

# The US Blockade and Its Effects on Cuban Medicine

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*The Cuban socialist healthcare system is internationally recognized as one of the best in the world.<sup>1</sup> It is innovative, preventative, people-oriented, comprehensive, community-centered, internationalist, and, of course, de-commodified—treating healthcare as a human right, not a profitable commodity. However, in spite of its extraordinary successes, the United States' sixty-year long blockade has tremendously detrimental effects on Cuban life in general, and their healthcare system in particular. As Amnesty International reported, the US blockade "limits Cuba's capacity to import medicines, medical equipment, and the latest technologies, some of which are essential for treating life-threatening diseases."<sup>2</sup>*

The intentions behind the US blockade on Cuba have always been clear. As Lester Mallory, Deputy Assistant Secretary of State for Inter-American Affairs, wrote in 1960:

Every possible means should be undertaken promptly to weaken the economic life of Cuba. If such a policy [blockade] is adopted, it should be the result of a positive decision which would call forth a line of action which, while as adroit and inconspicuous as possible, makes the greatest inroads in denying money and supplies to Cuba, to decrease monetary and real wages, to bring about hunger, desperation and overthrow of government . . . the only foreseeable means of alienating internal support is through disenchantment and disaffection based on economic dissatisfaction and hardship.<sup>3</sup>

The blockade is thus aimed at making the material conditions of Cubans as difficult as possible, creating fertile soil for discontent in the Cuban revolutionary process to arise. However, the United States doesn't leave the arrival of discontent to chance. As Tracy Eaton from the *Cuba Money Project* has shown, the United States, through regime change fronts like the US Agency for International Development (USAID), the National Endowment for Democracy (NED), and the U.S. State Department, has spent more than one billion dollars funding Cuban opposition groups and media within and outside of the country.<sup>4</sup> This combination of blockade and opposition funding is a central component of the hybrid warfare against Cuba (as well as other victims of US imperialism).

Notwithstanding the formidable aggression bearing down on Cuba, the island has been able to achieve remarkable success in the fields of medicine, education, sustainable development, sports, etc. In this article, I will briefly highlight how the Cuban healthcare system functions, some of its successes, and how the blockade has affected Cuban medicine and stifled medical development both within Cuba and in the United States.

## Cuba's Socialist Healthcare System

Speaking to Cuban militias a few months after the revolution, Che, himself a physician by training, would say that

Medicine will have to convert itself into a science that serves to prevent disease and orients the public toward carrying out its medical duties. Medicine should only intervene in cases of extreme urgency, to perform surgery or something else which lies outside the skills of the people of the new society we are creating.<sup>5</sup>

“Such a profound social change demands,” he would argue, “equally profound changes in the mental structure of the people.”<sup>6</sup> Socialist society could not limit itself to creating changes in institutions and the material foundations of society, it is equally vital, as he famously says in *Socialism and Man in Cuba*, “to build the new man and woman.”<sup>7</sup> In the field of medicine, this required the formation of a new type of doctor, “a revolutionary doctor, that is to say a [person] who utilizes the technical knowledge of [their] profession in the service of the revolution and the people.”<sup>8</sup>



In the same year, Fidel Castro would remark that “the future of Cuba will be a future of [people] of science.”<sup>9</sup> This visionary statement was uttered on the heels of a massive exodus of professionals, where half of the doctors, as well as many of the teachers, had left the country. For instance, “only 12 of the 250 Cuban teachers at the University of Havana’s Medical School remained.”<sup>10</sup> For all the factors pointing otherwise, Fidel’s 1960 proclamation would become true, as today Cuba is the country with the most doctors per capita. This was not a coincidental development. Since 1959, the revolution reorganized the 1909-founded Ministry of Health and Welfare into the Ministry of Public Health (MINSAP), which created “a single, national, state-run health system that sets short, medium, and long-term policies.”<sup>11</sup> With its goal of training generations of humanistic medical professionals dedicated to the revolutionary process, Cuba eliminated university tuition, made textbooks free, developed various scholarship plans, and constructed networks of universities which created dozens of schools capable of educating professionals in every province of the country.<sup>12</sup> Universal

education and universal healthcare went hand in hand – the development of one was the condition for the development of the other.

Cuba's emphasis on universal education and healthcare within the socialist model allowed the country which lost half of its medical (and other) professionals to develop a surplus which participates in various internationalist missions, almost half of which are done for free (for the poorest countries of the global south), and the other half at a sliding scale.<sup>13</sup> Thanks to these internationalist missions (which have been ongoing since the first years of the revolution), millions of human beings from the poorest corners of the planet can say that "they owe their health, if not their lives, to Cuban professionals and the government which trained and sent them."<sup>14</sup>

By the middle of the 1970s, after several generations of doctors had been developed within the revolution, Cuba would institutionalize the polyclinic model, a staple of their innovative, community based, socialist healthcare. As Helen Yaffe writes,

A new model of community-based polyclinics was established in 1974 to deliver comprehensive care to residents in their neighbourhoods. Polyclinics gave Cuban communities local access to primary care specialists such as obstetricians, gynaecologists, paediatricians, internists and dental services. Training and policy emphasised the impact of biological, social, cultural, economic and environmental factors on patients.<sup>15</sup>

Far from the reductive and deterministic frameworks often found in Western capitalist medicine, Cuban healthcare emphasizes the dialectical relationship of the individual and their community and of the biological and the social. Such an integrative and relational framework allows for a more comprehensive approach to treatment. With the polyclinics and the 1984 "family doctor" programs, the integration of doctors within the individual's "everyday environment" allowed, as Che hoped, for the preventative and communal dimension of healthcare to thrive.<sup>16</sup>

The most interesting dimension of Cuban healthcare, in my view, is its emphasis on prevention. The emphasis on prevention stands as a pinnacle of medical practice, one which would seem like lunacy in the US. When profits are in command, why would anyone do something which might prevent more profits from being realized in the future? When people are what matters, like in Cuba, the goal of medical practice is almost self-destructive, in the sense that the aim is to destroy the conditions, i.e., the sicknesses, which make medical treatment necessary in the first place. The opposite is true when health care is subjected to the same logic as everything else under capitalism. Instead of its natural tendency for self-abolition, the tendency here is towards proliferation, i.e., towards developing more conditions for which treatment is required. The more treatment needed, the more profit there is to be made.

This puts the for-profit health care system found in the United States—the only developed country in the world without socialized medicine—in an irreconcilable antagonism with what the essence of medical care entails. It also creates fertile ground, as we saw with regards to the COVID vaccines, for a large portion of the population to develop medical and scientific skepticism. After all, if it is the same pharmaceutical industrial complex that, in collaboration with the US government, proliferated the criminal but profitable opioid crisis which kills

seventy thousand Americans yearly, it does not seem irrational for a portion of the population to lack trust in the same pharmaceutical industry's handling of the pandemic.<sup>17</sup> This absence of trust in medical institutions does not exist in Cuba, where people know that medicine's first and only goal is to serve the people. As Hippocrates (from whom we get the Hippocratic oath that is ingrained in every medical trainee in the United States) argued, "a physician's aim in dealing with any illness . . . should be to halt the conditions that promote its flourishing." It shouldn't be that, as for-profit health care promotes, those conditions are sustained or metamorphized into others so that profitable treatment may continue.<sup>18</sup>

Cuba's innovative, preventative, community-centered, and holistic approach to healthcare is the reason why, in spite of the tremendous material difficulties the blockade creates, Cuba is considered to have one of – if not the – most efficient healthcare system in the world. After sixty years of socialism, Cubans are amongst the healthiest and longest-living people in the world, living on average three years longer than Americans.<sup>19</sup> Besides the sixteen year increase in life expectancy the revolution has achieved since 1959, it has also had the largest reduction in infant mortality, from 6 to 0.41 percent, the lowest in the whole Western hemisphere.<sup>20</sup> "Infectious and contagious diseases like polio, malaria, neonatal tetanus, diphtheria, measles, rubella, mumps, whooping cough and dengue," which are frequently found in the poorest parts of the world, "have been eradicated."<sup>21</sup>

Cuban medical sciences, thanks to the importance and investment the state affords it, has made prodigious inroads in cancer, diabetes, HIV, and other areas of medical study.<sup>22</sup> With regards to lung cancer, perhaps the "best-known innovation is the CimaVax vaccine, created by researchers at the Havana's Center for Molecular Immunology (CIM), which acts on the growth factor of cancer cells to prevent the disease from spreading."<sup>23</sup> The most common cancer death is lung cancer, which killed around 1.8 million people worldwide in 2020.<sup>24</sup> With the US blockade in place, thousands of Americans are deprived of the prolongation and enhancement of their lives which the CimaVax vaccine would provide.<sup>25</sup> While clinical trials and collaboration had begun during the Cuban thaw, when Obama partially lifted the blockade, the full reinstatement of the blockade with Trump, and its continuation and proliferation with Biden, has once again removed the hope the Cuban vaccine could bring to the hundreds of thousands of Americans with lung cancer.<sup>26</sup>

Along with CimaVax, Racotumomab and VSSP are "promising cancer drugs invented by CIM."<sup>27</sup> As *Cuba Debate* reported,

Racotumomab targets a molecule that scientists believe is found in all cancer cells, meaning the drug could one day be effective against leukemia and the tumors that accompany lung, breast, colon and prostate cancers. VSSP, originally designed as a compound to activate the immune response to vaccines, also appears to stimulate the immune response against cancer.<sup>28</sup>

Recent research into VSSP has shown that it "significantly reduce[s] myeloid-derived suppressor cells (MDSC) among people with advanced kidney cancer," paving "the way for a new treatment" for the disease.<sup>29</sup>

In addition to its successes in cancer research, “in 2015, the World Health Organization recognized Cuba as the first country to eliminate the transmission of HIV from mother to child.”<sup>30</sup>This is a feat that Dr. Margaret Chan, at the time the Director-General of the WHO, said was “an important step towards having a generation free of AIDS.”<sup>31</sup>

Cuban medical sciences have also succeeded in developing what has been called the diabetes miracle treatment, Heberprot-P. As *Cuba Debate* reports,

When uncontrolled diabetes damages the nerves and blood vessels in a person’s foot, it can cause one of the disease’s most debilitating complications: diabetic foot ulcers, capable of penetrating the bone. These ulcers can even become gangrenous and, in the worst case, cause the amputation of a finger, foot or even a leg. Since 2006, Cuba has had a medicine for ulcers called Heberprot-P, which avoids the need to amputate. Its inventors, scientists from the Center for Genetic Engineering and Biotechnology in Havana, describe this treatment as “an epidermal growth factor” that is injected next to the affected area and can accelerate the skin’s healing process, closing the wound in about three months.<sup>32</sup>

Heberprot-P has shown nearly an 80 percent success rate in preventing amputation, an incredible fact considering that up to 60 percent of amputations lead to death within five years, and up to 80 percent within ten years.<sup>33</sup> In the United States, diabetes is the seventh most common cause of death, affecting more than one in ten adults, and prediabetes affecting one in three. Each year 1.4 million Americans are diagnosed with diabetes, and more than one hundred thousand die from the disease.<sup>34</sup> Nonetheless, Heberprot-P, a treatment which, according to Manuel Raíces, the Communications Executive at the Cuban Center for Genetic Engineering and Biotechnology (CIGB), could reduce the risk of US amputations in half, saving tens of thousands of lives a year, is prevented from being used in the US because of the blockade.<sup>35</sup>

## Hardships of the Blockade

Image: Cuban doctors and nurses getting ready to travel abroad, Havana, Cuba, April 2020. | Photo: Twitter/ @AlmaCubanita



For thirty consecutive years the United Nations General Assembly has voted in favor of lifting the US blockade on Cuba.<sup>36</sup> In the recent vote in November 2022, 185 countries voted in favor of lifting the blockade, and only two countries, the United States and Israel, voted in favor of sustaining the blockade.<sup>37</sup> It is estimated that the last sixty years of the US blockade

has cost Cuba 1.3 trillion dollars.<sup>38</sup> It is impossible to overestimate how difficult this has made the construction of socialism in Cuba, and the development of their healthcare system and medical sciences in particular.

As Cuba's Ministry for Public Health reports,

[Cuba] is denied the right to acquire technologies, raw materials, reagents, diagnostic means, medicines, devices, equipment and spare parts necessary for the best functioning of its National Health System, which must be obtained in geographically distant markets or through a third country, with an increase in costs.

Technologies from the United States or with more than 10 percent of components from that country cannot be acquired by the Island, which has a negative impact on healthcare.

In some cases, it is necessary to send patients abroad at a much higher cost than doing the procedure in national territory, if the technology were available.<sup>39</sup>

There are a plethora of examples to point to where the blockade prohibits Cuba from accessing medicine, technologies, equipment, etc. that it would need to save or improve the lives of hundreds of thousands of Cubans. American companies and manufactures with more than 10 percent of American capital backing it frequently ignore, and sometimes explicitly reject, Cuba's requests for purchasing their products. For instance, as Cuba reported to the United Nations:

From January to July 2021, the Medical Products Import and Export Company (MEDICUBA S.A.) contacted 65 US companies to inquire about the possibilities of importing medicines, equipment, devices and other supplies necessary for the care of the Cuban people through the national health system. Of these, 56 did not respond to the requests of the Cuban entity, and three responded negatively (OWENS & MINOR, INC., MERCURY MEDICAL and ELI LILLY).

The OHMEDA, GENERAL ELECTRIC and HEWLETT PACKARD Companies were asked for multipurpose mechanical ventilators for newborns and infants, as well as multipurpose cardiomonitors (which include blood pressure monitoring, among other parameters). Its acquisition has yet to be made possible.

In the same way, the ONE-LAMBDA Company was asked for kits for HLA typing, essential to determine the compatibility of a kidney transplant candidate with possible donors; they could not be acquired either.<sup>40</sup>

"Some 158,800 Cuban patients," the report argues, "are harmed by the impossibility of accessing technology for the implantation of percutaneous aortic valves (TAVI)" which would, through a "small surgical procedure," greatly improve people's quality of lives and prevent more complex surgeries and longer hospitalizations.<sup>41</sup> American companies such as EDWARD LIFESCIENCE (Edwards-SAPIEN valve) and MEDTRONIC (CoreValve valve) have control over the TAVI valves and, because of the blockade, prohibit Cuba from access.

Likewise, "if Cuba could access the drug Nusinersen, produced only by the US multinational company BIOGEN," more than half of its children who struggle with infantile spinal atrophy

could survive much longer and attain a better quality of life.<sup>42</sup>

The IQ 577 Laser System model, produced by the US company IRIDEX CORPORATION, could treat “retinal disorders and glaucoma” for dozens of Cuban babies born with retinopathy from prematurity who are at risk of going blind; because of the blockade, those Cuban babies will not be able to receive that treatment.<sup>43</sup>

In many instances, additional licenses are required to sell to Cuba, even when the companies are not American and have less than 10 percent of American capital. As the Cuban Ministry for Public Health reports, shortages were caused in blood bags because the usual supplier, UNFAMED, “reported that the company Terumo BCT of Japan had its bank account blocked, since they must have an Additional License that allows them to sell to Cuba products that are not produced in the United States.”<sup>44</sup>

The “US’s exploitation of the pandemic to increase pressure for regime change” also affords a variety of examples for how the blockade affects Cuban healthcare.<sup>45</sup> For instance, at the height of the pandemic, while WHO chief Tedros Adhanom Ghebreyesus asked for countries to put their sanctions “in quarantine” because “thousands of lives are at stake,” the US company Vyaire Medical bought ventilator manufacturers IMTMedical and Acutronic, immediately banning all sale of ventilators to Cuba.<sup>46</sup> Around the same time, Jack Ma’s foundation tried to send Cuba one hundred thousand facemasks, ten Covid diagnostic kits, ventilators, and gloves, all of which was stopped by Avianca, a Colombian Airline whose “major shareholder is a U.S.-based company subject to the trade embargo on Cuba.”<sup>47</sup> Similarly, the donations from Swiss solidarity organizations MediCuba-Suiza and Asociación Suiza-Cuba to help Cuba fight COVID were refused to be transferred by the Swiss banks UBS, Cler, and Cantonal Bank of Basilea.<sup>48</sup>

While Cuba was helping the world fight COVID-19 through the Henry Reeve Brigade (for which it was nominated for the Nobel Peace Prize), the United States was busy preventing the world from helping Cuba, banking on the pandemic-blockade dual force to fulfill the conditions Lestor Mallory proposed for regime change.<sup>49</sup> Despite the difficulties, Cuba was able to develop five viable vaccines, vaccinating over 90 percent of its population, and delivering hundreds of millions of doses to the global south free of charge.<sup>50</sup> However, because of the US blockade, the early days of the pandemic saw Cuba lacking access to the syringes needed to effectively vaccinate its population with the vaccines it developed.<sup>51</sup>

The internationally denounced blockade on Cuba by the United States is a gross violation of human rights, one which affects both Cubans and the hundreds of thousands of Americans who would have better quality of lives, and even their lives saved, had the United States not prevented their people from having access to novel treatments in cancer, diabetes, and advances in other fields of research developed by Cuban scientists. The spirit of science and scientific inquiry is nourished with openness and collaboration. The US blockade prevents this from occurring, stifling scientific progress.

However, if there is something the last sixty years have demonstrated, it is that the Cuban people are committed to their revolutionary process and unwilling to compromise their socialism and sovereignty. Lestor Mallory’s hope for the blockade would not bear fruit. Even

in the periods where the US warfare on Cuba has produced the most formidable of challenges in attaining the necessary materials to ensure the subsistence of the Cuban people, the mass of Cubans have brazenly defended the revolutionary process, with the slogan of their Bronze Titan Antonio Maceo engraved on their chest: "Whoever tries to take over Cuba will only collect the dust of their blood-soaked soil, if they do not perish in the fight."<sup>52</sup> With the initial goal of the blockade unable to concretize, the only reason for its proliferation is to perpetuate senseless suffering, both of Cuban and American people. As those who recognize the emancipatory potential of science and believe that science should serve the people, we have a duty to stand in solidarity with the Cuban people and mobilize to #EndtheBlockade on Cuba.

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## Notes

1. Salim Lamrani, "Cuba's Health Care System: A Model for the World," *HuffPost*, August 8, 2014, [https://www.huffpost.com/entry/cubas-health-care-system\\_b\\_5649968](https://www.huffpost.com/entry/cubas-health-care-system_b_5649968).
2. Amnesty International, *The US Embargo Against Cuba: Its Impact on Economic and Social Rights* (Amnesty International, London: 2009), <https://www.amnesty.org/en/wp-content/uploads/2021/08/amr250072009en.pdf>.
3. "499. Memorandum From the Deputy Assistant Secretary of State for Inter-American Affairs (Mallory) to the Assistant Secretary of State for Inter-American Affairs (Rubottom)," US Department of State, April 6, 1960, <https://history.state.gov/historicaldocuments/frus1958-60v06/d499>.
4. Iroel Sánchez, "Con Tracey Eaton: Rastreando los millones para cambiar a Cuba," *Cuba Debate*, June 26, 2015, <http://www.cubadebate.cu/noticias/2015/06/26/con-tracey-eaton-rastreando-los-millones-para-cambiar-a-cuba/>.
5. Ernesto Guevara, *Che Guevara Reader: Writings on Politics and Revolution* (New York: Ocean Press, 2003), 114.
6. Guevara, *Che Guevara Reader*, 115.
7. Guevara, *Che Guevara Reader*, 217.
8. Guevara, *Che Guevara Reader*, 113, <https://www.marxists.org/archive/guevara/1965/03/man-socialism.htm>;
9. Helen Yaffe, *We Are Cuba: How a Revolutionary People Have Survived in a Post-Soviet World* (Great Britain: Yale University Press, 2020), 124.
10. Yaffe, *We Are Cuba*, 125.
11. Juan Vela-Valdéz et al., "Formación del capital humano para la salud en Cuba," *Pan American Journal of Public Health* 42, no. 33 (2018), <https://doi.org/10.26633/RPSP.2018.33>.
12. Valdéz, "Formación del capital humano para la salud en Cuba," 2.



13. Manish Rai, "Cuba Has 9 Doctors Per 1000 Citizens, Highest in Its History," *teleSUR*, July 23, 2019, <https://www.telesurenglish.net/news/cuba-cuban-doctors-highest-number-in-history-20190723-0009.html>; Yaffe, *We Are Cuba*, 68–69.
14. Yaffe, *We Are Cuba*, 173.
15. Yaffe, *We Are Cuba*, 127.
16. Aviva Chomsky, *A History of the Cuban Revolution* (West Sussex: Wiley Blackwell, 2015), 50.
17. Scott E. Hadland et al., "Association of Pharmaceutical Industry Marketing of Opioid Products With Mortality From Opioid-Related Overdoses," *JAMA Network Open* 2, no. 1 (2019): e186007, <https://doi.org/10.1001/jamanetworkopen.2018.6007>; Jonathan H. Marks, "Lessons from Corporate Influence in the Opioid Epidemic: Toward a Norm of Separation," *Journal of Bioethical Inquiries* 17, no. 2 (2020): 173–189, <https://doi.org/10.1007%2Fs11673-020-09982-x>.
18. Philip Wheelwright, *The Presocratics* (Indianapolis: The Odyssey Press 1975), 266.
19. "Esperanza de vida en Cuba asciende a 78,45 años," *Cuba Debate*, May 26, 2015, <http://www.cubadebate.cu/noticias/2015/05/26/esperanza-de-vida-en-cuba-asciende-a-7845-anos/>; Rob Minto, "Americans Can Now Expect to Live Three Years Less than Cubans," *Newsweek*, September 02, 2022.
20. Fidel Castro, "Cuba's achievements and America's Wars," May 01, 2003, *Marxist Internet Archive*, <https://www.marxists.org/history/cuba/archive/castro/2003/05/01.htm>; "Cuba: Infant mortality rate from 2010 to 2020," *Statistica*.
21. Castro, "[Cuba's Achievements and America's Wars.](#)"
22. "Con homenaje a Fidel, clausurado Universidad-2016 (+ Fotos y Video)," *Cuba Debate*, February 19, 2016, <http://www.cubadebate.cu/noticias/2016/02/19/con-homenaje-a-fidel-clausurado-universidad-2016/>.
23. "Tres grandes logros de la medicina cubana," *Cuba Debate*, April 09, 2016, <http://www.cubadebate.cu/especiales/2016/04/09/tres-grandes-logros-de-la-medicina-cubana/>.
24. "Cancer," *World Health Organization*, February 03, 2022, <https://www.who.int/news-room/fact-sheets/detail/cancer>.
25. "Governor Cuomo Announces First-Ever Biotech Venture Between U.S. and Cuba to Research and Develop New Cancer Treatments," *Roswell Park Comprehensive Cancer Center*, September 26, 2018, <https://www.roswellpark.org/newsroom/201809-governor-cuomo-announces-first-ever-biotech-venture-between-us-cuba-research>.
26. "[Governor Cuomo Announces First-Ever Biotech Venture Between U.S. and Cuba.](#)"; Dylan Manshack, "Americans could beat lung cancer if U.S. lifted blockade of Cuba," *Peoples World*, December 16, 2022, <https://peoplesworld.org/article/americans-could-beat-lung-cancer-if-u-s-lifted-blockade-of-cuba/>.
27. "[Tres grandes logros de la medicina cubana](#)," *Cuba Debate*.
28. "[Tres grandes logros de la medicina cubana](#)," *Cuba Debate*; Mariano R. Gabri et al., "Racotumomab for Treating Lung Cancer and Pediatric Refractory Malignancies," *Expert Opinion on Biological Therapy* 16, no. 4 (2016): 573–78, <https://doi.org/10.1517/14712598.2016.1157579>.
29. Pavel López Lazo, "Roswell Cancer Center praises Cuba's VSSP cancer drug effectiveness," *Prensa Latina*, October 06, 2022, <https://www.plenglish.com/news/2022/10/06/roswell-cancer-center-praises-cubas-vssp-can>

- [cer-drug-effectiveness/](#).
30. Victor Román, “Los aportes científicos más importantes que Cuba le ha dado a la medicina,” *N+1*, April 21, 2018, <https://nmas1.org/news/2018/04/22/medicina-cuba-ciencia#:~:text=Los%20aportes%20cient%C3%ADficos%20m%C3%A1s%20importantes%20que%20Cuba%20le,...%203%20Bajas%20tasas%20de%20mortalidad%20infantil%20>.
  31. Victor Román, “[Los aportes científicos más importantes que Cuba le ha dado a la medicina.](#)”
  32. “[Tres grandes logros de la medicina cubana,](#)” *Cuba Debate*; Jorge Berlanga-Acosta et al., “Heberprot-P: A Novel Product for Treating Advanced Diabetic Foot Ulcer,” *Medicc Review* 15, no. 1 (February 10, 2013), <https://doi.org/10.37757/MR2013V15.N1.4>.
  33. “Treatment For Diabetic Foot Ulcer Utilizing Heberprot-P,” *Cuba Heal*, December 11, 2018, <https://www.cubaheal.com/2018/12/11/treatment-for-diabetic-foot-ulcer-heberprot-p/>; Bernard Pac Soo et al., “Survival at 10 years following lower extremity amputations in patients with diabetic foot disease,” *Endocrine*, 69, no. 1 (July 2020): 100–106, <https://doi.org/10.1007/s12020-020-02292-7>.
  34. “[Type 2 Diabetes Statistics anAge of Onset for Type 2 Diabetes: Know Your Riskd Facts,](#)” Healthline; Chad Terhune and Robin Respaut, “Exclusive: U.S. Diabetes Deaths Top 100,000 for Second Straight Year,” *Reuters*, January 21, 2022, <https://www.reuters.com/world/us/exclusive-us-diabetes-deaths-top-100000-second-straight-year-federal-panel-urges-2022-01-31/>.
  35. “Cuba Has a Diabetes Treatment That Could Save Tens of Thousands of Lives, But the US Is Blocking It,” *Breakthrough News*, December 13, 2022, <https://www.youtube.com/watch?v=MWTzggRRMAU>.
  36. Manish Rai, “185 Countries Pass Resolution Against US Blockade of Cuba,” *teleSUR*, November 3, 2022, <https://www.telesurenglish.net/news/185-Countries-Pass-Resolution-Against-US-Blockade-of-Cuba-20221103-0009.html>.
  37. Owen Schalk, “Global Community Condemns US Blockade of Cuba for 30th Time,” *Canadian Dimension*, November 4, 2022, <https://canadiandimension.com/articles/view/global-community-condemns-us-blockade-of-cuba-for-30th-time>.
  38. Vijay Prashad, “Washington Beats the Drum of Regime Change, but Cuba Responds to Its Own Revolutionary Rhythm: The Twenty-Ninth Newsletter (2021),” *Midwestern Marx Institute for Marxist Theory and Political Analysis*, July 23, 2021, <https://www.midwesternmarx.com/articles/washington-beats-the-drum-of-regime-change-but-cuba-responds-to-its-own-revolutionary-rhythm-the-twenty-ninth-newsletter-2021-by-vijay-prashad>; Carlos L. Garrido, “Anti-Government Protests in Cuba Provoked by U.S. Embargo Has Right-Wingers Salivating at the Prospect of Regime Change,” *CovertAction Magazine*, August 12, 2021, <https://covertactionmagazine.com/2021/08/12/anti-government-protests-in-cuba-provoked-by-u-s-embargo-has-right-wingers-salivating-at-the-prospect-of-regime-change/>.
  39. “Bloqueo estadounidense provoca cuantiosas pérdidas al sector de la salud,” Ministerio de Salud Pública de la República de Cuba, July 01, 2021, <https://salud.msp.gob.cu/bloqueo-estadounidense-provoca-cuantiosas-perdidas-al-sector-de-la-salud/>.
  40. “Salud pública cubana: impacto negativo del bloqueo para su Desarrollo,” Representaciones Diplomáticas de Cuba en el Exterior, February 10, 2022, <https://misiones.cubaminrex.cu/es/articulo/salud-publica-cubana-impacto-negativo-del-bloqueo-para-su-desarrollo-0>.

41. "[Salud pública cubana](#)," Representaciones Diplomáticas de Cuba en el Exterior.
42. "[Salud pública cubana](#)," Representaciones Diplomáticas de Cuba en el Exterior.
43. "[Salud pública cubana](#)," Representaciones Diplomáticas de Cuba en el Exterior.
44. "[Bloqueo estadounidense provoca cuantiosas pérdidas al sector de la salud](#)," Ministerio de Salud Pública de la República de Cuba.
45. Garrido, "[Anti-Government Protests in Cuba Provoked by U.S. Embargo](#)."
46. "US blocks sale of ventilators to Cuba after acquiring medical companies," *Morning Star*, <https://morningstaronline.co.uk/article/w/us-blocks-sale-ventilators-cuba-after-acquiring-medical-companies>.
47. Michael Weissenstein, Cuba: US embargo blocks coronavirus aid shipment from Asia," *AP News*, April 3, 2020, <https://apnews.com/article/virus-outbreak-global-trade-cuba-united-states-jack-ma-2858fbaa2dd5460fa2988b888fc53748>.
48. "[Bloqueo estadounidense provoca cuantiosas pérdidas al sector de la salud](#)," *Ministerio de Salud Pública de la República de Cuba*.
49. Socorro Gomes and Thanassis Pafilis, "Nobel Peace Prize nomination for the 'Henry Reeve' International Contingent of Doctors," *World Peace Council*, September 22, 2020, <https://www.wpc-in.org/statements/nobel-peace-prize-nomination-henry-reeve-international-contingent-doctors>.
50. "Cuba's COVID-19 vaccine success could serve as global model: report," *Harvard School of Public Health*, November 03, 2022, <https://www.hsph.harvard.edu/news/hsph-in-the-news/cubas-covid-19-vaccine-success-could-serve-as-global-model-report/>; Sam Meredith, "Why Cuba's extraordinary Covid vaccine success could provide the best hope for low-income countries," *CNBC* January 13, 2022, <https://www.cnbc.com/2022/01/13/why-cubas-extraordinary-covid-vaccine-success-could-provide-the-best-hope-for-the-global-south.html>; "Despite U.S. Embargo, Cuba Aims to Share Homegrown Vaccine with Global South," *Democracy Now*, January 27, 2022, [https://www.democracynow.org/2022/1/27/cuba\\_beat\\_covid\\_despite\\_us\\_embargo](https://www.democracynow.org/2022/1/27/cuba_beat_covid_despite_us_embargo).
51. Chris Agee, "Under Pandemic, United Nations Votes to Condemn Cruel and Illegal U.S. Blockade of Cuba—But There Is A Twist," *CovertAction Magazine*, June 24, 2021, <https://covertactionmagazine.com/2021/06/24/under-pandemic-united-nations-votes-to-condemn-cruel-and-illegal-u-s-blockade-of-cuba-but-there-is-a-twist/>.
52. Carlos L. Garrido and Edwards Liger Smith, "Pioneers for Communism: Strive to Be Like Che," *The International Magazine Issue 25*, 18.

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