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## Letter to the Editor (Human immunodeficiency virus in Costa Rica)

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It is reprinted here to show how strikingly similar the findings and conclusions concerning the practice of epidemiology in Europe are to those reached in regard to the countries of Latin America and the

Caribbean at the Seminar on the Uses and Perspectives on Epidemiology, held in Buenos Aires, November 7-10, 1983 (see also *Epidemiological Bulletin*, Vol. 5, No. 1, 1984).

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## Letter to the Editor

December 12, 1986

Recent reports of 12 confirmed cases of acquired immunodeficiency syndrome (AIDS) in Costa Rica have generated interest in the extent of spread of human T-lymphotropic virus type III/LAV (HTLV-III) in Latin America (1). To date, all cases of AIDS in Costa Rica have occurred in members of previously identified, high-risk groups, chiefly hemophiliacs. To examine the possibility of heterosexual transmission in Costa Rica, we utilized sera collected in a population-based case-control study of cervical cancer, conducted by the Costa Rican Demographic Association and other institutions. Eligible cases consisted of all women 25-59 years of age with invasive or *in situ* (CIS) cervical cancer diagnosed between January 1982 and March 1984. Controls constituted a national sample of women 25-59 years of age and were selected in a household survey based on the 1984 census sampling frame.

Between September 1984 and January 1985, trained interviewers administered to both cases and controls a standard questionnaire on reproductive and sexual risk factors. During the survey, sera were collected from 765 controls, 183 invasive cervical cancer cases, and 492 CIS cases. We decided to test for HIV in two phases: initial testing of women at high risk of sexually transmitted disease, followed by complete testing of all sera, if any positives were

detected in the initial phase. We selected 81 women in the control group who had either a history of four or more sexual partners during their life, or a positive serological test for syphilis by MHA-TP. We also tested sera from 15 CIS cases and 5 invasive cases who had a history of 10 or more sex partners during the woman's lifetime. Of these sera, only three were weakly reactive for HTLV-III/LAV antibody by the ELISA test (Abbott Laboratories, North Chicago, Illinois). These three were Western Blot negative (2) and therefore are probably false-positives.

Since HIV infection was not confirmed in any of these 101 women at high risk of acquiring sexually transmitted disease, further testing was abandoned. We conclude that HIV infection in the general population of Costa Rica is rare.

### References

- (1) Pan American Health Organization. AIDS surveillance in the Americas. *Epidemiol Bull* 6(5):14-15, 1985.
- (2) Tsang, V.C.W., Peralta, J.M., and Simons, A.R. Enzyme-linked immunoelectrotransfer blot techniques (EITB) for studying the specificities of antigens and antibodies separated by gel electrophoresis. In: J.J. Langone and H.V. Vunakie (eds.), in *Methods in Enzymology*. Immunochemical Techniques. Part E. pp. 377-391. Academic Press, New York, 1983.

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Rica. A relatively simple study design utilizing previously collected sera and appropriate control groups served for a rapid determination that the disease was not as widespread as assumed during the early stage of the epidemic. Similar studies using small samples of selected population groups with varying levels of risk, such as pregnant women and hospitalized patients as well as prostitutes, intravenous drug addicts and homosexual/bisexual men, often serve to establish the magnitude of a particular infectious disease problem and contribute to understanding the mechanisms of transmission. Many countries in the Americas have initiated such studies.

The Global WHO Special Program on AIDS emphasizes the need for rapid initial assessment through specific seroprevalence studies as a first step in the development of the national program for the prevention and control of AIDS. The Pan American Health Organization/WHO Special Program on AIDS is prepared to assist countries with similar initial assessments.

### Editor's Response

Although the data reported in the letter to the editor regarding the spread of AIDS in Costa Rica are from a study carried out between 1982 and 1984, they are presented here as an example of the type of rapid assessment which was carried out to determine the extent of the initial epidemic of AIDS and human immunodeficiency virus infection (HIV, formerly referred to as HTLV-III/LAV) in Costa

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## To our Readers

We regret the delays experienced in publication of recent issues of the *Epidemiological Bulletin* which have been largely due to logistic problems. In order to bring the publication up to date, Volume 8 will consist of a total of only three issues; we trust this will facilitate our bringing the *Bulletin* to you in a more timely manner.