

Universal public health systems and the cuban experience in the face of the Covid-19 pandemic

Sistemas públicos universais de saúde e a experiência cubana em face da pandemia de Covid-19

Los sistemas público universales de salud y la experiencia cubana ante la pandemia Covid-19

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Interviewees

- Dr. Ileana Morales Suárez. National director of Science and Technological Innovation for the Public Health Ministry of Cuba
- Dr. Francisco Alberto Durán García. National director for Epidemiology in Cuba



- Dr. Rolando Pérez Rodríguez. Science and Innovation director of BioCubaFarma.
- Dr. Soraya Alonso Sánchez. Master in Community Intervention in the Corrective Processes of Daily Life
- Dr. Daniel González Rubio, Instituto de Medicina Tropical “Pedro Kouri” (IPK). Master in Clinical Infectology and Tropical Diseases
- Dr. Ricardo Pereda González. Intensive care physician, part of the National Group of Science and Research

Introduction

At the end of these interviews, February 2021, Cuba had just over 44,000 cases of infection and 296 deaths from Covid-19¹. With a population of around 11 million, there are 21.62 times fewer cases per million than the United States – the country with the highest number of infected people – and 57.68 times less deaths per million, considering about 498 thousand death in the United States¹. In comparison, Brazil, at the time had more than 47 thousand cases per million (12.16 times more than the Caribbean island) and 1.15 thousand deaths per million (44.38 times more)¹. These data place Cuba among the nations with the best performances in facing the pandemic caused by Sars-Cov-2.

Experiencing an unprecedented health crisis in Brazil, it's of utmost importance to deepen the understanding of the strategies that enabled Cuba to achieve results such as those mentioned above, reflecting on and debating with, and about, the Brazilian experience of facing the pandemic.

To this end, between June and December 2020, we conducted three rounds of interviews with officials from the Ministry of Public Health (Minsap) and Cuban academics. As a subsidy, we previously carried out a review of scientific articles, journalistic materials and institutional documents around the issue to be investigated. The interviews were conducted by videoconference, through a semi-structured script of questions previously sent to the interviewees (two to three per session). They had the opportunity to respond to our inquiries based on an initial presentation and, in an ongoing act, sought to answer the questions and, or, the comments of the researchers.

The text we presented sought to express the content derived from the interviews. We carried out an editorial work that sought to be as reliable as possible to the transcriptions of the video recordings and audios of the interviews. Graphics sent by the interviewees, after our meeting, were included.

To ensure the flow of ideas, we chose to build a text with a composition of the interviewees' speeches, according to the theme in question, that's why we do not quote them by name most of the time. Exception to the rule appears in the questions that highlighted the speech of one of the interviewees and / or that it was important to mention the interlocutor's standpoint, as was the case of questions that sought to inquire about the role of women in facing the pandemic and how they are affected by the process.



Due to space limitations, we chose to include some questions / answers and not others, having as criteria the relevance and consistency of the answers obtained during the investigation period, among them: role of the State and the government; integration and articulation efforts of sectors of the Cuban society in confronting the pandemic; relations between services-sciences-biopharmaceutical production; the role of the health system – and specially, of the Primary Health Care (PHC); the importance of epidemiological investigations and the bond and sustained partnership among healthworkers and families and local communities; and reflections on the impacts and contributions of women in this process of social and health crisis.

In the conclusion, we comment on aspects of the Cuban experience that we believe can contribute to the strengthening of public and universal health systems. We highlight the scope and multiplicity of strategies and actions implemented and the search for their coordination and articulation. Among these actions, we make, in this space, a brief mention of the theme of vaccine development against Covid-19, having as sources the interviewees' speeches, updated by media reports, institutional documents and published articles.

Initial strategies for facing the pandemic

Initially, we would like you to tell us about the decisions and strategies – especially in the initial period, of coping with the Covid-19 pandemic in Cuba, reflecting on the role of the government and institutions in this process. You could also explore the globally important debate concerning the role of women in facing the pandemic?

Dr^a. Ileana M. Suárez: Allow me to comment, first, on the second part of your question. Evidently around the world we have women taking charge over the pandemic. Now, we believe that the Cuban woman's way of fighting, her way of structuring this organized battle to face Covid, places women in all areas of action and we have many companions on the front lines in this fight.

We have a large number of comrades who are in the very first row of the management of Science, in university centers of studies and research, and very proud that the comrades are also in polyclinics, in the directorate of hospitals and health units. They are walking on the streets every day. The group of scientists I am coordinating, which has a great number of people, has approximately 70% of women— in Covid's research projects more than 60% are women. So I tell you, this was really a battle fought by women who took charge. I believe that it is because in Cuba everyone knows the power that women have, from participating in the revolution to all social achievements. And we are very proud to represent them here, being able to speak broadly of female participation in all the issues that you mentioned.

With regard to specific aspects related to strategies for coping with the pandemic, a question that has been asked of us by several people from different countries, and which consider it important to answer from the outset: “in addition to the political will of their governments, a factor that is decisive in the response that the different countries have constituted, is the robustness (or not) of their own health systems”.

In our experience, we were able, through different fronts of action, to respond to the pandemic very early. With a political decision that involved government, state structures, scientists and the population, a national and intersectoral plan of measures was drawn up – which started in late December 2019 and was detailed throughout January 2020. This made it possible that on January 30, the same day that the WHO declared a state of international emergency, Cuba was approving a plan, with about five hundred measures of very strict health requirements, which included and sought to coordinate the participation of different institutions and bodies in the said process. This process has been updated at all times, according to the situation, as shown in Figure 1.

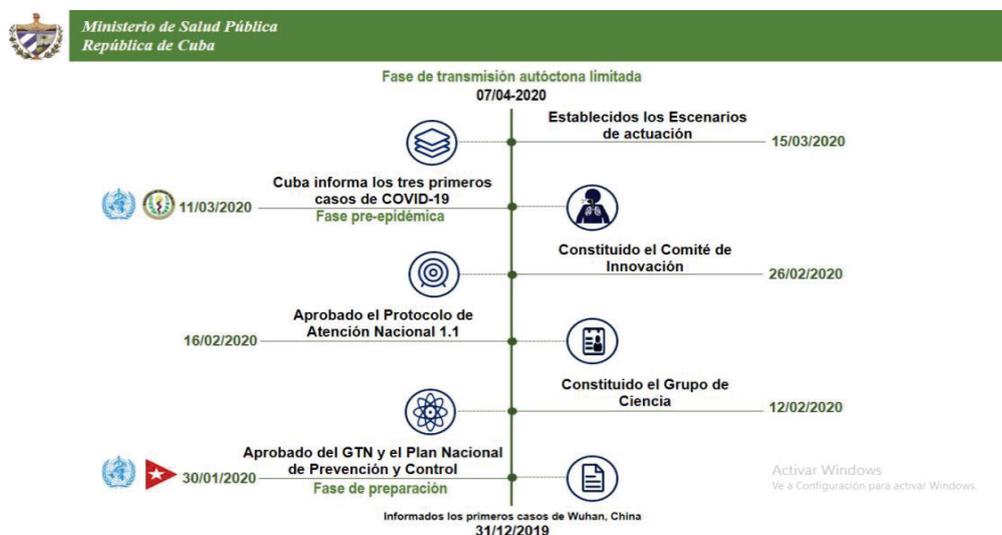


Figure 1. Chronology of actions - Minsap

In this context, measures were taken based on a very solid health system, covering the entire population, which provides comprehensive coverage for the health needs of all. Measures that have been carried out mainly around, and originating from, the Primary Health Care (PHC), which, you know, here is very solid.

That is why we always say that if we did not have this stronghold of more than 60 years, which is the health system of Cuba, a complete structure that operates from the national level to the communities, we would not be able to implement the set of health care actions, prevention and control of Covid-19, which largely explains the results achieved.

Another important axis of our action plan is around scientific research, innovation and Cuban biotechnological production. On February 12, 2020, a month before of our first case, which was on March 11, we created a scientific group designed



to subsidize the fight against the Covid-19 pandemic, the Covid-19 Innovation Committee. Comprised of managers and academics of notable prestige in Cuba, the committee has guided its performance in the daily articulation of the needs and contributions of different sectors with central importance in facing the pandemic, among which it is worth mentioning scientists who work with the biotechnology industry, industrial developers, health professionals and teachers.

Linked to this committee, we created an executing group. This group, it should be mentioned, coordinates investigations with universities and, if necessary, the group's regulatory authorities can evaluate projects that demand urgent responses, in order to expand and qualify the confrontation of the pandemic. Without giving up scientific rigor, they can authorize clinical trials and the introduction of inputs and technologies, as well as evaluate research results quickly.

Social, sanitary and care strategies

Can you comment on the socio-sanitary strategies and conduct protocols that guide the confrontation against Covid-19 in Cuba?

In the diagram below (Figure 2), we summarize our socio-health strategies for coping with the pandemic and comment on them.

It should be noted, beforehand, that our protocol is based on the country's epidemiological chain, which means that it is not only an instrument for the management of cases, but also an instrument for the adoption of a series of epidemiological actions. We can mention, for example, case investigation, early diagnosis, identification of the most vulnerable patients, amongst other things.

In fact, it is a national protocol that all units in the country must follow. This allows to standardize the conducts to be taken between different teams of doctors and different health teams.

Of course, it is not a straitjacket for each patient, because each has their own particular issues. So, it is a national protocol, but it adapts to each case, to the particular issues of each one. In this sense, physicians guided by the protocol must act autonomously, seeking to answer the unique questions and situations that affect different patients. They must act independently in the face of each individual's particular occurrences.

We illustrate below our clinical, epidemiological and management strategies that we have been in place to face Covid-19. After the graphic illustration, I will discuss some of its relevant aspects (see Figure 2).



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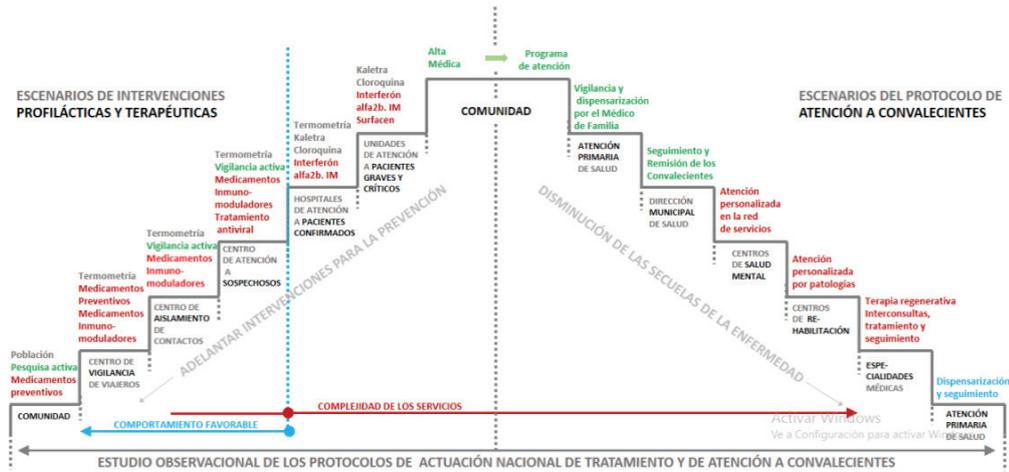


Figure 2. Social, sanitary and epidemiological strategies - Minsap

In the scheme, it is important to note that the actions are always carried out “from the community and towards the community”. And this does not conflict with the clinical and epidemiological management of the pandemic, on the contrary, it is possible to observe that we are in favor of a comprehensive model for coping with Covid, which highlights equally: epidemiological management, clinical management of the cases, and the very important management of Science, which supports the first two. Because the two pillars here are epidemiological management and clinical management, and underneath, as a common factor, the management of Science that supports the first two.

This whole process has been carried out in parallel to a great effort of overcoming and qualifying all the human resources of the system and different organisms. The first thing we did was to prepare people for this, strengthening organizations in order to guarantee the quality and safety of the actions to be undertaken.

We seek to deepen and qualify one of the historical priorities of the Cuban health system – the people working in it. Today, there are more than 250 thousand professionals, and the system accounts for one of the highest proportions of doctors and nurses per inhabitant in the world. It is also worth mentioning that this model is supported by a system of continuous, transparent and permanent statistical information to which we offer great value. And, we reaffirm, all of this is part of a broad model of government management that takes into account Science and the participation of all bodies, with a technical group from Minsap as manager.

The management of Science is a preponderant factor, to start therapeutic alternatives in study protocols and also to discard them (insofar as the scientific evidence becomes solid against its recommendation). It was the case of chloroquine, which is still present in this initial graph (Figure 2).



In relation to the strategies contained in the protocol of actions in Cuba (Figure 2), can you detail the scenarios of interventions to which you refer?

Yes, in Cuba we bet, for the control of epidemics, on some central measures. First, active search for cases, which carries endless tasks: active search, self-reported information, and so many others. It is worth remembering that in Cuba we do not sit in an office or in a hospital waiting for a case to arrive. We go to people's homes to look for them, and this is an important concept in our philosophy. Why seek the cases? Because this disease has a high percentage of asymptomatic patients, that is why it is very important to "seek, seek and seek".

Second, timely isolation. Here everyone who has to isolate themselves, isolates themselves. If you have been in contact with the virus, you can be at home or at the Health Center, isolating yourself with a very strict isolation protocol.

Third, early and timely care. This is expressed in a scale of actions in which we have as an intervention axis a philosophy in which we seek that people do not get sick; if they get sick, don't get worse; and if they get worse, don't die '! This thinking is what guides us, for example, to the treatment of the most vulnerable people – elderly people in nursing homes, people with disabilities and people with severe mental suffering. We use many of the socio-sanitary and epidemiological measures mentioned here, as well as innovative medicines that have shown positive results, with regard to disease prevention and / or the development of moderate, severe and critical conditions. All object of rigorous scientific studies.

And, finally, a fundamental measure is the active, conscious and responsible participation of the whole community. Communities that are the origin, means and purpose, ultimately, of all health actions.

In summary: active research, timely isolation, early and timely treatment, and community participation are the central axis of the prophylactic, therapeutic and convalescent interventions that we seek to implement in Cuba.



Prevention, early treatment and the care of convalescent patients

In relation to preventive interventions and monitoring of infections, diseases and complications, can you go deeper into the details of the search / investigation of cases and isolation?

In relation to the active investigation of cases, we have developed a comprehensive set of interventions through different types of actions.

One of them is the face-to-face survey carried out by the members of the Health team, in which family doctors and other doctors, nurses and medical students conduct active research in each of the places where there is greater complexity, or in places that already have different epidemiological profiles, regardless of the epidemic. Then we go from house to house looking for symptomatic patients, isolating them immediately and implementing the entire protocol, when appropriate.

There is also a modality that is the virtual search made by an app, created in the Infomed Center of our Ministry with colleagues from information technology. With this app on their mobile phones, people can enter their data (general information, location and symptoms) and all this appears in the in the centers of each municipality, for every province, and here at Minsap; consequently, depending on the person's characteristics, a visit is quickly made in their Health area, in their polyclinic and, then, a doctor visits them to make the diagnosis. If there is a suspicion of Covid-19, the person is immediately isolated.

These are the strategies used for the search, but there is something else that we have already commented on above: we also carry out an epidemiological surveillance, taking into account the experience with SARS and the H1N1 epidemic. We detect people who have acute respiratory conditions, that appear to stem from Covid-19, but that may be due to other viruses, such as influenza or syncytial, and perform immediately a PCR test, in order to detect the presence or not of Covid-19.

The other action was the closing of the borders. At the beginning, when this decision was made, in mid-March and April 2020, people who were still arriving in the country were taken to an isolation center, placed in quarantine, initially for 14 days, then we moved on to 10 days, and then a PCR was performed and subsequent procedures were performed.

It should be noted that these procedures are still being carried out with those arriving from our humanitarian flights, bringing personnel from our cooperation missions to confront Covid – which Cuba has carried out with other countries. In these cases we have to detect the infection quickly and, when appropriate, prevent the disease.

This covers a large number of people, looking not only for places where the disease is transmitted, but also for places that we call silent [silentes], which are places where there are no cases and apparently there is no epidemiological complexity.



Regarding the isolation of suspicious contacts and confirmed cases – which occur side by side with the search for cases –, we would highlight that, when necessary, we take a set of very strict measures from the point of view of the restriction. We bet on strict isolation in the case of a suspicion, that is, those who have some symptoms of the disease. In addition, if there is any relevant epidemiological aspect, they are also isolated.

With these people we carry out epidemiological studies of each suspected case and each confirmed case, and isolate all contacts, first and second order, who have had encounters in the last 15 days - which is done immediately. In these people, at a given moment, PCR is performed to determine whether they are infected or not. If they were infected, we proceeded to the daily protocol of confirmed cases; if they were not infected, they go to their communities, but with a request for quarantine at home; from there, they are accompanied by family doctors.

Considering the controversies that have risen regarding treatment around the world, how has the experience in the use of biopharmaceuticals been to support preventive and assistance actions in the Covid-19 pandemic?

Taking into account the development of the Cuban biopharmaceutical industry, we have been carrying out a program of investigations and interventions using medicines produced, for the most part, in Cuba. This program is coordinated by Minsap and includes the Cuban pharmaceutical industries. It encompasses all stages of the disease and those that precede it, as well as the management of convalescent patients, aiming to mitigate the *sequelae* that may result from the disease. With that, we seek to study and allow the timely use of different drugs when they are needed.

These interventions, which we believe to be decisive, took place very early, on April 3rd 2020, when we started a preventive intervention with the use of a Cuban drug, an immunomodulator called Biomodulina, which we administered in 12 doses to all the elderly, older adults living in Homes for the Elderly and people with special needs in Psychopedagogical Centers. We also administered it to all psychiatric patients in Cuba. These are all groups of special vulnerability. It is also worth mentioning that we have sought to protect immunodeficient children carriers of diseases, with good results. We use the Transfer Factor, which is an immunopotentiating medication. At the time (August 2020), we managed to have no positive cases and no deaths in the group mentioned above, to which we administered Biomodulin.

It is also worth noting that, over time, as we continue to expand our knowledge about the pathology, and about the disease in its different stages, we have been deepening our investigations about the use, the indications and contraindications of the drugs mentioned. Actually, we are constantly improving our clinical protocol as the scientific evidence is consolidated. Recently, for example, we have updated the classifications for contamination, in order for the characterizations to be more precise and, consequently, readjusting clinical protocols. Likewise, taking the evidence for efficacy or risk into account, when it is the case, we discard some drugs, such as Chloroquine and Ivermectin, and invest in others, such as Itolizumab, Heberferón / Heberón and Jus-vinza.



After hospital discharge, what has been done to reduce the long term effects a *sequelae* that remain? What monitoring does the Cuban health system dedicate to convalescents?

Research and clinical studies from different countries, including Cuba, ratify the permanence of *sequelae* in those who were infected. However, its magnitude, complexity and prevalence over time is not yet precisely known.

In our investigations we are observing that the *sequelae* may appear regardless of age, sex, skin color and progression of the disease, although in the first reports they were more often associated with critically ill patients. Moreover, among the various complications detected so far, the preliminary results of the ongoing research shows that lung damage has been the most common *sequelae*. As for the neurological consequences, the most persistent are headaches and lack of taste and smell. In some patients a subclinical inflammation is detected, as well as liver and heart damage. Concerning the psychological and social sphere, analyzes show that the symptomatic manifestations of anxiety and / or depression are the most common, with a presence in 52% of the cases studied.

Thus, trying to reduce these effects and improve the quality of life of these people has been one of the main challenges faced by Cuban health care providers. The treatments includes community surveillance, psychological support, rehabilitation, regenerative therapy and monitoring by various specialties.

Amidst this process, the doctor's office and the family nurse are not only the backbone of any fight against the virus, but also central to the care of convalescent patients. When Covid-19 patients are discharged, they are accompanied by Primary Care (PA) for the next 14 days and then they receive a RT-PCR to obtain, or not, an "epidemiological discharge" - and this falls on the jurisdiction of local polyclinics and on family doctors and nurses. In Cuba, knowing the state of health and the evolution of the convalescent is a priority so that their reintegration into daily life occurs in the "most natural way possible".

It is never enough to reiterate that all actions go hand in hand with the scientific researches that demonstrate the good results for improving the quality of life of convalescents. Some of our results already shed light on this process: evidences derived from scientific studies show that, in Cuba, we are achieving a recovery rate for patients infected with Covid-19 significantly higher than the global average.



Primary Health-Care

How has the health system responded, at its different levels of care, to the social and health challenges of the pandemic? What role has the Primary Care network played?

Cuba has a health system in which there is a deep and organic articulation between the different levels of care, in which the secondary, tertiary and quaternary levels play an extremely important role in combating the pandemic. This does not mean, however, that PHC has ceased to be the backbone of the prevention and health care system, as already mentioned in the previous questions. What is more, it has been the front line in the face of the Covid-19 pandemic – either for the detection of infections and cases, or for the treatment: preventive, during and after the disease.

This level of care has been of particular importance in the pandemic due to the fact that it consists of a very consolidated subsystem and the locus *par excellence* of the screening, treatment, communication, education and articulation with the communities it serves. A system that, therefore, allows PHC units to be prepared to incorporate new actions into their daily routines. A health unit in the PHC, whose main purpose is to carry out home visits in and whose workers and staff have known the community, often for years, is easily able to, for example, transform these visits into the most important surveillance tool, which was done since the early days of the pandemic. They perform the active detection and monitoring, already mentioned, as well as provide daily support to 100% of our population, household by household. Such work has had the active and important support of more than 28 thousand students in the field of Health, in addition to the efforts that have been made by family doctors and nurses.

This active detection process at the PHC level allows hospitals to be reserved for those patients who really need them, such as Covid-19 patients in need of ICU beds or care to attend any complications they may present. Other grievances, such as acute respiratory problems that are not caused by Covid-19, continue to be mostly attended in the primary health care network, avoiding the burden of the secondary and tertiary care system².

Situation and participation of women in the pandemic

In Brazil, women constitute the majority among health professionals, and still fulfill – as is in traditionally in our societies – the role of caregivers, regardless of the formal work they perform. In the face of Covid-19, this seemed to get worse. Could you comment on how this affects your lives in Cuba, right now?

Dr. Soraya Sánchez: Here in Cuba, women are also a majority in the area of Health. They leave their homes to work and compose the family income, getting involved from the PHC to the other levels of care and care programs. So, as they are working in different services – polyclinics, isolation centers, among others –, families support them by taking over the activities of the household and releasing them from domestic service.



This is what allows us, to stay up to 14 days in isolation centers, for example. Knowing that we can always count on the support of our families. We are not overwhelmed, as there is no sense that the burden of a family should be the woman's alone. Cuban society understands well that a woman is more than a caregiver: she is a professional, and taking care of people is a mission in all family and community spaces, including hospitals and the PHC.

In life structured by the patriarchal matrix, confinement to the home, social isolation and closed schools tend to increase the burden on female work, in the sense of triple working hours: professional, domestic and maternity tasks. How did Cuban women experience this situation?

Dr. Soraya Sánchez: Having the opportunity to experience part of the reality of Brazil, as an internationalist doctor, I saw that in this country many women did not have the opportunity to study, and stay at home very connected to motherhood. At the same time, when they have the opportunity, they go to work on things they can do at home. There is a very important fact in the way of valuing women, the naturalization of a social imaginary that it is okay for the woman to be the one who takes care of the family, and when everyone is convinced of this, a great account is generated in this social imaginary. Thus, women have historically been placed in charge of the family and their opportunities to do things outside of that have been abolished.

I had the opportunity to work in Pernambuco, in a small rural town, and I could see how this happens based on that place. It is only when we have reality engraved on our skin that we open our eyes to see the reality of what happens to women on a daily basis.

It is the woman who has to take care of the little baby who gets sick, who has to take care of the old people when they get sick. She has to take care of everyone who gets sick, of course, because it is by doing this that she expresses her value in society; not because she wants it to happen like this, but because it has always been like that and she cannot establish her place without reproducing it. So, what has to change is this thought that the woman is the only one who has this responsibility, but such changes are very difficult. It costs us a lot and takes a lot of work. If you think only about now, today, you do not realize that the change can work. It is not an instantaneous thing, it is a work that goes on little by little and that needs long-term investment.

Here in Cuba, our Cuba, the woman is almost liberated. She is more emancipated and thinking a little more consciously about her participation in the economy, so she does not become so dependent on the domestic economy and her husband, you know? It is a question of social construction and how we are looking at the question of power and the way to open space for the participation of women. Here in Cuba, historically, we have built opportunities for women to be a different social being. We were able to construct other interpretations for women's lives in society.

Now, it is clear that a capitalist society, a class society, a society that perhaps does not value the place of women as an independent social being, limits their professional actions, does not support the construction of this new place. Thus, the poorer woman is left behind, because she did not have the ability to understand how she can move



out of this vicious cycle of being only in the family, being responsible for the care of the family, restricting everything to the family. It is different here, because from the beginning we have other opportunities.

Final considerations

The results obtained by Cuba in confronting the Covid-19 pandemic are not a point outside the curve in the country's health history. Cuba is recognized for the results of its health system, which is strongly linked to other public policies. However, other Western countries with health systems that are also internationally recognized have not achieved the same effectiveness, or have taken longer to define and consolidate the most important actions. This small study with the leaders of the Cuban health system is sufficient to demonstrate the "robustness", as mentioned by one of the interviewees, of the Cuban health system, both in terms of comprehensiveness, capillarity and technical capacity, as well as in terms of the ability to trigger multidimensional actions to tackle the pandemic since before the disease arrived on the island. While many countries find it difficult to implement one or two strategies, Cuba has, from the beginning, articulated screening, isolation, treatment research, hospital care, vaccine research and care for convalescents. Cuba did not disregard any resources from the health system and did not disregard any possibility of developing actions.

Another aspect very highlighted in the interviews is the PHC. Scientifically, this is not a novelty. It is consolidated in the literature that public health systems have superior results, and those with stronger PHC are better. Nonetheless, considering that countries that have a significant PHC did not know how to make the most of it, the example of Cuba stands out. Many countries have closed their PHC services, focusing on hospital care. Not in Cuba. Furthermore, despite the fact that this theme deserves to be deepened, we need to consider the hypothesis that it is not enough to have PHC and a public system; it is necessary for this system to have a leading role and political conditions to point out the country's paths in times of crisis. To some extent, we suggest that future studies of comparative health systems come to take the pandemic as a good analyzer.

Having made these considerations, we reaffirm that it was not possible for us to bring and deepen some other relevant dimensions of the Cuban response to the pandemic, which would allow us to broaden the vision of what we discussed. Mentioning international solidarity, Cuba has supported other countries, including wealthy nations, by sending health brigades and other contributions. Other aspects, such as the process of disclosing the data and measures taken; training processes for health professionals; social participation and involvement of students in the health field in facing the pandemic.

To these measures, as well as those previously reported, we must add – due to their topicality, their importance and their ethical-political principles – aspects related to the production, offer and use of vaccines against Covid-19, as well as a strategy for facing the pandemic. Commenting on this process substantiates what we have been exposing and reflecting on in this text.



Cuba has four vaccines undergoing clinical studies against Covid-19, named Soberana 01, Soberana 02, Abdala and Mambisa, being the first “candidate from Latin America and the Caribbean to have a vaccine in studies in the clinical phase” as stated by the PAHO / WHO representative José Moya³. He points out that: “Cuba has more than 30 years of experience in producing their own vaccines and almost 80% of the vaccines in the national immunization program are produced in the country”³. This production reflects a component of the Cuban Health System, which is the strategy for prioritizing the development of health technologies by the Cuban State. Gradually, since the 1980s, Cuba has consolidated a scientific-technological platform that has resulted, among others, in the development of a set of vaccines for its immunization program⁴.

This platform integrates with the network of health services, universities and research centers and has more than 32 companies, eighty production lines, 21 units of science and technology and more than twenty thousand workers, distributed in all provinces, which benefits the reduction of regional inequalities. As evidence of the results of this health, economic and social project, we mention that the country has more than 2,500 patents and also accounts for 60% of the basic list of medicines in the National Health System. This production contributes to the qualification of international cooperation, which is practiced with more than fifty countries.

With regard to Sovereign 2, whose phase 3 clinical studies began in March 2021, it is intended, like other vaccines, to contribute to the fight against the pandemic in Cuba and other countries, especially those outside the axis of countries that concentrate the wealth that comes from the private production of health products. It is the country’s official policy to seek to strengthen the PAHO / WHO system, with the vaccine being offered as a public good, strengthening the multilateral instruments of Global Health.

In this context, it is observed that Cuba is the first country in Latin America to fully respond to the Public Declaration on the Development of the Vaccine for Covid-19⁵. By not prioritizing marketing aspects of vaccine production and offering it as a good to humanity, Cuba reaffirms its historic position of solidarity, in line with what it advocates with other countries in international forums and resolutions, such as the WHO and UN Assemblies^{6,7}.

Finally, it is worth noting obstacles arising, amongst others, from the fragility of the cooperation mechanisms among the countries in the American continent in facing the pandemic. This situation explains, in part, the fact that in order to carry out phase 3 clinical studies, which require a larger number of people to be included and a high transmission epidemiological situation, to shorten the investigation deadlines, Cuba has had to resort to countries outside the continent for testing. In this context, Brazil’s complete detachment from these efforts for scientific cooperation and regional integration draws attention. The country’s position is not only different from Cuba, but also from countries such as Mexico, Argentina and Costa Rica, which have sought to coordinate an effort aimed at developing and offering vaccines for Covid-19.



We understand that the development and provision of vaccines by Latin American countries, such as Soberana 2, deserves to be carefully monitored. In addition to strengthening mechanisms for consolidating a regional Public Health system, in the medium and long terms, it may constitute an alternative to low and middle income countries, that have difficulty accessing the offers of major pharmaceutical companies, or are insufficiently covered by the ‘COVAX facility’ initiative, by WHO.

Authors' contributions

All authors actively participated in all stages of preparing the manuscript.

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Conflict of interest

The authors have no conflict of interest to declare.

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