Special Report

Combating AIDS in the Caribbean: A Coordinated Subregional Approach¹

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A cquired immunodeficiency syndrome (AIDS) is a problem of major concern in the Caribbean (1, 2), where it threatens to overburden the already hard-pressed health infrastructure. The disease is advancing rapidly in the region and is exhibiting a changing pattern of transmission that makes it harder to control. This report describes the extent of the problem in the English-speaking Caribbean and Suriname, and outlines the steps being taken in a joint effort coordinated subregionally to limit the further spread of the human immunodeficiency virus (HIV).

THE PROBLEM

Data on AIDS cases and deaths in the English-speaking Caribbean and Suriname are shown in Table 1. These data come from the 19 countries and territories (mostly English-speaking) with membership in the Caribbean Epidemiology Center (CAREC). This latter agency, administered by PAHO on behalf of these member countries, has been collecting and analyzing AIDS surveillance data since the first case was reported in 1983. Each country reports AIDS case and serology data on a quarterly basis, using a standard reporting form and applying the PAHO/WHO AIDS case definition (3).

As of 31 July 1990, a total of 1,702 AIDS cases had been reported by CAREC members (out of 5,726 cases reported by 27 countries and territories throughout the Caribbean excluding Puerto Rico). At that time, death had overtaken 1,001 (58%) of the patients. Five countries (the Bahamas, Barbados, Bermuda, Jamaica, and Trinidad and Tobago), with about 70% of the combined population of the CAREC members, accounted for nearly 90% of the cases. However, all 19 CAREC members had reported at least one case.

Some countries have experienced exceptionally high case rates. Specifically, as indicated in Table 1, both the Bahamas and Bermuda reported over 500 cases per million inhabitants in 1989, as compared

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TABLE 1. Cumulative AIDS cases and deaths reported up to 31 July 1990 by the 19 CAREC members and AIDS cases per million inhabitants in 1989, the latter shown only for CAREC members reporting more than 10 AIDS cases in 1989.

CAREC	Cumulative	Cumulative	1989 cases per million
member	cases	deaths	inhabitants
Anguilla	2	1	
Antigua	3	2	_
Bahamas	437	182	696
Barbados	127	97	146
Belize	8	5	
Bermuda	135	94	566
British Virgin Islands	1	1	_
Cayman Islands	5	5	
Dominica	10	4	_
Grenada	20	13	
Guyana	96	43	39
Jamaica	147	89	26
Montserrat	1	0	_
St. Kitts and Nevis	1	0	_
Saint Lucia	1 <i>7</i>	8	_
St. Vincent and the Grenadines	22	15	_
Suriname	46	37	88
Trinidad and Tobago	618	403	132
Turks and Caicos Islands	6	2	
Total	1,702	1,001	91

to a rate of 140 per million inhabitants in the United States. However, for CAREC member countries and territories as a whole the overall rate was considerably lower (91 per million inhabitants).

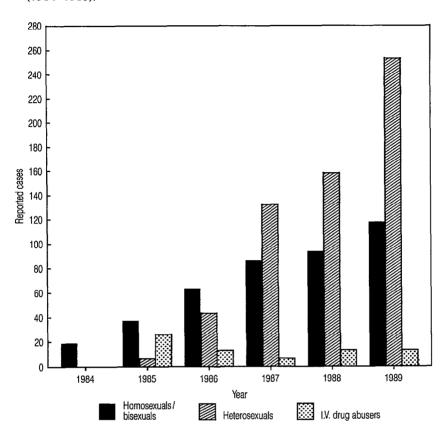
The epidemic has also been exhibiting a shift from an initial pattern dominated by cases among male homosexuals and bisexuals to one now dominated by cases among heterosexuals, with increasing numbers of women and children being afflicted (4). For example, of the adult cases reported in 1986, 34% afflicted people with only heterosexual contacts; as Figure 1 shows, as of 1989 this figure had risen to 62%. The increase in the proportion of cases found among heterosexuals has been observed in almost all of the CAREC members. Other data consistent with this trend indicate that the ratio of males with AIDS to females with AIDS has been declining among the CAREC members as a whole-from 5.4 males per female in 1983–1985 to 2.2 males per female in 1989.

Given prevailing patterns of sexual behavior and the transition from predominantly homosexual to predominantly heterosexual transmission, continued transmission of HIV in the general community appears virtually inevitable. Long-term predictions about AIDS tend to be unreliable, but one estimate based on current data suggests that the cumulative total of cases reported by CAREC members could reach 2,500 by the end of 1990.

NATIONAL PLANS

Since sexual contact is the predominant means of HIV transmission in the Caribbean, and since HIV is now established in the sexually active age groups of the heterosexual population, the problem to be faced is formidable. In response, the

FIGURE 1. The number of AIDS cases reported by CAREC member countries among persons 15 years of age and over, as distributed among subjects classified as homosexuals/bisexuals, intravenous drug abusers, and heterosexuals (1984–1989).



governments of all the Caribbean countries and territories have accorded AIDS prevention high priority. National AIDS committees have been established; education of health care workers and the general public has been started; and all countries have instituted a policy of screening donated blood or blood donors for HIV infection. In addition, short-term (one-year) plans for AIDS control were developed by a number of countries in 1987 to meet their most pressing needs, and these were supported by the World Health Organization's Global Program on AIDS (WHO/GPA) following a meet-

ing with international funding agencies in November 1987.

Beyond that, 18 CAREC members prepared medium-term plans to run from 1989 through 1991 with the assistance of WHO/GPA, PAHO, and CAREC teams. These plans, which sought to establish the aims, targets, strategies, and activities best-suited to each country's situation, were based on the national and subregional information on HIV transmission available at the time. They also reflected serious efforts to protect community and individual rights—and especially to prevent discrimination against

infected people and their families. The plans subsequently received funding pledges from international agencies at donors' meetings held in Barbados in December 1988 and in Trinidad the following March, and implementation of the programs derived from them has begun.

SUBREGIONAL SUPPORT AND COORDINATION

In November 1987 CAREC's members endorsed a proposed subregional project whereby CAREC would assist, support, and help coordinate national AIDS control programs. CAREC was well-positioned for this purpose, having served as a subregional resource center for prevention and control of communicable diseases since its inception in 1975.

The plan was developed after review of the CAREC members' national plans and was designed to complement those plans. In particular, it sought to stimulate and strengthen collaboration between countries, addressed itself to activities that lent themselves to a subregional approach, and provided a framework for a coordinated approach to AIDS control in the Caribbean.

Within the context of this plan, CAREC is currently providing coordination and subregional support for national medium-term AIDS plans in the following areas:

1. Epidemiologic surveillance. Supported activities in this area include training to improve AIDS diagnosis and reporting in order to strengthen national epidemiologic surveillance; seroprevalence studies and the institution of sentinel surveillance⁴ of HIV infection; and

improvement of data analysis and feedback. In addition, a workshop designed to strengthen HIV and sexually transmitted disease (STD) surveilance and promote national research initiatives was recently organized in Jamaica by CAREC and the U.S.-based agency AIDSTECH.

- 2. National laboratories. National plan requirements for the laboratory capacity needed to conduct screening, diagnosis, and survey work related to HIV infection have been strengthened. While screening of blood donors is being done in-country, CAREC has been providing confirmatory testing. In addition, CAREC has continued to collaborate with the national laboratories by providing a quality-control program, together with technical advice and on-the-job training as needed.
- 3. Sexual HIV transmission. To support national AIDS education and information activities, a Caribbean Education Information Center (CEIC) has been established at CAREC. This center, one of three such facilities in the Americas, provides a vehicle for international development and exchange of AIDS-related information and health education materials. In addition, the CEIC disseminates guidelines and recommendations on various AIDS-related issues.

CAREC also provides assistance in designing, conducting, and analyzing surveys of knowledge, attitudes, behaviors, and practices (KABP surveys) in special groups and the general population. Two agencies based in the United States (AIDSCOM and AIDSTECH) are assisting CAREC in this area.

Beyond this, CAREC seeks to assist initiatives designed to change sexual behavior by adapting culture-specific and language-specific materials, promoting dissemination of information through the mass media, supporting condom use by high-risk groups, and encouraging national ministries of health and education

⁴Defined as systematic and regular collection of data on HIV infection from selected population groups or those at selected sites (e.g., patients at sexually transmitted disease clinics).

to collaborate in incorporating AIDS education into their schools' curricula.

- 4. Transmission of HIV through blood. All of the CAREC members now routinely test blood donors or donated blood antibodies. Transfusion-HIV associated AIDS cases have been infrequent, but the necessity of screening has been amply demonstrated by the range of reported HIV seropositivity among blood donors in the subregion, which is 0.24-0.96% (5). Within this context, CAREC has been providing subregional support designed to strengthen national blood transfusion services and laboratories, promote donor selection policies, ensure appropriate use of blood and blood products, and develop and distribute manuals for health care workers that reinforce the use of sterile techniques in all injection and immunization procedures.
- 5. Perinatal HIV transmission. CAREC has been helping to prevent perinatal HIV transmission by assisting members with the design and implementation of education and counseling programs for women infected with HIV or at high risk of infection. It has also continued to work on this problem through the subregional program by coordinating studies seeking to quantify the perinatal transmission risk and by promoting behavioral research relevant to prevention of perinatal transmission.
- 6. HIV's impact on individuals, groups, and societies. To help reduce the enormous social and psychological impact of HIV, CAREC has been providing support through the subregional program for national training workshops serving health care workers. Guidelines on counseling and STD management are being produced which are suitable for the Caribbean situation. To help enhance nursing management capabilities in the subregion, CAREC has developed an AIDS

nursing management manual for use at the national level. It has also hosted a workshop on laboratory diagnosis of opportunistic infections in collaboration with Canada's Dalhousie University, an event that is expected to strengthen case management capabilities in the Caribbean.

7. AIDS program management. It was expected that national program managers and administrators in CAREC's 19 member countries would require technical assistance in order to effectively implement their countries' medium-term AIDS program strategies. Therefore, in July 1989 CAREC organized a workshop on effective management of AIDS programs for these personnel. At present, exchange visits are being arranged so that program managers can visit other Caribbean countries and exchange information about their countries' AIDS control experiences. In addition, by developing a framework for periodic review and continuous monitoring of the national programs, CAREC's subregional program has taken an important step to promote effective management of the activities involved.

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Overall, there is reason to believe that this coordinated subregional approach will provide the stimulus and support needed by the national programs now being implemented in all 19 CAREC member countries and territories. Indeed, given the momentum already achieved in developing AIDS prevention and control programs in the subregion, it appears possible that the HIV epidemic may be brought under control in the foreseeable future. Clearly, however, continued strong efforts to implement and evaluate national and subregional programs will be required.

REFERENCES

- Narain, J. P., B. Hull, C. J. Hospedales, et al. Epidemiology of AIDS and HIV Infection in the Caribbean. In: Pan American Health Organization. AIDS: Profile of an Epidemic. PAHO Scientific Publication No. 514. Washington, D.C., 1989, pp.61-72.
- Quinn, T. C., F. Zacarías, and R. K. St. John. AIDS in the Americas: An emerging public health crisis. N Engl J Med 320(15):1005–1007, 1989.
- Pan American Health Organization. Acquired immunodeficiency syndrome (AIDS) in the Americas. Bull Pan Am Health Organ 21(4):422–429, 1987.
- Narain, J. P., S. Mahabir, C. J. Hospedales, et al. The Increasing Problem of Heterosexually Acquired AIDS in the Englishspeaking Caribbean and Suriname (abstract TH.G.P.28). Submitted to the V International Conference on AIDS, Montreal, Canada, June 1989, Abstract Book, p.1020.
- 5. Narain, J. P., B. Hull, and E. De Gourville. Blood Transfusion and AIDS in the Caribbean: A Success Story? (abstract TH.C.594). Submitted to the VI International Conference on AIDS, San Francisco, June 1990, Abstract Book (1), p.273.

Corrigendum

In the article "The Rationale for Controlling Dietary Lipids in the Prevention of Coronary Heart Disease" by Doralie L. Segal (*Bulletin of PAHO* Vol. 24, No. 2, 1990), the formula on page 204, in the second paragraph of the right-hand column, should be corrected to read:

$$\phi = \frac{1,134(2Sg - Pg)}{\Sigma E} + 1.5Z$$