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### POLICY FORUM: PEER-REVIEWED ARTICLE

#### Health Equity, Cuban Style

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##### Abstract

The United States has not yet decided to ensure that every citizen has access to health care services at reasonable cost. The United States spends more on health care than any other country by far. Yet the health status of the US population, when compared with that of like nations, remains poor. The US system does not operate efficiently, fares poorly in terms of health equity, and has an illness and injury care industry with many uncoordinated “systems” focused on treating individuals rather than on improving health status. There are lessons for us in Cuba’s health system.

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##### We Don’t Get What We Pay For

The United States has not yet decided to ensure that every citizen has access to health care at a reasonable cost. As many readers know, the United States spends more on health care than any other country by far—\$11 072 per capita in 2019.<sup>1</sup> Yet the health status of the US population, when compared with that of like nations, remains at the bottom of the list.<sup>2</sup> We also fare poorly in terms of health equity, with large disparities in health status between subpopulation groups.<sup>3</sup> We are not getting what we pay for largely because the United States does not have a health care system that runs efficiently. Instead, we have an illness and injury care industry containing many different, uncoordinated “systems” focused on **treating individuals** rather than on improving health status.

There are many examples of countries that have found a way to provide universal access for their populations using variations of 3 models: socialized care, socialized payment, or **highly regulated private insurance**.<sup>4</sup> Some of our national policymakers seem largely unwilling to learn from others if doing so would require change at home, but if we hope to do better, learn and change we must!

I suggest that, in addition to examining the approaches chosen in upper-income countries similar to our own, we also look at Cuba, a middle-income country. Since the

1959 overthrow of the Batista regime, Cuba has focused on developing a health system that would be accessible to all at no cost to the patient, with an emphasis on reducing health inequities. It has had remarkable success, changing its population health status (life expectancy, infant mortality, infectious disease mortality, older adult health) from that typical of a low- to middle-income country to a high-income country, all while suffering for 60 years under the impact of the strongest embargo enacted by the United States.<sup>5</sup> In an early nod to an important social determinant of health, the Cuban government understood that health and economic development are closely linked to population education levels, so universal access to free education through professional training was instituted, with the result that Cuba is ranked 13th in the world in literacy—with an almost 100% literacy rate—while the United States is ranked 125th with a literacy rate of 86%.<sup>6</sup> Cuba's experience indicates that population health can be achieved in the absence of wealth if existing resources are well organized and applied effectively to accomplish measurable health, education, and social welfare goals.

### Lessons From Cuba

So, how has Cuba managed to improve health status so dramatically? Space constraints preclude a detailed analysis here, but a brief discussion of how Cuba has improved its infant mortality rates can provide some insight into how Cuba has improved its population's health status overall and diminished health inequities. **Infant mortality** is one of the measures generally accepted as reflective of a health system's effectiveness.<sup>7</sup> In the United States, the infant mortality rate in 2017 stood at 5.8 deaths per 1000 live births, but that average number hides the wide range of infant death rates across individual states—from 3.7 to 8.6 per 1000 live births in 2017—or between racial groups—from 11.4 per 1000 live births among non-Hispanic Black people to 3.6 per 1000 live births among Asians in 2016.<sup>8</sup> In comparison, infant mortality in Cuba stood at 38.7 per 1000 live births in 1970, and fell to 4.0 per 1000 live births in 2018, with a range of 2.1 to 6.3 between Cuba's 15 provinces.<sup>9</sup> In 2019, mortality under 5 years of age was 7.0 per 1000 live births in the United States and 5.0 per 1000 live births in Cuba.<sup>10</sup>

Here are a few things to know in order to understand how Cuba has fared comparatively so well.

*Development of a national health system.* During the years closely following the success of the 1959 revolution, all health services were gradually nationalized under the control of the Ministry of Public Health. Available resources, previously concentrated in urban areas, were redistributed across the country. At the same time, a literacy campaign was initiated, people were taught how to survive in microbially contaminated environments, safe water and sewage disposal systems were constructed, infectious disease control and prevention programs began, vaccination was emphasized, rural hospitals were built, and health professions schools were set up across the country to train the many health professionals required.<sup>5</sup>

In effect, a universal health budget was created that set the stage for the development of an integrated system of services that operates under nationally set policies focused on improving health status with local flexibility to respond to identified local needs. This approach contrasts starkly with the US hodgepodge of payment schemes, hospital systems, private practitioners, health departments, federally qualified health centers, and many community agencies with separate sources of funding and individual missions

that were developed to fill holes in access to care for significant portions of the population.

*Universal access to prevention-based primary care.* In the mid-1980s, the evolving Cuban health system inaugurated its vaunted Family Doctor and Nurse Program that provided individuals, their families, and neighborhoods with an assigned team of practitioners to coordinate medical care and lead health-promotion efforts based on evidence gathered about the specific health problems identified in their geographically determined catchment areas.<sup>11</sup> This program combined the principles of public health and clinical medicine in its dual emphasis on prevention and epidemiologic analysis with improvement of individual and population health outcomes as its single purpose. By 1999, every Cuban had access to one of over 13 000 teams across the country—a family physician and nurse in every neighborhood.<sup>12</sup> (After a period of reorganization and consolidation, universal coverage in Cuba today has been accomplished with approximately 10 000 physician and nurse teams.<sup>13</sup>) Cuban physicians are evaluated on the health status of the population they are responsible for. To fulfill that responsibility, individual patient information garnered from office and home visits is aggregated into a community diagnosis that is updated semiannually to assess diseases, risk factors, and environmental influences on health. This analysis is used to set local priorities for health promotion, disease prevention, diagnosis and treatment, and rehabilitation activities. Every family physician and nurse office can refer patients, when necessary, to a multispecialty community polyclinic or to a hospital for secondary and tertiary care.<sup>5</sup>

The Cuban health system's regular contact with almost everyone delivers robust clinical preventive services (eg, an approximately 98% vaccination rate for 13 childhood diseases by age 1 year<sup>5</sup>), and Cuba is the developing country that has best achieved the universal access to primary care that the world's governments agreed was essential to achieve "health for all" at the 1978 International Conference on Primary Health Care in Alma-Ata.<sup>14</sup> In 2015, the humanitarian organization Save the Children listed Cuba as the 40th best country in the world for motherhood, among the best in Latin America and the Caribbean. The United States was ranked 33rd.<sup>15</sup>

*Prioritizing the needs of the most vulnerable.* Health equity is unattainable unless the needs of the most vulnerable members of society are met. Cuba has developed specific programs to help meet the needs of vulnerable groups, including the National Maternal-Child Health Program, established in 1983, which provides both guidelines and benchmarks for already-prioritized maternal and child health services.<sup>16</sup> Its development at about the same time as the Family Doctor and Nurse Program strengthened the evolving primary care system by giving responsibility for women's health services—including contraception, regular prenatal visits (averaging 14 per patient with 97.8% of patients receiving at least 4), well-baby checkups, and vaccinations—to family physicians and nurses with access to polyclinic obstetricians and pediatricians as necessary.<sup>16</sup>

Additionally, maternity homes were established in every province where women with high-risk pregnancies could be admitted and receive care for both medical and social risk factors, including geographic isolation. Day boarders are also accommodated, mostly to ensure adequate nutrition, especially during periods of economic hardship. Education programs for women on site include information on contraceptives, preparation for labor and delivery, and advice for pregnancy and newborn care.<sup>16</sup> Because of this attention to pregnancy, over 99.9% of all births in 2018 occurred in a hospital.<sup>9</sup> Despite these measures, Cuba's maternal mortality rate, while among the

lowest in Latin America, has declined more slowly than anticipated, dropping from 46 per 100 000 live births in 2000 to 36 per 100 000 live births in 2017.<sup>17</sup> This rate is slightly more than twice as high as the US rate of 17.4 per 100 000 live births in 2018,<sup>18</sup> and it focused new attention in Cuba on the causes and measures needed to accelerate the downward trend.<sup>19</sup>

In the United States, we have become accustomed to cuts in social and health services whenever there is an economic downturn at the national, state, or local level. These cuts often act to make services less accessible at a time when people need them most. The Cuban approach is much different. The central question Cuban policymakers ask related to health is this: What do we do now, with our limited resources, to further improve health status? Answers to this question, in both good times and bad, are based on health problems identified through an aggregation of disease surveillance data and the community diagnoses carried out by family physicians and nurses, analysis of economic conditions, and use of the best science available. During periods of economic distress, such as the so-called Special Period in Time of Peace when the Soviet Union collapsed and Cuba saw 35% of its economy disappear almost overnight,<sup>5</sup> Cuba increased its budget for health and social services while cutting other budget categories,<sup>20</sup> always following through on its promise to protect population health. This promise began when Fidel Castro decried lack of health care for the poor in his courtroom defense of the attack on the Moncada Barracks in 1953,<sup>21</sup> was addressed in the development of the country's health system after the revolution succeeded in 1959,<sup>5,11,20</sup> and was codified in Cuba's constitution.<sup>22</sup> Most recently, Cuba's president, Miguel Díaz-Canel, declared that despite the economic hardships produced by the US embargo and the COVID-19 epidemic, Cuba would spend 27.5% of its budget to support health and social welfare expenditures.<sup>23</sup>

*Consistent political will.* Over more than 6 decades, the Cuban government's resolve to guarantee the right of the Cuban people to education and health services has never wavered. Despite the resource limitations that are a constant drag on progress, the country's leadership has invested heavily not only in the education of health professionals and the building of health facilities, but also in biomedical research and development, biotechnology, and pharmaceutical manufacturing.<sup>24,25</sup> In addition, Cuba has engaged in a robust global cooperation effort, primarily in developing countries, intended to help staff and strengthen public institutions and systems in coordination with host governments in an effort to expand access to universal health care around the world. By the end of 2018, over 400 000 Cuban physicians, nurses, and allied health professionals had worked in public health systems in more than 150 countries.<sup>26</sup>

## Conclusion

In conclusion, Cuba, despite its **resource-poor environment**, has managed to address health equity much more effectively than the United States. It has done so by creating a national health system that provides universal access to preventively oriented primary care, emphasizes paying special attention to vulnerable populations, and is both efficient and effective. Successive leaders have continued to prioritize education and health, and as the health system has evolved, its capacity has grown to be able to provide secondary and tertiary care to those who need it.

I do not advocate the United States adopting the Cuban system: the cultural, political, and socioeconomic differences are too great, and each nation must find its own way forward. We could, however, draw from the principles and practices at the heart of

Cuba's success to explore how they might be applied in our capitalist context. Could we not, for example, challenge ourselves to (1) set a national overarching health policy goal focused on improving population health status that would drive policymaking and resource allocation, (2) better integrate public health and clinical medicine, (3) provide universal access to preventively oriented primary care at little or no out-of-pocket cost, (4) address the social determinants of health more meaningfully, (5) distribute health resources more equitably, and (6) evaluate processes and outcomes regularly and rigorously to track our progress? The Cubans have managed to apply a generally known body of knowledge more successfully than we have for a variety of political, socioeconomic, and cultural reasons. Our challenge is to find a way to apply this knowledge "using mechanisms and incentives in our market economy to induce changes resulting in health improvement."<sup>5</sup>

## References

1. Health spending. Organisation for Economic Co-operation and Development. Accessed July 14, 2020. <https://data.oecd.org/healthres/health-spending.htm>
2. Woolf SH, Aron L, eds; Institute of Medicine. *US Health in International Perspective: Shorter Lives, Poorer Health*. National Academies Press; 2013.
3. Meyer PA, Yoon PW, Kaufmann RB; Centers for Disease Control and Prevention. Introduction: CDC health disparities and inequalities report—United States, 2013. *MMWR Suppl*. 2013;62(suppl 3):3-5.
4. Reid TR. *The Healing of America: A Global Quest for Better, Cheaper, and Fairer Health Care*. Penguin Press; 2009.
5. Keck CW, Reed GA. The curious case of Cuba. *Am J Public Health*. 2012;102(8):e13-e22.
6. Burton J. List of countries by literacy rate. WorldAtlas. August 12, 2020. Accessed January 7, 2021. <https://www.worldatlas.com/articles/the-highest-literacy-rates-in-the-world.html>
7. Whaley RF, Hashim TJ. *A Textbook of World Health: A Practical Guide to Global Health Care*. Parthenon Publishing; 1995.
8. Infant mortality. Centers for Disease Control and Prevention. Reviewed September 10, 2020. Accessed January 7, 2021. <https://www.cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm>
9. National Health Statistics and Medical Records Division (CU). *Anuario Estadístico de Salud 2018*. Ministry of Public Health (CU); 2019. Accessed July 14, 2020. <http://files.sld.cu/bvscuba/files/2019/04/Anuario-Electr%C3%B3nico-Espa%C3%B1ol-2018-ed-2019-compressed.pdf>
10. Mortality rate, under-5 (per 1,000 live births). World Bank. Accessed August 17, 2020. <https://data.worldbank.org/indicator/SH.DYN.MORT>
11. Feinsilver J. *Healing the Masses: Cuban Health Politics at Home and Abroad*. University of California Press; 1993.
12. National Health Statistics and Medical Records Division (CU). *Anuario Estadístico de Salud 2009*. Ministry of Public Health (CU); 2010. Accessed October 13, 2020. <https://files.sld.cu/bvscuba/files/2013/05/anuario-2009e3.pdf>
13. Serrate PC. Universal health in Cuba: healthy public policy in all sectors. *MEDICC Rev*. 2019;21(4):74-77.
14. Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. Public Health Update. Accessed October 12,

2020. <https://www.publichealthupdate.com/the-declaration-of-alma-ata-on-primary-health-care/>
15. Save the Children. The Complete Mothers' Index 2015. Accessed August 17, 2020. [https://resourcecentre.savethechildren.net/node/9052/pdf/sowm\\_mothers\\_index.pdf](https://resourcecentre.savethechildren.net/node/9052/pdf/sowm_mothers_index.pdf)
  16. Rojas-Ochoa F. Cuba's maternity homes, 1962-2017: history, evolution, challenges. *MEDICC Rev.* 2019;21(4):28-33.
  17. Cuba maternal mortality rate 2000-2020. Macrotrends. Accessed August 17, 2020. <https://www.macrotrends.net/countries/CUB/cuba/maternal-mortality-rate>
  18. Centers for Disease Control and Prevention. Maternal mortality. National Center for Health Statistics. Reviewed November 9, 2020. Accessed January 7, 2021. <https://www.cdc.gov/nchs/maternal-mortality/index.htm>
  19. Aguilla S. Zero in on postpartum hemorrhage to reduce Cuba's maternal mortality. *MEDICC Rev.* 2015;17(1):84.
  20. Perez C. *Caring for Them From Birth to Death: The Practice of Community-Based Cuban Medicine*. Rowman & Littlefield Publishers; 2008.
  21. Castro F. History will absolve me. Fidel Castro Internet Archive; 2001. Accessed August 18, 2020. <https://www.marxists.org/history/cuba/archive/castro/1953/10/16.htm>
  22. Constitucion de la Republica de Cuba. Current Constitution as amended in 1992, 2002, and 2018. Accessed February 29, 2020. <http://www.cuba.cu/gobierno/cuba.htm>
  23. Diaz-Canal M, Nunez J. Government management and Cuban science in confronting COVID-19. Article in Spanish. *Ann Acad Cien Cuba.* 2020;10(2).
  24. Evanson D. Cuba's biotechnology revolution. *MEDICC Rev.* 2007;9(1):8-10.
  25. Lage A. Science and challenges for Cuban public health in the 21st century. *MEDICC Rev.* 2019;21(4):7-14.
  26. Gorry C. Six decades of Cuban global health cooperation. *MEDICC Rev.* 2019;21(4):83-92.

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