

Actions during the COVID-19 pandemic to protect the most vulnerable population: what is the potency amid chaos?

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Summary

By 30 May 2021, Brazil had 16 471 600 COVID-19 cases and 461 142 deaths, ranking second in the world in number of deaths and third in number of cases. Preliminary research results in Brazil and around the world show the impact of COVID-19 on more vulnerable communities. However, despite the adverse circumstances of their territories, leaders have mobilized to face the challenges. Between April and June 2020, the authors of this article interviewed informants in eight Brazilian state capitals, addressing the five points of discussion (intersectoriality, sustainability, empowerment and public participation, equity and the life cycle perspective) recently presented by EUPHA-HP, IUHPE and UNESCO Chair Global Health & Education. Official actions and documents from the Ministry of Health and Municipal Health Departments (SMS) of each capital were also analyzed. No records were found of official actions aimed at COVID-19 that addressed the territories' specificities. In total, 15 promotional actions by the communities were identified. The selection of local actors to take on specific responsibilities during the pandemic is highlighted as a relevant action. This action alone weaves together at least three of the five HP principles (equity, life cycles and empowerment). We consider that previous forms of political empowerment, such as the recognition of territories and educational initiatives, have contributed to the subjects who are leading these inventive initiatives. However, although there is scope for promotional actions, there are infrastructural limitations that only public policies could mitigate. Such actions would demand deliberate coordination between the government and social movements, which is absent in the current context of national governance.

Key words: COVID-19, health promotion, public policy, vulnerable communities

INTRODUCTION

As this article is being reviewed, on 30 May 2021, Brazil had 16 471 600 COVID-19 cases and 461 142 deaths, making it the number two country in the world number

of deaths and number three in terms of cases ([Worldmeters, 2021](#)).

These deaths are not evenly distributed among all social groups, and the pandemic has brought additional

challenges. In the city of São Paulo, for instance, vulnerable regions have registered a higher number of cases, as well as deaths (Borges, 2020; Souza and Sá Pessoa, 2020).

Preliminary results in Brazil obtained by the *Rede Solidária de Pesquisa* (Solidarity Research Network) show that hunger is present in 68% of the most vulnerable communities, and work and income challenges are pointed out by more than 60% of respondents. In addition, one in six leaders mentioned disinformation about the pandemic as a problem present in their communities (Jornal da USP, 2020).

Vulnerability is understood as the overlapping of several individual, social and programmatic aspects, which expose and render certain population groups more susceptible to disease than others (Ayres *et al.*, 2017).

Although these deaths could hardly have been prevented with isolated specific actions, our intention is to show that there are meaningful events involved. Subjects and organizations with certain perspectives and backgrounds, within vulnerable territories, have demonstrated inventive ways of dealing with the pandemic (despite absurdly unfavorable circumstances), to mitigate these numbers.

Therefore, in line with *The Lancet* editorial published in May 2020, written by Horton, it is our task to resist (Horton, 2020) biologicalization and to understand the pandemic as a political event.

In Brazil, the pandemic has affected different groups in different ways depending on the place where they live, the quality of information they have available to face the disease, the ability to transform information content into action, access to the media, level of schooling, cultural differences and the availability of health care programs and actions.

Comparisons of the Human Development Index and the number of deaths from COVID-19 show that there is greater vulnerability where living conditions are worse (Bertoni, 2020).

The situation is serious and demands public policies that address unfair class, gender and race differentials (Estrela *et al.*, 2020).

However, despite the adverse circumstances of their territories, leaders are mobilized in a creative and autonomous way to face the difficulties that affect their localities. Due to the capillarity of their work, they are in permanent dialogue with the population and can seek articulate and supportive responses (Lopes, 2020; Araújo, 2020).

It is important to note that entities in the field of health promotion highlight the importance of community engagement for effective communication of risks

and control of the epidemic in local contexts, especially in the most vulnerable communities (Van Den Broucke, 2020).

To interview Brazilian community leaders, this research uses the five points of discussion (intersectoriality, sustainability, empowerment and public participation, equity and the life cycle perspective) recently introduced by European Public Health Association, the International Union of Health Promotion and Education and the UNESCO Chair in Health and Education (Saboga-Nunes *et al.*, 2020).

The purpose of promoting health involves strengthening the individual and collective capacity to solve problems that affect these subjects' ways of living and becoming ill. Promotion of health, in this perspective, requires an opening of channels, whether intuitive, objective, or collective (Czeresnia, 2017).

It is argued that, as discussions around the world focus on equity, sustainability and human dignity issues, they lack a systematic perspective to link these issues to the efforts that are developed with a focus on the prevention and cure of diseases in the public health field. It is believed that health promotion with its experience can offer a more integrated approach to tackling the pandemic.

At the heart of the response to the COVID-19 crisis, and in the sense of promoting health, is the need to increase people's control over their health status and healthcare services, and to increase both solidarity and social cohesion, (re)creating public trust and the collective responsibility for the health and well-being of the population (Kickbusch and Sakellarides, 2006). This is in tune with the clear equity agenda and vast literature that the global health promotion community has outlined in the deeply political nature of Ottawa, Adelaide and Sundsvall and reinforced by Gulis, Plamondon, Akerman *et al.* and Horton *et al.* (Horton *et al.*, 2015; Akerman *et al.*, 2019; Gulis, 2020; Plamondon, 2021).

Successful community involvement, supported by digital tools for secure communication, is essential to successfully deal with this crisis and its multiple social consequences (Okan *et al.*, 2020).

Therefore, health promotion actions have a central role in empowering communities and individuals to adopt effective responses and manage the multidimensional psychosocial impacts of this pandemic.

The pandemic is being confronted amid historical difficulties in which social determinants of health status and health inequities potentially contribute to a negative outcome in the course of the disease.

These health inequities, coupled with income inequalities, operate amid serious human rights violations and

race markers, among others (Evans and Diderichsen, 2001; Ratima, 2019; Ahmed *et al.*, 2020).

In Brazil, there is also the double challenge that, in addition to poverty and lack of access to material goods, there are also inequities in opportunities, access to knowledge, options, and in having a voice in the State and society (Buss and Filho, 2006).

The analysis proposed by this research is an opportunity to consolidate the knowledge of these communities so that they can be replicated at other times. This perspective is not new. Historically, situations such as the spread of Sars-CoV-2 constitute an opportunity for understanding the relationships between the social structure and the capacity to develop new responses (Rosenberg, 1992).

THEORETICAL BACKGROUND

Although the primary analysis is to observe what has been mobilized in terms of health promotion in these communities, our approach is framed by two recent debates in the social sciences: (i) intersectionality: we observe the way gender, class, race and particularities of the territory are assembled in these initiatives in ways that mutually reinforce forms of vulnerability and exclusion (but they are also a source of strength) (Crenshaw, 1989; Moutinho, 2014) and (2) the discussion around ‘epistemologies of the South’, which argues that some groups have been excluded from epistemological representation (Santos, 2019).

With origins in anti-racist and feminist movements of the 1980s, our understanding is that the intersectionality discussion deepens health promotion categories, as it gives greater specificity to the notion of equity and empowerment. When groups realize that forms of exclusion take effect in a specific way, so that some markers (gender, class, race) are activated to perpetuate it, they start to negotiate with institutions from a more specific and active place (Crenshaw, 1989; Moutinho, 2014). These markers are often camouflaged and require much more sophisticated and detailed means of perception, in addition to new categories and concepts that better describe this experience.

Thus, realizing that we are not the same is only the first step, and our aim is to contribute with the experience of these movements to understand how exactly this difference occurs.

These discussions, in turn, have deep roots in debates in Anthropology. It is not a matter of answering questions, but rather of learning by observing how others answer them. Marais *et al.* exemplifies such an approach (Marais *et al.*, 2016) to community engagement in

Ebola prevention and control presenting ‘an eight-step model, from entering communities with cultural humility, though reciprocal learning and trust, multi-method communication, development of the joint protocol, to assessing progress and outcomes and building for sustainability’.

Nevertheless, due to specific conditions of the pandemic, we were unable to focus on the most appropriate method—that we believe to be a dense description of all forms of resistance (Geertz, 1973). We consider that we have managed to access some fragments. We are inspired by the notion that the text we have written has been able to capture the creative character of what we have heard.

The ‘inheritance’ of these discussions permeates more recent debates, such as epistemological justice (Santos, 2019) or the idea of an ecology of practices (Stengers, 2013) or even with the definition that a real free society must have a non-authoritarian science, with the ability to give other traditions the status of knowledge (Feyerabend and Joscelyne, 2011). All of these notions argue that there are practices that deserve the status of knowledge, and as such, must also guide our science and institutional actions.

The challenge is enormous. Perhaps the epistemological status is something that concerns us more than our interlocutors—just as Wagner understood culture (Wagner, 2017) as an ‘invented concept’—since we needed to objectify what seemed strange to us.

It should be stressed that these understandings are not new in health. Breilh, for instance, advocates a form of a (Breilh, 2006) polyphonic and intercultural epidemiology, in the sense that it is necessary to rethink the way questions are asked, integrating the action of counter-hegemonic cultural subjects in order to build a health system that does not arrive only when the fire has already spread.

On that account, we propose an analysis in which we are going to gather these initiatives with health promotion principles. It is a partial connection, however. The integration promoted by these autonomous movements—in most cases, with little or no participation by health authorities—transcends the pandemic. The connection is partial also because we believe we have more to learn than to teach (Strathern, 2004; Santos, 2019).

METHODOLOGY

This is a qualitative research based on semi-structured interviews with local leaders from Brazilian communities in situations of vulnerability.

The communities are in the five regions of the country, specifically in eight state capitals: North—Belém (Pará) and Manaus (Amazonas); Northeast—Fortaleza, (Ceará) and Recife (Pernambuco); Center-west—Goiânia (Goiás); Southeast—Rio de Janeiro (Rio de Janeiro) and São Paulo (São Paulo); South—Porto Alegre (Rio Grande do Sul).

The purpose of the interviews was to understand communities' experience in coping with the coronavirus pandemic and to explore specificities such as the development of collaborative networks, case control measures, healthcare, isolation conditions and alliances with the government, among other possibilities raised by respondents. The participants' reports were described in a 'case study' format, which may have a localized aspect, but articulates plural thematic and analytical dimensions, as well as other methodologies. In our case, a documentary search and interviews with key informants were carried out, in which individual trajectories exemplify objective dimensions.

The entire report goes through the perception of this subject, which also reflects on the collectivity. The ultimate goal was not just to describe what happened in the territory. It started with the identification of different 'knowledges' and the need to know and disseminate them (Santos, 2019).

Thematic analysis was used to analyze the transcribed reports, based on audio recorded data. Thematic analysis is a tool that enables data to be obtained at six stages (Clarke and Braun, 2013).

The first suggested step is a data overview. In this study, the transcribed interviews were read and discussed by the various authors. Subsequently, codification was carried out, in which the main ideas were highlighted, considering the five points of discussion (Saboga-Nunes *et al.*, 2020) of Health Promotion and the specificities of the territory. In the third and fourth stages, the themes were analyzed and reviewed, and the previously codified material was read and classified to interpret the meaning of the codes and obtain the themes. In the fifth stage, the themes were named and checked. Finally, in the sixth stage, the main themes emerged (Clarke and Braun, 2013).

In a complementary manner, actions and official documents from the Ministry of Health and the Municipal Health Departments (SMS) of each state capital were analyzed to include the existence of formalized and published government support material. Three types of publications were selected from the perspective of the pandemic: prevention actions, contingency plans and health planning programs for people living in vulnerable communities. Search, selection and analysis were carried

out systematically on the official SMS and Ministry of Health websites.

Regarding prevention actions, the authors sought to analyze whether these publications encompassed the socioeconomic reality of the localities, understanding the insufficiency of resources for the purchase of hygiene materials. The contingency plans were read in full, and specific health actions, in the context of the pandemic in vulnerable communities, were targeted in the search. In addition, health planning programs and/or strategies, in addition to contingency plans, were included in this analysis.

RESULTS

The eight capitals surveyed, located in the five regions of the country, account for 15% of the Brazilian population of 210 147 125 inhabitants estimated for 2019 (IBGE, 2019).

Twelve leaders in 12 communities were identified with the aid of colleagues from NGOs and universities located in these eight capital cities. Leaders living in the chosen territories were identified by colleagues. The various communities had diverse characteristics such as being outlying neighborhoods, favelas (shanty towns), quilombos, indigenous villages, riverside communities, squatted properties, etc.

All these places are characterized as having a high number of 'clusters of precarious housing', as classified by the Brazilian Institute of Geography and Statistics (IBGE) to describe communities living in irregularly occupied areas for housing purposes in an urban area that generally lacks basic public services—such as water supply, sewage collection and electricity supply (IBGE, 2019).

Table 1 shows the main characteristics of the communities addressed and the key informants interviewed.

Brazil had its first case of COVID-19 notified on 26 February 2020. When the pandemic was decreed by WHO on 11 March 2020, these locations were already vulnerable as a result of fiscal austerity policies and the dismantling of social rights conducted by Brazilian governments since 2016, after the impeachment of President Dilma Rousseff (Dweck *et al.*, 2018).

In the respondents' reports there is evidence of these consequences with the increase in unemployment, the vast majority of residents dependent on poorly paid informal work without any labor rights, precarious public health, education and sanitation services, houses with many residents (for example, two rooms with 11 people), discontinuation of housing programs, flooding and

Table 1: Characteristics of the key informants and the communities researched in eight state capitals in the five regions of Brazil, 2020

Capital/region	Pop. (2019)	% of households located in a clusters of precarious housing	Name of the community researched	Type	Pop.	About the key informant
Belém/North Manaus/North	1 492 745	55.5	Jurunas	Outlying neighborhood	64 478	Female, 23 years old
	2 182 763	53	Cidade de Deus	Outlying neighborhood	70 000	Female, 33 years old
Fortaleza/Northeast	2 609 342	23.5	Alfredo Nascimento	Squatted property	10 000	Male, 49 years old
			Sateré Mawé	Urban indigenous village	600 (2003)	Female, 31 years old
			Grande Bom Jardim	Outlying neighborhood	210 000	Male, 43 years old
Recife/Northeast Goiânia/Center-west	1 645 727	19.5	Peixinhos	Outlying neighborhood	36 000	Female, 32 years old
	1 516 113	2.4	Jardim Cascata	Urban Quilombo ^a	2500	Female, 66 years old
Rio de Janeiro/Southeast	6 718 903	19.5	Nova Brasília	Favela (shanty town)	60 573	Female, 38 years old
São Paulo/Southeast	12 252 023	12.9	Paraisópolis	Favela (shanty town)	120 000	Male, 35 years old
Porto Alegre/South	1 483 771	11.6	Glória-Cruzeiro-Cristal	Outlying neighborhood	79 161	Female, 53 years old
						Male, 35 years old

^aA term originally used to characterize a place of refuge for Afro-descendant slaves, today it is described, in studies of the history of Afro-descendants in Brazil, as a place of reinvention and not isolation of people with a common past, a space and collective relationships that favor social changes and achievements (Almeida, 2010; Santos and Silva, 2014; Oliveira and D'Abadia, 2015; Borges and Santana, 2017), mainly related to anti-racist struggles. Source: IBGE. (2019) (25) and semi-structured interviews conducted with key informants between May and June 2020.

landslides due to heavy rainfall, intensification of urban violence, etc.

For example, in the report of one of the key informants, the following statement was collected about adverse conditions in the territory related to urban violence (CCPHA, 2019):

We are the territory that kills young people the most in our capital; in the period of the pandemic the number of deaths continued high, mainly of girls.

Initially present in the most influential layers of cities, the consequences of the expansion of the epidemic to the poorest areas added to their already existing ‘low social immunities’, creating a disorderly context with situations that are difficult to resolve, a mixture of contexts of vulnerability in total imbalance.

It is no coincidence that the term ‘chaos’ was used in the title of this article, and with the aid of Costa’s argument (2016), the understanding of the term was extended beyond common sense (‘total disorder’), giving rise to the use of the terms ‘potency amid chaos’.

According to Costa, for Physics (Costa, 2016),

chaos is the behavior of a dynamic system that evolves over time, according to a deterministic law. It is governed by equations whose solutions are extremely sensitive to the initial conditions, so that small initial differences will lead to extremely different later states—the butterfly effect.

It was in search of this ‘butterfly effect’ that the word ‘potency’ was found, to qualify actions described by community leaders in terms of intersectoriality, sustainability, equity, empowerment and public participation, and life cycles, actions that could cause a ‘protective, preventive and promotional typhoon’ to affect the natural course of the COVID-19 epidemic in their respective communities.

Based on Saboga-Nunes *et al.*, we tried to operationalize the five discussion points into activities (Saboga-Nunes *et al.*, 2020):

1. Intersectoriality (activities regarding among government sectors; 1.2. Mobilization among government and civil society entities; 1.3. Mobilization among civil society entities).
2. Sustainability (activities regarding health services resilience, solidarity and environmental awareness) A. Strengthening the reactive capacity [1] of public health services – surveillance, [2] of care services – emergency mobile healthcare services, emergency care units, hospitals – [3] of social services; B. Advocating for practices that change competition

and strengthen solidarity, C. Not neglecting environmental balance—people/trees/animals.

3. Empowerment and engagement (activities regarding different levels of engagement) 3.1. Through valid and adequate information and the understanding that it needs to be culturally appropriate and address all aspects of interface with COVID, not only in terms of individual protection, but mainly in the enhancement of collective resistance; 3.2. Ways to involve people to support each other to increase income and decrease negativism, pessimism, seclusion, loneliness, violence, etc..
4. Equity (4.1. activities to address needs differentials).
5. Life cycle perspective (activities to address life cycle differentials 5.1. Children, 5.2. Youth, 5.3. Women, 5.4. Workers, 5.5. Elderly people)

In the absence of coordinated and sustained government responses, community leaders have sought their own ways forward.

Table 2 shows the different paths adopted by the communities researched, distributed over the five points of discussion for health promotion according to Saboga-Nunes *et al.*—intersectoriality, sustainability, empowerment and participation, equity and life cycles (Saboga-Nunes *et al.*, 2020).

The summary of the discussion points indicates 15 possibilities of action for health promotion in the communities studied: 3 in intersectoriality (1.1, 1.2, 1.3); 5 in sustainability (2A1, 2A2, 2A3, 2B, 2C); 2 in empowerment (3.1, 3.2); 1 in equity; and 5 in life cycles (5.1, 5.2, 5.3, 5.4, 5.5). The reports did not include intra-governmental coordination (1.1), the environmental balance approach (2C) and the approach with youth and workers (5.3 and 5.5). Jurunas (Belém), Peixinhos (Recife) and Paraisópolis (São Paulo) are the three territories that showed actions for the five HP discussion points. The other communities on average addressed two to three points of discussion.

Informants report, however, that housing conditions, intermittent water supply and income inequalities are factors that prevent the possibility of a more adequate confrontation of the pandemic. ‘How are we going to maintain basic hygiene practices, such as washing your hands. The family man who comes home from work at night (...) how is he going to wash his hands all the time?’ says an informant. Even with a lot of coordination, socioeconomic difficulties hamper specific COVID-19 actions. ‘There are days when there are no beans to eat, but there is a hygiene kit, and so we go. But today the greatest need in the communities is food. Just plain food.’

Table 2: Actions developed related to the five points of discussion for health promotion in the communities researched, informed from the interviews, 2020

Name of the community researched	Type	Intersectionality	Sustainability	Empowerment and participation in public health actions	Equity	Life cycles
Jurunas	Outlying neighborhood	1.3. Coordination with other communities to disseminate educational information (three urban neighborhoods, riverside community, Quilombo Menino Jesus).	2B. Art as a tactic to combat violence and promote solidarity; they will hold a festival with the stories created by the children.	3.1. Mobilization around art; poster with educational information ('stay in your sector if you can'); 3.2. crowdfunding platforms.	4.1. Listening through art projects to identify different needs.	5.1. Actions aimed at children (Pedagogical Kit — 'Telas da Esperança'; 'creation of heroes against Coronavirus').
Cidade de Deus Alfredo Nascimento Sateré Mawé	Outlying neighborhood Squatted property Urban indigenous village	1.3. Coordination with other indigenous communities to make masks.	2B. Income generation from making masks with indigenous paintings.	3.1. Use of social networks to disseminate information; 3.2. Listening to conflict mediation through a weekly program on FaceBook; 'Community Leadership in Action'.		
Bom Jardim	Outlying neighborhood	1.2. Creation of the Popular Crisis Committee.	2A1,2. Increased PHC capacity; increase in the number of beds in the UPA (emergency care unit). 2A3. exemption from payment of water bills, gas vouchers, increase of basic food baskets, fundraising in several public calls.		4.1. Construction of community sinks.	
Peixinhos	Outlying neighborhood	1.3. Solidarity Hands Project (Periferia Viva).	2B. Solidarity popular assistance (lawyers and social workers).	3.1. Preventive communication with weekly audios episodes by 'Bike da Saúde'; specific communication to evangelical groups most resistant to scientific	4.1. Socio-economic mapping of families to decide priorities in solidarity actions (priority for stilt houses ^b)	Actions for children in meeting spaces; 5.2. Actions directed at women and heads of household

(continued)

Table 2: (Continued)

Name of the community researched	Type	Intersectoriality	Sustainability	Empowerment and participation in public health actions	Equity	Life cycles
Jardim Cascata	Urban Quilombo	1.2. Actions coordinated by the municipality's Racial Equality Department.	2A1. PHC organization for better care of patients and suspected cases; 2B. Bring children together in the homes of some adults so that parents can go out to seek government assistance or to study together.	information and to men in bars who refuse to isolate themselves; use of anatto powder ^a to show how the virus works; Creation of Popular Health Agents 3.2. Creation of alternative options to generate income by making masks and lab coats for popular agents.		
Nova Brasília	Favela (shanty town)		2A. To alleviate the use of health services and spare people from going up and down hills, through donations they acquired nebulizers for the treatment of respiratory diseases, as well as the use of Integrative and Complementary Healthcare Practices, such as aromatherapy, for example.		4.1. Map households in risk groups to prioritize the distribution of baskets, masks and hygiene kits.	

(continued)

Table 2: (Continued)

Name of the community researched	Type	Intersectionality	Sustainability	Empowerment and participation in public health actions	Equity	Life cycles
Paraisópolis	Favela (shanty town)	1.3 The directors of the União de Moradores (Union of Residents) contacted other relevant communities in the country, outside the state and within the city, for a joint action to confront the COVID-19. Inspired by the G-20, they created the G10, which brings together communities from seven states in the country. This existing alliance was used during the pandemic, according to the informant, for coordinated actions. Periodic videoconferences are held so that communities can exchange information about local experiences and try to replicate the Paraisópolis experience; several institutions operate in the territory, with large amounts of donations from businesses, individuals and assistance from institutions and NGOs.	2A1. Specific isolation strategy: two schools in the community were adapted to receive positive cases of COVID-19 (R\$4 million); 2A2. Hiring of health services: 3 ambulances (with a mobile ICU) (150 000 reais/month) and 7 health professionals (two doctors, two nurses and three first responders) were hired.	3.1. A sound car circulates with prevention reports and the use of social networks; 3.2. 'Hands of Mary' project that brings together kitchens from the community producing 10 000 lunch boxes a day; the 'Sewing Dreams' project, also with local seamstresses, aims to distribute 1 million masks among residents and neighboring communities; strong community involvement: the residents' association selected 940 volunteers (420 permanent and 420 alternates) to get to know the homes closely and to fully control the vulnerability and contagion of COVID-19. Each of them takes care of 50 residences. These volunteers became known as 'street presidents' and were trained to provide first aid (using an oximeter and thermometer), in addition to summoning an ambulance when necessary.	4.1. The 'Street Presidents' know which residents need donations and food supplies.	5.5. The community has a record of the elderly, who are counted (around 4000), and receive special attention from street presidents in the pandemic.

(continued)

Table 2: (Continued)

Name of the community researched	Type	Intersectoriality	Sustainability	Empowerment and participation in public health actions	Equity	Life cycles
Glória-Cruzeiro-Cristal	Outlying neighborhood	1.3. Support to other districts of the city in the distribution of food.	2A1. Social mobilization against the closure of a health unit; 2B. Respondents reported the importance of creating a solidarity network to connect leaders and support actions to combat the coronavirus. This action was promoted by the Federal University of Rio Grande do Sul at the beginning of the pandemic.	3.2. Food collection actions for food distribution.		

^a Also known as urucum powder and false saffron, annatto powder is a red food flavoring produced from the crushing of annatto seeds, a tree typical of the tropical regions of South America.

^b Suspended wooden houses built in swampy areas where people live by recycling garbage, in houses with 2–3 rooms where 8, 19, 12, 16 people live together.

Source: Semi-structured interviews conducted with key informants between May and June 2020.

In terms of official communication, the analysis of the three types of publication, published by governments in the eight capitals surveyed, shows inadequacy and little focus on the particularities of the most vulnerable groups. Communication materials about preventive measures seem to disregard the socioeconomic profile of the population and their impossibility to acquire basic hygiene materials.

Contingency plans, despite strengthening the municipalities' care network, do not mention differentiated planning for the poorest areas, marked by the precariousness of essential public services (Ministério da Saúde, 2020a). As for health planning programs and/or strategies, only the city of São Paulo mentioned preventive actions. However, these actions seemed to be rare and isolated within the Health Care Network. There was greater robustness of actions in the building of hospitals and raising the number of beds in the cities surveyed, but these structures were often not close to socially vulnerable territories and are for the entire population of the city.

In the communities studied, there were no records of specific official actions for COVID-19 in the territories. In view of this situation, the local population adapted the communication:

This is the first thing we thought about in our communication, and this action was born from there, I made an initial video about this (...) And I said: 'How can I stay at home' to the street vendor who depends on the income of the day to buy her bread, understand? I made several posts [on social networks] about this, so our whole communication was worked on thinking about this reality, here we call the neighborhoods sectors. So our message is: 'If you can, stay in your sector, if you can!' This is a language that the government didn't work with.

They [the government] had to take advantage of the potency of the territory. For this [it is necessary] to speak in a language that the community will understand and hear.

Existing health structures continued to operate during the period. Officially, on 22 January 2020, the Ministry of Health activated the Public Health Emergency Operations Center (COE-COVID-19). The document activates protocols for organizing services depending on alert levels (in the case of COVID-19, the maximum national emergency alert was declared on 3 February 2020), but there are no actions aimed exclusively at the clusters of precarious housing (Ministério da Saúde, 2020b).

There is a specific contingency plan for the indigenous population that provides, for example, for the translation of prevention materials into native languages and guidelines for the epidemiological vulnerability of that population. However, indigenous communities living in urban regions must be served according to municipal guidelines (Ministry of Health, 2020b).

The advertising campaigns of the Ministry of Health were also analyzed, and no actions were found considering the specificities of clusters of precarious housing, such as intermittent water supply and housing conditions that do not allow the isolation of a sick person (Ministério da Saúde, 2020c).

Lives behind actions

The capacity found within the movements can also be related to sources' biographies, in the sense that their comprehension and subjectivity can lead us to some fragments of the conditions that may allow these initiatives to take place. From the interviews, we ponder those actions are not generated only by adverse conditions, nor are they the result of specific goodwill, but there are certain identities, even collective ones, behind them.

As mentioned, our analysis starts from the perspective of intersectionality, as well as the notion that some individuals are better located to assess certain perspectives needed by science (Crenshaw, 1989; Haraway, 1995; Santos, 2019; Moutinho, 2014).

To bring the subjects behind the reports, the following paragraph starts showing how subjectivity would be behind these inventive actions undertaken in the researched communities, presenting some examples of direct quotes from social actors capitalizing the indigenous and black population effort.

Our key informant in Paraisópolis (São Paulo) is a 35-year-old brown male. His political involvement started at his school's students' union 15 years ago when he and his friends decided to find a community newspaper. According to the informant, most of the actions within the neighborhood come through the connections of this group, with most members having attended the same school. During the interview, he cites racism and class as markers of inequality. He knows that race and living in the territory implies a different treatment from governments—and that it is necessary to join with other territories with the same characteristics for the community to have political strength.

We want equal rights, we know there is racism and differences, we want equal treatment (...) when you call an ambulance at *Giovani* [avenue close to the territory], it

arrives. Here, it takes hours (...) So, when we first heard the rumors about the pandemic, we already knew that we were going to have to do it ourselves.

We made a decision: if the government is not going to do it, civil society will do it. When people ask me: 'what about the president?', I answer: do you mean the street president? He is doing his work here, he is managing to serve the families.

At *Peixinhos*, in Recife, our key informant is 34-year-old. She is a black woman and a member of a social movement called '*Movimentos Sociais dos Trabalhadores por Direitos em Pernambuco*' (MTD-PE) (Social Movements of Workers for Rights in Pernambuco). In her view, the crises have created opportunities for the construction of people power. Workers have come up with answers and developed collective decisions that created alternative strategies against the pandemic. Mediated by the organization of their community, workers were forced to assume the 'protagonist role' in the face of the State's non-action.

The State withdrew when the population needed it most. On the outskirts, the State was even more absent. [...] We cannot wait for help from Brasília [the national capital]. People needed to find answers inside their own [community]

In her speech, she highlighted the role of women as family providers. She also emphasized that the level of violence against women increased during the pandemic.

Most families are headed by women. More specifically, by black and aged women. 50 or 60 years old. They economically support their children and grandchildren by gathering recyclables. [...] We know that the level of violence has increased during this period. We need to ensure that these women are going to have access to social isolation. To that end, we are trying to guarantee their access incomes.

We contacted an indigenous Amazon activist who fights to preserve her people's traditions and save their future. The Association of Indigenous Satére Mawe Women is a group of indigenous artisans who struggles to maintain their roots in an urban context, through the sale of their traditional handicrafts. The activity of making these handicrafts expresses a way to get in touch with their cultural tradition at the same time that it strengthens social cohesion and active citizenship in the name of their ancestral strength. During the pandemic, this group has been facing a drastic income reduction. The decline in tourism has reduced sales and left many with no income.

Even today, this group is facing a number of difficulties without their livelihood or government support. In this context, and without any support, the solution found to raise funds and survive was to modify their products.

We organized ourselves to find another way to fund ourselves. We started to produce facemasks for Covid-19. These masks contain our marks, our paintings.

But, more than this, they sought scientific grounding to produce effective facemasks.

We contacted some researchers in São Paulo to produce masks in the right way, masks that really protect and are efficient to avoid the virus.

This decision produced a string of changes in the organization of their production.

After looking for information, we needed to learn to produce and to sew these new things. We didn't know how to use a sewing machine. We needed to learn how to. We needed to organize ourselves to be able to produce again.

Grande Bom Jardim (Fortaleza—Ceará), a region of 210 000 inhabitants, has one of the worst socioeconomic rates in the state. A total of 60% of the people are 29 years old or younger (IBGE, 2010). One of the interviewees, João, a 43-year-old black male, who is an art educator and community organizer, said that during the pandemic there was a significant increase in deaths caused by violent acts, especially of girls (CCPHA, 2019).

We are the territory that kills more young people in Fortaleza, in the period of the pandemic the number of deaths continued." (...) "the rate of murder of young people in this sector is frightening.

[We created] two committees (...) one is the Prevention and Homicide Committee, which is from the state and [also we have] the committee that came up now during the pandemic.

We know the discourse of police violence and the structural and institutional racism that exists (...) [so we have] young people thinking and making independent policies in the territory (...) people have to think about public policies and the autonomous policies of the territory through other understandings.

The key informants in Porto Alegre were a 35-year-old man and a 53-year-old woman, both with community leadership actions.

There are no shacks around here and that is an advantage. People can protect themselves, but there is no

money to buy food and that is the way we can help (man).

Likewise, the other key informant (woman):

There were people at midnight asking about the distribution of basic food. I had to organize a list, an order for delivery. Sometimes we can't handle it. In the beginning, the people here in the neighborhood, who had a more organized life, helped us. Now, they're in line too. Unemployment has increased a lot and people have no money to eat.

DISCUSSION

The adoption of preventive measures and the dissemination of valid information is strengthened when combined with aspects of the territory: trust, solidarity, mutual support, partnerships, intersectoral action, social mobilization, engagement, resilience, protection of the most fragile groups, access to funds, digital skills, etc.

The most significant and visible measure formulated by the Brazilian government was the financial aid of R\$600 in monthly installments for 3 months (Mazui and Klava, 2020). However, it has not demonstrated the capacity to connect with other levels of government. The surveyed communities show this, as there is no item 1.1 in any of them, which is 'mobilizing collaborative action among government sectors'. This lack of performance was also demonstrated in the documentary research carried out on official health structures (SMSs and the Ministry of Health).

Discussion point 3 (empowerment) was the most frequently manifested. The use of creative community resources to improve communication and donation networks, as well as healthcare, is notable. Attention is drawn to the implementation of socioeconomic surveys to define priorities outlined in point 4 (equity). Consistent with the care directed at groups that were marked 'by the lack of schooling', 'by domestic violence' and by 'greater risk of worsening COVID-19', point 5 (life cycles) was also prioritized. It is not surprising that environmental balance (2C) has not been addressed by communities, in view of the various vulnerabilities and the urgency of the pandemic.

This is a relevant range of promotional actions during the pandemic, but there are infrastructure limitations that only public policies could mitigate. It should be noted that in some communities there are large financial contributions from civil society, and, therefore, this is a model that is not easily replicable in other communities.

There is great potency, however, in the figure of the 'street president' (Vespa, 2020) and in the 'popular health agent' (Méllo, 2020), who do not depend on

major resources and are central agents of the health promotion strategy in their respective communities and could be replicated in other locations.

'Street presidents', present already in other G10 communities, are residents chosen by the population to direct COVID's coping activities on the streets of the community. There are 420 Presidents and each one is responsible for monitoring five homes. They know which residents need donations and food supplies and were trained to provide first aid (using an oximeter and thermometer), in addition to summoning an ambulance when necessary. Through these figures, intersectorality, sustainability, life cycles, empowerment and participation were put in place and could be integrated.

Respondents do not identify formal measuring instruments for the effectiveness of these actions but speculate that many of the activities implemented were able to provide care, save lives, avoid the worsening of cases and greater contamination and produce networks of solidarity.

Empowering subjects and advocating an adequate response to COVID-19 were critical points raised by respondents. Individuals and collectives can be resilient in stopping the spread of the virus and controlling cases. However, understanding the information and applying it to everyday life goes back not only to the content provided, but also to the context in which that group lives (Saboga-Nunes *et al.*, 2020).

The leaders of the surveyed locations adapted the informational content produced by the media to a language consistent with the reality of the residents of their respective locations.

Still, the innovations generated in these territories show how there are epistemologies that are not anchored in a universal reason, but in collective ways of thinking. They are contents created by collective, non-individualized subjects that circulate in a depersonalized way (Santos, 2019).

According to Saboga-Nunes *et al.*, this emphasizes the importance of not only having information (Saboga-Nunes *et al.*, 2020), but also being concerned about 'who' will communicate it and 'how'. This 'who' was identified as a key element in the building of behavioral changes due to proximity, knowledge of challenges and development of bonds of trust.

Communication demands earning trust, which is intricately linked to the participation of the communities and to a frank recognition of uncertainties (OMS, 2018).

Empowerment is also rooted in strong ties to the territory that intertwines with certain identities and biographical events. Individuals who dealt with adversity in an inventive way—either through the education

provided by the experience of producing the community newspaper for decades, or because they know their identities contribute to the reproduction of certain forms of exclusion—were behind those initiatives.

About this, one may refer to the writings of Rolnik on the film *Trust* (Rolnik, 1994), by Hal Hartley, whose understanding is that subjects first seek to feel confidence in their affective and social network. Such a feeling detaches the relationship from uniformity (arid) in the way of acting and brings it into the territory of permanent and affective conversations. Trust is a force that produces other subjectivities (autonomous and unsubmitive); other worlds (fluid and inventive). It is about establishing a process with the potential of shaking up the promotion of health, placing subjects in spaces of decision, desire and willingness to act. Trust, especially in contexts in which the State has historically been absent, seems to ‘be the oil that lubricates the gear’, strengthens autonomy and the advance, and is the ‘glue’ of the processes that produce empowerment.

Paul Rabinow coined the term ‘biosociality’ to designate (Rabinow, 2002) relationships and processes of subjectification that occur when people diagnosed with a disease form a self-identity around the diagnosis. There is the establishment here of a ‘biological citizenship’. From what was observed in the territories, Sars-CoV-2 enabled the establishment of this agency. Although less due to a diagnosis and more to a ‘common threat’, citizens looked into their identities and generated potency not only for an autonomous confrontation of the pandemic, but also for institutional demands (Rabinow, 2002).

As the State has withdrawn from its modern function of causing life (Foucaultian biopolitics), this failure of the Brazilian government to face the pandemic leaves void Foucault’s theory on biopolitics (Foucault, 2005). There is no administration of the bodies, nor a clear public policy—including threats of statistical falsification of the number of deaths (Novaes, 2020).

It is important to note that the territories are not in a temporary arrangement of suspension of rights amid the pandemic. These spaces are seen as composed of quasi-subjects, with rights never fully achieved—with intermittent supply of water or delay in the arrival of ambulances.

These are territories marked by necropower, in which the State dies, creates permanent zones of exception and operates war machines permeated by discourses of ‘the enemy’, in which racism articulates those who are disposable and those who are not (Mbembe, 2016). In April, during the pandemic, Rio de Janeiro State

police killed 177 people, 43% more than in April 2019 (Presse, 2020). In addition, the death rate for black people COVID-19 in Brazil is five times higher than that for whites (Muniz *et al.*, 2020).

Regarding the performance of the Brazilian State in the pandemic, everyone is under the policy of death, with states of exception in these territories still embittering several layers of vulnerabilities, from which there is often no other way out except becoming resistance machines as well.

CONCLUSION

It is in this scenario of profound social inequity that the communities researched in the study weave their multi-collaborative networks. The pandemic has created room for developing people’s protagonism, awakening collective responses and alternatives.

In connection with the figures of the ‘popular health agents’ and ‘street presidents’, the potency of the territory seems to rest in the trust and solidarity among the residents, manifested here as a concrete and coordinated strategy of health promotion.

However, in the communities studied, there are no records of official actions aimed at COVID-19 that address the singularities of the territories.

There is no question about the importance of this social mobilization exercise, which meets the principles of health promotion.

We consider that previous forms of political empowerment, such as the recognition of territories and educational initiatives, have contributed to subjects who have led these actions.

Nevertheless, the experiences have infrastructural limitations that only public policies could mitigate.

This much-needed governance was not established in Brazil during the pandemic due to the lack of coordination between the federal, state and municipal levels of government.

ETHICS INFORMATION

Both the collection of formal documents and the interviews were carried out between April and June 2020 using digital tools such as WhatsApp and Google Meet. All respondents were made aware of the Free and Informed Consent Form of the research and agreed to participate. The research was analyzed by the Research Ethics Committee of the School of Public Health at USP and approved by opinion number 4 081 089.

REFERENCES

- Ahmed, F., Ahmed, N., Pissarides, C. and Stiglitz, J. (2020) Why inequality could spread COVID-19. *The Lancet. Public Health*, 5, e240.
- Akerman, M., Mercer, R., Franceschini, M. C., Peñaherrera, E., Rocha, D., Weiss, V. P. A. *et al.* (2019) Curitiba statement on health promotion and equity: voices from people concerned with global inequities. *Health Promotion International*, 34, i4–i10.
- Almeida, M. G. (2010) Territórios de quilombolas: pelos vãos e serras dos Kalunga de Goiás – Patrimônio e biodiversidade de sujeitos do cerrado. *Ateliê Geográfico*, 4, 36–63.
- Araújo, P. Z. (2020) Paraisópolis cria estrutura de guerra para enfrentar pandemia. *Diário do Centro do Mundo*, 15 April. <https://www.diariodocentrodomundo.com.br/essencial/para-isopolis-cria-estrutura-de-guerra-para-enfrentar-pandemia/> (last accessed 15 April 2020).
- Ayres, J. R. C., França, I., Jr Calazans, G. J., and Saletti Filho, H. C. (2017) O Conceito de Vulnerabilidade e as Práticas em Saúde: novas perspectivas e desafios. In Czeresnia, D. and Freitas, C. M. (eds), *Promoção da Saúde: conceitos, reflexões e tendências*, 5th edn, Chapter 6. Fiocruz, Rio de Janeiro, RJ, pp. 121–144.
- Bertoni, E. (2020) Como a desigualdade afeta a disseminação do vírus em São Paulo. *Nexo Jornal*, 4 May. <https://www.nexojornal.com.br/expresso/2020/05/04/Como-a-desigualdade-afeta-a-disseminacao-do-virus-em-Sao-Paulo> (last accessed 6 May 2020).
- Borges, B. (2020) Percentual de pessoas infectadas com coronavírus nos bairros pobres da cidade de SP é 2,5 vezes maior do que nos ricos. *G1 SP*, 1 July. <https://g1.globo.com/sp/sao-paulo/noticia/2020/07/01/percentual-de-pessoas-expostas-ao-coronavirus-nos-bairros-mais-pobres-da-cidade-de-sp-e-25-vezes-maior-do-que-nos-mais-ricos.ghtml> (last accessed July 2020).
- Borges, J. C. and Santana, B. P. (2017) Quilombo urbano Jardim Cascata: direitos sociais e cidadania de uma população etnicamente diferenciada. *Revista Acadêmica Educação e Cultura em Debate*, 3, 27–40.
- Breilh, J., Ribeiro, V. and Castiel, L. D. (2006) Epidemiologia crítica ciência emancipadora e interculturalidade. Fiocruz Press, Rio de Janeiro, Brazil.
- Buss, P. M. and Filho, A. P. (2006) Iniquidades em saúde no Brasil, nossa mais grave doença: comentários sobre o documento de referência e os trabalhos da Comissão Nacional sobre Determinantes Sociais da Saúde. *Cadernos de Saúde Pública*, 22, 2005–2008.
- Clarke, V. and Braun, V. (2013) Teaching thematic analysis: overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26, 120–123.
- CCPHA. (2019) Relatório Cada Vida Importa. Comitê Cearense pela prevenção de homicídios na adolescência. January–June. https://cadavidaimporta.com.br/wp-content/uploads/2020/05/CadaVidaImporta_relatorio19.1.pdf (last accessed 1 July 2020).
- Costa, F. N. (2016) Equilíbrio ou caos? *Carta Maior*, 4 July. <https://www.cartamaior.com.br/?/Editoria/Economia/Equilibrio-ou-caos-/7/35506#:~:text=Caos%2C%20na%20tradi%C3%A7%C3%A3o%20plat%C3%B4nica%2C%20%C3%A9,anteced%20a%20interven%C3%A7%C3%A3o%20do%20demiurgo> (last accessed 4 July 2020).
- Crenshaw, K. (1989) Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. University of Chicago Legal Forum. <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8> (last accessed 20 June 2020).
- Czeresnia, D. (2017) O Conceito de Saúde e a Diferença entre Promoção e Prevenção. In Czeresnia, D. and Freitas, C. M. (eds), *Promoção da Saúde: conceitos, reflexões e tendências*, 5th edn., Chapter 2. Fiocruz, Rio de Janeiro, RJ, pp. 43–58.
- Dweck, E., Oliveira, A. L. M., Rossi, P., Guidolin, A. P., Pellanda, A. P., Sobral, B. L. B. *et al.* (2018) Austeridade e Retrocesso: impactos sociais da política fiscal no Brasil. *Brasil Debate e Fundação Friedrich Ebert*, 1, 1–68.
- Estrela, F. M., Soares, C. F. S., Cruz, M. A., Silva, A. F., Santos, J. R. L., Moreira, T. M. O. *et al.*, (2020). Pandemia da covid 19: Refletindo as vulnerabilidades a luz do gênero, raça e classe. *Ciência e Saúde Coletiva*, May 2020. http://www.cienciaesaudecoletiva.com.br/artigos/pandemia-da-covid-19-refletindo-as-vulnerabilidades-a-luz-do-genero-raca-e-classe/17581?id=17581&cid=17581&fbclid=IwAR2lhzEkEaFayhB0yOz_35X6EAcfxAIUNz0L2O5GetFAot2_-bQsVsEwNSM (last accessed 6 June 2020).
- Evans, T. and Diderichsen, F. (Orgs) (2001) *Challenging Inequities in Health: From Ethics to Action*. Oxford University Press, Oxford, UK.
- Feyerabend, P. and Joscelyne, V. (2011) *A ciência em uma sociedade livre*. UNESP, São Paulo, SP.
- Foucault, M. (2005) Aula de 17 de março de 1976. In *Em defesa da sociedade: curso no Collège de France (1975–1976)*. Martins Fontes Press, São Paulo, SP, pp. 285–316.
- Geertz, C. (1973) *The Interpretation of Cultures: Selected Essays*. Basic Books, New York.
- Gulis, G. (2020) Health promotion is a pro-active discipline. *Health Promotion International*, 35, 1253–1255.
- Haraway, D. (1995) Saberes localizados: a questão da ciência para o feminismo e o privilégio da perspectiva parcial. *Cadernos Pagu*, 5, 7–41.
- Horton, R. (2020) Offline: a global health crisis? No, something far worse. *The Lancet*, 395, 1410.
- Horton, K., Friel, S., de Leeuw, E., McKeone, C. and Bolam, B. (2015) Fair foundations for health equity. *Health Promotion International*, 30, ii2–ii7.
- IBGE. (2010) Censo 2010. Instituto Brasileiro de Geografia e Estatística Censo. <https://censo2010.ibge.gov.br/resultados.html> (last accessed 25 June 2020).
- IBGE. (2019) Notas técnicas. Aglomerados Subnormais 2019: Classificação preliminar e informações de saúde para o enfrentamento à COVID-19. Instituto Brasileiro de Geografia e Estatística, 19 May. <https://biblioteca.ibge.gov>

- br/visualizacao/livros/liv101717_notas_tecnicas.pdf (last accessed 20 June 2020).
- Jornal da USP. (2020) Pandemia e suas consequências estimulam violência e desesperança em comunidades carentes. *Jornal da USP*, 26 May. <https://jornal.usp.br/ciencias/pandemia-e-suas-consequencias-estimulam-violencia-e-desesperanca-em-comunidades-carentes/> (last accessed 6 June 2020).
- Kickbusch, I. and Sakellarides, C. (2006) Flu city—smart city: applying health promotion principles to a pandemic threat. *Health Promotion International*, 21, 85–87.
- Lopes, M. (2020) Brazil's favelas, neglected by the government, organize their own coronavirus fight. *Washington Post*, 10 June. https://www.washingtonpost.com/world/the_americas/coronavirus-brazil-favela-sao-paulo-rio-janeiro-bolsonaro/2020/06/09/8b03eee0-aa74-11ea-9063-e69bd6520940_story.html (last accessed 20 June 2020).
- Marais, F., Minkler, M., Gibson, N., Mwau, B., Mehtar, S., Ogunsola, F., Banya, S. *et al.* (2016) A community-engaged infection prevention and control approach to Ebola. *Health Promotion International*, 31, 440–449.
- Mazui, G. and Klava, N. (2020) Bolsonaro sanciona com vetos auxílio de R\$600 mensais a trabalhadores informais. *G1*, 1 April. <https://g1.globo.com/politica/noticia/2020/04/01/bolsonaro-sanciona-lei-que-preve-auxilio-de-r-600-mensais-a-trabalhadores-informais-diz-planalto.ghtml> (last accessed 7 July 2020).
- Mbembe, A. (2016) Necropolítica. *Artes e Ensaios*, 32, 123–151.
- Méllo, L. M. B. D. *et al.* (2020). Agentes Populares de Saúde: ajudando minha comunidade no enfrentamento da pandemia de COVID-19. Recife: Mãos Solidárias na Comunidade. https://687ef280-e5a4-46c8-ba2a-d77fbb4588f.filesusr.com/ugd/96f383_8edccd250f8644f9a0237ef15205d675.pdf (last accessed 5 June 2020).
- Ministério da Saúde (2020a) Plano de Contingência Nacional para Infecção Humana pelo novo Coronavírus COVID-19. *Ministério da Saúde*, 1, 1–26.
- Ministério da Saúde. (2020b) Plano de contingência nacional para infecção humana pelo coronavírus (covid-19) em povos indígenas. *Secretária Especial de Saúde Indígena*, 1, 24.
- Ministério da Saúde (2020c) Coronavírus (COVID-19). <https://www.saude.gov.br/campanhas/46452-coronavirus> (last accessed 25 June 2020).
- Moutinho, L. (2014) Diferenças e desigualdades negociadas: Raça, sexualidade e gênero em produções acadêmicas recentes. *Cadernos Pagu*, 42, 201–248.
- Muniz, B., Fonseca, B. and Pina, R. (2020) Número de negros mortos por coronavírus é cinco vezes maior no Brasil. *Agência Pública*, 6 May. <https://apublica.org/2020/05/em-duas-semanas-numero-de-negros-mortos-por-coronavirus-e-cinco-vezes-maior-no-brasil/> (last accessed 27 June 2020).
- Novaes, M. (2020) Governo Bolsonaro impõe apagão de dados sobre a covid-19 no Brasil em meio à disparada das mortes. *EL PAÍS*, 6 June. <https://brasil.elpais.com/brasil/2020-06-06/governo-bolsonaro-impoe-apagao-de-dados-sobre-a-covid-19-no-brasil-em-meio-a-disparada-das-mortes.html> (last accessed 27 June 2020).
- Okan, O., Sørensen, K. and Messer, M. (2020) COVID-19: a guide to good practice on keeping people well informed. *The Conversation*, 19 March. <https://theconversation.com/covid-19-a-guide-to-good-practice-on-keeping-people-well-informed-134046> (last accessed 15 June 2020).
- Oliveira, F. B. and D'Abadia, M. I. V. (2015) *Uma comunidade quilombola em Aparecida de Goiânia-Goiás: identidade e território dos quilombolas do Jardim Cascata*. II Congresso de Pesquisa e Extensão da Universidade de Goiás, Goiás, GO.
- OMS. (2018). Comunicação de riscos em emergências de saúde pública: um guia da OMS para políticas e práticas em comunicação de risco de emergência [Communicating risk in public health emergencies: a WHO guideline for emergency risk communication (ERC) policy and practice]. Ginebra: Organização Mundial da Saúde. https://edisciplinas.usp.br/plu/ginfile.php/5426032/mod_resource/content/1/Comunica%C3%A7%C3%A3o%20de%20riscos%20em%20emerg%C3%A2ncias%20de%20sa%C3%BAde%20p%C3%ABlica.pdf (last accessed 30 June 2020).
- Plamondon, K. M. (2021) Equity at a time of pandemic. *Health Promotion International*, daab034. <https://doi.org/10.1093/heapro/daab034>.
- Presse, F. (2020) Favelas do Rio não têm paz, nem mesmo na pandemia. *UOL*, 28 May. <https://noticias.uol.com.br/ultimas-noticias/afp/2020/05/28/favelas-do-rio-nao-tem-paz-nem-mesmo-na-pandemia.htm> (last accessed 27 June 2020).
- Rabinow, P. (2002) Artificialidade e Iluminismo: da sociobiologia à biosociabilidade. In *Antropologia da razão: Ensaios de Paulo Rabinow*. Relume Dumará Press, Rio de Janeiro, RJ, pp. 123–134.
- Ratima, M. (2019) Leadership for planetary health and sustainable development: health promotion community capacities for working with Indigenous peoples in the application of Indigenous knowledge. *Global Health Promotion*, 26, 3–5.
- Rolnik, S. (1994) Hal Hartley e a ética da confiança. *Trafic. Révue de Cinéma*, P.O.L., Paris, 12, 104–114.
- Rosenberg, C. E. (1992) *Explaining Epidemics and Other Studies in the History of Medicine*. Cambridge University Press, New York, NY.
- Saboga-Nunes, L., Levin-Zamir, D., Bittlingmayer, U., Contu, P., Pinheiro, P., Ivassenko, V. *et al.*, (2020). A health promotion focus on COVID-19: keep the Trojan horse out of our health systems. Promote health for ALL in times of crisis and beyond! EUPHA-HP, IUHPE, UNESCO Chair Global Health & Education. <https://www.iuhpe.org/index.php/en/iuhpenews/1366-covid19-health-promo> (last accessed 15 June 2020).
- Santos, B. S. (2019) *o fim do império cognitivo: A afirmação das epistemologias do sul*. Autêntica, Belo Horizonte, MG.
- Santos, R. C. and Silva, M. S. (2014) Condições de vida e itinerários terapêuticos de quilombolas de Goiás. *Saúde e Sociedade*, 23, 1049–1063.
- Souza, C. and Sá Pessoa, G. (2020) Coronavírus: 20 bairros com mais mortes por covid-19 estão nos extremos de São Paulo.

- UOL*, 24 May. <https://noticias.uol.com.br/saude/ultimasnoticias/redacao/2020/05/24/coronavirus-avanca-mais-na-periferia-de-sp.htm?cmpid=copiaecola> (last accessed 29 June 2020).
- Stengers, I. (2013) Introductory notes on an ecology of practices. *Cultural Studies Review*, 11, 183–196.
- Strathern, M. (2004) *Partial Connections (Updated Edition)*. AltaMira Press, New York.
- Van Den Broucke, S. (2020) Why health promotion matters to the COVID-19 pandemic, and vice versa. *Health Promotion International*, 35, 181–186.
- Vespa, T. (2020) Paraisópolis monitora 21 mil casas com presidentes de rua e médico próprio. *UOL*, 15 April. <https://noticias.uol.com.br/saude/ultimas-noticias/redacao/2020/04/15/paraisopolis-contra-covid-favela-tem-presidentes-de-rua-e-sistema-de-saude.htm> (last accessed 20 June 2020).
- Wagner, R. (2017) *A invenção da cultura*. Ubu Press, 1a Ed., São Paulo, 240 pp..
- Worldometers. (2021) Coronavirus update (live). <https://www.worldometers.info/coronavirus/#countries> (last accessed 27 January 2021).