

Better alone than in bad company: contact and contagion with isolated and recently contacted indigenous people in Brazil and challenges for their protection and health care


Antes sós do que mal acompanhados: contato e contágio com povos indígenas isolados e de recente contato no Brasil e desafios para sua proteção e assistência à saúde

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Abstract

The purpose of this article is to present and discuss the vulnerability of indigenous people in voluntary isolation due to epidemics resulting from contact with representatives of our society and to point out the challenges for health care in situations of imminent contact. Based on the authors' experience in the health care of isolated and recently contacted indigenous communities and on information in the indigenous literature, examples of the high mortality that affected some indigenous peoples in periods after break of their isolation state are presented. The article updates the existing information on isolated indigenous peoples in Brazil, discusses the indigenous policy formulated for them, the threats to which they are subjected by the advance of the illegal invasion of their territories and alerts to the possibility of new contacts of these groups and the surrounding society, in current context of attack on indigenous rights aggravated by the COVID-19 pandemic. It contextualizes the susceptibility of isolated indigenous peoples, the need to be ready for future situations of contact and measures to avoid contagion when the isolation of these peoples is interrupted.

Keywords: South American Indians; Isolated Indigenous Peoples; Indigenous Health.

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Resumo

O objetivo deste artigo é apresentar e discutir a vulnerabilidade de povos indígenas em isolamento voluntário a epidemias decorrentes do contato com representantes de nossa sociedade e apontar os desafios para a assistência à saúde nas situações de contato iminente. A partir da experiência dos autores na atenção à saúde de comunidades indígenas isoladas e de contato recente e de informações existentes na literatura indigenista, são apresentados exemplos da alta mortalidade que incidiu sobre alguns povos indígenas em períodos posteriores à quebra de seu estado de isolamento. O artigo atualiza as informações existentes sobre povos indígenas isolados no Brasil, discute a política indigenista e as ameaças a que estão submetidos esses povos pelo avanço da invasão ilegal de seus territórios e alerta para a possibilidade de novos contatos entre esses grupos e a sociedade circundante no contexto atual de ataque aos direitos indígenas agravados pela epidemia de covid-19. Contextualizam-se a suscetibilidade dos povos indígenas isolados, a necessidade de preparação para futuras situações de contato e medidas para evitar o contágio quando ocorrer a quebra do estado de isolamento desses povos.

Palavras-chave: Índios Sul-Americanos; Povos Indígenas Isolados; Saúde Indígena.

The occupation of the Brazilian territory by Paleo-Indian populations occurred more than 12 thousand years ago. In addition to the oldest migratory theories, from the northeast of Asia, using the strip of land called Beringia, also known as Bering Land Bridge, there are discoveries in archaeological sites in the southeast of Piauí, in Bahia and in Minas Gerais that show evidence of human occupation in Brazil dating at up to 25,000 years, suggesting other ways of migration, such as crossing the Pacific by coastal navigation and between islands (Guidon, 1992). Although theories may differ as to numbers and migratory routes, there is a consensus that the American continent was intensely populated when Europeans arrived (Cunha, 1992).

A precious document, the ethno-historical map made by the ethnologist Curt Nimuendaju, counted 1,422 indigenous peoples, 40 language families and 33 isolated languages, recording the immense dispersion and diversity of people that inhabited the Brazilian territory when the Portuguese arrived (IBGE, 1987).

Methods

This essay refers to the personal experience, field records and reports of the authors, who participated in episodes of contact with isolated indigenous groups. It is also based on a review of the existing bibliography on the history of contact between colonizers and indigenous peoples from the sixteenth century onwards, on authors' participation in forums on the protection policy for isolated indigenous peoples in Brazil, and on the experience of elaborating Joint Ordinance no. 4,094/2018, which defines principles, guidelines and strategies for health care for isolated and recently contacted indigenous peoples.

Contact and contagion: vulnerability and depopulation

The first expedition of colonizers to descend the Amazon River, in 1542, reported that the more they entered the territory, the better the land was, and more densely populated. They refer to

the indigenous people as healthy people, affected by few diseases. In 1550, the Jesuit Manuel da Nóbrega wrote that he had never heard that someone had died of fever, but only of old age (Hemming, 2007).

Viruses and bacteria, especially viruses, acted as real biological weapons in the conquest of the New World. Epidemics were responsible for the extremely high mortality that followed contact with Europeans, leading several indigenous peoples to extinction. One of the most comprehensive studies on population estimates for the American continent in the period before the arrival of Europeans was performed by Henry F. Dobyns (1966), who, when revisiting data from various authors, concluded that at the end of the fifteenth century from 90 to 112 million people could be living in the Americas. What followed after contact with Europeans was one of the greatest biological catastrophes in history (Cunha, 1992).

Among the diseases acquired by native peoples living with non-indigenous societies, influenza, smallpox, measles, chickenpox, tuberculosis, malaria and sexually transmitted diseases are the most cited as causes of epidemics that produced high mortality (Hemming, 2007; Ribeiro, 1996).

It occurred with the Kaingang from São Paulo, who had their population reduced by less than half in the first years after contact, according to the report by Dr. Luiz Benedito Horta Barboza, from the Indian Protection Service (SPI), who witnessed what happened:

Only this nuisance, influenza or cofuro as they called it for not knowing it prior to the contact with us, has killed more than half of the children, women and men who existed in the beginning of 1912 until now! There was even a group, the Congue-Hui (leadership name), which was completely annihilated in the short space of a few days. This was from March to April, 1913. When news that the

people of that chief were dying of cofuro reached us in Ribeirão dos Patos, the province's selfless assistants headed to the place; but when they arrived, they found nothing but bones on the dirt! (Ribeiro, 1996, p. 306)

Noel Nutels (1968), a sanitary doctor who pioneered the health care of indigenous populations in Brazil, reports the death of 25 Kalapalo indigenous people in 1946, due to an influenza epidemic that followed their first contact with the Roncador-Xingu Expedition. In 1950, a new epidemic of the disease killed 12 people among the Kamayurá. In 1954, in what would become the Xingu Indigenous Park, a measles epidemic that affected 654 people caused 114 deaths, a lethality rate of 17.4%, even with the medical care available at the time (Costa, 1987; Nutels, 1968).

Influenza and malaria were also the main causes of death among the Panará during the period of approach and contact, between 1967 and 1973. The survivors report that while they fled the attraction front *sertanistas* of the National Indian Foundation (Funai), many began to present cough, fever, chest pains, symptoms that caused adults' and children's quick death. Tesseia, one of the survivors, tells about the "time when everyone died" (Arnt; Pinto; Pinto, 1998; Rodrigues, 2013).

In Brazil, there are no systematic records on the impact on mortality after isolated indigenous groups being contacted. Existing information indicates that the epidemics that followed the interruption of isolation have led to large population reductions in most groups contacted in the past. Population loss can reach alarming proportions, as shown by some illustrative examples, drawn from different sources of information (Chart 1). In the period after contact, some groups managed to achieve a certain degree of accommodation, including with marriages to other ethnicities, which allows them to survive, while others continue to decrease until they disappear.

Chart 1 – Contact and depopulation of isolated indigenous peoples in Brazil and main causes of death, Brazil, 1912 to 1986

Name	Language family	Contact period	Population at the beginning of the period	Population at the end of the period	Mortality (%)	Main causes of mortality
Kaingang de SP	Jê	1912-1956	1,200	87	92.7	Flu, measles, gonorrhoea, smallpox
Karajá	Karajá	1940-1956	4,000	1,000	75.0	Influenza, measles, malaria, tuberculosis
Xokleng Santa Catarina	Jê	1941-1943	400 to 600	106	73.5 to 82.3	Measles, influenza, whooping cough, gonorrhoea
Nambikwara	Nambikwara	1948-1956	10,000	1,000	90.0	Flu, malaria, measles, tuberculosis
Urubu Kaapor	Tupi-Guarani	1950-1951	750	590	21.3	Measles
Asurini Tocantins	Tupi-Guarani	1953-1962	190	35	81.5	Flu, measles, chickenpox
Upper Xingu Groups	Aruak, Karib, Tupi	1954-1955	650	536	17.5	Measles
Gavião Parkatêjê	Jê	1956-1966	580	176	69.6	Influenza, malaria
Aikeawara	Tupi-Guarani	1960-1965	126	34	73.0	Influenza, smallpox
Panará	Jê	1967-1975	450	79	82.4	Influenza, malaria
Parakanã	Tupi-Guarani	1970-1972	180	86	52.2	Influenza, malaria
Waimiri-Atroari	Karib	1971-1986	1,500	347	76.8	Influenza, malaria, violence
Awá-Guajá of Alto Turiaçu	Tupi-Guarani	1976-1981	91	25	72.5	Influenza, malaria, visceral leishmaniasis
Suruí Paiter	Mondé	1980-1986	800	200	75.0	Measles, tuberculosis

Source: ISA,¹ Ribeiro (1996), Schwartzman (1996) and Hemming (2007)

In isolation, these populations maintain a stable relationship with infectious disease agents present in their natural habitat, in a state of balance and demographic growth.

The introduction of new viruses and bacteria, previously unknown, breaks this balance and causes many people to fall ill at the same time, causing many deaths.

¹ ISA - INSTITUTO SOCIOAMBIENTAL. *Povos indígenas no Brasil*, [s. l., s. d.]. Available from: < pib.socioambiental.org >. Access on: Sept. 16, 2018

Among the factors that explain the high mortality as a result of contact is the lack of immunological memory of the group for the infectious agents introduced by the contact agents and, to some extent, the genetic homogeneity of the isolated groups due to consanguineous marriages. Studies show that indigenous people produce antibodies like anyone else (Black; Woodall; Pinheiro, 1969), which somehow dismisses the idea that these people did not have adequate immunological competence. The community lifestyle, with houses that accommodate greater number of people, from another conception of family, with large sharing of objects and lack of access to vaccines and health care, also help explain the rapid transmission of infectious diseases and harm to the social organization and its livelihood.

In a village of isolated indigenous people, everyone is equally susceptible, and epidemics set in quickly. In a few days everyone gets sick. This breaks the group's economy, as there is no one who can look for food in the fields or collect it in the forest, bring water to the homes or care for the sick, as the *sertanista* Wellington Gomes Figueiredo described when recalling an influenza epidemic among an Arara group, a few months after contact, in 1981.

[In] about half a day [walking] we arrived at a village. And everyone stood there, afraid to go there, so as not to be attacked [...] then a child of about seven years old appeared [...] appeared at the door of the *maloca*, with a bow and arrow, facing us. Within

the *maloca*, everyone was debilitated [...] without strength for anything else. There was only one woman who was a little healthier, Kutê [...]. She and that boy, Tanti, who were healthier, in a way, were the ones who fed everyone else. Everyone else in the group was on the hammocks. (Milanez, 2015, p. 281)

Mapping the contact: serological and affective scars

The Panará

The Panará were officially contacted in 1973, due to the construction of the Cuiabá-Santarém road. Contact led about 82.4% of its population to death, due to illness and violence (Schwartzman, 1996).

In order to document the infection of the Panará by the influenza virus, hemagglutination tests were carried out with samples of viral chains of virus subtypes that circulated at different periods. It was possible to verify that none of those examined had antibodies against the influenza viruses that circulated in the world until 1967, when Funai attraction front's work began (Chart 2). Only 5% of contact survivors had antibodies against influenza viruses that circulated until 1973, the year of official contact, and 55% of survivors had antibodies against influenza viruses that circulated until 1980, the year the study was conducted (Nascimento et al., 1985; Rodrigues, 2013).

Chart 2 – Seroprevalence of antibodies against different subtypes of influenza viruses that circulated between 1967 and 1980 in Panará adults who survived contact with our society

Contact period	Up to 1967	1967-1973	1973-1975
Stages of the attraction and contact process	Isolation	Contact attempts and escapes	Official contact and two years of stay near the Cuiabá Santarém highway (BR 163)
Presence of anti-influenza antibodies	No antibody detected	Antibodies detected in 5% of survivors	Antibodies detected in 55% of survivors
Population	Between 450 and 600 (estimate)	Between 140 and 150 (Funai)	79 (group that was removed to the Xingu Indigenous Park)

Source: Nascimento et al. (1985)

The Zo'é

The Zo'é were initially contacted by missionaries from the New Tribes Mission of Brazil in Pará, between 1985 and 1987. A few months after contact there was a large number of deaths from malaria and respiratory infections, which led Funai to expel missionaries from the region, setting up a structure for surveillance and health care in the territory (Simões; Pinto; Pena, 2016). Two years after contact with the Zo'é, a survey of 34 adults over 15 years old revealed that all had IgG antibodies against falciparum malaria, 17 people had antibodies to cytomegalovirus, and seven had antibodies against toxoplasmosis. All samples were negative for rubella, syphilis, *Chlamydia trachomatis*, chickenpox, measles, hepatitis A and B, showing that they had never had contact with these infectious agents (Rodrigues, 1989).

The "isolated people of Xinane"

Contact with the group of isolated indigenous people from the Xinane stream, whose self-denomination is still unknown, occurred in June 2014, on the Upper Envira River, in the state of Acre. Tests were performed to detect antibodies (IgG and IgM) against hepatitis A and B, toxoplasmosis, measles and non-treponemic antigens (VDRL) in 15 individuals who appeared to be over 15 years old, from the initial group of 35 who were contacted.

None had antibodies against hepatitis A and B, and five individuals had antibodies against toxoplasmosis, of which two had IgG and IgM titers. Only one teenager, about 16 years old, had antibodies (IgG) against measles, which may indicate previous contact with the disease, even with the group in a situation of voluntary isolation.

The "isolated people of Xinane" reported several deaths from gunshots and illnesses with fever, cough and chest pain. These deaths would have been decisive for the group to seek contact, showing that this can occur with invaders of the territory or with indigenous groups that already have relations with our society, which can infect the group, leading to deaths without

the government agents responsible for their protection being aware.

With regard to the 35 people in the contacted group, six had anemia (Hb<12g/dL). The nutritional status, calculated by the body mass index, showed low weight in four people (BMI <18.5) and eutrophy in the others (BMI between 18.5 and 25). No case of overweight or obesity was found (Rodrigues, 2014b).

Memories of suffering

Talking to the older people of several indigenous peoples who have gone through periods of epidemics in their history, it is common to learn memories of suffering, loss and social disorganization that have taken place. Many peoples or family groups have fled into the woods to avoid catching the disease. Even today, people or families go to the forest and make camps to escape epidemics. Recently, during the H1N1 epidemic in 2009, several groups have hidden in the forest. In 2020, with the COVID-19 pandemic, they repeat this movement due to memories of previous episodes.

For these peoples, the disease appears as a reflection of the loss of balance, of breaking rules. Therefore, during an epidemic, in which many people fall ill at the same time, imbalance and disorder have another dimension in explaining their cause. Shaman Davi Yanomami addressed the matter in an interview with anthropologist Bruce Albert in 1990:

Bruce - I would like you to tell what the Yanomami say about the epidemics that are devastating their territory because of the gold mining invasion.

Davi - I'm going to tell you what we think. We call these epidemics xawara. Xawara that kills the Yanomami. That's what we call epidemic. Now we know the origin of xawara. At first, we thought it spread by itself, without cause. Now it is growing a lot and spreading everywhere. What we call xawara, our ancestors have long kept this hidden. Omamë [the creator of Yanomami humanity and its cultural rules] kept the xawara hidden. He kept it hidden and didn't want the Yanomami to mess with

it. He said: “No! Don’t touch that! “That is why he hid it in the depths of the Earth. He also said: “If it stays on the surface of the Earth, all Yanomami will start to die for nothing!” [...] When white men take the gold from the ground, they burn it, stir it over the fire as if it were flour. Then smoke comes out of it. That is how xawara is created, which is this smoke of gold. Then, this wakëxi xawara, this “smoke epidemic,” is spreading in the forest, where the Yanomami live, but also in the white men’s land, everywhere. That’s why we’re dying. (ISA, 1990, p. 1)

Indigenous policy and isolated indigenous peoples

The creation of SPI, in 1910, redesigned the relationship of the Brazilian State with indigenous peoples. Influenced by enlightenment and evolutionist ideas, Marshal Cândido Mariano Rondon, at the helm of SPI, initiated a new paradigm in Brazilian indigenous policy, of a protectionist character, generating actions of **attraction** and **pacification** of the indigenous people. Generally, gifts, illnesses and medicines were taken in these encounters.

This policy, although it ensured the survival of some peoples, excluded them from access to information and training, which would guarantee dialogue and greater interlocution with national society. On the contrary, pacification often led to social disruption, hunger and misery, as we saw in the 1970s, with the construction of major roads, infrastructure works and colonization projects in the Amazon, during the military government. The “economic miracle” caused enormous death and brought several indigenous peoples who lived isolated from our society to the verge of extinction (Davis, 1978).

This policy of attraction, contact and pacification began to be revised in 1987, during the first meeting of Funai indigenous people experts, in the wake of the country’s redemocratization movement. The final document of the meeting, signed by experienced *sertanistas* who had participated in missions of attraction

and pacification of isolated indigenous people, established the foundations for the paradigm shift in Brazilian indigenous politics:

The concept of protection for the isolated indigenous people has to be reformulated [...] the act of contact should only occur when, evidently, that isolated group is no longer able to withstand the farms surrounding and invading its territory. When uncontrollable compulsions occur, then, the act of contact would be an essential measure of protection [...] It is necessary to immediately map all isolated groups in Brazil [...] Funai should immediately interdict the territories where they live [...] exercise system surveillance and protection around it, in the strict sense of preserving the isolated group that is included there. (Encontro..., 1987, p. 4)

As a result of this historic meeting, the System for the Protection of Isolated and Recently Contacted Indians was created, still in force, whose main strategy is non-contact, monitoring and accumulation of information about isolated groups and the interdiction, demarcation and protection of their territories. This system works based on structures maintained in the territories where groups of isolated indigenous people live, called “Ethno-Environmental Protection Fronts,” which are mostly composed of Funai indigenous people experts and indigenous collaborators (CTI, 2016).

Why do we have to be ready for new contacts?

Brazil has the largest confirmed presence of isolated peoples worldwide, an immense wealth of cultural and social diversity. Regarding the 114 records listed by Funai’s General Coordination of Isolated and Recently Contacted Indians (CGIIRC), 28 are confirmed and 86 have being studied to ascertain their existence (UNHRC, 2020). They are called “indigenous peoples in voluntary isolation” and these are, in most cases, fragments of peoples that opted for isolation in reaction to traumatic experiences of contact with representatives of our society. The term “voluntary” refers more to a

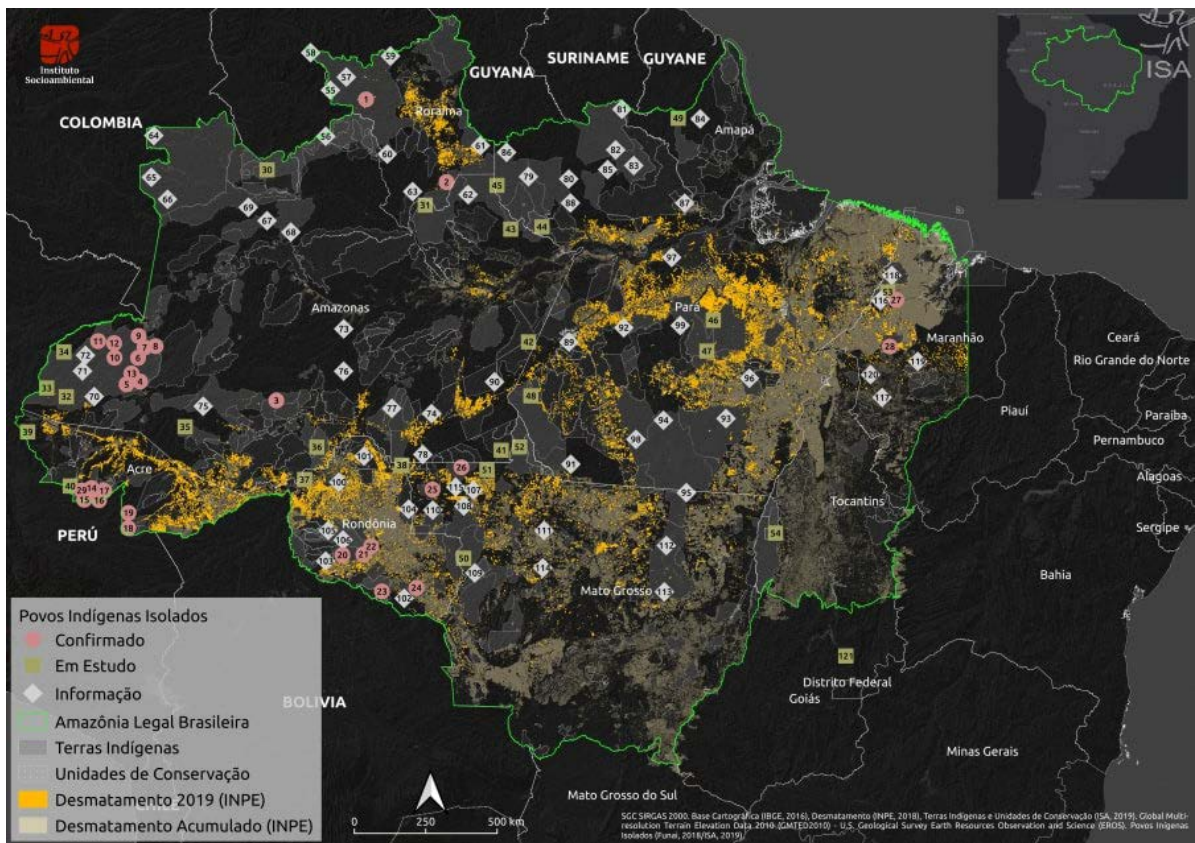
survival strategy than to a spontaneous option for life in isolation (Vaz, 2011).

The concentration of isolated groups in remote areas of the Brazilian Amazon and bordering countries suggests migration to safer places. It is like an escape from projects for the exploitation of natural resources and major infrastructure works, land grabbing, mining and illegal logging that are approaching the land they occupy (Figure 1). It is possible that we will have a growing identification of new isolated groups, as these activities advance towards the interior of the region.

Developmental ideas for exploiting the Amazon remain hegemonic in the governments that succeeded the military. Land occupation has increased, mostly illegally, through deforestation, extensive farming, logging and mining, generating more destruction every day.

In the Brazilian development model, the Amazon is seen as a large warehouse, in which cheap raw materials and energy are sought, without this being reverted to the people who live in the region and with a great impact on the environment.

Figure 1 – General map of the presence of isolated and recently contacted indigenous peoples in Brazil



Source: ISA (2020)

According to the Institute of Man and Environment of the Amazon, in March 2020, in the middle of COVID-19 pandemic, 254km² were deforested in the Legal Amazon, 279% more than in the same period of the previous year (Fonseca et al., 2020). The highest percentage (57%) occurred in areas of different stages of possession, followed

by settlements (24%), and conservation units and indigenous lands (19%).

This situation is the result of government initiatives that encourage the invasion of indigenous territories. An example of this is Bill No. 191/2020 (Brasil, 2020), of the Executive Power, which opens indigenous lands for predatory economic activities

such as mining, industrial mining, oil and natural gas exploitation, infrastructure works and planting of transgenics. Within Funai (2020), the recent Normative Instruction no. 9/2020 weakens 237 indigenous lands whose homologation processes are pending. By allowing Funai to issue certificates stating that these areas are not indigenous lands, invasions and requests for title are encouraged in these locations, which are even more susceptible to being sold, subdivided and dismembered, exacerbating the difficulties in the administrative process of indigenous land homologation.

In addition to all these fronts of conflict, in the last few months, the COVID-19 pandemic has reached indigenous lands and, like wildfire, is once again a risk of genocide against indigenous peoples. Isolated, recently contacted, previously contacted and city dwellers, they are all susceptible and extremely vulnerable.

Reports from *sertanistas* who participated in contacts between the 1960s and 1980s show that the lack of planning and adequate health care during that time was a determining factor for the occurrence of epidemics with high mortality.

He came to Altamira [one of the *sertanistas*] and took five Xikrin [recently contacted] along [...] They had the flu [back from Altamira], without medication [...] when they arrived at our camp, all were sick [...] there were no medicine, there was nothing. I came to Altamira [...] I told the chief. He told me that he had no money to buy medicine. Fifty-five indigenous people died. (Milanez, 2015, p. 129)

This situation raises an inevitable question: how long will the non-contact policy remain viable? And what can minimize the already known impacts of the contact of these original peoples with our society?

The answer to that question is not easy. In general, in addition to the impacts on short-term morbidity and mortality, the intensification of contact relationships in the medium and long term alters the socio-cultural and economic structure of indigenous societies, which reinforces that contact should only occur when the physical and social integrity of group is proven to be threatened, or when the isolates themselves seek it. In the years following the contact, in addition to

their territories being demarcated and protected, the now recently contacted indigenous people should receive special attention and, above all, have time for the inevitable changes to be re-signified in order for their autonomy to be preserved.

Initiatives to protect isolated and recently contacted indigenous peoples in Brazil

In February 2013, an inter-ministerial working group was created involving the Special Secretariat for Indigenous Health (Sesai), from the Ministry of Health, and the National Indian Foundation, from the Ministry of Justice and Public Security, with the intention of developing health care guidelines and strategies for isolated and recently contacted indigenous peoples. In the same year, at the initiative of the Amazon Cooperation Treaty Organization, a national workshop was held on methodologies for health care, protection and promotion of the rights of these peoples in Brazil and a technical report was prepared on the health care provided to them (Rodrigues, 2014b).

With these discussions, which, in addition to Funai and Sesai, involved sectors of the government and civil society that have an interface with indigenous policy and the protection of indigenous rights, it was possible to start building alliances and methodologies that had a fundamental role in contacts that took place in 2014, 2015 and 2019 in Kampa and Isolados do Envira (AC), and Vale do Javari (AM) indigenous lands, in which neither epidemics nor deaths occurred.

As a result of the mobilization of indigenous and indigenous people experts, on December 20, 2018, the federal government published Joint Ordinance no. 4,094 (Brasil, 2018), which “defines principles, guidelines and strategies for the health care of recently contacted isolated indigenous peoples.” The importance of this ordinance, although fragile from a legal point of view, is the recognition by the Brazilian State of the vulnerability of these groups. In addition, it makes clear the need for joint work between teams of indigenous people experts working at Funai and indigenous health professionals working at Sesai.

Health care challenges in situations of contact with isolated indigenous peoples

Every contact situation must be seen as a health emergency and provide a long follow-up time after the initial contact. According to data from Funai and Sesai, there are groups of isolated indigenous people in 19 of the 34 Special Indigenous Health Districts that compound the SUS indigenous health care subsystem, as shown in Chart 3.

Chart 3 – Special Indigenous Health Districts with confirmed records of isolated and recently contacted peoples, 2014

State	Special Indigenous Health Districts
Acre	Upper Juruá River
Amazonas	Upper Purus River, Middle Purus River, Vale do Javari, Middle Solimões River, Upper Solimões River, Upper Negro River and Parintins
Amapá	Amapá and North of Pará
Mato Grosso	Araguaia, Kayapó and Mato Grosso
Pará	Kayapó, Pará, Guamá-Tocantins, Altamira and Tapajós River
Rondônia	Porto Velho and Vilhena
Roraima	East of Roraima and Yanomami

Source: Rodrigues (2014a)

Systematization and updating of knowledge of isolated groups

The planning of actions must consider basic information, such as the size of the group, its linguistic family - so that the team can count on interpreters (speakers of similar languages) -,

presence of invaders in the territory, morbidity profile and prevalence of endemic diseases in indigenous groups already contacted with whom isolated people groups share territories, which may alert to possible contamination already underway. This information depends on the articulation between CGIIRC and Sesai and on the proper functioning of the System for the Protection of Isolated and Recently Contacted Indians, since it is collected by the Ethno-Environmental Protection Fronts and the Special Indigenous Health Districts.

Equally important is ethnographic information that can give clues about the group's linguistic family, its behaviors, and diet, among other particularities of its socio-cultural dynamics.

Indigenism and medical and socio-cultural aspects

Historical and epidemiological information about the main diseases responsible for high mortality in isolated groups is very important, with emphasis on viral diseases, and respiratory infections among them. The team must be aware of the risks involved in a contact situation.

The high transmission capacity of respiratory viruses in isolated indigenous communities has to be highlighted, as well as the seriousness of the cases. Exuberant manifestations are expected, with high fever and a lot of secretion in infections of the airways, affecting children, adults, and the elderly. The COVID-19 pandemic is an aggravating factor in this scenario.

The choice of therapies, when necessary, must take into account efficacy, dose comfort and care with excessive medicalization. The effectiveness of the drugs is related not only to the possible etiological agents, but also to the adherence of the indigenous people to the treatment. Preference should be given to antibiotics that can be administered in a single daily dose. Injectable drugs are usually well accepted. This will facilitate fieldwork and reduce therapeutic failures. It must be remembered that the efficacy of allopathic medicines, especially analgesics and antipyretics, is soon perceived by the indigenous people, and their indiscriminate use tends to create rapid

addiction. The team must be made aware of the existence and the importance of valuing other ways of interpreting the illness process and the different traditional practices of healing and care.

One must avoid interfering in common situations for which there is certainly traditional knowledge, such as childbirth, musculoskeletal pain and minor injuries, and focus on the conditions acquired by contact that threaten the group integrity. It is important to keep in mind the sustainability and possible harms of new practices introduced in the medium and long terms.

The possibility of a rapid breakdown of the group's economy must be considered, making support and food security fundamental, which must be based on natural products, most likely to be already known, such as fruits, fresh cassava, cassava flour, tapioca starch and tubers, such as sweet potatoes and yams. The team must have experienced "mateiros" (forest guides) to supply the need for proteins with hunting and fishing whenever possible. It is necessary to avoid as much as possible the offer of multi-processed products, common in the diet of field teams, which may not be well accepted or cause problems in the group's health.

It is important to establish a code of conduct addressing different aspects of the relationship established in the initial contact: not to have very close contact, especially in the first days; to be very careful when exchanging objects, clothes and food with the indigenous people; properly disposing of garbage; to assign a proper place for waste; to wear masks when necessary, and not to have intimate relationships with indigenous people, men or women.

Contact and contagion: knowledge of disease transmission, quarantine, and cleaning of equipment and means of transportation

Influenza took many lives during the process of attracting the Panará by Funai indigenous people experts. The contagion occurred possibly through the objects left as gifts for the indigenous people by the attraction front. To prevent this from occurring, it is essential that all components of the contact team know the ways of transmission of respiratory

and diarrheal diseases, as well as any endemic diseases present in the region, such as malaria and mucocutaneous and visceral leishmaniasis.

Quarantine must be mandatory for the entire team and must be specially targeted for respiratory diseases of viral etiology. Due to COVID-19 pandemic, the quarantine must be extended for 14 days, in addition to mandatory testing of all team components for the Sars-Cov-2 with RT-PCR (reverse transcription polymerase chain reaction) two days before entering the contact region. From the quarantine location, the team must leave directly for the means of transportation that will be used to reach the area where the contact will be made. An important alternative is to do the quarantine in a camp in the forest, close to the region where the contact was programmed.

The team must wear personal protective equipment from the first moment of contact and remain so for the first fourteen days of contact with the group. Even if there is no illness reported by members of the team or group of indigenous people contacted, the use of masks and gloves must be maintained whenever any procedure requires proximity. All means of transportation (boats, trucks, aircraft) and objects taken by the team must be cleaned with 70% alcohol or 0.5% bleach solution.

If the people on the team come from malarial areas, plasmodium should be investigated in peripheral blood using the thick drop or smear technique, in view of the possibility of asymptomatic or oligosymptomatic cases of the disease. Everyone must have the vaccines up to date.

Immunization: shield against biological weapons

After about two weeks of contact, if all is well, multiple vaccinations should be started. It is a moment that demands a lot of conversation, and the presence of interpreters to facilitate dialogue is crucial. It is important to first vaccinate some members of the team, including indigenous people, to get close and experiencing the same procedures. Apparently, multiple vaccinations may seem like an ethical dilemma, but it makes

sense when looking at epidemics and deaths from vaccine-preventable diseases among recently contacted indigenous people. The vaccination schedule must be aimed at the entire population, including adults and the elderly, with due regard for the age contraindications for each vaccine. All vaccines must be administered concurrently, giving preference to presentations with several immunizers, such as penta and heptavalent vaccines. Intradermal BCG vaccine may be delayed due to the possibility of late vaccine reactions. It is recommended to take the PPD test on everyone. For vaccines that require more than one dose they have to be applied at the shortest possible intervals. Care with the cold chain is essential to ensure the effectiveness of the vaccines applied. The goal is to immunize everyone as soon as possible.

Other important measures

Removals for hospital treatment must be done only in special cases and for previously sensitized service, following a flow agreed upon beforehand. The choice of equipment, medicines and supplies must be guided to solve problems in the field, avoiding unnecessary removals. Portable ultrasound and radiology devices, hemoglobinometers, oximeters and rapid tests for malaria and sexually transmitted diseases are examples of appropriate technological incorporation.

The team must have an efficient communication system, with Internet and satellite telephony, including for telemedicine support.

Final remarks

The protection of isolated and recently contacted indigenous peoples is threatened as never before. Since its electoral campaign, the current federal government has expressed its opposition to indigenous rights, stating, for example, that it will not demarcate any land and review the demarcations already in place.

Indigenous lands where isolated and recently contacted groups live, such as the Yanomami and the Vale do Rio Javari, have been invaded by miners and loggers, excited by the impunity resulting from the weakening of the indigenous body and

environmental inspection bodies. In northern Mato Grosso, loggers and land grabbers invade with impunity the area where the isolated Kawahiwa live. Recently, COVID-19 pandemic entered the Vale do Javari and the Yanomami lands.

Although the National Congress partially curbed the dismantling of Funai proposed by the Presidency of the Republic, which intended, by provisional measure, to remove from the indigenous body its powers of demarcation and assessment of environmental licensing processes for projects that affect indigenous lands, interest groups that control the government - representatives of agribusiness, mining, evangelical proselytism groups - maintain permanent fronts to attack indigenous rights.

Isolated peoples must gain visibility, and our society must understand their option for isolation due to past experiences that have left traumatic marks.

At the current moment of attack to indigenous rights hard gained and guaranteed by the Federal Constitution, aggravated by COVID-19 pandemic, measures have to be taken to protect the already reduced indigenous population that lives in Brazilian territory.

Legal frameworks and national and international guidelines support the indigenous peoples' right to voluntary isolation (OACNUDH, 2012). Their territories have to be respected and protected, and the Brazilian State has to be ready for contact situations, avoiding the genocides that populate our country's history. Giving visibility to isolated and recently contacted indigenous peoples is fundamental to the defense of these groups, which are possibly the most vulnerable on the planet.

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Rodrigues designed and wrote the essay. Mendonça and Albertoni collaborated to the writing and review of the text.

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