. In all, the epidemic (weeks 39-52) was responsible for 254 cases and eight deaths, or 95% of the total cases reported by Venezuela for that year. As of epidemiological week 8, 1997, 323 cases and 14 deaths have been reported with a significant decline beginning in week 3.

Source: Communicable Diseases Program, Division of Disease Prevention and Control (HCT/HCP), PAHO.

Table 1: Reported cholera cases, deaths, and cumulative incidence rates, by country, Region of the Americas, 1991-1996*

Country	Date of Most Recent Update	Cases (Deaths) 1991	Cases (Deaths) 1992	Cases (Deaths) 1993	Cases (Deaths) 1994	Cases (Deaths) 1995	Cases (Deaths) 1996	Cumulative Cases (Deaths) 1991-1996	Cumulative Incidence (per 100,000 population) *** 1991-1996
South America									
Argentina	15 Feb 97	0	553 (15)	2,080 (24)	889 (15)	188 (1)	474 (5)	4,184 (60)	12
Bolivia	22 Feb97	206 (12)	22,260 (383)	10,134 (254)	2,710 (46)	3,136 (86)	2,847 (68)	41,293 (849)	556
Brazil****	15 Feb 97	2,103 (33)	37,572 (462)	153,109 (670)	119,722 (542)	15,915 (96)	4,634 (23)	333,055 (1,826)	205
Chile	28 Jan 96	41 (2)	73 (1)	32 (0)	1 (0)	0	1 (0)	148 (3)	1
Colombia	29 Dec 96	16,800 (291)	13,287 (170)	609 (11)	996 (14)	1,922 (35)	4,428 (70)	38,042 (591)	108
Ecuador	29 Dec 96	46,284 (697)	31,870 (208)	6,883 (72)	1,785 (16)	2,160 (23)	1059 (12)	90,041 (1,028)	785
French Guiana	13 Feb 93	1 (0)	16 (0)	2 (0)	**	**	**	19 (0)	13
Guyana	29 Dec 96	0	556 (8)	66 (2)	0	0	0	622 (10)	74
Paraguay	1 Apr 96	0	0	3 (0)	0	0	4 (0)	7 (0)	0.14
Perú	29 Dec 96	322,562 (2,909)	210,836 (727)	71,448 (575)	23,887 (199)	22,397 (171)	4,518 (21)	655,648 (4,602)	2,757
Surinam	29 Dec 96	0	12 (1)	0	0	0	0	12 (1)	3
Venezuela	22 Feb 97	13 (2)	2,842 (68)	409 (10)	0	0	268 (9)	3,532 (89)	16
North/Central America									
Belize	1 Feb 97	0	159 (4)	135 (3)	6 (1)	19 (0)	26 (0)	345 (8)	159
Costa Rica	4 Aug 96	0	12 (0)	14 (0)	37 (0)	24 (0)	19 (0)	106 (0)	3
El Salvador	29 Dec 96	947 (34)	8,106 (45)	6,573 (14)	11,739 (40)	2,923 (5)	182 (2)	30,470 (140)	528
Guatemala	22 Feb 97	3,664 (50)	15,861 (227)	30,821 (306)	16,779 (156)	7,970 (95)	1,568 (14)	76,663 (848)	721
Honduras	25 Jan 97	17 (0)	407 (103)	4,013 (102)	5,049 (102)	4,717 (77)	708 (14)	14,911 (398)	263
Mexico	15 Feb 97	2,690 (34)	8,162 (99)	10,712 (193)	4,059 (56)	16,430 (137)	1,088 (5)	43,141 (524)	46
Nicaragua	15 Feb 97	1 (0)	3,067 (46)	6,631 (220)	7,881 (134)	8,825 (164)	2,813 (107)	29,218 (671)	648
Panama	22 Feb 97	1,178 (29)	2,416 (49)	42 (4)	0	0	0	3,636 (82)	138
USA	29 Dec 96	26 (0)	102 (1)	18 (0)	34 (0)	20 (0)	5 (0)	205 (1)	0.08
Total Cases (Deaths) Incidence		**396,533 (4,093) 89**	**358,169 (2,617) 81**	**303,734 (2,460) 68**	**195,574 (1,321) 44**	**86,646 (890) 19**	**24,642 (350) 5**	**1,365,298 (11,731)**	**305**

* Data should be considered provisional and subject to revision. ** No reports received.
*** Total cumulative incidence 1991-1996 does not include the United States. **** Notified cases include clinical and confirmed cases.

Source: Communicable Disease Program, Division of Disease Prevention and Control (HCP/HCT), PAHO.

Health Situation in the Americas(*)
Selection of Basic Indicators 1996

Country	1			2	3	4	5	6	7	8	9	10
	T	M	F									
Anguilla	74.0	71.0	77.0	26	34	...	...	...	...	...	...	
Antigua and Barbuda	73.0	71.0	75.0	19	23	...	...	...	...	...	...	77.9
Argentina	72.1	68.6	75.7	22	25	39	2.2	5	1,540	2,292	4,164	59.4
Aruba	76.0	73.0	80.0	8	10	...	...	...	...	...	...	...
Bahamas	73.0	68.7	77.9	19	21	21	2.0	8	35	...	23	1,183.8
Barbados	75.6	72.9	77.9	16	19	20	-	5	25	14	26	455.9
Belize	73.6	72.4	75.0	36	46	147	10.6	8	13	1	11	85.7
Bermuda	76.0	73.0	80.0	13	15	...	...	...	...	...	...	758.2
Bolivia	59.4	57.7	61.0	74	100	390	20.0	15	...	...	...	1.8
Brazil	66.3	64.0	68.7	57	67	140	15.1	12	28,767	4,490	28,839	85.4
Canada	77.4	74.2	80.7	7	8	3	0.1	2	607	3,709	3,289	50.3
Cayman Islands	77.0	75.0	79.0	8	10	8	...	...	2	-	14	111.1
Chile	72	68.5	75.6	12	17	34	1.5	15	426	658	1,528	16.8
Colombia	69.3	66.4	72.3	28	36	78	11.4	13	26,778	1,167	6,110	38.6
Costa Rica	76.3	74.0	78.6	12	14	40	3.7	8	128	130	415	46.3
Cuba	75.3	73.5	77.3	10	13	27	5.4	4	802	2,374	1,823	9.2
Dominica	77.0	74.0	80.0	14	18	...	...	...	...	...	...	60.2
Dominican Republic	69.6	67.6	71.7	42	62	180	19.0	9	...	...	...	45.0
Ecuador	68.8	66.4	71.4	44	62	120	20.0	17	1,444	450	2,049	10.4
El Salvador	66.4	63.9	68.8	43	56	140	16.2	7	2,299	478	1.087	68.6
French Guiana	75.0	72.0	79.0	20	23	...	...	...	...	...	...	597.6
Grenada	70.0	68.0	73.0	20	25	...	...	10	...	4	6	74.2
Guadaloupe	74.6	71.1	78.0	11	13	...	9.0	2	...	...	...	261.3
Guatemala	64.8	62.4	67.3	51	81	102	22.0	15	2,692	...	...	10.7
Guyana	65.2	62.4	68.0	46	62	180	...	10	...	...	...	127.1
Haití	56.6	54.9	58.3	74	131	456	...	...	...	...	...	119.3(a)
Honduras	67.7	65.4	70.1	44	73	220	36.0	9	...	...	...	156.9
Jamaica	73.6	71.4	75.8	17	23	115	25.0	11	43	...	37	147.8
Martinique	76.2	72.9	79.4	10	12	...	...	...	...	...	...	128.0
Mexico	71.5	68.5	74.5	30	37	45	11.4	15	16,056	2,539	14.349	44.1
Montserrat	76.0	74.0	78.0	12	15	...	...	...	...	...	...	-
Netherland Antilles	73.1	70.6	75.6	15	18	...	2.0	...	...	...	...	241.0(b)
Nicaragua	66.7	6.8	68.5	58	64	130	28.0	15	253	111	396	8.7
Paraguay	70.0	68.1	71.9	42	56	235	17.9	16	463	109	394	72.4
Panamá	72.8	70.9	75.0	21	27	46	5.2	10	255	96	442	5.0
Perú	66.0	64.1	67.9	59	67	261	14.0	29	680	160	1.314	30.8
Puerto Rico	75.3	71.4	79.3	12	14	...	-	3	851	314	614	184.6
Saint Kitts and Nevis	66.0	63.0	69.0	27	32	...	11.0	8	...	...	...	112.6
Saint Lucia	69.0	67.0	72.0	19	23	...	5.0	7	1	10	5	82.3
Saint Vicent and the Grenadines	72.0	71,0	74.0	18	23	6	10.0	6	...	...	...	66.8
Suriname	70.3	67,8	72.8	18	22	13	11.7	9	8	54	47	47.7
Trinidad and Tobago	71.6	69,3	74.0	14	18	76	2.9	12	104	148	148	208.2
Turks and Caicos Islands	75.0	73.0	77.0	19	22	...	...	...	...	...	...	1,397.2(b)
United States of America	76.0	72,5	79.3	8	10	8	0.4	3	26,523	30,810	42.621	245.7
Uruguay	72.5	69.3	75.7	19	22	38	3.0	8	136	319	376	37.6
Venezuela	71.7	68.9	74.7	26	31	63	14.0	8	2,445	913	3.905	24.2
Virgin Islands (UK)	73.0	71.0	75.0	20	23	...	7.0	...	...	...	...	76.7
Virgin Islands (USA)	75.0	74.0	77.0	13	15	...	...	...	...	...	...	...

(*)These indicators have been taken from *Basic Indicators 1996. Health Situation in the Americas,* PAHO/HD/HDA/96.02

(a) 1992 (b) 1993

1. Life expectancy at birth (years): Total-Male-Female (1990-1995)
2. Infant mortality rate (latest year available between 1994-1995) (per 1,000 live births)
3. Under 5 years mortality rate (latest year available between 1994-1995) (per 1,000 live births)
4. Maternal mortality rate (latest year available between 1987-1995) (per 100,000 live births)
5. Percentage of registered deaths: 5 years due to acute diarrheal disease (ADD) (latest year available between 1988-1994)
6. Percentage of registered deaths (5 years due to acute respiratory infection (AR) (latest year available between 1988-1994)
7. Registered deaths from homicide (latest year available between 1988-1995)
8. Registered deaths from suicide or self-inflicted wounds (latest year available between 1988-1995)
9. Registered deaths from motor vehicle accidents (latest year available between 1988-1995)
10. Annual incidence of AIDS cases (per million population) (1994)

Health Situation in the Americas(*)
Selection of Basic Indicators 1996

Country	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Anguilla	11.1	22.2	1.1	6.2	...	...	...	97	99	100	92	100	100	...
Antigua and Barbuda	7.6	23.3	1.7	6.6	...	344	5.9	100	100	-	91	100	100	53
Argentina	26.8	5.4	6.6	4.5	3.0	337	9.0	82	87	96	95	96	96	...
Aruba	11.2	...	2.8	4.8	...	...	...	...	...	...	...	97	97	...
Bahamas	14.1	25.8	2.2	4.0	-	567	5.0	87	86	-	90	99	99	62
Barbados	11.3	32.3	1.3	8.4	1.0	348	5.8	93	93	-	92	100	100	55
Belize	4.7	7.6	0.8	2.0	17.0	100	5.0	83	83	92	87	92	83	47
Bermuda	12.0	88.6	4.6	8.4	...	...	...	86	92	-	86	...	...	...
Bolivia	5.1	2.5	0.6	1.7	...	39	4.5	88	89	77	83	38	29	45
Brazil	13.4	4.1	7.7	3.2	26.0	129	5.8	83	83	100	88	65	84	66
Canada	22.1	95.8	5.3	6.0	3.0	1495	9.1	93	89	-	98	100	100	73
Cayman Islands	17.0	51.8	4.1	3.0	...	1168	4.7	98	98	76	95	89	100	...
Chile	10.8	4.2	4.4	2.9	-	156	6.2	98	98	96	95	91	100	20
Colombia	4.3	4.3	5.6	1.2	20.0	82	5.7	91	92	99	77	83	93	72
Costa Rica	12.6	9.5	3.8	2.5	-	156	9.2	85	84	99	94	91	94	75
Cuba	51.8	75.2	8.3	6.0	-	...	...	100	95	99	100	100	100	70
Dominica	4.6	26.3	0.1	3.0	...	133	6.2	92	92	92	92	90	100	50
Dominican Republic	7.7	2	0.7	1.4	51.0	32	4.8	83	80	76	85	97	93	37
Ecuador	11.1	3.4	1.4	1.7	24.0	79	6.3	74	89	100	73	47	26	57
El Salvador	9.1	3.8	2.1	1.6	32.0	53	5.0	100	94	100	94	69	31	53
French Guiana	13.0	73.2	2.6	...	...	...	...	...	...	...	...	...	...	...
Grenada	5.0	23.9	0.7	8.0	..	115	5.6	95	77	-	88	100	100	31
Guadeloupe	14.0	24.9	2.6	...	...	...	..	...	...	...	...	...	...	44
Guatemala	9.0	3	1.3	0.9	3.0	30	3.3	78	81	77	81	53	35	21
Guyana	3.3	8.8	0.1	3.3	20.0	29	5.5	86	87	93	77	96	93	31
Haiti	1.6	1.3	0.2	0.9	...	9	3.4	48	30	24	75	36	46	12
Honduras	2.2	1.7	2.2	0.8	49.0	44	2.7	96	96	99	90	88	87	30
Jamaica	5.7	6.9	0.9	2.2	14.0	54	3.7	90	90	98	89	67	82	62
Martinique	17.1	46.1	3.3	...	...	...	...	...	...	...	...	...	...	51
Mexico	10.7	4	0.6	0.8	4.0	86	3.8	92	92	98	90	50	92	64
Montserrat	5.0	38	1	6.0	...	338	5.8	100	100	100	100	100	100	...
Netherlands Antilles	14.0	29.4	3.3	7.6	5.0	...	...	...	...	...	...	...	...	...
Nicaragua	8.2	5.6	1.2	1.2	54.0	27	5.0	85	96	100	81	87	22	34
Panama	11.9	9.8	2.2	2.2	26.0	173	8.7	86	86	99	84	89	87	58
Paraguay	6.7	.0	3	1.1	45.0	49	3.2	79	79	92	75	40	40	48
Peru	7.3	4.9	0.6	1.2	48.0	41	3.1	94	92	95	97	60	52	36
Puerto Rico	17.5	42.5	2.5	2.9	-	...	...	...	...	...	...	99	100	70
Saint Kitts and Nevis	8.9	59.0	1.8	9.2	...	214	6.3	99	99	-	99	100	100	41
Saint Lucia	3.5	17.7	0.6	4.0	...	117	5.0	98	98	98	94	100	100	47
Saint Vincent and the Grenadines	4.6	18.7	0.5	1.7	...	125	6.1	97	97	99	100	100	100	58
Suriname	4.0	22.7	1	5.7	13.0	133	4.1	84	81	-	79	91	80	...
Trinidad and Tobago	9.0	16.8	1.1	3.6	-	181	4.4	89	90	-	90	98	98	53
Turks and Caicos Islands	5.3	17.7	0.6	2.5	...	...	...	100	100	100	99	...	...	...
United States of America	24.5	87.8	6.3	5.2	2.0	2763	12.7	94	84	-	89	98	99	71
Uruguay	30.9	6.1	11.1	4.8	5.0	158	5.7	87	87	90	84	95	99	70
Venezuela	19.4	7.7	5	2.3	4.0	220	6.5	68	85	92	67	74	82	49
Virgin Islands (UK)	16.5	36.9	0.8	...	...	...	...	100	100	100	100	100	100	...
Virgin Islands (USA)	16.5	36.9	...	4.8	...	...	...	...	...	...	...	...	...	...

(*)These indicators have been taken from *Basic Indicators 1996. Health Situation in the Americas*, PAHO/HD/HDA/96.02

11. Physicians per 10,000 population (latest year available between 1990-1995)
12. Nursing professionals per 10,000 population (latest year available between 1990-1995)
13. Dentists per 10,000 population (latest year available between 1990-1995)
14. Hospital beds per 1,000 population (latest year available between 1992-1995)
15. Percentage of underregistration of mortality (latest year available between 1987-1992)
16. National health expenditure per capita (1988 US$) (1990)
17. Total health expenditure as a percentage of GDP (1990)
18. DPT3 vaccination coverage < 1 year of age (1994)
19. Oral polio vaccination coverage (OPV3) < 1 year of age (1994)
20. BCG vaccination coverage < 1 year of age (1994)
21. Measles vaccination coverage < 1 year of age (1994)
22. Percentage of prenatal care by trained personnel (around 1990)
23. Percentage of births attended by trained personnel (latest year available between 1990-1995)
24. Percentage of use of contraceptive methods (women all methods) (latest year available between 1990-1994)

Congresses and Courses, 1997

IX Congress of the Brazilian Association of Leprosy
IV Congress of the School of Leprosy of endemic countries
Foz do Iguaçu, Paraná, Brazil
4 to 8 June 1997

Conferences will be given on treatment, immunology, genetics, rehabilitation, and elimination of leprosy.

Precongress courses will cover:

- Diagnosis and treatment of leprosy
- Research methods
- Social and educational practices

For more information please contact:

Secretaria Executiva
IN TIME Promoções e Eventos Ltda. Paulista, 2073
Horsa I cj 501 CEP 01311-300
São Paulo - SP, Brasil
Tel.: (011) 285-5549; Fax: (011) 283-5409

Congress of the Latin American Nutrition Society
Guatemala, Guatemala
9 to 15 November 1997

The central subjects will be:

- Nutrition and food safety at local level
- Dietary economy
- Food protection
- Food and nutrition education
- Enriched foods
- Human resources education
- Micronutrients
- Nutrition of women and childhood
- Diet and health in adults
- Surveillance, monitoring, and evaluation

For more information please contact:

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The Web: http//www.incap.org.gt

I Venezuelan Congress of Epidemiology
II Andean, II Latin-American and III Ibero-American Congresses of Epidemiology
Caracas, Venezuela
17 to 21 November 1997

The central subject of the event will be: *Epidemiology and health policies*. Conferences will presented on: Epidemiology, health policies and development; Health sector reform; Public health surveillance; Society, culture, and epidemiology, and Evolution of paradigms in epidemiology.

Precongress courses: Qualitative models, Environmental epidemiology, Health services evaluation, Geographic information systems in epidemiolgy, and Nosocomial Infections.

For more information please contact:

Direccion General Sectorial de Epidemiología
Edif. Sur Piso 8. Oficina 818. Centro *Simón Bolívar*
El Silencio, Caracas, Venezuela
Sede del Ministerio de Sanidad y Asistencia Social
Telephone: 02-482 2139; 481 7727
Caracas, Venezuela

XI Latin American Congress on Sexually Transmitted Diseases
V Pan American Conference on AIDS
Lima, Peru - 3 to 6 December 1997

FIRST ANNOUNCEMENT

The XI Latin American Congress on Sexually Transmitted Diseases and the V Pan American Conference of AIDS will be carried out in Lima, Peru, from 3 to 6 December 1997.

For more information please contact:

XI Congreso Latinoamericano de ETS
V Conferencia Panamericana de SIDA
Secretaría del Congreso
Av. Paraguay 478
Lima 1, Peru
Tel.: (51-1) 433-1578
E-mail: congreso@ulacets.org.pe

Situation of the Blood Banks in the Region of the Americas, 1994-1995

The basic function of the transfusion services is to provide blood and its derivatives in sufficient quantity and with adequate quality, when health services thus require it. The appearance of AIDS has increased the social pressure that requires absolute safety in the product to be transfused. This has imposed new and greater charges in the logistics, management, and organization of the transfusion services. Several factors contribute to make blood and its derivative products safe. This extends from laws and norms that regulate the production and use of blood, good manufacturing practices, including quality control, up to finding altruistic donors and training physicians in the use of the blood derivatives.

The selection of donors continues to be a key factor hence the need for serological screening in order to rule out those that could be infected with diseases that could be transmitted through the transfusion.

Tables 1 and 2 show coverage of the serological screening: the percentage of donors to whom serology tests were performed for HIV, hepatitis to viruses B and C, syphilis, and T. cruzi, in several Latin American countries in 1994 and 1995. The prevalence of those diseases in donors is also included.

Table 1: Prevalence of diseases in donors transmitted through transfusion; situation of the blood banks, per country, number of donors and percentage of positive serological tests, countries with available information in the Region of the Americas, 1994

untry	No. of donors	HIV		HVB*		HVC		Sífilis		T. cruzi	
		% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)
Bolivia	19,987	80.0	0.02	67	1.06	...	...	67.0	2.41	71.0	20.24
Colombia	332,540	72.0	0.34	75	0.90	67	0.70	70.0	1.56	7.7	2.57
Ecuador	98,473	89.5	0.10	88	0.38	33	0.14	86.7	1.15	51.0	0.20
El Salvador	49,550	100.0	0.15	100	0.60	46	0.17	100.0	1.60	65.0	2.30
Honduras	31,275	100.0	0.64	84	0.98	30	0.06	100.0	0.50	85.0	1.41
Nicaragua	44,840	100.0	0.07	95	0.81	55	0.60	97.0	1.04	68.0	0.40
Panama	26,333	100.0	0.10	85	0.40	21	0.40	...	...	24.0	0.13
Paraguay	32,893	100.0	0.70	93	1.30	...	...	67.0	2.80	87.0	4.50
Peru	81,103***	60.0	0.22	60	0.76	43	0.63	60.0	1.02	0.0	...
Uruguay	10,309	100.0	0.08 +	100	0.41	100	0.42	100.0	0.76	100.0	0.62
Venezuela	202,247	100.0	0.22	100	1.46	32	0.93	100.0	1.08	100.0	1.33

...Non available data
*Only antigen
+ Confirmed among the positive ones of the screening
** Prevalence by 100 donors
*** Estimate

Table 2: Prevalence of diseases in donors transmitted through transfusion; situation of the blood banks, per country, number of donors and percentage of positive serological tests, countries with available information in the Region of the Americas, 1995

Country	No. of donors	HIV		HVB*		HVC		Sífilis		T. cruzi	
		% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)	% of donors with serology	Prev. (**)
Argentina	811,850	85.0	0.20	84.0	1.00	70.0	0.80	88.0	0.80	96.0	4.90
Bolivia	22,146	64.0	0.03	60.0	1.50	...	...	64.0	1.33	66.0	13.70
Colombia	370,815	100.0	0.30	100.0	0.89	99.8	0.96	99.3	1.40	46.0	1.30
Costa Rica	45,311	100.0	0.10	100.0	0.40	100.0	0.30	100.0	0.30	13.0	0.80
Ecuador	100,774	100.0	0.18	99.0	0.47	42.6	0.10	100.0	0.90	75.4	0.10
El Salvador	52,365	100.0	0.15	100.0	0.60	74.0	0.18	100.0	1.30	99.0	2.30
Honduras	31,937	100.0	0.50	92.0	0.50	73.0	0.17	100.0	0.62	90.0	1.70
Nicaragua	48,030	99.0	0.11	96.0	0.37	51.0	0.57	96.0	1.71	51.0	0.50
Panama	37,107	83.0	0.12	100.0	0.50	65.0	0.35	...	...	2.0	1.00
Paraguay	34,216	100.0	0.05	93.0	1.40	14.8	0.30	81.0	3.50	83.0	5.80
Peru	82,656***	60.0	0.28	60.0	0.70	50.0	0.68	60.0	1.21	4.0	0.03
Uruguay	111,518	100.0	0.08+	100.0	0.41	100.0	0.42	100.0	0.76	100.0	0.62
Venezuela	202,515	100.0	0.38	100.0	1.05	57.0	0.85	100.0	1.14	100.0	0.84

...Non available data
*Only antigen
+ Confirmed among the positive ones of the screening
**Prevalence by 100 donors
*** Estimate

Sources: Information given by Dr. E.L. Segura, Argentina; Dr. Z.S. Beltran, Bolivia; Drs. M.M. Santacruz, Colombia; Dr. L. Valle Garbanzo, Costa Rica; Dr. G.E. de Hernandez, El Salvador; Dr. E. Vinelli, Honduras; Dr. L.R.C. Alvarez and Dr. Dr. J.R. Cerros, Nicaragua; Drs. R. Diaz and H. Espino, Panama; Drs. L. Funk, M.L. de Pozzoli and M.O. de Zelada, Paraguay; Drs. A.A. Albrecht and C. Mosquera; Drs. F. Moron Ramos and L. Aguilar Cruces, Peru; Dr. L. Ucar, Uruguay; Dr. Mauricio Zalazar and Dr. M.E., de Mongue, Venezuela.

Division of Disease Prevention and Control, Communicable Diseases Program (HCP/HCT), AIDS/SDT Program (HCP/HCA), and Division of Health Systems and Services Development, Essential Drugs and Technology Program (HSP/HSE).

WHO/PAHO/UNESCO Report
A Consultation with Experts on Amoebiasis
Mexico City, Mexico
28-29 January, 1997

Amoebiasis is currently defined as infection with the protozoan parasite *Entamoeba histolytica*. Normally resident in the large bowel, amoebae occasionally penetrate the intestinal mucosa disseminating to other organs. The factors that trigger invasion are unknown. *E. histolytica* is responsible for up to 100,000 deaths per annum, placing it second only to malaria in mortality due to protozoan parasites. It has long been known that many people apparently infected with *E. histolytica* never develop symptoms and spontaneously clear the infection.This was interpreted by many health workers as indicating a parasite of variable virulence. However, in 1925 Emile Brumpt suggested an alternative explanation, that there were in fact two species—one capable of causing invasive disease and another that does not cause disease—The latter he called *E. dispar*. Brumpt's hypothesis was dismissed by other workers.

In the 1970s, data started to accumulate that gave support to Brumpt's hypothesis of the existence of two distinct organisms within what was being called *E. histolytica*. Biochemical, immunological, and genetic data continued to accumulate and in 1993 a formal redescription of *E. histolytica* was published, separating it from *E. dispar*.

E. histolytica can cause invasive intestinal and extraintestinal disease, while *E. dispar* cannot. The confirmation of these two distinct species of *Entamoeba* is perhaps the major recent accomplishment in the field of amoebiasis research. In addition, proteins associated with virulence have been identified, including a lectin that mediates adherence to epithelial cells, a pore-forming peptide that lyses host cells and secretes proteases which degrade host tissues. All of these virulence proteins, as well as other unique antigens present on the parasite surface are potential targets for anti-amoebic vaccines. Biochemical studies have identified the bacteria-like fermentation enzymes that are the target of metronidazole, the most potent anti-amoebic drug in tissues, and suggest new targets for anti-amoebic drugs. This consultation was called to evaluate the implications of this recent work.

Conclusions

1. E. histolytica was previously defined as a unicellular eukaryote with the following morphology: Trophozoites with a single nucleus, 20-40 μm in diameter. Cysts are 10-16 μm in diameter, with four nuclei when mature, one nucleus when immature with glycogen in a vacuole and often with chromatoid bodies. The nucleus is vesicular, spherical, with a membrane lined with small chromatin granules and with a small central sphericla karyosome.

2. Biochemical, immunological and genetic data now indicate that there are two species with the above morphological characteristics —*E. histolytica* and *E. Dispar*— previously known as pathogenic and nonpathogenic *E. histolytica*, respectively. Only *E. histolytica* is capable of causing invasive disease. In the future, the name *E. histolytica* should only be used in this sense and will be used as such in the rest of this article.

3. When diagnosis is made by light microscopy, the cysts of the two species (10-16 μm in diameter) are indistinguishable and should be reported as *E. histolytica/ E, dispar*.

4. Trophozoites with ingested red blood cells in fresh stool or other specimens and trophozoites in tissue biopsies are both strongly correlated with the presence of *E. histolytica* and invasive disease.

5. In symptomatic individuals, the presence of high titres of specific antibody is also strongly correlated with invasive amoebiasis.

6. Faecal antigen detection tests are commercially available. Currently, only one test specifically identifies *E. histolytica*, but other tests based on this and other technologies are under development.

7. We reaffirm the WHO definition of amoebiasis as infection with *E. histolytica* (in its new sense) with or without clinical manifestations.

Recommendations

- Optimally, *E. histolytica* should be specifically identified and, if present, treated.
- If only *E. dispar* is identified, treatment is unnecessary. If the infected person has gastrointestinal symptoms, other causes should be sought.
- Species identification based on culture can never exclude the presence of *E. histolytica*.

• In asymptomatic individuals, treatment is not appropriate when *E. histolytica/E. dispar* has been detected but *E. histolytica* has not been specifically identified, unless here is reason to suspect infection with *E. histolytica*. Reasons to suspect *E. histolytica* infection would include high specific antibody titres, a history of close contact with a case of invasive amoebiasis, or an outbreak of amoebiasis.
• If *E. histolytica/E. dispar* has been detected in symptomatic patients, it should not be assumed that *E. histolytica* is the cause of the symptons and other causes should also be considered.
• These recommendations are appropriate for managing all individuals, including male homosexuals, travelers returning from endemic areas, pregnant women, and those infected with HIV.
• Antiamoebic drugs are of two classes: tissue amoebicides (such as 5-nitroimidazoles) and luminal amoebicides (such as diloxanide furoate and paramomycin). Invasive disease should be treated with a tissue amoebicide followed by a luminal amoebicide. Tissue amoebicides are not appropriate for treatment of asymptomatic individuals, unless other evidence for invasive amoebiasis exists.
• Chemoprophylaxis is never appropriate.

List of participants

1. Dr. John Ackers, London School of Hygiene and Tropical Medicine, England (co-chair)
2. Dr. C. Graham Clark, London School of Hygiene and Tropical Medicine, England (rapporteur)
3. Dr. Louis S. Diamond, National Institute of Health, U.S.A.
4. Dr. Michael Duchêne, University of Vienna, Austria (unable to attend)
5. Dr. Martha Espinosa Cantellano, Centro de Investigación y de Estudios Avanzados del IPN, Mexico
6. Dr. Terry F.H.G. Jackson, South African Medical Research Council, South Africa
7. Dr. Adolfo Martínez-Palomo, Centro de Investigación y de Estudios Avanzados del IPN, Mexico (co-chair)
8. Dr. David Mirelman, Weizmann Institute of Science, Israel
9. Dr. Onofre Muñoz Hernández, Centro Médico Nacional, IMSS, México
10. Dr. Ruy Pérez Tamayo, Universidad Nacional Autónoma de México, Mexico
11. Dr. William Petri, University of Virginia, U.S.A.
12. Dr. Sharon Reed, University of California, San Diego, U.S.A.
13. Dr. Guillermo Ruíz-Palacios, Instituto Nacional de la Nutrición "Salvador Zubirán", Mexico
14. Dr. John Samuelson, Harvard School of Public Health, U.S.A.
15. Dr. José Ignacio Santos Preciado, Universidad Nacional Autónoma de México, Mexico
16. Dr. Egbert Tannich, Bernhard Nocht Institute for Tropical Medicine, Germany
17. Dr. Tsutomu Takeuchi, Keio University, Japan
18. Dr. Cecilia Ximénez, Universidad Nacional Autónoma de México, Mexico

Source: Division of Disease Prevention and Control, Communicable Diseases Program (HCP/HCT), PAHO, and Division of Tropical Diseases, Schistosomiasis and Intestinal Parasitosis Unit, WHO.

Scientific Advisory Committee (SAC) Meeting of the Caribbean Epidemiology Centre (CAREC) - 1997

The XXI meeting of the Scientific Advisory Committee (SAC) of the Caribbean Epidemiology Centre (CAREC) took place 20-21 March 1997 at CAREC, in Port-of-Spain, Trinidad. SAC members and observers from universities, national health agencies, international and national medical and research organizations, and PAHO, participated in the meetings, as well as members of the CAREC staff.

In addition to the Center Director's report who reviewed the work of the preceding year, there were individual presentations on subjects such us: health situation analysis, laboratory program, chronic diseases and injury, vector borne diseases, and tourism and health.

In her presentation to SAC, the laboratory manager described the plan of action for the laboratory. She highlighted the procedures underway to establish guidelines for the submission of the specimens to CAREC and the focus on improved service in the reporting of results to countries. As well, she stated that there will be special emphasis on quality assurance in the laboratories of the subregion. The laboratory is also introducing a laboratory information system (LABIS) to ensure prompt, accurate and effective management of laboratory data.

The regional epidemiologist introduced the topic of tourism, health and development. A new partnership with the Caribbean Hotel Association has been formed with a view to ensuring healthy stays for their guests. It was noted that 10% to 15% of hotel guest/days are for citizens of Caribbean countries and that the health of the hotel employees is affected by poor health practices in the hotels. This project will focus on "back of house" issues, such us food safety and vector control. In the future a consultant inspection service may be established.

The five working groups that were established discussed: surveillance, vital and health statistics, laboratory policies and operations, HIV/STD/TB, and tourism health and development.

The principal elements of the SAC's srecommendations in these five areas are summarized below.

1. Concerning surveillance priorities, SAC recommended that CAREC:

• prepare a manual of surveillance procedures, including case definitions and response algorithms, and offer guidance in linking epidemiologic and laboratory databases to strengthen public health surveillance. It is expected that in this way CAREC could provide surveillance information to its member countries on a frequent and regular basis;

• initiate in-country follow-up activities in order to ensure sustainability and more effective impact of training efforts;

• work with other interested partners, for example, the University of the West Indies, to develop a strategy for surveillance of chronic, non-communicable diseases, taking into account the objectives to be met and existing sources of data;

2. Concerning vital and health statistics, SAC recommended that CAREC:

• continue to support the strengthening of mortality data collection and the development and utilization of MORTBASE, including its updating to allow the use of ICD10 codes;

• collaborate with the PAHO Information Systems Program to assist countries in accessing, processing and using hospital discharge data with identification of appropriate core variables;

• explore and strengthen collaboration with subregional health economists with a view to assessing the burden of diseases of public health importance and the cost-effectiveness of interventions.

3. Concerning laboratory policies and operations SAC recognized that CAREC's primary roles as regional public health reference and referral laboratory are to promote quality assurance programs in laboratories in member countries; develop and evaluate new technologies; transfer technology and training; apply research into diseases of public health importance in the Caribbean; and analyze sufficient specimens to confirm etiology and monitor trends of public health importance in outbreak investigations.

SAC recommended that CAREC:

• continue its development of the LABIS module of the CARISURV system and gather data on the impact of the implementation of CARISURV in the CAREC laboratory;

• recommission a minimal facility for arbovirology in compliance with international safety standards;

SAC endorsed CAREC's proposal to the EEC for "Strengthening of Medical Laboratory Services in the Caribbean."

4. Concerning HIV/STD/TB, SAC recommended that CAREC:

• continue to strengthen the surveillance capability of CAREC member countries by addressing weaknesses in the quality, accuracy, completeness, confidentiality and utility of HIV/AIDS/TB surveillance data generated in countries;

• foster collaboration between epidemiologists and the behavioral team at CAREC to undertake the design, testing and implementation of an HIV/AIDS behavioral surveillance tool for the collection of reliable risk category information;

• support member countries' efforts to eliminate congenital syphilis;

• continue to strengthen the links between the tuberculosis and AIDS/STD control and prevention programs at CAREC and in member countries.

5. Concerning tourism, health and development, SAC endorsed the initiative and foresight of CAREC's work in the area of tourism, health and development.

SAC recommended that CAREC:

• forge partnerships with relevant Ministries in member countries, the Caribbean Hotel Association, and the Caribbean Tourism Organization to improve the standards, surveillance and human resource development within the context of PAHO's overall plan in this area in pursuit of the vision for the Caribbean to be the safest, happiest and healthiest of comparable destinations in the world.

Source: Division of Disease Prevention and Control (HCT), OPS

AIDS Surveillance in the Americas*

The Regional Program on AIDS/STD, Division of Disease Prevention and Control, PAHO is to promote, design and facilitate technical activities and policies to improve the capacity of Member Countries to reduce the number of future infections and to provide timely and adequate care for people living with HIV/AIDS/STD.

The Regional Program is part of a broader set of culturally-sensitive, gender-specific, multinational and multisectoral responses to HIV/AIDS and STD in the Americas. The following types of technical assistance provide a framework for the Program's myriad activities: dissemination of information; training; direct technical cooperation; resource mobilization;

The Regional Program on AIDS/STD is designed to: advocate for HIV/STD prevention and control at the country level in Latin America and the Caribbean; strengthen management capacity to develop and implement policies for HIV and STD prevention and control; involve nongovernmental organizations (NGOs) in prevention and control efforts and build networks among NGOs at the country level; coordinate regional cooperation with PAHO and the World Health Organization headquarters; and analyze financial and administrative data to ensure effective execution and monitoring of national programs; provide direct technical cooperation to Member Countries, including—but not limited to—epidemiological analysis; development of educational materials and country HIV/STD surveillance reports; laboratory support for STD diagnosis and improvement of blood safety measures; promote research about HIV/AIDS epidemiological trends and their relation to other STD; design prevention messages; conduct studies on socioeconomic impact; disseminate technical and scientific information to and from Member Countries; establish sentinel surveillance, and advise and train professionals to monitor HIV/STD infection and their trends at the country level.

AIDS Surveillance in the Americas

PAHO began its AIDS Surveillance System in 1986, although cases had been reported informally to PAHO since 1983. The information is currently submitted to PAHO from 47 countries and territories of the Region of the Americas. These data are received within 30 to 45 days after the end of each quarter. PAHO then produces a report, which is distributed to all the countries in the Region. Twice a year PAHO sends the information to the World Health Organization headquarters in Geneva, Switzerland, where data are gathered from all regions, and used to produce the Global AIDS Report.

As of the beginning of December 1996, a cumulative total of 742,273 cases were reported in the Americas. From these, 13,119 are pediatric cases (< 15 years old). A total of 437,407 cumulative deaths have been reported to PAHO since 1986. Certain factors such as underdiagnosis, underreporting and delayed reporting affect the completeness of the data. These should be considered when analyzing 1995 data. Also, the countries often provide the number of cases by year but do not report the corresponding age, sex and risk factor for those cases.

PAHO and its Member Countries are continuously working to improve the quality and completeness of the information, to analyze and provide a better profile of the epidemic in each of the quadrennial reports.

In 1994, the rate of reported AIDS cases per million population in Latin America was 58.2, in the Caribbean 202.8, and in North America 236.3. The primary modes of HIV transmission in the subregions are homo/bisexual (Andean Area, Southern Cone, Brazil and Mexico) and heterosexual (Central American Isthmus and the Caribbean). Transmission attributed to intravenous drug use is common in the Southern Cone and Brazil with 29.7% and 26.5%, respectively.

In the Southern Cone and in the Central American Isthmus, the age of the highest infection is the group between 20-29 years old for both sexes, and for females in Brazil. In the Andean Area, Mexico and the Caribbean, the age of highest infection is between 30 and 39 years of age for males and females. This group is the same for males in Brazil.

Source: Division of Disease Prevention and Control, AIDS/STD Program (HCP/HCA), PAHO.

*As of 10 December 1996

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