

**THE POLITICS OF SUFFERING:  
THE IMPACT OF THE U.S. EMBARGO  
ON THE HEALTH OF THE CUBAN PEOPLE**  
**Report of a Fact-Finding Trip to Cuba, June 6–11, 1993**

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The past several years have been difficult for the Cuban people. The economies of Cuba's major trading partners have collapsed. The 33-year U.S. embargo was tightened with passage of "The Cuban Democracy Act of 1992" to include trade—mostly in food and medicines—by subsidiaries of U.S. companies in other countries. The March 1993 "Storm of the Century," which devastated communities from the Caribbean to Canada, caused an estimated \$1 billion in damage to Cuba. A mysterious disease known as neuropathy, which can affect vision, appeared in late 1991 and has spread throughout the island. All this has created a situation of scarcity and uncertainty that has affected all aspects of Cuban society, including its health care system. In June 1993 a delegation that included members of the American Public Health Association traveled to Cuba to investigate the current health situation in the country, with an emphasis on the impact of the U.S. embargo. The delegation found that compared to two and three years ago, the general standard of living in Cuba and the quality of health services have declined dramatically. It concluded that while the overall health of the Cuban population has not yet seriously eroded as a result of the economic decline, severe problems threaten to emerge in the future. The delegation called for lifting of the embargo as part of a new approach in U.S. policy toward Cuba.

*This unilateral blockade violates principles of international cooperation, blocks negotiations to resolve remaining differences between Cuba and the United States, and limits the access of the United States public to information about Cuba, including information on Cuba's accomplishments in public health.*

Resolution passed in 1977 by the  
American Public Health Association

\*Author of the report on behalf of the delegation. A full list of delegation members is given on page 178. The trip to Cuba was supported by the Center for International Policy, Washington, D.C., with grants provided by the MacArthur Foundation and the Arca Foundation.

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*The impact of this act ["The Cuban Democracy Act of 1992"] if implemented will be to strengthen the blockade of Cuba, exacerbating the health situation, contributing directly to death, disability, and suffering of the Cuban people, making it still more difficult for Cuba to maintain its health care system and consolidate the advanced health status of its people.*

Resolution passed in 1992 by the  
American Public Health Association

The past several years have been difficult for the Cuban people. The economies of Cuba's major trading partners have collapsed. The U.S. government has increased its attempts to isolate Cuba economically. The March 1993 "Storm of the Century," which devastated communities from the Caribbean to Canada, caused an estimated \$1 billion in damage to Cuba. A mysterious disease known as neuropathy, which can affect vision, appeared in late 1991 and has spread throughout the island. All this has created a situation of scarcity and uncertainty that has affected all aspects of Cuban society, including its health care system.

In June 1993 a delegation sponsored by the American Public Health Association and the Center for International Policy travelled to Cuba for six days to assess the current health situation of the country. As U.S. citizens, the members of the delegation felt a special responsibility regarding Cuba, since our government, alone in the world, has maintained a 33-year economic embargo against Cuba. This embargo was recently tightened to include trade—mostly in food and medicines—by subsidiaries of U.S. companies in other countries. One of the delegation's goals was to gain an understanding of the embargo's impact on the health of the Cuban people.

The delegation was able to obtain statistical data and anecdotal information through observation and formal and informal interviews. It met with government and United Nations representatives and with front-line health care workers and their patients. Site visits were made to community clinics, hospitals, day care centers, high-technology institutes, an AIDS sanitarium, and neighborhoods in and around Havana. A considerable amount of time was spent speaking with ordinary Cubans as they went about their daily routines.

Participants in the trip included two physicians, one nurse, two social scientists, a former diplomat, and three public health specialists. Several members of the group had considerable prior experience in Cuba, either as researchers or, in the case of the diplomat, as former head of the U.S. Interests Section in Havana. This report represents the combined observations and conclusions of the delegation.

## HISTORICAL PERSPECTIVE

Cuba's accomplishments over the past 30 years—in health, education, and the eradication of extreme poverty—are substantial. Through a complete restructuring of its health care system, Cuba has developed an exemplary national health

system which provides comprehensive, accessible health care to the entire population without charge. Health facilities and personnel have been greatly expanded despite the exodus to the United States of many doctors and other trained personnel after the revolution in 1959. Rural and mountainous areas of the country which had limited or no access to health services prior to the revolution are now covered. The striking inequities in the distribution of doctors, hospitals, and other health resources that existed before the revolution have been erased. The emphasis has shifted from treatment services for the few to disease prevention and health promotion for the entire population.

Cuba also embarked on an effort to provide high-technology health care services matched only in the world's wealthiest and most industrialized countries. Tertiary (highly specialized) medical care utilizes the latest in diagnostic and treatment technology—including CAT scanning and magnetic resonance imaging, organ transplantation, in-vitro fertilization, prenatal diagnosis of congenital defects, and neonatal care. Cuba's advanced research facilities, including biotechnology and genetic engineering centers, are among the most sophisticated in the world.

These efforts are reflected in the impressive rankings that Cuba has achieved for the past three decades in standard health indicators. Two of the indicators used most often by the United Nations specialized agencies—such as the World Health Organization and UNICEF—to assess a country's overall health status are the infant mortality rate and the under-5 child mortality rate. These statistics are monitored and assessed by U.N. representatives working in the country. According to the most recent data published by UNICEF, Cuba ranks 26th in the world for both indicators, ahead of all other Latin American countries, indeed, ahead of all developing countries (1). The United States ranks 22nd in the world for both indicators.

Cuba's infant mortality rate declined from 65 per 1,000 live births in 1960 to 11 in 1991, and the under-5 mortality rate improved from 91 per 1,000 live births in 1960 to 14 in 1991. While Cuba in 1960 was already ahead of most other third world countries in health indicators, these further declines in mortality are the most difficult to achieve. The two other countries in Latin America that had 1960 rates near Cuba's have not achieved the advances made by Cuba. Argentina, which began in 1960 with infant and under-5 mortality rates of 59 and 70 per 1,000, respectively, only advanced to 22 and 24 in 1991. Uruguay advanced from 51 and 57 to 21 and 24 per 1,000. These comparisons, along with data for the United States and Sweden—the world's leader in health indicators—clearly demonstrate the striking advances achieved in Cuba (Table 1).

These advances have been made, and maintained, in spite of Cuba's having a per capita gross national product in 1990 of about one-half that of Argentina and Uruguay and one-twentieth that of the United States and Sweden. They have been made in spite of the three-decade embargo imposed by the United States. Even in the worst economic times, Cuba has consistently made health a top priority and

Table 1  
A comparison of health indicators<sup>a,b</sup>

	Infant mortality rate		Under-5 mortality rate	
	1960	1991	1960	1991
Cuba	65	11	91	14
Argentina	59	22	70	24
Uruguay	51	21	57	24
United States	26	9	30	11
Sweden	16	4	20	5

<sup>a</sup>Source: reference 1.

<sup>b</sup>Rates per 1,000 live births.

has allocated the funds necessary to maintain the health system. While other countries throughout the world responded to the global recession by cutting back on resources dedicated to health, Cuba has sustained its investment in health.

MAJOR CAUSES OF THE CURRENT  
ECONOMIC CRISIS

Today, Cuba’s advances in health are in danger of being reversed, due in large part to the current crisis resulting from the drastic changes in trade relations with the former Soviet Union and Eastern European countries. The 33-year U.S. trade embargo, and the recent tightening of the embargo through passage of “The Cuban Democracy Act of 1992,” contribute to the economic difficulties. The March 1993 “Storm of the Century” and the costs related to the neuropathy epidemic further weakened the economy. The economic crisis, known in Cuba as the “special period in peacetime,” has severely strained the nation’s health system and threatens the health of its people.

*Change in Trade Relations*

Before the Cuban revolution of 1959, the United States was Cuba’s major trading partner, accounting for about 75 percent of exports and imports.<sup>1</sup> As a result of the U.S. economic embargo, in the early 1960s Cuba completely shifted its trade to the Soviet Union and the Eastern European countries through the socialist-bloc Community for Mutual Economic Assistance (CMEA). Until 1990, about 85 percent of Cuban trade was with CMEA, including oil, grain, fertilizers,

<sup>1</sup> Much of the information in this section is based on references 2 and 3.

animal feed, and industrial raw materials. Most of the remainder of Cuba's trade was with the West, including with foreign subsidiaries of U.S. companies.

Following the dissolution of the Soviet Union in 1989–90 and termination of favorable trade relations, Cuba was forced to drastically reduce total trade. According to recent news reports from Cuba, imports fell from \$8 billion in 1989 to a likely \$1.7 billion in 1993. Cuba is adjusting and finding new trading partners, but to date is not close to replacing its previous trade volume with CMEA. A key difficulty in establishing new trade relationships is the lack of hard currency. In spite of that obstacle, by the end of 1992 Cuban imports from hard currency markets almost quadrupled. Most of Cuba's current trade is now with market economies.

A major component of Cuba's national development strategy is its pharmaceutical, biotechnology, and medical equipment industries; and medical products play a major role in Cuban trade. Cuba has developed over 160 different medical and biotechnology products for both export and domestic consumption, and manufactures—with imported chemicals—80 percent of all drugs used domestically. In spite of these advances in domestic manufacture of medical products, Cuba has always relied heavily on imports of both raw materials and finished medical goods. The export of Cuban biotechnology and medical products is an important source of the hard currency so badly needed for expanded trade with the West.

Both imports and exports of the medical products have been strongly affected by the changes in trade relations. Until 1990, 60 percent of Cuba's imported medical products came from CMEA, and 40 percent came from the West. In 1991 only 30 percent of its imported medical products came from CMEA and 70 percent came from market economies. The overall volume of imports, however, has been greatly reduced. While still falling far short of need, hard currency earnings from the export of Cuban biotechnology and medical products currently surpass all other hard currency earnings except those from sugar, nickel, and tourism. Cuba has also bartered its medical and biotechnology products in exchange for whatever agricultural or industrial goods other countries can supply.

Food is another major component of Cuban trade. Following the collapse of the Eastern bloc and former Soviet Union, Cuba vastly increased its imports of foodstuffs from subsidiaries of U.S. corporations.<sup>2</sup> From 1988 to 1990 there was a tenfold increase in the Cuban import of grain, wheat, and other consumables from U.S. subsidiaries. During the "special period" Cuba has managed to maintain a steady volume of grain imports, but has been purchasing less expensive kinds of grains. Cuba has placed a priority on achieving self-sufficiency in food and has redoubled the campaign to increase domestic production of meat, poultry, eggs, milk, and vegetables. In spite of these efforts at self-sufficiency, the needs of the

<sup>2</sup> Even so, Cuba's trade with U.S. subsidiaries represented only 18 percent of its overall hard currency trade.

Cuban people are far from being met. Cuban officials expect to import even more grains and foodstuffs in the future, especially from Western countries.

After many years of highly favorable trade relations with the former Soviet Union and Eastern European countries, Cuba is currently in the throes of a drastic realignment in trade relations. This realignment has tremendous implications for Cuban trade in medical and food products, and even greater implications for the health of the Cuban population.

### *Three Decades of the U.S. Embargo*

Soon after the Cuban revolution of 1959, the United States began implementing economic sanctions designed to destabilize the Castro government. Over the past three decades those sanctions have been periodically modified in response to changing U.S. policy objectives. Currently all trade—effectively including food and medicines—between the United States and Cuba is prohibited. U.S. citizens are forbidden to travel to Cuba, except for certain U.S. government-approved activities such as research, journalism, and visits to relatives. The provision of services and the flow of scientific information to Cuba are limited. Products traded between third countries and Cuba cannot contain more than 10 percent materials of U.S. origin. Likewise third-country products are examined for the presence of components or raw materials of Cuban origin before importation into the United States. Third-country shipping is controlled and reprisals imposed on ships trading with Cuba.

The first U.S. legislative restrictions were enacted in July 1960 when the remainder of Cuba's quota for sugar exports to the United States were canceled. In October 1960 all U.S. exports to Cuba, with the exception of certain nonsubsidized foods, medicines, and medical supplies, were placed under strict controls. In September 1961 Congress passed legislation authorizing the president to establish an embargo on all trade with Cuba, including imports of goods from third countries that were fabricated wholly or in part from Cuban materials. The following year legislation was passed aimed at preventing trade between Cuba and U.S. allies. That legislation prohibited U.S. assistance to any country providing aid to Cuba or permitting its ships or aircraft to carry strategic goods to Cuba. U.S. ports were subsequently closed to all ships that had docked in Cuba, and ships engaged in trade with Cuba were denied U.S. government-financed cargoes. In 1963 legislation was passed that formed the basis for the formal sanctions in place today, including prohibitions on trade by U.S. subsidiaries and restrictions on travel to Cuba by U.S. citizens.

The 1966 "Food for Peace" bill prohibited all food shipments to countries selling or shipping goods to Cuba, with a proviso that the president could, in specific situations, waive the ban on transactions involving medical supplies and nonstrategic items. In 1975, under pressure from U.S. allies and U.S. subsidiaries wanting to trade with Cuba, the United States lifted the ban on subsidiary trade

with Cuba under specific conditions. The regulations were also revised to allow third-country ships engaged in trade with Cuba to dock at U.S. ports (2, pp. 57–64).

“The Cuban Democracy Act of 1992” aimed to reimpose third-country sanctions that had been rescinded in 1975. Once again U.S. subsidiaries in other countries are prohibited from trading with Cuba, and ships that have landed in Cuba are forbidden from docking in the United States for six months afterward. The bill effectively extends to trade in food, medicines, and medical supplies, which at the time of the bill’s passage comprised over 90 percent of Cuban trade with U.S. subsidiaries.<sup>3</sup> It also specifically prohibits the export to Cuba of any products that can be used in its biotechnology industry.

There have been many U.S. efforts to exert direct pressure on allies and international institutions to isolate Cuba. The Brazilian government, for example, was recently pressured not to trade food for Cuban medical products. (Brazil had been Cuba’s major buyer of the Cuban meningitis vaccine and other medical products.) In addition to trade restrictions, the U.S. strategy also involves denying Cuba access to funding from international organizations such as the World Bank, International Monetary Fund, and Inter-American Bank, and limiting access to funding from the Pan American Health Organization.

### *Storm of the Century*

The March 1993 “Storm of the Century” devastated large sections of the island, with torrential rains and winds gusting to 200 kilometers per hour. Cuba suffered devastating losses to agriculture, industry, port facilities, and infrastructure, as well as to homes, hospitals, and schools. Almost 150,000 people were left homeless. Transportation and communication facilities were damaged. Blood banks and stocks of medicines and vaccines were ruined. Drinking water, sanitation, and food storage installations were destroyed. Cuba’s efforts to achieve self-sufficiency in food were dealt a severe setback.

The storm caused an estimated \$1 billion in damages to the already weakened economy. Only \$10 million—1 percent of the losses—has been offered in contributions by the international community. Further flooding from storms in June caused another \$200–300 million in damages. The long-term impact of the storms is likely to be great.

### *Neuropathy Epidemic*

In the midst of this economic crisis, a mysterious disease known as neuropathy appeared and spread throughout the Cuban population. This epidemic, first

<sup>3</sup> The bill requires the U.S. government to verify the end-use of exported medicines and medical supplies by on-site inspection, a clearly unacceptable provision.

appearing in late 1991, is both an outcome of the current economic situation and a cause of further economic difficulties.

The disease takes two forms, both of which can occur in an individual. Optic neuropathy is a nerve disorder that causes blurring and progressive loss of vision. In peripheral neuropathy the person experiences pain, weakness, tingling, and loss of coordination in the limbs. While the origin of this disease is unknown, experts agree that poor nutrition is probably a contributing factor. The other major suspected causes are toxic substances and viral agents. Over 45,000 Cubans have been stricken to date. It does not appear to be a contagious disease, and the number of new cases is declining.

Experts from around the world have travelled to Cuba to assist in the effort to identify the origins of the disease. Even the U.S. government relaxed restrictions to allow scientists from the U.S. Centers for Disease Control and Prevention and the National Institutes of Health to travel to Cuba and, working through the Pan American Health Organization, to assist in the investigation.

To deal with the neuropathy epidemic, a massive mobilization of Cuban resources was required. A task force was formed, including the Ministry of Health, the Disaster Relief Civil Defense, six scientific groups with 55 research institutes, and the Presidency of the Republic. Over 18,000 community-based family physicians along with ophthalmologists, neurologists, and internists equipped with the latest diagnostic equipment are involved in the effort. Thirty-percent of hospital beds were set aside for patients. The entire population is receiving multivitamin tablets daily to combat the possible role of nutrition in the disease. In addition to the time and energy being diverted to deal with the epidemic, expenditures on hospital equipment, medical supplies, and vitamins for 1993 are estimated to be in the area of \$100 million.

### CURRENT HEALTH SITUATION

All of these factors have combined to create in Cuba the most difficult economic period since the revolution. Until now Cuba has managed to maintain its health system and preserve the excellent rankings that Cuba holds for internationally recognized health indicators. However, those gains are in serious jeopardy. The health system is functioning under tremendous strain, and is not able to continue to provide services of the same high quality as in the past. The shortages of food, medicines, and other basic commodities; communication and transportation difficulties; and problems maintaining sanitation and water systems all threaten the people's health.

#### *Scarcity and Shortages*

The strains on the Cuban economy are visible everywhere. The standard of living has fallen dramatically. Almost everything, from paper to shampoo, is in



short supply. The food supply has diminished, and the Cuban diet is much less adequate than before in both quality and quantity. Animal protein and cooking oil are among the most scarce commodities. Domestic production of meat, milk, and eggs is hampered by the lack of animal feed. Agricultural production is hindered by lack of fertilizers. Shortages of soap, detergents, and chlorine to purify water facilitate the spread of disease. Medicines of all kinds and medical supplies—from surgical gloves to sutures—are scarce. The lack of eyeglasses has already begun to affect school children's ability to learn.

The huge reduction in the availability of oil has emptied the streets of cars and caused periodic power shortages, disrupted factory production, and increased unemployment and underemployment. Due to a severe gasoline shortage and a lack of parts for automobiles and buses, people have resorted to using bicycles. Merely getting from one location to another has become a daily challenge, as people wait hours for the few functioning buses. In the highly mechanized agricultural sector, oxen-drawn plows have replaced tractors, with a consequent decline in food production. Because of the oil shortage, transportation of agricultural goods from fields to markets and of industrial goods from factories to docks is extremely difficult. Without adequate fuel, factories cannot manufacture sufficient materials for construction of housing. Garbage pickup is less frequent, and the water supply is sometimes erratic.

Daily life is filled with long waits in food lines, exhausting treks by bicycle or bus to workplaces or markets, and tedious periods without electricity or water. Daily chores such as cooking, cleaning, and washing clothes have become burdensome. Preserving food is difficult and long-term storage is impossible.

To assure equity in distribution, food is allocated through the rationing system that in previous years provided a more than adequate diet for all Cubans. The last official data indicate that in 1989 the per capita caloric intake was 2,800, more than the required 2,400 calories. Today priority is given to children, the elderly, the sick, and pregnant women. While still providing one or two meals a day to over 2 million people at schools, day care centers, and some workplaces, the supply is not always adequate. The one liter of milk provided daily to children up to age seven is now given only up to the age of five years. The parallel market, through which in the past Cubans could buy extra amounts of many foods, is now closed. When commodities are available, the illegal black market has taken on a greater role for those able to afford it.

The impact of the shortages on health services is especially acute. While hospitals are ensured a continuous supply of electricity, during power cuts the neighborhood clinics must cope along with the population. Extra measures have to be taken to protect supplies of vaccines, such as packing them in ice before the power goes off. Many ambulances are out of commission due to lack of gasoline and spare parts. Routine diagnostic procedures and laboratory work are no longer performed due to lack of supplies or replacement parts for equipment. For

example, mammographies once performed yearly for women over a certain age are now done only if disease is suspected. Prescriptions are still written but often go unfilled.

Doctors, nurses, and other personnel are often unable to get to work or must spend extra hours each week travelling on bicycles, public buses, or trucks. Female health personnel (over 50 percent of the doctors are women) must deal with all the difficulties of managing the household, and then must contend with the challenges of holding together a health system operating on ever-scarce resources. Doctors have been known to fall asleep during consultations due to exhaustion and overwork. The scarcity also affects the quality of medical education; students can no longer acquire important skills requiring practice with equipment and supplies.

The impact of the Cuban economic crisis and the U.S. embargo will be felt in countries throughout the third world, especially in the Western Hemisphere. Millions of people in dozens of third world nations benefit from Cuban medical assistance, and thousands of students receive their medical education in Cuba or with Cuban assistance in their home countries. Assistance is provided in the form of donations of equipment, medicines, and supplies; disaster relief; epidemiological monitoring and control of epidemics; construction of facilities; technical advice; scientific research and exchanges; and vaccination and health education campaigns. By 1990 some 16,700 foreign students had graduated from Cuban schools. In spite of the economic crisis, in 1991 2,219 students from abroad were studying in Cuba.

Cuba also sends large numbers of health workers to other countries. During the 1980s, between 2,000 and 3,000 health workers were sent each year for two-year stints to over 36 countries on three continents. Cuba plays a leadership role in other ways, for examples by providing disaster relief and other emergency assistance to all countries in need, without regard to political orientation. Countries that have received Cuban disaster aid include Armenia, Brazil, Colombia, El Salvador, Ethiopia, Honduras, Iran, Mexico, Nicaragua (under Somoza, the Sandinistas, and Barrios de Chamorro), Peru, the former Soviet Union (over 10,000 children affected by the Chernobyl nuclear disaster have been treated in Cuban hospitals), and Venezuela. While dedicated to its international aid efforts, Cuba has little choice but to cut back these activities (4).

### *Effects of the U.S. Embargo*

Cubans estimate the total costs of over 30 years of the U.S. embargo at \$38 billion. The collapse of the socialist economies in Eastern Europe and the former Soviet Union forces Cuba to trade in the international market and greatly increases the power of the embargo. While it is difficult to quantify the specific impact of the embargo on health it is becoming more widely recognized that the overall economic development of a country is inextricably linked with the health of the

people. The embargo's ultimate impact will necessarily be a decrease in the health status of the Cuban population.

Some direct health effects of the embargo are obvious. Over 90 percent of Cuba's trade with U.S. subsidiaries was in food, medicines, and medical equipment. With the passage of the "Cuban Democracy Act," that trade is now effectively prohibited. The impact of the subsidiary trade cut-off was most acute in the food sector. According to Cuban officials, in 1991 \$347 million out of \$383 million in goods purchased from U.S. subsidiaries were foodstuffs.

The effects of the U.S. embargo on the provision of health services are seen in many ways. Cuban health personnel are highly skilled and well trained; but efforts to further advance their knowledge and skills are being hampered, as the embargo makes it difficult to bring U.S. health experts to Cuba, or for Cuban experts to travel to the United States for scientific exchange. Much of the most important scientific literature is produced in the United States, and access is difficult in Cuba. Community-based doctors and health personnel in rural areas in particular find it difficult to stay abreast of the literature and informed of the latest findings and developments.

Another crucial impact of the embargo is its interference in Cuba's access to vital medicines, supplies, and medical equipment, and to raw materials and spare parts used in local production of drugs and maintenance of equipment. While the lack of hard currency to purchase the products is central to Cuba's trade difficulties, even with hard currency Cuba often cannot obtain the necessary goods at any price. Foreign pharmaceutical firms cannot sell their products to Cuba if more than 10 percent of the product is of U.S. origin. Replacement parts and supplies for some of Cuba's high-technology diagnostic equipment are under U.S. patent or are manufactured only by U.S. firms, and are thus inaccessible. Since the Cuban medical system relies heavily on these high-technology diagnostic services, the embargo could result in a return to higher-risk invasive surgical procedures.

Even when medicines and medical supplies can be obtained from sources other than U.S. firms or subsidiaries, the costs are much higher. Cuban officials estimate that they pay almost \$1 million more annually in product cost alone for just 24 major drugs. Cuban officials suggest that this is because the foreign companies know they are risking U.S. reprisals for trading with Cuba and so raise their prices, or because they know that Cuba has no alternative to paying the higher price. Transportation from Europe and other countries adds an estimated \$4–5 million a year above what it would cost to obtain the supplies from the United States. Higher costs are a particular problem when it comes to maintaining specialized equipment, the leading producers of which are in the United States—and thus unavailable—or in Europe or Japan, where costs can be as high as 1,000 percent more. Overall, Cubans estimate that they pay about 30 to 40 percent more in transportation and product costs to do business with non-U.S.-based firms.

Other problems are associated with buying from third countries. There are frequent delays in transportation from these distant markets. Buying from

far-away markets also forces Cuba to purchase some products in bulk and then store them, with the subsequent dangers of deterioration and expiration of drugs. Buying in bulk also ties up badly needed capital. Delays also arise due to the requirement that foreign firms obtain U.S. authorization to trade any goods that may fall under the embargo, a process that can take months. The U.S. sanctions on all ships entering Cuba are a further deterrent to the delivery of food and medicines to that country.

Many examples of the impact of the embargo on the provision of health services were given by Cuban officials.

- During the 1981 hemorrhagic dengue epidemic, Cuba could not obtain from the United States drugs to treat the infection or fumigation equipment to control the mosquitoes that spread the disease. Instead, at far greater expense, supplies were bought in Europe and, due to the urgency of the situation, transported by air.

- For over ten years Cuba had been buying 80 percent of its physical therapy equipment from the Dutch firm Enraf Nonius. In 1991 the company suddenly terminated sales of replacement parts, explaining that it could not obtain U.S. authorization for the sales.

- The list of specific products Cuba was denied in 1992 because of U.S. prohibitions or pressures also includes chemical reagents from Fluka A.G. Chemical Company of Switzerland, filtration membranes from Alfa-Laval of Sweden, replacement parts for operating tables from Amsco of Canada, ultrasound and nuclear magnetic resonance equipment from Siemens AG of Germany, electrophoresis laboratory equipment from Pharmacia LKB of Sweden, ultrasound equipment from Toshiba Corporation of Japan, X-ray replacement parts from CGR of France, and replacement parts for ultrasound and dialysis equipment from Medix of Argentina.

- The world's largest producer of insulin, indispensable for diabetics, is the U.S. firm Lilly. Cuba must buy the product from a single company in Europe, at a much higher cost.

- Some medical products, such as reagents used in diagnosing illness, are available only from U.S. companies that hold the patent.

- The raw materials to manufacture the vitamins provided to the entire population to combat the neuropathy epidemic were purchased in Europe and transported by air (because of the urgent need). The cost was almost \$240,000 more for transportation than if they had been purchased in the United States.

- Between 1982 and 1983 the United States refused visas for 20 percent of the health professionals offered scholarships by the Pan American Health Organization, headquartered in Washington, D.C.

- Cuban scientists were refused advanced training opportunities at Memorial Sloan Kettering Cancer Center in New York and at the Molecular Biology Institute at the University of California at Los Angeles, due to U.S. visa restrictions.

- The Cuban Minister of Public Health and two other officials were not able to accept an invitation to participate in the 1992 Annual Meeting of the American Public Health Association, because the U.S. State Department denied their visas.
- For many years Cuba purchased medical books from the Spanish company Editorial Interamericana S.A., until 1991, when the U.S. firm McGraw-Hill bought out the company, leaving Cuba without access to an important source of medical literature.

Cuba's inability to trade in the most cost-effective markets forces it to pull resources from other sectors in order to maintain its health services. This creates overall economic dislocations, which in turn have a negative impact on the health and welfare of the population.

### *Impact on Health*

What has been the actual impact of all these difficulties on the health of the Cuban people? Cuba entered this "special period" having achieved the health profile of an advanced country. The communicable diseases so rampant in the rest of the developing world have been overcome and have been replaced by chronic diseases such as cancer, heart disease, and diabetes found in rich countries. Cuba benefits from an abundance of highly skilled doctors and other trained health personnel, and an extensive system of hospitals and community clinics providing coverage to the entire population. All health personnel focus on preventive activities and health promotion. Cuba has achieved near universal literacy (1), and health is an integral part of education and social services.

This strong foundation is central to Cuba's ability so far to avoid the most dire repercussions of the economic crisis. In spite of the serious conditions, there is no obvious malnutrition. The key health indicators, such as the infant mortality rate and under-5 child mortality rate, are being maintained. There has been no increase to date in occurrence of the major infectious diseases of childhood. No one is sleeping in the streets. All children still go to school, and the younger ones attend high-quality day-care centers.

However, compared to two and three years ago, the general standard of living and the quality of health services have declined dramatically. There are measurable indications of the early stages of an adverse impact on health. Cuban medical personnel report a slight increase in the number of hospitalizations. Some infectious diseases, such as venereal diseases, diarrhea, and hepatitis A, are on the rise. Head lice are more frequently seen as children are unable to maintain good personal hygiene.

There is a recorded increase of anemia in pregnant women and young children and a rise in the incidence of low-birth-weight babies. These are nutritionally related health problems and probably the result of the decrease in access to iron-rich and protein-rich foods. Nutrition also likely plays a major role in the neuropathy epidemic—through decreased protein intake; possible chronic

cyanide poisoning due to greater consumption of foods such as cassava, manioc, beans, and cabbage; and storage problems and resultant spoilage of food.

Fear and uncertainty engendered by the epidemic and by the overall economic decline have taken a toll on the people. Cubans accustomed to receiving a high level of health care now find the pharmacy shelves empty and doctors unable to guarantee the same level of care as in the past. Stress is widespread; it interferes with daily life and can lead directly to health problems. Stress results from large and small challenges, from the inability to obtain basic goods to power blackouts in the middle of a favorite television soap opera. Other social consequences are emerging. Some women are turning to prostitution in order to get access to luxury goods and other scarce commodities. Black market deals are becoming a facet of everyday economic life, and other illegal activities are more commonplace.

While the overall health of the Cuban population has not yet seriously eroded as a result of the economic decline, severe problems threaten to emerge in the future. Nutritional status could deteriorate if the food supply is not stabilized. Cuba could see a resurgence of infectious diseases as a result of possible vaccine shortages and the inability to properly maintain personal and community sanitation and a clean water supply. With insecticides in short supply, Havana is already seeing an increase in flies, mosquitoes, and other disease-spreading vectors; these could become the source of disease outbreaks.

Since the major diseases in Cuba today are chronic, Cuba may not see the real impact of the economic difficulties for years to come. The emotional and social consequences could continue to take a toll on a nation that takes pride in its social and cultural advances. The deterioration in one of the world's best health systems could make addressing these increased health needs more difficult in the future.

### *Response to the Crisis*

The Cuban population has responded to the challenge posed by the economic crisis with imagination and determination. Vegetable gardens have been planted at homes, workplaces, and schools. Communities organize to take their garbage directly to the dumps, rather than waiting for it to be collected. The use of baby bottles and powdered milk has been almost totally replaced with breastfeeding. Cars have given way to bicycles. In some ways, therefore, the economic dislocations have led to healthier lifestyles—reduced smoking, less fat and meat and more vegetables in the diet, more exercise, and cleaner air.

Other innovations have mitigated the impact of the economic crisis. Instead of constructing new schools for the handicapped and child care centers, Cubans have turned to non-institutional care, for example with supervised activities in local parks. Due to transportation problems, people with non-urgent problems now seek care first from family doctors near their homes rather than from the major hospitals as they often did in the past. In this way, the people are now making better use of the tiered health structure and conserving hospital resources for those in

most need. With the assistance of UNICEF, Cuba is using windmills to save energy in water and sanitation projects. The country is producing 2,500 windmills, and is selling them to other countries. Innovations are being made in low-cost housing. For example, houses are being constructed with all bathrooms and kitchens on the bottom floor and bedrooms on the second floor, thus eliminating the need for electricity on the top floor.

The response to the economic crisis of the Cuban health workers has been a remarkable display of inventiveness and dedication. Examples abound of their efforts to adjust to the shortages in everything from medicines to disinfectants.

- Doctors in the major children's hospital meet each morning to assess patients' needs and resources available for that day. As a result, the use of X-rays (the results of which were normal in 99 percent of cases) has been reduced by 75 percent. Use of other diagnostic procedures has likewise been much reduced. The doctors feel that to date the hospital patients have not suffered, that, indeed, needless use of diagnostic procedures has been eliminated through this process of rationing.

- The same children's hospital administrators report spending a considerable amount of time on the telephone calling colleagues in other countries to urgently request enough pills to get a particular patient through the week.

- Foods destined for young children and other vulnerable population groups are being fortified with vitamins and minerals.

- Medical personnel have increased home visits and are releasing patients from hospitals for follow-up care in the home.

- Health providers are increasingly using herbal remedies, acupuncture, and other non-Western procedures. It is felt that important advances are being made in this potentially valuable new area of alternative medicine.

In spite of their greatest efforts, the health workers are stretched to the limit. They are working long hours in highly stressful circumstances. Physicians and nurses, forced to severely ration resources, must count every pill and measure every drop of medicine they use. Difficult decisions must be made concerning which patients get diagnostic tests or medicines. So far the health providers have been able to maintain the health services. However, their ability to further ration scarce resources and resort to alternative procedures is extremely limited.

## CONCLUSIONS

The U.S. embargo, along with changes in trade relations, the recent storm, and the neuropathy epidemic, have caused huge economic dislocations in Cuba. The embargo is not the only, or perhaps even the major, factor. It is, however, the only one of the four key factors that was deliberately devised and is the only one that can be easily reversed. It will take on an increasingly important role in the future as Cuba tries to replace lost markets and to establish new economic relations.

The embargo constitutes an important barrier to Cuba's access to international and U.S. financing agencies, access to the most economical sources of food and medicines, and access to markets for its products, including medical products. These barriers impact directly on Cuba's health system and affect the country's ability to achieve economic development, which is central to its ability to continue providing high-quality health services to its population. The end result of the embargo will be, at the very least, a deterioration in the health of the Cuban people.

This national grudge against Cuba is out of step with the changes occurring in the world. The policy is damaging to U.S. interests as well as to the well-being of the Cuban people. U.S. businesses are eager to compete in joint ventures in the newly opened Cuban private sector. And, according to the director of MediCuba, the Cuban enterprise responsible for trade in medical products, Cuba could buy \$90 million in medical supplies from U.S. corporations if the embargo were lifted.

Restrictions on travel and communication prevent effective exchange of information on public health. Health professionals in the United States have much to learn from our colleagues in Cuba regarding protecting the health of our people, just as health professionals in Cuba can benefit from unrestricted contacts with colleagues in the United States. The inability to trade also hinders our own access to important medical discoveries made in Cuba. For example, Cuba has developed a treatment for retinitis pigmentosa, a treatment for the skin disease vitiligo, and a vaccine for meningitis B, all of which remain unavailable to U.S. citizens with those diseases. The recent loosening of restrictions to allow experts from the U.S. Centers for Disease Control and National Institutes of Health to investigate the neuropathy epidemic in Cuba is a promising example of how health professionals can overcome political barriers and advance the public interest.

The embargo has caused considerable tensions with other countries. In 1992 the embargo was condemned by the United Nations General Assembly, which called upon member states to refrain from applying, and the United States to repeal, "laws and regulations whose extra-territorial effects affect the sovereignty of other States and the legitimate interests of entities or persons under their jurisdiction, and the freedom of trade and navigation" [U.N. General Assembly Resolution 19 (XLVII)] (5). That resolution represents a strong statement, including from many U.S. allies, that attempts to extend the embargo to other countries' trade with Cuba is not acceptable.

Average Cubans have few inhibitions about complaining openly about the shortages, the high black-market prices for scarce goods, and the lack of access to dollar-only stores that continue to stock many basic and luxury commodities. Yet Cubans value their social benefits and have great pride in their health care system, their schools, and their social services. They appreciate the government's efforts to preserve those benefits through this difficult period.

Cuba has been able to maintain its health system to date only through great determination and creativity. It is becoming increasingly difficult to shield the



health sector from the consequences of the economic crisis. To the extent that the U.S. embargo contributes to the crisis, it contributes to the increased suffering of the Cuban people. The embargo's interference in the Cuban people's access to food and medicine is tantamount to the use of food and medicine as a weapon in the U.S. arsenal against Cuba. Attempts at preventing the flow of food and medicines to a population should never be taken. The embargo on Cuba is especially cruel in that no allowances are made for providing assistance in emergencies and special circumstances such as the outbreak of hemorrhagic dengue fever in 1981 or the March storm.

The U.S. government should reconsider its efforts to bring change to Cuba through, among other means, a heavy-handed and destructive embargo. Surely in this day, with the Cold War behind us, the most powerful nation in the world can devise a policy that does not cause suffering among an entire population in order to accomplish our national political objectives. More could be accomplished for the people of Cuba and for the people of the United States through a positive approach that includes lifting the embargo and encouraging a broad exchange of information, resources, and personnel. It is time for a new vision in U.S. policy toward Cuba.

*Note* — This article is a modified version of a document published by the American Public Health Association.

## APPENDIX

### *Persons Interviewed for This Report*

#### Cuban Ministry of Public Health:

- Dr. Julian Alvarez, Deputy Minister for Science and Technology
- Dr. Jorge Antelo Pérez, First Deputy Minister
- Dr. Luis Cardova, Deputy Minister for Medical Assistance
- Dr. Alberto Céspedes Carrillo, National Director of Human Resources
- Dr. Ramón Díaz Vallina, Deputy Minister for Economics
- Dr. José Goicochea, Deputy Minister for the Pharmaceutical Industry.
- Dr. Manuel Grillo Rodríguez, Director, Institute of Nutrition and Food Hygiene
- Dr. José Baudilio Jardines, Deputy Minister for Training
- Dr. Pedro Mas Bermejo, Director, National Institute of Hygiene, Epidemiology, and Microbiology
- Dr. Ramón Prado, Head of International Relations Department
- Dr. Abelardo Ramírez, First Deputy Minister for Hygiene and Epidemiology
- Dr. Rodolfo Rodríguez, Epidemiologist, National Institute of Hygiene, Epidemiology, and Microbiology.
- Dr. Julio Teja Pérez, Minister

Cuban National Assembly of People's Power:

Ricardo Alarcón de Quesada, President

Dr. Carlos Dótres Martínez, Deputy and President, Permanent Commission on Health, Work, and Social Security of the Latin American Parliament

Staff from site visits to:

Hermanos Ameijeiras Hospital

Clinic of Family Practitioner Dr. Dionisio Herrera Guibert

Pedro Kourí Institute of Tropical Medicine

Center for Genetic Engineering and Biotechnology

Hogar Castellanos Day Care Center

William Soler Pediatric Teaching Hospital

Julio Trigo School of Medicine

National Department of Nursing

Plaza of the Revolution Polyclinic

Los Cocos AIDS Sanitarium at Santiago de la Verga

"La Güinera" Community

United Nations Organizations:

Dr. Miguel Márquez, Country Representative, Pan American Health Organization/World Health Organization

Luis Zúñiga Zárate, Resident Director of Programs, United Nations Childrens Fund

Guido Ordóñez, United Nations Development Programme

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Associate Professor of Medicine, University of Illinois, Chicago, IL

Herbert J. Rothenberg, M.D.

Professor of Clinical Medicine, University of Colorado School of Medicine

Past Governor, American College of Physicians, Colorado Chapter

Practicing Physician, Denver, CO

Wayne S. Smith, Ph.D.

Adjunct Professor of Latin American Studies, Johns Hopkins University

Senior Fellow, Center for International Policy, Washington, DC

Author of *The Closest of Enemies: A Personal and Diplomatic History of the  
Castro Years* (W. W. Norton & Company, 1987)

Elaine Williams, R.N.

Nurse Associate, Cook County Hospital, Chicago, IL

President, Illinois Nurses Association

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