

# Toward a Broader View of Health in the Anthropocene

The COVID-19 Syndemic and the Clash of Cosmographies  
in Mato Grosso do Sul, Brazil

Raquel Dias-Scopel, Daniel Scopel, and Esther Jean Langdon

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## Abstract

The continual expansion of developmental frontiers has impacted dramatically upon Indigenous health in Brazil. When the COVID-19 pandemic struck in Mato Grosso do Sul, its Indigenous populations were already living in circumstances of environmental degradation, food insecurity, racism, and structural violence. The synergistic interaction between the SARS-CoV-2 virus, other pathogens, and biosocial factors resulted in what Singer (2010) terms as ‘syndemics’. In the case of Mato Grosso do Sul, it brought about a substantial increase in the disease burden of Indigenous Peoples, where child malnutrition, obesity, hypertension, respiratory and parasitic diseases, and maternal mortality appear at higher rates than in the non-Indigenous population. This Research Article discusses the coping and participatory strategies that were employed by Indigenous Peoples early in the pandemic. Efforts by Indigenous Peoples to address the pandemic reveal ‘a clash’ between Indigenous and Colonial cosmographies with regard to notions of the body and health. Considering the Indigenous perspective on the relation between territoriality and health, the analysis highlights asymmetries of power and embodied vulnerabilities and the limits of the Anthropocene as a global perspective.

## Keywords

Cosmography, Indigenous Peoples, Syndemics, COVID-19, Structural violence, Indigenous agency.

‘Indigenous people are in the frontline of the climate emergency, and we must be at the center of the decisions happening here. We have ideas to postpone the end of the world’ (Txai Surui, opening speech at COP-26, 2021).

‘Only from a hyper-neoliberal economic fundamentalism, from the ethos of the merchants of politics or from the extreme scientific ignorance of the crisis deniers - pandemics and climate change - can one continue to believe in the benefits and viability of capitalist civilization’ (Breilh 2020, 13).

## Introduction

The Anthropocene is the result of ecocides and genocides that have benefitted selected economic sectors, but whose damage affects all living beings in disproportionate ways<sup>1</sup>. The violence and inequalities that mark the history of the Anthropocene have enormously affected Indigenous Peoples. Due to their extremely vulnerable situation, the planetary consequences of environmental aggression and pandemic scenarios affect them profoundly. The COVID-19 pandemic has not only brought the ecological crisis to the fore, but also drawn attention to the presence of global injustices, demonstrating that ‘even in major catastrophes, misfortune is never evenly distributed’ (Lima, Buss, and Paes-Sousa 2020, 39). Its unprecedented social, economic and educational impacts have affected different populations unequally, resulting not only in varying rates of transmission and mortality, but also in the diverse capacities and strategies employed to respond and cope with the pandemic (Barron et al. 2021; Menéndez 2021; Pontes et al. 2021). According to Menéndez:

[...] this pandemic not only showed the conditions of socioeconomic inequality of the population, but also revealed who could and who could not carry out the self-care recommended by the WHO, governments and their health services (Menéndez 2021, 8, our translation).

Brazil is characterised by a socioeconomic inequality that negatively impacts its most vulnerable groups, among them approximately 850,000 Indigenous Peoples. Although they live in a variety of ecological and demographic contexts, many Indigenous territories are typified by degraded environmental circumstances and precarious living conditions, including food insecurity, lack of water, and sanitation facilities (Cardoso et al. 2015; Coimbra 2014; Langdon 2010). Centuries of

1 According to Davis and Todd (2017), the Anthropocene should be dated from five centuries ago with the colonisation of the Americas and the genocide of 50 million Indigenous Peoples. They follow the ‘Orbis Spike’ thesis related to the ‘collision of the Old and New world peoples’ and to the beginning of global trade and the modern world-system (Lewis and Maslin 2015, 174–75). For the authors of this article, this perspective on the Anthropocene is the most adequate proposition, because both the systematic violence against Indigenous Peoples and the contemporary environmental crisis are rooted in colonial enterprise and capitalist accumulation.

structural violence in the form of minority status, discrimination, territorial invasion, and dispossession have created a context of socioeconomic inequalities and poor health, resulting in increased vulnerability with the arrival of new pandemic in 2020 (Santos, Pontes, and Coimbra 2020). The SARS-CoV-2 virus interacted adversely with pre-existing health problems, causing Indigenous Peoples to suffer disproportionately. The differential impact of the virus upon these already vulnerable groups is what Singer and Rylko-Bauer (2021) define as 'syndemics'.

This Research Article examines the experience of COVID-19 among Indigenous Peoples living in the state of Mato Grosso do Sul, within a sociopolitical context of structural violence. It argues that this factor was determinant in the synergetic interaction between the virus and existing poor health conditions caused by inequalities and discrimination. In particular, it explores Indigenous Peoples' response to the COVID-19 pandemic that went beyond denouncements and demands for adequate health attention, demonstrating the political and environmental consciousness of Brazilian Indigenous leaders. We analyse the period from 2020, when the sanitary crisis erupted, to 2022 when social distancing measures became more lenient, in part due to vaccination campaigns. Based on a broader notion of health and years of activism in the defence of their rights, the Indigenous leaders of Mato Grosso do Sul organised coping and participatory strategies during the pandemic that supported collective care activities to protect their communities. Such activities are founded on a cosmographic understanding of the health/illness/attention-prevention process. The actions taken by Indigenous Peoples to face the pandemic, reveal a 'clash of cosmographies' (Wright, Wiik, and Kapfhammer 2012), one in which the Indigenous Peoples of Mato Grosso do Sul confronted the 'colonial cosmography' that intensified with the Bolsonaro anti-Indigenous administration. Furthermore, the article draws attention to the need for greater social participation for Indigenous Peoples in decision-making processes. We argue that Indigenous Peoples must be recognised as important political actors and that their knowledge systems should be acknowledged as crucial to the struggle against the destructive consequences of extractive capitalism. The focus on Indigenous agency in the response to negative governmental actions in the context of the pandemic helps to avoid what Ortner (2016) calls 'dark anthropology', one that focuses exclusively on the harsh dimensions of neo-liberalism.

The findings discussed here are drawn from three collaborative ethnographic research projects conducted by the authors. The first focuses on Indigenous participation in Mato Grosso do Sul's Indigenous District Health Council [Conselho Distrital de Saúde Indígena, CONDISI-MS]. Prior to the pandemic, the first author

undertook participant observation<sup>2</sup> of the CONDISI-MS meetings and analysed the official minutes. With the cessation of Council meetings between April 2020 and November 2021, we conducted telephone interviews and monitored the WhatsApp messages communicating the activities implemented by Indigenous leaders and Council members designed to confront the pandemic. In addition, the first author was appointed consultant by the Federal Supreme Court in the lawsuit against the Federal Government filed by the Articulation of Indigenous Peoples of Brazil (APIB). The second project involves research and participation in a training course for Indigenous Health Councillors. Five virtual workshops (one for each region of the country) were conducted with APIB-designated Indigenous leaders to discuss key issues related to the functioning of Indigenous Health Councils, and the recordings of the meeting held in the Central West region were analysed. Finally, the authors collaborated with ASCURI (Cultural Association of Indigenous Filmmakers of Mato Grosso do Sul)<sup>3</sup> in the production of videos on the Guarani-Kaiowá understanding of the social process of health/illness/attention-prevention. This project, created by young Indigenous intellectuals, communicators and activists, aims to convey the Indigenous conception of health, environment and territory to a wider audience. All projects were affected by the onset of the pandemic, as the Indigenous Peoples refocused their attention to defend their communities and demand adequate health care.

## **Syndemics and the clash of cosmographies in the Anthropocene**

COVID-19 placed the theme of health at the centre of the worldwide debate surrounding the Anthropocene, invoking problems on a planetary scale as well as those impacting local contexts (Segata 2020). Attention has centred on the acceleration of environmental degradation resulting from globalisation and social injustice. The debates highlight the unsustainability of global development and the emergence of epidemic outbreaks in the wake of its impact on ecosystems and human groups.

Despite the fact that the term Anthropocene has broad acceptance in contemporary discussions about the planet's health, anthropologists and other social scientists have pointed out limitations to this geologic concept. Some have argued that it reifies the violence of colonial logic through its universalising scope that ignores the diversity of impact that global development causes on specific populations, as well as the existence of alternative logics (Davis and Todd 2017, 765). For instance, in the decade that preceded the emergence and discussion of the term Anthropocene, critical medical anthropological research had already

2 The first author has been an elected member of CONDISI since 2018 as an academic representative.

3 See more <https://ascuri.org/nosso-jeito>.

pointed out that HIV-AIDS, as a global pandemic, did not affect all groups equally (Farmer 1999).

Discussions of the concept of syndemics arose out of the critical biocultural approach to understand the interaction of diseases such as HIV-AIDS with social conditions and biopsychological consequences of disparity, discrimination, and structural violence (Singer and Clair 2003; Singer 2013). The concept of syndemics underscores not only the way in which social, political, and economic interests impact on health conditions and the morbidity and mortality rates of different groups, but also the differences in the capacity of these groups to respond with preventative and curative actions in the face of disease.

The COVID-19 pandemic has added to the already severe disease burden of Indigenous Peoples<sup>4</sup>. To understand its impact as syndemic interaction, we must consider the colonial roots of the Anthropocene (Singer and Rylko-Bauer 2021) as well as Indigenous cosmography. As Davis and Todd note,

By linking the Anthropocene with colonization, it draws attention to the violence at its core, and calls for the consideration of Indigenous philosophies and processes of Indigenous self-governance as a necessary political corrective, alongside the self-determination of other communities and societies violently impacted by the white supremacist, colonial, and capitalist logics instantiated in the origins of the Anthropocene (Davis and Todd 2017, 763).

In Brazil, contemporary asymmetries of power have their roots in the long history of colonial encounter. Colonial encounter is analysed here as a clash between cosmographies; a clash that does not establish a static condition between two cultures in contact, but is instead a dialectic process of territorial struggle. Unlike the concept of cosmology, cosmography is not merely a set of ideas and worldviews; it involves human territoriality as praxis. According to Little, cosmography:

[...] is defined as environmental knowledge, ideologies and identities – collectively created and historically situated– that a social group uses to establish and maintain its territory. The cosmography of a group includes its property regime, the affective bonds it maintains with its specific territory, the history of its occupation stored in collective memory, the social use it gives to the territory and the forms of its defense (Little 2004, 254).

4 Indigenous Peoples in Mato Grosso do Sul suffer from higher rates of maternal-infant mortality, hypertension, diabetes, tuberculosis, and child malnutrition than that of the region's non-Indigenous people (Ministério da Saúde 2020; Ribas and Philippi 2003; Ferreira et al. 2011; Basta et al. 2013, Pícoli et al. 2017; Coimbra 2014), and experience precarious living and health conditions, food and water insecurity, territorial conflicts, and contamination of the environment (Pignati et al. 2017; Fernandes-Santos et al. 2018).

Cosmography thus refers to the process that links a group's mode of biosocial reproduction to a particular territory. A concept developed within the political-ecological approach, it also draws attention to the relationship between bodies and the environment. We pose that cosmography can be a powerful concept for medical anthropology because it explains biosocial reproduction as based on experience in and relation to a specific place. An adequate territory is necessary for the continuity of the collective group, of its knowledge, practices, and identity. Biosocial reproduction also encompasses a project for the future that envisions health and collective well-being based on cosmographic understanding.

Indigenous cosmography, as a form of land occupation and biosocial reproduction, collides with that of settler colonialism. For millennia, Indigenous Peoples have developed cosmographies that can be understood as practices of 'holistic indigenous land management' that radically oppose colonial 'commodification of territory' (Fenelon and Alford 2020, 376). The result of such a clash between Indigenous and colonial cosmographies is the maintenance of structural genocide and consolidation of settler colonialism through its logic of elimination (Wolfe 2006; Zaragocin 2018). Wolfe poses that,

When invasion is recognized as a structure rather than an event, its history does not stop [...] a logic that initially informed frontier killing transmutes into different modalities, discourses and institutional formations as it undergirds the historical development and complexification of settler society (Wolfe 2006, 402).

Colonial cosmography underlies and justifies the historical transformation of landscapes into *latifundios* (*latifundia*, an extensive, privately owned piece of land). Its ideology supports social hierarchy based on racist White heteronormative patriarchal supremacy (Zaragocin 2018). Colonial cosmography introduces a 'settler normativity' (Steinman 2016, 221) that establishes privilege precisely through the racist belief that Indigenous nations and cultures are inferior. Colonial cosmography stands in radical opposition to Indigenous place-based cosmographies. Land is a commodity, and productivity is the goal of colonial territorialisation motivated by commercial and exploitative interests (Zaragocin 2018; Benites, Monfort, and Gisloti 2021). The conflict between Indigenous and colonial cosmographies is not limited to the way people use the land, but also extends to the way bodies are produced in relation to the land.

Colonial cosmography reifies bodies as private objects, like the reification of land as a commodity, justifying the occupation and division of the land into large *latifundios*. In this way, the relationship between bodies and territory is denied; landscape is divided into parcels to be sold independently of the bodies that inhabit it. Collective, ethnic, or affective attachment of bodies to the land must be severed,

eliminated, or denied accordingly. The logic of elimination of the Indigenous ‘other’ persists in many forms of social exclusion and stigmatisation.

Mato Grosso do Sul stands out as an example of the impact of colonial cosmography and its logic of elimination. It has the second largest Indigenous population in the country with 78,692 people belonging to eight different ethnic groups (Ministério da Saúde 2020). Pressure to occupy Indigenous territories in the state increased during the second half of the 20th century when the government promoted colonisation projects that attracted Brazilians from other regions. Indigenous Peoples’ territorial rights were disregarded, and they were confined to small reserves (Chamorro and Combès 2019). Today Mato Grosso do Sul is a state dominated by *latifundios* dedicated to ranching and agroindustry and linked to the international market of commodities (Benites, Monfort, and Gislotti 2021). The Cerrado and Pantanal biomes of the northern part of the state, traditionally occupied by the Terena, Ofaié, Kadiwéu, Kinikinaw, Guató, and Atykum Peoples are now dominated by large areas of pasture for extensive cattle raising. Similarly, the southern part, traditional territory of the Guarani and Kaiowá Peoples living in its dense Atlantic Forest, has been affected more severely and is almost completely deforested for the cultivation of its fertile soils for soy and sugarcane.

Until the 1940s, the monopoly for commercial extraction of mate tea exploited Indigenous labour, but allowed the Indigenous Peoples free access to the land. Today, as a result of the rapid growth of agriculture and the ethanol industry, these populations are living in situations of extreme poverty and forced to work for large haciendas and *latifundios* or fuel alcohol refineries. This is true of residents of the regularised Indigenous lands [*Terras Indígenas*] as well as those waiting for their lands to be recognised by the government. After Bolsonaro became President in 2019, the regularisation process of Indigenous lands virtually halted, and at least 115 processes were paralysed in Mato Grosso do Sul alone at the time of writing (Cimi 2021). The Indigenous communities on non-regularised land suffer from even worse conditions since they are not recognised as eligible to receive public services directed to official Indigenous lands. The most precarious communities are those located in improvised encampments along highways or on the edges of the haciendas where people working on the lands live in temporary houses made of plastic or canvas tarpaulins.

The state of Mato Grosso do Sul ranks first in Brazil in territorial conflicts and human rights violations, racism, violence, and discrimination, and third in the number of assassinations of Indigenous persons (Chamorro and Combès 2015; Cimi 2021). Indigenous communities have been subjected for decades to continual armed violence, illegal invasions, illegal exploitation of resources, property

damage, and threats and deaths perpetrated by both local farmers and civil and military police (Cimi 2021). The anti-Indigenous and anti-environmental agenda of the Federal Government resulted in increasing violence during the Bolsonaro government. Physical violence against the Indigenous communities in the state is an example of how the clash of cosmographies has reproduced territorial conflicts throughout the years.

In the case of Mato Grosso do Sul, the cosmography of the Guarani and Kaiowá clearly expresses the collective and social value of the relationship between body and territory. Here, illness is conceived as a social or spiritual imbalance in the relations with the larger cosmic network. In the Guarani and Kaiowá concept of *tekoha*, territory connotes an environmental landscape in which the Indigenous way of being is lived. As Benites, Monfort, and Gisloti (2021)<sup>5</sup> discuss, *tekoha* is a key symbol that refers not only to the concept of territorial occupation, but also to the idea of a balanced ecosystem. *Tekoha* evokes the sacralisation of the land and ecosystems, both conceived as divine gifts. In its moral dimension, *tekoha* is the place where the ‘Indigenous way’ is realised; the way of wisdom, harmony, and balance in interaction with the non-human beings of the cosmos. From the perspective of their shamans, the great territories [*tekoha guasu*] are a ‘place of life’, of ‘perfect interconnected beings in harmony and cohesion’ (Benites, Monfort, and Gisloti 2021, 54). The balance of the ecosystem is perceived as a condition for the maintenance of health in which the body and environment are closely related in the health/disease/care-prevention process (Menéndez 2021). As Benites and colleagues note,

The destruction of *tekoha* (ecosystem, nature, environment) reflects in the Guarani and Kaiowá body, provoking an imbalance that we understand as disease. Disease is *mba’asy* (pains) and is directly linked to *tekoha*: if *tekoha* is sick, the body is sick and vice versa (Benites, Monfort, and Gisloti 2021, 55).

The clash of colonial and Indigenous cosmographies forces a reconfiguration of the relations between bodies and the land. Colonial cosmography dominates the landscape and harnesses Indigenous labour. Most Indigenous persons can no longer live by traditional subsistence practices. Instead, they provide the labour force for ranches and sugarcane plantations, in meatpacking plants, and ethanol refineries, either in the state or in other regions where they migrate for temporary work (Silva et al. 2014; Dias-Scopel, Scopel, and Diehl 2021). Dependent for their livelihood on the extractive economy, they often make up part of the migrant labour force that is exploited in Mato Grosso do Sul and neighbouring states. In their research, Silva et al. (2013, 2014) accompanied Kaiowá and Guarani individuals

5 Eliel Benites, a Guarani Kaiowá with a Ph.D. in geography, is a prominent Indigenous intellectual. He is professor of Dourados Federal University and an activist in the Movimento dos Professores Guarani e Kaiowá/ MS and ASCURI (Cultural Association of Indigenous Filmmakers of Mato Grosso do Sul).

affected with chronic mental illness and their families. The authors demonstrated the impact of the extractive economy both on mental illness as well as upon the families' capacity to provide adequate care to those suffering.

Territorial disputes continue to characterise the interethnic relations in the state of Mato Grosso do Sul. Territorial restoration is a priority among the current demands of the state's Indigenous movement. However, it is not just the physical space that is in question. Their territorial demands involve a particular way of envisioning the future, an important issue that is discussed below in relation to the debate around the planetary scale of the Anthropocene.

## **Indigenous Peoples in the fight against COVID-19**

With strong Indigenous input, Brazil's Constitution of 1988 established a legal foundation for Indigenous rights that promised to rectify the history of territorial loss and poor living conditions by recognising Indigenous Peoples as full citizens. An entire chapter was dedicated to their rights, territories, social organisation, customs, language, beliefs, and traditions. During the decade that followed, efforts were made to legally recognise and regularise their territories in the form of reserves or Indigenous Lands [*Terras Indígenas*]. Based on the principle of inclusion and right to health established by the 1988 Constitution, the Subsystem of Indigenous Health [*Subsistema de Atenção à Saúde Indígena or SasiSUS*] was established in 1999 in order to address the historically poor health conditions of Brazil's Indigenous populations, caused by discrimination, loss of territory, violence, and poverty. The network of Indigenous Special Sanitary Health Districts [*Distrito Sanitário Especial Indígena or DSEIs*], administered by the Federal Government, was designed to provide primary health services in Indigenous Territories (Ministério da Saúde, and Fundação Nacional da Saúde 2002). According to the National Health Care Policy for Indigenous Peoples (Ministério da Saúde 2002), the Subsystem of Indigenous Health (SasiSUS) must provide a 'differentiated' attention, i.e., primary care that respects and articulates with Indigenous practices and knowledge. The policy also provides for 'social oversight' [*controle social*] through the creation of Local and District Health Councils, in which Indigenous representatives contribute to the planning, administrative, and evaluation activities of primary health services offered to their communities (Cornwall and Shankland 2008; 2013).

Despite the advances in Indigenous rights, the growing influence of agribusiness in the Brazilian congress (Castilho 2018) along with the election of President Bolsonaro in 2018 signalled a radical reversal to the progress made. The pandemic arrived amidst an extremely critical political situation. At the time, the government was being accused of favouring the interests of mineral and agribusiness, of

violating Indigenous territorial rights, as well as of dismantling the institutions established to protect the environment and safeguard Indigenous rights, including the Indigenous Health Subsystem designed to guarantee health services (Eloy 2020; APIB 2020; Guimarães 2021). The Bolsonaro administration promoted practices that contradicted scientific recommendations, instead advocating social practices that created conditions of contagion; for instance, by promoting unproven drug treatments and supporting the notion of herd immunity (Caponi 2020; Segata, Grisoti and Porto 2022).

The lack of action by the Federal Government due to its anti-Indigenous and negationist policies, was met by intensive mobilisation of the Indigenous movement at the national and local levels. In Brasília, the struggle of Indigenous Peoples was conducted in the congressional and judiciary branches of the government. In March 2020, federal Indigenous congresswoman Joênia Wapichana became the rapporteur of a bill demanding measures for the prevention of the spread of the SARS-CoV-2 virus and the provision of benefits in Indigenous territories. Congress approved the bill, but in July of that year the President vetoed most of it, including the provision that ensured the free distribution of water and hygiene materials.

In June 2020, the Articulation of Indigenous Peoples of Brazil (APIB) filed a lawsuit with the Supreme Federal Court denouncing the lack of coordinated action by the Federal Government. The APIB aligned with Bolsonaro's political opposition to demand that measures be taken to install sanitary barriers to isolate Indigenous communities, to expel invaders from their territories, and to deliver health services to those living in urban areas or unrecognised territories. Represented by Indigenous lawyer Luiz Henrique Eloy, APIB's legitimacy to file the lawsuit was recognised by the Supreme Federal Court. Eloy, a Terena from Mato Grosso do Sul, affirms that the recognition of APIB's right to file is a precedent for Indigenous Peoples after centuries of a subaltern legal position (APIB 2020; Eloy 2020). APIB emerged as an important actor on the national level, demonstrating the force and political expertise of Brazil's Indigenous leaders and organisations who mobilised throughout the country to defend their right to health in the wake of the COVID-19 pandemic.

Concomitantly, due to the lack of governmental transparency and the omission of the publication of epidemiological data, APIB kept records of positive cases and deaths from COVID-19 in the Indigenous population as part of its emergency response. It also mobilised community participation in an epidemiological survey through a broad network of Indigenous organisations in all regions of the country. This data, made available on the open access digital platform *Emergência*

*Indigena*<sup>6</sup>, was designed to counter the Federal Government's policy of underreporting (Fellows et al. 2021; Rosa 2021). The creation of this platform was a collective and autonomous effort aimed at giving visibility to Indigenous Peoples in the context of the pandemic. Accusations by the Indigenous movement regarding the lack of disclosure of data concerning Indigenous deaths must be understood in a wider context here. This refers to the fact that their very *existence* and the lack of recognition thereof by the state is bound up in this issue. The attempts by the government to omit data regarding mortality rates caused by COVID-19 aligns with the logic of elimination in colonial cosmography.

By the end of 2020, COVID-19 vaccines became available, and vulnerable groups were targeted for the first vaccination campaigns. Although Indigenous peoples were among those designated to receive priority, the Federal Government attempted to limit vaccinations to only those residing on officially recognised lands. This policy ignored the vulnerability and general state of poor health of all Indigenous Peoples, as well as the demands of academic institutions and civil organisations for universal vaccination coverage for this population, regardless of residence. In January 2021, APIB filed a lawsuit demanding the inclusion of Indigenous Peoples living in urban areas and unrecognised territories in this category. The approval of APIB's lawsuit in March 2021 obliged the Federal Government to include all Indigenous Peoples as a priority group for the provision of COVID-19 vaccination programmes, regardless of their place of residence.

The vaccination campaign among Indigenous groups in various regions of Brazil was met with a certain resistance, as has been the case in other parts of the world. Not only did the President publicly question the vaccine's efficacy, but also disinformation spread throughout the country through the social networks of specific ideological, partisan, and religious groups. Fake news targeted at Indigenous Peoples contributed to the opposition to vaccines by spreading false allegations, such as, that these vaccines contained lethal substances whose function was to exterminate them. Mato Grosso do Sul was not free from the effects of this disinformation.

## **The case of Mato Grosso do Sul: Repression, agency and mobilisation**

The first cases of COVID-19 among Indigenous Peoples in the state were reported in May 2020 among workers in a slaughterhouse located in the city of Dourados. As predicted by experts (Cupertino et al. 2020), it rapidly spread and 74 cases were registered within 15 days after the first case was officially confirmed. In February 2021, Mato Grosso do Sul recorded the highest rates of positive cases

6 See the APIB website: <https://emergenciaindigena.apiboficial.org/>.

and mortality among Brazil's Indigenous Peoples (Mendes et al. 2021, 930) with mortality rates twice as high as those for the region's general population (Simionatto et al. 2020).

Events that took place in the state of Mato Grosso do Sul during the initial phase of pandemic reflected the government's negationist policy of the time. Not only did it fail to monitor the advance of the disease, to stimulate adequate measures and to provide services, it also promoted activities that resulted in the spread of the virus. For instance, in July 2020 local officials sponsored a large gathering in a Terena village to announce the construction of a local highway. This event, in violation of health regulations, was followed by an outbreak of COVID-19 among the Terena that caused a significant number of Indigenous deaths<sup>7</sup>. In the wake of the crisis and failure of governmental response, local communities began to identify and record positive cases, and their findings were publicised on social media by the Terena People's Council [Conselho do Povo Terena]. Covering for the lack of local health professionals, the Special Secretary for Indigenous Health [Secretaria Especial de Saúde Indígena, SESAI] in Brasília organised a highly publicised task force made up of military health professionals that intervened just for a few days. Consequently, the Terena People's Council and other institutions petitioned for emergency care services from the Brazilian delegation of Doctors Without Borders. However, SESAI denied the request. Local Indigenous leaders renewed their demands for the aide of Doctors Without Borders with the support of APIB and scientific communities. Faced with mounting national political pressure, SESAI relented and allowed Doctors Without Borders to operate in Terena territory.

The Terena case is one example of the Federal Government's failure to respond to Indigenous demands during the pandemic. In the entire state, Indigenous leaders and health workers protested against governmental inaction and lack of adequate measures. They organised efforts against the spread of COVID-19, establishing sanitary barriers in their villages, advocating social distancing, and conducting online donation campaigns. With the funds collected through these campaigns, they were able to distribute a number of water tanks to alleviate irregular water supplies; to produce and distribute masks; and to prepare prevention and information campaigns with the use of printed materials and through radio programmes delivered in Indigenous languages. These groups of Indigenous leaders and health workers also advocated the value of traditional collective healthcare practices, including the use of plants and teas, prayers, and rituals (Dias-Scopel et al. 2021; Scopel and Dias-Scopel 2021; Benites, Monfort, and Gisloti 2021; Veron and Guimarães 2020). Social distancing was promoted as

7 It is assumed that contact with one of the officials, who tested positive a few days after the event, was the origin of the outbreak (CIMI 2020, Governo do Mato Grosso do Sul 2020).

a traditional practice that had been learned from the elders who had experienced previous epidemics, for instance. The range of strategies employed by these communities demonstrates not only efforts to combat COVID-19, but also attempts to deal with the chronic lack of infrastructure and public services that have been denied to Indigenous peoples over the years, thus resulting in the syndemic interaction between the virus and poor health conditions.

Beginning in January 2021, the Indigenous social actors intensified their efforts in the face of a resurgence of the disease and a tsunami of fake news related to the vaccine. These social actors included not only political leaders [*caciques*], but also teachers, Local and District Health Councillors, and Indigenous professionals contracted as part of health teams. These various actors were at the forefront of local initiatives that included administering diagnostic tests for COVID-19 as well as demanding and later supporting the vaccination campaign. Their networks also continued to disseminate information, promoting preventive measures and social distancing. They also countered misinformation, seeking to alleviate doubts and uncertainties and debunk rumours among the communities served. Some leaders created community radio programmes or sponsored the circulation of loud-speaker announcements disseminating guidance to the local population. Campaign efforts continued in order to obtain and distribute donations, such as food, masks and hygiene materials, and to stimulate traditional self-care practices. Such actions reflect the capacity of local organisations to respond to crisis in a context of limited and scarce resources. In addition, the Indigenous logic of collective participatory actions clashes with colonial cosmography and its logic of elimination. This is because both political activism and collective self-care practices intend not only to cure, but also to ensure biosocial reproduction and better conditions of life.

Indigenous employees of the official health services, particularly the Indigenous Sanitation Agents (AISANs) and Indigenous Health Agents (AISs), played a particularly important role in the communication network that supported communities and combatted misinformation in early 2021. Their contribution was a continuation of their role as members of health teams, in which they are responsible for delivering certain primary healthcare activities and communicating between community members and the health team. As Briggs (2005, 2017) has argued, communicative inequalities contribute to the aggravation of health conditions and to the maintenance of the reproduction of asymmetrical structures of power and unequal distribution of medical resources. In the context of the pandemic, their communication networks, social insertion, and engagement in the communities enabled them to unify and contribute independently to the dissemination of information about COVID-19, transmitting and clarifying information originating from health teams and countering the circulation of fake news.

During February 2021, the Indigenous Sanitary District of Mato Grosso do Sul received 13,848 vaccines. Although destined for Indigenous communities, the state began to distribute them to non-Indigenous groups, alleging that many members of the Indigenous population had refused to be vaccinated. Health officials blamed this lack of uptake on the circulation of fake news that warned against the vaccine's effects. However, fake news was not the only factor operating in the campaign's failure to achieve full vaccination coverage. Indigenous organisations have been correct in pointing out that operational inefficiency and authoritarian management also played a part.

One case, that of the Ofaié Indigenous Land, illustrates the complexity and symbolic violence that surrounded the state's COVID-19 vaccination campaign. The Ofaié, a small group located in the southeastern part of the state, were among the first to receive the vaccination in their municipality, along with the elderly in nursing homes and health professionals. However, even before the vaccination campaign had begun, there was deep mistrust among the Indigenous population living there. In a telephone interview carried out on 2 March 2021, an Indigenous nurse reported: 'They hear people say they [the vaccinations] are going to kill Indigenous peoples. It's the same story with the flu, that the flu vaccine came to kill the elderly, it came to kill the Indigenous Peoples'. This mistrust was further exacerbated when municipal health professionals who were unfamiliar with the community were employed to administer the vaccine, rather than employing the DSEI health team that normally attended the community for the purpose. To make matters worse, the municipal workers were accompanied by a police escort at the start of the vaccination campaign, causing further mistrust, collective resistance, and indignation among the community. As expressed by an Indigenous Health Councillor in a telephone interview on 4 March 2021:

She (the Municipal Health Secretary) did not want to give the vaccine to the Indigenous health team. She came with the police in order to vaccinate the population. She went to our homes here with the police to vaccinate. So how can you knock at the door of a residence accompanied by the police and expect to administer the vaccine? After that day was over, she withdrew the vaccine. It was a very horrendous strategy on their part. Here the municipality is still very prejudiced against the Ofaié Indigenous population. Unfortunately, here we talk softly and they talk loudly.

The case of the vaccination campaign among the Ofaié reflects the widespread prejudice against Indigenous Peoples in which physical and symbolic violence is naturalised. It also helps in understanding the complex factors at play behind the Federal Public Ministry's statement in June 2021, that the 'vaccination of Indigenous peoples failed' in Mato Grosso do Sul. Official data indicated that only

half of the Indigenous inhabitants had received the second dose of the vaccine (Ministério Público Federal em Mato Grosso do Sul 2021). In addition, it demonstrates the authoritarian and militarised nature of inter-ethnic relations and asymmetrical power relations between Indigenous Peoples and health service providers. Fake news allied with the authoritarian municipal government clouded the communities' understanding and reception of the vaccine. The campaign's poor outcome occurred within a larger context of Indigenous resistance and contradictory information, circulating in a region where colonial cosmography is praxis, even among public health workers whose symbolic violence is expressed through discriminatory and authoritarian actions.

## **Indigenous participation in the institutional spaces of health services**

The establishment of Indigenous Health Councils, both on a local and district level, is part of the National Health Care Policy for Indigenous Peoples (Ministério da Saúde 2002), which was enacted to create institutional spaces for the participation of Indigenous representatives in the planning, administration, and evaluation of the services delivered to their communities. Despite analyses that point to the limitations of Indigenous autonomy and participation on these councils (Diehl and Langdon 2018; Langdon and Diehl 2020; Teixeira and Dias da Silva 2019), the Indigenous movement recognises such representational spaces as strategic. The initiatives taken by Indigenous Health Councillors during the pandemic demonstrate that participation in these public forums provided them with opportunities to acquire knowledge and develop skills. This enabled them to become protagonists in advocating for their rights as citizens, along with other Indigenous leaders. Thus, some of them have assumed a position of leadership in negotiations and dialogues with public administrators and politicians and in collective actions and protests (see also Dias-Scopel et al. 2021; Scopel and Dias-Scopel 2021). During the pandemic, many of the Indigenous Health Councillors remained active in their villages of origin and promoted political mobilisation through their social media networks.

In addition to their active participation in the attempts to contain and alleviate the effects of COVID-19 in the Indigenous villages, these actors confronted the actions of non-Indigenous District administrators to dismantle the Indigenous District Council as well as to undermine the health delivery services. As described below, the actions of District administrators echoed the authoritarian policy established by the Bolsonaro.

The coordinator of the Indigenous Special Sanitary Health District of Mato Grosso do Sul disrespected and attempted to undermine the right to participation of its

Indigenous representatives. During the pandemic, in-person Indigenous District Health Council meetings were cancelled, ignoring Indigenous requests. A few meetings were held virtually, but the Indigenous Councillors argued that virtual meetings failed to guarantee adequate discussion and participation.

In addition, problems at the national level of the Ministry of Health undermined the Indigenous Special Sanitary Health District services. In April 2020, a dispute arose between President Bolsonaro and Health Minister Luis Henrique Mandetta about the efficacy of chloroquine and the need for a social distancing policy, causing Mandetta's resignation. In May 2020, Bolsonaro appointed General Eduardo Pazuello as the new minister, a military professional with no prior experience in health administration. Pazuello initiated a process of militarisation of the Ministry of Health, and several military officers assumed leadership positions. In the case of Mato Grosso do Sul, Pazuello's administration appointed a military colonel as coordinator of the Indigenous Health District in Mato Grosso do Sul in September 2020.

The appointment of the colonel as District Coordinator resulted in a turbulent period in the district because of a series of incompatible attitudes and practices. His administration was characterised not only by conflict but also by the lack of dialogue with Indigenous leaders. In December 2020, the District Coordinator was involved in a conflict with Indigenous leaders and health councillors during a visit to a Terena village. Echoing the anti-Indigenous discourse of right-wing congressmen, he spoke against the Indigenous and Tribal People's Convention (no. 169), of the International Labour Organisation, causing surprise and anger among those present. On another occasion, he was also accused of racism and violence against an Indigenous health councillor.

After health professionals were dismissed under the colonel's watch, a climate of fear ensued, impacting primarily upon the Indigenous workers but also extending to the non-Indigenous employees, who were afraid to speak out because of possible reprisal. In December 2020, several experienced Indigenous professionals were sacked on the grounds that they did not fulfil their obligations or respect the team hierarchy, which resulted in protests. The apparently arbitrary dismissals surprised Indigenous leaders and health councillors, who recognised many of these individuals as capable and committed to the functioning of the health services. Among them were individuals who had played leadership roles during the pandemic and had participated in the activities described above to help their communities. In addition, they were instrumental throughout the state in seeking partnerships with private and public entities for support in the absence of action by the Federal Government.

The colonel's dismissals and threats to workers were seen by many Indigenous professionals as attempts to cover up operational and management problems. An Indigenous Health Councillor expressed in a telephone interview on 1 March 2021 that 'The coordination is so bad in Dourados, as well as that of all of the district, that he is only doing a make-up job'. The Indigenous organisations also joined the protests and denouncements of the District coordinator. The organisations *Aty Guasu* (of the Kaiowá and Guarani Peoples) and the *Conselho Terena* claimed that his actions were carried out in an authoritarian manner, without dialogue, and that their right to consultation and participation had been denied.

As a consequence of this generalised revolt, Indigenous demonstrators occupied the Special Sanitary Health District's administrative centre of Dourados between 3 May and 11 May 2021, demanding the dismissal of its non-Indigenous administrative director and that of the military District coordinator. They accused them of being behind the dismissals and of psychologically harassing Indigenous workers. Over a nine-day period, they occupied the headquarters, and communicated their protest through banners and social media. Messages calling for 'no more persecution', 'no dictatorship', and 'no more moral harassment' were disseminated through images, audio files, and texts on the protest in Dourados. Following the strategies of national Indigenous protests employing social networks and media to gain visibility in the struggle for rights (Hanna et al. 2016), in Mato Grosso do Sul, social media emerged as an important strategy in the spread of accusations of authoritarianism and lack of dialogue with health-system managers as well as protest against dismissals. The protest succeeded in removing the director of the Dourados administrative centre. The District Coordinator was dismissed on 27 May 2021, and his dismissal was followed by allegations of political persecution and authoritarianism. According to a note circulated in social media by the *Aty Guasu* organisation of the Kaiowá and Guarani, 'those who work for Indigenous health are being persecuted and threatened'.

During the colonel's short tenure as District Coordinator, the health services and the social participation of Indigenous People were undermined. His actions aligned with the pandemic management policies imposed by President Bolsonaro. Scientific denial, attempts to hide data on deaths, defense of unproven medicines against COVID-19, as well as misinformation about the effectiveness of vaccines were just some of the accusations levelled against the Federal Government and Bolsonaro's policies. Delays and failures in healthcare delivery led to allegations that genocide had been committed against Indigenous People.

The allegations of intentional governmental failure in providing adequate healthcare reflect a widespread claim that generalised violence against Indigenous Peoples increased under the Bolsonaro government. The *Conselho Indigenista*

*Missionario's* (Indigenous Missionary Council (CIMI)) annual report, *Violence Against Indigenous Peoples of Brasil*, affirms, 'Under Bolsonaro, violence and impunity against peoples have been naturalized' (Rangel e Liebgott 2022, 16). The ethnographic data presented here points to the government's responsibility for the actions that lead to the intensifying of structural violence and necropolitical strategies during the pandemic. It also demonstrates how Indigenous social participation and political activism resisted and opposed the colonial cosmography and its logic of elimination.

## **Final considerations**

The continual expansion of colonial cosmography has impacted dramatically upon Indigenous health. When the SARS-CoV-2 virus struck, Indigenous populations were already living in circumstances of environmental degradation, food insecurity, racism, and structural violence. The outbreak added to the already severe disease burden. As a syndemic, COVID-19 impacted disproportionately upon Indigenous Peoples. In addition, its impact was enhanced by the Brazilian Federal government's disastrous policy and mismanagement of the sanitary crisis.

The pandemic demonstrated that, despite existing power asymmetries, Indigenous communities are not passive or mere recipients of public policy. They articulate diverse initiatives and mobilisations, and demand the right to territory and the right to health, and simultaneously implement collective health practices in their communities. Indigenous activism represents an important front in the struggle against colonial cosmography. Their actions, based on the logic of social participation, oppose the colonial logic of elimination. The authors suggest that Indigenous activism is founded on a broader conception of health, in which the body and territory are intertwined, and social participation is part of collective self-care practices. Without this understanding, Indigenous agency would be interpreted merely as a reaction to the state's omissions, rather than a collective and vital enduring project.

For decades, Brazilian Indigenous leaders have emphasised the relation between the body and land in their dialogue with non-Indigenous societies and in defence of their rights. The relationship between territory and health was clearly expressed by Indigenous leaders participating in the First National Conference of Indigenous Health in 1986 (Uni 1988). This position has been reaffirmed over the decades in a variety of different contexts. With the advent of COVID-19, Indigenous organisations constructed their actions upon the awareness of the relation between territorial loss, ecology, and disease.

In the clash of cosmographies, the permanency of Indigenous Peoples in the landscape confronts colonial cosmography as hegemonic social order. However,

the Indigenous resistance is more than a reaction to colonial invaders, for its roots are embedded in their particular cosmographies and their vision of the past and future collective continuity that seeks better health conditions and quality of life.

Indigenous cosmographies point to human agency and responsibility in the production of ecosystems, as exemplified by the Guarani and Kaiowá concept of *tekoha* in which territory connotes an environmental landscape in which the Indigenous way of being is lived: ‘if the *tekoha* is sick, the body gets sick and vice versa’ (Benites, Monfort, and Gislotti 2021, 55). Health and territory have an intrinsic relationship, and Indigenous Peoples understand that the regeneration of ecosystems is a necessary condition for the biosocial reproduction of collectivities.

Indigenous collective political projects are characterised by a clear intention to create better conditions for biosocial reproduction. According to Portela Guarin (2003), this intentionality is well described by the Spanish word *perdurar* (to persist). *Perdurar* is a concept shared by many Indigenous Peoples and is central to Indigenous cosmographies. As Portela Guarin attests, among the Andean communities in southwestern Colombia the word *perdurar* signifies more than just survival:

[...] *perdurar* is balance, harmony and well-being and in the search for it, it is necessary to put into practice, in daily life, community ethics (cultural norms) that guide individual and social conduct and relate with the environment as a global system of thought, a product of the exercise of apprehension and significance that is made of the cosmos to understand, explain and project it in the forms of intercultural relationship (2003, 63, our translation).

Awareness of the notion of *perdurar* and its meaning for Indigenous Peoples can help contextualise their motivation to contribute to general debates about the future of the planet, such as those that have emerged from the discussions about the Anthropocene. They seek to be part of an international discussion in order to become politically visible. Simultaneously, participation on the international political scene serves as a strategy to exert pressure on the national and regional agents of colonial cosmography.

The sanitary crisis highlighted the Federal Government’s role in the clash of cosmographies. The pandemic was used by the government as an opportunity to advance settler colonial logics of elimination (Wolfe 2006) in Mato Grosso do Sul, but it was effectively countered with a counterhegemonic force in the form of care practices and activism that is rooted in Indigenous cosmography. In addition, throughout Brazil, Indigenous activism has contributed to making visible the situations of social injustice and discrimination that have impacted negatively on

the health conditions and capacity to respond to the COVID-19 pandemic (Baniwa, Tuxá, and Terena 2020).

In the clash of cosmographies, Indigenous agency confronts colonial cosmography and its logic of elimination while at the same time participating in a transnational perspective that struggles against the apocalyptic future envisioned in the Anthropocene debate. As Davis and Todd (2017) point out, decolonising the Anthropocene has as much to do with the ability to identify continuing structural asymmetries as it has with recognising the violence of the past. Indigenous Peoples call for a more inclusive and decolonised notion of health to create a better future for all in the Anthropocene. They position themselves as political actors who demand to be placed at the centre of important decision-making processes that affect the planet. The Indigenous youth activist Txai Surui affirmed this when she addressed world leaders on the opening day of the United Nations Conference on Climate Change (COP26), asking that Indigenous Peoples' 'ideas to postpone the end of the world' be heard (Krenak 2019).

For Hill, Indigenous knowledge is the 'radical critique of the structures and epistemologies of power that fuelled colonial and national state expansions' (2020, 297). Moreover, it must be recognised that: 'We cannot persist in reducing Indigenous people to social militancy, when it embodies an infinite wisdom that can enrich our own knowledge' (Breilh 2020, 14). In this sense, as a counterpoint to antidemocratic and necropolitical trends in the current Anthropocene, there is an urgent need for the implementation of inclusive policies that articulate with Indigenous voices and that promote participation and the reconfiguration of asymmetrical power relations.

## Authorship statement

Dias-Scopel and Scopel participated in all phases of the research, including the project design, ethnographic fieldwork, analysis, draft writing, and critical revision. Langdon collaborated in the writing and critical revision of the article and is responsible for the translation into English.

## Ethics statement

The research complied with Brazilian ethical protocols and was approved by the National Council of Ethics in Research (Conselho Nacional de Ética em Pesquisa/CONEP – number CAAE 10397419.5.0000.5248).

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## About the authors

*Raquel Dias-Scopel* is Senior Researcher in Public Health at the Oswaldo Cruz Foundation/Mato Grosso do Sul, and holds a doctorate in social anthropology from the Federal University of Santa Catarina, Brazil. She has conducted research among Indigenous Peoples in Southern and Central-Western regions of Brazil as well as in the State of Amazonas. She coordinates research in medical anthropology and public health policy for Indigenous Peoples. Her primary research interests are medical pluralism, health/disease/attention-prevention processes, sustainability and social participation.

*Daniel Scopel* is a researcher associated with the National Institute of Research: Brazil Plural, and holds a doctorate in Social Anthropology from the Federal University of Santa Catarina, Brazil. He participated as a post-doctoral investigator in the COVID-19 Humanities Network Ministry of Science, Technology and Innovation (MCTI), in 2021. He has held a research grant from the Oswaldo Cruz Foundation/Mato Grosso do Sul since 2022.

*Esther Jean Langdon* is a CNPq researcher and Coordinator of the National Institute of Research: Brazil Plural – IBP (CNPq/INCT), as well as co-coordinator of IBP's research network Health, Local Practices, Experience and Public Policy. She holds a doctorate from Tulane University and retired as a full professor from the Federal University of Santa Catarina in 2014 and remains active as advisor and voluntary professor. Her articles and books on shamanism, anthropology of health, oral literature, and performance are published throughout the Americas and Europe.

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