

Effect of the U.S. Embargo and Economic Decline on Health in Cuba

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This article describes the ways in which economic crisis and the U.S. embargo have affected Cuba's health care system during the past 15 years. With the demise of subsidized trade, the absence of aid from the former Soviet Union, and the progressive tightening of U.S. sanctions, Cuba's model health care system has become threatened by serious shortages of medical supplies. Several public health catastrophes have occurred, including an epidemic of blindness that was partially attributed to a dramatic decrease in access to nutrients; an outbreak of the Guillain-Barré syndrome caused by lack of chlorination chemicals; and an epidemic of lye ingestion in toddlers due to severe shortages of soap. The policy of mandatory quarantine for HIV-infected Cubans has evolved into a less rigid system. Although the prevalence of HIV infection in Cuba is low compared with that in the United States and other Caribbean nations, it is threatened by prostitution, which has increased along with tourism. In general, economic sanctions may have an unintended but profound effect on the health and nutrition of vulnerable populations.

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In early 1999, I had the opportunity to travel to Havana, Cuba, as a member of a working group for the Social Science Research Council (SSRC). The purpose of the visit was to review proposals for funding of collaborative projects in the social and natural sciences that would involve exchange between the United States and Cuba. My last trip to Cuba had been 15 years before, as a guest lecturer at the Instituto Pedro Kouri. During my current visit, I was struck by the profound changes that have occurred in a health care system that was once considered the preeminent model for developing countries (1).

This article describes the effects of economic crisis and the U.S. embargo on the health of Cuba's 11 million citizens. It includes personal reflections on the ways in which the health care system has deteriorated during years of progressive U.S. sanctions. Clearly, the situation in Cuba is complex and economic decisions made by the Cuban government may also have weakened the public health infrastructure. Embargoes affect health indirectly. However, a health care system such as Cuba's, which allows universal access to care, provides a unique

opportunity to examine health trends that may have been influenced by U.S. embargoes on sales of pharmaceutical products and food.

The U.S. embargo against Cuba began in 1961. Although the embargo has always had a negative effect on the Cuban economy, its effect on the health care system had been significantly offset by subsidized trade and aid from the former Soviet Union, countries in the socialist bloc, and western Europe. Public health and universal access to free medical care have been priorities of Fidel Castro's government since its inception in 1959 (1-3). Polio, malaria, tetanus, diphtheria, and human rabies have been eradicated from the island (1, 3). General practitioners and nurses deliver preventive care through the Family Doctor Program; one physician and one nurse are personally responsible for each neighborhood of 100 to 200 Cuban families (4). Cuba has twice as many physicians per capita as the United States, and the infant mortality rate is 10 per 1000 births (**Table**) (3, 5). In the late 1980s and early 1990s, health care statistics in Cuba were far better than in other Latin American countries, and Cuban physicians were in demand in underserved foreign countries because of their expertise in public health promotion (3, 4).

However, the socialist bloc crumbled in the late 1980s, and the U.S. embargo suddenly became much more of a threat to the Cuban health care system. Cuba lost \$4 to \$6 billion annually in subsidized trade, and almost overnight, imports required hard currency (3). Cuba no longer had access through the eastern bloc to the raw materials needed to manufacture pharmaceutical products, and lack of currency made it difficult to purchase drugs and medical equipment in western Europe. The Cuban Democracy Act of 1992 severely aggravated the situation by prohibiting foreign subsidiaries of U.S. companies from trading with Cuba. This act reflects one of the few sanctions worldwide that

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Table. Comparative Health Indicators*

Country	1996 Infant Mortality Rate per 1000 Births	1996 Life Expectancy	1999 AIDS Cases per 100 000 Persons	Mortality Rate in Children Younger Than 5 Years of Age per 1000 Births
	<i>n</i>	<i>y</i>		<i>n</i>
United States	8	76	247	8
Cuba	10	76	6.9	10
Haiti	94	54	122	134
Dominican Republic	45	71	54	56
Latin America and the Caribbean (regional summary)	35	69	NA	43

* Modified from references 5 and 6. NA = not available.

explicitly includes food and further defines trading restrictions that block access to medical supplies (2).

As U.S. pharmaceutical and biotechnology firms merged with European companies, Cuban physicians had to cope with a progressive lack of critically needed medicines, diagnostic tools, vaccines, and medical machinery that had previously been available or affordable (3, 7). Since 1975, approximately 50% of all newly patented drugs distributed worldwide have been produced by U.S. drug companies. These drugs are unavailable in Cuba unless they are sold by an intermediary, often at prohibitive cost (7). The 1996 Helms–Burton law further discouraged foreign investors in the health care industry from contemplating even limited trade with Cuba by threatening non-U.S. intermediaries with lawsuits in U.S. courts (3).

During my recent visit, the human consequences of these decisions were all too evident in Cuban streets and on the wards of Cuban hospitals. Food was obviously scarce in *bodegas*, or grocery stores, as was the technologically advanced machinery that the Cubans had been so proud to display 15 years before. The median weight of children and adults has decreased dramatically because the amount of food supplied at workplaces and schools has been substantially reduced (3).

Several public health catastrophes on the island have been directly attributed to the U.S. embargo (8–10). In 1992 and 1993, more than 50 000 cases of optic and peripheral neuropathy occurred. This epidemic was attributed to reduced nutrient intake, which was caused by food shortages, and local tobacco use, which increased the risk for blindness. Use of costly multivitamin supplements dramatically decreased the incidence of blindness (9, 10). In addition, an epidemic of esophageal stenosis in toddlers who inadvertently drank liquid lye is believed to be the result of a soap shortage that caused Cubans to use lye as a substitute (8). A 1994 outbreak of the Guillain–Barré syndrome in Havana was caused by water that had been contaminated with *Campylobacter* species because chlorination chemicals were not available for purification (8). Serious shortages

of insulin, other medications, and vaccines have also taken their toll, especially on the health of children (2, 3).

I reviewed several HIV projects for the SSRC this year and was struck by the difference in Cuba's approach to AIDS since my last visit. In 1983, I gave a lecture about HIV and was bluntly told that because homosexuality and intravenous drug usage did not exist in Cuba, AIDS would never become a meaningful issue. In 1985, when the first cases of AIDS occurred among international workers returning from Angola, Cuba allotted \$3 million for HIV testing equipment (4). In 1986, the Cuban Ministry of Health instituted HIV screening for large segments of the population, including all persons who had traveled abroad since 1976 and members of high-risk groups, such as prison inmates, workers in the tourist industry, sailors, pregnant women, and persons admitted to hospitals (4, 11). Cuba restricted importation of blood products; incorporated HIV testing into routine health care screening; and, for the public safety of the collective community, quarantined persons with confirmed positive results on HIV tests in a Havana sanitarium (11).

This policy of quarantine drew charges of human rights violations, and, in response, the Cuban AIDS program evolved. Thirteen additional sanitariums were constructed in each province of Cuba. This allowed HIV-positive residents to move closer to their communities and laid the groundwork for ambulatory HIV care, which began in 1993 (4). Educational programs and promotion of condom use were slowly combined with the identification of infected persons. Currently, most persons who are newly diagnosed with HIV infection are asked to enter a sanitarium for 6 months to a year to participate in an intensive course that covers mental and physical hygiene and safe-sex practices. Sanitarium residents receive expensive medications, such as zidovudine and didanosine, free of charge (4); are paid their full wages or receive public assistance without working; and have above-average housing accommodations. They receive a high-calorie diet supplemented with animal protein, which is rationed

in the general population. Ambulatory patients must support themselves financially but are eligible for special protein rations and free medications.

Cuban officials believe that mandatory tracing and testing of sexual partners of HIV-positive persons have resulted in the lowest reported prevalence of HIV in the hemisphere. As of May 1999, Cuba reported a total of 761 cases of AIDS (6); the **Table** contrasts the AIDS rate in Cuba with those in nearby countries (6). The quarantine policy may illustrate the tradeoffs that have characterized Cuban society, in which individual rights and freedoms may be abrogated for the public good. The current embargo has affected the availability of antiretroviral therapy and reagents for HIV testing and CD4 cell counts (3).

From a more personal perspective, I was impressed by the increased tourism in Cuba and the openness with which citizens discussed the failures of the revolution as well as its successes. Large-scale prostitution was controlled after Castro came to power but has recently increased because of the economic trade crisis and burgeoning tourism. Because prostitutes threaten HIV containment, Castro has "cracked down" on *jineterismo*, or the sex trade with tourists.

The Clinton Administration announced a recent initiative to expand relations with Cuba. This initiative was issued 20 March 1998 as a press release and culminated in a baseball game and permission to send a limited amount of U.S. money to relatives in Cuba. Most people see this initiative, which also permits more airplane flights from the United States to Cuba, as a meaningless gesture that does not offer much economic relief to the general population (12). Nevertheless, the Clinton Administration has expedited cultural and academic exchanges. The SSRC has initiated requests for proposals for academic collaboration between scholars in Cuba and North America (<http://www.acls.org/pro-cuba.htm>), and U.S. medical student rotations and residency rotations will be permitted in rural Cuba under the sponsorship of a nonprofit U.S. organization, Medical Education Cooperation with Cuba (MEDICC) (http://www.medicc.org/body_index.html).

In the 20th century, economic sanctions have become a common tool of foreign policy. Examples include the collective international sanctions against southern Rhodesia, Iraq, Serbia, Montenegro, Libya, Haiti, South Africa, Rwanda, Angola, and Somalia and unilateral U.S. sanctions against Nicaragua, Cuba, Iran, Panama, and Sudan. Because economic sanctions result in shortages of food and medical supplies, their most severe consequences are often felt by the persons who are least culpable and most vulnerable; untoward health sequelae usually occur in civilian rather than military populations

(8). It has been shown that women and children younger than 5 years of age are particularly affected by food shortages and weakened public health infrastructures caused by embargoes (13).

The U.S. embargo against Cuba, one of the few that includes both food and medicine, has been described as a war against public health with high human costs (10). Although the Cuban government's curtailment of individual liberties and privacy may be seen as an abridgment of personal freedom, we as health care professionals have a moral duty to protest an embargo that engenders human suffering to achieve political objectives. Medicine, food, and water purification materials should be made available or, preferably, should be exempt from sanctions. Official monitoring of the effects of economic sanctions on civilian populations should become a high priority.

Addendum: In August 1999, the U.S. Senate voted 70 to 28 in favor of eliminating unilateral export bans in an amendment to next year's agricultural appropriations bill. This would have effectively ended the embargo on exporting food to Cuba. The U.S. House of Representatives subsequently deleted this amendment in a House-Senate closed committee session. The U.S. Senate leaders are planning yet another vote on legislation (Dodd/Serrano legislation S. 926/H.R. 1644) that would permit the sale of food and medicine to Cuba. The date for this vote had not yet been decided when this article went to press.

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