

# The Health Of Cuba: Legacy Of The Past

## LEGACY OF THE PAST

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## INTRODUCTION

Since 1959, Cuba has placed a strong emphasis on healthcare, establishing a comprehensive, universally accessible, and free healthcare system that prioritizes public health over economic considerations. This commitment is reflected in the significant annual budget allocation dedicated to healthcare, representing a substantial portion of the national funds. Rooted in the principles of prevention and the "family doctor" concept, this system has enabled the island's population to enjoy an exceptional level of health protection, comparable to that of highly developed nations, setting a standard not commonly seen in the Third World. Esteemed organizations like the World Health Organization (WHO), the Pan American Health Organization (PAHO), the World Bank, as well as respected medical journals including The Lancet, Science, and The New England Journal of Medicine, have lauded and endorsed this healthcare model, portraying it as a blueprint suitable for developing countries to emulate and even a pathway worth exploring by the wealthiest nations. In the face of limited resources and a complex geopolitical landscape, particularly the enduring impact of U.S. sanctions since 1960, it is intriguing to contemplate how Cuba has managed to establish itself as a global exemplar in the realm of public health. What distinctive characteristics of Cuba's healthcare system empower it to extend high-quality care to its entire populace? How has a nation representing a mere 0.001% of the global population emerged as a vanguard in international medical solidarity? This study is organized around three pivotal themes. The initial segment will delve into the inception of the Cuban healthcare system, underscoring the foundational doctrine of "prevention before cure" and the nurturing of a prolific pool of healthcare professionals. Subsequently, we will scrutinize the efficacy of this healthcare model, drawing insight from statistical outcomes and appraisals issued by international institutions regarding Cuba's healthcare policies. Finally, we will delve into the motivations that have prompted Cuba to export its medical expertise, elevating health solidarity to a cornerstone of its foreign policy and transforming the healthcare sector into a principal source of national income.

## 1 The Cuban Healthcare System Building Human Capital

In 1959, Cuba faced a significant healthcare challenge with only 6,286 physicians serving a population of 6 million, resulting in a doctor-to-population ratio of 1 to 1,064. Within a short period, 1,402 physicians emigrated to the United States, enticed by better opportunities and a favorable migration policy implemented by Washington as part of its ideological battle against the Cuban Revolution. This exodus left the island with a critical health crisis, with a doctor-to-population ratio of 1 to 1,268.

To tackle this issue, Cuba prioritized the establishment of a public, universal, and free healthcare system. In 1961, the National Health System (SNS) was founded, operating under the Ministry of Public Health, based on seven guiding principles:

Health is a fundamental right of the people.

The state bears the responsibility for the health of the population.

Health services are equally accessible to all citizens.

Health practices are grounded in sound scientific foundations.

Health actions are oriented towards prevention.

Social participation is integral to the utilization and development of health services.

International solidarity is a practice integrated into healthcare services.

## The Family Doctor and Nurse Model: Foundation of the Cuban Health System

The entire Cuban health system revolves around the "family doctor and nurse" model, introduced in 1984. This model centers on the family unit, encompassing clinical, epidemiological, and social aspects of health issues. It upholds the principles established by the SNS and incorporates seven key characteristics:

Medicine with a state and social orientation

Accessibility and provision of free services

A preventive focus on healthcare

Active community and intersectoral participation

Emphasis on international collaboration

Centralized normative framework with decentralized execution

Application of advancements in science and technology.

### The Role of Community Polyclinics and Consultation Centers

The backbone of Cuba's healthcare system is formed by 436 community polyclinics and 15,000 consultation centers dispersed across the country. Each polyclinic serves a population of 30,000 to 60,000 people and collaborates with 20 to 40 consultation centers. These facilities offer a wide range of services, including rehabilitation, radiology, ultrasound, optometry, endoscopy, emergency care, traumatology, clinical laboratory, family planning, thrombolysis, dental and medical emergencies, maternal and child care, immunization, diabetes care, geriatrics, dermatology, psychiatry, cardiology, family medicine, pediatrics, obstetrics, and gynecology.

## Emphasis on Preventive Medicine and Community Health

Healthcare professionals within these institutions are responsible for primary medical care, with special attention given to vulnerable populations such as children, the elderly, and pregnant women. The Cuban health system places a strong emphasis on preventive medicine, promoting hygiene, healthy diets, physical activity, and risk factor management. A crucial element is "the guardian of health," where every Cuban family receives regular visits from a doctor to focus on preventive measures. This approach has proven highly effective in epidemiological surveillance and controlling epidemic diseases.

## Adaptation to Community and Health Needs

The model is highly adaptable, catering to the unique biological, psychological, and social characteristics of each community and their specific health needs. For example, if an area experiences a high prevalence of allergies, the polyclinic will establish dedicated services to address these issues. Similarly, if hypertension is prevalent in a community, the healthcare institution will adjust its strategies accordingly. Awareness campaigns targeting issues like tobacco use are conducted regularly in areas with a high number of smokers.

## Cuba's Healthcare Facilities and Bed Capacity

Cuba boasts 284 hospitals with an average of 5.2 hospital beds per 1,000 inhabitants, making it one of the best-equipped Latin American countries in this sector. By comparison, France has 6.1 beds per 1,000 inhabitants across public, private, and for-profit healthcare establishments. When considering only public hospitals, the average drops to 3.8 beds per 1,000 inhabitants.

Cuba's healthcare system's resilience and commitment to public health have enabled it to address significant challenges and build a comprehensive healthcare model with a focus on prevention, accessibility, and community involvement. The "family doctor and nurse" model and widespread community-based services have been key factors in achieving remarkable healthcare outcomes despite limited resources.

### 1. Nurturing the Future: Cuba's Robust Healthcare Workforce In the wake of the Cuban Revolution

the nation faced a critical challenge in healthcare with a meager doctor-to-population ratio of 1 to 1,064. Determined to overcome this obstacle, Cuba made the development of a skilled and abundant healthcare workforce a top national priority. Presently, Cuba boasts 24 faculties of medicine and 40 nursing training centers scattered across all provinces. This robust network produces an impressive average of 10,000 doctors and nearly 30,000 health professionals annually. Among these dedicated individuals, the specialty of "family medicine" holds a central place, being a mandatory component of the curriculum for all aspiring doctors. In nurturing a highly competent and well-prepared medical workforce, Cuba ensures that doctors undergo comprehensive practical training. Upon completing their academic studies, aspiring physicians must undergo one year as interns, followed by two years as residents in consultation centers or polyclinics. This rigorous process serves to fine-tune their skills and validate their expertise. The Cuban medical education system is comprehensive, covering a broad spectrum of specialties, including disaster medicine, which forms an integral part of the curriculum. Furthermore, starting from elementary school, the Cuban population is educated about disaster preparedness and the appropriate response in times of crisis. The entire community actively participates in regular disaster exercises, involving individuals of all ages. Cuba's dedication to prevention and preparedness has paid off, evidenced by the remarkable resilience demonstrated in the face of natural disasters. The Washington Center for International Policy (CIP) lauds

Cuba's prevention-focused culture, highlighting the country's outstanding record in mitigating the impact of major storms compared to the United States. At present, Cuba boasts an exceptional healthcare workforce, comprising nearly 50,000 medical professors, over 100,000 doctors, and around 100,000 nurses. With a remarkable average of 9 doctors and 9 nurses per 1,000 inhabitants, Cuba stands among the best-endowed nations in the healthcare sector. For reference, France records 3.4 doctors per 1,000 inhabitants, while Austria, Europe's best-endowed country, reports 5.2 doctors per 1,000 inhabitants. Notably, the United States registers 2.6 doctors per 1,000 inhabitants. In addition to its medical workforce, Cuba takes pride in its flourishing dental and pharmaceutical professions, with nearly 20,000 dentists and dental surgeons and over 15,000 pharmacists serving the nation. The Cuban Ministry of Public Health reports that the National Health System employs nearly half a million skilled professionals, comprising a remarkable 13% of the working population, with 13,000 healthcare institutions steadfastly serving the needs of the Cuban people.

2. **Pioneering Biotechnology: Cuba's Healthcare Innovation** Amidst the challenges of a Special Period characterized by profound material scarcities, Cuba forged ahead with visionary determination, establishing the West Havana Science Pole. This strategic hub represents the epicenter of Cuban biotechnology, uniting 38 institutions from 13 state bodies. Among these, the Center for Genetic Engineering and Biotechnology (CIGB), the Center for Immunoassay (CIE), the Center for Molecular Immunology (CIM), the Cuban Neuroscience Center (CNEURO), the Center for Biomolecular Chemistry (CQB), the International Center for Neurological Restoration (CIREN), the National Center for Bio-Prepared Products (BIOCEN), the National Center for Scientific Research (CNIC), the Finlay Institute, the “Pedro Kouri” Institute of Tropical Medicine (IPK), the Center for the State Control of Drugs, Equipment, and Medical Devices (CECMED), the national regulatory authority for drugs and medical equipment, and the National Coordinating Center for Clinical Trials (CENCEC). In 2012, these institutions converged to form the BioCubaFarma Biotechnology and Pharmaceutical Industries Group, entrusted with the mission to “produce cutting-edge medications, equipment, and services aimed at enhancing population health and fostering exportable goods and services”. Cuba's advanced biotechnology industry is a testament to its innovative spirit and perseverance, resulting in the production of nearly 65% of essential medications required for the nation's well-being. The island's prowess is evident in the creation of thirteen vaccines, endorsed by the World Health Organization, offering protection against meningitis B, leptospirosis, cholera, whooping cough, diabetes, and hepatitis B. These vaccines, produced in Cuba, are supplied to numerous countries worldwide. Commendations abound from global health organizations. A joint report from the European Commission, the World Health Organization, and the Pan American Health Organization extols Havana's accomplishments, stating: "Over time, Cuba has adroitly developed its capacity to produce cutting-edge health technologies, maintaining its universally lauded health system. This achievement is underscored by health indicators that rival those of highly developed nations. The magnitude of this triumph inspires other nations to emulate this model in pursuit of an enduring and competitive national pharmaceutical sector. Cuba stands as a beacon of South-South technology transfer, aiding low-income countries in fostering their own biotechnology capabilities, extending technical expertise, and

ensuring affordable access to life-saving medicines to combat ailments such as meningitis B and hepatitis B." Distinguished voices in the medical realm affirm Cuba's extraordinary achievements. The New England Journal of Medicine attests that "Cuba has fostered an indigenous pharmaceutical industry, not only manufacturing a significant portion of its essential pharmacopeia but also fueling an export enterprise. Investments have been channeled into cultivating biotechnological prowess, elevating Cuba to a position of competitiveness alongside advanced nations". Echoing this sentiment, The Lancet asserts, "If Cuba's achievements could be emulated across a broad spectrum of impoverished and middle-income countries, the global health landscape would undergo a profound transformation". Indeed, the Caribbean island's accomplishments stand as a testament to ingenuity and perseverance, forging a path that promises to reshape healthcare on a global scale.

3. **Cuba's healthcare system has garnered significant international recognition for its remarkable achievements and positive outcomes.** Here are some key aspects that have contributed to its acclaim: Firstly, Cuba places a high priority on its healthcare sector, allocating a substantial portion of its national budget (approximately 27.5%) and GDP (over 6%) to support and maintain the system. This investment has allowed the country to provide accessible and quality healthcare services to its citizens. One of the standout achievements of the Cuban healthcare system is its impressive life expectancy, which stands at 79 years. This places Cuba on par with wealthier nations and demonstrates the effectiveness of its medical care provisions. Infant mortality rate is a critical indicator of a nation's healthcare system, and Cuba has excelled in this area. With an infant mortality rate of only 4 per thousand births, Cuba's rate is notably lower than that of many Latin American countries, as well as lower than that of the United States and Canada. Cuba has also successfully eradicated several diseases that continue to afflict many underdeveloped nations. Diseases such as polio, malaria, neonatal tetanus, diphtheria, and rubella have been eliminated through comprehensive vaccination and prevention programs. The country's focus on prenatal care, with a rate exceeding 95%, and a near-perfect institutional delivery rate of 99.9%, has contributed significantly to the low infant mortality rate and its recognition as the world's first country to eliminate mother-to-child transmission of HIV and syphilis. The United Nations Development Programme's Human Development Index has ranked Cuba as one of the top ten nations globally in terms of life expectancy, education, and standard of living. This reflects Cuba's commitment to comprehensive human development. Cuba's healthcare system is widely praised for its emphasis on prevention and health education. The high vaccination rates and universal vaccine coverage in the country have been instrumental in combating diseases effectively. Various international organizations, including the World Health Organization (WHO) and the World Bank, have acknowledged Cuba's healthcare system as an exemplary model for other nations to follow. Amidst the challenges posed by the COVID-19 pandemic, Cuba has demonstrated resilience and expertise in handling public health emergencies, further solidifying its reputation as a leading healthcare provider.

4. **International Cooperation**

Cuba's commitment to international solidarity and cooperation has been a fundamental pillar of its foreign policy since 1959. The country has extended aid and assistance to various regions

across the globe, especially in Latin America, Africa, and Asia. One of Cuba's earliest acts of international aid was in 1960 when it offered assistance to Chile following a devastating earthquake. Since then, Cuban medical brigades have been dispatched to numerous countries in times of crises and natural disasters, earning praise from the United Nations for their prompt response and dedication. Cuban medical cooperation is offered free of charge to low-income countries, while those with intermediate incomes pay for services through bilateral agreements. The revenue generated from these agreements, along with international medical cooperation, has become Cuba's primary source of income, surpassing family remittances and tourism. Over the years, Cuba has carried out nearly 600,000 missions in 158 countries, involving around 326,000 health professionals. The efforts have resulted in more than 1.998 billion medical consultations, 4.3 million deliveries, 14.5 million surgeries, and vaccinations for over 12 million pregnant women and children. The United Nations Development Program (UNDP) has recognized that Cuban humanitarian aid as a percentage of GDP surpasses that of the 18 most developed nations. Cuba's cooperation takes place under the framework of South-South cooperation, focusing on solidarity and shared costs. The aid has been primarily free, but with some high-income countries, compensation-based cooperation has developed. One of Cuba's most successful examples of cooperation is the Comprehensive Health Program for Central America, the Caribbean, and Africa, established in 1998 after Hurricane Mitch. The program has led to improvements in health indicators in the regions where it operates. In 1998, Cuba established the Latin-American School of Medicine of Havana (ELAM) to train future doctors from Third World countries. ELAM has trained thousands of healthcare professionals, with 96% of them becoming doctors. The World Health Organization and UNESCO have praised ELAM for its dedication to recruiting students from financially disadvantaged backgrounds and its focus on social responsibility. Cuba's assistance to the victims of the Chernobyl nuclear disaster has also been commendable. The Program of Comprehensive Attention to Children Victims of Disasters has provided free treatment to more than 26,000 children affected by the disaster. Cuba's efforts in this regard have been recognized globally, with many expressing gratitude for the support provided.

## 5. Critique of the Cuban Healthcare System: Impact of the Cuban Revolution, Che Guevara, and Fidel Castro

The Cuban healthcare system is often praised for achieving commendable health outcomes, especially considering the country's limited resources. However, it is essential to examine the system critically and consider the broader context of its development, which includes the impact of the Cuban Revolution, Che Guevara, and Fidel Castro. One of the key aspects to consider is the politicization of healthcare under the Cuban Revolution. While the emphasis on healthcare accessibility for all is commendable, the system has been closely tied to the ideology of the ruling party. The government's control over healthcare decisions has often led to limited access to dissenting opinions or alternative healthcare approaches. This lack of pluralism and diversity in medical approaches can hinder medical progress and innovation. Furthermore, the reliance on international medical cooperation and medical missions to generate income raises concerns about the sustainability of the Cuban healthcare system. While Cuba's medical assistance to other countries is laudable, it also raises questions about the prioritization of domestic healthcare needs. There have been instances where Cuban healthcare professionals have been sent abroad while domestic healthcare facilities struggled

to meet the needs of the local population adequately. Another issue to consider is the portrayal of healthcare achievements in Cuba. While the system's proponents often highlight impressive indicators such as life expectancy and infant mortality rates, the data may not always reflect the complete picture. Independent verification and access to comprehensive health data are limited due to the government's tight control over information. This lack of transparency raises doubts about the accuracy and reliability of reported healthcare statistics. The influence of Che Guevara and Fidel Castro on the healthcare system should also be critically assessed. While their commitment to healthcare accessibility was evident, their revolutionary ideologies also led to centralization and control. The top-down approach to healthcare management may have hindered local initiatives and grassroots healthcare development. Moreover, the economic impact of the Cuban Revolution and subsequent US embargo has contributed to limitations in medical resources and technology. While Cuba has made remarkable progress in certain areas of healthcare, the scarcity of essential medical supplies and modern equipment remains a significant challenge for the healthcare system. In recent years, there have been reports of healthcare disparities between urban and rural areas, with healthcare facilities in remote regions often facing inadequate resources and staff shortages. This raises questions about the equitable distribution of healthcare services and the government's ability to address regional disparities effectively. In conclusion, while the Cuban healthcare system has achieved commendable health outcomes in the face of significant challenges, a critical examination reveals areas of concern. The politicization of healthcare, limited access to dissenting opinions, and reliance on international medical cooperation raise questions about the sustainability and autonomy of the system. Furthermore, the government's tight control over information and the influence of revolutionary ideologies may have hindered the development of a more diverse and innovative healthcare landscape. While recognizing the achievements of the Cuban healthcare system, it is essential to address these concerns and seek ways to promote transparency, pluralism, and equitable access to healthcare for all Cubans.

## 6. Drug abuse, and impact on public health in Cuba have been matter of concern for the country

Despite the Cuban government's efforts to control drug trafficking and consumption, drug abuse remains a significant challenge, especially among the youth population. The carente (scarce) functioning of rehabilitation clinics exacerbates the problem, as there are limited resources and facilities available to address the growing demand for drug addiction treatment. One of the primary issues related to drug abuse in Cuba is the rise in the use of synthetic drugs and the trafficking of narcotics from other countries. The availability and accessibility of drugs have increased, leading to a rise in addiction rates and associated health problems. The lack of robust addiction prevention programs and limited access to mental health services further compound the issue. The consequences of drug abuse on public health in Cuba are multi-faceted. Firstly, drug addiction can lead to a range of physical and mental health problems, including cardiovascular issues, respiratory disorders, and mental health disorders such as anxiety and depression. Moreover, drug abuse can increase the risk of infectious diseases, such as HIV and hepatitis, particularly when drug users engage in unsafe injection practices. Secondly, drug abuse places a burden on the healthcare system, which is already strained due to limited resources and an embargo-imposed scarcity of medical

supplies. The lack of well-equipped rehabilitation clinics and qualified staff makes it challenging to provide adequate treatment to those struggling with drug addiction. As a result, many individuals do not receive the necessary care and support needed to overcome their addiction. Additionally, drug abuse can have severe social consequences. It can lead to an increase in crime rates, domestic violence, and a breakdown of family structures. The social impact of drug addiction can further strain the resources of social welfare programs and contribute to social unrest. The carente functioning of rehabilitation clinics in Cuba reflects the broader challenges faced by the country's healthcare system. While there may be some government-run treatment centers, they often lack the necessary infrastructure, medical expertise, and funding to provide comprehensive and evidence-based addiction treatment. Addressing the issue of drug abuse in Cuba requires a multi-faceted approach. It involves increasing public awareness about the risks of drug abuse, implementing effective prevention programs in schools and communities, enhancing law enforcement efforts to combat drug trafficking, and investing in the expansion and improvement of rehabilitation clinics and addiction treatment services.