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Government and community strategies in Pernambuco, Brazil, to face COVID-19

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Abstract *This case study analyzed arrangements and strategies of the network actors in the Special Indigenous Sanitary District (DSEI) Pernambuco's territory to guarantee the right to health of Indigenous populations during the COVID-19 pandemic. This work was carried out through document analysis, workshops, and field research. The Contingency Plan for COVID-19 in Indigenous Peoples of DSEI Pernambuco included surveillance actions, laboratory and pharmaceutical assistance, communication, and management. With the modeling of this document, it was noticed that actions aimed at local specificities were not integrated: in its initial design, at the national level, the voice of Indigenous leaders was not heard when formulating this plan. By contrast, the actions of these leaders and their mobilization to mitigate the effects of the pandemic on the Indigenous population stands out. Contextual factors were cited as facilitators and obstacles to the plan's implementation; the local sociotechnical network mapping also made it possible to identify strategic actors and actants in the face of the COVID-19 pandemic and verify their performance or ineffectiveness. The findings of this study reflect recurrent problems in the organization of the Indigenous health system.*
Key words *Indigenous Peoples, COVID-19, Health Management, Health Evaluation, Public Health Surveillance*

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Introduction

Indigenous peoples have been facing multiple rights violations as a result of the setback and dismantling of the National Indigenous Policy, especially between 2018 and 2022[1]. One of these concerns the right to health, since this population group has inadequate access to health services, basic sanitation, and treated water[2].

The Indigenous Health Care Subsystem of the Unified Health System (*Subsistema de Atenção à Saúde Indígena do Sistema Único de Saúde* - SasiSUS) must guarantee access to health services, taking into account the specific needs and demands of Indigenous peoples[3]. SasiSUS counts on the Special Indigenous Health Districts (*Distritos Sanitários Especiais Indígenas* - DSEI) distributed throughout the different regions of the country, and Multidisciplinary Indigenous Health Teams (*Equipes Multidisciplinares de Saúde Indígena* - EMSI), with doctors, nurses, dentists, and Indigenous health agents who provide care in Indigenous territories[3].

However, the health protection mechanisms for this population were already weakened when the COVID-19 pandemic hit Brazil, which was a determining factor in the worsening of the health situation[1]. Weaknesses in SASISUS, such as poor financial management; inadequate monitoring; a lack of qualified professionals; insufficient health professionals and essential inputs difficulty in maintaining regular health actions in villages, making it impossible to continue to provide care to Indigenous populations; and limitations in access to and use of information systems, had already been identified before the pandemic[4]. Added to this is the process of the defunding of SUS due to reductions in resources allocated in its budget, especially at a time when the COVID-19 pandemic was worsening[5] and participation and democracy were flagging, in a context of fiscal austerity and the dismantling of the country's social policies[6].

In the face of COVID-19, Indigenous people, Indigenous organizations, and human rights and public health advocates have called for urgent responses that would prevent the pandemic from spreading and its dissemination to the countryside, given the slow and fragile institutional actions of the responsible agencies. Both Indigenous and non-governmental organizations were responsible for creating health surveillance networks independently[7].

In this sense, this study sought to analyze institutional and community strategies to combat COVID-19 in the territory covered by DSEI Pernambuco (DSEI-PE).

Methodology

This work was a qualitative study, constituting a case study at DSEI-PE, seeking to understand COVID-19 as a complex social phenomenon and identify the relationships between the context and concrete practices[8].

A documentary analysis of regulations to deal with COVID-19 and the contingency plans of SESAI and DSEI during the pandemic (2019-2020) was conducted. The intervention considered in this study was the contingency plan for dealing with COVID-19 at DSEI-PE. The operating theory of this intervention was expressed through the construction of a logical model, seeking to describe the rationality of the actions, the necessary inputs, and the desired effects.

In the second stage, two online workshops were held to validate the logical model with the technical team and coordination of DSEI-PE, identify the factors of the internal and external context that influenced the implementation of the plan through a SWOT matrix, and map the sociotechnical network of DSEI management to deal with the pandemic in September 2021. Sociotechnical networks refer to the connections between people and objects, called actants, whose attributes are constituted in the face of the relationships established when faced with a controversy[9].

In the third stage, field research was conducted in March 2022, including thirteen interviews with key actors, identified by "snowball" sampling, coded according to that presented in Chart 1.

The material was transcribed and read, identifying the questions posed by each interlocutor, seeking to highlight the universe of meanings and senses of each subject[10]. Content analysis was best suited for the synthesis of the results and included the exploration and interpretation of the material, in a theorizing process that remained attentive to the empirical categories of the material, based on Grounded Theory. The data produced were analyzed jointly and organized according to the main themes stated by the interviewees.

This study was approved by the National Research Ethics Commission (CONEP), in accordance with CNS Resolution No. 510 of 2016, opinion No. 4,645,163.

Ciência & Saúde Coletiva, 29(12):1-14, 2024

Chart 1. Interview Codes.

Code used	Specification
Indigenous 1 (I1)	Indigenous leadership
Indigenous 2 (I2)	Indigenous leadership
Indigenous 3 (I3)	Indigenous leadership
Indigenous 4 (I4)	Indigenous leadership
Indigenous 5 (I5)	Indigenous leadership
State Health Management Professional (G1)	Representative of the State Department of Health (SES)/PE
State Health Management Professional (G2)	Representative of the State Department of Health (SES)/PE
DSEI 1	Representative of DSEI Pernambuco
DSEI 2	Representative of DSEI Pernambuco
DSEI 3	Representative of DSEI Pernambuco
P1	Representative of social health organization
R1	Representative of indigenous organization and/or indigenous movement
R2	Representative of indigenous organization and/or indigenous movement

Source: Authors.

The case study: DSEI Pernambuco

The DSEI-PE is located in the capital city of Recife, in the state of Pernambuco, Brazil. It serves a population of 39,500 Indigenous people, of 15 ethnicities, distributed in 224 villages and 18 municipalities. It also has 21 EMSIs[11], organized into 15 base centers according to the national registry of health establishments of the Ministry of Health (MH) in August 2023.

In Pernambuco, in the second half of April 2020, COVID-19 cases began to multiply in the municipalities where Indigenous lands are located, with the first death occurring with an Indigenous Fulni-ô, on April 23, 2020. From 2020 to 2022, 4,221 cases of COVID-19 were confirmed in the Indigenous population, which were concentrated in the Xukuru (1,063), Atikum (945), and Pankararu (662) ethnic groups, and 29 deaths, with the highest number of deaths recorded in the Xukuru (7), Fulni-ô (6), and Pankará (5) ethnic groups[12].

Results and discussion

Action Planning

Numerous studies have indicated the biological, environmental, and social vulnerability of Indigenous peoples in relation to the COVID-19 pandemic[7,13]. In March 2020, the MH, through SESAI, launched the National Contingency Plan for Human Infection by the new Coronavirus in Indigenous Peoples, serving as a basis for planning by the DSEI, which developed its plans[14]. This plan indicated the following strategic actions: detection and notification of suspected and confirmed cases, infection prevention and control actions, pharmaceutical care, laboratory support and guarantee of diagnostic flows, control of access to territories, dissemination of information about the disease, and coordination of actions in an integrated manner, among the DSEI, municipalities, and states.

The DSEI were responsible for the identification, notification, and timely management of suspected and/or confirmed cases of the disease based on ministerial and international regulations, and for adapting them to the specificities of the Indigenous population under their responsibility[14].

Control and prevention actions were organized into three response levels: Alert; Imminent danger; and Public health emergency. For each response level, the actions were organized into components of surveillance, control measures, care; integration with municipalities and states; pharmaceutical care; sanitary barriers, communication, and management.

The DSEI-PE Contingency Plan's structure included a set of actions[15]. The plan's logical rationale and the intervention theory were organized and described through a logical model, , initially based on the plan and later validated and adapted with the technical team and coordinator of the DSEI (Figure 1), considering the actions carried out for the "Public Health Emergeny" response

level, since the "Alert" and "Imminent Danger" response levels were quickly surpassed with the advancement of the epidemiological situation in Indigenous territories.

Figure 1 seeks to express the relationships between structural components – inputs, activities, products, and results – organized around four technical components: Health surveillance; Laboratory and pharmaceutical care, Risk communication, and Management, whose objectives are detailed in Chart 2.

To achieve the objectives of the Health Surveillance component, according to the DSEI team, the following activities stood out: guidance for EMSI and CASAI professionals on COVID-19 prevention and control measures; investigation and tracking of confirmed cases and contacts of suspected cases of COVID-19 among Indigenous people living in villages; testing of professionals prior to their entry into the territory; distribution of personal protective equipment (PPE) to teams, immunization; and the monitoring of events and rumors in the press, social media and health services in conjunction with the Strategic Information Center for Health Surveillance (CIEVS). The teams received training and courses offered remotely.

Within the scope of laboratory and pharmaceutical care, the DSEI team sought coordination with SESAI, the state, and municipalities in order to implement diagnostic flows with the reference laboratory network for respiratory viruses and to supply medications for the symptomatic care of cases.

FIGURE 1A

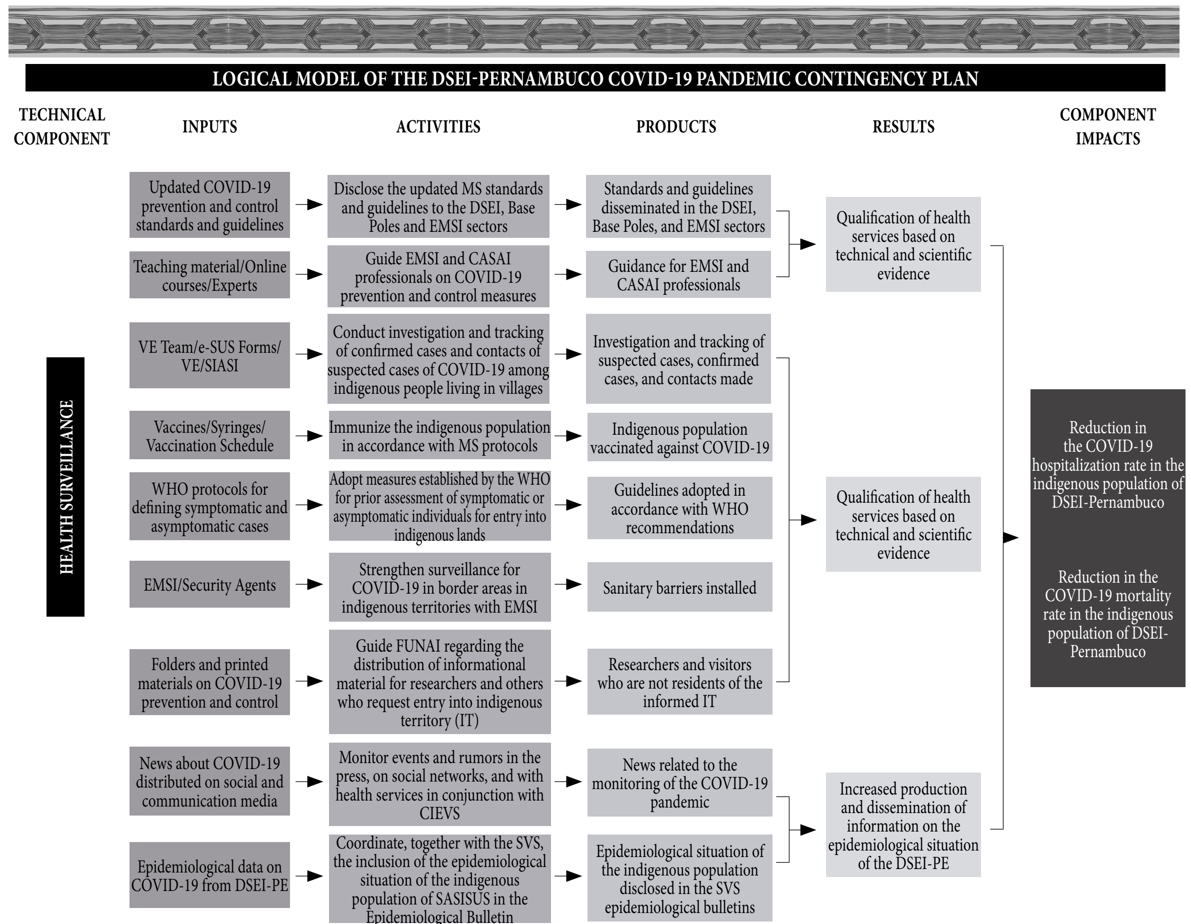

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Figure 1. Logical Model of the DSEI-PE COVID-19 Pandemic Contingency Plan.

FIGURE 1B

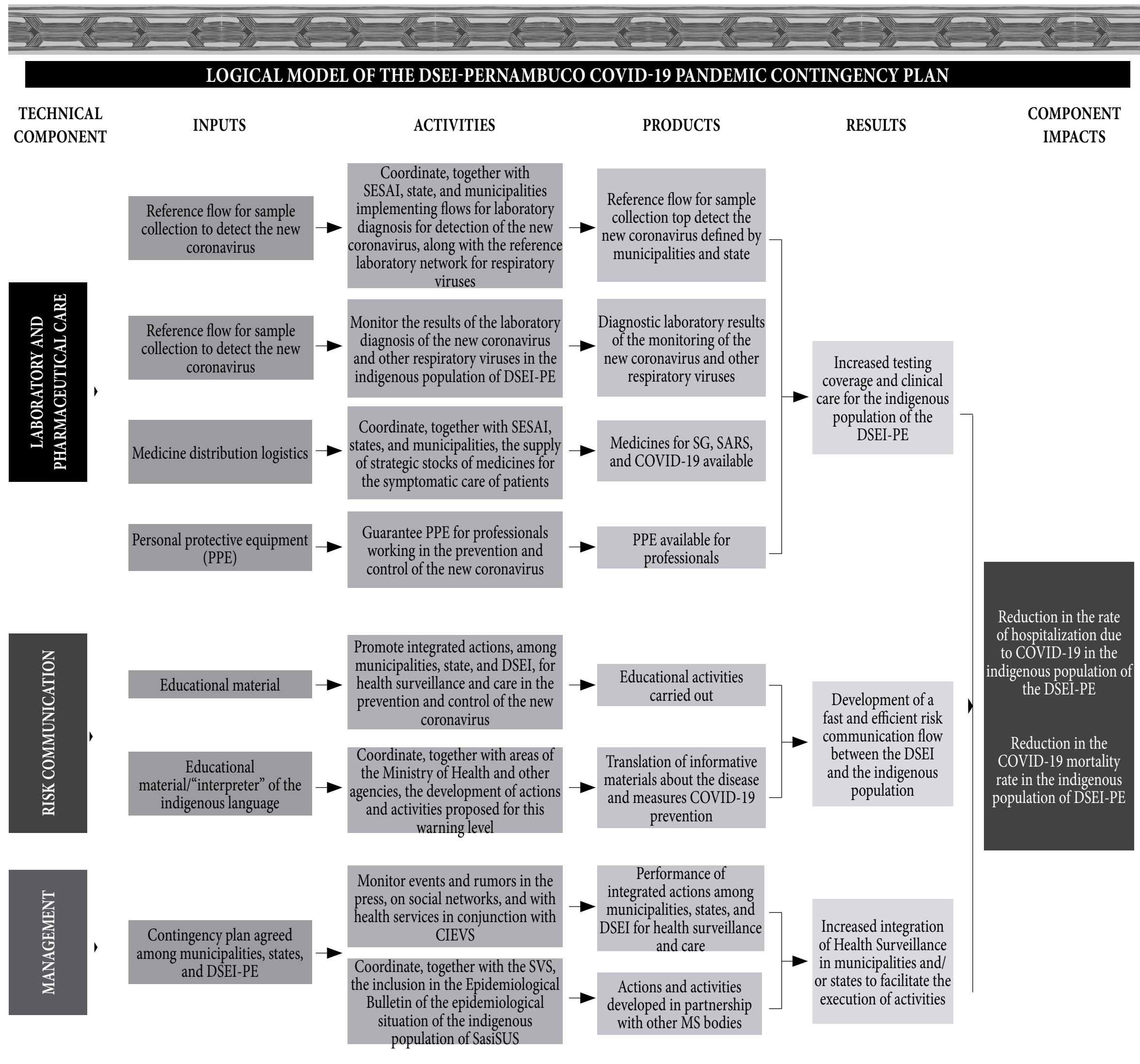

Figure 1. Logical Model of the DSEI-PE COVID-19 Pandemic Contingency Plan.

Source: Authors.

For risk communication, the strategic activity was to intensify educational activities about the disease and preventive measures for COVID-19. Technical reports were disseminated in the villages, through the monitoring of the epidemiological situation. Discussion groups were held through CONDISI, and adapted educational materials and videos were prepared.

Regarding the Management component, integrated actions were promoted by connecting municipalities, the state, and DSEI for health surveillance and care in the prevention and control of the new coronavirus, as well as a coordination with areas of the MH to ensure the development of the proposed activities.

The modeling of the initially proposed plan showed that more specific strategies aimed at the Indigenous reality were not integrated. In its initial design, from the national level, there was no attempt to “listen” to Indigenous leaders in order to adapt the planning with actions in line with territorial, social, and cultural specificities. CONDISI and Indigenous leaders were not mentioned as potential articulators for surveillance

Chart 2. Technical components and strategic objectives of the COVID-19 Contingency Plan - DSEI-PE.

Technical components	Strategic objective 1	Strategic objective 2	Strategic objective 3
Health Surveillance	Qualify health services based on technical and scientific evidence	Reduce the transmission rate of the new Coronavirus in the indigenous population	Produce and disseminate information on the epidemiological situation of COVID-19
Laboratory and pharmaceutical care	Increase testing coverage and clinical care among the indigenous population	Nsa	Nsa
Risk communication	Develop a fast and efficient risk communication flow between DSEI and the population	Nsa	Nsa
Management	Guarantee the integration of Health Surveillance in municipalities and/or States in order to facilitate the execution of activities	Nsa	Nsa

Source: Authors.

and/or communication actions in Indigenous territories, despite this participation constituting a fundamental guideline of the Indigenous health management model[16]. However, the integration of actions with CONDISI and/or leaders were incorporated in light of the advance of the pandemic and the demands set forth by Indigenous peoples themselves for their own protection.

Care for Indigenous health should be guided by a dialogical communication model[17]. Unidirectional communication, which is often authoritarian, ends up being a process that is indifferent to populations, their histories, and social structures, since it dissociates the health-disease process from sociocultural, economic, and political contexts.

The lack of initial dialogue between management at different levels of activity shows how the field of health surveillance carries strong traces of hierarchical and monologic practices, expressing the silencing and disrespect experienced by Indigenous peoples in Brazil during the pandemic.

Regarding the role of DSEI-PE in confronting COVID-19, one interviewee reflected on the importance of planning for the management and organization of actions, regardless of the context of the pandemic:

I think the pandemic revealed the need for more efficient management systems, for you to have planning systems [...] there are planning things that could already be done, especially because health emergencies exist permanently. [...] the impression I have is that some things could be much better executed if they were better planned and organized with management instruments that bring together inputs, demands, and actions (R1).

In this sense, through the SWOT matrix, our study sought to identify how the technical team and the DSEI-PE coordination perceived the internal (Strengths and Weaknesses) and external (Opportunities and Threats) contextual factors that influenced the development of the planned actions, as detailed in Chart 3.

In the internal context, the following strengths stood out: the experience of the coordinator, the coordination between different actors, the hiring of Indigenous health professionals in a context before the pandemic, the participation of CONDISI in the crisis committee and its dialogue with the DSEI-PE team. The limited availability of doctors and the difficulties in these professionals joining the EMSI were all considered weaknesses.

The confrontation between Western medicine and traditional Indigenous medicine was mentioned in the analysis of the internal context and in the interviews: on the one hand, the orientation towards prevention and control measures, based on the biomedical model and, on the other, Indigenous cultural practices as forms of

Ciência & Saúde Coletiva, 29(12):1-14, 2024

collective health protection. As an example, professionals and leaders mentioned the Ouricuri ritual, sacred to the Fulni-ô ethnic group, which has not stopped being performed, as reported by one leader:

We have a difference, which is our religion, a ritual called Ouricuri. Where we move from our village to a ritualistic village. And then we need to live in crowds, in coexistence with each other. We have a pipe, and sometimes there are ten people, and then I'm smoking and passing it to one or the other. There are moments of fellowship, of eating, where three or four people eat from one plate. And then the MP, DSEI, recommended that we stop. But the shaman and chief, with the religious system, didn't stop our ritual. Because we live by our faith [...], because of the population we have, the mortality rate was very low (I5).

To mitigate the risks due to these practices/rituals, EMSI adopted a strategy of testing prior to the ritual and guidance for voluntary isolation of positive cases.

Threats mentioned included logistic difficulties in acquiring supplies, non-executed bids by contractors, increased prices of supplies, among others.

Among the opportunities, the importance of inter-federative coordination stood out, mainly with municipalities and partnerships with governmental and non-governmental entities, constituting an intersectoral network for the acquisition of various resources, such as tests, masks, food, among others.

The DSEI-PE network mapping had the participation of the DSEI-PE coordinator and technical team, based on the identification of the

Chart 3. Internal and external context factors related to the implementation of the DSEI-PE Contingency Plan.

Internal context	**Strengths**	**Weaknesses**
	1. Long history of the DSEI coordinator in the area of indigenous health, since the implementation of SasiSUS; 2. Adoption by the DSEI coordination of the District Indigenous Health Plan (PDSI) and the National Policy for Health Care for Indigenous Peoples (PNASP) as a guide for actions; 3. Participation of Social Control (CONDISI) in management; 4. Integrated management with professionals and users; 5. Hiring of indigenous health professionals, increasing the stability of the workforce and reducing turnover; 6. The remuneration of the professionals on the teams is considered attractive.	7. Predominance of the understanding of the health-disease process based on Western medicine, with minimal dialogue with traditional medicine; 8. Interference of local politics; 9. Deficient workforce when faced with the demands and needs of the DSEI; 10. Scarce availability of medical professionals to meet the specific needs of work in indigenous health.
External context	**Opportunities**	**Threats**
	11. Interfederative coordination; 12. Strengthening of relations with municipalities; 13. Several partnerships were established (academia, NGOs, Indigenous Rights Monitoring Network in Pernambuco-REMDIPE)	14. Increase in the price of inputs; 15. Logistic difficulties in purchasing and receiving PPE; 16. Bids approved but not delivered; 17. Numerous technical notes requiring updating, understanding, and dissemination to the teams about what is changing; 18. Expansion of indigenous areas to be served by the DSEI, requiring greater financial support and indigenous health professionals, in an attempt to provide access to non-village indigenous people; 19. Problems in the execution of physical works; 20. Lack of greater technical support from FUNAI.

Source: Authors.

interaction among people, institutions, and organizational structures as well as of objects/things, that is, non-human elements. The network structure was designed based on the level of proximity of the relationships established with DSEI-PE regarding the fight against COVID-19, as shown in Figure 2.

The level closest to DSEI-PE was the COVID-19 Monitoring and Response Committee, created by ministerial decree. The CONDISI, Indigenous leaders, the Indigenous Health Care Division (DIASI), IMIP, FUNAI, the Municipal and State Health Departments (SMS and SES), and other DSEI structures participated in the committee. Non-human actors were the volume of official and technical documents, which were also identified in the SWOT matrix as a hindrance that required additional effort to update, making it difficult to disseminate information in a timely manner. According to Latour[9], non-human actors are endowed with agency and modify human action, which makes it possible to understand social phenomena based on the interaction of actors in networks.

At the third level, which is more distant, Indigenous associations (APOINME and AMUPE) were mentioned, which seems contradictory, considering the participatory and listening perspective, practices self-reported by the DSEI team and coordination. At this level, the Oswaldo Cruz Foundation was also mentioned for having provided inputs and, at a more distant level, organizations such as Pan American Health Organization (PAHO)/World Health Organization (WHO), which, in the context of uncertainty and low government coordination, played an important role in guiding actions.

Some non-human actors were mentioned as transversal to all levels of the network, such as Indigenous culture. Although the religious and social practices of Indigenous peoples have been recognized for their importance, when confronted with official guidelines for surveillance and prevention practices, they prompted the action of institutions, such as those carried out by the MP, with the prohibition of certain events/rituals and required professionals to be able to dialogue. Other actors mentioned were digital means of

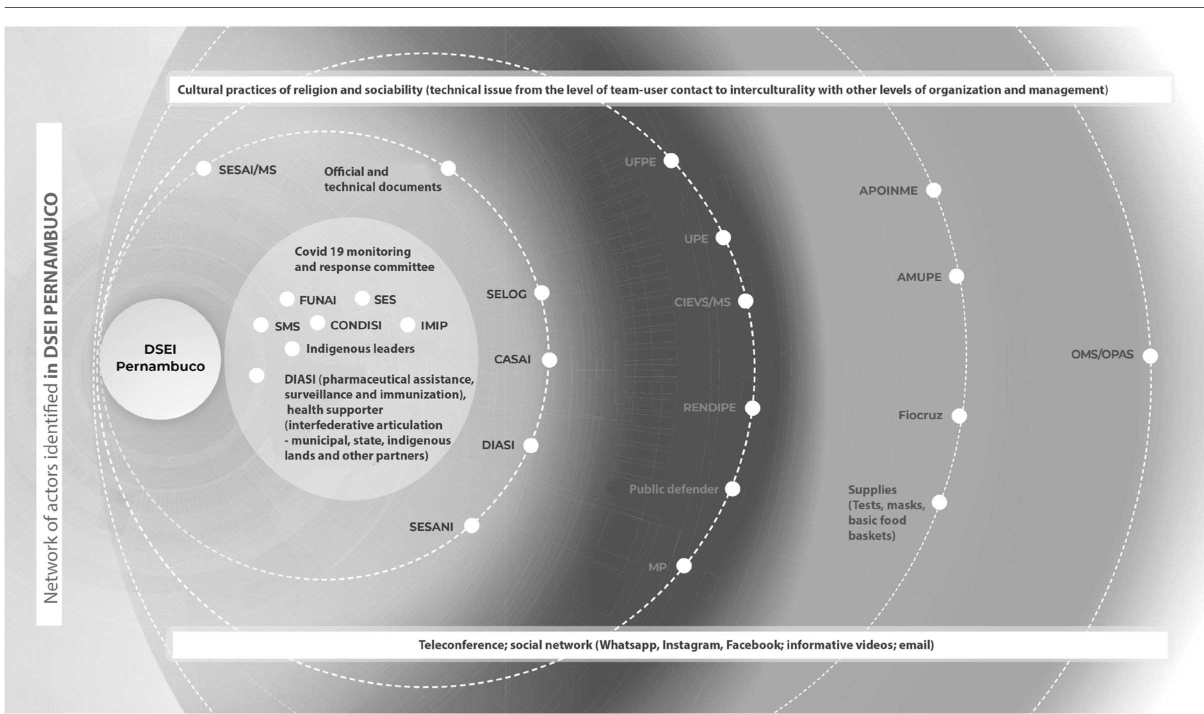

Figure 2. DSEI-PE sociotechnical network to combat COVID-19.

Source: Authors.

communication – teleconferences, e-mail, and social networks, used to disseminate videos, educational materials, campaigns, as well as for demands and/or complaints from Indigenous peoples themselves.

In the next topic, we seek to present the perspective of other interviewed actors, regarding surveillance measures in Indigenous territories covered by DSEI-PE. This is, therefore, a counterpoint to what was stated by the technical team and district coordination.

Health surveillance

Health surveillance has become essential to detect and prevent new cases, in addition to establishing measures to reduce the spread of the disease to the villages[18]. Given the geographic vulnerability of access to the villages, the different ways of life of the various ethnic groups, and the territorial dispersion of this population group in Pernambuco, health surveillance needed to be quick and effective in its response capacity.

In several parts of the world, Indigenous peoples have created their own strategies to control and combat COVID-19 in their communities[19-22]. Indigenous leaders from several countries, such as Peru, Colombia, and Australia, played a major role in closing their borders in order to limit access to their territories[23].

In Pernambuco, the capacity for Indigenous self-organization stood out in popular surveillance actions to protect and contain the spread of the pandemic in the villages, without waiting for the responsible agencies to act. The creation of sanitary barriers and the control of access to the villages by the Indigenous people themselves were identified as the first actions to prevent the contamination and spread of COVID-19:

The Indigenous leaders created barriers. In the Indigenous area, this is a business that is very much in keeping with the spirit of the Indigenous movement in Pernambuco. [...] it's tenacity, determination, militancy. It's commitment to the community, you know? [...] the determination of the leaders to establish barriers, out of nowhere, with no guidance from the State, saved lives (R1).

We even reached the point where we had to close the village, put up gates at the entrances to the territory so that no one could enter. And neither the Indigenous people could leave nor anyone from outside could enter because if you went to the city to do something, buy something, you ran the risk of bringing disease into the territory (I1).

Obstacles were identified, such as the high number of access roads to the territories, proximity to urban centers, difficulties with food, and the lack of resources, such as alcohol gel, soap, and PPE. These aspects should have been considered by the DSEI in the initial strategies, with protective measures to contain circulation, facilitate the supply of inputs, and guarantee food security with food distribution.

The Indigenous community worked together with Indigenous and Indigenist organizations and put pressure on SESAI and DSEI-PE to fulfill their role:

Initially, it was the community that organized itself. During the process, we began to demand from SESAI, for example, the issue of alcohol, masks [...] and then APOINME itself ended up getting some masks, a quantity of alcohol as well to contribute to our movement. And SESAI in the sense of both releasing some products, as well as in the sense of providing guidance (I4).

The management of health actions for the Indigenous population needs to be discussed and deliberated together with local leaders[24]. Surveillance can be carried out in joint actions from the perspective of 'thinking and doing with', as part of an emancipatory process, replacing surveillance actions formulated only 'for' or acting 'upon' people[25].

Some interviewees, however, recognized that the work of informing, communicating, and guiding the population was carried out jointly, between DSEI and Indigenous peoples. Health communication actions made it possible to delay contamination by COVID-19, as reported by a leader of the Kambiwá people:

We were always working in partnership with the health team, with EMSI, to provide guidance, to talk about protocols, to ask people to stay inside their homes, within our territory, to try to prevent it. It took us more than six months, I think, for the first case to appear within the territory (I4).

Another Indigenous leader points out the importance of the work of municipal health management with guidance, inspections, and monitoring:

The municipality also did the work of raising awareness, inspecting buses that arrived in the city. [...] The municipality also provided support, with the great partnership we have in the municipality. What I also found interesting was that this happened between April, May, and June. And we recovered quickly. But the municipality stayed with us, monitoring us (I5).

Challenges were reported due to fake news, which was also spread by some health professionals working in the territories, in addition to prescribing medication with unproven protective

effects (Ivermectin). To combat this news, explanatory videos were recorded, prepared by Indigenous counselors and professionals, to refute them and provide better guidance on prevention and control actions.

Controversies and conflicts over the production of data and monitoring of the impact of the pandemic among Indigenous peoples were identified. First, the policy adopted of not providing care to Indigenous people in urban contexts contributed to distortions in official data on the magnitude of COVID-19 among Indigenous peoples. The under-reporting of the race/color item in the SUS information systems made it difficult to identify these cases, whether by the DSEI or by SESAI. The lack of integration of these systems was another factor considered limiting. Thus, disputes arose over the hegemony of the DSEI, especially over the production of information and monitoring data. For some interviewees from the DSEI team, the registration of these "cases" would be the responsibility of the municipal/state healthcare network, considering that its reference population would be the Indigenous people living in the district's territory. Faced with this situation, REMDIPE prepared its bulletins with maps and infographics to monitor the COVID-19 situation among the Indigenous people of Pernambuco, with a special edition for the case of Indigenous people living in urban areas, in order to address the situation of underreporting by government entities. This situation was repeated in other regions of Brazil, where Indigenous people in urban contexts were not counted as Indigenous in the statistics of cases and deaths due to coronavirus[26]. A study carried out in the Legal Amazon, for example, observed a notable underreporting of cases (14%) and deaths (103%), considering different sources (SESAI x Indigenous Organization) "as a result of the official protocol that excludes Indigenous people living in cities, areas of reoccupation, or territories affected by conflicts"[27] (p.5).

Such initiatives to produce data and monitor cases have become another form of Indigenous resistance in the face of the political invisibility of the State[28]. Despite the understanding of the Federal Supreme Court (*Supremo Tribunal Federal* – STF) that Indigenous people living in urban areas have the same rights as any other Indigenous people, it was found that this is not a consensus within the DSEI. One of the interviewees demonstrates the controversy of the issue by indicating that, in his view, care should be provided by municipal health teams:

[...] I do not agree with the criteria that consider urban Indigenous people as a priority because they are not vulnerable (DSEI 3).

It was necessary to establish a law[29], which provided for protective measures for COVID-19, imposing on its scope, isolated and recently contacted Indigenous people, villagers, and those living outside Indigenous lands, in urban or rural areas.

Throughout the country, it was Indigenous organizations that filed lawsuits against the Federal Government to guarantee their constitutional rights, as highlighted by Sônia Guajajara in an interview:

[...] it was the first time in history that the STF accepted a representation made by the Indigenous movement itself [...] The second gain was the set of measures that we were able to articulate there and that were accepted in their main points by the STF [..] another was the vaccination for Indigenous people in urban contexts [...] a clear recommendation that Indigenous people in the city be vaccinated, and that helped a lot. Another important point was the vaccine for people who were outside the demarcated areas, because initially the government restricted priority to those who were in demarcated areas[30] (p.4128).

The interviewee addresses another aspect that was also a point of tension in Pernambuco: the vaccination of Indigenous people living in cities.

In March 2020, the National Health Surveillance Agency authorized the emergency use of two vaccines in Brazil[31]. The Indigenous population was included as part of the priority vaccination group. Indigenous leaders commented on the importance of vaccination in the territories:

We only know one thing: the vaccine was very effective, it reduced deaths a lot, right? The disease still exists, but deaths have decreased a lot. The intubation that people caught COVID-19 and had to be intubated because otherwise they would die, has decreased a lot (I1).

As for the distribution of vaccines, according to a professional from the Pernambuco Health Department, the logistics and organization took place throughout the state with the support of regional health departments and the participation of DSEI-PE, in the planning and management of vaccination for Indigenous people. The vulnerability and access of the Indigenous population were taken into account to define the number of doses needed. However, several Indigenous groups in the state had to go to court to receive it. In May 2021, as a result of lawsuits filed by Indigenous communities, the state of Pernambuco was

Ciência & Saúde Coletiva, 29(12):1-14, 2024

fined to send doses of the vaccine made available by the MH to guarantee the right to priority immunization for the Indigenous people of the Angico Pankararu Village, in the municipality of Petrolândia, and the Tuxá Campos Community, in the municipality of Itacuruba:

We started receiving Indigenous Health care in November (2021). [...] quite recently. But even so, we had been adopting (protective measures) and after the arrival of the DSEI in our territory, it made things much easier, right? Both the acceleration in the vaccination process for Indigenous people and in the prevention guidelines and in the case of symptoms, there is also a team that we can quickly count on (I3).

The priority vaccination of Indigenous groups revealed controversies present in current Indigenous health policies, evincing pre-existing conflicts in interfederative relations among the DSEI, municipalities, and the state and federal governments in the Indigenous healthcare network, and disputes over responsibility for guaranteeing the right to health of all Indigenous people, including those who live outside Indigenous lands, in urban or rural areas. For Nogueira *et al.*[32], there is a legal limbo in the protection of the right to health of Indigenous people living in urban areas, resulting in legal uncertainty and greater vulnerability. They emphasize that the Union, instead of joining forces with other federative entities, transfers powers to them "without any constitutional and legitimate differentiating criteria that could be adopted or that could be justified by improvements in the health services offered to the urban Indigenous population"[32] (p.260).

In this context of legal and social vulnerability, Brazilian Indigenous peoples have suffered several attempts to back their constitutional rights. Significant weaknesses persist in the normative organization of Indigenous health in the country, especially the lack of objectivity in institutional accountability[33].

Final considerations

In the face of a health crisis caused by the COVID-19 pandemic, many strategies and actors were involved in the DSEI-PE territory, which provided elements for reflection and understanding of the complexity of organizing the response to a problem that severely affected Indigenous health. On the one hand, we see that the federal government's efforts fell short of expectations, with a weak performance and a low capacity to provide more integrated and coordinated responses.

Within the scope of the DSEI-PE, the initial planning was more generic, failing to absorb the nuances of the interculturality of the Indigenous peoples under its responsibility. The analysis of the logical rationale of the initial plan also revealed the lack of definition of the expected results in the short and medium term, with its implementation. On the other hand, the team most directly involved in the coordination demonstrated an openness to reflect on this process, having made adjustments during the pandemic, in light of the problems that arose as it progressed. What was observed was the intersection of management problems that existed before the pandemic, such as those related to resources, logistics, and those inherent to public administration, such as bidding processes, which overlapped with others highlighted by the pandemic, such as the need to take responsibility for providing care to Indigenous people living in urban areas, intercultural mediation regarding prevention and control measures, and the overload on the health system itself. Nevertheless, it is necessary to recognize the progress achieved in the construction of more integrated governance arrangements involving actors from the health sector, other sectors, and Indigenous leaders.

As in the rest of the country, Indigenous leadership and self-organization were clear in containing the spread of the pandemic, despite all the difficulties faced in establishing access barriers to their territories; preventing invasions; ensuring vaccination for relatives, including those living outside their villages; combating fake news; and coordinating internally and with other actors to prevent a greater impact of COVID-19 on their community. In this region, REMDIPE stood out for its efforts to support the dissemination of information and provide further support, by the demands and needs presented by the Indigenous people.

One expression of this capacity for integrated operations were the lawsuits taken to the courts, seeking to enforce compliance with the constitutional rights of Indigenous people when confronted with problems related to the lack of access to goods and resources necessary to combat COVID-19. Another is the networked action, coordinating various actors in solidarity to distribute supplies and food, making isolation possible, which demonstrated the power to build an effective response.

Although many efforts have been made by different actors, the priority vaccination event highlighted a dispute that reflects the fragility of inte-

gration between SUS and SASISUS. Therefore, it is clear that, considering the correlation of forces and the existing controversies, it must be stated that improving the response to the COVID-19 pandemic, or any other Indigenous health problem, requires greater integration and coordinated action, especially about the responsibilities of the federative entities.

The reflections presented here make it clear that organized government strategies aimed at Indigenous health care need to listen to and incorporate Indigenous knowledge, their forms of care and resistance that, throughout their history, have signaled a strong capacity to respond to crises, whether health-related or not. The emergence of COVID-19 has triggered the need for more timely, rapid, and coordinated institutional responses from SASISUS and SUS, capable of truly integrating the sociocultural diversity of the different ethnicities. The unfolding and deepening of the issues addressed here indicate that the response to Indigenous health problems, as well as the management and organization of the system, should be carried out with the involvement of Indigenous people from the perspective of greater integrated governance.

Collaborations

All authors participated in all stages of the work.

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