

## **CHAPTER Two**

### **CUBAN HEALTH CARE IN THE NINETIES**

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## Background

The Cuban Constitution makes health care a right of citizens and the responsibility of government. The public health system, which emerged in the early 1960s, is based on universal coverage and comprehensive care, offered essentially free to the population.<sup>12</sup> Over the past three decades, the following major developments have made their mark on the system:

In the 1960s: The former Health -Department was given -ministerial ranking and reorganized to take up the task of providing universal health care. Pharmaceutical production and private health facilities were nationalized, with few exceptions. A Rural Medical Service recruited physicians who were dispatched to care for patients in remote areas, and 50 local hospitals and dozens of medical posts were hastily constructed in the countryside. By 1962, 161 neighborhood polyclinics were in operation in urban areas. The National Immunization Program was initiated, relying heavily on community participation, as were programs to control such diseases as tuberculosis, leprosy and the diarrheas. During this decade, approximately half the physicians in Cuba emigrated to the United States and elsewhere, leaving the country with 3,000 doctors and 16 full professors at the medical school. Training of new doctors became a priority. Margaret Gilpin comments in the *Journal of Public Health Policy*, "By the end of the first decade, a unified Cuban national health care system had been created and was firmly in place. The efforts paid off in changes in major health indicators, reductions of infectious diseases, and improved hygienic and environmental conditions."<sup>3</sup>

In the 1970s: In this decade, the polyclinic model of primary care was reinforced and expanded, taking on health education, prevention and environmental monitoring. In general, responsibility for direct health management was transferred to the provincial and municipal levels. The School of Medicine was brought under the Ministry of Public Health, and residency programs were revised. As the numbers of graduates rose, more Cuban health professionals joined the program for "internationalist service" abroad, which began in Algeria in 1961. By the end of the next decade, the total number of Cuban health workers who had spent one or two years in Africa, Asia or Latin America was close to 20,000.

The Maternal-Child Program evolved as a way of giving priority to these sectors of the population. The first major investments were made in new health facilities and pharmaceutical production. Today Cuba has 284 hospitals and 440 polyclinics, among other institutions within Ministry of Public Health authority.

HEALTH FACILITIES IN CUBA (1995)	
FACILITY	NUMBER
HOSPITALS	284
POLYCLINICS	440
RESEARCH INSTITUTES	11
DENTAL CLINICS	168
MEDICAL POSTS	165
MATERNITY HOMES	208
BLOOD BANKS	25
SENIOR CITIZEN HOMES	182
HOMES FOR DISABLED	26
FAMILY DOCTOR-NURSE OFFICES	18,471 .

. Does not include these teams in clinics, workplaces, schools and other institutions.  
Source: Ministry of Public Health, Havana , 1996.

In the 1980s "with a consolidated, nationwide health care system, Cuba entered the third decade fully committed to becoming a potent force in world medicine and health care," states Gilpin.<sup>4</sup> At the level of tertiary care, modern techniques were introduced in virtually all 54 fields of medicine practiced in the country, with specialized institutes acting as national reference centers. This included national programs for prenatal screening, installation of the first nuclear magnetic resonance equipment in Latin America, and an organ transplant program.

Schools of medicine multiplied in each province, and Cuba began the nineties with 28 medical school campuses. By 1995, this country of 11 million people had 57,000 physicians (25,000 of them specialists), 9,000 dentists and 72,000 nurses, although this last number was considered insufficient by health officials.

<b>PHYSICIANS IN CUBA</b>			
<b>YEAR</b>	<b>TOTAL</b>	<b>DOCTORS PER 10,000 INHABITANTS</b>	<b>INHABITANTS PER DOCTOR</b>
<b>1970</b>	<b>6,152</b>	<b>7.2</b>	<b>1,393</b>
<b>1980</b>	<b>15,247</b>	<b>15.6</b>	<b>641</b>
<b>1985</b>	<b>22,910</b>	<b>22.8</b>	<b>439</b>
<b>1990</b>	<b>38,690</b>	<b>36.5</b>	<b>274</b>
<b>1991</b>	<b>42,634</b>	<b>39.9</b>	<b>251</b>
<b>1992</b>	<b>46,860</b>	<b>43.3</b>	<b>231</b>
<b>1993</b>	<b>51,045</b>	<b>46.7</b>	<b>214</b>
<b>1994</b>	<b>54,065</b>	<b>49.1</b>	<b>204</b>
<b>1995 *</b>	<b>56,925</b>	<b>51.2</b>	<b>195</b>

. Provisional. Source: Ministry of Public Health, Havana, 1996.

The 1980s was also the decade for two decisive developments, which became hallmarks of Cuban medicine: the first was the takeoff of the biotechnology industry, which would put Cuba in the front ranks of research in a number of important fields; and the second, the introduction of the Family Doctor Program in 1986, which gave new impetus to primary care. By 1995, 96% of the Cuban population was attended by physician-and-nurse teams living in the neighborhoods they served, each assigned the care of approximately 150 families.

From 1960 through 1990: Cuba's indicators registered consistent improvement in the health of the population, and won praise from international agencies such as the World Health Organization, the Pan American Health Organization and UNICEF. By 1995, Cuba was free of polio, measles and diphtheria, and its immunization program covered 11 infectious diseases. Cuba emerged at the forefront of the developing countries, and began to reflect patterns that more closely resembled the nations of Western Europe and North America.<sup>5</sup>

<b>SELECTED HEALTH INDICATORS</b>		
	<b>Cuba</b>	<b>Latin America*</b>
<b>Life Expectancy (1994)</b>	<b>75 years</b>	<b>68 years</b>
<b>Infant mortality (1994)</b>	<b>9.4/1,000 live births</b>	<b>38</b>
<b>Under Five Mortality (1994)</b>	<b>12/1,000 live births</b>	<b>47</b>
<b>Maternal mortality (1980-92)</b>	<b>39/100,000 live births</b>	<b>178</b>
<b>Access to health services</b>	<b>98% of population</b>	<b>73%</b>

\*22 countries of the region. Source: State of the World's Children, 1996, UNICEF.

### ***The Economic Crisis and Health Care***

In the early nineties, the tidal wave of socialist Europe's collapse hit Cuba, leaving the economy in shambles and threatening to wash away the gains of the island's government-funded universal health care program. With the disappearance of aid and preferential terms offered by socialist partners, virtually all of Cuba's commerce was now carried out under the shadow of U.S. embargo restrictions limiting international loans, credits, dollar transactions, technology transfers, U.S.-component purchases, third-country exports to the USA of goods with Cuban elements, and so on. Up to 1989, the embargo placed conditions on the 15% of Cuba's international trade which fell outside the socialist market; after 1991, the embargo had a restrictive influence on more than 90% of that trade.

The result was to accelerate Cuba's economic contraction, which may be the U.S. policy's single most deleterious effect on the health care sector and its financial underpinning. This effect was multiplied with the passage of the Cuban Democracy Act (CDA) of 1992, whose express purpose was to cut critical remaining funds, and furnish the coup de grace for the Cuban government. However, since the government was paying the bill for health care, this move necessarily put the population's health in jeopardy.

As noted in other chapters of this study, the CDA eliminated U.S. subsidiary exports to Cuba, over 90% of which were food. And the shipping nightmare that ensued with the virtual reinstatement of the blacklist for vessels traveling to Cuba has added millions to freight costs and months to delays in delivery of vital goods to the island.

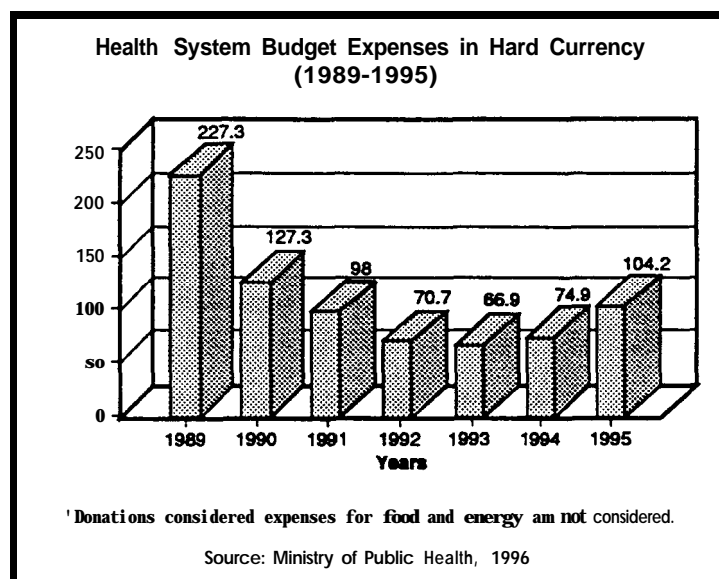
In 1996, the Helms-Burton Act was passed, aiming to scuttle Cuba's pretensions of economic recovery by discouraging foreign investment. While it is too early to measure results, Cuban government officials admit the law has slowed economic recovery. It could stall investment in industries that produce essential goods for the Cuban population, or that bring in dollar earnings directly to the health sector.

### ***Higher Priority, Fewer Resources for Health***

As a result of the double drain of disappeared socialist allies and the hostile U.S. embargo, resources vanished overnight that had gone into housing, water resources, sanitation, the environment, food security, education, transportation, and communications—all with serious repercussions for health and welfare. While the priority accorded the health care budget was boosted another notch, up to 7.6% of the total in 1995—the devaluation of the Cuban peso and the shortfall in hard currency reduced dollars for the health sector to 30% of 1989 levels by 1993.

<b>HEALTH CARE SHARE OF CUBA'S STATE BUDGET</b>							
<b>YEAR</b>	<b>11989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
<b>% OF TOTAL</b>	<b>15.8</b>	<b>6.0</b>	<b>6.3</b>	<b>6.6</b>	<b>7.4</b>	<b>7.5</b>	<b>7.6</b>

*Source: Ministry of Public Health, Vice Minister of Economics Ramón Díaz Vallina, 1996.*



The following chart illustrates the priority given health care expenditures in the national budget, increased in the nineties mainly at the expense of shrinking outlays for defense and government management.

<b>THE CUBAN NATIONAL BUDGET: KEY EXPENDITURES</b>											
(in millions of pesos)											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995*	1996**
<b>Education</b>	1,640.2	1,600.0	1,651.6	1,650.6	1,619.5	1,504.0	1,426.7	1,384.9	1,334.4	1,370.0	1,430.0
<b>Health</b>	769.7	810.2	872.6	904.5	937.4	924.9	938.3	1,076.6	1,061.1	1,100.0	1,180.0
<b>Defense</b>	1,268.2	1,241.7	1,273.9	1,259.4	1,149.0	882.2	736.4	712.8	651.2	632.0	602.0
<b>Social Security</b>	896.5	961.2	1,031.5	1,093.9	1,164.1	1,225.7	1,348.0	1,452.3	1,532.4	1,585.0	1,630.0
<b>Administration</b>	530.2	495.1	495.0	489.9	453.1	400.2	365.8	413.3	354.2	365.0	357.0
<b>Housing, City. Serv.</b>	443.7	415.9	395.6	406.4	382.7	280.2	247.5	260.0	316.1	400.0	470.0
<b>Culture and Arts</b>	185.2	171.2	173.3	191.4	200.6	203.0	177.6	173.2	159.9	157.0	150.0
<b>Science and Technology</b>	126.6	120.1	121.1	124.4	123.7	126.0	121.6	125.0	121.4	133.0	133.0
<b>Sports</b>	105.4	106.8	114.9	116.2	117.1	124.5	99.5	103.6	105.6	111.0	115.0
<b>Welfare</b>	83.3	93.1	97.0	101.1	95.6	86.4	98.2	94.2	93.7	110.0	150.0

\* Estimate . \* Planned. Source: Ministry of Finance and Prices, Havana, 1996.

Cuba's general economic trauma has had broad impact on the health of the population, and has shaken the medical system's ability to respond to the crisis. Some examples:

**Fuel Shortages:** With only half the **1989** oil supplies available to the island, blackouts suddenly cut power, industries shut down, public buses are overcrowded and infrequent, and the traffic of cars and trucks thinned on the highways. The implications for health and hygiene are legion: power

outages stop pumping operations, and whole cities go for hours every day without water. The blackouts cause food spoilage in homes, lunchrooms and industrial kitchens, while there is little cooking gas or electricity to boil water, and so more danger of contamination. Households turn to alternative cooking fuels, some of which have noxious effects for asthmatics, and all of which present greater risk of burns. More pedestrians and (inexperienced) cyclists are on the road, but street lighting is at a minimum, so consequently traffic accidents are more common. Dimmed illumination at workplaces causes eyestrain and leads to more accidents on-the-job, and the list goes on.

In the health system, ambulances are idle for lack of gas and tires, and patients have less alternative emergency transport, mobile mammography units face the same fate. Medical equipment runs overtime during hours when electricity is on, and is at risk for damage with unstable voltage. Hospital air conditioning units are shut down, pharmaceutical plants produce a third of what they did in the eighties, and power outages threaten to ruin medications and vaccines in refrigerated warehouses and hospital storerooms.

ENERGY AVAILABLE FOR CUBAN HEALTH FACILITIES (1994-1 996)				
SOURCE	UNIT	1994 REAL	1995 ESTIMATE	1996 PLAN
Electricity	GWH	56.5	55.1	60.7
Oil	TON	3418	3666	3874
Diesel	TON	2637	2560	2830
Gasoline	TON	1947	1637	1800

Source: Ministry of Public Health, Havana , 1996.

**Shortages of Hygienic Products:** The increase in untreated water correlates directly to increases in water-borne diseases, with mortality climbing seriously among the elderly. Household, school and personal hygiene slacken without adequate supplies of cleaning agents, leading to outbreaks of scabies and other dermatological disorders. The use of corrosive homemade cleansers leads to a rise in household accidents, especially among children under five. Women have neither enough sanitary napkins nor cotton for their monthly needs.

In health care facilities, these same shortages have been blamed for the increase in hospital infections and sepsis; and in institutions such as senior citizens' and maternity homes, the health of vulnerable populations is also endangered.

**Food Shortages:** Decreased nutritional levels have been registered as a result of plummeting food imports and purchases of vital inputs for agriculture and the food industry. In 1993, sudden drops in nutrition were blamed for an epidemic that debilitated the eyesight and motor function of over 50,006 people. Workplace and school lunchrooms and boarding school dining halls are serving fewer calories and proteins on their trays. The daily liter of milk once assured to all children up to 13 is now limited to children through six; and people over 65 no longer receive special supplements.

Patients in hospitals, and residents in senior citizen homes and other facilities are not assured consistent good diets either. The general limitations on food have also made it more difficult to guarantee reinforced meals to those who most need them, such as pregnant women and patients with HIV and AIDS, not to mention those who require special diets, such as diabetics.

**Shortages of Medical Products:** Most sensitive for the population is the lack of medicines and medical equipment. of the 1297 medicines circulating in the country in 1991, only 889 can be obtained today, and then on an irregular basis. This presents special problems for critical and chronic patients, as we will see in this study. Equipment repairs have slowed, units lie broken in hospital corridors, and equipment parts take their place behind vital drugs in the wait for a share of the hard currency budget. The Ministry of Public Health reports 13% of x-ray machines are out of commission, as well as 21% of cobalt therapy units<sup>6</sup>

Even paper, imported at rising world prices from Asia, Canada and Europe, is scarce. In hospitals, its absence has led to difficulties in keeping proper case histories, while in medical schools, where texts and journals are few, photocopies can bring only a partial solution. Lack of specialized paper for medical equipment read-outs or sterilization have been known to shut down hospital departments.

### ***The Current Health Picture in Cuba***

The presence of family doctors in the community, and the broad hospital system which makes secondary care generally accessible throughout the island, are credited with keeping basic indicators stable in such a precarious environment. Some of these indicators have actually improved, reflecting, specialists contend, both prioritized attention and the incidence of the "human factor," the dedication of medical personnel. Not only do they work long hours for a peso-devaluated paycheck, but nurses, family doctors, pediatricians, cardiologists, and surgeons we spoke with were bicycling from home to hospital and clinic. They described the frustration of seasoned clinicians who know the right therapy, but no longer have the resources to apply it.

The Ministry of Public Health evaluates the health situation measuring a series of broad epidemiological factors, which reflect the following priority areas:

**Maternal and Child Health:** Infant mortality continues to decline, with the goal at keeping it below 10 per 1,000 live births for the coming five years. Maternal mortality, which reached 44 in 1994, dipped to 33 in 1995. Low birth weight has shown a predominantly increasing tendency since 1969, with some improvement over the last year. Incidence and deaths from household accidents are increasing in children under five.

**Infectious Diseases:** These are on the rise in the nineties, mainly those transmitted orally, through contaminated food or water. This includes the Acute Diarrheal Diseases (ADD), typhoid fever, and viral hepatitis, for which mortality rates have also jumped. The incidence of sexually transmitted diseases (STDs), including syphilis and gonorrhea, is climbing as well as that of scabies, head lice and especially leptospirosis (this last a severe affliction affecting primarily agricultural workers). Slight increases in tuberculosis have also been reported, and marked increases in TB mortality. Mortality figures from influenza and pneumonia are increasing. Since 1990, pneumonia and influenza have become more prominent as a cause of death among people over 15.

**Noncommunicable Chronic Diseases:** These conditions are responsible for over 70% of deaths in Cuba. Heart disease is the number one cause of death, with mortality rising in the nineties, registering a slight dip in 1995. Control of risk factors at the primary level has influenced the declining mortality rates for hypertension. Fatalities from asthma, diabetes, renal failure and accidents have all increased. As with infectious diseases, **most** of the reasons are associated with the decline of living standards and deteriorating environmental factors. Asthma now accounts for 60% of chronic obstructive lung disease.'

**Attention to the Elderly:** Life expectancy now reaches 75 in Cuba, comparable to industrialized nations. Under current conditions, however, the elderly are particularly vulnerable to disease,

and mortality rates for acute diarrheas and pneumonia are of particular concern in the nineties. New emphasis is being placed on preventive care for this generation, especially through the family doctor program.

Cuban health care authorities have developed a package of strategies designed to mitigate the effects of the economic crisis-including those of the embargo-and to place prevention squarely at the center of a system which must rely more on its human resources than any others. While these strategies are pro-active and intended to generate community participation as well as new financing for the sector, the course ahead is uncertain and also marked by economic obstacles. Among the key directions:

**The Primary Care Model:** This system is to be reinforced by strengthening the preventive role of Family Doctor-and-Nurse Teams, and adding services to local polyclinics to bring effective emergency attention into communities to take pressures off hospital facilities. This is also an attempt to turn around the emphasis on curative procedures at the expense of health education, priorities forced on the system as the logical result of scarce resources being prioritized for the sick. Anchoring the Teams in community education and participation projects is also expected to make them a more consistent source of epidemiological information, vital to predicting health tendencies and pinpointing areas for preventive campaigns. Yet, as with all the strategies outlined here, beefing up this capacity depends not only on redirecting funds, but on finding new ones: doctors' offices need re-equipping, their medicine cabinets restocking, their transportation maintained; education requires teaching aids, tapes and literature; and epidemiological networking requires significant computer hardware.

**Revitalize Hospital Care:** Instituting more efficient organization and utilization of resources, including human resources, is to boost this arena. Surgical services will need major inputs: by 1993 operations were reduced to less than half of the number carried out in 1990. The Ministry of Public Health also cited adverse economic factors as the main reason for the deterioration of efficient use of hospital facilities, such as the decline in hospitalizations per bed (from 25.4 to 21.4 from 1990 to 1994) and the number of consultations per doctor (from 1763 to 1247 in the same period.)

However, the most pressing problems facing hospitals certainly require more available funding: replacement of outdated and worn-out equipment; purchases of repair parts, accessories and patient kits, x-ray film and air conditioners; guaranteeing sufficient water supplies, cleaning agents and sterilization equipment and supplies.

**Streamline MedicalSupply Sources:** Programs will be consolidated to guarantee the most vital medications to the population, through imports, national production and alternative medicine. Soon after the economic crisis hit, the Ministry of Public Health developed a nationwide plan for distributing medicines, in an effort to guarantee consistent medication for the chronically ill and critical medications for medical emergencies. Medical prescriptions were limited, and patients with chronic conditions were authorized ongoing drug purchases by a card filed at their local pharmacy. This system has gone a long way to assuring that medications get to the patients who most need them.

But it does not solve the problem of the global supply of medicines. Now, the Ministry hopes to tackle this by boosting domestic production, discreetly increasing imports, maintaining priority medications on continual request from international donors, and turning to alternative medicine where possible.

In this study, we will examine the limitations on purchases of medications abroad and on the pharmaceutical industry, which has the capacity to produce nearly 80% of the medicines needed in the country but today turns out little over half because of economic constraints on inputs.

Guarantee Rational and Sustained Use of Modern Medical Technologies: Introduced in Cuba in the 1980s, the utilization of some technologies has seriously eroded during this decade. The Ministry proposes to refurbish its own equipment and promote domestic research and production of the same.

Bring special attention to bear on programs particularly weakened by general shortages, among these dentistry, medical transportation, and optics, as well social service institutions under the Ministry's guidance.

Seek hard currency contributions to the public health sector, releasing it from total dependence on the central budget and bring in new revenues. The Ministry plans to finance some of its projects through cooperation from other government institutions and from international agencies. It should be noted that municipal government budgets in national currency finance over 90% of health care expenditures. In all but a few cases, the administration of health care facilities falls under the aegis of the provincial and municipal governments.

Promote community participation in the identification and solution of local health problems, primarily with local resources. The Community Health Councils have been set up for this purpose, to work in close collaboration with the neighborhood physician and nurse team, and they are considered key to promoting a return to a broad preventive emphasis at the local level.

### ***Conclusions***

After three decades of what international public health experts and organizations consider remarkable results, it is clear that the problem of health care delivery in Cuba today is not a lack of good ideas, competent and committed professionals or national programs with sufficient community outreach. The central problem in the nineties remains one of financial resources- and especially hard currency- to make these programs and ideas work.

After a week of immersion in Cuban health care delivery-its achievements, failures and dilemmas, U.S. cardiologist Dr. Stephen Ayres described the medical system as a giant tree, its roots and trunk intact, but its branches without leaves. A system essentially sound, but without the resources to flourish.

After one year of research, it is our assessment that economic revival is decisive to the vitality of Cuban health care, and to sustaining the welfare of the Cuban people. To the extent that the U.S. embargo successfully blocks this broad recovery-its stated intention-the policy also bears responsibility for undermining public health care strategies to respond to the urgent and long-term needs of the Cuban population.

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**NOTES**

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1 "Análisis del Sector Salud en Cuba: Informe de Avance," Ministry of Public Health, Havana, in collaboration with PAHO/VHO, Nov. 21, 1995, p. 1.

2 "Análisis del Sector Salud en Cuba: Informe de Avance," Ministry of Public Health, Havana, in collaboration with PAHO/WHO, Nov. 21, 1995, p. 1.

3 "Cuba: On the Road to a Family Medicine Nation," by Margaret Gilpin, in the Journal of Public Health Policy, Vol.-12, No. 1; 1991, p. 87.

<sup>4</sup> Ibid.

5 Praise from these quarters has come on the basis of what they consider to be highly reliable methodologies for compiling statistics, and forthright use of findings by Cuba's Ministry of Public Health. Dr. Miguel Márquez, who until 1996 represented PAHO in Havana. Dr. Márquez reports that, on the Cuban government's request, PAHO teams of experts have traveled to the island to review data collection and calculation. Looking at sensitive indicators such as infant mortality and maternal mortality, he noted that the team "concluded by verifying as correct the figures published by Cuba." The same, he stated, was the case for studies of malaria and polio data released by the Ministry of Public Health. See his comments in *Contrapunto*, May, '1993, pp. 41-42. Marta Maurás, UNICEF Director for Latin America, declared in December, 1993: "It is a source of enormous satisfaction to observe the great dedication with which Cuba examines its indicators and puts its statistical information systems to work, making perfectly clear the progress and difficulties..." See her speech at the Presentation of the Second Follow-Up Report on Cuba's National Program of Action for Children, Havana, December 1, 1993.

6 Analysis of the Health Sector in Cuba, Executive Summary, April, 1996, prepared in cooperation with WHO/PAHO, P. 12.

<sup>7</sup> Ibid., p. 7.