# NATIONAL PLAN TO COMBAT THE COVID-19 PANDEMIC



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Contribution of the organizations that make up the FRENTE PELA VIDA (FRONT FOR LIFE) and work in the field of Health to Brazilian society

Brazilian Association of Collective Health (ABRASCO)
Brazilian Center for Health Studies (CEBES)
Brazilian Association Rede Unida (Rede Unida)
Brazilian Association of Health Economics (ABrES)
Brazilian Association of Mental Health (ABRASME)
Brazilian Association of Workers' Health
(ABRASTT)

Brazilian Nursing Association (ABEn)
Brazilian Society of Virology (SBV)
Brazilian Society of Bioethics (SBB)
National Health Council (CNS)
Brazilian Society of Tropical Medicine (SBMT)
Brazilian Society for the Quality of Patient Care and Safety (SOBRASP)
Network of Popular Physicians (RMMP)
Brazilian Association of Physicians for Democracy (ABMMD)

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### **SUMMARY**

- 1. To face the COVID-19 pandemic, the Brazilian Federal Government has a moral and constitutional obligation to coordinate emergency actions to control it, overcome it, and reduce economic and social impacts on the Brazilian nation. Unfortunately, we see irresponsibility and inertia of the federal authorities, shown by the fact that Brazil enters the fifth month of the pandemic without any general official plan to face it. In view of this omission and in light of the need and the will of Brazilian society to overcome the health crisis and all its consequences, a contribution is presented herein, based on scientific knowledge, technical expertise and intense social mobilization, for the systematization of a National Plan to Combat COVID-19.
- 2. The epidemiological panorama of the pandemic in Brazil is quite complex. By mid-July, more than 2 million cases and 75,000 deaths had already been registered, making COVID-19 the leading cause of death in the country, concentrated in urban peripheral areas and in vulnerable social groups. At this recent phase, the epidemic is advancing inland, threatening particularly small cities, indigenous territories, quilombolas and riverside populations. The diversity and iniquity in Brazilian society, one of the most unequal in the world, represents crucial factors to be considered when implementing proposals and strategies to overcome the pandemic and its impacts.
- 3. In view of the contagious nature of COVID-19, in the absence of vaccines and medications, non-pharmacological measures for epidemiological control are extremely important, such as physical distancing, the use of masks, and hygiene. To make the combat against the pandemic effective, the World Health Organization recommends strong engagement by society. In Brazil, the Federal Constitution of 1988 guarantees the participation of society in the management of policies and programs, and establishes social participation as an organizational principle of the SUS, with the National Health Council (CNS) as the highest instance of social control. It is imperative to strengthen instances of social participation, ensuring the representation of civil society in all its diversity and representativeness.
- 4. In terms of health care, a process of renewal of the Unified Health System (SUS) is needed, developing it to its full potential, so that it reaches the universality and the necessary capacities that the pandemic and other health problems require of health systems. In addition to urgent and emergency strategies to tackle the pandemic, it is essential to overcome, in a structuring manner, the underfunding of the SUS. Universal access and comprehensive care demand systemic organization, made effective through the signing of federative pacts, based on cooperation and solidarity. In this respect, the federal government's irresponsibility has given rise to federal conflicts, reaching the point where the Federal Supreme Court has to ratify the autonomy of subnational governments in legislating in the field of public health. Even more dramatically, the Ministry of Health (MS) demonstrates an inability to effectively invest resources to control the pandemic.
- 5. The pandemic has hit Brazil in the midst of an agenda of reforms, focused on fiscal austerity and the reduction of the role of the Government, which resulted in SUS de-financing and the weakening of social policies. In view of the global and national recession caused by the pandemic, measures to promote and generate employment and income and social protection for the population are necessary. Immediately, it is necessary to consider the groups most at risk of illness and death, such as elderly people, and socioeconomic vulnerability, such as workers in precarious conditions, black population, indigenous peoples, LGBTI+ population, people in street situation, gypsies, migrants and refugees, people with special needs, populations deprived of their freedom.

- 6. The emergency of the COVID-19 pandemic enhances iniquities generated by race/color, class, ethnicity, gender, age, disabilities, geographical origin, and sexual orientation. As the experience of other epidemics shows, in particular women have been strongly impacted by COVID-19. However, all the measures taken so far by the governments have been directed at the population in general, without taking into account the different population segments in the production of data and action strategies. In particular, the vulnerability of indigenous peoples to the pandemic, accentuated in isolated groups or in recent contact, demands urgent and priority measures.
- 7. Even before the pandemic, the Brazilian system of science, technology and innovation had already been facing a serious crisis, worsened by the systematic attacks by the federal government on development agencies and institutions that carry out scientific and technological research. Added to this is the weakening of industrial development due to the absence of industrial policies in recent times. Nevertheless, the Brazilian scientific community has demonstrated vitality and engagement in the context of the crisis, with a marked participation in the testing of vaccines and conduct of epidemiological surveys, essential to assess the dynamics of the pandemic.
- 8. The pandemic also caused an "infodemia", creating a social imaginary full of anxiety and fear. In order to face this infodemia, it is necessary to open and appreciate intercultural spaces, capable of promoting listening and dialogues with non-hegemonic cosmologies (and facing "epistemicides").
- 9. This document provides an analysis of the relevant dimensions and interfaces of the COVID-19 pandemic, and presents 70 recommendations, addressed to political and health authorities, SUS managers, and society in general. The main strategy recommended is epidemiological surveillance, with an active search for confirmed or suspected cases and blocking of transmission, conducted by qualified teams, in the SUS primary care network, coordinated jointly by health authorities. Measures for qualification of secondary and tertiary care are also proposed, along with strategies to mitigate health and economic damage.
- 10. New threats involving agents of biological origin, similar to Sars-CoV-2, or of chemical, radiological/radioactive origin, as well as disasters related to the climate emergency, are part of the production method adopted by our societies and will generate new critical events, which may overlap, combining pandemics, epidemics, disasters, and humanitarian and planetary crises simultaneously. In this perspective, it is not desirable to return to the "normal" situation prior to the pandemic, or to live a "new normal" that means maintaining risk conditions and social vulnerability secondary to inequalities and iniquities. This means that right now conditions must be built that allow not only better preparation and response to future risks, but also the triggering of processes for the reconstruction of living and health conditions based on the values of freedom, equality and solidarity, in an effectively democratic Brazil.

#### **EXECUTIVE SUMMARY**

In view of the current serious health crisis, the Brazilian Federal Government has a moral and constitutional obligation to propose policies and coordinate emergency actions based on scientific evidence to control it, overcome it, and reduce its economic and social impacts on the Brazilian nation. The 1988 Constitution precisely defines, in its seminal article 196, that "health is everyone's right and duty of the Government, guaranteed through social and economic policies aimed at reducing the risk of disease and other health conditions and the universal and equal access to actions and services for its promotion, protection and recovery".

Unfortunately, on the part of the federal authorities and some managers in other government areas, which were supposed to be responsible for and obliged to provide resources, enable means manage processes, and coordinate actions to face this very serious health crisis, we found only absence, inertia, and even promotion of boycotts and obstacles, deliberate or resulting from ignorance and denial. The result of this tragic irresponsibility is the fact that Brazil enters the fourth month of the pandemic, without any official plan for the general combat against the pandemic.

Faced with this regrettable and serious omission, entities representing society intend, at this moment, to start listening and dialogue with Brazilian society aiming at the formulation, preparation, negotiation and implementation of a National Plan to Combat COVID-19. As a participatory planning document, defined by its objective, supportive and comprehensive nature, it is open to new proposals, contributions and solutions to be built, always collectively, expanding the Front for Life.

In this Plan, the actions to be proposed, planned, executed, monitored, evaluated and disseminated must follow axes of operation, corresponding to the various dimensions and interfaces of the complex phenomenon of the pandemic. The systematic and articulated listening to all contributions, organized in interdisciplinary axes defined by the interfaces, allows the consolidation of data, information and recommendations based on scientific knowledge and technical know-how from different disciplinary fields and sectors of social policies. It is a participatory and dialogue-oriented methodological strategy, with the objective of compiling contributions from different fields of knowledge, in a systematic and applied perspective.

The panorama of the COVID-19 pandemic in Brazil is quite complex due to the geographic, social and cultural diversity encompassed in the immense national territory, as well as conjuncture aspects, both political and economic, correlated to, coinciding and converging with the phenomenon of the pandemic. Epidemiological parameters (incidence, mortality, transmission and diffusion in the population) indicate yet another system of epidemics, with outbreaks, waves and different variations in different segments of the population and sectors of the territory. Thus, these characteristics of diversity and variability

represent crucial factors to be considered when implementing actions and strategies to overcome the pandemic and its impacts on our country.

The first case of COVID-19 was registered in Brazil on February 26, 2020. In mid-July, Brazil reaches 2 million confirmed cases and exceeds 70 thousand deaths, with a mortality rate of 22.1 deaths/100,000 inhabitants by COVID-19, making it the leading cause of death in the country. Optimistic projections indicate that these numbers will be multiplied by three by the end of this year; other projections reach twenty times. The epidemic spread quite heterogeneously across the country, with a difference of 30 to 40 days between the states that started the epidemic curve earlier and those that started later. The epidemic curve was more accelerated in the North and Northeast, with mortality rates of 42.2 and 23.8/100,000 inhabitants, respectively, after 80 days from the 1st death.

The suspension of the dissemination of data on the pandemic by the Ministry of Health, together with the attempt to manipulate it by subtracting part of the deaths from the total that should be reported, contrary to the pattern followed by all countries in the world, led the National Council of State Health Secretaries - CONASS - to immediately organize its own compilation platform. Even so, detailed records that were used by managers and researchers were no longer offered, compromising important local monitoring initiatives.

In the month of July, the epidemic advances to the interior of the states, particularly threatening indigenous territories, quilombolas and population groups that are vulnerable in this scenario. The number of cases in these areas already exceeds the cases accumulated in most of the respective capitals. This table provides for a worsening of some indicators, such as lethality and mortality, considering that the capacity for tertiary care, such as Intensive Care Unit (ICU) beds, is concentrated in the capitals and larger urban centers in the States.

In Brazil, the first confirmed cases were people of high economic strata, recently arrived from trips abroad, but the disease quickly reached the poor communities on the outskirts of large cities and began to expand inland, with greater lethality in the black population, tragically affecting indigenous peoples and riverside dwellers. The transmission of the virus and the impact of the pandemic tend to be more severe in a context of great economic and social inequality, with populations living in precarious housing and sanitation conditions, resulting from the absolute lack of equity in Brazilian society, one of most unequal in the world.

In the absence of biological preventive or curative technologies (vaccines and medications, among others), non-pharmacological measures of epidemiological control are extremely important. Strategies to reduce mobility and agglomerations, planned within the necessary range for each region, state, municipality or location are, therefore, fundamental. In the Brazilian case, which experiences a more complex reality, with immense inequalities, the different forms of quarantine have structural limits for generalized adherence. The indicators of physical distancing have been reduced, as a reflection of the

reopening of different economic sectors in several municipalities, even without a decrease in cases and deaths, a scenario with a dangerous potential to increase the spread of the virus.

In Brazil, as occurred in relation to the health systems of all affected countries, the COVID-19 pandemic has represented an enormous challenge for the Unified Health System (SUS). SUS has lived for decades with unstable rules and insufficient funds, up to the limit of the spending ceiling freeze imposed for a change in the Federal Constitution - the Constitutional Amendment 95 (EC-95), which instituted a new tax regime in 2016. Overcoming the various difficulties of the SUS is fundamental to tackle the pandemic and will contribute to its consolidation as a universal and egalitarian system.

From an organizational point of view, the main strategy to overcome obstacles is to strengthen regionalization and establish health care networks, based on the following lines: expanding and qualifying primary health care; ensuring regulated access to specialized care; expanding the offer of hospital services; strengthening the logistic and support systems of health care networks; consolidating the health promotion and surveillance subsystem, including genomic surveillance; implementing and strengthening community communication and health education actions, using, when necessary, new technologies, preferably in partnership with local actions and movements.

The triune federative design of Brazil - federal, state and municipal - is reflected in SUS through the sharing of management skills and responsibilities between entities. Assurance of universal access and comprehensive care demands systemic organization, made effective through the signing of federative pacts, based on cooperation and solidarity. Unfortunately, in the context of the pandemic, the federal government's irresponsibility has given rise to many federal conflicts, reaching the point where the Federal Supreme Court has to ratify the autonomy of subnational governments in legislating in the field of public health.

The chronic underfunding of SUS, aggravated by the approval of EC-95/2016 that froze federal spending until 2036, is now dramatically revealed in the insufficiency of beds and specialized equipment, as well as in the low coverage of primary care in the most vulnerable regions and in the fragility of health information systems. Even more dramatically, the Ministry of Health (MS) shows enormous difficulty (or lack of political will) in effectively applying the resources destined to face the pandemic, as the National Health Council (CNS) has warned, through its Budget and Finance Comission (COFIN/CNS).

Along with urgent and emergency measures, strategies must be implemented to overcome, in a structuring manner, the underfunding and, since 2016, definancing of the SUS. The fundamental strategy is to consolidate the Social Security budget, defining stable sources of revenue, and putting an end to the lack of connection with Federal Government revenues and to tax relief measures that take funds from Social Security.

In addition to sufficient funding, tackling the pandemic requires improving SUS management, with enhanced efficiency. Management improvement is possible with greater autonomy for the managers of health units, and the strengthening of the SUS resolution and joint management bodies - the Tripartite Interagency Committee (CIT), the Bipartite Interagency Committees (CIB), and the Regional Interagency Committees (CIR).

To make the combat against the pandemic effective, the World Health Organization recommends strong engagement by the community. Countries that have achieved greater understanding and adherence of people to preventive measures have been those where fewer cases and fewer deaths from COVID-19 have occurred. The Federal Constitution of 1988 guarantees the participation of society in the management of policies and programs promoted by the Federal Government, and establishes social participation as an organizational principle of the SUS. The National Health Council (CNS) is the highest instance of SUS social control. Contrary to the current government's option to boycott the instances of social participation, it is imperative to strengthen it, ensuring the representation of civil society in all its diversity. Without facing the extreme social, racial, ethnic and gender inequality that prevails in the country, it will not be possible to succeed in the mobilization necessary to collectively overcome this challenge.

Initiatives that involve tackling the pandemic need to consider the triple insertion of people working in health and in other essential areas: mostly women, subjected to the conditions of restriction of the population in general, to physical risk and to psychosocial risk related to the work conditions within health systems and services, and ultimately exposed to violence caused by disputes involving COVID-19 and public policies. Therefore, physical and psychosocial protection of people working in health and essential areas must be prioritized in actions to combat COVID-19, with a strong emphasis on biosafety and mechanisms to reduce psychological distress.

One of the most impressive faces of the current pandemic, among the several it has been presenting, is the mobilization of the world scientific community, as well as the industrial health complex, in the search for tools for its mitigation, in particular, diagnostics, medications and vaccines. The social sciences field has also produced numerous studies, which are fundamental to understanding the complex and multifaceted process of the pandemic.

In addition to the structural weaknesses of its formation, the Brazilian system of science, technology and innovation has been facing the most serious crisis in its history in the last five years. Not only due to the radical cut in its financial resources, but also due to systematic attacks from the federal government on development institutions, as well as institutions that carry out scientific and technological research. Added to this is the weakening of industrial development, augmented by the absence of industrial policies in recent times, and by the National Bank for Economic and Social Development (BNDES) depletion. Despite these obstacles, science made in Brazil has shown vigor in terms of knowledge production and social commitment.

Within the scope of bench research, the readiness to unveil the SARS-CoV-2 genome stands out, together with North American, European and Chinese groups, which paved the way for several other research fields; mention should also be made of the development of specialized cell cultures, in order to understand the pathogenesis of the virus. In the epidemiological field, regional and national surveys to determine the presence of antibodies in the population, essential to monitor the dynamics of the pandemic, should be highlighted. It is also worth mentioning the development of mathematical models for the estimation of cases and deaths. The human and social sciences have made a major contribution to unveiling the social, ethnic, political, economic and ethical repercussions, all of which have been exacerbated by the pandemic. And in the field of clinical research, the Brazilian scientific community has had a relevant participation in national and international drug trials, in search for safe and effective products, including the development and testing of several vaccines. Finally, the development of prototypes for respiratory support equipment has mobilized the engineering community, with successful experiences in several Brazilian public universities.

One dimension of the combat against the pandemic that cannot be overlooked is the importance of international cooperation, in the context of supportive multilateralism, including health surveillance at the borders. Brazil has renounced its driving role in health cooperation in South America, as well as in the world, linking its foreign policy to one country, the United States of America, under the direction of a chauvinist leader. For this reason, Brazil is isolated, unwilling to collaborate in the search for socioeconomic, environmental and health solutions, in common with its South American neighbors, historic partners in the construction of an emancipating regional development that serves the interest of all.

The pandemic has hit Brazil in the midst of the application of an agenda of reforms, focused on fiscal austerity and the reduction of the role of the Government in the economy. Since 2015, in the wake of spending cuts and reforms (social security and labor) contrary to the economic growth touted, what we are seeing is unemployment, crisis, and worsening of tax indicators. Austerity has also de-financed the SUS and weakened the social protection structure in a context of increasing poverty and social inequalities.

In view of the global and national recession caused by the pandemic, countercyclical economic development policies are needed, including proactive state measures to promote and generate employment and protect workers, which will need to be expanded during the pandemic and in the years to come. In the middle of a pandemic, the conflict between the economy and the fight against COVID-19 has been the screen with which the Brazilian government resists in the fiscal adjustment agenda. The pandemic marks; however, are profound in the dismay of more than 60 million citizens classified for access to emergency aid. This aid shall be transformed into basic universal income, as recommended by the UN. In all countries of the world, public spending is the lever to face high unemployment and the destruction of productive capacity. Experience shows that the increase in public debt

in relation to GDP can be stabilized, not with cuts in spending and an increase in the tax burden, but with economic growth and reduction in social inequalities.

The projections of a fall in the Brazilian GDP in 2020 signal a scenario of immense difficulties and new demands for social protection and public services, in particular, health services. In view of this, the Government will need to play a central role and, in particular, bury fiscal austerity and revoke the ceiling of public spending. It will also need, through effectively progressive tax reform, including by taxing large fortunes, to strengthen the set of social protection policies. It is essential to ensure the conditions for sustaining and consolidating Social Security, as provided for in the 1988 Constitution, through the adequate financing of its structural policies, with a view to understanding the promotion of Social Welfare as a primary purpose of the Government's operation.

Brazil has a significant deficit in terms of housing, with millions of people homeless or living in poor housing conditions, access to water and sanitation, which favors the spread of diseases, such as COVID-19 and many others. Add to this the lack of urban planning and the precarious conditions of public transportation, which require hours of commuting by workers in crowded vehicles. Furthermore, the rural inhabitants face significant difficulties to access health and education services.

It is necessary to create strategies to face the pandemic, building new narratives of appreciation, respect and recognition of what was intentionally made invisible by the Western hierarchical knowledge system of patriarchal, capitalist and colonialist supremacy. At the interface between the political and symbolic dimensions of the pandemic, intense informational and narrative production, with visual representations around the mode and time of coronavirus propagation, disseminates and feeds a social imaginary full of anxiety and fear, reinforced by the implementation of the necessary isolation, quarantine and physical distancing measures.

In order to operate on the symbolic plane, it is extremely necessary to open and appreciate intercultural spaces, capable of promoting listening and dialogues with non-hegemonic cosmologies (and facing epistemicides). This will allow for a broader scope of political-institutional actions (in politics, science, training), more respectful of differences and diversities, in order to build new practices and world views, at different levels of society and in different social spaces.

The emergency of the COVID-19 pandemic tends to enhance iniquities generated by race/color, class, ethnicity, gender, age, disabilities, geographical origin, and sexual orientation. A powerful mechanism for exclusion of population groups from society is called racism, a transversal element of the current economic, political, ideological and moral crises. All the measures taken so far by the Governments and Public Authorities have been directed at the population in general, without taking into account the different population segments, either in the

production of data or in the development of action strategies. However, it is imperative that all differences and inequalities between different groups of the population are taken into account, both to understand the difficult context in which everyone is going through, and to collectively think about the ways to face the epidemic.

There is no democracy, citizenship and social justice without public commitment to recognize the specificities and needs of vulnerable populations, such as women and the elderly, workers in precarious conditions, and groups excluded from society, such as the black population, indigenous peoples, the LGBTI+ population, people in street situation, gypsies, migrants and refugees, people deprived of their freedom. Economic, assistance, health and public security policy initiatives need to mitigate the worsening of gender, race/ethnicity and social class inequalities associated with the pandemic.

In particular, COVID-19 has had a profound impact on women's lives, whether in the private sphere or in the world of work, as well as in access to reproductive and sexual health services. The quarantine and isolation measures, with greater permanence in the domestic space, have generated an increase in sexual and gender violence, affecting women and children. The fight against femicide and domestic and sexual violence against women must be prioritized in all actions, and by all sectors of government.

From an immediate point of view, it is possible and feasible to expand the conditionalities in the minimum family income programs, to include groups in greater socioeconomic vulnerability and risk of illness and death. However, in the defense of the rights of these populations and in the fight against the iniquities that historically affect them, it is essential to involve sectors such as Public Defender's Officer, service providers, the third sector and Non-Governmental Organizations, to work together to mitigate the negative impacts of COVID-19, which intensifies social inequalities and their vulnerabilities.

The vulnerability of indigenous peoples to the pandemic, which is more accentuated in isolated groups or of recent contact, demands urgent and priority measures, with the strengthening of the operation of the Indigenous Health Care Subsystem (SASI-SUS), in articulation with the municipal and state departments of health, Funai, Ministry of Citizenship, Ministry of Women, Family and Human Rights, and other public bodies, and the leading role of indigenous organizations and leaders. In view of this health crisis, it is also necessary to see and listen to certain portions of the population, who remain practically neglected or invisible to society, such as people in street situation and nomadic or semi-nomadic gypsies.

Some claims are common to all Brazilians who are vulnerable and economically impacted by the pandemic, especially the homeless: open public bathrooms and drinking water in disposable bottles; popular restaurants open with extended hours and free delivery of food; vaccination; Street Outreach Offices; kits with soap, alcohol gel and other hygiene products; appropriate accommodation for people in need for

isolation; protected shelter for people, their carts and pets. In particular, emergency basic income is essential to maintain the lives of these people, during quarantine and physical distancing measures. However, bureaucratic processing has left many families without assistance - considering the lack of identification documents or bank accounts.

Currently, Brazil has more than 750 thousand people deprived of their freedom, whose profile is made up of a majority of black, young people with low education. The conditions of confinement are extremely precarious, with limitations of access and denial of basic rights, and make it almost impossible to apply the main measures of physical distancing in its scope. The prospect of an explosion of cases and deaths among these people is presented for the whole of society. It is urgent that prison units be included as sentinel units in the program areas of the states and municipalities, due to their characteristics and the potential for dissemination of COVID-19. The seriousness of the pandemic is a unique opportunity to strengthen the partnership between the Executive and Judiciary branches, aiming primarily at seeking measures to reduce the number of people deprived of their freedom.

This document provides an analysis of the relevant dimensions and interfaces of the COVID-19 pandemic, identifying responsibilities and presenting 70 recommendations, addressed to political and health authorities, SUS managers, and society in general. The main strategy recommended is epidemiological surveillance, with an active search for confirmed or suspected cases and blocking of transmission, conducted by qualified teams, in the SUS primary care network, coordinated jointly by health authorities. Measures for qualification of secondary and tertiary care are also proposed, along with strategies to mitigate health and economic damage.

Critical events involving agents of biological origin, similar to Sars-CoV-2, or of chemical, radiological/radioactive origin, as well as disasters related to the climate emergency, are part of the production method adopted by our societies and will generate new critical events, which may overlap, combining pandemics, epidemics, disasters, and humanitarian and planetary crises simultaneously. In this perspective, it is not desirable to return to the "normal" situation prior to the pandemic, or to live a "new normal" that means maintaining risk conditions and social vulnerability secondary to inequalities and iniquities, which have multiplied the deleterious effects of the pandemic by COVID-19, as well as so many other public health disasters and emergencies. This means that - right now - conditions must be built that allow not only better preparation and response to future risks, but also the triggering of processes for the reconstruction of living and health conditions based on the values of freedom, equality and solidarity, in an effectively democratic Brazil.

#### **PRESENTATION**

This National Plan to Combat the COVID-19 Pandemic is the result of a great effort of conception, execution and mobilization, developed by the entities that work in the Health area participating in the Front for Life (*Frente pela Vida*).

In view of the current serious health crisis, the Brazilian Federal Government has a constitutional and moral obligation to propose policies and coordinate appropriate emergency actions to control it, overcome it, and reduce its economic and social impacts on the Brazilian nation. In addition to sanitary and epidemiological measures, strategies to systematize health information and social protection of a broad spectrum are necessary, especially those of an economic nature, approved by the National Congress, but which only the federal executive can carry out. Therefore, it is the responsibility of the Presidency of the Republic to correctly assess the risks of the COVID-19 pandemic, acting in an equitable and supportive manner, in order to enable correct policies based on scientific evidence. At the federal level, the Ministry of Health has an obligation to coordinate emergency and adequate actions to reduce the transmission of COVID-19 and its impacts on health. Such control measures must be based on scientific knowledge, culturally sensitive and appropriate to the diversity of social realities, composing strategic intervention plans of general scope and national scope. In other spheres of government, it is incumbent upon the state and municipal health authorities and Health Secretaries to formulate and execute equivalent plans, adjusted to the respective realities.

The pandemic is not a problem solely of the health sector, but of all sectors of government, as well as of all segments of society and the economy. As temporarily economic sectors will not be able to guarantee income from work, it is the government's responsibility to maintain and expand emergency aid, which must be accessible to all who need it. If the Federal Government continues to be negligent or unable to implement support and social protection measures, a perspective that seems quite realistic, one can expect dire results in the epidemiological field and, in the short term, in the economic, political and social spheres.

Let us remember that the 1988 Constitution precisely defines, in its seminal article 196, that "health is everyone's right and duty of the Government, guaranteed through social and economic policies aimed at reducing the risk of disease and other health conditions and the universal and equal access to actions and services for its promotion, protection and recovery".

Obviously, a federal government that is unable to act to protect the population it represents loses any trace of legitimacy. Unfortunately, the terrible price of the pandemic and the resulting crises will fall on most Brazilians, especially on the most vulnerable social strata. In fact, a pandemic like this that currently afflicts us deepens social inequalities, generating an increase in social vulnerability, health iniquities and human rights violations, which directly affects certain population groups

that are oppressed and discriminated and, indirectly, affects society as a whole.

This proposal thus represents a contribution by society, in the expectation of making up for the regrettable omission of the federal government in fulfilling its role before the population, threatened by the pandemic and the serious crises resulting from it. Thus, as a participatory planning document, defined by its objective, supportive and comprehensive nature, it is open to new proposals, contributions and solutions to be built, always collectively, expanding the Front for Life.

#### 1. INTRODUCTION

On the last day of December 2019, Chinese health authorities informed the World Health Organization (WHO) of the occurrence of cases of severe acute respiratory syndrome, with unknown microbial etiology, in Wuhan, in the province of Hubei in China. A few days later, a new coronavirus was detected in samples taken from these patients, and the new disease received the official name of coronavirus-2019 (COVID-19). The initial concentration of cases became an epidemic that quickly spread across the world, initially reaching Iran and Italy, until, in March 2020, WHO formally recognized it as a pandemic. Subsequently, the pandemic affects all countries in Asia, Europe, North America, Latin America and the Caribbean and, finally, the African continent. In just over six months, worldwide, there are more than 9 million confirmed cases and almost 500 thousand deaths, highlighting the USA, 3.3 million cases and 135 thousand deaths, and Brazil, with 2 million cases and 75,000 deaths in mid-July 2020.

The COVID-19 Pandemic arrives in Brazil through cases imported from Europe, initially in Rio de Janeiro, São Paulo and Fortaleza. In our country, it involves a combination of health, political, social, economic, environmental and ethical crises, with the potential to extend not only throughout 2020, but also over the next few years, in waves that may or may not be localized. As an open fracture of an unequal and unjust society, the pandemic reveals weaknesses and conditions of vulnerability that involve everything from intensifying job insecurity to breaking funding for biomolecular and clinical researches, to the scrapping of the national medication and vaccine industry, as well as the divestment in the Unified Health System (SUS), thus reducing its current capacities for health surveillance and care, from primary care to hospital beds.

In a politically delicate moment for the Brazilian nation, when uncertainties should be recognized and overcome, and combined with urgent measures, anxiety and fear become part of the social imaginary, aggravated by the insecurity resulting from the profound inequalities and iniquities that did not arise with the pandemic, but which have been sharpened and deepened by it, and resulted in unacceptable differentials in the impacts on the health situation and on access to health care, and compromised adherence to epidemiological control measures. This context comprises a triple risk for professionals who work in the health system and in other essential activities and services, as they are exposed to greater physical and psychosocial risk than other people, in addition to having become the object of violence of groups that deny the relevance and seriousness of the pandemic and that, guided by anti-scientific ideologies, disagree with how it is to be addressed.

As observed worldwide, and Brazil would not be an exception, effective and efficient control of the COVID-19 Pandemic and the reduction of its immediate social and health impacts can only be achieved through prioritization

of lives to the detriment of market interests, with broad social protection for all people, which implies good governance with transparency, participation, political leadership with full credibility and responsible management, with effective and articulated coordination of resources, personnel, processes and inputs. The mitigation of the perverse effects of this crisis and its consequences, as well as the prevention of future risks of an equivalent magnitude, must be based on intense processes of supportive mobilization and engagement of society as a whole, which necessarily require resources that allow all people to exercise their right to sanitary, collective and individual measures of protection, in addition to the preservation and expansion of democracy as a political regime.

Unfortunately, on the part of the federal authorities and some managers in other government areas, which were supposed to be responsible for and obliged to provide resources, make resources feasible, manage processes, encourage dialogue, and coordinate actions to face this very serious health crisis, we found only inaction, absence, inertia, or even worse, the promotion of boycott and obstacles, deliberate or resulting from ignorance and denial. The result of this tragic irresponsibility is the fact that Brazil enters the fifth month of the pandemic, with two million cases and 75,000 deaths, without any official plan for the general fight against the pandemic, despite being announced on some occasions, by the different professionals who joined and left the Ministry of Health.

Faced with this regrettable and serious omission, entities representing society gathered and started the movement called Front for Life (Frente pela Vida), which had its first public demonstration in the political act "March for Life", held on June 9th, which had the participation of more than 400 entities and social movements. Continuing and making this movement concrete, we propose, at this moment, to start listening to and a dialogue with Brazilian society aiming at the formulation, preparation, negotiation and implementation of a National Plan to Combat COVID-19 [PNE- COVID-19].

#### 2. UNDERSTANDING PANDEMIC COMPLEXITY

The new coronavirus pandemic is not reduced to a pathogen that suddenly becomes capable of threatening human health, SARS-Cov-2, nor to the initially unknown signs and symptoms of a new morbid entity called COVID-19, nor to epidemiological indicators and their epidemic curves, nor to the dynamic process of dissemination and contagion, nor to the "infodemia" of fake news, myths and lies, nor to the fear/panic that all this causes, nor to the economic, political and psychosocial crises resulting from it or associated with it. The pandemic comprises a complex of multiple phenomena and processes, in their full diversity, linked to numerous elements of understanding and analysis, the object of different approaches. It is important to note that Pandemic comprises simultaneous occurrences, with different objects of knowledge, processes of determination, and different possibilities or modes of intervention, in various dimensions - biological, clinical, epidemiological, eco-social, technological, economic, political, symbolic - and their respective interfaces.1

In the biological dimension, at the molecular, cellular and somatic levels, where the SARS-CoV-2 virus acts causing contagion, infection, disease and eventually organ and system failure, the mode of intervention consists in inducing or animating the immune system of individuals, with vaccines, for instance. At this level, it is necessary to mobilize the national industry in search for therapeutic (medications) and prophylactic (vaccines) products, based on appropriate sciences, technologies and good practices of manufacturing, capable of contributing both to the welfare of individuals and collective protection, by strengthening the population's immune status.

In the clinical-epidemiological interface, the cause of the illness occurs in individual subjects, as well as practices in search for a cure or reduction of lethality and sequelae of the disease, in specific cultural contexts and territories. In this interface, an effective intervention will depend on the budget recomposition (repeal of EC-95), the guarantee and expansion of the means of financial support and the institutional strengthening of the Unified Health System, with the expansion of all its services, including surveillance in health, basic care and hospital assistance. As a result, the SUS must improve its care model, overcoming the fragmented, individualistic, hospital-centered and essentially biomedical approach, in favor of an integrated and full approach, focused on health promotion, articulating actions on social determinants, preferably with active participation of associations, movements and institutions in different territories, without neglecting the actions of prevention and treatment of diseases, including chronic non-communicable diseases (DCNTs), which act as aggravating factors for Covid-19.

ı <u>https://brasil.elpais.com/opiniao/2020-06-17/pandemia-exige-uniao-das-ciencias-brasileiras.html</u>

The social determinants expand the reading of the epidemiological dimension of infected and infectious cases, revealing different levels of vulnerability and risk, demanding broad and effective measures of epidemiological surveillance to reduce incidence and control transmissibility. At this level, interventions based on health surveillance actions are necessary, complying with the provisions of the National Health Surveillance Policy (CNS Resolution No. 588/2018), which comprise epidemiological, health, occupational health and environmental health surveillance. It is worth emphasizing that occupational health and environmental surveillance incorporate the dimensions of work/occupation and the environment in the assessment of cases and risk situations investigated, and that health surveillance, through its national system, acts in the regulation of goods and services, as well as in the circulation of means of transportation, goods and people for health protection and risk reduction.

In the epidemiological-ecosocial interface, the pandemic is transformed into epidemic systems fed by chains and waves of infection, stressing society's capacity to produce knowledge and new technologies. In this interface, it is essential to strengthen environmental protection and preservation actions. This issue is fundamental to the extent that the pandemic also alerts us to the need to think about another way of living and interacting with nature, which includes healthy and sustainable food systems, in view of the neoliberal capitalism that is destroying our natural reserves of flora and fauna, threatening peoples that traditionally have been caring for the defense of biodiversity, and causing the appearance of pathogens that have been causing and will cause serious damage to human beings. In this regard, it is essential to recognize and promote the knowledge and care practices of native and traditional peoples, which make up the health cosmologies of these and other peoples and, on several occasions, are severely criticized and disparaged, delegitimizing such health initiatives.

In the technological dimension, financial and institutional support must be guaranteed to research groups whose purpose is human health; to that end, it will be necessary to recompose the funding institutions and the financial resources that allow them to fulfill their missions. At the informational level, criteria for interoperability and information flow logic must be reflected in the health information management systems, as well as in assuring the authenticity of the information treatment, organization and preservation processes. It is also necessary to mobilize the national industry for the development of therapeutic (medications) and prophylactic (vaccines) products, devices and equipment (Personal Protective Equipment - PPE, fans, etc.) based on appropriate sciences, technologies and good practices of manufacturing, capable of contributing both to the welfare of individuals and collective protection, with the extension of the population's immune status.

In the economic dimension, it is essential to reduce and compensate for inequalities and iniquities, in order to eliminate unacceptable differentials in the impacts on health and access to care, as well as in the concrete conditions for the success of epidemiological control measures, prevented or made impossible by

difficulties in adhering by the most economically vulnerable sections of the population. At any level, all lives matter equally, which is why it is essential to recognize that the lives of certain social groups are under greater attack and threat, in view of structural racism, requiring greater protection. Moreover, in view of the pandemic and the economic recession that it has worsened, this interface requires that measures of an economic nature be taken, which ensure social protection and food security in the various socio-cultural scenarios, with universal and accessible basic income, without withdrawing rights already conquered, in addition to non-reimbursable financing for companies committed to maintaining jobs.

The political dimension presupposes an environment of trust in democratic institutions, based on credible relationships between health and political authorities and the population. In particular, this environment has been extremely weakened by omission and deleterious initiatives by political authorities of the federal executive branch, which precede the period of the pandemic, aimed at de-financing the public health system and dismantling health information and surveillance systems. It is essential to ensure quality, transparency and access to discriminated health information, for the construction of strategies and decision making in the fight against the pandemic, overcoming dehumanized actions that transform people and their suffering into mere statistics. It is the responsibility of the federal government authorities to guide and implement national guidelines based on scientific knowledge and in discussion with society. The ethical dimension requires the recognition of the human subject as a legitimate other, who cannot be harmed by decisions and actions taken by trivializing their potential capacity to harm them. These actions are required to be guided by a protective dimension of all human beings and, in particular, those most vulnerable.

Finally, in the political-symbolic interface, notably in the cultural spheres, intense informational and narrative production, with often sensationalist and untrue representations around the mode and time of coronavirus propagation, disseminates and feeds a social imaginary full of anxiety and fear, reinforced by the implementation of the necessary isolation, quarantine and physical distancing measures. This has been seen most intensely at the ends of the life cycle and in vulnerable groups, made invisible and silenced by pre-existing social iniquities. It is very different to experience the epidemic considering the diversity of bodies in their daily lives, according to the territory where they live, the places they occupy in society, the cultural and symbolic assumptions they share, and the social markers they carry according to gender, race/ethnicity, social class and disabilities, as well as the different ways of thinking about the relationships between human and non-human beings and between social groups and their ecological and technological environments. The mitigation of these perverse effects must be based on intense processes of supportive mobilization and engagement of society as a whole, which necessarily require the preservation and expansion of democracy as a political regime and the assurance of constitutionally guaranteed human rights. Tackling these effects also involves

recognition, dissemination and strengthening of self-regulated community initiatives, in the form of new and pre-existing supportive networks that seek to make up for the Government's omission in its violent necropolitics.

Still regarding this interface, when we follow the intense informational and narrative production and the great volume of serious and committed-to-reality scientific information, even if transitory and uncertain, we see in equal or greater proportion the fake and/or wrong news as part of everyday life, which produces significant negative effects in the fight against COVID-19, and can make bad results even worse, due to the great difficulty in separating facts from myths, and differentiating reliable and sensible theories from conjectures and speculations. Faced with this socio-symbolic phenomenon called infodemia, even though not a novelty, we will need to find solutions to face misinformation and fake news that travel the world in seconds through social medias, and which in critical contexts prevent the adoption of important measures to combat the crises arising of the pandemic. These solutions also include looking for ways to translate scientific speech, so that it becomes accessible to different population segments and to produce dialogical communication networks.

In this plan, the vast majority of crucial information for the prevention of contagion by the virus implies measures that suppose availability of resources and adequate situations of life and housing, such as the possibility of staying at home with maintenance of income, availability of water and treated sewage, airy and spacious houses in relation to the number of their inhabitants.

#### 3. STRATEGIC METHODOLOGICAL FRAMEWORK

The need for a National Plan to Combat the COVID-19 Pandemic, coming from civil society, at a time when the epidemic has been developing for approximately four months in Brazil, resulting in almost two million cases and more than 70 thousand deaths, is justified by the increasingly contradictory, ambiguous, borderline, and absent performance of the federal government, with real effects on the production of victims in society, resulting from unnecessary exposure to contagion and the violence produced by denial of the science and seriousness of the pandemic. The intention is for this Plan to be developed in a broad, democratic and participative manner, in an open, integrative and resolutive perspective, mobilizing leaders from different scientific, technical, social and political fields.

The uniqueness and complexity of the current pandemic, undoubtedly, represent an enormous challenge and signal the need to seek integrated, pertinent and careful solutions to the complex problems that emerge from this serious health crisis, through the inter-transdisciplinary and participative construction of a Plan of Combat. In light of the foregoing, there is an evident correspondence between specific knowledge objects, forms of determination, and feasible modes of intervention in each plane of occurrence of the biological, clinical, epidemiological, ecological, technological, economic, political and cultural processes, which make up the complex phenomenon of the COVID-19 Pandemic. As indicated, the actions to be proposed, planned, executed, monitored, evaluated and disseminated must follow axes of operation, corresponding to the aforementioned hierarchical interfaces.

Each of these interfaces has been the subject of transdisciplinary and translational integration events, promoted by the organizations that make up the Front for Life, with the participation of experts from different areas of knowledge, pertaining to the entire spectrum of complexity of the COVID-19 Pandemic. In this regard, the contributions of entities in the academic and scientific field were organized based on various activities, listed in Annex 1. A first compiled version of the base document was evaluated by the three ABRASCO committees and by its 21 Working Groups, receiving contributions and reviews from the various employees. The reviews will be published monthly, based on the contributions sent and incorporated into the plan after discussion by the committee. Arenas and spaces will be promoted for further discussion, including monitoring of actions, and pluralization of discussions with representations of the most affected social groups.

In view of the serious scenario, the National Health Council (CNS), the highest instance of the SUS social control, instituted a COVID-19 pandemic monitoring committee, for the purpose of reinforcing and collectivizing the actions within its scope, with equal representation of the group of national health advisers. The Committee has held periodic remote meetings to align actions, define strategies, submit guidelines, and articulate with national advisers, intersectoral commissions, and

network of state and municipal health councils. It is incumbent upon the group to analyze documents, positions, studies, mobilizations, among other actions necessary in this period of fight against the pandemic. Numerous documents were produced, such as public notes, recommendations, letters, technical opinions, guidelines, motions, among others (Annex 2), sent to the Executive, Legislative and Judiciary bodies, and other instances.

The systematic and articulated listening to all these contributions, organized in interdisciplinary axes defined by the hierarchical interfaces, allowed the consolidation of data, information and recommendations based on scientific knowledge and technical know-how from different disciplinary fields and sectors of social policies. This methodology especially involves the scientific entities of collective health and bioethics, represented in the National Health Council and in other instances of civil society, competent in the articulation of institutional networks for training, production of knowledge and articulation of know-how, practices and techniques in the health field. Thus, these entities have the opportunity to articulate the rich contributions of different disciplinary fields, thus placing themselves at the disposal of the Front for Life, to encourage and organize the preparation of this Plan, to be widely discussed with society.

It is a participatory and dialogue-oriented methodological strategy, with the objective of compiling contributions from different fields of knowledge, in a systematic and applied perspective, already in progress. Based on this general effort, and integrating contributions from numerous groups and research centers, which are active in different knowledge institutions, this document provides an analysis of the situation of the COVID-19 pandemic in the Country, in the different interfaces and dimensions, together with recommendations for proper fight against it.

# 4. BIOMOLECULAR AND CLINICAL ASPECTS2

The disease called COVID-19 has as its etiological agent a new coronavirus, referred to as SARS-CoV-2, a member of the *Coronaviridae* family, a highly diversified group of RNA viruses. SARS-CoV-2 is the seventh coronavirus involved in human infections, although it has genetic characteristics compatible with the coronavirus family, it has distinct genetic sequences significantly different from the previously sequenced coronaviruses. Based on the study of its genetic sequence, SARS-CoV-2 probably originated in bats, but there is an intermediate host still unknown, as similar viruses can be found in other animal species. Molecular phylogeny studies have determined that this new coronavirus has at least three major strains and several substrains. Although there are no differences in pathogenicity, strains from epidemics occurred in Italy and other European countries and later disseminated to Brazil and the United States have a profile of greater transmissibility.

Genomic analyses classify SARS-CoV-2 in the genus Betacoronavirus, with its pattern of replication in cells, tropism in the organism, and therefore its pathogenesis being well known. The viral envelope protein called *Spike* (S) or spike protein, promotes the binding and merger of the virus membrane to the cell receptor. The angiotensin-converting enzyme ACE2, which is found in several organic systems, was already known as the pathway for adhesion and entry of these coronavirus strains into cells. As the ACE2 is particularly abundant in the upper and lower respiratory tract, and also expressed in cells of the renal system, circulatory system, intestinal epithelium, and other organs, and considering its participation in the regulation of blood pressure, the intimate and crucial relationship between the Viral S protein and its cellular receptor determines not only the preferred tropism of SARS-CoV-2 by the respiratory system, but also a possible infection of other organ systems and disturbances in the microcirculation found in patients with the most severe form of COVID-19.

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<sup>&</sup>lt;sup>2</sup> Bibliographic references: Bourgonje AR, Abdulle AE, Timens COVID, et al. Angiotensinconverting enzyme 2 (ACE2), SARS-CoV-2 and the pathophysiology of coronavirus disease 2019 (COVID-19) [published online ahead of print, 2020 May 17]. J Pathol. 2020;10.1002/path.5471. doi:10.1002/path.5471; Castells M, Lopez-Tort F, Colina R, Cristina J. Evidence of Increasing Diversification of Emerging SARS-CoV-2 Strains [published online ahead of print, 2020 May 15]. J Med Virol. 2020;10.1002/jmv.26018. doi:10.1002/jmv.26018; Chen COVID, Liu Q, Guo D. Emerging coronaviruses: Genome structure, replication, and pathogenesis. J Med Virol. 2020;92(4):418-423. doi:10.1002/jmv.25681; Han GZ. Pangolins Harbor SARS-CoV-2-Related Coronaviruses. Trends Microbiol. 2020;28(7):515-517. doi:10.1016/j.tim.2020.04.001; Ji COVID, Wang COVID, Zhao X, Zai J, Li X. Cross-species transmission of the newly identified coronavirus 2019-nCoV. J Med Virol. 2020;92(4):433-440. doi:10.1002/jmv.25682; Xu COVID, Zhong L, Deng J, et al. High expression of ACE2 receptor of 2019-nCoV on the epithelial cells of oral mucosa. Int J Oral Sci. 2020;12(1):8. Published 2020 Feb 24. doi:10.1038/s41368-020-0074-x; Zhou P, Yang XL, Wang XG, et al. A pneumonia outbreak associated with a new coronavirus of probable bat origin. Nature. 2020;579(7798):270-273. doi:10.1038/s41586-020-2012-7

More transmissible than influenza, COVID-19 has an estimated lethality of about 14 times that of influenza. The initial presentation of COVID-19 is similar to the flu, with symptoms of fever, cough, sore throat, and runny nose. Actually, Covid-19 is a systemic disease. Approximately 80% of patients recover without complications, being classified as mild cases (without pneumonia or with mild viral pneumonia). From the second week of symptom onset, about 20% of patients experience shortness of breath and hypoxemia due to extensive viral pneumonia, followed by inflammatory, vascular and other processes, and need care; and thrombotic and inflammatory phenomena that worsen the pulmonary condition, requiring hospitalization, oxygen therapy and, as recent studies suggest, the use of corticosteroids, anticoagulants, in addition to other interventions. A quarter of symptomatic patients (about 5% of the total infected) reach critical levels due to respiratory failure, disseminated intravascular coagulation, circulatory shock, or multiple organ dysfunction, and require intensive therapy, which can lead to high lethality.

In times of pandemic, epidemic or outbreaks of acute respiratory infections, such as COVID-19, specific measures must be taken, such as: reorient the flows and reorganize the spaces for care, to allow the separation of suspected cases, ensure equipment and measures for individual and collective protection, adopt mechanisms for follow-up and monitoring of cases (visits, follow-up and complementary guidance by call service). Care teams must be complete and have suitable items of equipment and resources for proper diagnostic and therapeutic support, such as thermometer, pulse oximeter, oxygen therapy material, collection of material for influenza and COVID-19 tests (molecular test), complementary laboratory exams, access to imaging exams. They must also be able to refer patients to other services whenever necessary, in a responsible and articulated manner with other units in the network.

In view of the high contagiousness of COVID-19, isolation of cases and their contacts is essential. The rapid and appropriate treatment of cases that require medical assistance must be carried out by a network of health services of different levels of complexity. Therefore, the line of care should consider the different stages of the disease and its potential for severity, ranging from symptom management and home isolation to ICU admission, including rehabilitation after hospital discharge. Face-to-face care for suspected or confirmed patients in health units, at all levels of complexity, must be carried out in a way that does not increase the high risk of contagion for health professionals and other users.

The suspected cases of COVID-19 must follow reception and classification protocols, according to the risk of complications until clinical or laboratory confirmation, with clear guidance on levels of self-care and care for the user and their contactors. Transporting patients from the home directly to the referral unit should be an essential point in planning the care network, so that appropriate therapy can be started on time with

access to intermediate and intensive care beds. The clinical management of patients must follow protocols already established, integrated into reference and information networks that allow the monitoring of care and the possibility of rapid regulatory mechanisms.

The challenges for the SUS are not limited to the aspects of risk prevention and health promotion, nor to the clinical care of patients with COVID-19 in its acute phase, but can extend for long periods, due to the sequelae that may arise due to SARS-COV-2 infection. Studies have shown that people who had COVID-19, even in its mildest forms, of different ages, after medical discharge, can evolve with respiratory, neurological, psychiatric, muscular sequelae, among others. These new health situations will require organization of the SUS focused on the care of these patients, in addition to social protection policies, in view of the risk of resulting in disability, including for work.

#### 5. EPIDEMIOLOGICAL OVERVIEW

The panorama of the COVID-19 Pandemic in Brazil is extremely challenging because such a phenomenon, in its complexity involves common elements worldwide, but it also occurs in a country with an enormous geographic, social and cultural diversity, encompassed in the immense national territory, as well as conjuncture aspects, both political and economic, correlated to, coinciding and converging with the phenomenon of the pandemic. In this case, epidemiological parameters (incidence, mortality, lethality, transmission and diffusion in the population) indicate yet another system of epidemics, with outbreaks, waves and different variations in different segments of the population and sectors of the territory. Thus, these characteristics of diversity and variability represent crucial factors to be considered when implementing actions for monitoring, control, assessment and communication of proposals and strategies to overcome the pandemic and its impacts on our country.

## 5.1. The COVID-19 pandemic in Brazil

The first case of COVID-19 was registered in Brazil on February 26, 2020. However, three strains of SARS-CoV-2 were identified in the country between February 22nd and 27th; therefore, they were already well established even before the implementation of non-pharmaceutical surveillance and prevention measures, such as physical distancing, travel bans, use of protective elements, among others. This introductory scenario in our territory influenced the early and more serious situation in capitals such as São Paulo, Rio de Janeiro, Ceará and Manaus. The so-called community transmission became nationwide official only on March 20th, not observing the specificities and diversity in the form of territorial occupation.

The monitoring of the expansion of the pandemic of the new coronavirus to new neighborhoods, municipalities and states has shown that the transmission of contagion by SARS-CoV-2 has also reached and spread among different groups of workers, and along the productive chains of the different economic activity branches and sectors. This occurs both in those activities deemed essential (such as health services, trade in foodstuffs, transportation of people and goods, power generation, agriculture, food production, etc.), and non-essential activities, which did not interrupt their operation during periods of quarantine (such as miscellaneous industries, mining, civil construction, commerce in general, domestic services, among others).

The COVID-19 pandemic in Brazil achieved one of the steepest case-growth curves in the world. In 14 days, the country reached 50 cases, ten days later it reached 1,000 cases, on April 4th there were already 10,000 cases, a month later we exceeded 100,000 cases. The following weeks showed significant growth in the spread of the virus in the Brazilian population, on June 2nd we had half a million official cases notified, surpassing on June 19th the number of 1 million new accumulated cases, and more than 1,000 new cases

per day. At the beginning of July, Brazil already registered more than 1.5 million notified official cases, becoming at the end of June the country with the highest daily incidence of COVID-19 worldwide.

The first death occurred on March 17th, of a domestic worker who got contaminated when in contact with her employer at work. A month later (April 10th), the total accumulated deaths was 2,143, a value that increased significantly in the following weeks, and reached 16,118 on May 17th, and exceeded 50 thousand deaths on Jun 23rd. In mid-June, Brazil had a mortality rate of 22.1 deaths/100,000 inhabitants by COVID-19, which then becomes the main cause of death in the country. On Jul 2nd, the country has already registered 60,632 deaths, which represents a mortality of almost 300 deaths/100,000 inhabitants by COVID-19, with a lethality rate of 4.2%.

The epidemic spread quite heterogeneously across the Country, with a difference of 30 to 40 days for the states of Sergipe and Tocantins, which registered the rise of the epidemic curve later on. The epidemic curve was more accelerated in the North and Northeast, with mortality rates of 42.2 and 23.8/100,000 inhabitants, respectively, after 80 days from the 1st death. In the Southeast, Midwest and South regions, mortality rates on day 80 from the 1st death were 18.5, 4.6 and 2.8/100.00 inhabitants, respectively. In early July, with 98 days of pandemic for the most delayed regions, mortality rates per 100,000 inhabitants were: North: 51.8; Northeast: 34.2; Southeast: 27.4; Midwest: 22.2; South: 54.6.

The states with the highest number of inhabitants, São Paulo and Rio de Janeiro, register the largest number of reported cases and deaths in the country. On Jun 16th, São Paulo had 190,000 accumulated cases and 11,132 deaths, while Rio de Janeiro had 83,000 cases and 7,967 deaths. On Jul 2nd, São Paulo records almost 300 thousand cases and 15 thousand deaths; Rio de Janeiro accumulates 115 thousand cases and exceeds 10 thousand deaths. Thus, these two states account for 30% of cases and 40% of deaths in the country.

The highest incidence of notified cases of COVID-19 was recorded in states in the Northern Region. On Jun 16th, the incidence in Amapá was 2,100/100,000, in Amazonas 1,380/100,000, in Roraima and Acre 1,120/100,000 inhabitants. On the same date, the five states with the highest mortality rate were Amazonas (60.8/100,000), Ceará (55.3/100,000), Pará (49.5/100,000), Rio de Janeiro (46.0/100,000), and Pernambuco 41.2/100,000). In contrast, the states of Goiás, Rio Grande do Sul, Santa Catarina and Mato Grosso do Sul had mortality rates below 3.5/100,000 inhabitants.

In early July, the incidence in Amapá was 3,375/100,000, followed by Roraima with 2,266/100,000, Amazonas with 1,725/100,000, DF with 1,666/100,000, and Acre with 1,539/100,000 inhabitants. On the same date, the five states with the highest mortality rate were Amazonas (67.8/100,000), Ceará (67.4/100,000), Rio de Janeiro (58.8/100,000), Pará (57.2/100,000), Roraima and Pernambuco 51.0/100,000). The states of Goiás, Rio Grande do Sul, Santa Catarina and Mato Grosso do Sul had mortality rates below 8.0/100,000 inhabitants.

Recently, some states with disease incidence rates among the lowest in the Country, have become concerned about the upward trend. Although the Ministry of Health and some state governments mention a "stabilization of the epidemic curve" and a recent analysis carried out by the Imperial College in London points out that in Brazil there was a general reduction in the transmissibility coefficient (Ro or basic reproductive number), in the 16 states monitored (those where there have been more than 50 deaths so far), this index remains higher than 1, which indicates that the incidence of the disease continues to increase.

The suspension of the dissemination of data on the pandemic by the Ministry of Health, together with the attempt to manipulate it by subtracting part of the deaths from the total that should be reported, contrary to the pattern followed by all countries in the world, led the National Council of State Health Secretaries - CONASS - to immediately organize its own compilation platform. At the same time, a consortium of competing communication vehicles was created, by its own initiative, for a cooperative action to disseminate data generated by the health departments of the states, seeking to fill the void in the role of the federal government and make up for the discredit of the information generated by it. Even so, detailed records that were used by managers and researchers were no longer offered, compromising important local monitoring initiatives.

The epidemiological knowledge accumulated so far about COVID-19 and the experience of other countries where the epidemic arrived earlier indicate some paths and dangers. The spread of the disease should not stop spontaneously, as long as there is a reasonable proportion of susceptible people; until it reaches this level of collective immunity sufficient to contain transmission, millions of people will have been infected, hundreds of thousands will die. At this recent phase, the epidemic is advancing inland. The number of cases in these areas already exceeds the cases accumulated in most of the respective capitals. This table provides for a worsening of some indicators, such as lethality and mortality (variables per locations according to accessibility and infrastructure of available health services), considering that the capacity for tertiary care, such as ICU beds, is concentrated in the capitals and larger urban centers in the States.

Brazil is already experiencing a tragedy when the number of accumulated cases reaches two million, and mortality advances beyond 70 thousand deaths. Optimistic projections indicate that these numbers will be multiplied by three by the end of this year; other projections reach 20 times. Even the best scenario is terrifying. In it, the capacity of health services to care for critically ill patients will be exceeded in most Brazilian cities, which will lead to an increase in lethality (by COVID, and by other causes that will have their service compromised), the breach of biosafety measures in crowded health services, and an even greater disorganization of the economic activity. To this profile is added the human suffering of those who fall ill, of those who assist, of those who support and experience, which requires the provision of

assistance when the psychic symptoms appear, to the aggravation of mental disorders and other problems caused by the increase in domestic violence.

### 5.2. Huge inequalities: a favorable context for the spread of the pandemic

In Brazil, the challenges for the fight against COVID-19 are even more complex, as the transmission of the virus and the impact of the pandemic tend to be more serious in a context of great economic and social inequality, with populations living in precarious housing and sanitation conditions, without constant access to water, in a situation of agglomeration and with high prevalence of chronic diseases and deficiencies, as pointed out by the World Report on Disability.

The first confirmed cases were people of high economic strata, recently arrived from trips abroad, but the disease quickly reached the poor communities on the outskirts of large cities and began to expand inland, affecting including indigenous peoples, quilombolas and riverside dwellers. Lethality in these groups has been higher than the Brazilian average. Studies have also shown greater lethality among black men and women when compared to white people, despite the failure to fill in the race/color and ethnicity item in health services. During the pandemic, the overwhelming social inequalities among Brazilians have been reflected in the unacceptable excess of deaths among the poor, black and indigenous people, Northerners Northeasterners in relation to the rich, white people and Central-Southerners, which results from processes of social determination of the health-disease process and differences between the offerings of public and private beds. It also highlights the situation of people with special needs who, due to their bodily singularities, suffer restrictions and limitations in tackling COVID-19, due to the barriers augmented by social inequalities, exacerbated by the pandemic. It is also important to note the lack of information regarding the impact of COVID-19 on people with special needs. An important step in this direction is to guarantee the registration of information on disability in the notification instruments.

The socioeconomic situation of an important contingent of the Brazilian population was already worsening before the epidemic, in the context of the global financial crisis of 2007-2008. COVID-19 brought to the fore the most damaging effects of the loss of several rights, in particular social security and labor rights. In fact, under the pretext of the pandemic, the Federal Government issued Provisional Measures (MP) highly harmful to workers, such as, for example, MP 927 (pending before the Senate) and MP 936, converted into Federal Law No. 14,020, on July 6th this year. Article 31 of MP 927/2020 limited the performance of labor inspectors to guidance activities only, without the power to sue employers if irregularities were found. There was a reaction by society and entities to this measure and, in the judgment of preliminary injunction in seven Direct Actions of Unconstitutionality (ADIs) filed against the MP, the Plenary of the Federal Supreme Court (STF), suspended the effectiveness of this provision, reestablishing the power of police of Labor Inspectors, important tool for protection of the health and safety of workers.

The percentage of unemployed and under-employed persons or informal workers grew and had a severe impact on the behavior of the epidemic, making it difficult for these people to adhere to the various forms of quarantine, so necessary to mitigate the effects of COVID-19 on the life and health of the population. Distancing measures are very difficult to be followed by a huge group of Brazilians, represented by informal workers (around 40 million), the unemployed (approximately 13% of the population), self-employed workers (domestic workers, carpenters, firefighters, painters, gardeners, street vendors, etc.), among others. There are millions of Brazilians who, in general, live in large conglomerates, with precarious houses, on the outskirts of large cities. For all of those people is highly difficult to stay at home for weeks, mainly because they lack funds to buy food, pay rent, water, power, etc. For this reason, the importance of assuring a minimum income, capable of guaranteeing people's livelihood at the appropriate time to respond to the pandemic.

Even at times when the highest percentages of collective measures to control the epidemic were reached in Brazil, high levels of quarantine were never achieved as in other countries affected by the pandemic. Thus, in the Brazilian case, which experiences a more complex reality, with immense inequalities, although essential, the different forms of quarantine have structural limits for generalized adherence. It is necessary to take other concurrent measures, which are essential to make it possible for at least 60% of the population to adhere.

Furthermore, the role of the activities and work environments in spreading the pandemic must be highlighted. There is undoubtedly a transmission dynamic between family, community and work environments, which must be recognized in order to be prevented and/or blocked as soon as possible. Cases of COVID-19 occurred at home or in the community, upon reaching workplaces, find an environment conducive to its rapid spread and contagion to a greater number of people, as in general, they are closed environments, with adverse working conditions (exposure to dust, chemicals, heat, inadequate ventilation, etc.), with agglomeration of workers in some sectors, working in close contact for several hours a day, and sharing facilities, benches, instruments, tools, cafeterias, accommodation, and transport.

News from newspapers, the media, websites and testimonials, in addition to the actions and interventions of workers' health surveillance in the SUS, of the teams of labor tax auditors and of the Public Labor Prosecution Office have identified the occurrence of cases in several categories of workers in the states and regions of the country, both in self-employed, informal and precarious workers, and among workers in the formal labor market, in addition to those in essential services (transportation, health, public security, etc.). Exemplary cases

can be mentioned, such as the slaughterhouses in Santa Catarina, Rio Grande do Sul and Mato Grosso; oil workers (in refineries and oil extraction platforms); construction workers in worksites for expansion of wind power lines in the states of Bahia, Tocantins and Piauí; mining workers, drivers and truck drivers in the transportation of agricultural products and others, in several states of the country. These situations exemplify work contexts favorable to the spread of the epidemic, either because people have to commute, or because they are in work environments that favor the spread of the virus, in which the measures for prevention and protection of workers' health have not been duly taken by employers and/or sufficiently recommended or demanded by health authorities.

## 5.3. Epidemiological strategies to reduce transmissibility

The notion of "social distancing" has as way-back reference applications of the mathematical network theory to epidemiology, particularly in the study of the contagion chains of communicable diseases. It is intended to limit the spread of the pathogen by avoiding the aggregation of persons in mass events, meetings, parties, public spaces, or public transportation, maintaining an effective safety distance (in this case, two meters) from other people. It comprises preventive actions of collective nature, highly desirable in the context of the COVID-19 Pandemic, due to its potential for intervention in the biological elements of transmission.

In this document, following recommendations from WHO, Unicef and the European Union, we prefer the term "physical distancing" to designate such actions, classified in the chapter of partial quarantines, reserving the term "isolation" to refer to the restriction or suppression of interpersonal contacts for potentially infected or exposed subjects. Social distancing would be an undesirable collateral result, both in terms of contrast and the reduction of social and affective relationships; efforts have been made to overcome social distancing with the support of communication technologies and activism in digital medias. In short, to effectively reduce transmission in an epidemic, we need to be physically separate, but to overcome the potential negative impact of the pandemic on collective mental health, we must remain connected socially and emotionally.

In the absence of biological preventive or curative technologies (vaccines and medications, among others), non-pharmacological measures of epidemiological control are extremely important. A systematic review of 29 publications, carried out by the Cochrane Network, at the request of the WHO, showed that quarantines and other public health measures decrease the risk of contagion and reduce mortality by COVID-19 from 31% to 63%3. Strategies to reduce mobility and agglomerations, planned within the necessary range for each region, state, municipality or location are, therefore, fundamental.

<sup>3</sup> https://COVID.cochrane.org/pt/CD013574/INFECTN\_quarentena-isolada-ou-emcombinacao-com-outras-medidas-de-saude-publica-controla-COVID-201

Despite the negationist resistance of the country's highest executive authority and the lack of initiative of some authorities at other levels of government, most Brazilian states and many cities have adopted non-pharmacological strategies that, in actual terms, comprise quite different measures, such as total (lockdown) and partial quarantines, individual or group isolations, physical distancing, including the reduction of the size, or banning, of events, closing of teaching units (schools and universities), restrictions on the operation of commerce, services and industry, closing and prohibition of attendance at parks, swimming pools and beaches, reduction of transportation (municipal, intercity and interstate), and changes in the work regime of public servants. These measures, despite the country's political and socioeconomic complexity, saved thousands of lives by substantially reducing the spread of COVID-19 in the states. However, after a few months, even without favorable evidence and against the epidemiological guidelines, several municipalities ordered the general opening of trade, forcing thousands of workers to expose themselves.

It is necessary to understand this set of restrictions as just one aspect of a set of measures that must be taken, in view of the complexity of Brazilian society. Measures of physical distancing and sectoral and partial quarantines have been shown to be an effective strategy to decrease the speed of SARS-CoV-2 contagion. The change in the behavior of urban and interurban mobility of the population has been quite significant since March. Data from the Google Community Mobility Report, which analyzes aggregated and anonymous Google Maps data, compares volume of displacement to different locations using as reference the median of the corresponding weekday, between January 3 and February 6, 2020. Across Brazil, there was a 76% reduction in travel to retail and leisure places, 69% at public transport stations, 72% to workplaces, and 38% to markets and pharmacies on April 10th, and 75% to parks on March 22nd. Those were the days and April was the month with the greatest average reduction in mobility. However, there has been a reduction in distance. The last month has shown a significant drop in the quarantine adherence rates in comparison to January/February, and in the case of markets and pharmacies there is already a greater displacement than in the reference period.

This trend is similar to that observed in Inloco's Social Isolation Index (ISS), which analyzes the displacement data of approximately 60 million Brazilians through the geographical position of their cell phones. The ISS peak was observed on March 22nd (62.2%), reaching 36.8% on June 12th, the lowest value in the historical series. From May 26th to June 25th, in just two days the rate was over 50%.

Such indicators show a strong degree of adherence by the Brazilian population to the epidemiological control programs of the pandemic only in periods when, often through the action of the Judiciary, state and municipal governments have taken more energetic and restrictive measures. However, the indicators of physical distancing have been reduced, as a reflection of the

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reopening of different economic sectors in several municipalities, even without a decrease in cases and deaths, a scenario with a dangerous potential to increase the spread of the virus.

#### 6. ECO-SOCIAL AND BIOETHICAL DIMENSIONS OF THE PANDEMIC

Faced with the health crisis resulting from the COVID-19 Pandemic, the trend of contemporary society, especially in the field of public health, has been a look especially dedicated to the themes of saving lives, controlling viral transmission, and seeking technological development for a preventive vaccine and effective antiviral drugs. However, if we do not integrate this critical event into the scope of understanding an eco-social analysis, there is a risk that we do not fully understand how this specific virus was able to produce a pandemic that is mediated by a mode of production based on rapid consumption and disposal of energy and matter, expropriating nature, marked by social, sanitary, environmental and cognitive inequalities, and by the demand for the ability to integrate the monitoring and health care systems (public or private; local, national or international).

# 6.1. COVID-19 as an environmental problem

A recent report by the United Nations Environmental Program proposes an approach capable of integrating human health, the health of other animals, and environmental health as a way to prevent new pandemics. This document identifies seven trends that drive the emergence of zoonotic diseases, including growing demand for animal protein, intensive and unsustainable agricultural expansion, increased wildlife exploitation, and the climate crisis. The document goes on to recognize that COVID-19 is a zoonosis, which results from human dystopias in interactions with various ecologies, causing a pandemic process to emerge with new characteristics on the globalized planet.

This complex of mediating conditions obliges us to think beyond biomedicine, requiring not only the interdisciplinarity that involves fields of diverse knowledge, such as Public Health, Geography, Sociology, Ecology, Economics, among others, but also the way of interacting and translating, through intercultural dialogue, different knowledge. Of particular importance in this dialogue are the populations and communities that live and work in deep interaction with nature, such as indigenous people, quilombolas, small-scale fishermen and farmers, and several other traditional peoples and communities whose demands for public policies to protect life, health and social welfare contribute to give a new meaning to our relations with nature, among the different social groups and peoples that make up our societies.

Just as the new coronavirus has left its ecosystem and, as far as we know, has migrated from China to all continents, we can expect that other viruses from natural ecosystems or unsustainable processes of animal and plant production can produce new epidemic and pandemic waves, as

<sup>4</sup> *United Nations Environment Programme - UNEP/ILRI/CGIAR, "Preventing the next pandemic - Zoonotic diseases and how to break the chain of transmission"* 

we see in the intensive production of birds, pigs and cattle, with the use of transgenic feed, antibiotics, hormones, and animal stress. As in 2009, with the H1N1 pandemic, also called "influenza A" or "swine flu".

Just like the intensive use of pesticides in the production of transgenic plants, exported commodities to support animal production and guarantee industrialized food affects human welfare and the health of the other living beings on the planet. And they are responsible for the loss of food security, which leads, among others, to diseases such as obesity, diabetes and arterial hypertension, which in the COVID-19 pandemic were some of the important comorbidities determining the increase in the mortality of infected people.

The behavior of the pandemic is also different in urban, rural, indigenous and other traditional populations, both in relation to the dynamics of the immune system, as well as clinical and epidemic expressions, where culture, work, ways and living conditions interact in the process of determining the disease and the organic and social consequences that result therefrom.

Thus, in intensely urbanized cities we will find the subject of housing, sanitation, access to water, transportation, mobility and food security as conditions that participate in social inequalities and in vulnerability processes. The inadequacy of sanitation systems, including the availability of drinking water, is fundamental to make basic preventive measures unfeasible.

For this reason, the recent approval in the Federal Senate of PL 3,261/2019, which is being called a "new regulatory framework for sanitation in Brazil", but which in practice privatizes the sector, transforming social rights into merchandise, aggravates the problem of access to water and essential public services to guarantee common assets and good living in the countryside and cities.

Likewise, the precariousness of workers in health systems and in transport and logistics services makes these social groups extremely vulnerable. Recently, the country has followed a great national mobilization of workers in the application delivery sector, as the precarious working relationships between them, and their resulting exposure to the new coronavirus have been the basis for both the profitability of companies in the sector and the possibility of comfortable social isolation of other sectors of society, which are privileged to support themselves from home office.

#### 6.2. Transfer of eco-social risks

A phenomenon that we could identify with what we have called "transfer of risks" in the field of health and environment. All lives matter, but we have accepted to protect some more than others, in an expression of structural racism, chauvinism and classism in capitalist society. In rural areas, expropriation of land, exposure to pesticides, limited access to public policies are some of the specific iniquities that affect the outcomes of the COVID-19 pandemic. Traditional populations, and especially indigenous peoples, already have

extremely high morbidity and lethality rates, for reasons that will be detailed below, and for the lack of recognition of several indigenous communities, including those present in urban areas, and for the advancement of mining, gold mining, and agribusiness on their lands.

We see how the health-environment-production-work-public policies-COVID-19 relations make certain groups vulnerable and affect the outcomes of the pandemic. Climate changes, deforestation, loss of biodiversity, destruction of springs, contamination of water sources, atmospheric pollution, food industry, working conditions in slaughterhouses, production of transgenic commodities, among others, are also topics that make up the health crisis of the COVID-19 pandemic in all the planes and interfaces of its determination, from biomolecular/genetic to that of ecosystems, all of them relevant to the fight against this pandemic and of possible others that are approaching.

All of these aspects concern the neo-extractive economic development model that inserts Latin America into an exclusive and unjust globalization, at the same time that it has been reprimanding the Brazilian economy, degrading ecosystems and producing genocides and epistemicides against traditional peoples, and at the same time reducing the biological and cultural diversity on the planet, our main source of wisdom and hopes for innovation at a time when humanity needs them most. The crisis is, therefore, simultaneously sanitary, social, ecological and democratic, and will continue to worsen if the country and the world do not change the course of the existing production and consumption model.

When one sees, in the current health crisis, an Environment Minister who incites the invasion of indigenous lands and weakens environmental protection, in order to favor an unsustainable model of agricultural and pastoral production; when he inhibits and disallows the Government's supervisory action in the protection of the environment and indigenous lands in face of illegal actions of deforestation and gold mining, we are strengthening dystopias that lead the country to environmental devastation and the genocide of population groups that are completely unassisted, unprotected and prevented from defending themselves.

## 6.3. Pandemics, ecosystems and health

In this context, we consider it important to highlight some processes that should in no way be neglected by any plan that seeks to focus on the current pandemic and those that may (re)emerge in the near future:

The growing incorporation of ecosystems into the global economy, which brings human groups and cattle breeding on an industrial scale to wild spaces, degrading them, is behind many genetic mutations that we identify in the living beings that live there. Of particular importance for the fight against viral pandemics is the fact that many viruses that previously infected only wild species have developed the ability to parasitize human beings through interactions with animals that we create for our food. In Brazil, several studies indicate that such processes already occur in the Amazon; the same has also been identified in studies conducted in China.

Several economic and political groups, which have great responsibility for the processes discussed herein, are taking advantage of the public outcry and social concerns regarding the current pandemic to approve important (infra) legal changes that can contribute to making such pandemics more common in the world in the future. In Brazil, we must be aware of attempts at weakening legislation that protects vulnerable ecosystems and populations, such as those that regulate protected areas (traditional indigenous or quilombola conservation units and territories), and those that mediate highly impacting economic activities, such as mineral extraction, energy production, logistics, and agribusiness. Fighting the epidemic also means ensuring the sustainability of relations between societies and nature, including vetoing the expansion of some of them over certain areas.

In order to ensure the effectiveness of public policies for environmental protection and traditional territories, it is essential that Brazilian society and the Government ensure the protection of those public agents who are responsible for inspections and the implementation of public policies in these areas (agents of Brazilian Institute of the Environment and Renewable Natural Resources (Ibama), Chico Mendes Institute for Biodiversity Conservation (ICMBio), National Indian Foundation indigenous technicians (Funai), federal police, and state environmental battalions, state environmental agents, community environmental and health agents, among others). In the current context, they are vulnerable in several ways: due to the lack of personal protective equipment that would protect them from exposure to the new coronavirus, budget strangulation of their respective institutions, and the violence of those who seek to take advantage of the reduction of normal government activities to intensify the predatory exploitation of ecosystems and territories.

However, we must make sure that the standardization of protection measures does not end up making the important social role of those that in the current economic and social system support with their work the atypical operation of society at this time invisible. We must intensify the measures of protection of these professionals who in the countryside and in the cities ensure our food, health transportation, public security, the operation of essential services and institutions, so that the measures of social isolation and fight against the pandemic are successful.

We are not only talking about health professionals, but also small farmers, which unlike the agribusiness, grow most of the food that feeds us (vegetables, fruits, and grains for human consumption, etc.), as a significant portion of Brazilian land is directed to grain production to meet the world demand for protein of animal origin. We also talk about policemen, public and private transportation drivers (taxi drivers, motorcycle taxi drivers, app car drivers, etc.), market workers, etc.

## 6.4. Contributions of Bioethics to face the pandemic

According to the Committee on Ethical Issues in Medicine of the Royal College of Physicians in England, pandemics require the incorporation of public health ethics

into clinical ethics, with equity presenting itself as the principle that best reflects the demands to be addressed during a pandemic, as the recommended health actions must be responsible, inclusive, transparent, reasonable, that is to say, based on scientific evidence and ethical and flexible values, in order to be revisited as new information appears.

An important contribution of bioethics, in its relationship with public health in the context of the pandemic, is the appreciation of the ethical relevance of the guidelines of health policies, and appreciation of the rules and moral decisions present in health actions, and their impact on the population's health. A critical issue faced during the COVID-19 pandemic has been the fair allocation of scarce health resources, which is even more serious in view of EC 95/2016. A question that persists in this pandemic is "how" to distribute health services fairly, especially ICU beds, without incurring discrimination and naturalizing deaths, as we have seen in protocols that end up discriminating and making elderly people even more vulnerable. Indeed, the advance of the pandemic has led to an overload and even a collapse of local health systems, with a greater demand than the resources available and/or made available to the population.

In the clinical context, on the one hand, there are difficult screening decisions that configure the technical and ethical dilemmas around the allocation of resources, when critical care is given or denied to critical patients; on the other hand, there are serious cases that evolve poorly and that will require the decision to limit or interrupt intensive care, and start end-of-life care. The ethical guidelines for these situations of rational prioritization of beds and resources recommend that the allocation should occur based on appropriate assessment methods, both technical and ethical, to ensure that the patients who need care the most are continuously prioritized and cared for. Therefore, the decision to prioritize resources is both technical and ethical in nature, and the bioethical reflection on the topic is guided by the ethical principle of distributive justice, whose challenge is to determine the relevant properties that justify a specific distribution, avoiding discrimination and promoting a system of protection.

In this perspective, the recommendation is to include in the National Strategic Intervention Plan, and recommend health managers to use, a space for the creation of Bioethics Committees in health units, and at the state and municipal level, as a way of coordinating actions, as institutional support devices for health professionals in decision-making, and an instrument to protect the interests of the various vulnerable social segments that resort to health services in search for care, such as the elderly, women, people with special needs, the black population, among others. Bioethics Committees are dialogic and multidisciplinary spaces for reflection, with the participation of health professionals and professionals from several other areas, community representatives and users, aimed at solving ethical problems in clinical practice, with a view to improving the quality of the assistance provided, with educational, consultative and normative functions.

In 2015, the CFM published Recommendation 01/2015, which provides for the creation, operation and participation of doctors in the Bioethics Committees, in order to support their operation and maintenance. In Recommendation 01/2020, the Brazilian Society of Bioethics - SBB, considering that the exponential increase in the number of serious cases of COVID-19 may imply ethical dilemmas in decision making, recommends that the Hospital Bioethics Committees be strengthened and established in places where they do not yet exist. These Committees must participate in the screening process at health units, contribute to reflections and specific proposals pertaining to local particularities, and decisions related to complex choices, including to mitigate the emotional burden of the assistance team. Bioethics committees may be responsible, among other measures, for the institution and wide dissemination of protocols and clear guidelines by the health unit, which can provide subsidies and instruments for referral of cases based on weightings, ethical reflections, and shared responsibilities.

# 6.5. Prospects for overcoming the pandemic

In Brazilian society, marked by profound social inequalities, special attention is given to those related to equity, dignity and solidarity, as ways of mitigating their impacts on the population, especially vulnerable groups and, ultimately, invisible groups. Ethical reflection is central to tackling this pandemic, especially when we observe false dilemmas present in the government narrative, which puts the economic agenda and the preservation of lives in conflict, when one excludes the other, with a direct impact on both adherence to the measures to contain the epidemic through, for instance, "physical distancing", and the impossibility of complying with such measures by a large number of people, who do not have a basic income that allows them to stay at home.

As this document demonstrates, the fight against the COVID-19 pandemic is necessarily multidimensional, interdisciplinary and interprofessional; it is observed that all the recommended measures are crossed by values and are defined by a totalizing and complex perspective. In an eco-social perspective, health must ultimately be thought of in an integral manner, beyond the institutional and doctrinal frameworks of the field of health and SUS, but always thinking how the different dimensions of life (politics, economics, environmental, occupational, cultural, mobility, etc.) are interconnected. The current context imposes the need to understand these interconnections, at their various scales, as an urgent task in the context of the preparation of any plan to combat the COVID-19 pandemic and its consequences.

#### 7. IMPORTANCE OF THE UNIFIED HEALTH SYSTEM

In Brazil, as occurred in relation to the health systems of all affected countries, the COVID-19 pandemic has represented an enormous challenge for the Unified Health System (SUS), as a result of the abrupt increase in the demand for care of patients with a new disease, still poorly understood, for which there are still no specific biological measures for prevention and specific drug treatment.

It is important to emphasize that, in Brazil, the pandemic finds a health system marked by contradictions between conflicting projects - on the one hand, the Health Reform bill, to universalize the right to health and, on the other, the Government reform bill, based on liberal aspirations - in a context of strengthening of the financial capital and tax austerity policies. In the 30-year trajectory of SUS, since the 1988 Constitution, there have been few periods in which greater articulation between economic growth and social development in the country has been sought.

The SUS, which constitutionally forms the tripod of Social Security alongside Pension Fund and Welfare, since its creation, suffers directly in its financing the constraints to the implementation of a state of social protection in the country. It has been decades of interaction with unstable rules and insufficient funds, up to the limit of the spending ceiling freeze imposed by EC-95 in 2016. Thus, the SUS reflects contradictions and paradoxes, because even though it has expanded health services, thus assuring universal access, service gaps persist, fruits of inequality in the offer of health services and actions, especially in remote areas and/or areas with low socioeconomic development; the fragmentation of the health system; the fragile regulation of access; the difficulty of Primary Health Care (PHC) being considered a care coordinator; the low appreciation of health surveillance actions; the irregular distribution of health professionals; the lack of a human resources policy compatible with SUS attributions; and insufficient funding.

Overcoming these difficulties is fundamental to tackle the pandemic and, if achieved, will greatly contribute to the consolidation of SUS as a universal and egalitarian system. In this regard, it is important to identify innovative experiences that emerged before or during the pandemic, giving visibility to efforts that contribute to shaping new SUS management and micromanagement possibilities.

# 7.1. Regionalized health care networks

Although SUS is not restricted to actions of direct health care for people in the territories, from an organizational point of view, the main strategy to overcome obstacles is the strengthening of regionalization and the establishment of regionalized health care networks. The networks are "organizational arrangements for health actions and services, of different technological densities that, integrated through technical, logistic and management support systems, seek to guarantee the

integrality of care" (MS Ordinance No. 4,279/2010). Therefore, the adoption of this organizational guideline aims at reducing the historical fragmentation of the system, avoiding competition between points of attention, promoting the appropriate use of resources and horizontal care.

Thus, the networks are ways of integrating services and defining lines of care, through the sharing - by the different populations of the municipalities that are part of a health region -, of structures and resources with different degrees of technological density. This systemic organization, made effective through the signing of federative pacts, based on cooperation and solidarity, is essential to ensure universal access and comprehensive care, particularly at this critical moment of the pandemic.

# Expand and qualify primary health care

The SUS regionalized network is based on primary health care. In the last three decades, the Family Health Strategy (ESF) has been shown to be effective in improving the health situation of the populations served, despite having undergone profound changes with the latest movements in the Ministry of Health (MS). To effectively tackle the pandemic, expanding access to health services, the ESF needs to be expanded and qualified, including Oral Health and the Extended Family Health Centers (NASF), based on the attributes of first contact, longitudinality, integrality, coordination, cultural competence, family and community orientation. Improving access also includes expanding the hours of operation of primary care units during the week and on weekends to favor people's access, based on careful local analysis, with respect and appreciation for the work of health professionals, through participation and permanent dialogue in decision-making spaces, at all levels.

Primary health care/basic care teams (PHC/BC) can contribute to the care network and the community approach needed to face the pandemic. The performance of the PHC/BC teams in the network of combat to Covid-19 must be developed in four integrated fields of action:

- a) health surveillance in the territories, in close cooperation with the epidemiological surveillance sectors, to block and reduce the risk of epidemic expansion, coordinating in the territory, primary and secondary prevention actions against Covid-19, with identification of cases, testing, and active search for contacts, support to home isolation of cases and contacts; notification of cases; and health education actions, leveraging existing collective communication resources in the community (community radios, message groups, sound car), fighting fake news.
- b) individual care for confirmed and suspected Covid-19 cases by organizing separate flows of care for respiratory symptoms/suspected cases, taking care of patients with mild conditions, and ensuring the timely referral of those who need care from other

levels of attention; with telemonitoring by the team of cases and contacts, and tele-assistance, providing a phone number of contact to the users.

- c) community action with support to vulnerable groups in the territory, whether due to their health or social situation, mapping users with greater vulnerability and risk in relation to Covid-19, mobilizing community leaders, activating social support networks, articulating community initiatives, and promoting intersectoral action.
- d) continuity of routine PHC care, ensuring the continuity of primary care actions in their health promotion routine, prevention of diseases, and provision of care at this level of the health system, incorporating new forms of daily distance care.

In view of the COVID-19 pandemic, it is necessary to redesign the actions, considering the possibility of increased demand for attention in some areas, such as mental health, physical therapy, care for the elderly, violences, nutritional care, care for overweight people and with NCDs, which are risk factors for the worsening of Covid-19. Moreover, it is also necessary to prioritize preventive actions, such as vaccination, monitoring of chronic patients and priority groups, such as pregnant women and infants, and emergencies and situation of acute chronic diseases, as well as care for the population and groups in situations of vulnerability, black population, indigenous peoples, riverside dwellers, quilombolas, workers in precarious situations, informal workers, unemployed people, among others, who demand attention to their specificities, in addition to intra and intersectorally articulated actions, with special attention to the increase in cases of violence against women and children, guaranteeing access to reproductive planning actions, including emergency contraception.

The pandemic has generated anxiety, fear of falling ill and dying, emotional losses, insecurity and impoverishment, especially among bereaved families, and vulnerable groups. The offer of integrative and complementary health practices (Integrative and Complementary Health Practices - PICS), such as meditation, community and integrative therapy, reiki, yoga, phytotherapy, among others, through telecare, has contributed to the promotion of health and care, especially in the mental health area, benefiting even health professionals. The use of these practices is not intended to replace conventional therapies, but rather to complement them, as recommended by WHO and the National Policy on Integrative and Complementary Practices. Such use has been widely studied and legitimized by health institutions and international scientific communities in recent decades.

In this regard, it is also important to consider within the PHC scope the emergency implementation of Intermediate Care units. Intermediate Care are territorial reference services, which support the actions of Primary Care, forming a Basic Health Network. One can mention as an example Intermediate Care Units with recovery and rehabilitation beds along the lines of Community Hospitals, which are part of the United Kingdom's National Health System, including Home Care Services, and other similar European experiences, with telecare activities in their

various modalities, among other strategies. The use of video consultation and other forms of tele-assistance needs to be made possible, and home visit and monitoring by doctors, nurses and NASF professionals must be guaranteed when dealing with conditions of greater complexity and risk, or for patients without a telephone.

For the development of this set of actions in an effective and efficient manner, it is necessary to provide training for all team professionals on fight against Covid-19 and on the use of personal protective equipment differentiated according to the type of activity performed. Therefore, it is essential to activate the community attributes of the ESF, ESB, NASF multi-professional teams; associate with community organizations' supportive initiatives, and articulate intersectorally to support their population in its various vulnerabilities; guarantee the continuity of promotion, prevention and care actions, creating new work processes in health surveillance, in social and health support to vulnerable groups, in the continuity of routine care for those who need it.

Ensuring regulated access to specialized care

From the PHC service network, regulated access is to be provided to specialized care in all health regions, including: (a) outpatient medical and rehabilitation clinics, (b) Dental Specialty Centers, (c) Psychosocial Care Centers (CAPS) and Therapeutic Residences,

- (d) Fixed (ECU [UPA in Portuguese]) and mobile (Samu) pre-hospital emergency services, (e) Occupational Health Reference Centers, (f) Delivery houses,
- (g) Reference Services for Comprehensive Care for People in Situation of Sexual Violence and Termination of Pregnancy in the cases provided for by law. Like the primary care units, the specialized units must operate with complete and qualified teams, with adequate equipment and resources for proper diagnostic and therapeutic support. The importance of defining referral flows between services and clear provision of information to the population is emphasized, as well as the adoption of strategies that favor access, welcoming of people, and taking responsibility for care in any type of service.

With regard to CAPS, it is important to highlight the expansion of their role in times of pandemic, maintaining the care of people who have already been experiencing significant psychological distress, receiving new cases of people affected by the tragic consequences of the deaths of family members. In this context, the CAPS network contributes to reducing anxiety, distress, depression and post-traumatic stress disorders in view of the real or perceived risk of infection, in the general population and among health professionals, especially those on the front line of care to COVID19. It is essential to create forms of support to inter-professional teams that work in mental health, stimulating creative forms and new care strategies via tele-assistance, mutual help groups, face-to-face and distance assistance, listening to situations of acute and extreme suffering, such as suicidal ideas, attention to the psychosocial crisis in an exceptional situation, such as

the one produced by the pandemic, and actions to recover cases and promote mental health.

With regard to fixed (ECU) or mobile (SAMU) pre-hospital emergency services, it is important that they are working with complete and qualified teams, and with appropriate equipment, and in articulation with primary care units, other specialized services and hospitals, aiming at offering timely and quality care that saves lives and reduces human suffering. Emphasis is placed on the need to organize special strategies to ensure proper assistance in loco for emergencies, and agile transportation measures for people living in places far from specialized resources, such as rural areas, indigenous territories, and isolated communities, especially in the Northern region.

# Expand the offer of hospital services

It is worth noting the effort that has been made by states and municipalities to expand the installed capacity of beds, including ICU beds. As much or more than field hospitals; however, new permanent hospitals are needed which, as well as outpatient services, need to have complete teams, take individual and collective protection measures (separation of flows and areas when relevant, ensuring beds for respiratory isolation), provide adequate diagnostic and therapeutic support services and equipped intermediate units (e.g. oxygen therapy), and intensive care units or reference for these units, if necessary.

Field hospitals are strategic, but temporary. They are intended to solve immediate problems, therefore they are not part of the permanent installed capacity of SUS. They must be deactivated to the extent that the emergency that required their opening and maintenance is, at least partially, overcome. Supplies and equipment are redistributed, returning to their maintainers. They do not guarantee the expansion of previous services provided by SUS for endemic morbidities.

In this regard, the immediate need to reorganize the provision of care is obvious, adding assistance resources from the public and private network. To save lives, it is necessary for the Public Authorities to control and manage all the hospital capacity existing in the Country, and institute a single list of serious cases of COVID-19 that require hospitalization and intensive therapy.

For all points and instances of care in the network, including health surveillance, management and planning actions, it is necessary to ensure the existence of technical teams designed and qualified according to the needs, demands, epidemiological profile and attributions of SUS, with stable work bonds, in order to ensure the integrality and continuity of care. That is, the implementation of an adequate human resources policy.

Strengthen the logistical and support systems of health care networks

The strengthening of care networks to fight the pandemic and to provide universal and comprehensive care cannot do without assurance of access and promotion of rational use of medications, exams and procedures for the prevention, diagnosis and treatment of diseases. Likewise, the production and dissemination of reliable and timely information about the health situation and the operation of services cannot be neglected. Health information systems, vital in times of a pandemic such as the current one, are requiring significant improvements, from administrative and clinical records, to streamlining the flow of information, to the degree of reliability and use for decision making in the clinic and management areas. The transversal axis in the care networks must be the assurance of the principles of the National Humanization Policy, such as shared care, risk classification and communication, and the promotion of workers' health.

With regard to pharmaceutical assistance, the National Policy for Pharmaceutical Assistance (PNAF), CNS Resolution 338/2004, must be fully implemented, as an integral part of the National Health Policy, involving actions aimed at the promotion, protection and recovery of health, and assuring the principles of universality, integrality and equity, with respect to the strategic axes that pervade the promotion of national production of medications to the guarantee of rational access of medications. Therefore, it is essential to integrate the National Pharmaceutical Assistance and Health Surveillance Policies and to organize actions from the territories of the Health Units, with the strengthening of social communication tools and permanent education for health professionals.

In turn, the diagnostic and therapeutic support services need to be expanded to improve the conditions of access and accessibility of the population, both within health units and around public roads, eliminating barriers to their use in a timely manner, and ensuring agile feedback of results to the patient and the requesting care team. Furthermore, it is necessary to face issues such as structural racism, intolerance, segregation and discrimination, which affect certain social groups,] and hinder access and quality of health care. Finally, as in the case of support systems, health care networks require the proper operation of logistical systems, which enable the flow of people, information and inputs in a timely and effective manner.

## 7.2. Health promotion and surveillance systems

Tackling the pandemic requires the consolidation of national health surveillance systems, and promotion of health, articulating epidemiological surveillance actions, health surveillance, food and nutrition surveillance, health surveillance for workers, and environmental health surveillance, in addition to inter-sectoral actions in all important areas in the process of social determination of health. In addition, the articulation of actions on the social determinants of health, including housing, work and income conditions, welfare, education, and

environmental sanitation, in a system for monitoring the living conditions of socially vulnerable populations, is essential for the social protection necessary to face the current and future epidemics.

Health surveillance actions are transversal, many are the responsibility and assignment of different types of services, aimed at caring for people's health, of varying complexity, which can be triggered from any point in the service network. On the one hand, the need to articulate health surveillance with primary care is emphasized, due to the proximity of teams to the territories where people live and work. On the other hand, there are more specific surveillance actions related to services with greater technological density, production processes, the circulation and sale of goods and products that imply the need for coordination with other services, or even with bodies external to the health sector. The challenge of integrating the actions of the various components of health surveillance (epidemiological, sanitary, environmental health, worker's health, laboratory surveillance), and implementing the National Health Surveillance Policy remains.

The systematic production of in-depth analyses of the health situation, the production of reliable information that supports planning and decision-making in all areas of the health policy (care, technology production, management, health promotion measures and prevention of diseases and illnesses), decision-making and health interventions, whether to control damage and risks, or to intervene in the determinants and conditions of the health-disease-care process, are all dimensions common to the different areas of health surveillance, with due regard for their specificities of objects, methods and interventions.

The guarantee of access to the necessary health goods and services in a timely manner depends on the rapid and effective action of health surveillance. It is incumbent upon health surveillance to assess the benefits and risks of diagnostic (e.g. tests, reagents), therapeutic (medications), protection (e.g. PPE), and preventive (vaccine) technologies. Evaluation that requires action by the National Health Surveillance System, in its federal, state and municipal spheres, including the laboratory evaluation network, without which the evaluation of the quality of these technologies does not materialize. International collaboration, with regulatory agencies and multilateral bodies, is essential for health regulation in times of pandemic. At such times, scientific evidence of efficacy and safety needs to be produced quickly, and usually in precarious conditions, in view of the health emergency. Good practices in the development of clinical research, production, sale and use of goods, and in the provision of health services reduce risks and provide the safety of patients and workers, including health workers.

The need to organize nutritional care in SUS is particularly relevant, considering that social and health inequalities, which directly impact the possibilities of access to adequate and healthy food, are expressed and worsened in a unique way in the context of the Pandemic. The increase in unemployment, the discontinuity and even the interruption of production flows,

marketing and consumption caused, in some contexts, by physical isolation and the closing of different commercial establishments, directly affect access to food. Furthermore, eating practices (forms of consumption, preparation, shopping, eating places, commensality, and social relations around food, etc.) can be significantly reoriented in a scenario of physical isolation. The challenges faced in preparing meals in a context of reorganizing domestic and family activities are multiple.

It is especially worrying that in Brazil, since the beginning of the COVID-19 pandemic, we have not collected fundamental data for a better and broader understanding of the epidemiological behavior of the pandemic in the information and case notification systems, such as occupation and the economic activity of sick individuals, and the possible connection between the case and work. Other countries rely on this information. The United Kingdom has published epidemiological analyses of the cases, including COVID-19 mortality analyses, according to occupational groups. These analyses make it possible to better understand the spread of the disease, and support decision-making regarding priority locations and population groups for intervention and prevention. Technical guidance from states, such as Bahia, Tocantins, São Paulo and others, to carry out additional epidemiological research, with research in the workplace, whenever necessary, and notification of cases identified as work-related, are examples of strategies to reduce these gaps in information production. In turn, it is urgent that these analytical categories be included and made available for all suspected and confirmed cases of COVID-19 nationwide.

In the specific case of the current pandemic, it is also essential to use efforts to build a national digital health infrastructure, including a health surveillance system that is able to track the tests and infections by COVID-19 of the Brazilian population. Added to this is the need to strengthen genomic surveillance, associated to investments in basic and applied national research in virology, genomics, immunology, in various areas of Public Health, among other relevant fields, to expand the capacity to respond to health problems relevant to the country.

# 7.3. Federative pact: intensifying cooperation

The triune federative design of Brazil - federal, state and municipal - is reflected in SUS through the sharing of management skills and responsibilities between entities. Assurance of universal access and comprehensive care demands systemic organization, made effective through the signing of federative pacts, based on cooperation and solidarity.

Unfortunately, in the context of the pandemic, the federal government's irresponsibility has given rise to many federal conflicts, reaching the point where the Federal Supreme Court has to ratify the autonomy of subnational governments in legislating in the field of public health. In a huge and heterogeneous country like Brazil, the role of the federal government is important for the

reduction of inequalities, requiring redistributive policies in the sphere of taxes, public investments, and social policies, in general, and health in particular.

It is the responsibility of the Federal Government, and it is incumbent only upon it, to coordinate, promote and support strategies and actions from the most diverse segments of society. If the government representatives of states and municipalities are responsible for the development and implementation of actions necessary to their locations, it is up to the central power to check the adequacy to national and international guidelines, respecting specificities, assuring their feasibility with the distribution of the resources to which they are entitled. Furthermore, the federal government's role in seeking and recognizing the numerous strategies produced in society is equally important, that is, actions carried out by governmental, non-governmental organizations and community experiences, to strengthen and integrate them in the national fight against the COVID-19 pandemic. It is part of the responsibility of the central levels of government to produce, organize and disseminate correct and updated information on the dynamics of the pandemic, in view of current scientific knowledge, with the necessary diagnostic resources, and the dissemination of data on the magnitude and vulnerability of groups through the extraction of social variables.

In any case, to advance the consolidation of SUS and face the pandemic, there is an urgent need to strengthen cooperation between the Federal Government, states and municipalities. Certainly, one of the main strategies to intensify cooperation between federated entities, focused on the fight against the pandemic, is to consolidate health regions, ensuring adequate conditions for tripartite financing, planning and coordination between spheres of government and health services in different regions.

Indeed, given the differentiated impact of COVID-19 among the regions of the Country, it is essential to have a territorial organization with integrated management of installed and technological capacity, within the scope of regional governance bodies. There is no doubt that the regional governance body - Regional Interagency Committee (CIR) - takes a prominent role in coordinating the process of building health care networks.

## 7.4. Financing: more resources for SUS

The chronic underfunding of SUS, aggravated by the approval of EC-95/2016 that froze federal spending until 2036, is now dramatically revealed in the insufficiency of beds and specialized equipment, as well as in the low PHC coverage in the most vulnerable regions, and in the fragility of information systems and health surveillance actions.

Even more dramatically, the Ministry of Health (MS) shows enormous difficulty (or lack of political will) in effectively applying the resources destined to face the pandemic, as the National Health Council (CNS) has warned, through its Budget and Finance Committee (COFIN/CNS). The CNS draws attention to data that indicates tens of thousands of preventable deaths if the SUS were not de-financed, and if the government authorities had

taken responsibility for coordinating actions to combat COVID-19, observing the measures recommended by the World Health Organization (WHO).

In this context, tackling the pandemic requires that the Ministry of Health urgently starts to operate with the responsibility and diligence that the health crisis requires. In addition to increasing the financial resources earmarked for SUS, it is also necessary to apply the available resources quickly and efficiently. On an emergency basis, in compliance with the constitutional precept of assurance of the right to health by the Government, the repeal of EC-95/2016 is required, and that the extraordinary credits approved during the period of public calamity by COVID-19 be added to the federal floor of the health budget for 2021, as recommended by the National Health Council (CNS Recommendation No. 028, of 04/22/2020). It is also important to highlight the need to immediately adopt criteria for the transfer of resources to States and Municipalities, and for allocations "stopped" in the budget. And this must be duly agreed in the Tripartite Interagency Committee (CIT) and approved by the CNS, without any subordination to political interests of governance with Congress.

It is also important to consider the situation of a significant reduction in economic activity, and resulting drop in tax revenue for the Federal Government, states and municipalities. In this regard, to ensure the financial resources necessary to face the pandemic and to strengthen the SUS, it is necessary to extend for another year, at least, the duration of the public calamity, currently established until December 31, 2020 (Legislative Decree No. 6/2020).

Along with urgent and emergency measures, strategies must be implemented to overcome, in a structuring manner, the underfunding and, since 2016, definancing of the SUS. In this context, the fundamental strategy is to consolidate the Social Security budget, defining stable sources of revenue, and putting an end to the lack of connection with Federal Government revenues and to tax relief measures that take funds from Social Security.

However, the struggle for more funds for SUS cannot ignore that Brazilian society does not invest little in health, considering the total public and private spending in terms of GDP, the Country spends 9.2% per year. However, public spending (federal, state and municipal) represents only 3.9% of total spending. In order to increase public spending, without increasing total health expenditure, the public subsidy currently earmarked for the private sector of health establishments, insurance and health plan operators, and suppliers of health inputs should be redirected to SUS, except for philanthropic organizations that provide services solely to SUS users. Last but not least, it should be noted that adequate funding of SUS involves the strengthening of the tripartite agreements, and the exercise of social control (strengthening health councils) for the allocation of federal and state resources.

Finally, EC-95 should be repealed and the floor of 10% of the Federal Government's current gross revenues to be applied to SUS should be established, defining stable sources of financing. In this fundamental scope, the necessary repeal of GM/MS Ordinance No. 2979/2019, which establishes the Previne Brasil Program and establishes a new financing model for the funding of Primary Health Care is also required. Such a rule, contrary to the SUS universality principle, conditions federal funding of primary care to the registration of the population in the municipalities, in addition to confronting Supplementary Law No. 141/2012, which establishes the need to submit to CNS approval the agreements referring to the criteria for apportionment of financial transfers from the National Health Fund to state and municipal health funds.

# 7.5. Improving SUS management

In addition to social participation, tackling the pandemic requires improving SUS management, with enhanced efficiency. Therefore, the first strategy refers to the professionalization of SUS management, which requires the appreciation of public careers and the adoption of performance criteria to evaluate health work, rewarding efficiency. Furthermore, the direction of health establishments must be strengthened, granting greater autonomy to local managers and, at the same time, holding them accountable for the results achieved rather than for complying with administrative rules. In these lines, the management positions must be occupied primarily by career technicians. It is also important to recognize that SUS management is always in networks, that is, it takes place through connections and flows between the different units, services and instances. Therefore, it is necessary to have a permanent practice of internal agreement, as a way to guarantee effectiveness and efficiency in the management of the processes of supportive care lines, and health promotion and surveillance actions.

A second strategy relates to the review of the role of regulatory agencies, namely, the Brazilian Supplementary Health Agency (ANS) and Brazilian Health Surveillance Agency (Anvisa). In the case of ANS, it is essential to rescue its public nature, by putting an end to the situation of capture by the regulated sector, as evidenced by the "revolving door" mechanisms, which cause its managers to be linked to health plan operators, before and/or after passing through ANS. In relation to Anvisa, the central issue refers to the strengthening of the technical capacity of the Ministry of Health, so that health regulation is carried out in the interest of the population's health, and that health surveillance actions are better articulated with health policies.

Finally, management improvement requires the strengthening of the SUS resolution and joint management bodies - the Tripartite Interagency Committee, the Bipartite Interagency Committees, and the Regional Interagency Committees. In particular, the Regional Interagency Committees (CIR) must have their role of instrument for regional planning and management strengthened, making the regional decision-making space more democratic and effective, by mobilizing the whole of society to collaborate and endorse their decisions. Furthermore, it is essential to reinforce their technical role, establishing

technical committees to support evidence-based decision making both to face the health crisis caused by the COVID-19 pandemic, and to consolidate the SUS in all its dimensions. And it is necessary to reinforce the institutional role of SUS social control in the definition, monitoring and inspection of health policies.

# 7.6. Encourage and support SUS participation and social control

To make the combat against the pandemic effective, the World Health Organization recommends strong engagement by the community. The most successful experiences in controlling the pandemic have demonstrated the success of this recommendation. Actually, the countries that have achieved greater understanding and adherence of people to preventive measures have been those where fewer cases and fewer deaths from COVID-19 have occurred.

It is important to highlight that the Federal Constitution of 1988 guarantees the participation of society in the management of policies and programs promoted by the Federal Government, and establishes social participation as an organizational principle of the SUS, which works through Health Councils and Conferences, with the purpose of devising strategies, supervising/controlling, and evaluating the execution of the health policy. Within this scope and in the context of the pandemic, the National Council (CNS), the highest instance of the SUS social control, in view of the serious scenario, instituted a COVID-19 pandemic monitoring committee of the CNS, for the purpose of reinforcing and collectivizing the actions within its scope, with equal representation of the group of national health advisers.

In theory, with a formal system of social participation, SUS would be well positioned to mobilize and engage Brazilians in actions to combat the pandemic. In this context, but in opposite direction, the federal government has sought to delegitimize, make invisible and boycott the social participation and joint management bodies, within an authoritarian process of verticalization of decisions, in addition to embracing the strategy of disinformation. Against the option of the current government, it is imperative to strengthen social participation, ensuring the representation of civil society in all its diversity, and the representation of members of health councils, and developing actions for qualification of advisors in all spheres of government.

Community actions to tackle the pandemic need to be equally strengthened, valued and, whenever possible, a joint action of health promotion services and actions should be sought with such initiatives, enabling social participation from the territory, beyond the spaces of social control. Actions of prevention and promotion of health and welfare in the communities, especially among the most vulnerable populations, have been shown to be fundamental to mitigate the biological and socioeconomic impacts of the pandemic in these contexts.

# 7.7. Permanent education policy and health work management

In addition to care and management, work in the health system includes training and participation. The Brazilian Constitution provides for the responsibility

of the health system in ordering the training of workers in the area. According to the international organizations' recommendations, it is essential that SUS responsibilities for the training of workers be included in the work, involving health and educational institutions, assuring proper learning in scenarios of practice with physical and psychosocial safety, in a face-to-face or blended manner, including in the time and fight against the pandemic.

The SUS policy for the development of health work, which we usually refer to as permanent health education policy, includes the management of tensions in the organization of work and learning at work. Like the studies that demonstrate that institutional resources for psychosocial support and collective reflection are needed in high-risk situations with significant overload, such as the work that is carried out in services with high lethality, it is important that the discussion of cases, matrix and institutional support, specialized support to professionals, and team meetings are assured to people in a regular work situation, including people in professional training. It is necessary to pay special attention to workers who operate in the territories and at the "gateway" of health services, such as health agents, assistants, and technicians, who make up the front line of the fight against the pandemic by making the first contacts and screening of patients, and which often do not have their performance recognized. The development of professional capacities to handle health and social emergencies is fundamental, and on this topic, the different recommendations by the National Health Council, especially in fighting the COVID-19 pandemic, provide timely and appropriate guidelines.

Professional formation in the health area must also be ordered, as determined by the Federal Constitution of 1988, the supplementary legislation that regulates the matter (Law No. 8080/1990), and the guidelines issued by the National Health Council based on the resolutions of the National Health Conferences, which organized systems for the performance of social control in the development, evaluation and monitoring of policies aimed at professional formation (technicians and undergraduate in health) and permanent education for SUS professionals and workers. In this educational dimension, health residencies, including medical and professional health field residencies prioritizing SUS needs deserve special mention.

In this regard, for the care of people with suspicion or confirmation of contagion by the coronavirus, it is also of fundamental importance the qualification of all health workers, both those on the front line (reference hospital ICUs and emergencies) and the others who support care at the entrance doors of ESF, ECUS, Hospitals, SAMU, among others. This includes orderly, drivers, receptionists, cleaning staff, and hospital management staff, all of which are essential for the proper operation of the services and for the quality of the care provided to the person contaminated by COVID-19.

The fight against the pandemic has produced little visibility for a unique feature of health work. At national and regional level, it concerns the significant precariousness of health work conditions and relations identified in Brazil in recent years, especially from the increase in outsourcing processes and the use of social organizations in the commissioning of actions and services. The labor and social security reforms and the EC 95 had a significant impact on the organization of health work, with instability of employment bonds, personnel turnover, annual resignations and dismissals of the most diverse professionals, including primary care, in an attempt to be accountable to the Accounting Courts, in compliance with the reasonable limits of the fiscal responsibility law, without minimum observance of the social responsibility of managers, workers, and even of the public auditors of these courts. The current situation of work management in SUS, without the minimum necessary to meet the population's health needs, demands and problems, for the proper fulfillment of its constitutional duties and those of its managers (including mayors and governors), with significant employment insecurity, with a multiplicity of precarious bonds, high personnel turnover, without an explicit policy of appreciation and maintenance of the workforce, no longer had the minimum socio-health sustainability for SUS in recent years; let alone meet the current and future needs to combat the pandemic.

Finally, considering the federative nature of the SUS, it is essential to respect the tripartite mechanisms for the provision and establishment of professionals in remote regions, considering that the existence of professionals and services is a determining factor for the health of the populations and, in particular, traditional peoples and groups exposed to greater economic and social vulnerability.

## 7.8. Protect the health of workers, in the health and all areas

In the context of the pandemic, the main health problem that affects health professionals directly involved in the care of symptomatic patients or those diagnosed with the disease is the high risk of contamination by SARS-CoV-2. In fact, substantial evidence confirms the high degree of exposure and contamination by healthcare professionals. This demands special attention from managers at all levels (municipal, state and federal), so that health professionals are provided with essential protective equipment and working conditions that guarantee both their protection and the quality of the intervention with patients. Therefore, physical and psychosocial protection of people working in health and essential areas must be prioritized in actions to combat COVID-19, with a strong emphasis on biosafety and mechanisms to reduce psychological distress. These actions include the intensification of health surveillance in the territories and in the work environments.

Health work, an activity clearly and properly deemed essential, is experiencing a moment of great visibility due to the fight against the COVID-19 pandemic, as its workers are the ones who are, immediately and dramatically, at the forefront of care for the population, and at greater risk

in relation to COVID-19. Overload and pressure at work; fear; uncertainties; moral harassment; lack of a biosafety plan in most hospital settings; limited access to PPE, both in quantity and quality, replacement, adequacy and training for use and disposal thereof, explain the large number of cases and deaths by COVID-19 among these workers. In addition, it is expected that in this scenario they will experience psychological distress, being necessary the organization of health protection networks for these workers during and after the pandemic. Not to mention that the majority of health professionals and workers in essential services are women, who also assume the burden of domestic work, which does not exist for most male workers, due to gender inequalities in Brazilian society.

Nevertheless, it is worth emphasizing the distortions produced by the current understanding of essential services and activities, in the context of the pandemic. Essential activities are defined as those that are indispensable to meet the urgent needs of the community and that, when not met, endanger the population's survival, health or safety. However, in order to serve diverse economic interests, the federal government has increasingly expanded the branches, productive activities, and the number of workers included in this category, putting them at risk of contamination by COVID-19, with consequences for their health and that of the entire population, in addition to health system overload.

Initiatives that involve tackling the pandemic need to consider the several possibilities of insertion of people working in health and in other essential areas, who are subjected to the conditions of restriction of the population in general, to risks related to the conditions and organization of work within health systems and services; the risks related to commuting to work, which in many cases occurs by public transportation, and finally exposed to the violence mobilized by the narrative disputes that we live in society involving COVID-19 and public policies.

One of the physical protection measures relevant to health workers is the adequate and constant availability of personal protective equipment (PPE) in the workplace: N95 mask, aprons, eye protection, shields and gloves. Considering the proximity of health workers to the disease, death, the suffering of patients and family members, uncertainties and vulnerability, as well as the fear of becoming infected or transmitting the infection to members of their families, management of health services is recommended to pay special attention to the psychological suffering of workers and their mental health.

It is also recommended to take protective measures for health professionals in the daily exercise of work with: infection control in and among health teams, implement routine exams of health professionals as a form of screening, monitoring of signs and symptoms, and quick access to assistance, and leave from work if necessary, testing 100% of health professionals, permanent education of professionals for

homogenization of the health teams' work process and dissemination of technical guidelines and updates.

But not only are health workers at greater risk of falling victim to COVID-19, but everyone who needs to leave their homes for work. Either from essential activities, such as health, public transportation, which are often crowded with passengers; and all those who carry out their work activities in confined spaces and/or with agglomeration of workers in the work environments, such as offshore platform professionals; drivers (of buses, trucks, taxis, uber, subway workers), miners, street sweepers, grave keepers, bank workers, supermarket cahiers, various industries, workers in agricultural activities, call center operators, among many others.

For all those workers, SUS plays an important role in confronting COVID-19, through actions to protect, promote and monitor the health of workers, both those who work in essential activities and those deemed non-essential. To carry out these actions, SUS relies on the National Policy for Workers' Health (PNSTT) and the National Network for Comprehensive Workers' Health Care (Renast), having the Reference Centers in Occupational Health (Cerest) as an important point of health care and surveillance, and technical support for the assistance network in its area of scope.

The demand for preparation of contingency, case prevention and handling plans, to be carried out by employers and managers, public and private, in all work environments, according to the technical notes and standards issued by health authorities, and the strengthening of health surveillance and inspection capacity in these locations are essential for interruption of the transmission chain, and decrease in the number of cases in the various territories, regions and municipalities of the country.

# 7.9. Reduce psychosocial suffering due to the effects of COVID-19

Many recent scientific publications analyze the risks of the COVID-19 pandemic producing psychiatric disorders in the population, such as in previous epidemics or pandemics, or other humanitarian emergencies, such as major disasters, wars or armed conflicts. The growth of depressive disorders, anxiety, abuse of psychoactive substances and post-traumatic stress disorders draws attention. In the case of COVID-19, some segments of the population would be particularly susceptible to developing them, such as health professionals in charge of direct care for patients with this disease, in addition to bereaved people and other professionals working on the front lines of the fight against the pandemic or in key services, such as undertakers, street sweepers, police officers, and home delivery professionals.

A significant number of publications in the areas of psychology and psychiatry were published, in order to guide health professionals, especially of mental health, to manage the experiences of psychological suffering in

catastrophe situations. This reveals a field with theoretical and clinical specificities that opens up to the characteristics of exceptionality in human experience and the serious psychological, social, economic, political and symbolic crises that can cause major repercussions in the psyche of the subjects. It is also important to highlight the risks that overlap when facing these crises, and that frequently occur, by medicalizing, pathologizing and "psychopharmaceuticalizing" human suffering, reducing it, distorting it and even aggravating it with the triggering of trajectories of chronic or unnecessary use of psychiatric medications, which are not harmless in their organic and psychic effects.

In this perspective, in addition to guaranteeing and increasing the functioning of the psychosocial care network, especially of CAPS, but also of family health units, it is necessary to produce creative support strategies, such as telehealth, mutual support networks, supportive networks, emergency listening services, identification of cases in distress, carried out especially through primary care. It is not possible to minimize or neglect the need for strategies to welcome and treat an expressive number of people affected and who present psychosocial suffering in a very profound way, with the production of new rituals for the elaboration of mourning and the elaboration of death. In addition, it is essential to expand social protection networks because it is known that, in addition to extremely painful experiences of loss, collective fear and social isolation, a considerable part of people's suffering comes from the precarious material situation and that it has been significantly aggravated as a result of the COVID-19 pandemic.

One cannot forget, yet, the situation of people in asylums, whether they are psychiatric hospitals, therapeutic communities or custody hospitals, which present increased risks of contamination and contraction of the disease and of violation of their human rights. In this case, the inspections carried out in these institutions and measured so that the people admitted there can be treated in the community, with the assistance of the psychosocial care network, are of fundamental importance.

Last but not least, it is necessary to recognize the situation of greater vulnerability also of the workers in the area of mental health, in view of their greater physical exposure to contagion and emotional exposure to the increased suffering of society, needing not only equipment for protection, but also of all necessary psychosocial support, including effective care strategies for the caregiver.

#### 8. C&T IN HEALTH AND PRODUCTION OF STRATEGIC INPUTS

One of the most impressive faces of the current pandemic, among the several it has been presenting, is the mobilization of the world scientific community, as well as the industrial health complex, in the search for tools for its mitigation, in particular, but not limited to, diagnostics, medications and vaccines. As the pandemic is a complex and multifaceted event, the contributions of scientific communities in the field of social sciences in understanding this complexity have also been fundamental.

# 8.1. Current situation of the CT&I system in Brazil

In addition to the structural aspects of its formation, the Brazilian system of science, technology and innovation has been facing the most serious crisis in its history in the last five years. Not only due to the radical cut in its financial resources, but also, in the last year and a half, due to systematic attacks from the federal government on development institutions, as well as institutions that carry out scientific and technological research. Added to this is the weakening of industrial development, due to the endogenous difficulties of our industrialization process, which have been augmented by the absence of industrial policies in recent times, and by the BNDES depletion.

It is against this difficult backdrop that the participation of the science and technology and industrial innovation communities is being organized to face the pandemic. And despite the difficulties, it can be said that their contributions have been relevant. Most of this effort, as expected, originates from global centers of scientific and technological production, almost all of them located in the northern hemisphere. However, the role of local communities should not be underestimated, among other reasons, due to the specificities in the manifestation of the pandemic in each country or region.

#### 8.2. Efforts in scientific research on COVID-1961

Within the scope of bench research, the readiness to unveil the SARS-CoV-2 genome stands out, together with North American, European and Chinese groups. This paved the way for improving the accuracy of diagnostic tests for COVID 19 among us, and for the experimental development of other technological strategies for new tests. Mention should also be made of the search for new genomic patterns, associated with increased risks of falling ill and producing severe cases of the disease, and the development of specialized cell cultures in order to learn about the pathogenesis of the virus.

In the epidemiological field, regional and national surveys to determine the presence of antibodies in the population, essential to monitor the dynamics of the pandemic among us, should be highlighted. Also noteworthy are the numerous mathematical models in the estimation of cases and deaths. And the participation of epidemiologists in the management of the fight against the pandemic, advising managers in the three spheres of government.

The communities of human and social sciences have made a major contribution to unveiling the social, ethnic, political, economic and ethical repercussions, all of which have been exacerbated by the pandemic. It is worth noting that these dimensions, which are essential in the fight against the pandemic, tend to be underestimated when are ignored in situations such as the one we are experiencing. Researches in the areas of social and human sciences in health contribute in a relevant way: 1) in monitoring the social pandemic (identifying and analyzing cultural values based on certain risk behaviors, taboos, stigmatization, non-adherence to protective measures, in addition to social factors that differently model the epidemic in different social groups, due to economic inequalities, racism, and gender relations); 2) contributing to the determination of the biosocial origin of the pandemic, and 3) providing ethnographically produced knowledge, which can be applied in health information and communication.

In clinical research, the Brazilian scientific community has had an outstanding participation in national and international drug trials, in search for products that are proven to be safe and effective, with emphasis on the "Solidarity" trial, sponsored by the WHO and still in progress. The development of prototypes for respiratory support equipment has mobilized the engineering community, with successful experiences at the USP Hospital de Clínicas, at COPPE/UFRJ, and at the UnB School of Technology.

# 8.3. Technological development, industrial production and social responsibility

In the chapter on industrial development, the most important news was the agreement signed by the Ministry of Health/Fiocruz/BioManguinhos with the British company Astra Zeneca for the purchase and subsequent initial local production of 30 million doses of the vaccine developed by the University of Oxford, valued at USD 127 million. This vaccine is starting trials at phase III and; therefore, does not yet exist for commercialization. Therefore, it concerns a risk contract with an estimated rate of success of around 70%. Similar agreements were established by the United States (400 million doses) and with France, Germany, Italy and the Netherlands, to be supplied to the European Union (400 million doses).

This type of operation has been encouraged by the WHO and philanthropic entities, in order to shorten the time for the development and production of vaccines in situations of health emergency. It was used for the first time, with some differences, in the development of the Ebola vaccine in 2014. In addition, the Butantã Institute's agreement with the Chinese Sinovac for the clinical trial of a vaccine against COVID 19 should be highlighted, which, if successful, could also evolve into an agreement for the transfer of technology for local production.

With regard to the participation of the pharmaceutical, metal-mechanic, electronic and textile industries in the effort to combat COVID 19, the difficulties have been greater. The process of strengthening our capacity should, in the first place, be coupled with a strategy to update the technological base of the Brazilian industrial park, which today is quite late in view of the transformations in

course in leading countries, which include the incorporation of technologies such as advanced computerization of industrial processes and artificial intelligence.

In the pandemic situation, industrial contributions to cope with the disease have been below our potential, and this reveals the weakening process of our industrial park. As it could not be otherwise, the biggest industrial contribution has been from the pharmaceutical industry, which continues to provide essential medications to fight the pandemic, especially hospital products needed by admitted patients and more serious patients. But even this sector has suffered from the destruction of the industry of (pharmochemicals) for medications, due to our almost total external dependence. With the pandemic, China and India, the source of the majority of Brazilian imports, stopped supplying or abusively increased the prices of their products. This has caused, even if peripherally, an interruption in the lines of finished medications due to this shortage of active ingredients. In the pharmaceutical industry, reducing dependence is an urgent and indispensable measure, without which the pharmaceutical industry with local production will suffer very negative consequences.

The chemical industry has also collaborated in the production of inputs for the manufacture of alcohol gel. In the metal-mechanical and electronic sector, the main item of collaboration in the industry has been the maintenance of mechanical respirators, an activity that has been successfully carried out. In the textile industry, the production of masks and other personal protective equipment stands out.

Public access (by SUS) to medications and vaccines that are developed against the coronavirus must be guaranteed - this can be assured via no patent permission, compulsory licenses, or by the patent pool recommended by the WHO. It should also be noted that, in any case, the development of new treatments and technological products must observe good practices and bioethical principles, with efforts being made to ensure equitable access to inputs, such as medications and vaccines, fulfilling the social role of technological development.

## 8.4. Health Information and Information Technologies

The set of Health Information and Information Technologies (ITIS), including the SUS Information Systems, are a public and strategic asset that must be managed through the dialogue of the different entities of the federation with workers and citizens. Technological innovation must serve the interests of Brazilian society and social justice. Therefore, it is necessary to consolidate the National Health Information Systems based on the principles of the SUS. Policies to promote Information and Communication Technologies (TIC) innovation in health must be clear and accessible to all. Capital investments are needed from the perspective of the public asset in health and the alignment of the interests of the health economic complex with the social interest, especially with regard to the recording of genetic, clinical, epidemiological and cybercultural memory.

Faced with complex challenges, solutions need to be complex. These only arise

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from innovation processes whose maturity presupposes a

government policy aimed at building teams of excellence in collaborative work, gradually, along the lines of translational developments, and taking into account interdisciplinarity. However, the federal government, in its erratic strategy in the fight against the COVID-19 pandemic, has been sabotaging and blocking the efforts of experts, who in a responsible and ethical manner have dedicated themselves to saving lives. Health Information Systems, heritage of Brazilian society, built decades ago with technical rigor, are no exception. Step by step, decisions are made to continually demolish this Public Asset of Brazilian society.

The strategies for disseminating information regarding the COVID-19 pandemic reveal the seriousness with which information and Health Information Systems are treated in the Brazilian Government. Thus, it is imperative to respect science in the treatment of health information, a heritage of Brazilian society, which belongs to all citizens, and should never serve vested interests that contribute to confound the population about the health crisis and increase social inequality.

The destruction of these systems leads to the loss of decades of investments in infrastructure, professional qualification and social mobilization, as health data and information represents strategic assets for the process of tackling the pandemic, for the generation of knowledge, and to support agile actions in SUS health care, thus mitigating the effects of the pandemic. In this scenario, changes in ITIS management require a clear understanding of the historical legacy, institutional culture, and the search for a governance and management model that converges with the defense of public res.

## 8.5. Outlook

The overcoming of the existing difficulties in the performance of the communities of science, technology and productive innovation, even during the fight against the pandemic and after, are linked to overcome the bottlenecks already mentioned. In the scientific and technological field, the recovery of public funding levels that are minimally compatible with the size and quality of our communities, as well as with the reconstruction of the development system that built them, either in infrastructure or human resources, is urgent. This includes Financier of Studies and Projects (Finep) and the National Fund for Scientific and Technological Development, CNPQ, CAPES/MEC, and the network of state agencies that promote research. With regard to industrial innovation, we must seek to reconfigure our technology-based industry, with a view to moving it from a current standard 2.0 to something close to the standard 4.0 of technology-based industries in the world.

It is essential to mobilize the Brazilian scientific and technological community, as well as the health industrial complex, for greater engagement in tackling the pandemic. In order to do so, it will be necessary to discontinue the resources of the National Fund for Scientific and Technological Development, so that the federal development agencies benefit from these resources, and to encourage FINEP and BNDES to promote (financing and subsidies) industrial projects,

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which are focused on increasing local development and production of items that are important for this confrontation.

#### 9. STRENGTHENING THE SOCIAL PROTECTION SYSTEM

The pandemic has hit Brazil in the midst of the application of an agenda of reforms, focused on fiscal austerity and the reduction of the role of the Government in the economy. Since 2015, in the wake of spending cuts and reforms (social security and labor) contrary to the economic growth touted, what we have seen was unemployment, crisis, and worsening of tax and socioeconomic indicators. Austerity has also de-financed the SUS and weakened the social protection structure in a context of increasing poverty and social inequalities.

# 9.1. Promote development with social well-being

In the middle of a pandemic, the alleged conflict between the economy and the fight against COVID-19 has been the screen behind which the Brazilian federal government deepens and advances the fiscal adjustment agenda, with a focus on reducing public spending. After its campaign - "Brazil cannot stop" - was banned by the Federal Supreme Court, emergency economic and budgetary measures to ensure social protection of income and employment, in addition to being clearly insufficient, partial and controversial, continue to be carried out slowly and with apathy by federal agencies.

The pandemic marks; however, are profound in the dismay of more than 60 million citizens classified for access to emergency aid, which has been shown to be insufficient, with a model of digital registration that excludes precisely the most deprived populations, in addition to delay and difficulties in accessing by those whose registration was approved. Families and companies must come out of the crisis more indebted and with less income, and the crisis will create new demands for social protection and public services. The effects will also appear in the forms of food access, with consequences for the aggravation of the situation of food insecurity, malnutrition and chronic diseases, which affect different segments of the population in an unequal way. Health demands are also expected to increase, given the need for continued service to those affected by COVID-19, maintenance of new infrastructure, and equipment and preparation for the next health threat.

Projections of 8.5% drop in Brazilian GDP in 2020 signal that the Government will need to play an active role in the resumption, coordination and induction of investments in the economy. In all countries of the world, public spending is the lever to face high unemployment and the destruction of productive capacity. Experience shows that the increase in public debt in relation to GDP can be stabilized, not with cuts in spending and an increase in the tax burden, but with economic growth and reduction in social inequalities.

Thus, in order to mitigate the economic and social impacts of the COVID-19 Pandemic, it is necessary to bury fiscal austerity and revoke the public spending ceiling, strengthening the set of constitutionally guaranteed social protection policies, as well as policies to promote equality racial and

of gender, fundamental for the establishment of a more equitable social design.

# 9.2. Preserving and strengthening Social Security policies

The 1988 Constitution instituted universal Social Security in Brazil, comprising Pension Fund, Health and Welfare policies, to be financed with resources from different sources, including taxes and social contributions. In spite of the numerous obstacles to the consolidation of Social Security in the last 30 years, the constitutional pact was fundamental to ensure the expansion of distributive policies, the expansion of social rights, and the improvement of the population's living conditions.

Thus, it is essential to ensure the conditions for sustaining and consolidating Social Security, in a comprehensive perspective, through the adequate financing of its structural policies, in conjunction with other public policies. From the perspective of understanding the promotion of Social Welfare as a primary purpose of the Government's performance, the limits of the Fiscal Responsibility Law should not apply to Social Security and social protection policies in general.

With regard to Pension Fund (Social Security), it is important to ensure the public and universal nature of the Brazilian social security system, which requires: strengthening the supportive mechanisms between generations (distribution system) and between social groups (redistribution mechanisms); ensuring broad protection from the elderly to people with special needs, maintaining contributory and non-contributory benefits, considering the demographic profile and historical profile of insertion of workers in the Brazilian economy (early start of work activity, high informality and precariousness of the bonds, a large proportion of domestic or low-skilled jobs); making sure that social security benefits (retirements and pensions) are equated with the minimum wage, as well as their periodic adjustment, understanding their relevance to the well-being of the elderly, people with special needs, and their families.

It is also necessary to correct and repair the distortions and the enormous damages caused by the adoption of measures allegedly remedying fraud in Social Security (Law No. 13,457/17 and Provisional Measure 871/19, then Law No. 13,846/19), but that, due to the bureaucratic and hostile manner in which they were applied, resulted in the arbitrary and, as a rule, unfair payment of social security rights, such as pensions for death, rural retirement, disability benefits, prison benefits, mainly of the most vulnerable and fragile insured.

With regard to Health, as already pointed out in the relevant section, it is necessary to strengthen SUS as a public and universal health system, based on the recognition of health as a right of citizenship, and integrated with other economic and social policies. It is also important to reduce state incentives and subsidies and to regulate the private health sector in the country, subordinating it to collective interests.

As for Social Welfare, it is essential to ensure broad social development policies, strengthening the Unified Social Welfare System and its network of services and programs; strengthen the Bolsa Família Program, increasing family access and ensuring adequate benefit values, in addition to its articulation with other public policies for social inclusion and development, including articulation with education, health and social welfare systems; to preserve and expand access to the Continued Benefit System, which are of significant importance for the social protection of the elderly and people with special needs, ensuring that they are equivalent to the minimum wage.

# 9.3. Promotion of employment and income, protection of workers

Historically, an important part of Brazilian workers has precarious employment links, or is inserted in the informal market, without assurance of basic labor rights. Recent changes in the labor world, such as the expansion of new forms of precarious insertion ("uberization" process, hourly payments), which in addition to instability and non-guarantee of rights, can bring new risks of illness. Add the growth in unemployment in recent years, which increases the vulnerability of thousands of families. Every day, protests resurface against the precariousness of the workers' labor, such as the mobilization of the delivery personnel of the millionaire delivery companies.

In view of the global and national recession caused by the pandemic, countercyclical economic development policies are needed, including proactive state measures to promote and generate employment, affirmative actions, and to protect workers, which will need to be expanded during the pandemic and in the years to come, including the implementation of the basic universal income. In turn, the setbacks imposed by labor and social security reforms, by the outsourcing law, by provisional measures, and constitutional amendments that violated the already established Federal Constitution of 1988, among other laws that remove workers' rights, must be repealed to restore levels of protection prior to these reforms. In addition, it is necessary to strengthen labor inspection and labor regulation, important tools for the protection of workers' health and safety, as well as assurance of labor rights.

## 9.4. Food and Nutrition Security Policies

Food is essential for survival and health and, in scenarios of financial constraints, it is an item that is cut in the family budget. This leads to inadequate food consumption, especially in peripheral, low-income, indigenous, riverside, and quilombola populations, people in street situation, refugees, migrants, among others, who become even more vulnerable in situations of health and social emergency, and among those considered to be in biological vulnerability (children, women and the elderly). Thus, all this can result in an increase in hunger, malnutrition, and other forms of nutritional deficiencies and

malnutrition, compromising the Human Right to Adequate Food (DHAA).

Possible eating practices, considering the diverse and unequal reality of Brazilian households, in terms of access to goods, services and public policies, can affect the health-disease process in several ways. Consideration should be given to the worsening of hunger, food insecurity, malnutrition, chronic diseases, in addition to the multiple reflexes of emotional issues in daily food, which are aggravated in this situation. In addition, actions to promote, support and protect breastfeeding and to monitor situations of food and nutritional insecurity must be guaranteed, especially in the most socially vulnerable families, with the interconnection of support actions.

In addition, the impacts of COVID-19 can negatively affect supply, domestic production and availability, prices, suppliers, geographic access, accessibility, and convenience, impacting local and family food availability. These factors can aggravate the population's food and nutritional insecurity indexes, the consequences of which will fall on the SUS, burdening even more services, in a situation of excessive network demand, due to COVID-19.

In this context, it is necessary to guarantee the population's food and nutritional security, as well as access to adequate and healthy food, in accordance with the recommendations of the Food Guide for the Brazilian Population of the Ministry of Health, with protective measures in the context of the COVID-19 epidemic. To this end, it is essential to resume the implementation of the National System of Food and Nutritional Security (SISAN), together with the set of actions aimed at guaranteeing the fulfillment of the Human Right to Adequate and Healthy Food, with priority to the reestablishment of the National Council of Food and Nutritional Security (CONSEA). In addition, to strengthen Food and Nutritional Security (SAN) policies, articulating with social movements and the various areas involved, such as policies on agriculture, agroecology, supply, social welfare, education, among others.

To guarantee the SAN of the entire population, especially the poorest in the cities and in the countryside, the Government needs to assume its responsibility vis-à-vis rights holders (citizens) and must act in two complementary ways, to guarantee access to adequate and healthy food for the population: first, ensuring income for millions of workers, employed and/or unemployed, through emergency aid/basic income and, simultaneously, control of the markets, preventing speculation with food, and by public policies to encourage production and food supply, mainly in partnership with family farming organizations and traditional peoples and communities. The promotion of the Food Acquisition Program, in conjunction with the National School Feeding Program (PNAE), is an alternative, in the field of public policies, for this expansion in the national territory.

# 9.5. Better living conditions for the Brazilian population

Brazil has a significant deficit in terms of housing, with millions of people homeless or living in poor housing conditions, access to water and sanitation. Some advances in this area occurred in the 1990s and 2000s, but still in a very insufficient manner. This situation leads to illness due to preventable causes, and hinders the control of a series of health problems, favoring the spread of diseases, such as COVID-19 and many others. Significant state investments in this area are necessary to ensure decent living and health conditions for all Brazilians, in cities and in the countryside.

In 10 years, the country advanced only 2.6 p.p. (percentage points) in access to water, that is, from 81% to 83.6%, but we still have approximately 35 million Brazilians without drinking water, according to data from 2018 of the SNIS (National Health Information System). With regard to sewage collection, the increase in the population served was 7.8 p.p., that is, in 2010 we had 45.4% of the population with the service and in 2018 it was 53.2%. We still have about 100 million Brazilians without access. In 2018, only 46.3% of the sewage generated was treated, which means throwing about 5,700 Olympic sewage pools a day into the wild. In the same year of 2018, the country lost 38.5% of drinking water due to leakages and thefts, a loss of R\$ 12 billion and more than 7 thousand pools of treated water wasted per day.

With the deficits pointed out, basic sanitation in Brazil remains far from the commitments assumed internally and externally. Brazil has the responsibility, with the United Nations (UN), and its Sustainable Development Goals (SDGs), especially *SDG 6 - Ensuring the availability and sustainable management of water and sanitation for all*, to bring drinking water and sewage to all by 2030. Internally, we have the goals of the National Basic Sanitation Plan (PLANSAB), enacted in 2013, of universalizing access by 2033. A study by the Trata Brasil Institutes has shown that, in solving the problem in 20 years, the economic, social and environmental gains resulting from sanitation would guarantee to the country R\$ 1.1 trillion. This value comprises savings with reduced health costs, improved education, increased productivity, real estate valuation, tourism income.

Access to basic sanitation means better health and more protection against diseases, such as diarrhea, parasites, malaria, dermatitis, schistosomiasis, dengue, yellow fever, leptospirosis, among others. The savings with the improvement of health conditions between 2016 and 2036, based on the leave from work and hospital admissions that occurred, would be R\$ 5.9 billion.

<sup>5</sup> http://COVID.tratabrasil.org.br/images/estudos/itb/beneficios/Relat%C3%B3rio-Benef%C3%ADcios-do-saneamento-no-Brasil-04-12-2018.pdf

In general, with the progress of the coronavirus pandemic, it became more evident that the highest incidences of infected and deaths per State would be in places with poor basic sanitation, which sheds light on an indirect relationship between the lack of sanitation and the COVID-19 severity. Data extracted from the Ministry of Health Portal, updated until June 19, 2020, point to a high incidence, per 100 thousand inhabitants, in Acre, Roraima, Amazonas, and Amapá. The incidence of deaths per 100 thousand inhabitants is higher in Amazonas, Ceará, Pará, Rio de Janeiro, and Pernambuco.

Add to that the serious problems of people mobility. In the cities, there is a deficit in urban planning and poor public transportation conditions, with imbalances between the richest and poorest areas of the cities, requiring hours of displacement of workers in crowded transportation. In rural areas, attention is drawn to the difficulties in displacing populations to access services, such as health and education, which demand articulated public policies to promote equity. In both, there are architectural and communication accessibility barriers that affect people with special needs and reduced mobility. In the case of COVID-19, for example, this is an issue that causes concern, as it makes it difficult to take measures to contain the transmission of the disease, in addition to causing other damages to people's health.

# 9.6. Political and cultural dimensions of the pandemic

In this interface that can be called political-cultural, symbolic visual or narrative representations feed a social imaginary challenged by measures of physical distancing. This mainly affects vulnerable groups, attacked by pre-existing cultural prejudices, especially in the universes of societies and cultures that were forcibly covered and included by the national government in their domains, throughout the history of their formation, as in the case of the Amerindian peoples, and in various social groups of the other traditional peoples and communities.

One of the central aspects refers to the socio-political-cultural impacts of the pandemic in the context of indigenous, traditional and quilombola peoples, with a serious violation of their fundamental, human and territorial rights, along with structural racism. It is necessary to repudiate the genocidal policy of the current federal government and its systematic attack on indigenous rights. In addition, the dimensions of memorial, symbolic and intergenerational impact of the COVID-19 pandemic that affect indigenous peoples are highlighted. It is necessary to recognize, legitimize and replicate tackling strategies that allow decolonizing the ways of thinking by patriarchal, capitalist, colonialist Eurocentric supremacy, starting from the challenge of building new narratives of valorization, respect, recognition, of what was intentionally made invisible by the western hierarchical knowledge system. These narratives would only be sustained by the recognition and articulation between the different types of knowledge, and by attempts at intercultural translation of the different languages, and by the experiences of knowledge constructed in political struggles and social movements.

The arts as forms of life, present in all of our daily activities, relate the body, (what is called) nature/environment, culture and spirituality, showing the tenuous borders between symbolic experiences and rational experiences, focused on the care of oneself and of the other, and that at this time are essential to continue dreaming. Culture and art invite us to (re)think the diversity of practices that emerge from subjects in health, which move emotions, needs and techniques, from their stories, narratives and myths (personal and community), representations and imaginations, including interactions that are called socio-environmental. In addition, it makes visible the boundaries between these already established spaces and these other languages, making it possible to know, explore and expand them. Expanding languages means comprising all human activities, those that are crossed by imaginative and emotional activities, from scientific logics and practices to symbolic and spiritual references.

The arts and cultures, as instruments of (re)cognition of the Other, of creation of movements between the ways of knowing and understanding the world in which we live and the place we occupy in it, of preserving memory and collective identity, and also symbolic struggle between relational political ontologies that seeks to break the game of forces and dispute of a multicultural national identity. Taking advantage of the pandemic to think of arts and cultures as a creative challenge means an opportunity to symbolically build languages where heterogeneities converge, where differences are advantages in allowing multiform encounters of desires (by accessing deep elements of consciousness), of approaches to other forms of existing, and where the entrance is accompanied by an ethics of care, where respect is the basic and necessary assumption of dialogue and listening to the Other and its expressive forms.

Mitigating the effects of the pandemic requires strong mobilization and engagement of the collectives of these traditional peoples and communities, and of the surrounding society as a whole, which require the assurance of fundamental human rights, especially the right to life. Valuing and multiplying cultural spaces, both in the community and in SUS, where one can think, fight, play and care, as already existing in slums, *terreiros*, indigenous and quilombola communities, where dignity can be restored and a culture of peace, support, and respect for all forms of life can be strengthened, where the end of violence and the promotion and practice of nonviolence are required through the exchange of knowledge, dialogue and support.

It will be necessary to overcome potential prejudices regarding the attribution to the so-called vulnerable populations of an alleged inability to discern between serious information, and sensationalist and mistaken communication. On the other hand, there is a serious risk in attributing to this type of communication the effect of anxiety and fear in these populations, when we know that information and communication are only part of a complex set of vectors and factors, of a cultural and socio-political nature. The main determinant of widespread anxiety in this COVID-19 pandemic crisis is the uncertainty of the future, accentuated by the lack of

credibility of government officials and political authorities, implying reduced governance over the very life to which we are all subjected, to a greater extent mainly the population without minimum conditions for a dignified and healthy life.

It is also important to create and multiply spaces for monitoring the mental health of the isolated, the quarantined, those who suffer from the consequences of social distancing due to the reduction of social and affective relationships, those who have lost family members, friends and were unable to live their full grief, prevented from the ritual of departure of loved ones. This implies creating and maintaining spaces for individual and collective non-medicalizing mental health, where pain, suffering, mourning can be experienced and shared, thus constituting individual and collective memory and identity. Spaces that can also reconnect, socially and emotionally, people whose personal support networks have been weakened and who, even with changes to the reception services, which turned into remote care to promote the reduction of the circulation of people, are not accessible to everyone.

In order to operate on the symbolic plane, it is extremely necessary to open and appreciate intercultural spaces, capable of promoting listening and dialogues with non-hegemonic cosmologies (and facing epistemicides). This will allow for a broader scope of political-institutional actions (in politics, science, training), more respectful of differences and diversities, in order to build new possibilities of practices and world views, at different levels of society and in different social spaces. In this regard, in order to respect the specificities and singularities of the different types of knowledge and cosmologies, and the human diversities existing in the Brazilian population, it is essential to use tools and devices specific to the social and human areas that allow the generation of temporally referenced ethno-socio-environmental monitoring.

Therefore, it is necessary to carry out longitudinal analyses of the situation of the COVID-19 pandemic, developed from knowledge produced mainly in an interdisciplinary manner, by sociology, anthropology, history, political sciences, and environmental sciences, in order to guide strategic planning of combat actions. For this work, we highlight the participatory methodological initiatives, implicated and not extractive, supported by tools and devices both for the production of shared knowledge and dialogue in the production of solutions, in addition to more traditional methodologies, such as ethnographic, historiographic, survey methodologies, among others. Thus, it promotes the production of critical knowledge that is open to the diversity of epistemologies, capable of pointing out ethno-socio-environmental indicators related to the production, eco-socio-demographic configuration, and forms of reproduction of the epidemic, developed based on social determinants, symbolic conditions, in addition to intersectional markers of the epidemic. It is also envisaged the identification and description of ways to tackle the pandemic, and changes in social relations and in the ways of life operated in the context of different peoples, groups and social segments.

#### 10. VULNERABILIZED POPULATIONS AND HUMAN RIGHTS

There is no democracy, citizenship and social justice without a public commitment to recognize the specificities and needs of vulnerable populations and groups excluded from society. In the COVID-19 scenario, the elderly are internationally considered to be the population most at risk of serious illness and death. Our elderly, by chronology, is relatively "younger", when we compare age and frequency of illness with those of many other countries; however, they are likewise severely affected by the new coronavirus as a result of comorbidities. High blood pressure, diabetes, obesity are characteristics of a population with low food and life quality in general. In addition to the vulnerability identified by old age, the pandemic intensifies social inequalities, generating a context of increased social vulnerability, iniquities and rights' violations, which historically directly affect certain population groups, such as women, indigenous peoples, black people, quilombolas, LGBTI+, slum dwellers, migrants, refugees, users of mental health and drugs, people deprived of their freedom, riverside dwellers, small-scale fishermen, shellfish gatherers, farmers, encamped gypsies, transvestites, prostitutes and other sex workers, people with special needs, and the homeless. In view of this scenario that really precedes the pandemic and which, with its expansion, can further deepen the racial and social inequalities in the country, it is necessary to establish effective and continuous actions that guarantee its specificities, even highlighting the different contexts of each population.

From an immediate point of view, it is possible and feasible to expand the existing initiatives of adequate family income, having in the horizon the possibility of implementing a basic universal income program, including adherence to pandemic control measures as one of its requirements. Different proposals for minimum, basic, citizenship, universal or unconditional income have been tested in cities in different countries, such as Grenoble in France, Barcelona in Spain, Canadian provinces such as Toronto, rural villages in Kenya and Namibia on the path of "eradication of poverty" and the "guarantee of the subsistence and dignity of the population", alternatives to Bolsa Família type programs, emergency aid, benefits of continued provision, among other benefits, better defined later on. In this context, it is essential to guarantee the human right to adequate food through the implementation of the Brazilian Government's obligations to respect, promote, protect and provide adequate and healthy food.

It is worth mentioning that, in order to fulfill their constitutional duty in a democratic society, health authorities must be open to criticism, especially those coming from organized civil society organizations, such as movements in defense of the interests of vulnerable social groups. In the defense of the rights of these populations, it will be essential to involve sectors such as Public Defender's Office, service providers, third sector,

and Non-Governmental Organizations to work together to mitigate the negative impacts of COVID-19 on these most vulnerable populations.

The set of inequalities and iniquities is even more intense due to the COVID-19 pandemic, demanding actions and strategies that respect the needs and specificities of the different precarious groups, as highlighted below.

#### 10.1. Aging and care for chronic conditions

With the aging of the population and the increase in demand for care for chronic conditions, recovery and rehabilitation activities increase proportionately. Data from the Brazilian Institute of Geography and Statistics (IBGE) informs that the Brazilian population over 60 years of age in the year 2000, represented 8.2% of the total, in 2017 it is 12.5%, and it is projected for the year 2030 a percentage of 18.6%.

Despite the increase in life expectancy seen in recent years, care for chronic conditions, in addition to communicable diseases, and mental health problems, require special attention to the health of the elderly. Added to these issues, the condition of autonomy to live life and the situations of abandonment, violence, and prejudice that must be faced.

In the context of the COVID-19 pandemic, the elderly identified as the group most susceptible to the severe form of the disease, became the focus of attention, especially with intersections of gender, race and social class. More than the condition of health and welfare, the general way of life has become a matter of public health, that is, it is essential to support the elderly in their existence, such as food, housing, mental health, among others, as ways of protecting their health. Inequalities, age and the need for public policies that address these issues with the participation of the elderly were evidenced. The Long-term Care Facilities for the Elderly (ILPIs) indicated significant weaknesses that demand intersectoral policies for social protection and long-term care.

In this perspective, it is crucial to strengthen all types of initiatives capable of contributing to the strengthening of Primary Care and chronic care networks, and special care for the condition of the elderly. Intermediate Care has been an important device, which, coupled with Primary Care, produces a robust, resolutive service, with great possibility of acting in continued care. Among these, we highlight the various Home Care programs, the Telecare services, widely used in the context of the COVID-19 pandemic, as they offer monitoring, listening, and guidance on a more frequent and comprehensive manner, of great contribution to the health of the elderly. As a matter of urgency, some municipalities have organized units for assisted quarantine of people with no possibility of isolation at home, as well as technically oriented assisted elderly homes. These experiences should be enhanced for the next period, as they are initiatives that fundamentally contribute to the protection and care of the population, especially the elderly.

Fundamentally, the health of the elderly will require strengthening of the entire chronic care system, network services, and specific devices for this segment of the population. Facing age, including the elderly, and bringing the perspective of active aging is the key to meeting all the demands that are necessary from the perspective of collective health. Despite the increase in life expectancy seen in recent years, care for chronic conditions, in addition to communicable diseases, and mental health problems, require special attention to the health of the elderly. Added to these issues, the condition of autonomy to live with quality of life.

#### 10.2. Impacts of the pandemic on women's lives and health

In Brazil, women represent the majority of the population and head a significant part of families. According to IBGE, in 2018, 45% of households were supported by women who, in a smaller spectrum of occupations in precarious and informal jobs, including domestic employment, historically earn less than men. They are primarily responsible for domestic work and family care. Gender inequalities are associated with other social inequalities, especially those of social class and race/ethnicity, making poor, black and indigenous women even more vulnerable.

The arrival of the COVID-19 pandemic in Brazil exposes and augments these chronic inequalities, in all spheres (in the economy, social protection, work and education), with impacts on the physical and mental health of women. It is regrettable and unacceptable that the majority of pregnant women who died by Covid-19 in the world are Brazilian. Control measures, in particular the need to maintain quarantine and physical distancing, have been a major burden for women, especially for those who have children, with children out of school, and increased needs for home care for the elderly and the sick. Added to this is the reduction in the support of grandparents and older women in the family, which is not recommended because they belong to the group with the highest risk of serious complications. Such circumstances result in great difficulties to carry out teleworking, or even to engage in essential activities, such as health work, in which they represent 70% of the workforce.

The majority of health professionals and main responsible for home care of infected people, women are more exposed to falling ill with COVID-19. On the other hand, due to their majority participation in the sectors of the economy that were hit the hardest by the pandemic, they are likely to be the most affected by the medium and long-term effects, with an increase in gender inequalities in the labor world. The effort to reconcile professional and family demands has consequences for the mental health of women, who have an increase in anxiety and depression.

A relevant issue is the exponential increase in domestic and sexual violence against women and girls who, during quarantine, are being forced to "lock themselves up" at home with their attackers, while support services are interrupted or inaccessible. Also of concern is

the reduction in the adequate supply of sexual and reproductive health services, including assistance related to abortion, prenatal care, childbirth, and the puerperium, which can lead to an increase in sexually transmitted infections, unintended pregnancies, or use of unsafe abortions, as well as increase in mother and child deaths. Ensuring the functioning of sexual and reproductive health care services as essential services during the pandemic becomes essential for the provision of reproductive planning, prenatal care, delivery in safe and humanized conditions, as well as assistance in the cases of pregnancy termination, as provided for by law.

#### 10.3. Reducing negative impacts of COVID-19 on the black population

The Brazilian black population, in its diversity, comprises one of the social groups that currently demand the most attention, both for the specific comorbidities that affect black and brown people in greater numbers, such as high blood pressure and diabetes and, especially, sickle cell anemia, and social lethality due to racism, motivated by historical, political and social issues that structure our society. First of all, the provision of information on race/color/ethnicity is essential to make sure that the epidemic is tackled and should be considered a priority in the planning of actions and monitoring in our country, especially in view of the profile of extreme racial inequality existing in Brazil. This information will not only contribute to the improvement of actions in all states and municipalities, but may also encourage research to be able to deepen the role of economic, social, racial and identity issues in the context of this pandemic.

Brazilian Institute of Geography and Statistics (IBGE) data shows that the black population (black + brown) represents approximately 52% of the Brazilian population, and that it comprises a significant portion of those living on the streets, people deprived of liberty, those living in extreme poverty and in homes that do not respond to the habitability standards, which do not have supply of water and/or sanitary sewage, as in the slums, of those who have lower income or survive from informality; those who depend on garbage of a recyclable nature or not; domestic workers; caregivers for the elderly, black elderly, those who are in a situation of food insecurity; who have difficulties accessing healthcare services and equipment, social welfare, and education. Also prevalent among the black population is the presence in traditional communities, quilombolas, riverside dwellers, and small-scale fishermen. This mechanism for exclusion of population groups from society is called racism.

In order to reverse the progress of COVID-19, a paradigmatic change is required in the implementation of actions for the prevention and control of the pandemic, based on the recognition that we are experiencing a moment of economic, political, ideological and moral crises that overlap racism. To reduce the social vulnerability of black communities, it is necessary inter-sector articulation, advocacy for the assurance of the right to life

in all its dimensions, and fight against racism. In this regard, it is necessary to include legitimate leaders and representatives of the black population in the design, implementation and governance of any and all related actions. Furthermore, community-based emergency actions can assist in meeting basic needs, such as food and reducing food insecurity, improving housing conditions (ranging from housing security, such as hygiene and basic sanitation conditions in households), access to education and qualified information through the Internet, occupation and income generation.

In this scenario, the role of the Unified Health System and Primary Health Care is evident, given their inherent attributes of family orientation, community orientation, and cultural competence. All social players that are active in the territories must be called upon to form a joint representation, and compose the loco-regional crisis offices to support decision-making, whether with regard to human, financial resources, income generation/maintenance, and social protection. The transfer of financial resources at the federal level, as well as the contributions of companies, funds, and civil society must consider this alternative of joint crisis management. This (re)conduct can reverse and decrease the cases and deaths by COVID-19 and rewrite the Brazilian experience.

We also understand that the provision of information on race/color is essential to make sure that the epidemic is tackled, and should be considered a priority in the planning of actions and monitoring in our country, especially in view of the profile of extreme racial inequality existing in Brazil. This information will not only contribute to the improvement of actions in all states and municipalities, but will also encourage research that can deepen social, racial and economic issues in the context of this pandemic.

#### 10.4. Particular needs for attention related to LGTBI+ people

The emergency of the COVID-19 pandemic tends to enhance iniquities generated by race/color, class, ethnicity, gender, age, disabilities, geographical origin, and particularly sexual orientation. Thus, it is imperative that all differences and inequalities are taken into account in the fight against the epidemic. We warn that, particularly the prejudices, exclusions and violence directed to the LGBTI+ population, which are already everyday facts, tend to intensify with the pandemic. So, especially at this moment, we must be aware of differences in gender and sexual orientation, to understand the difficult context we are going through and to collectively think about the ways to face the epidemic.

So far, all the measures taken so far by the Governments have been directed at the population in general, without taking into account the different population segments in the production of data and action strategies. Recognizing specificities and producing data from them contributes to the understanding of the specific dynamics of these populations. Even among LGBTI+ people, it has long been known that each specific segment of this group has

their own ways of life, which intersect with race/color/ethnicity, age group, social class, disabilities, religion, and place of residence. Social distancing measures recommended as pandemic minimization strategies must observe specific characteristics and dynamics of each population group, aiming at sustainable and safe social isolation for all populations and the LGBTI+ population. It must be taken into account that, despite the scale and severity of COVID-19, all measures to be taken by States must be guided by scientific evidence and that no measure can be arbitrary or discriminatory, with fundamental respect for human dignity.

Although COVID-19 is not a disease that is related to the LGBTI+ population per se, it has an impact on the conditions and modes of social existence that affect marginalized segments of the population, leading to the exacerbation of disparities and iniquities that already exist. The materialization of the COVID-19 pandemic tends to accentuate iniquities arising from race/color, ethnicity, gender, sexual orientation, class, age, disabilities. Thus, it is imperative that all differences and inequalities are taken into account in the fight against the epidemic. We warn that, particularly the prejudices and violence, which are already everyday facts directed to the LGBTI+ population, tend to intensify with the pandemic. So, at this moment, we must be aware of differences to understand the difficult context we are going through, and to collectively think about the ways to face the epidemic.

We highlight particular aspects of attention and needs in order to guarantee and epidemiological monitoring without discrimination stigmatization of the LGBTI+ population, as well as indicators that include gender identity and sexual orientation in information systems. Equally, in order to guarantee comprehensive care to intersex and trans people (transvestites and transsexuals), respecting their clinical peculiarities that require specific support, both in terms of management and hospital admission, use of the social name and gender identity, as well as maintenance, access and continuation of hormonal therapy. It is necessary to ensure the strengthening of the National HIV/AIDS Policy and the care network to tackle HIV, including the maintenance of antiretroviral therapy and pre-exposure (PrEP) and postexposure (PEP) prophylaxis for vulnerable groups, including LGBTI+. In addition, ensuring the reception and management of situations of psychological distress of the LGBTI+ population, which already has characteristics of ghettoization and social isolation, with a greater risk of depression, anxiety, self-mutilation, suicide attempts, among others, which may intensify during the period isolation.

#### 10.5. Reducing adverse impacts of COVID-19 on indigenous populations

The COVID-1 pandemic particularly affects natives, populations that have survived the colonization process in Brazil for 520 years. Considering its wide diversity in the country (305 ethnic groups that speak 274 languages) and its small population contingent (0.4% of the national population), but at the same time the deep health iniquities that they suffer, and the progressive escalation of violence and disrespect by the Government of their rights, it is necessary to demand visibility to their issues.

At this moment, a serious risk of genocide and epistemicide emerges, which implies not only loss of life, but of unique memories, languages and knowledge.

With such ethnic-cultural diversity, strategies to tackle the pandemic also need to be particularized. Through law 9,836/99, an indigenous health subsystem (SASI-SUS) was established, which provides primary health care (PHC) in indigenous territories; therefore, it addresses specific issues for PHC and the relationship with other managers. Care for indigenous peoples is provided through the 34 Special Indigenous Sanitary Districts (DSEI) that cover all regions of the country. The attention in the villages is carried out by the Multiprofessional Indigenous Health Teams (EMSI). However, it should be considered that around 35% of indigenous people live in urban areas, according to the 2010 census. There are about 400 thousand indigenous people who, as they live outside indigenous lands, are not assisted by SASI-SUS and have difficulties in accessing the SUS network; the responsibility for the assistance to these indigenous people lies with the municipal health departments. Therefore, there is an important challenge that is to provide health care that is different from the population that lives outside indigenous lands.

Different groups have denounced the abandonment of public institutions and the non-application of the National Contingency Plan for Human Infection by the new coronavirus (COVID-19) in Indigenous Peoples developed in March 2020, and which guided the development of the 34 District Plans. The biggest concern is with isolated groups or those with recent contact, because they are more vulnerable to the impacts of the new coronavirus. In the absence of effective actions by the Government, indigenous peoples have developed their own strategies to tackle the pandemic.

Information on the effect of the pandemic on indigenous peoples is made invisible by the official data from SESAI, as it considers only the groups served by the Indigenous Special Health District (DSEI), and the municipal and state departments have not consolidated the color/race data. In view of this scenario, indigenous organizations have been monitoring autonomously confirmed cases and deaths of indigenous people, in order to visualize the impacts of COVID-19. The Articulation of Indigenous Peoples of Brazil (APIB) has created the National Committee for Indigenous Life and Memory for this purpose, and the data presents a significant disparity in relation to that of SESAI. On June 24, 2020, APIB (http://quarentenaindigena.info/casos-indigenas/) identified 359 deceased indigenous people, 8,066 infected and 112 affected people in the country, while Sesai,6 registered 4,769 confirmed cases and 128 deaths in the 34 DSEIs.

Indigenous peoples are not only exposed to the new coronavirus, but also to the adversity of interethnic contact, which promotes marked social vulnerability that makes it difficult to combat the epidemic process. It is estimated that 60% of the country's indigenous population resides in an area that corresponds to 98% of the total Indigenous Territory (IT) extension (especially in the Legal Amazon), while the remaining 40% live in IT, which is equivalent to 2% of the total territorial extension. The voluntary isolation

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6 http://COVID.saudeindigena.net.br/coronavirus/mapaEp.php

of indigenous peoples has been implemented since the beginning of the pandemic, but it raises several concerns regarding food and nutritional security, especially in those contexts where food production is precarious or insufficient.

Most of the country's indigenous population today lives in villages, whose access to food varies between local food production and commercial acquisition in urban centers. In addition, pre-existing iniquities in their living and health conditions make them more susceptible to complications arising from COVID-19. Many indigenous peoples live in remote locations and often close to municipalities with a precarious health and service structure, warning for the challenges in specialized care for serious cases. The vulnerability of indigenous peoples to the pandemic demands urgent and priority measures directed to this group, with the strengthening of the operation of the Indigenous Health Care Subsystem (SASI-SUS), good articulation with the Municipal and State Departments of Health, Funai, Ministry of Citizenship, Ministry of Women, Family and Human Rights, and other public bodies, and the leading role of indigenous organizations and leaders.

It is noteworthy that, in recent years, attacks on indigenous rights have intensified, particularly to the process of demarcation and protection of indigenous territories. These invasions and attacks affect the ways of life of these peoples, but also the environmental protection of their territories, as they result in increased deforestation, indiscriminate use of pesticides, and contamination of water and soil, which affect the health of the entire population.

#### 10.6. Reducing adverse impacts on encamped Gypsy people

With more than 50 thousand deaths caused by the coronavirus, the pandemic continues to make certain parts of the population invisible and silent, such as the gypsies (*romani*, as they identify themselves). Faced with this health crisis, we need to see and hear them. *Romani* is an unwritten language, which is not official in any country in the world - but it is everywhere. It is not known how many gypsies live in Brazilian territory, since 2014 they are not counted in municipal surveys by the Brazilian Institute of Geography and Statistics (IBGE). Data from 2011 showed that only 291 municipalities out of the 5,565 that exist from north to south of Brazil recognized gypsy camps in their territory, and only 29 cities had areas designed and prepared for this purpose. It means that the majority of gypsy inhabitants of fixed camps - or nomads and itinerants - live on the margins of cities, on the edges of roads, or in peripheral neighborhoods, and do not have access to water, basic sanitation, electricity, and health case.

Most nomadic or semi-nomadic gypsies live from informal businesses, exchange of second-hand products (a practice called *gambira*), circus, tarot and hand reading, in addition to begging. All of these activities are suspended indefinitely, making emergency basic income essential to maintain the lives of these people, during quarantine and physical distancing. However, bureaucratic process leaves many families

without assistance - considering the lack of identification documents or bank accounts. Supportive chains collect food, medication, protective materials - such as masks, alcohol gel, fabrics, rubber bands - cleaning and personal hygiene materials. Associated with these issues, the literacy rates of this population are unknown, but gypsy leaders estimate 80% illiteracy.

In view of this situation, it is essential to guarantee the basic emergency income to maintain the lives of these people, during social isolation. Same requirement for compliance with legislation<sup>7</sup>, which determines that nomadic gypsies, as well as people on the street, do not need to provide fixed addresses to be served in the Unified Health System.

#### 10.7. Particular needs for attention to migrants and refugees

These are strata of the population in an extremely precarious situation, both in terms of work/employment and housing, often without access to hygiene products and medications. For this reason, they are subject to all types of exploitation, making them more vulnerable to tragic contagion on a large scale. In addition, they suffer prejudice, racism and xenophobia in their daily lives.

The WHO, UNHCR and International Organization for Migration (OIM) have repeatedly recommended that national health plans and surveillance and alert systems designed to deal with COVID-19 incorporate refugees and migrants. Priority should be given to concrete plans to decongest the overcrowded fields or settlements in which they live, transferring vulnerable people to safer and healthier housing. A general measure to control the COVID-19 pandemic was the closure of countries' borders. This action has brought many concerns and anguish to migrants and refugees who are living in Brazil, as it is not possible to travel to meet family members in the countries of origin.

It is worth remembering that Brazil is a signatory to the American Convention on Human Rights, which recognizes that "the essential human rights do not derive from the fact that they are nationals from a certain State, but from the fact that they are based on the attributes of the human person", that is, every migrant and refugee has the same rights as nationals, including the protection to life and health, fundamental rights. According to the Constitution, the SUS Organic Law No. 8080/90, the Migration Law No. 13,445/2017, migrants have the right to free and equal access to social welfare and health services, as well as care by health teams in their territories of life and work.

It is necessary that migrants are linked to the Basic Health Units and that they have guaranteed intercultural care, respecting the cultural differences, and the health-disease concepts of migrants. Health actions must be carried out with the participation and dialogue with migrants, leaders and organizations that work in the care of migrants. The welcoming of migrants is,

<sup>7</sup> Ordinance No. 940, issued by the Ministry of Health in April 2011: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt0940 28 04 2011.html

above all, a humanitarian issue. It is important to note that groups of migrants have been identified in precarious working conditions and even conditions similar to slave labor; which entails also assuring them of monitoring, protection and surveillance in the workplace.

#### 10.8. Reducing adverse impacts on persons deprived of their freedom

Currently, Brazil has more than 750 thousand people deprived of their freedom, whose profile is made up of a majority of black, young people with low education. Thus, talking about the impacts of the COVID-19 pandemic on a population that lives in extremely precarious conditions of confinement, due to limitations of access and denial of basic rights means recognizing that this group was already vulnerable before this context of health crisis. Prisoners and prison workers experience a great challenge in facing this disease, whose most effective treatment is in preventive practices of its transmission, involving individual hygiene and collective spaces, physical facility with adequate ventilation and social isolation, which is almost impossible within the scope of the Brazilian prison system, and challenges society and the entire prison community, given the existing conditions, to organize in view of the risks of an explosion of cases and deaths.

The prison system, due to its characteristics and potential for dissemination of COVID-19, should therefore be included as a sentinel unit alongside those already existing in the program areas of the states and municipalities. This will make it possible to map the circulation of COVID-19 in prison units and the readjustment of strategies to face it, limiting its dissemination. It is urgent to incorporate the prison population into state epidemiological surveillance systems, with notification of cases of Influenza Syndrome as suspected cases of COVID-19. Whenever possible, after assessing the hazard, it is recommended that older patients with co-morbidity and especially pregnant women be released or placed under house arrest.

The seriousness of the situation imposed by the new coronavirus is a unique opportunity to strengthen the partnership between the Executive and Judiciary branches, aiming at reducing the number of people deprived of their freedom. Assuring the right to health is decreasing the risk of acquiring diseases and illnesses, not only increasing access to health actions and services, so that assuring the right to health in prisons means reducing the number of people serving time in prison in unhealthy, poorly ventilated and overcrowded cells, associated with measures already underway, although still slow, of applying house arrest to those who have not committed violent crimes.

#### 10.9. Protecting homeless populations

The needs and demands mentioned in this chapter are common to all Brazilians who are vulnerable and economically affected by the pandemic. Nevertheless, people living on the street suffer from a worsening of the situation of vulnerability due to the scarcity of means of subsistence on the streets during quarantine periods, and reinforcement of physical distancing measures. Most of

the health recommendations on COVID-19 transmitted to society in general are not easily applicable to the daily lives of the homeless population.

With regard to the homeless population, it is crucial and urgent to provide open public toilets, distribute kits with soap, alcohol-gel and other hygiene products, and drinking water in disposable bottles, in addition to keeping popular restaurants open with wider hours and free food delivery. Accommodation in appropriate housing for people on the street who need isolation and providing shelter for people, their carts and pets. In the health care plan, priority should be given to people living on the streets in vaccination campaigns, in parallel to increasing resources and expanding the teams for Street Outreach Offices and the like.

#### 10.10. Addressing the singularities of people with special needs

Brazil is a signatory to the Convention on the Rights of Persons with Special Needs (CDPCD), a document that conceptualizes people with disabilities as subjects with "long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers can obstruct their full and effective participation in society in equal opportunities with other people".

The ratification of this document formalizes the country's commitment to promoting and assuring the human rights of 23.9% of the Brazilian population that has any disability, according to the 2010 Census. This demographic survey also reveals other fundamental characteristics: this percentage is mainly made up of women and people whose family income is up to a minimum wage or more; the distribution in the territory has shown the same proportion of households between urban and rural areas; the highest incidence recorded is of people with visual impairment, followed by motor, hearing and intellectual disabilities. This brief scenario makes it possible to understand the horizon of diversified actions that need to be taken to contemplate people with disabilities in a context of pandemic, throughout the national territory.

During the first quarter of the national emergency of the pandemic, the insufficiency of governmental actions was realized, unable to cover the specificities of the entire population. The guidelines and regulations of public agencies, institutions and health organizations for tackling COVID-19, often do not contemplate the singularities of people with disabilities because they are directed to the "general population", based on universal precepts about body, care and practices of health, which contributes to a greater vulnerability of this population segment. For people with special needs, physical distancing is difficult or impossible to follow because they depend on a network of caregivers; their health and rehabilitation needs are often postponed, ignored or neglected. In the case of deaf people, opaque masks prevent their communication through lip reading; their use may become impracticable for people with motor limitations in the upper limbs or with intellectual disabilities; blind people need to touch people and things to orient themselves and move. Specificities of people who

use auxiliary means of locomotion are disregarded, especially when it comes to guidelines related to the cleaning of objects for personal use.

Worldwide, people with disabilities make up a population group with social vulnerabilities who experience situations of social exclusion, which result from the historical and monolithic preconception that disability is a personal tragedy, where the exclusive nature of damage to bodily structures and functions is the only determinant of disability, and therefore subject to charity and medicalization. Such conception disregards the relational complexity between a given bodily impediment and the social, cultural, political and economic context, the locus of people's daily lives and the encounter of diversity in all its forms.

#### 11. RESPONSIBILITIES AND RECOMMENDATIONS

Based on the foundations and analyses presented herein, an articulated set of proposals, with the appropriate scientific basis and technical details, is being prepared, discussed, negotiated, established and presented to Brazilian society, in the expectation of being able to contribute to overcome this terrible pandemic, which, in recent history, is already the most serious challenge to collective health worldwide.

Considering the unique, complex and differentiated nature of critical events, such as a pandemic, the biomolecular characteristics of SARS-CoV-2, the clinical aspects and the epidemiological dynamics of the new coronavirus, its peculiarities when impacting the Brazilian population, and the difficulties of the current political and economic situation in Brazil, tackling the COVID-19 Pandemic requires firm and careful implementation, conduct and monitoring of preventive, protective and precautionary actions. Given the high infectivity of COVID-19 and the lack of effective pharmacological and clinical technologies for prevention and treatment, the best alternative to mitigate damages to individual and collective health is to invest in the control of transmission, associated with financial and social support, without neglecting the reduction of complications, sequelae, and mortality among those who were infected. It is important to highlight that the perspective of epidemic scenarios with intermittent peaks of COVID-19 cases is very likely, making it even more appropriate to adopt a tackling plan along the lines provided herein.

In this context, it is imperative to organize knowledge, resources, skills and energies available in a wide and diverse set of strategies, guidelines, standards, procedures, programs and policies, articulated in a subtle and sensitive manner, centrally coordinated, with transparency, with integrated management in all spheres of government, and with the conscious participation of all citizens.

#### To political authorities

First of all, it is necessary to make it clear that the Presidency of the Republic is, by profession, directly responsible for recognizing the damage caused by the COVID-19 pandemic, having as unavoidable obligation to propose and coordinate emergency and necessary actions and policies, necessary and sufficient to control it and reduce its economic and social impacts. In this context, at the height of the pandemic, the interim nature and lack of expertise in the direction of the Ministry of Health is inconceivable. The definition of a leading manager of the area with knowledge and links in the sector and with autonomy to act is an urgent priority.

In addition to sanitary and epidemiological strategies, in view of the crisis, many measures are necessary, notably those of a political and economic nature, which only the Federal Government can implement. It is not too much to emphasize that, as the economy, affected by the pandemic, cannot guarantee income from work, the implementation, maintenance and expansion of social protection policies must urgently be implemented. All economic measures must consider the

inequalities (direct and indirect) of gender, race/ethnicity, social class and others, which impact mainly black and poor women.

These are measures of wide scope, involving a volume of resources compatible with the needs of our society, as presented in the respective item of this Plan. As it has been done in other countries, such measures must be able to ensure the preservation of jobs, the opening of credits to medium, small and microentrepreneurs, the maintenance of adequate income for families, and the emergency protection of the lives of vulnerable segments of society.

As a priority, the constitutional rights of indigenous peoples must be guaranteed, particularly with regard to the protection of their territories, entailing the Government's obligation to consult indigenous peoples in its actions, and respect for the self-determination of these groups, particularly those of isolated and recently contacted peoples. Such measures must be complementary to the existing social protection mechanisms (social security, unemployment insurance, benefit of continued provision, Bolsa Família Program and the like) and cannot be taken as reason for destroying what remains of the Brazilian Social State, as provided for in the Federal Constitution of 1988. It should be noted that Provisional Measures No. 927 (in force, under discussion in the Federal Senate) and No. 936 (converted into Law No. 14,020, on 7/6/2020) are contrary to these principles, increasing the destruction of labor and social security rights, in the wake of the pandemic combat measures. It is necessary to devise and advance strategies so that they are reversed, repealed and do not proceed.

In the absence of national coordination, quarantine measures and management of the resumption of activities, where there have been restrictions on mobility and physical distancing, have taken place at the initiative of governors and mayors. Given the still increasing incidence of COVID-19 in most cities and regions, the flexibility of these measures represents a great risk that the number of cases may increase, as well as hospital admissions and deaths, leading to the need for stricter restrictions to be adopted. The restriction and reactivation of activities affect the transmission of the disease, in such a way that the effects are only perceived about two weeks after being adopted and, if adjustments are necessary, an equivalent period will be necessary for these to generate results. Therefore - in any circumstance -, it is recommended that there is no suspension or relaxation of quarantine measures or physical distancing "en bloc". Indeed, the en bloc suspension of the restriction measures would not make it possible to assess the weight of each specific measure in transmission and would make it more difficult to return, if necessary, to stricter restrictions on mobility.

At the stage of the pandemic in the country in mid-2020, the following measures and actions, in the general political sphere, should have already been taken. As they have not yet been, besides being necessary, they are now urgent to control the pandemic and its negative impacts:

1. Implement advisory committees in all spheres of government, with representation from the scientific and professional communities, and of

- civil society organizations, according to the structure of health councils, to discuss and forward solutions and measures to control the pandemic.
- 2. Considering the federative nature of SUS, it is essential to respect the tripartite mechanisms of agreement and decision, with the efficient operation of the Tripartite Interagency Committee and Bipartite Interagency Committees, as well as the Strategic Operations Center (COE).
- 3. The federal authorities are responsible for promoting the good performance of the COE, as a national coordination body, aiming at the proper application of epidemiological strategies to control the pandemic, according to the parameters defined by the World Health Organization and the experience of other countries.
- 4. It is the responsibility of the state and municipal governments to commit themselves to the same purposes in their respective sphere of action, through the adoption, regulation and management of all measures necessary to control the pandemic.
- 5. It is essential to invest in the technological development of tests, vaccines and supplies on a large scale, according to the needs of the country, articulating, supporting and coordinating the efforts of research groups and technological development in health active in Brazil. Public access (by SUS) to medications and vaccines that are developed against the coronavirus must be guaranteed, which can be assured via no patent permission, compulsory licenses, or by the patent pool recommended by the WHO.
- 6. In tripartite cooperation, it is the responsibility of the political authorities to ensure the provision and establishment of professionals and the basic infrastructure, with a referral and counter referral system, in primary health care (PHC), particularly in remote regions, considering that access to professional services is a determining factor for the health of populations and, in particular, of traditional peoples, people with special needs, and groups exposed to greater economic and social vulnerability.
- 7. In all spheres of government, measures must be implemented to ensure the maintenance of minimum income to families, job preservation, credit offer to medium, small and micro-entrepreneurs, as presented in the respective item of this Plan, and as it has been done in other countries, in order to mitigate the impacts of the pandemic in deepening social inequalities.
- 8. It is incumbent upon the political authorities, in all spheres of government, to guarantee access to drinking water and basic sanitation, which are fundamental to tackle COVID-19 and other diseases, for Food and Nutritional Security, and for the quality of life in general.
- 9. Political authorities must implement urgent measures in view of general demands and social protection for <u>people with special needs</u>:

- a. Ensure an emergency basic income unrelated to family income, including financial compensation for family members and caregivers;
- b. Ensure the maintenance of work with productive insertion.
- c. Ensure inclusive education throughout the remote educational process during the pandemic;
- d. Suppress the precautionary measure that prevents the enforcement of Law No. 13,181/2020, on the increase in per capita income for access to the BPC;
- e. Endorse priority service in essential public services.
- 10. With regard to the social protection of the population segments most affected by the pandemic, such as informal workers and the unemployed, as well as social groups in situations of greater vulnerability, some relevant measures are:
  - a. Regulation and guarantee of basic rights to all citizens;
  - b. Extension of the duration of unemployment insurance;
  - c. Expansion of "basic income" to informal workers, as long as they are not able to enter formal posts;
  - d. Assurance of receipt of the double quota of emergency aid for female heads of household, regardless of any situation;
  - e. Improvement of efficiency in granting the various types of social benefits (social security and assistance benefits);
  - f. Suspension of payment of water and electricity bills for low-income families until total control of the epidemic.
  - g. Creation of a pandemic monitoring Committee among migrants and refugees, including them in the plans to combat the pandemic, providing them with temporary work permits, regardless of their legal status in the national territory.
  - h. In the indigenous context, preparation and implementation of specific measures and plans for tackling COVID-19, with the participation of their entities and representations, fully complying with the recommendations made by the Federal Public Prosecution Office (Recommendation No. 11/2020-MPF, of April 2, 2020).

#### To health authorities

The Minister of Health and the Secretaries of Health in the states and municipalities are fully responsible for the necessary, accurate and permanent assessment of the risks and impacts of the COVID-19 epidemic, in order to encourage, promote and implement emergency measures to control transmission, mitigation of damages, and impact reduction in the health sector. Control measures must be clear, feasible and based on scientific knowledge, making up a national strategy, articulated and coordinated by health authorities at all levels of activity.

Currently, the following strategies and actions are imperative and urgent:

11. The Ministry of Health must take the initiative to prepare and present a National Strategic Intervention Plan to society, with active participation

- of the health scientific communities and SUS social control bodies.
- 12. The Ministry of Health must also operate with the responsibility and diligence that the seriousness of the health crisis requires, ensuring timely application and transfer of available resources, with criteria for transfer to states and municipalities duly agreed upon by the Tripartite Interagency Committee and approved by the National Health Council.
- 13. The Ministry of Health must also work with other Ministries, as well as with the other powers of the Republic, in order to monitor the emergency implementation and expansion of social protection measures and support to workers, unemployed, sectors and vulnerable groups of the population.
- 14. The Indigenous Health Subsystem (SASI), an integral part of SUS, needs to strengthen the links with other managers at the municipal, state and federal level, with the expansion of the primary care network in indigenous territories, assuring the integrality of the care of the users of the subsystem and ensuring access to SUS for indigenous people living in urban areas not assisted by SASI-SUS, respecting their socio-cultural specificities.
- 15. At state and municipal levels, it is up to the respective health authorities, Secretaries and Secretariats of Health, to formulate and implement pandemic combat plans that are equivalent and adjusted to the respective realities, considering the specificities of the different vulnerable groups.
- 16. It is the jurisdiction of health authorities to implement and maintain information systems capable of timely monitoring the evolution of the numbers of cases, hospitalizations, fatalities and laboratory tests through investments in qualified personnel, processes and equipment, considering the security of information and ensuring the right to information to privacy of the population.
- 17. Health authorities, at all levels of government, must maintain and disseminate updated information on cases and deaths of COVID-19 by sex, age group, education, race/color, ethnicity, nationality, occupation, municipality of residence and occurrence, with dissemination of comprehensive information by the Ministry of Health, in a timely and transparent manner.
- 18. At all levels of the health system, health authorities are responsible for providing the conditions for all suspected, confirmed cases and fatalities to be duly registered and reported, and for speeding up the diagnostic and information transmission processes between the areas of assistance and surveillance, prioritizing the investigation of work-related COVID-19 cases.
- 19. Health authorities, at all levels of government, must implement actions to reduce and control community transmission of COVID-19 through appropriate epidemiological strategies,

- quarantine, physical distancing, identification and isolation of infants and restriction of domestic and international travel.
- 20. As long as transmission with an epidemic characteristic persists, health authorities must maintain the guidelines for physical distancing, encouragement of telework, use of masks leaving home, availability of alcohol gel in all public places and vehicles, prohibition of events or meetings of any kind that are not related to the maintenance of essential activities.
- 21. Flexibility of physical distancing and mobility restriction measures shall be considered only where and when the epidemiological situation allows, with precisely defined prerequisites, according to indicators established by WHO and endorsed by other international health organizations, and they are not recommended as long as any of following criteria persists:
  - a. Number of cases and incidence rates on the rise.
  - b. Number of fatalities and mortality rates on the rise.
  - c. Effective reproductive number (Rt) above 1.
  - d. Geographical spread of the epidemic, indicating that the reduction in mobility was not enough to block its progression.
  - e. Persistence of different growth rates in different areas of the same state.
  - f. Insufficient installed capacity for extensive molecular testing in order to detect and isolate cases of COVID-19 and to track contacts and place them in quarantine.
  - g. ICU bed occupancy rates above 70%.
- 22. Health authorities are responsible for implementing, in their respective areas of activity, active search strategies of cases, with epidemiological surveillance teams trained to test, through molecular biology, all suspected cases, with contact tracking, covering the possible chain transmission to the limit of traceability and monitoring of those for which isolation or quarantine is recommended, respecting individual rights, secrecy and confidentiality.
- 23. For all laboratory confirmed cases or those with a clinical diagnosis of COVID-19, where deemed necessary, strict individual isolation must be take place under the supervision of the surveillance teams and monitoring by the primary health care teams.
- 24. At all levels of the health system, the authorities must invest in the development of innovative and effective technologies for tracking cases and contacts, monitoring and guidance to support epidemiological analysis, and training actions for health workers and support for health services.
- 25. Health authorities are responsible for ensuring compliance with safety protocols with the provision of personal protective equipment

- for all health workers and other sectors working at the forefront of the health service network.
- 26. Health resources must be applied equitably, considering the general needs of the population and the specific needs of groups exposed to greater economic and social vulnerability, as presented in this Plan.
- 27. At all levels of the health system, health authorities are responsible for ensuring continuity of health care for all people with any health condition that requires assistance and care.
- 28. Health authorities must encourage the establishment of health professionals in remote regions and localities inhabited by traditional peoples in order to have a positive impact on the control and reduction of COVID-19 transmission in vulnerable populations.
- 29. The creation of Emergency Health Teams or similar, already implemented in some states and municipalities, must be adopted as a strategy for expanding primary care across the country, expanding the staff of health teams.
- 30. At all levels of the health system, social communication campaigns about COVID-19 must be implemented for precaution, disease prevention, protection and health care with clear guidelines based on scientific knowledge, while taking into account sociocultural diversity and linguistic aspects of our society. Community organizations and grassroots movement must be supported in the development of communication strategies appropriate to the possibilities of each territory, seen in all its breadth.
- 31. Mental health care strategies and measures must be developed and implemented, composing a complementary plan of combat of psychiatric disorders and mental health problems, with the support of integrative and complementary practices.
- 32. It is incumbent upon the health authorities to implement urgent measures to protect the health and life of people with special needs:
  - a. Consider people with special needs as a risk group, according to UN, WHO and PAHO guidelines.
  - b. Ensure full accessibility to the means of information and communication, including: simple communication, subtitles, Braille, Brazilian Sign Language (LIBRAS), audio description and accessible text files.
  - c. Ensure special care in urgent and emergency units, including company for those who require it;
  - d. Prevent discriminatory measures of access to specialized care;
  - e. Develop protocols for the resumption of specialized services for people with special needs in the field of health and social welfare, especially those involving habilitation and rehabilitation.

- 33. It is incumbent upon the health authorities to implement measures to prevent the transmission of COVID-19 in hospitals, such as:
  - a. COVID-19 patients, suspected or confirmed cases, admitted in a hospital environment must make up specific cohorts and be physically separated from other patients.
  - b. Universal and specific precautions regarding the transmission of the virus by contact and respiratory tract must be established, such as the use of PPE appropriate to the procedures to be performed, hand hygiene, establishment of administrative and engineering measures, which allow appropriate flows and ventilation, exhaustion and refrigeration to reduce the presence of SARS Cov-2 in care environments.
  - c. Listening and emotional support to health professionals and permanent education are two fundamental instruments to increase the degree of resilience of health workers, and to reduce risks and damages for patients and professionals associated with care, whether in relation to Covid19 or not.

#### To SUS managers

Officers, coordinators, team leaders, among others, in all programs, establishments and services of the Health Care Network and the Health Surveillance System must adapt the functioning of the network, the system and the health units under their responsibility to the contingencies, demands and pressures arising from the critical event of the COVID-19 Pandemic. Epidemiological surveillance, with an active search for confirmed or suspected cases and blocking of transmission, is one of the most effective strategies to control an epidemic; based on the SUS structure, this procedure must be performed jointly by surveillance and PHC teams, connected and coordinated by SUS managers.

In the most desirable hypothesis, early diagnosis and prompt and appropriate treatment of cases must be carried out by health services ready and prepared, both from a technical and logistical point of view, to offer patients quality care, equity and humanization, ensuring the safety of health professionals and other workers. The reorganization of patient flows in the care networks entails readjusting the functions of the different points of care, including new modalities of remote care, duly incorporated into primary health care.

In the urgency of this health crisis, there are some recommendations, without any intention of configuring rigid protocols, which may contribute, at the microinstitutional level, to provide greater consistency and effectiveness to the actions and practices of pandemic control:

34. Care lines must be implemented to meet the different stages of the disease and its potential for severity, ranging from symptom management and home isolation to ICU admission, including rehabilitation after hospital discharge.

- 35. SUS managers must operate Call Centers on a 24-hour basis, with assistants trained in the use of protocols that distinguish between mild and severe cases, with guidance for mild cases regarding home or assisted isolation measures, with monitoring of the evolution thereof.
- 36. Technological tools (such as mobile phone applications) may be used to locate, monitor and control cases during the infectious period, respecting secrecy and confidentiality, in order to identify infants and block transmission chains.
- 37. Face-to-face care for patients suspected of COVID-19, in the PHC units, must be carried out with all precautions and with individual protection measures, in order to avoid the infection of health workers and users.
- 38. The individual clinical care provided by PHC professionals must provide guidance to suspected cases regarding the isolation and recognition of warning signs, identify patients who cannot be cared for at home, monitor suspected cases regarding clinical evolution, perform video consultations for more complex cases, and request removal to hospital unit when identifying signs of worsening.
- 39. Patients with suspected COVID-19 must be screened at the first contact with any health service with precautions for infection control, which include care in external areas, limitation of physical contact, changes in flow, separation of areas of care and waiting, distancing, physical barriers and appropriate use of Individual Protection Equipment (PPE), according to the activity and type of contact.
- 40. The active search for cases must be carried out by teams from health care networks, also in workplaces. These teams need to have institutional cell phones available to make safe contact with suspected cases, with a view to implementing the safe isolation of possible infectious agents and the suspension of activities in unhealthy work environments or transmitters of coronavirus infection.
- 41. Confirmed mild or asymptomatic cases must be identified, supported, instructed and strictly monitored in order to verify strict compliance with the isolation instructions, offering accommodation in protected facilities, hospitalization in quarantine units or financial aid to enable individual isolation at home.
- 42. Health units must perform therapeutic interventions, monitor signs of worsening and provide timely transfer to more complex beds, when necessary, referring serious cases to COVID-19 referral hospitals by exclusive ambulances, with trained and adequately protected professionals.

- 43. Managers must ensure that Emergency Care Units (UPAs) and SAMU have complete and trained teams and appropriate equipment, in order to offer timely and quality care that will save lives and reduce people's suffering.
- 44. The installed capacity of beds must be expanded, including ICU beds, both in field hospitals and in new permanent hospitals, with complete teams, adequate diagnostic and therapeutic support services and intermediate and intensive care units or reference mechanisms for these units, if necessary, particularly for remote regions and municipalities far from the capitals.
- 45. It is essential that Government controls and manages all the hospital capacity existing in the country and institutes a single line, encompassing public and private services, of serious cases of COVID-19 that require hospitalization and intensive therapy, respecting the payment tables of the SUS in force.
- 46. It is necessary to regulate beds linked to Primary Care, which provide special support to care for chronic conditions when they become acute and cannot be accompanied by PHC, with special attention being paid to the flow and regulation for users coming from the Indigenous Health Subsystem.
- 47. Recovery beds dedicated to the care of suspected cases with high risk of worsening or with contraindication to home isolation must be part of the planning of the COVID-19 care network, including people with comorbidities, those who live alone, even if they are not serious, and those who live in contexts that make physical isolation and distancing unfeasible.
- 48. SUS managers must also organize Intermediate Care Units, for recovery and/or rehabilitation of the semi-acute patients, thus avoiding unnecessary or inappropriate hospitalizations due to complications of chronic patients under primary care; these services could be installed in small hospitals, in many cases, underutilized.
- 49. It is essential that health managers expand the remote medical assistance programs to ensure tele-assistance, online or home consultations, with priority for women of all ages, maintaining face-to-face care for pregnant women and high-risk neonates, under appropriate safety conditions.
- 50. Reproductive and sexual health services must be maintained, including contraception, abortion care (unsafe and legal), care for prenatal care, childbirth and the puerperium, with guaranteed care for women victims of sexual and/or domestic violence, both in health and public safety services.
- 51. The clinical management of patients must follow protocols already made available that must be adapted to local conditions and integrated into networks that allow

- monitoring of care and the possibility of fast regulatory mechanisms.
- 52. The establishment of protocols and training of professionals to care for the different stages of the disease and its potential for severity, ranging from symptom management and home isolation to ICU admission, including rehabilitation after hospital discharge. The following protocols must be followed, in PHC, ECUs and SASIs:
  - a. Severity classification of patients with severe acute respiratory syndrome (SARS);
  - b. Initial clinical management of patients with severe acute respiratory syndrome (respiratory support to patients and pharmacological therapy in COVID-19), with or without risk of complications;
  - c. Procedures for protection and infection control in a hospital environment.
- 53. Transportation of critically ill patients from home directly to the referral unit must be an essential point in the planning of the care network so that appropriate therapy may be started in time with access to intermediate and intensive care beds; Special attention must be paid to municipalities and users residing in remote regions who may need complex logistics such as a boat, plane or helicopter.
- 54. Access to high-cost resources such as Intensive Care Units and the technologies used to care for critically ill patients must not be subordinated to prejudices of any kind (age, comorbidities, social situation or any other), but exclusively guided by clinical needs of patients.
- 55. In view of the profusion of promises of drug treatments, without a scientific basis, SUS managers must strive for compliance with the National Pharmaceutical Assistance Policy (PNAF), CNS Resolution No. 338/2004, ensuring access and promoting the rational use of medication. It must be ensured, through strategic stock, that essential medication is not lacking for patients. The use of off-label drugs should be limited to participants in research projects duly approved by the Research Ethics Committee / National Research Ethics Committee system (CEP/CONEP)
- 56. For both COVID-19 and other health problems, diagnostic and therapeutic support services need to be expanded to improve the population's access conditions, eliminating barriers to their use in a timely manner and ensuring the agile feedback of results to the patient and to the requesting care team.
- 57. It is incumbent upon SUS managers to implement and ensure the operating conditions of Hospital Bioethics Committees, in order to favor reflection and collective discussion of moral dilemmas that arise locally and to assist professionals, patients and families in the decision-making processes.

- 58. A consent protocol must be established to ensure that COVID-19 patients have the right to identify, at the time of admission and isolation, a person of trust who can act as a "substitute decision maker" when they themselves cannot decide.
- 59. Communication mechanisms between the hospital and the family of inpatients/isolates must also be implemented, with the choice of this contact individual being made by the patient, so that the family has regular and reliable access to the health status of their loved ones.
- 60. Health education, information and communication actions for the general population must be improved, preferably in partnership with representatives of local movements and initiatives, addressing measures to prevent communicable and non-communicable diseases and other relevant problems, through social interaction and knowledge sharing.
- 61. It is important to develop communication strategies with goals for the individual, family, community and municipal levels, with targeted messages, information sources, organization and community policies, using a greater variety of media and means of communication, such as community radios, public telephones, internet, podcasts, live streams on social networks, Whatsapp groups.
- 62. These strategies must be developed together with the affected communities in order to favor their effectiveness and their suitability for different sociocultural contexts, which includes the need for anti-racist health education actions, for gender equality and respect for diversity, guided by emancipatory teaching approaches based on dialogue and shared construction of knowledge.

#### To society in general

Everyone has the right and the duty to comply with the recommended epidemiological control measures, which must be the subject of communication campaigns in language understandable by all people, taking into account the circumstances and contexts of different population groups. A well-informed population is vital to the success of any plan to tackle the pandemic, which ultimately depends on the mobilization and protagonism of civil society, which the State must obey and serve. In this sense, the following recommendations must be made:

- 63. Society must demand and gain access to accurate, certified and useful information, becoming aware of the seriousness of the crisis and, as a result, must understand and adhere to epidemiological control measures. Information must be widely disseminated, through the widest possible range of communication vehicles and full diversity of communication strategies.
- 64. To win the pandemic, intense social mobilization is required in favor of the right to quality health care, in defense of the right to life and health, in independent civil society organizations that defend the rights of social groups and organizations of marginalized groups such as

- residents of slums and peripheries of cities, including around cultural activities, which are based on the ethical principle of equality and the exercise of solidarity.
- 65. Society as a whole, considering the diversity and the right to include all social groups, must fight for the recognition and overcoming of invisibilities and socially produced silences, understanding the interdependencies between the various dimensions of the pandemic, in which social vulnerabilities and privileges place circulating bodies and bodies in isolation in a different count of cases and deaths.
- 66. It is important to mobilize the skills of technological innovation in health, in universities and other research centers, with strategic public funding so that public institutions, in partnership with national incubators and companies, may develop national capacity to provide technological infrastructure to support actions of health.
- 67. Society and, in particular, scientific institutions must create committees of researchers from different areas that may monitor, evaluate and propose innovations for the better functioning and transparency of information systems, providing greater credibility to the data.
- 68. With regard to the Unified Health System (SUS), in particular, society needs to intensify its participation in spaces designed for social control, following the evolution of the epidemic and demanding the performance of managers in all spheres of government, as well as requiring other channels to be open to community participation.
- 69. In general, society must exercise citizen participation, defending the dignity of human life, the preservation of the environment and the strengthening of the democratic regime that has been under attack by upstarts who, through fraud and manipulation, have taken up prominent places on the national political scene.
- 70. In this context, it is essential to promote the Culture of Peace through the set of its values, attitudes, traditions, behaviors and lifestyles based on the following principles:
  - a. Respect for life, end of violence and promotion and practice of non-violence through education, dialogue and cooperation;
  - b. Promotion of human rights and fundamental freedoms, rejecting racist, sexist, LGTB+ phobic practices or any discrimination resulting from hatred and intolerance;
  - c. Recognition and respect for the diverse knowledge and practices of health and care.
  - d. Adherence to the principles of freedom, justice, democracy, tolerance, solidarity, cooperation, pluralism, cultural diversity, dialogue and understanding at all levels of society and between nations.

As it is evident, this list of recommendations does not mean a mere list of action proposals to be applied in different spheres of government or at

different levels of SUS operation, in an isolated or cumulative manner. It is, in fact, an articulated and integrated system of strategies, tactics and actions, designed to enable methods of controlling epidemic processes, functionality and effectiveness of which depend on effective planning, competent management and fine and sensitive coordination. The condition of fesibility (or success) of its implementation, in a context of such great complexity, lies precisely in the capacity to mobilize the population, including users, managers and professionals in a firm and solidary cohesion regime.

# 12. FACE THE PANDEMIC NOW TO BUILD A FUTURE WITH SUSTAINABILITY AND SOCIAL JUSTICE

Just under six months, and the pandemic has infected more than 10 million people worldwide, causing more than half a million deaths. The speed of transmission is capable of generating demand of patients in large volume, which may become unbearable even for the most developed health systems. After that time, it is already observed that the dynamics of the pandemic is extremely variable, having created extreme pressure on health systems in countries like England and cities like Milan and New York, but having less impact elsewhere. The early taking of epidemiological control measures, the implementation of effective health surveillance actions, associated with local demographic, social, economic, geographic (population density), and climate characteristics, universal access to health care, explain in part these variations.

Data on the pattern of use of services is becoming better known. It is seen that some patterns are more regular, while others are quite variable. Characteristics of service provision and local medical practice; the learning process with the management of the disease; in addition to new prophylactic, diagnostic, therapeutic and organizational approaches; as well as changes in people's behavior towards the disease and its social, cultural and economic conditions define and change the pattern of use of services over time.

Most of the factors involved in the search for care by patients with COVID-19 are not yet known, which affects the assumptions of the models to estimate the needs of services, professionals and strategic inputs (professionals, PPE, medications, equipment) in the country. Added to this are the current difficulties in obtaining information on the offer and production of services. Therefore, it is important to encourage the improvement of access to information and the systematization of the experience in this first phase of the epidemic in Brazil, while plans are being developed with the necessary dynamics to respond to the most immediate demands, correcting paths and introducing innovations that demonstrate effectiveness. It will take a process to recreate the SUS, ensuring appropriate funding to reach the scope, universality and necessary capabilities that the future shall certainly require from health systems. It should be emphasized that the existence of SUS, even if underfunded, has been fundamental for the establishment of effective responses to the pandemic, at all levels of necessity (from primary to tertiary care), from the production of inputs to the production of a vaccine that proves to be safe and effective.

The COVID-19 pandemic must not be treated as an exception. New threats involving agents of biological origin, similar to Sars-CoV-2, or of chemical, radiological/radioactive origin, as well as disasters related to the climatic emergency, are already part of our societies and may trigger new critical events on a large scale or even

localized, which can also overlap, combining pandemics, epidemics, disasters and humanitarian crises simultaneously. Remember that each of these new situations does not replace all other conditions and infections that already affect Brazil. As an example, other public health situations, acute or chronic, of national (such as Dengue, Zika/Microcephaly, HIV/AIDS) or even state (such as Yellow Fever) importance put at risk and cause damage involving thousands of people. Here are the aggravations caused by the different types of violence that have plagued the country for decades, which worsen in time depending on the scenario, such as domestic and institutional violence during the COVID-19 pandemic. Health services, especially emergencies and primary care, in the context of the pandemic, have bottleneck issues, collapse and become inaccessible to users affected by the already prevalent pathologies, as it is the case with endemic chronic diseases in the country.

The pandemic represents a unique opportunity to readjust working conditions and processes that minimize contamination and diseases resulting from workloads. In this regard, it is recommended to reduce the working hours of the nursing team to 30 hours a week, increase the number of professionals per bed, provide an appropriate place for rest and psychological support for the entire health team. For the other economic sectors, the resizing of jobs and jobs that allow for appropriate distancing, physical protection between workflows, reorganization of working hours from 44 hours a week to 40 hours, with a view to making physical and psychosocial rest possible. The formalization of precarious workers represents an essential social support and must be implemented in an increasing way during and after the pandemic.

In a recent period, disasters involving mining dams and crude oil spills have reached large territorial extensions and populations with medium and long-term risks, in addition to the immediate impacts, particularly for indigenous peoples and traditional communities. Floods, landslides, storms and droughts affect millions of people annually. Each of these events aggravates the existing health situation, compromising the health and social protection sectors' ability to respond to everyday risks, while producing new risk and harm scenarios, in which the effects are not limited to immediate and localized impacts, but require considering the broader and longer-lasting impacts, making it imperative to consider, even at this stage, the processes of health rehabilitation and recovery, as well as the resumption of activities and reconstruction of life and health conditions and, above all, in the proper fight to reduce or eliminate the main causes of the conditions of vulnerability, which are the immense and unacceptable inequalities and social iniquities.

The impacts of these events, such as the COVID-19 pandemic, cannot be addressed in an isolated and punctual manner, as they combine economic, political, health and ethical crises, resulting in a cascade effect, expanding the conditions of vulnerabilities and risks present and future, impacting in a much more

significant manner the living and health conditions of the poorest and most vulnerable. This means that the conditions that allow not only a better preparation and alert for future risks, but also the processes of rehabilitation, recovery and reconstruction of living and health conditions must be built already. In this regard, it is not possible to think of a so-called "new normal" in which this means considering the previous situation as normal, in the absence of essential services, especially health services, in precarious work, and all the iniquities and inequalities that directly affect the working class. Aspects of a social tragedy that the pandemic has brought to light.

The COVID-19 pandemic emphasizes that population groups that have historically been neglected, those with low social protection, without employment and income, indigenous peoples and traditional communities, populations in general without appropriate access to health care and information are found among the most affected people, especially at higher risk of death. The pandemic also seems to demonstrate that nations governed by obscurantists, with conservative administrations or management, neoliberal political agendas, which neglect public services, human rights and measures to protect the environment, and negotiate collective assets, weaken the capacity of society in responding to complex problems, increasing risks, vulnerabilities and damage in historically discriminated populations. Finally, resorting to Milton Santos, redoing a renewed and expanded social contract, which prioritizes the demands and the effective participation of vulnerable and oppressed populations, with health at the center of it all, could very well be a legacy of the COVID-19 Pandemic.

#### **EXHIBIT 1 - List of activities**

#### ABRASCO:

7 April - Ágora Abrasco launched on the Internet: Message to the population and health professionals

8 April - Panel: Plan to control COVID-19

9 April - Panel: COVID-19 pandemic: challenges for epidemiology

14 April - Colloquium: Epidemiological and statistical methods to set scenarios for the progression of the COVID-19 pandemic

15 April - Panel: Black Population and COVID-19

16 April - Live: The pandemic in the world: a perspective from the

Americas April 17th - Ágora - A space for free dialogue on the pandemic

21 April - Colloquium: Reorganization and expansion of hospital care to assist COVID-19: where are we? What to do?

22 April - Panel: Multilateralism and Health

23 April - Panel: The false controversy between Health and Economy

24 April - Ágora - A space for free dialogue on the pandemic

April 28th - Colloquium: Confronting the coronavirus, SUS and the crisis in the federal pact

April 29th - Panel: COVID-19 in Brazil = Genocide of the elderly?

April 30th - Panel: COVID-19: inequalities, vulnerabilities, silences and ignorance May 5th - Colloquium: Health workers and the COVID-19 pandemic

06 May - Panel: Medications, vaccines, tests and ethics: challenges for the Health Industrial Complex in the pandemic

07 May - Colloquium: COVID-19 - Social distancing and combating the collapse of the health system

08 May - Ágora - A space for free dialogue on the pandemic

12 May - Colloquium: What information do we need to guide combat strategies?

13 May - Panel: COVID-19 pandemic and climate change: global emergencies and health threats

14 May - Panel: How to produce theory in an epidemic?

15 May - Ágora - A space for free dialogue on the pandemic

19 May - Colloquium: Mental Health and COVID-19: what are the strategies to deal with this reality?

20 May - Panel: Popular Health Education and the Pandemic: Dialogues and Opportunities

21 May - Panel: Invisibilities and iniquities in the Amazon: indigenous peoples and COVID-19

May 27th - Panel: COVID-19: the interface of biomolecular, clinical and collective health knowledge

May 28th - Panel: Challenges and perspectives for Sovereignty and Food and Nutritional Security for the COVID-19 pandemic

03 June - Panel: The Economic-Industrial Complex of Health and international dependence: overcoming the dichotomy between health and development

04 June - Panel: Scientific publication in the COVID-19 pandemic times

05 June - Panel: COVID-19: Clinical/epidemiological interface and health care June 10th

- Panel: Challenges of social protection in times of pandemic

June 12th - Panel: COVID-19: Integration of knowledge in the Ecosocial/Technological interface June 16th - Panel: Reproductive health, pregnancy, delivery and birth in the COVID-19 pandemic

17 June - Panel: Primary Care and Epidemiological Surveillance: response strategies

18 June - Colloquium: Does the Health Promotion field have anything to say for the current COVID-19 pandemic and vice versa?

19 June - Panel: Science and politics in tackling the COVID-19 pandemic

June 23rd - Live: The world after the pandemic:

scenarios June 24th - Panel: Smoking and COVID-19

25 June - Colloquium: Prevention, treatment and care for HIV/AIDS and other STIs during the COVID-19 pandemic

26 June - Panel: Culture and society in tackling with the COVID-19 pandemic

June 30th - Colloquium: Physical distancing measures at the current moment of the pandemic July 1st - Colloquium: Popular Education in Health and COVID-19: knowledge and practices of protagonists of territories and services

2 July - Panel: Public management: private addictions?

3 July - Panel: The new challenges for the Health Industrial Complex - Inputs, products and regulation.

July 7th - Colloquium: Data and Information Systems to tackle pandemics and epidemics

July 10th - Panel: Where does SUS go after the COVID-19 pandemic?

July 24th - Panel: The marks of social isolation in the population: are they fleeting?

July 31st - Panel: Public funding and social policies: perspectives beyond the pandemic.

#### REDE UNIDA:

April 18th - Discussion - Primary Care, Community Participation, COVID-

19. April 23rd - Discussion - Work in the Care of COVID-19.

April 25th - Panel - Niterói in Defense of Life, Against COVID-19.

April 29th - Panel - Communities of Amazonas in the Combat agains COVID-19.

01 May - Interview with Emerson Merhy - Life and Resistance Against COVID-19.-

May 2nd - Panel - UFRJ - Macaé in the Combat against COVID-19.

02 May - Round-table Discussion - Psychology and Indigenous

Peoples. May 6th - Panel - Popular Education in Combating COVID-19

May 9th - Discussion - Experience of the Northeast Consortium in the Control of

COVID-19. May 16th - Panel - UFF in the Combat against COVID-19.

May 20th - Roundtable Discussion - Portraits of Freedom - Mental Health in Acre.

May 23rd - Roundtable Discussion - Care without Borders: Immigrants and COVID-19.

May 27th - Discussion - Education in Times of Pandemic: Dialogues and Connections.

May 30th - Panel - Care in the Territory and COVID-19: The Italian Experience.

June 3rd - Discussion - COVID-19 Interrogating Our Ways to Act at Universities. June 9th - Rede Unida Act for Life.

25 June - Roundtable Discussion: Signs that Come from the Street.

26 June - Discussion - Teaching-Service Integration in RJ: a strategic partnership in the permanent education of professionals. Partnership CIES-SES/RJ.

27 June - Roundtable Discussion - COVID-19 and People with Special Needs: problematizations.

#### CEBES:

April 14th - SUS Comunica Project Launch of 04 Radio Soap Operas with graphic material about COVID 19 and the Unified Health System (SUS)

April 28th - Live Cebes and Unity in Diversity on SUS: The State tackling the pandemic. May 18th - Live Cebes and Unity in diversity (Ana Costa and José Noronha). COVID 19 spreads and challenges the country: what to do?

May 28th - Launch of the #EmDefesadoSUS Campaign - mobilization video May

29th - Cebes and civil society entities launch the Frente Front for Life

May 30th - CEBES promotes the discussion "The Unacceptable health crisis in Rio de Janeiro"

June 5th - Virtual discussion: "ABJDRJ: Pandemic in Rio de Janeiro: Health, Economy and Rights"

June 8th - CEBES-Recife helps build the project Hands of Mãos Solidárias/Periferia Viva

15 June - Live on "The importance of Pandemic data and antifacist and anti-racists acts"

June 8th - Cebes Goiânia Pequi With SUS Campaign #emdefesadoSUS

June 8th - Live: Social, economic and environmental developments resulting from Brazilian agriculture

16 June - Live: Pandemic in Manaus and announcement of the creation of CEBES-Amazonas and the need for strict measures of social distancing.

June 19th - Live In defense of Life. With the People's Crisis Committee

#### SBB:

13 March - SBB/Paraná Regional: Coffee with Bioethics - New Overviews. Central theme: Bioethics and Parenting

14 March - SBB/Regional SP: Advanced Bioethics Meeting

16 March - Declaration by the Bioethics Network of Latin America and the Caribbean - UNESCO, on the COVID-19 pandemic

17 April - Live: Bioethics and Covid-19. Camila Vasconcelos (2nd vice president of SBB) April 15th - Interview with Dirceu Greco (Jornal Esquerda Diário), with serious warnings about the pandemic of the new coronavirus

19 April - SBB and entities issue Disapproval Note against attacks on researchers in the study CloroCovid-19 and with respect to science

20 April - Live: Bioethics, Vulnerability and Covid-19 - Camila Vasconcelos (2nd vice president of SBB)

April 26th - Live: Access to hospital beds and the COVID-19 pandemic - Camila Vasconcelos (2nd vice president of SBB)

April 26th - Redbioética Podcast: COVID-19 ethics in pandemic times, with Dirceu Greco May 13th - Live: Bioethics and tough decisions: with Dirceu Greco and Camila Vasconcelos May 21st - SBB present in the program "Drugs: stay in the loop!" with the theme SUS, COVID-19, racism, mental health

24 May - Live: SBB participates in a Nubea RJ meeting on "Ethics in research and COVID-19"

25 May - "Covid-19 and quarantine in Santa Catarina: a sad population experiment" - SBB - Regional Sta. Catarina disseminates Article by Sandra Caponi

(UFSC) June 4th - Live: Theme: "Bioethics, hope and dignity"

June 21st - Live: The control of COVID-19, with former Minister of Health José Gomes Temporão, and Mariângela Simão, WHO Deputy Director-General

June 24th – Roundtable discussion: Inappropriate Communication to the Media: just Disservice to the Population or Ethical Infringement?

July 7th - Live: SBB Pernambuco Regional. Access to ICU beds: ethical dilemmas and bioethical reflections in times of pandemic.

July 9th - Live: SBB RS Regional, Bioethics in Dialogue. Theme: "Patients' rights" July 13th - Virtual Class Cities for Democracy: The Impacts of the Pandemic on BH in the coming years

EXHIBIT 2 - Documents produced by the CNS as a result of the pandemic

Summary Table of Documents Issued by CNS during the combat against COVID-19					
Date	Document	Menu	Link		
03/23/2020	Open letter	CNS addresses the Brazilian authorities in the fight against the New coronavirus: Emergency decision-making, which directly affects the lives of all users and workers of the Unified Health System (SUS). The purpose is to care for Social Security in our country and for people's lives, proposing referrals and measures that may mitigate the scenario we are facing in the country.	https://conselho.saude.gov.br/ultimas-noticias-cns/1074-carta-aberta-do-cns-as-autoridades-brasileiras-no-enfrentamento-ao-novo-coronavirus		
03/24/2020.	Recommendati on No. 016	Recommends to the Ministry of Economy, to the Presidents of the House of Representatives and the Senate, and to the President of the Federal Supreme Court the taking of measures due to the issuance of Provisional Measure No. 927/2020.	http://conselho.saude.gov.br/recomendacoes-cns/1078-recomendac-a-o-no-016-de-24-de-marc-o-de-2020		
03/24/2020.	Recommendati on No. 017	Recommends to the Crisis Committee for Supervision and Monitoring of the Impacts of COVID-19 the taking of measures aimed at assuring water supply in all regions of the country.	http://conselho.saude.gov.br/recomendacoes-cns/1079-recomendac-a-o-n-017-de-24-de-marc-o-de-2020		
03/26/2020.	Recommendati on No. 018	Recommends observance of Technical Opinion No. 106/2020, which provides for guidelines for the work/performance of Health Residents, within the scope of health services, during the Public Health Emergency of National Relevance as a result of the Coronavirus disease - COVID-19.	http://conselho.saude.gov.br/recomendacoes-cns/1086-recomendacao-n-018-de-26-demarco-de-2020		
03/30/2020.	CNS Alert	Medications still under studies against COVID-19, without prescription, can cause damage to health - Self-medication can cause poisoning or death, therefore the importance of the rational use of medications	https://conselho.saude.gov.br/ultimas-noticias-cns/1085-cns-alerta-medicamentos-ainda-emestudos-contra-COVID-19-semprescricao-podem-causardanos-a-saude		
03/31/2020.	Guiding Document	The CNS addresses the State, Municipal and District Health Councils on New Coronavirus (COVID-19): Social control in Health must reaffirm its action of public relevance in the monitoring and control of Health actions and policies in its territories. It is worth emphasizing that it will be necessary for the Councils to prepare to play their full role in postepidemic.			
04/06/2020	Recommendati on No. 19	Recommends measures aimed at assuring the rights and social protection of people with disabilities and their families.	http://conselho.saude.gov.br/recomendacoes-cns/1095-recomendacao-n-019-de-06-de-abril-de-2020		
04/07/2020	Motion fo r Support No. 003	Expresses support to Bill No. 1462/2020, which provides for the granting of a compulsory, temporary and non-exclusive license for the exploitation of patents.	http://conselho.saude.gov.br/ mocoes-cns/1104-mocao-de- apoio-n-003-de-07-de-abril-de- 2020		
04/07/2020	Recommendati on No. 20	Recommends observance of Technical Opinion No. 128/2020, which provides for guidelines for the work/performance of workers, within the scope of health services, during the Public Health Emergency of National Relevance as a result of the Coronavirus Disease - COVID-19.	http://conselho.saude.gov.br/recomendacoes-cns/1103-recomendac-a-o-no-020-de-07-de-abril-de-2020		

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04/09/2020	Recommendati on No. 21	Recommends to the House of Representatives not to accept Emergency Request No. 511/2020.	http://conselho.saude.gov.br/recomendacoes-cns/1111-recomendac-a-o-n-021-de-09-de-abril-de-2020
04/09/2020	Recommendati on No. 22	Recommends measures to ensure sanitary and social protection conditions to meet the emergency needs of the population in view of the COVID-19 pandemic.	http://conselho.saude.gov.br/recomendacoes-cns/1112-recomendac-a-o-n-022-de-09-de-abril-de-2020
04/09/2020	Recommendati on No. 23	Recommends to Anvisa the preparation, availability and wide dissemination of material accessible to all persons containing official technical instructions regarding food and products during the pandemic caused by the new coronavirus.	http://conselho.saude.gov.br/recomendacoes-cns/1113-recomendac-a-o-n-023-de-09-de-abril-de-2020
04/09/2020	Public Statement	Response to Epidemiological Bulletin No. 7, from the Ministry of Health (MS), published on Monday (Apr 6th), provides that as of April 13th, "the municipalities, Federal District and States that have implemented measures of Expanded Social Distancing (DSA), where the number of confirmed cases has not impacted more than 50% of the installed capacity existing before the pandemic, must start the transition to Selective Social Distancing (DSS)".	https://conselho.saude.gov.br/ultimas-noticias-cns/1102-nota-publica-cns-defende-manutencao-de-distanciamento-social-conforme-define-oms
04/20/2020	Recommendati on No. 24	Recommends actions related to the performance of undergraduate health students in the context of the Strategic Action "O Brasil Conta Comigo" (Brazil Counts on Me).	http://conselho.saude.gov.br/recomendacoes-cns/1127-recomendacao-n-024-de-20-de-abril-de-2020
04/20/2020	Recommendati on No. 25	Recommends to the National Congress the approval of PL 1685/2020, which provides for emergency measures for the acquisition of food to mitigate the impacts of the COVID-19 pandemic.	http://conselho.saude.gov.br/recomendacoes-cns/1128-recomendacao-n-025-de-20-de-abril-de-2020
04/22/2020	Recommendati on No. 26	Recommends SUS managers, within their scope of operation, to request private beds, when necessary, and proceed to their unique regulation, in order to ensure equal treatment during the pandemic.	http://conselho.saude.gov.br/recomendacoes-cns/1131-recomendacao-n-026-de-22-de-abril-de-2020
04/22/2020	Recommendati on No. 27	Recommends to the federal and state Executive Branch, as well as the Legislative and the Judiciary, actions to combat the Coronavirus	http://conselho.saude.gov.br/recomendacoes-cns/1132-recomendacao-n-027-de-22-de-abril-de-2020
04/22/2020	Recommendati on No. 28	Recommends to the National Congress actions related to extraordinary credits approved during the term of the Public Catastrophe Decree.	http://conselho.saude.gov.br/r ecomendacoes-cns/1133- recomendacao-n-028-de-22-de- abril-de-2020
04/27/2020	Recommendati on No. 29	Recommends actions related to combating institutional racism in health services in the context of the COVID-19 pandemic, caused by the new coronavirus, SARS-CoV-2.	http://conselho.saude.gov.br/r ecomendacoes-cns/1142- recomendacao-n-029-de-27-de- abril-de-2020
04/27/2020	Recommendati on No. 30	Recommends measures aimed at assuring the rights and social protection of People with Chronic Diseases and Pathologies.	http://conselho.saude.gov.br/recomendacoes-cns/1143-recomendacao-n-030-de-27-de-abril-de-2020
04/29/2020	Open Letter	National Health Council in defense of life, democracy and SUS	https://conselho.saude.gov.br/ultimas-noticias-cns/1140-carta-aberta-do-conselho-nacional-de-saude-em-defesa-da-vida-da-democracia-e-do-sus

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04/30/2020	Campaign	CNS launches campaign to protect essential service workers	https://conselho.saude.gov.br/ultimas-noticias-cns/1139-coronavirus-cns-lanca-campanha-de-protecao-aos-trabalhadores-e-trabalhadoras-de-servicos-essenciais
04/30/2020	Public Statement	CNS warns of care during rapid tests for COVID-19 available in pharmacies	https://conselho.saude.gov.br/ultimas-noticias-cns/1144-nota-publica-cns-alerta-sobre-os-cuidados-para-a-realizacao-de-testes-rapidos-para-COVID-19-disponiveis-em-farmacias
04/30/2020	Recommendati on No. 31	Recommends supplementary emergency measures aimed at assuring the rights and social protection of people with disabilities in the context of COVID-19.	
05/05/2020	Recommendati on No. 32	Recommends priority measures for workers of public services and essential activities in strategic actions by the Ministry of Health.	http://conselho.saude.gov.br/r ecomendacoes-cns/1151- recomendacao-n-032-de-05-de- maio-de-2020
05/05/2020	Recommendati on No. 33	Recommends transparency measures in the disclosure of statistical data and mandatory notifications of workers' health problems due to COVID-19.	
05/07/2020	Recommendati on No. 34	Recommends measures to ensure sustainable production, distribution and donation of food, with respect to the nature and rights of family farmers, indigenous peoples, and traditional communities.	http://conselho.saude.gov.br/r ecomendacoes-cns/1157- recomendac-a-o-no-034-de-07- de-maio-de-2020
05/11/2020	Recommendati on No. 35	Recommends actions related to the health of the Gypsy/Romani people in the context of the COVID-19 pandemic, caused by the new coronavirus, SARS-CoV-2.	http://conselho.saude.gov.br/recomendacoes-cns/1166-recomendacao-n-035-de-11-demaio-de-2020
05/11/2020	Recommendati on No. 36	Recommends the implementation of more restrictive social distancing measures (lockdown), in municipalities with an accelerated occurrence of new cases of COVID-19, and with rate of occupancy of the services at critical levels.	ecomendacoes-cns/1163-
05/11/2020	Recommendati on No. 37	Recommends to the National Congress the urgent processing of bills 1267/2020, 1291/2020 and 1444/2020, which establish emergency measures to protect women who are victims of domestic violence during the public health emergency resulting from the coronavirus pandemic.	http://conselho.saude.gov.br/r ecomendacoes-cns/1167- recomendacao-n-037-de-11-de- maio-de-2020
05/11/2020	Recommendati on No. 38	Recommends to the Ministry of Health the inclusion of Long-Term Care Institutions for the Elderly (ILPI) in Ordinance No. 492/2020, which instituted the program "O Brasil conta Comigo".	http://conselho.saude.gov.br/recomendacoes-cns/1168-recomendacao-n-038-de-11-demaio-de-2020
05/12/2020	Recommendati on No. 39	Recommends to State Governors and Municipal Mayors the establishment of emergency measures for social protection and assurance of women's rights.	http://conselho.saude.gov.br/r ecomendacoes-cns/1169- recomendacao-n-039-de-12-de- maio-de-2020
05/18/2020	Recommendati on No. 40	Recommends the revision of Technical Note No. 12/2020 and the implementation of other measures to assure the rights of people with mental suffering and/or disorder, and with needs arising from the use of alcohol and other drugs, in the context of the pandemic by COVID-19.	http://conselho.saude.gov.br/recomendacoes-cns/1181-recomendacao-n-040-de-18-demaio-de-2020

05/19/2020	Manifesto Immediate Allocation!	The National Health Council (CNS), together with several councils and entities of Brazilian social control of the Unified Health System (SUS), suggests full and immediate transfer of Health to states and municipalities, according to the size of the population, applying equity criteria and considering regional differences in the organization of Health networks. As noted, states and municipalities are mainly assuming expenses in relation to the prevention, control and mitigation of the New Coronavirus pandemic (COVID-19). In this regard, an adequate and sufficient financial contribution from the Ministry of Health (MS) is extremely necessary.	/images/manifesto/MANIFES TO_CNS_CES_REPASSA_JA.p
05/21/2020	Recommendati on No. 41	Recommends actions on the use of integrative and supplementary practices during the COVID-19 pandemic.	http://conselho.saude.gov.br/recomendacoes-cns/1192-recomendacao-n-041-de-21-demaio-de-2020
05/22/2020	Recommendati on No. 42	Recommends the immediate suspension of the Ministry of Health Guidelines for early drug handling for patients diagnosed with COVID-19, as an action of combat related to the new coronavirus pandemic.	http://conselho.saude.gov.br/recomendacoes-cns/1193-recomendacao-n-042-de-22-de-maio-de-2020
06/05/2020	Recommendati on No. 043	Recommends to the National Congress the lifting of the presidential veto to the Bill for the Conversion of Provisional Measure No. 909/2019.	http://conselho.saude.gov.br/recomendacoes-cns/1214-recomendacao-n-043-de-05-de-junho-de-2020
06/12/2020	Public Statement	Repudiation of the withdrawal of Technical Note No. 016/2020-COSMU/CGCIVI/DAPES/SAPS/MS from the Ministry of Health website, which addresses the continuity of assistance services to cases of sexual violence and legal abortion, and the strengthening of sexual and reproductive planning actions in the context of the COVID-19 pandemic.	http://conselho.saude.gov.br/ultimas-noticias-cns/1223-nota-cns-repudia-retirada-de-documento-tecnico-sobre-saude-sexual-e-reprodutiva-das-mulheres-durante-pandemia-do-site-doministerio-da-saude
06/15/2020	Recommendati on No. 044	Recommends to the Ministry of Health the repeal of Ordinance No. 1,325, of May 18, 2020, which extinguishes the Serviceof Evaluation and Monitoring of Therapeutic Measures Applicable to People with Mental Disorders in Conflict with the Law.	http://conselho.saude.gov.br/recomendacoes-cns/1225-recomendac-a-o-n-044-de-15-de-junho-de-2020
06/23/2020	Recommendati on No. 045	Recommends to the House of Representatives the dismissal of PDL No. 271/2020, which suspends the application of Technical Standards of the Ministry of Health regarding women's health, among other provisions.	http://conselho.saude.gov.br/r ecomendacoes-cns/1225- recomendac-a-o-n-044-de-15- de-junho-de-2020
06/24/2020	Recommendati on No. 046	Recommends to the Municipal, State and Federal District Health Councils, the creation of Intersectoral Commissions on Food and Nutrition.	http://conselho.saude.gov.br/recomendacoes-cns/1235-recomendacao-n-046-de-24-de-junho-de-2020
06/24/2020	Recommendati on No. 047	Recommends to the Presidency of the Republic actions related to IPI tax subsidies for soft drinks and other sweetened drinks.	http://conselho.saude.gov.br/r ecomendacoes-cns/1236- recomendacao-n-047-de-24-de- junho-de-2020
06/24/2020	Public Statement	CNS challenges ANS's position on a single waiting list for beds, and asks for explanations. ANS replied that it fears the possibility of default by the public authorities in the commissioning of private beds. CNS claims contradiction	http://conselho.saude.gov.br/ultimas-noticias-cns/1238-nota-cns-contesta-posicionamento-da-ans-sobre-fila-unica-de-leitos-e-pede-explicacoes