Bolivia continued to identify cases of plague in the Apolo focus of La Paz Department, a relatively new focus which initiated in 1967 and has produced cases since that time almost annually. The quiescent plague focus of Santa Cruz Department, located in the southeastern part of the country, produced two cases of plague in September-October of 1987. These are the first cases recorded from this focus since 1965 indicating that plague is actively circulating in this area.

In Brazil, there has been a decreasing trend of reported plague cases during the last four years with sporadic cases occurring throughout the year. There appear, however, to be seasonal peaks during the month of February and March and again from September to November. A case fatality rate of less than 3% suggests an active national surveillance system which leads to early identification and appropriate treatment of cases.

Ecuador experienced only three cases of plague with two deaths this quadrennium. These cases occurred in 1985 in Macara Canton, Loja Province in the extreme southern section of the country's frontier with Peru. They appeared to be associated with the outbreak of plague that appeared in Peru in 1984 and extended northward. The Chimborazo focus has not produced cases during the last four years following the small outbreak that occurred in 1983-1984.

In Peru, cases of plague were reported in 1985 from Cajamarca and Piura Departments during the first quarter of 1985 and only from Piura since then. This seems to indicate that the large bubonic plague outbreak of 1984 has subsided and that plague has retreated into its perennial niche in Piura Department. No cases were reported in 1986. However, in 1987 and 1988 a total of 41 cases were reported from Piura Department with a mortality rate of nearly 27%.

Plague cases continued to appear throughout the endemic western area of the United States of America, with cases reported from nine of the western states. The investigations of these cases identified wild rodent epizootics in the proximity of many of these cases.

Reviewing the available information received by PAHO from the countries of the Region, it appears that the sporadic cases of plague occurring in Brazil and the United States, are probably caused through direct contact with infected wild rodents and their fleas. On the other hand, the small outbreaks occurring in the Andean Countries are probably the result of initial contact with infected wild rodents and subsequent human to human transmission from the index case via the human flea vector *Pulex irritans*. This is consistent with the rather explosive small, frequently familiar, outbreaks among individuals who attend the “velorio” of a fatal plague case. It is interesting to note that in the Andean countries, the initial cases in an area are usually fatal while subsequent cases generally survive. This may be due to delayed reporting since plague generally occurs in the very rural areas and some time is required to notify the national authorities. However, once the authorities are alerted, prompt case identification and treatment prevent subsequent fatalities.

Plague in its endemic wild foci is extremely difficult or impossible to eradicate and can, under certain conditions, rapidly expand to adjacent areas as evidenced by the outbreak in Peru in 1984. For this reason, it is mandatory that surveillance for plague be increased and carefully maintained to monitor potential expansion of current foci which may possibly result in invasion of highly populated areas with disastrous results.

(Source: Dr. James A. Rust, Consultant, Health Situation Analysis and Trend Assessment Program, PAHO.)

---

Working Group on AIDS Case Definition

Introduction

In 1981, following the recognition of a new syndrome, the acquired immunodeficiency syndrome (AIDS), the United States Centers for Disease Control (CDC) in Atlanta, developed a working definition for this syndrome in adults with the purpose of monitoring the epidemic. In 1985, the World Health Organization (WHO) adopted this definition for worldwide use. WHO also proposed an alternative definition of AIDS based on clinical criteria with the purpose of facilitating the recognition of this syndrome and the reporting of cases when laboratory facilities are not available.

Although the WHO clinical AIDS case definition has been of value in many countries of sub-Saharan Africa, there are justifications for the development of another auxiliary adult AIDS case definition in Latin America and the Caribbean. Among the main reasons are: 1) the increasing importance of specific endemic infections (e.g. tuberculosis) in the clinical presentation of AIDS cases in Latin America and
the Caribbean, 2) the availability of laboratory capacity to confirm clinical findings of HIV infection by antibody testing using ELISA, immunofluorescent or Western blot methods, and 3) the fact that the WHO/CDC case definition for AIDS cannot be applied widely among countries of the Region of the Americas, because diagnostic methods requiring culture, histology, cytology or proper radiographic imaging are not routinely available.

**Methods**

The Pan American Health Organization (PAHO), Regional Office of the WHO, and the WHO/Global Program on AIDS convened a working group of experts from seven countries (Argentina, Brazil, Canada, Honduras, Mexico, United States, and Venezuela), with the following objectives:

1. To review the application of the existing adult AIDS case definition currently in use (3.4) in countries of the Americas, and
2. To propose a case definition of AIDS more suitable for use in the Americas that would supplement the existing standard one (6).

The working group met in Caracas, Venezuela from 20 through 22 February 1989, and drafted a preliminary case definition based on empirical data (6,9) and the collective professional experience of the participants.

**Results**

The group of experts proposed an AIDS case definition requiring a positive serologic test for HIV, plus the presence of a combination of one or

<table>
<thead>
<tr>
<th>Table 1. Working group on AIDS case definition.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symptom/sign/diagnosis</strong></td>
</tr>
<tr>
<td>A + Kaposi's Sarcoma</td>
</tr>
<tr>
<td>+ Disseminated/extrapulmonary/non-cavitary pulmonary tuberculosis</td>
</tr>
<tr>
<td>B + Oral candidiasis/hairy leukoplakia</td>
</tr>
<tr>
<td>+ Pulmonary tuberculosis with cavitation or unspecified</td>
</tr>
<tr>
<td>+ Herpes zoster ≤60 years age</td>
</tr>
<tr>
<td>+ Central Nervous System dysfunction</td>
</tr>
<tr>
<td>C + Diarrhea ≥1 month</td>
</tr>
<tr>
<td>+ Fever ≥1 month</td>
</tr>
<tr>
<td>+ Cachexia or &gt;10% weight loss</td>
</tr>
<tr>
<td>+ Asthenia ≥1 month</td>
</tr>
<tr>
<td>+ Persistent dermatitis</td>
</tr>
<tr>
<td>+ Anemia, lymphopenia, and/or thrombocytopenia</td>
</tr>
<tr>
<td>+ Intestinal infiltrates, diffuse and/or bilateral</td>
</tr>
<tr>
<td>+ Persistent cough</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

**Plus:** Positive HIV serology.

**Exclusions:** Cancer, chemotherapy, or steroid treatment; or when the listed conditions result from known causes not associated with HIV infection.

**Footnotes to Groups A, B, and C**

- **Tuberculosis** - in the absence of chest x-ray, the diagnosis of pulmonary tuberculosis should be considered a Group B condition.

- **Central nervous system dysfunction** - indicated by (1) mental confusion (e.g., temporal or spatial disorientation); (2) dementia; (3) decreased level of consciousness (e.g., stupor or coma); (4) convulsions; (5) meningitis or encephalitis, and/or (6) abnormal cerebellar tests (e.g., inability to tap the index finger ≥ 20 times in 5 seconds).

- **Oral candidiasis** - may be diagnosed by the macroscopic appearance on oropharyngeal mucosa of characteristic removable white patches or plaques on an erythematous base.

- **Hairy leukoplakia** - non-removable white plaques on the tongue.

- **Diarrhea** - two or more loose or liquid stools per day, constantly or intermittently, for one month or longer.

- **Cachexia or weight loss** - clinical emaciation, or weight loss greater than 10% of normal weight for the patient (when the patient's normal weight is unknown, the average weight of the population of same sex and height as the patient may be utilized for the calculation).

- **Hematologic abnormalities** - anemia is defined as hematocrit <30% in males and <25% in females or hemoglobin <11 g/dl in males and <10 g/dl in females; absolute lymphopenia <1,000/ul (mm$^3$); thrombocytopenia <100,000/ul (mm$^3$).

Only 1 condition satisfied (textual form) and only 2 points given (scoring system) for any one or more of these hematologic abnormalities.
more easy-to-diagnose clinical manifestations associated with the advanced stages of HIV infection (Table 1). The manifestations are grouped in three ranks (A, B, and C) in order of decreasing relative weight. Conditions in group A are each assigned six points, in group B three points, and in group C two points. Adult patients 13 years of age or older are classified as having AIDS if they are HIV-positive and have six or more points, or if they happen to meet the more stringent criteria of the existing standard definition of AIDS in adults.

**Discussion**

PAHO initiated its AIDS case epidemiological surveillance system in 1983. Compliance with the revised case definition (WHO/CDC, 1987) is promoted within the Region of the Americas to report an AIDS case to PAHO. The consultation in Caracas, Venezuela provided an opportunity to develop an auxiliary definition more appropriate for reporting of AIDS cases in Latin America and the Caribbean. This auxiliary definition is intended to reflect the diversity of clinical findings and technical resources in Latin America and the Caribbean and will be useful in settings where the WHO/CDC AIDS case definition cannot be applied to report AIDS cases.

Following this meeting, PAHO informed all Member Countries of the draft definition and solicited comments on its suitability and compatibility with their national health care patterns as well as suggestions for improvement. As for example, it was suggested that lymphadenopathy ≥1 cm ≥2 non-inguinal sites ≥1 month be added to group C, and that persistent cough or any form of pneumonia (except TB) be substituted for interstitial infiltrates and persistent cough. The Ministry of Health of Brazil and CDC have also suggested revisions to the point system and have developed a protocol for clinical validation of this new definition.

In conclusion, knowing the importance of improving the quality of AIDS case reporting, further studies that will evaluate and validate the auxiliary definition proposed by the Working Group in Caracas, Venezuela are needed. PAHO will facilitate technical cooperation for such validation studies and the collection of other relevant information to establish an operational auxiliary AIDS case definition.

**References**


---

**First Chilean Meeting on Epidemiology**

From 26 to 28 July 1989, the First Chilean Meeting on Epidemiology was held in Santiago, sponsored by the Pan American Health Organization and the Ministry of Health of Chile and organized by the Group for the Development of Research in Health (GREDIS).¹

The objectives of the Meeting were to evaluate the use of epidemiology in the country, to promote its application in dealing with health problems, and to outline goals and strategies that would make it possible for epidemiology to be used systematically at all levels where health decisions are made.

The invited participants included epidemiologists from agencies affiliated with the Ministry of Health, from universities, and from nongovernmental organizations (epidemiologists are defined as all those working in clinics, laboratories, or public health who require epidemiology for their work). There were a total of 107 participants, mostly physicians.

---

¹Nongovernmental organization that carries out research and training in epidemiology.