

# INEQUALITY IN ACCESS TO COVID-19 VACCINES IN BRAZIL

**NOVEMBER 2022** 





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# LIST OF ACRONYMS

ABRASCO Associação Brasileira de Saúde Coletiva (The Brazilian Association of Collective Health)

ACO Ação Cível Originária (Original Civil Action)
ACP Ação Civil Pública (Public Civil Action)

ADI Ação Direta de Inconstitucionalidade (Direct Action of Unconstitutionality)

ADPF Arguição de Descumprimento de Preceito Fundamental (Action Against the Violation of a

Constitutional Fundamental Right)

**AGU** Advocacia-Geral da União (Attorney General's Office)

ANVISA Agência Nacional de Vigilância Sanitária (National Health Surveillance Agency)

APIB Articulação dos Povos Indígenas do Brasil (Coordination of Indigenous Peoples of Brazil)

**BRICS** Brazil, Russia, India, China and South Africa

CEAGESP Companhia de Entrepostos e Armazéns Gerais de São Paulo (The São Paulo State Company of

distribution Centres and General Warehouses)

**CEASA** Centrais Estaduais de Abastecimento (State Supply Centres)

CEBES Centro Brasileiro de Estudos da Saúde (Brazilian Centre for Health Studies)
CEIS Complexo Econômico Industrial da Saúde (Health Economic-Industrial Complex)

CEPEDISA Centro de Estudos e Pesquisas de Direito Sanitário (Centre for Health Law Studies and Research)

CFM Conselho Federal de Medicina (Federal Council of Medicine)CGU Controladoria-Geral da União (Office of the Comptroller General)

CNES Cadastro Nacional dos Estabelecimentos de Saúde (National Register of Health Establishments)

**CNS** Conselho Nacional de Saúde (National Health Council)

CONAM Confederação Nacional das Associações de Moradores (National Confederation of Residents'

Associations)

CONAQ Coordenação Nacional de Articulação das Comunidades Negras Rurais Quilombolas (National

Coordination of Rural Black Quilombola Communities)

CONASEMS Conselho Nacional de Secretarias Municipais de Saúde (National Council of Municipal Health

Departments)

**CONASS** Conselho Nacional de Secretários de Saúde (National Council of State Health Secretaries)

CPI Comissão Parlamentar de Inquérito (Parliamentary Inquiry Committee)

CRM Conselho Regional de Medicina (Regional Council of Medicine)

DGP Departamento-Geral de Pessoal (General Personnel Department)

**DOU** Diário Oficial da União (Federal Official Gazette)

**DPU** Defensoria Pública da União (Federal Public Defender's Office)

DSEI Distrito Sanitário Especial Indígena (Special Indigenous Sanitary District)

ENEM Exame Nacional do Ensino Médio (National Secondary Education Examination)

ESPIN Emergência de Saúde Pública de Importância Nacional (Public Health Emergency of National

Importance)

**FAB** Forca Aérea Brasileira (Brazilian Air Force)

FAPESP Fundação de Amparo à Pesquisa do Estado de São Paulo (São Paulo Research Foundation)

**FDA** Food and Drug Administration

FIESP Federação das Indústrias do Estado de São Paulo (Federation of Industries of the State of São Paulo)

FNDCT Fundo Nacional de Desenvolvimento Científico e Tecnológico (National Fund for Scientific and

Technological Development)

**FUNAI** Fundação Nacional dos Povos Indígenas (National Foundation for Indigenous Peoples)

HDI **Human Development Index** 

**IACHR** Inter-American Commission on Human Rights

**IBGE** Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Geography and Statistics)

ICU Intensive Care Unit

**IHR** International Health Regulations

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (The Anísio Teixeira National **INEP** 

Institute for Educational Studies and Research)

LAI Lei de Acesso à Informação (Access to Information Act)

MCTI Ministério da Ciência, Tecnologia e Inovações (Ministry of Science, Technology and Innovation)

MEI Microempreendedor individual (Individual Microentrepreneur)

MP Medida Provisória (Provisional Executive Order)

MPF Ministério Público Federal (Federal Prosecution Service) OAB Ordem dos Advogados do Brasil (Brazilian Bar Association)

**PAHO** Pan American Health Organization

**PCDOB** Partido Comunista do Brasil (The Communist Party of Brazil) PDT Partido Democrático Trabalhista (Democratic Labour Party)

PL Projeto de Lei (Bill, proposed legislation)

PNI Programa Nacional de Imunizações (National Immunization Programme)

**PNO** Plano Nacional de Operacionalização da Vacinação contra a covid-19 (National Plan for the

Operationalization of Vaccination for Covid-19)

Política Nacional de Saúde Integral da População Negra (National Policy on Comprehensive Health for the **PNSIPN** 

Black Population)

**PPE** Personal protective equipment

**PRF** Polícia Rodoviária Federal (Federal Highway Police) **PSB** Partido Socialista Brasileiro (Brazilian Socialist Party) **PSD** Partido Social Democrático (Social Democratic Party)

**PSOL** Partido Socialismo e Liberdade (Socialism and Freedom Party)

PT Partido dos Trabalhadores (Workers' Party)

PTB Partido Trabalhista Brasileiro (Brazilian Labour Party)

RDC Resolução de Diretoria Colegiada (Collegiate Board Resolution) RNDS Rede Nacional de Dados de Saúde (National Health Data Network)

RT-PCR Test to detect Covid-19

**SASISUS** Subsistema de Atenção à Saúde Indígena do SUS (SUS Indigenous Health Care Subsystem)

**SBIM** Sociedade Brasileira de Imunizações (The Brazilian Society of Immunizations)

**SBPC** Sociedade Brasileira para o Progresso da Ciência (The Brazilian Society for the Advancement of Science)

**SECOM** Secretaria de Comunicação (The Federal Government's Communication Department)

SIAFI Sistema Integrado de Administração Financeira do Governo Federal (the Federal Government's Integrated

Financial Administration System)

STF Supremo Tribunal Federal (Federal Supreme Court) SUS Sistema Único de Saúde (Unified Health System) TCU Tribunal de Contas da União (Federal Court of Accounts)

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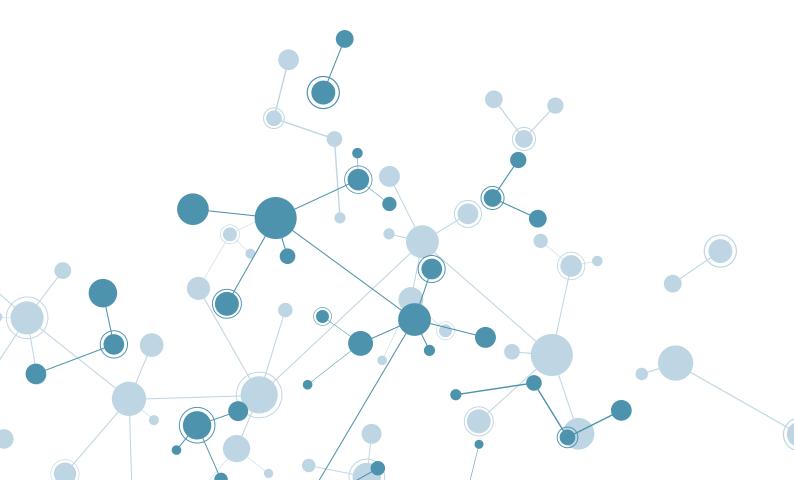
Tribunal Regional Federal da 2ª Região (Federal Regional Court of the 2nd Region) TRF-5 Tribunal Regional Federal da 5º Região (Federal Regional Court of the 5th Region)

**UBS** Unidade básica de saúde (Basic Health Unit)

WHO World Health Organization

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# **PRESENTATION**

The average Covid-19 vaccination rate in Latin America and the Caribbean is about 63%, with wide gaps between countries. There is Chile with over 90% of its population vaccinated. But then there is Haiti with only 1%. In Brazil, 80.1% had been fully vaccinated by the end of July 2022, making it the country with the world's fourth highest number of doses applied – 465 million – second only to China, India, and the United States.

However, Brazil's high vaccination rate ends up overshadowed by the impact of government actions and omissions in response to the pandemic, which gave the country the second largest number of deaths from Covid-19 in the world, with 677,000 lives lost to the novel coronavirus, even though it only has the fifth largest population. Factors contributing to this scenario include the delay in implementing the National Immunization Plan (PNI), the delay in purchasing vaccines, and the adoption of denialist policies to combat the virus, rejecting social control measures and encouraging the use of drugs without any proven efficacy. As a result, most deaths resulting from the pandemic occurred when vaccines were already available in the world – the country saw 194,976 deaths in 2020, but that figure doubled in 2021, to 424,133.

This report examines the challenges of accessing Covid-19 vaccines in Brazil, with special emphasis on the impacts of unequal distribution due to structural inequality in the right to health care. Data from the Brazilian Institute of Geography and Statistics (IBGE) show that eight out of ten people said they have access to some regular health service, especially local health units. The number is not bad, but it means that about 35 million Brazilians still lack any regular health care.

The first section of this report will look into inequality in Covid-19 vaccines in Brazilian states and the Federal District from 17 January 2021 to 11 October 2022, using the Human Development Index (HDI) and information on gender and race/skin colour (when available), based on data retrieved from the RNDS/SASISUS's so-called Covid-19 Vaccinometer and provided by IBGE.

In the second section, we describe the views of government actors — CONASS and CONASEMS — and non-government actors — ABRASCO, CNS, the United for the Vaccine movement, and experts — interviewed about equity in access to vaccines, and also drawing on extensive desk research.

Finally, proposals and recommendations will be presented from the perspective of justice and health democracy.

We hope that this perception survey will contribute to the public debate on access to health care in Brazil and to the actions and measures needed to prevent repeating the same mistakes made during the pandemic.

#### Katia Maia

**Executive Director** 

# **METHODOLOGY**

This report systematizes the main data and analyses resulting from exploratory research conducted by the Centre for Studies and Research on Health Law (CEPEDISA) of the School of Public Health (FSP) of the University of São Paulo (USP), in partnership with Oxfam Brasil and headed by FSP/USP Ethics Professor Deisy

de Freitas Lima Ventura, PhD. The work is essentially based on desk research (including official documents and media), literature review, and eight interviews with key informants conducted on 17-31 October 2022. The research methods used in each section are detailed below:

Descriptive ecological study<sup>1</sup> on Covid-19 vaccine coverage in Brazil among the population aged three or more, from 17 January 2021 to 11 October 2022, considering the 26 states and the Federal District of the Brazilian Federation as the unit of analysis. Data on the full primary vaccination series for Covid-19 by state were retrieved from the Covid-19 Vaccinometer of the National Health Data Network (RNDS) / SUS Indigenous Health Care Subsystem (SASISUS).

Data on the full primary series of the Covid-19 vaccine by state were retrieved from the Covid-19 Vaccinometer of RNDS/SASISUS). $^2$ 

Vaccination coverage was calculated using the following formula:

**VACCINE COVERAGE** 

Number of individuals fully vaccinated in the target population

Target population for vaccination

X

100

To calculate vaccine coverage by states and the Federal District, the vaccination series recommended by the aforementioned PNO was considered as the full primary series, corroborated by the vaccines' use directions:

- \* Astrazeneca/Fiocruz or Astrazeneca/Covax Facility: two doses;
- \* Pfizer/Wyeth-Cominarty or Pfizer/Wyeth Cominarty (Pediatric): two doses;
- Sinovac/Butantan: two doses;
- ☀ Janssen or Janssen/Covax Facility: single dose.

Still for calculating vaccination coverage, the general population and the sex-based target population estimated for 2021 were retrieved from the IBGE website (population projection by sex and simple ages on July 1-2010/2060).

In order to assess the indicator of social inequality in access to vaccines for Covid-19, the 2010 Human Development Index (HDI) of each state and the Federal District were used – also retrieved from the IBGE website, according to the latest Demographic Census. Gender inequality in access to the vaccines for Covid-19 was assessed using the sex variable. In addition, Pearson's correlation coefficient (r) was used to analyse associations. Descriptive statistics were adopted for data analysis, with Microsoft Excel 2019 Software.

Eight interviews conducted with key informants in October 17-31, 2022 (more details in **Box 1**). The definition of the sample for the interviews sought to collate different perspectives on the same phenomenon by listening to government managers, non-governmental entities, and experts.

Among the non-governmental entities interviewed, there are also substantial differences between traditional entities that are key actors in the field, such as ABRASCO and CNS, and a movement outside the health sector that emerged specifically to promote access to vaccines for Covid-19: United for the Vaccine, whose corporate profiles are markedly different from those that usually characterize the social dimension of the field.

Two aspects can be highlighted as boundaries for defining and implementing our sampling. The first and predominant one concerns the coincidence between the research period and the campaign for the second round of the presidential election, making it impossible to consider expanding the sampling in view of the tight agendas of interviewees. The second aspect concerns the impact of the political environment prevailing in Brazil, which led at least one potential interviewee to refuse to grant an interview – even a confidential one – for fearing for his personal safety.



# INTRODUCTION

On 8 December 2020, mass vaccination for Covid-19 began in the world, more precisely in the United Kingdom. Just 40 days later, on 17 January 2021, Brazil's federal health agency Anvisa authorized the emergency use of Sinovac/Butantan and AstraZeneca/Fiocruz vaccines.<sup>3</sup> On that very day, nurse Mônica Calazans, a black woman, became the first person to be vaccinated for Covid-19 in the country.4

According to the World Health Organization (WHO), on 24 October 2022 there were just over 624 million cases and 6.5 million lives lost to Covid-19 in the world.<sup>5</sup> In addition, 12.8 billion doses of vaccines for Covid-19 were administered, with 4.95 billion people fully vaccinated with the final dose of the primary series as specified in the vaccines' directions (two doses or a single dose). Thus, on 24 October 2022, the world average of full primary vaccination coverage for Covid-19 was 63.52 per 100 inhabitants.

Brazil had the second highest cumulative number of Covid-19 cases (34.8 million) and deaths (687.000) as well as mortality rate (323.31 per 100,000 inhabitants) in the Americas, surpassed only by the United States in number of infections and deaths and by Peru in mortality rate, <sup>6</sup> according to PAHO. However, it was the 15th country in the Americas in terms of full primary vaccination coverage (78.37 per 100 inhabitants).7 See Figure 1.

Figure 1 - Covid-19: Brazil's position in the Americas on October 24, 2022



ACCUMULATED NUMBER OF CASES 34,771,320 CASES SECOND ONLY TO THE US



ACCUMULATEDNUMBER OF DEATHS 687,483 DEATHS SECOND ONLY TO THE US



DEATH RATE 323,431 DEATHS PER 100,000 INHABITANTS SECOND ONLY TO PERU

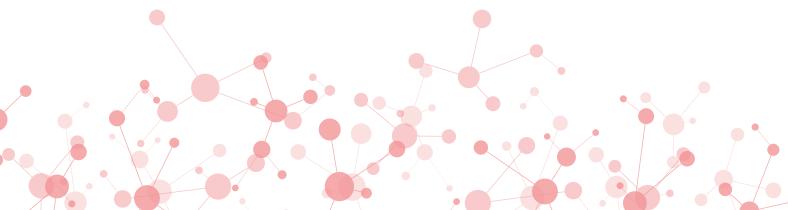


FULL PRIMARY VACCINE COVERAGE

78.37 PER 100 INHABITANTS

BEHIND PORTO RICO, CHILE, CUBA, NICARAGUA, PERU, ARGENTINA AND URUGUAY, AMONG OTHERS

Prepared by Oxfam Brasil based on data from PAHO/WHO



On October 11, 2022, Brazil<sup>8</sup> had already administered about 485.4 million vaccine doses at municipal and state health establishments connected to the SUS to children aged three or more, teenagers, adults and seniors. The number of doses administered in each state and the Federal District varied from 960,522 to 124,490,330. The states with the highest number of doses administered were São Paulo (25.65%), Minas Gerais (10.40%) and Rio de Janeiro (8.12%). Most vaccines in the country were from the Pfizer/Wyeth-Cominarty or Pfizer/Wyeth-Cominarty (Paediatric) laboratory (40.86%), followed by AstraZeneca/Fiocruz or AstraZeneca/Fiocruz/Serum Institute of India or AstraZeneca/Covax Facility (30.72%), Sinovac/ Butantan (22.58%), and Janssen (5.84%). 10 From now on, such vaccines will be referred to only as Pfizer, AstraZeneca, CoronaVac and Janssen, respectively.

Currently, vaccination for Covid-19 is recommended for the entire population from the age of three, and the country's target coverage is 90% for the full primary series (Pfizer, Astrazeneca, CoronaVac, and Janssen).

Brazil's Ministry of Health's National Plan for the Operationalization of Vaccination for Covid-19 (PNO) includes tens focal points: epidemiological status and definition of the target population; vaccines; pharmacovigilance; information systems; implementation of vaccination; monitoring, supervision and evaluation; vaccination budget; post-marketing studies; communication and closing of the vaccination campaign. However, the PNO does not specify measures to address unequal vaccine distribution in the country based on systematization of data, social determinants of health, and health indicators.

Health inequality is a core topic in the analysis of access to vaccines, being characterized by a range of intersecting inequalities: socioeconomic, gender, territorial, ethnic, racial, and generational. Methodological aspects and differences in health indicators observed between regions of Brazil also pose additional challenges to the analysis of the issue. Methodological challenges to the analysis of the issue.

Local asymmetries — not only between the country's regions but also within each region, considering data on municipalities — are features of Brazil's health inequality pattern, including morbidity/mortality rates, organization of health care services, and health information systems.

As a rule, race, gender, and class inequalities have not been given proper attention in assessment metrics related to health equity in Brazil.<sup>15</sup> In the case of Covid-19, the race/colour item was not eligible for analysis of epidemiological status in the first epidemiological bulletins, even though it was included in forms to report cases of Flu-like Syndrome and Severe Acute Respiratory Syndrome (SARS).

The race/colour item was also belatedly included in the report form for mild cases of Covid-19 Flu-like Syndrome, called e-SUS VE, which aims at real-time reporting. The item was only included after ABRASCO's Racism and Health Working Group, the Black Coalition, and the Brazilian Society of Family and Community Doctors took a public stance, but the race/colour field was often left blank in the various Covid-19 report forms.<sup>16</sup>

"We haven't incorporated the race perspective into epidemiological analyses as an important condition for the process of illness and death."

> Marcia Pereira Alves, interview with CEE/Fiocruz

In March 2021, a survey with data on 8.5 million people who had been given the first dose of vaccines for Covid-19 in Brazil found that more white than black people had been vaccinated. 17 By October 2021, an analysis pointed out that black and mixed-race people had received only 23% of doses, even though they account for over half of the Brazilian population. However, race/colour were not recorded for a guarter of the vaccines administered, probably because states failed to collect data.18

In light of this scenario, this study will look into inequality in access to vaccines for Covid-19 based on the following main objectives:

- \* To increase knowledge about the current status of vaccination for Covid-19 in order to suggest advocacy strategies at three levels: regional, national and local:
- To expose the unequal distribution of vaccines for Covid-19 in Brazil by systematizing data and indicators, especially inequalities in terms of race, gender and income;
- To analyse the challenges of access to vaccines for Covid-19 in Brazil, with special emphasis on the impacts of their unequal distribution considering the country's structural inequality in access to health care, taking into account the broader scenario of falling vaccination coverage in Brazil in the last ten years as a factor for the expansion of social vulnerabilities;
- ☀ To verify government actions and omissions regarding planning, negotiation, purchase and distribution of Covid-19 vaccines.



# INEQUALITY IN ACCESS TO COVID-19 VACCINES IN BRAZIL

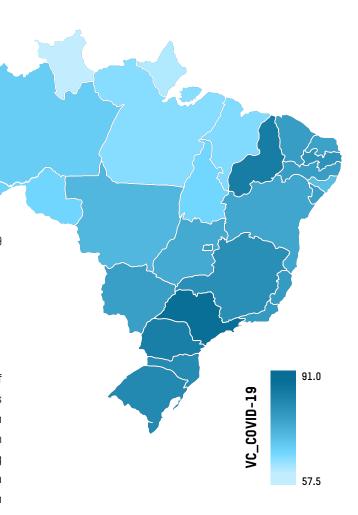
Chart 1 - Brazil: Distribution of Covid-19\* Vaccination Coverage (VC) (per 100 inhabitants) - 2021 and 2022

This section will analyse Covid-19 vaccination coverage in Brazilian states and the Federal District, considering social, gender and race/skin colour inequalities, from 17 January 2021 to 11 October 2022, in view of the gaps shown in social, gender and race/skin colour indicators.

Data on the full primary series of Covid-19 vaccines by state were retrieved from the Covid-19 Vaccinometer of the RNDS/SASISUS.<sup>19</sup>

# **REGIONAL INEQUALITY**

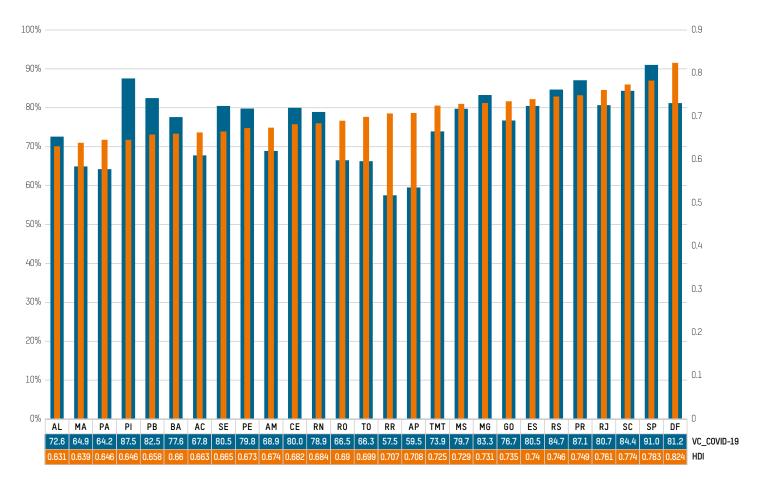
On October 11, 2022, the Covid-19 Vaccinometer of the National Health Data Network (RNDS) / Indigenous Health Care Subsystem of the Unified Health System (SASISUS) of Brazil's Ministry of Health pointed out an average primary vaccination coverage of 81.5% among the population aged three or more. However, variation among states and the Federal District ranged from 57.5% in Roraima to 91.0% in São Paulo (Chart 1).



<sup>\*</sup>Full primary vaccination series: Astrazeneca, Pfizer, CoronaVac or Janssen Source: Covid-19 vaccinometer (17 January 2021-11 October 2022) / IBGE

Chart 2 - Brazil: Distribution of Covid-19\* Vaccination Coverage and HDI\*\* - 2021 and 2022





 $<sup>{\</sup>rm *Full}\ primary\ vaccination\ series:\ Astrazeneca,\ Pfizer,\ Corona Vac\ or\ Janssen$ 

<sup>\*\* 2010</sup> Human Development Index (life expectancy at birth, education and income)
Source: Covid-19 actinometer (17 January 2021-11 October 2022) / IBGE

Vaccination coverage estimates for states and the Federal District were based on the target of 90% set by the Ministry of Health. Only the state of São Paulo had met its primary vaccination target, that is, 25 states and the Federal District were below the standards recommended by the Ministry, ranging from 57.5% to 87.5%, which indicates regional disparities in access to vaccines.

With regard to regional inequalities, only 16% of Brazilian municipalities had more than 80% of their population fully vaccinated by December 2021. In the country's South region, 30% of the municipalities had more than 80% of their population fully vaccinated; 27.2% in the Southeast; 11.8% in the Centre-West; 2.7% in the Northeast; and only 1.1% in the North region.<sup>20</sup>

There were also inequalities in access to vaccination associated with social factors in states and the Federal District. That view is corroborated by another study that also used the Human Development Index to assess such inequalities and found that municipalities with low HDI had lower vaccine coverage.<sup>21</sup>

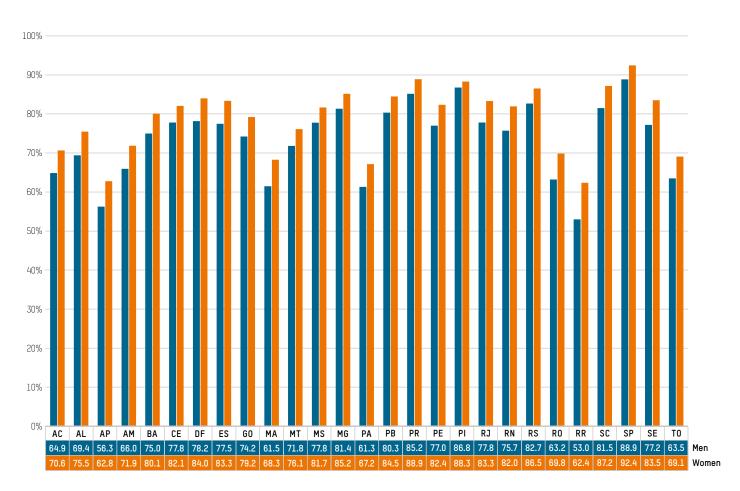


# **GENDER INEQUALITY**

The distribution of primary Covid-19 vaccination coverage per 100 inhabitants according to gender and the states/Federal District is described in Chart 3. In all states, women's vaccination rates were higher than men's. There is a correlation between primary vaccination coverage for every 100 men and women (r = 0.994).

Chart 3 - Brazil: Distribution of Covid-19 Vaccination Coverage\* by gender - 2021 and 2022





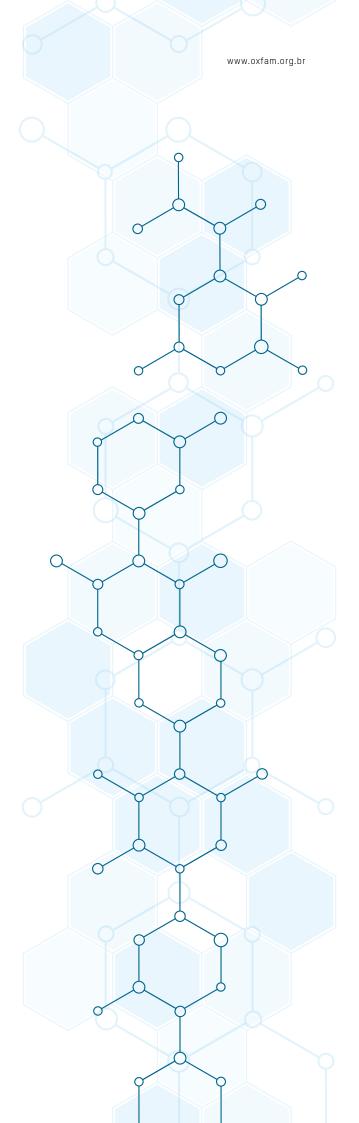
<sup>\*</sup>Full primary vaccination series: Astrazeneca, Pfizer, CoronaVac or Janssen Source: Covid-19 vaccinometer (17 January 2021-11 October 2022) / IBGE

The correlation between primary vaccination coverage and gender is also an important indicator of disparity found in this study. Men had lower coverage in all states and the Federal District, and several national and international studies showed similar results.<sup>22</sup>

Men are more likely to reject vaccination for Covid-19 than women, <sup>23</sup> perhaps as a result of women's inclination to make health decisions for their children and their higher propensity to seek information about vaccines. <sup>24</sup>

No data were found on vaccination of the LGBTQIA+ population in Brazil, following other countries' trend to not break down routine data on vaccines about that population.<sup>25</sup>

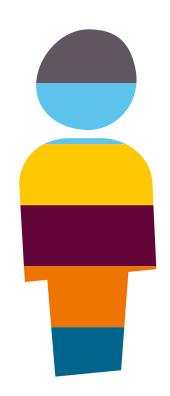
An extensive systematic review of the literature on the impacts of the pandemic on the LGTBQIA+ population's access to health care services<sup>26</sup> found only one reference to vaccines. It is a study showing that bad experiences with health workers, in addition to concerns about vaccines' safety and efficacy, interfered with people's decisions to be immunized or not.<sup>27</sup> Another qualitative study conducted in New York City concluded that vaccination rates among that group were similar to those of the general population, although one in four people reports being discriminated against in Covid-19 services, also revealing that socioeconomic elements such as not having health insurance and uncertainty about free vaccines were determinants of vaccine hesitancy.<sup>28</sup>

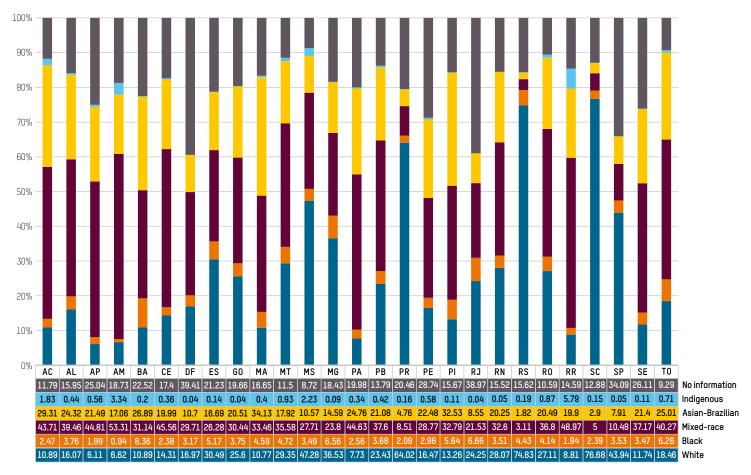


# RACE INEQUALITY

Chart 4 shows the distribution of the primary series of Covid-19 vaccines according to race/skin colour in Brazilian states and Federal District. The varied level of information on this variable, from 8.72% in Mato Grosso do Sul to 39.41% in the Federal District, made it impossible to analyse primary vaccination coverage according to race/skin colour to find inequalities in Brazil as a result of the race gap.

Chart 4 - Brazil: Distribution of Covid-19 Vaccination Coverage\* by race/skin colour - 2021-2022





<sup>\*</sup>Full primary vaccination series: Astrazeneca, Pfizer, CoronaVac or Janssen Source: Covid-19 vaccinometer (17 January 2021-11 October 2022) / IBGE

As for race/skin colour-based inequality, racism can take many forms – from personal interactions to institutional and structural conditions and practices.<sup>29</sup> Therefore, this study found that the race/skin colour variable was often not reported in states and the Federal District, making it impossible to analyse racial inequality in access to Covid-19 vaccines.

The absence of systematic records on race/skin colour in the data prevents a deeper debate on inequalities in access to vaccines in the country. It should be noted that, since 2017, pursuant to Ordinance 344 of the Office of the Minister of Health, the inclusion of race/colour in Health Information Systems' forms has become mandatory:

Art. 1st Collecting data on the colour item and filling out of the race/colour field will be mandatory for health care services' staff, observing the criterion of self-declaration by users, within the standards adopted by the Brazilian Institute of Geography and Statistics (IBGE) and appearing on health information system forms as white, black, Asian-Brazilian, mixed-race or indigenous.<sup>30</sup>

Despite that requirement and the advances in the race/skin colour topic on health information system forms, the is still practice incipient within the SUS and private health care services in Brazil.

Considering the view of racism as determinant of health conditions for the black population, the National Policy on Comprehensive Health for the Black Population (PNSIPN) was established in May 2009. This government policy includes strategies for promoting the health of black men and women within the SUS, but low awareness about its existence and lack of government funds for its implementation, in addition to structural racism that permeates the health area, are still obstacles to it. Therefore, in 2019, ten years after its adoption, only 57 of the 5,570 municipalities had implemented these policies.<sup>31</sup>

The absence of a racial focus in data collection instruments as well as in planning and executing programmes and actions makes it difficult to identify the black population's main issues and real demands, which perpetuates the barriers to their access to health care. 32 Issues related to quality of information on race/skin colour prevent us from estimating its potential and real impact on access to Covid-19 vaccines in various race groups in Brazil. According to the Ministry of Health, information on a given item is considered suitable for analysis when the percentage of 'ignored'/'no response' is lower than 10%. 33

The effects of structural and institutional racism make racial groups invisible and exclude their vulnerability from the design and implementation of public policies. Therefore, they compromise the analysis of racial inequality in access to Covid-19 vaccines, with consequences for research about the impact of vaccination among racial minorities, due to the low quality of data. Scarce information regarding the race/skin colour variable underscores the need for actions to improve the fight against institutional racism.

## STRUCTURAL RACISM

Social organization that privileges a certain race/colour group to the detriment of another, seen as subordinate. Under this model, subordinate classes become the object of exploitation, oppression and violence by dominant classes.

## INSTITUTIONAL RACISM

A reflection of structural racism, in which public and private institutions end up fostering exclusion and prevent the full exercise of rights, promoting and extending inequalities to certain racial groups.

This chapter aims to (1) identify government or non-government policies or strategies adopted in Brazil to guarantee equity in access to vaccines, seeking to minimize social, gender or racial inequalities, and (2) point out the greatest difficulties faced by managers and social actors to make access to Covid-19 vaccines more equitable.

Sources analysed through desk research included public statements, recommendations, reports, press interviews and other documents related to vaccination for Covid-19 issued by the Ministry of Health, the National Council of State Health Secretaries (CONASS), the National Council of Municipal Health Secretaries (CONASEMS), the National Health Council (CNS), the Brazilian Association of Collective Health (ABRASCO) and the Brazilian Centre for Health Studies (CEBES), in addition to scientific associations, social organizations and entities representing health experts who submitted technical notes and reports or expressed their views in any way about equity in access to Covid-19 vaccines.

To complement our desk research and validate the data, eight interviews were conducted (Box 1), which will be quoted in the text.

# Box 1 - Interviews

NATURE	ENTITY	REPRESENTATIVE		
	CONASS	Nésio Fernandes, head of the committee since March 2022, State Secretary of Health of Espírito Santo		
Government commitees		Carlos Lula, former head of the committee (2020-2022) and former State Secretary of Health of Maranhão		
	CONASEMS	Wilames Freire Bezerra, head of the committee since 2019, Municipal Health Secretary of Pacatuba, Ceará		
	Fernando Zasso Pigatto, head of the committee since 2 CNS representative of the National Confederation of Residence (CONAM)			
Non- government organizations	ABRASCO	Ana Brito, researcher at the Aggeu Magalhães Institute (IAG/Fiocruz-PE) and the University of Pernambuco (UPE) and a member of the Solidarity Network for Covid-19-PE		
	United for the Vaccine movement	Maria Fernanda Teixeira, Co-founder of the Mulheres do Brasil Group, member of the Board of Directors of several companies, and leader of the front of municipalities within United for the Vaccine		
	Ethel Maciel, Full Professor at the Federal University of Espírito Santo, an original member of the technical chamber in charge of assisting the Ministry of Health in preparing the national Covid-19 vaccination plan			
Experts	Marcia Pereira Alves dos Santos, member of the ABRASCO's Working Group on Racism and Health			
	Reinaldo Guimarães, Professor at the Federal University of Rio de Janeiro and Vice President of ABRASCO			

As we will see below, despite constant pressure from civil society and experts, we could not identify real public policies focused on minimizing inequalities in access to vaccines in the areas under study - gender, race/colour and income. We only found specific initiatives by local governments or civil society aimed at targeted audiences, some of which can be considered as good practices in favour of equity.

However, these are non-systematic and - from a national point of view - fragmented initiatives. Among public managers, the idea prevails that the best policy is 'vaccines for all,' without any distinction.

Responses about the greatest difficulties found in terms of equity in access to vaccines for Covid-19 were grouped into topics presented in Figure 2, which also correspond to the structure of this section.

Figure 2 – Obstacles to equity in access to Covid-19 vaccines in Brazil, according to interviewees

Context of global inequality in access to vaccines	Federal government's ineptitude in negotiating vaccine purchases	A climate of rejection of scientific evidence and good management
Lack of national coordination for the campaign	Challenges in purchasing supplies	Failure to define priority groups
Insufficient training, work overload, and low appreciation for health care workers	Restricted access to fixed and mobile vaccination centres	Data collection challenges

# THE CONTEXT OF GLOBAL INEQUALITY IN ACCESS TO VACCINES

Inequality in access to vaccines is a global phenomenon evidenced by the concentration of doses in rich countries - in some cases, above local demand - compared to the scarce supply in poorer ones.34 Paradoxically, mobilization of global resources – especially public funds - to develop vaccines for Covid-19 has reached unprecedented levels.

Expert Reinaldo Guimarães<sup>35</sup> fears that this mobilization was 'circumstantial' and that the usual low funding for science observed in non-epidemic times will prevail after the Covid-19 pandemic.

Guimarães is also concerned about the expansion of the pharmaceutical industry in that period, since companies that did not used to be part of the vaccine market expanded their operations to include that sector. Big pharma's business practices are criticized by global health experts for prioritizing drug patents and lucrative markets, and therefore restricting access in low-income countries. He understands that during the pandemic these large companies brought to the vaccine industry the same ethical and commercial practices already questioned in other areas.36

In 2020, the WHO proposed the creation of the Covax programme in partnership with GAVI (the Global Alliance for Vaccine and Immunization), in order to expand vaccine supply worldwide and combat inequality in access among countries.

However, Reinaldo Guimarães and Ethel Maciel<sup>37</sup> believe that the initiative did not meet expectations. Guimarães admits that the proposal is worthwhile in its aim of reducing vaccine prices but he understands that the project failed to demonstrate transparency in negotiating with rich countries and in defining the leadership and scope of the programme.<sup>38</sup>

# Box 2 - On vaccine apartheid

WHO Director-General Tedros Adhanom Ghebreyesus has used the phrase health apartheid to define the global distribution of Covid-19 vaccines. According to the WHO, in May 2021, at the height of the pandemic, rich countries with 15% of the world's population had 45% of vaccines, while low- and middle-income countries with almost half of the population had access to 17%. He also defined that situation as a "catastrophic moral failure" and "vaccine nationalism" – none of which are common in the jargon of senior international officials.

According to Sparke and Levy, vaccine apartheid is an epidemiologically and bioethically accurate representation of the current world situation. It is a direct description of the results of the exclusion that the WHO director sought to portray when he stated that there was a wall between countries with and without access to vaccines. Like South African apartheid law, vaccine apartheid deprives entire communities of access to life-saving biomedicine, reducing their health rights to what social theories of biopower describe as "biological sub-citizenship." 39

Still according to the authors, this expression is also anti-racist as it directly emphasizes the continuity of racist "double standards" and exclusions from the empire era to the neo-colonial present, even as leaders in global health redouble their appeals in favour of decolonization. Therefore, calling inequality in access to COVID-19 vaccines "apartheid" critically underlines how racist forms of coloniality have persisted in a time of pandemicity. 40

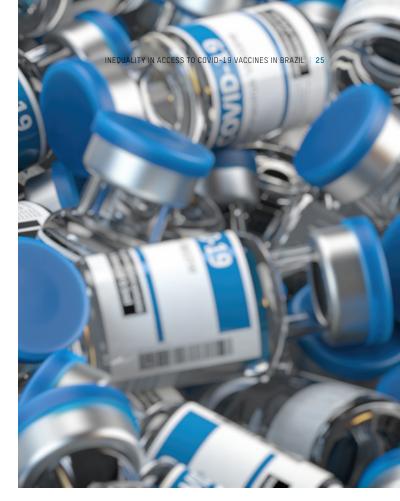
# BRAZIL'S NEGOTIATION OF VACCINE PURCHASES

Ricardo Palacios, who served as clinical research director of Brazil's Butantan Institute during the pandemic, understands that one of the ways for the country to protect itself from the dynamics of the global vaccine market would be to invest in introducing new actors in its production. According to the same source, by negotiating with different actors and investing in strengthening alternative projects, the country would have options in the face of new variants and could consider alternating doses from distinct vaccines in the absence of options.

However, when the first vaccines began to appear on the market in late 2020, the Brazilian government chose to invest only in the one that would be produced by Fiocruz, together with Astrazeneca and the University of Oxford, leaving aside the CoronaVac vaccine, which was being researched by the Butantan Institute in partnership with Chinese company Sinovac. Interviewees understand that this hesitation delayed vaccine production and the vaccination schedule, since pharmaceutical companies responded to purchase orders on a first-come, first-served basis.

Carlos Lula, who served as head of CONASS at the height of the pandemic, 42 and experts like Ricardo Palacios, 43 Ethel Maciel 44 and Gonzalo Vecina Neto 45 – founder of Brazil's National Health Surveillance Agency – stress that the country should have invested immediately in several fronts, including distinct vaccine projects. Ethel Maciel recalls that the delay in vaccination coincided with the end of Emergency Aid paid by the government, subjecting poorer populations to even more uncertainty. 46 Therefore, maintaining a diversified range of options as well as encouraging expeditious action seemed to be a good strategy to guarantee timely delivery. This effort would require government officials to put any political rivalries aside in the name of public interest.





In August 2021, Congress passed Law 14200/21, which provides for so-called compulsory drug licensing in times of national health emergencies – such as the Covid-19 pandemic – to speed up the population's access to useful technologies. The law made it mandatory for patent holders – pharmaceutical companies, in this case – to share information to expedite Brazilian technological development. It sets deadlines for the Federal Government to issue compulsory licenses and bans foreign companies' control over production/marketing of essential products, in order to reduce hospitalization and deaths.

In the model introduced by the new law, companies holding patents will receive royalties if the government buys the product from another supplier. Even if a compulsory license is adopted, patent holders will not lose their right to exploit their invention – only the chance of excluding others from the market, hence the compensation paid as royalties.

With compulsory licenses, Brazil will be able to access, in a very short term, treatments whose emergency use for Covid-19 is approved, such as remdesivir and baricitinib. In the medium term, it will be able to develop and incorporate important technologies.

Parts of the new compulsory licensing act were vetoed by the President, and the vetoes were confirmed by Congress, making it difficult to share information that is crucial for transferring technology to disseminate production of vaccines and medicines.

# REJECTION OF SCIENTIFIC EVIDENCE AND GOOD MANAGEMENT

Over half a century of existence of Brazil's National Immunization Programme, external experts and consultants have traditionally assisted in its design as a way to strengthen its technical bases by incorporating views that are distant from political contingencies and boost ties between the scientific/academic communities and the government.<sup>47</sup>

In the midst of a pandemic, however, interviewees point out that health management experts and professionals with experience in nationwide vaccination campaigns were rejected by the federal government and its supporters. The Ministry of Health's National Plan for the Operationalization of Vaccination for Covid-19 itself was not an initiative of the Executive but rather the result of a Supreme Court order in December 2021.<sup>48</sup>

According to Fernando Pigatto, the National Health Council was not consulted when the plan was designed. Subsequently, the Council mobilized to launch a list of recommendations such as inclusion of priority groups.<sup>49</sup>

In the midst of the health crisis, there was no dialogue between representatives of society and the Federal Government. Let us not forget that social control is a tradition in Brazil's Unified Health System, enshrined in its regulatory framework, with society participating in its governance through councils and other participatory practices considered essential for effective public health policies. However, social entities have argued, since the beginning of the crisis, that the response to the pandemic was not based on scientific evidence, preventing harmonious action by the federal government and society.

"If the National
Health Council's
recommendations
had been followed,
the pandemic would
never have reached
the dimension it did in
Brazil. Ignoring existing
recommendations only
exacerbates authorities'
responsibilities."

Fernando Pigatto, interview

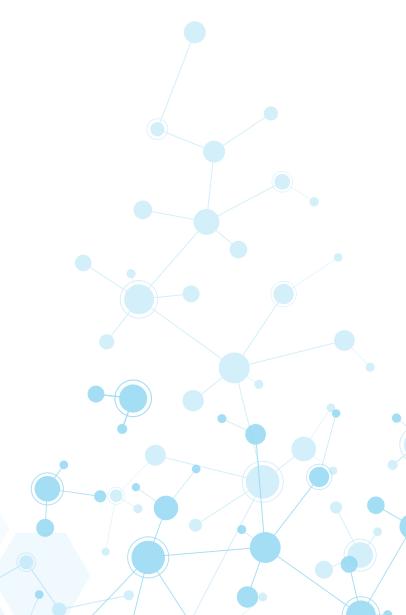
In her interview, Ethel Maciel provides a detailed account of the government's misuse of experts' names in the aforementioned plan. On December 12, 2021, the members of the Technical Group established by the Ministry of Health to advise on the preparation of the plan released a statement declaring their "surprise and uneasiness" at the unauthorized inclusion of their names on a document of which they were not aware.

At that time, the experts were already questioning the definition of priority groups for vaccination, reiterating their technical recommendation of including all vulnerable populations such as indigenous peoples, quilombola (slave-descendant communities), riverside populations, inmates and people with disabilities, as well as a wider scope for all education workers and the inclusion of so-called essential workers in vaccination groups.50

Subsequently, ABRASCO sent a letter to Supreme Court Justice Ricardo Lewandowski - the rapporteur of the lawsuit that resulted in the introduction of the plan - presenting two core elements. First, as a representative of the academic community and public health professionals in Brazil, from a technical-scientific point of view, the organization warned about the fact that the document presented by the Ministry of Health could not be considered a true and effective plan against the pandemic through nationwide vaccination, since it listed only partial measures - including a few wrong ones - in response to growing demand by society. Secondly, they protested against the inclusion of the names of professors and researchers in the widely publicized document, as "their technical-scientific recommendations were accepted to varying degrees and were always ancillary. Considering the facts described above, the inclusion of their names in the ambiguous status of authors or collaborators could mislead people to believe that they were involved in and therefore responsible for the work."51

The letter added that the experts' participation in designing the plan was "sporadic and unsystematic, and it varied as each segment was called upon and each contributor participated," explaining that the "discussion format, segmented into ten groups with their specific topics, made participation difficult, as the debate as a whole was not clear" and "the environment provided by the Ministry of Health at the meetings was not open to dialogue, with secrecy recommendations that were incompatible with effective collaboration."

In an interview, Fernando Pigatto mentions that the National Health Council constantly pressured the Federal Government to adopt measures that would reduce inequities in access to health care, such as anti-racist measures, efforts at data collection, a focus on primary health care, and access to vaccines.



"The CNS understands that, at this time (...) vaccination strategies must be immediately defined that include a historically invisible, socioeconomically vulnerable portion of the population, thus combating vaccine inequities among Brazilians, such as nationwide and effective measures to:

- a) Reduce racial inequalities in access to vaccination, since studies indicate that more white people than black people were vaccinated against the coronavirus in Brazil;
- b) Guarantee that vaccination quickly reach populations living in poor housing conditions, who lack access to water and basic sanitation, in addition to the absence of or precarious access to the Health System and ICU beds for Covid-19:
- c) Ensure that vaccination quickly reaches Quilombola, indigenous (settled, urban and camped) and riverine populations; populations of field, water and forest areas, gypsy groups, and homeless people; people with disabilities; inmates; young people under socio-educational measures; therapeutic communities; people receiving assistance in mental health centres;
- d) Ensure that vaccination be complemented for health care workers."

CNS, Nota Técnica, 8 de abril de 2021

Pigatto also pointed out that the Federal Government did not use all funds allocated under Executive Orders 994<sup>52</sup>, 1004<sup>53</sup> and 1015<sup>54</sup> for purchasing health care supplies. The delay in employing funds resulted in a movement called *Repassa Já* (Transfer now).<sup>55</sup> Experts and health care managers report the difficulties they

later faced in accessing the Ministry of Health facilities and dialoguing with officials. Ana Brito mentions a climate of distrust towards pro-vaccine experts, with targeted attacks on social media or even persecution elsewhere against professionals and experts who advocated vaccination.

# ALTERNATIVES TO THE LACK OF NATIONAL COORDINATION

Faced with the urgency to immunize the population and the Federal Government's neglect of it, several subnational entities such as state and municipal governments mobilized to buy vaccines directly from pharmaceutical companies.56 However, the experts and professionals interviewed in this study warn that scattered immunization efforts, although understandable and praiseworthy, may create inequities between the country's regions and reduce the efficiency of the entire process, especially since lack of vaccination in some places helps the emergence of new variants.<sup>57</sup>

> "There was no planning, strategy or coordination by the Federal Government. They simply said: here are the vaccines."

> > Carlos Lula, interview

Carlos Lula argues that "distinct vaccination schedules and priority groups in each state are reasons for concern, as they would create inequity among citizens in states, in addition to hindering national communication measures and the organization of pharmacovigilance actions."58 This view is shared by Ethel Maciel: "If we leave it to states and municipalities, the richer might be vaccinated first."59

In the same scenario of scarcity, some business groups considered purchasing vaccine batches, which the experts interviewed strongly criticized for increasing income inequalities in the country. 60 According to the same source, for Carlos Lula,

> Vaccination is a collective strategy. It cannot increase inequality. If I vaccinate people who are better off first, I throw out the whole strategy, which is to vaccinate the more vulnerable first. Therefore, I see no point in vaccination within the private health care network. It should complement the public network rather than compete with it.61

From a management point of view, Ana Brito recalls that the National Immunization Plan should function as a federative pact among municipalities, states and the federal government, with emphasis on collaboration between all levels. However, she believes that communication failed among these entities, and some states started to carry out horizontal initiatives, in particular the Northeast Consortium, which created the Scientific Committee to combat the Coronavirus.

Under Federal Law 11107/2005, which authorizes the creation of public consortia, and Executive Order 6017/2007, which regulates that law, the Northeast Consortium was created in 2019 to be the legal, political and economic instrument to integrate the nine states in Brazil's Northeast region, including joint procurement, integrated implementation of public policies, and the search for cooperation at national and international levels. 62 In March 2021, the Consortium reached an agreement with the Russian Sovereign Fund to purchase 37 million doses of the Sputnik V vaccine for the Northeast region, but it suspended the initiative a few months later due to non-compliance with ANVISA's requirements and because that vaccine was not included in the National Immunization Plan. 63

# **SUPPLY PURCHASE**

The delay in the initial vaccine schedule also hampered the purchase of supplies such as syringes and needles for the national vaccination strategy, 64 in addition to raw materials imported from China and India. 65 The experts interviewed understand that the federal government's conflicts with supplying countries worsened the problem at a time when Brazil's Ministry of Foreign Affairs should have been mobilized to guarantee purchases.

There were private sector initiatives in the distribution of supplies needed for vaccination. Carlos Lula mentions the distribution of refrigerators by beverage giant AMBEV.<sup>66</sup>

Luiza Trajano, CEO of retail chain Magazine Luiza, led the United for the Vaccine movement, based on the following premises: "1. Being a non-partisan movement without commercial interests; 2. Creating engagement focused on solutions; 3. Not complaining or looking for someone to blame; 4. Looking forward to what can be done in the future; 5. Dialoguing with governments in all spheres; 6. Being open to changes along the way in order to do it better and faster." 67

According to an interview given by United for the Vaccine representative Maria Fernanda Teixeira, the movement had 470 donors, including companies and individuals who donated 2 million items, with an investment of around R\$ 56 million, and involved 4,500 volunteers all over Brazil. Donations included cold chambers, gloves, special garbage containers for needles and syringes, among other resources approved by ANVISA. Teixeira explained that the movement did not receive money, and its job was essentially to identify needs and find the corresponding donors, who would donate directly to beneficiaries.



To this end, United for the Vaccine listed the supplies needed in Brazilian municipalities and mobilized private donations from individuals and companies. A study conducted by the Locomotiva Institute and sponsored by the movement in April 2020 provided relevant data on Covid-19 vaccination. It covered 5,569 towns through interviews with municipal health managers, concluding that:

- only 60% of public health units had refrigerators with measurement, alarm and temperature in proper conditions;
- ★ 65% had proper vaccination rooms;
- \* 68% had enough thermometers in stock to cover cool boxes, as well as a number of backup thermometers and batteries;
- \* 75% had cool boxes fit for vaccination rooms, extramural actions, and transport of vaccines within the municipality;
- and 85% had sinks with running water, soap, paper towel, garbage containers with pedals, collection boxes for sharps, and plastic bags.<sup>69</sup>

According to Carlos Lula and Nesio Fernandes, the United for the Vaccine movement played a key role in the campaign for Covid-19 vaccination in Brazil. We will get back to this social initiative later on.

Despite the difficulties faced, Ethel Maciel denounces that the biggest challenge of the National Immunization Plan was political rather than operational, as the vaccination schedule became more complex and some professionals were selected for political reasons rather than their technical competence, impairing the Federal Government's ability to purchase supplies. She understands that the working groups defined by the Ministry of Health did not communicate properly, and some technicians feared reprisals if they criticized the government. Fernando Pigatto expresses similar concern regarding the constant changes in leadership and the conflicts of interest of the military personnel working in vaccination.

# DEFINITION OF PRIORITY GROUPS FOR THE NATIONAL IMMUNIZATION PLAN

Reinaldo Guimarães argues that mistakes in responding to the pandemic such as in defining priority groups for vaccination can be seen as normal since the world was "in the dark" in the face of a new virus. Looking at it from the perspective of recent past experiences was only natural, but the singularities and complexity of the pandemic became evident over time, which explains the several turns of events along the way. However, according to Guimarães, while scientists' views evolved as new evidence emerged, the only opinion that remained static was that of the Federal Government.

Among controversial topics, the experts highlight the definition of priority groups for vaccination. Carlos Lula explains that the more objective the criterion, the easier it is to define and organize access. However, the first vaccination plans had ill-defined priority groups.

In December 2020, Ethel Maciel criticized the vaccination plan published by the Ministry of Health, whose priority groups did not include the inmate population. In an interview, she stated that the Ministry of Health's meetings were not very transparent. Members of technical support groups struggled to include inmates, indigenous people, education workers, and the homeless in the vaccination strategy. She also emphasizes that the priority groups were poorly defined, such as health care workers, since, in some cities, people who were not on the front line were vaccinated before the elderly. In the strategy of the st

Since the beginning of the pandemic, organizations advocating indigenous peoples' rights have been

fighting against the escalation of the genocide already underway as a result of Covid-19. Throughout the pandemic, ADPF 709 (Action Against the Violation of a Constitutional Fundamental Right) was the main instrument for pressuring the Federal Government to take measures to protect indigenous peoples at three levels:

- indigenous peoples in general;
- \* isolated and recently contacted indigenous peoples; and
- \* removal of invaders from indigenous lands. 72

Among the demands presented to the Supreme Court (STF) was that the National Plan for the Operationalization of Vaccination for Covid-19 should include indigenous people living in urban contexts and on land that had not been officially approved. According to APIB, all indigenous people were epidemiologically vulnerable: "It must be understood once and for all that ethnic identity does not depend on where an indigenous person is. In other words, no one ceases to be an indigenous person just because they are working and/or studying in the city." The organization considered that the exclusion of non-settled indigenous people and the indigenous population living in non-demarcated lands from the first stage of the national immunization plan violated native peoples' constitutional rights, in addition to being a form of institutional racism.73



"The first doses of the vaccine for Covid-19 should not have been scattered all over Brazil: rather, there should have been a vaccine blockade in the Amazon to slow down the spread of the disease in the country. We lost many living libraries with the death of our shamans."

Ana Brito, interview

Reinaldo Guimarães also criticized the absence of quilombola people and the homeless in the first versions of the vaccination plan, in addition to denouncing that the number of indigenous people mentioned in the initial report was below the estimate for that period.<sup>74</sup> Fernando Pigatto, in turn, mentioned Resolution 73 of the National Health Council, which had proposed the inclusion of the homeless, people with disabilities, caregivers of elderly persons, and non-settled indigenous people.75

> "You have to understand Brazil's diversity and size. We even trained personnel to administer vaccines on barges, 900 km away from the state capital. Given the huge size of the country, we needed objective priority criteria. The more objective the criterion, the easier it is to avoid problems."

> > Carlos Lula, interview

In an interview, Márcia Santos, a member of ABRASCO's W6 on Racism and Health, goes further and invites epidemiologists to place equality at the centre of their analyses, even when defining the design of their research studies. Black women, for example, suffer from the worst indicators in several health issues, such as mortality rates, poor living conditions, food security, etc. These social determinants should also be considered by epidemiologists when designing action plans, in addition to the usual statistical techniques.

The researcher points out that race and colour indicators were not included in the Ministry of Health's list of comorbidities, <sup>76</sup> even though the black population is particularly affected by some of the conditions mentioned, such as diabetes and cardiovascular diseases. <sup>77</sup> This sensitivity towards vulnerable groups also includes the debate about the concept of risk group, as this definition may contribute to stigmatize people. It is important to emphasize the urgency of considering these groups when defining vaccination and the whole set of policies to combat the effects of the pandemic.



# **HEALTH CARE WORKERS**

The absence of national coordination for the immunization programme also impacted the working conditions of health care staff administering vaccines. These difficulties included insufficient training and lack of appreciation for their work.78

In a statement, the Brazilian Network of Women Scientists pointed out that poor training as well as communication that lacked coordination and transparency was notorious and had a negative impact on vaccination and on the quality of the work of the staff in charge: "For the first time, we also have two vaccines with different intervals and distinct potentially adverse events, and there is no centralized or coordinated guidance for health workers."79

Nésio Fernandes warns that there was no incentive programme to encourage staff working on vaccination to meet targets in terms of number of doses administered. At the same time, these workers had to perform other health care services in addition to vaccination, so that they had to work overtime at vaccination centres, including weekends.

In some regions, this neglect has disrupted vaccination procedures. As an example, Ethel Maciel mentions Rio de Janeiro, where doses were discarded because the elderly did not show up at health centres and the vaccines expired shortly after opening. She understands that health workers did not have clear guidelines on what to do when there was no demand from that priority group, such as the possibility of vaccinating people who escorted the elderly or were related to them.

Nésio Fernandes considers that one of the major challenges facing public health care today is SUS workers who were vaccination-hesitant, including Community Health Agents and NIP staff. There are reports of workers who refused to encourage vaccination or provide guidance to SUS users.

"At the NIP, we've lost the ideological debate, the pro-vaccine hegemony space. There are nurses and doctors who are antivaccine activists. In a place I visited, 20% of Community Health Agents were estimated to be denialists, which has a major impact on the micro area involved."

Nésio Fernandes, interview

# ACCESS TO FIXED AND MOBILE VACCINATION CENTRES

Vaccination centres in remote locations were one of the obstacles to immunizing low-income people most often mentioned by the experts and workers interviewed. Ana Brito comments that in some municipalities this factor was worsened by vaccination policies that required downloading apps to schedule appointments. Many people simply did not have mobile phones, or even if they did, they did not know how to download the app due to the digital divide. Brito's view is that the vaccination plan was focused on the middle class, delaying immunization of the poor and thus making access to health care more difficult for the most socially vulnerable strata in the country.

"Several centres conditioned vaccination appointments on the use of an app or website. Many women arrived at vaccination lines with their youngest children or grandchildren and asked to borrow a mobile phone to make an appointment. The children knew how to do it, but they didn't have computers. This system was organized for the middle classes and it caused major delays in vaccination for poorer people."

Organizations advocating LGBTQIA+ rights found that that population struggled to access health care services in several cities. Those organizations sought to influence health managers politically and foster social control, but lack of assistance won out in many places.<sup>80</sup>

However, some initiatives attempted to minimize obstacles. Ana Brito mentions the case of family health care workers that visited households and carried out home vaccination. Nésio Fernandes cites the example of Vila Velha, where the City took the initiative to encourage participation of community leaders and community health workers in the vaccination campaign. Wilames Bezerra and Marcos Franco<sup>81</sup> cite mobile vaccination units that circulated in some municipalities, and vaccination centres located in strategic urban areas<sup>82</sup> such as tube stations and street markets. Finally, Carlos Lula also mentions events held in Maranhão state to encourage vaccination, such as the Vaccination Festival<sup>83</sup> held in some towns.

Carlos Lula highlights the example of Alcântara, Maranhão, where a task force was mobilized to vaccinate the population of its 214 Quilombola communities. It ended up becoming one of the first municipalities to have the whole population vaccinated in Brazil. 84 Vaccination staff could only access communities via dirt roads or boats across the sea, sometimes having to walk long distances with supplies in hand. 85 The town has nine family health care teams, and infected people were instructed to stay home under the supervision of community health agents, while vaccination took place in churches, schools and homes.

Ana Brito, interview

### DATA COLLECTION CHALLENGES

A topic that emerged during interviews was the absence of data on race/colour in the first epidemiological bulletins of the pandemic. Carlos Lula and current CONASEMS head Wilames Bezerra say that lack of information on race/colour is partly due to the difficulty of entering data collected on paper forms into the Ministry of Health online system.

Maria Fernanda Teixeira, from the United for the Vaccine movement, agrees. The aforementioned study conducted by the Locomotiva Institute pointed out that, in 19% of municipalities in April 2020, most health units did not use the internet to register vaccination records and 12% lacked computers.86

Wilames Bezerra argues that one of the greatest challenges in data collection is to feed the online system. Several health workers use paper questionnaires to request information about race/colour and gender but struggle to enter it into the Ministry of Health's website. The causes for that difficulty would include low connectivity, systems that crash or remain offline, in addition to lack of access to computers.

"The problem is feeding a system created in a hurry to meet the particularities of Covid-19 vaccination. which crashes, does not provide good conditions, has limited connectivity and is understaffed. Many municipalities have accumulated a huge number of forms but cannot consolidate the data. I used to say that the data available do not represent the reality at the end of the chain: there are many more people vaccinated."

Wilames Freire Bezerra, interview



Márcia Santos, together with a team of researchers working with health and racism, 87 explains that race/colour data are neglected in Brazil because of low interest in having access to them. Decisions are not based on that information — which is also evidence of institutional racism.

Santos mentions that a 2017 regulation established that filling in the race/colour field in the forms of health information systems was mandatory. 88 However, the indicator was not actually included in pandemic bulletins before April 2020, after pressure from black movements such as the Black Coalition for Rights, the WG on Black Population's Health, the Brazilian Society of Family and Community Medicine, and Abrasco's WG on Racism and Health. 89

CONASEMS's technical advisor Marcos Franco informs that filling out race/colour field was not considered mandatory during a large part of the vaccination campaign; it only happened, and in part, thanks to ADPF 742,90 which focused on quilombola people.

ADPF 742 is the result of efforts by quilombola leaders who also engaged in collecting data on vaccination in their communities, especially the National Coordination of Rural Black Quilombola Communities (CONAQ).<sup>91</sup> According to the movement, there were no longer any data on quilombola populations, both on the number of people living in the communities and the number of deaths from Covid-19.<sup>92</sup>

Faced with this scenario, the leaders of this movement made an effort to supply part of this data, collecting information through connections among regional and local leaders, residents, community agents, and health departments. In some cases, the vaccines did not reach the communities, leading residents to move to the nearest municipalities and be exposed to the virus, sometimes being discriminated against by health services that refused to provide care to people who did not prove they lived in Quilombola communities.<sup>93</sup>



# **CONCLUSION: HEALTH JUSTICE** AND ACCESS TO **VACCINES AS A** RIGHT

An analysis of the results of the report based on the concepts of health democracy and health justice clearly demonstrates how inequalities in access to Covid-19 vaccines have impacted the right to health in Brazil and reinforced the structural inequalities of the health system.



#### **HEALTH JUSTICE**

Fair distribution of goods, products and services that contribute to promote, prevent and recover health as well as fair protection of human beings against health risks existing in a given territory or even globally.

#### **HEALTH DEMOCRACY**

Public health policies established with participation, and which consider demands, in order to influence government decisions at all levels of power, through procedures and institutions previously established by law and guided by the search for justice.

The ambiguous and recalcitrant actions of the Brazilian Government in purchasing and distributing vaccines for Covid-19 impacted the country's most vulnerable groups, notably children, indigenous peoples, black people, the poor, and the elderly. As reported by the Parliamentary Inquiry committee at the Federal Senate, Brazil's Covid-19 vaccination campaign was based on a dubious political rhetoric by the Government regarding vaccines, the absence of public information campaigns on vaccination, inadequate management of the National Immunization Plan (including allegations of corruption), and low political coordination between the Federal government and state governments to establish a national vaccination strategy.

A report by the Comptroller General points out that the Ministry of Health lost R\$ 104 million in medicines and vaccines in the first half of 2021, with R\$ 20 billion in accounting distortions, causing the loss of 500,000 doses of vaccine for hepatitis B, 200,000 for varicella, 87,000 MMRV vaccines, 245,000 vials of BCG, and 800,000 insulin kits that expired before being used. The Ministry of Health's inaction in managing stocks of drugs, supplies and vaccines is a reflection of its lack of technical capability to implement national strategic policies, which resulted in unnecessary losses.94

This situation violates, among others, the principles of the universality of the Unified Health System and health security, under which the government must curb illness from preventable causes by prioritizing preventive activities. That includes its duty to vaccinate the population, while inertia in vaccine acquisition and administration is inadmissible, especially during pandemics and epidemics.<sup>95</sup>

The analysis of data retrieved from the Covid-19 Vaccinometer set by RNDS/SASISUS and IBGE shows regional inequality in vaccination coverage - from 57.5% in the state of Roraima to 91.0% in São Paulo. In addition, there were inequalities associated with social (r = 0.416) and gender (r = 0.994) factors in that vaccination. Data on vaccination of the LGBTQIA+ population were not found, and related international literature indicates potential discrimination by vaccination services and socioeconomic factors related to vaccine hesitancy. Vaccine inequality based on race/ skin colour reasons could not be identified because of lack of information on that variable, which ranged from 8.72% (Mato Grosso do Sul) to 39.41% (Federal District). The effects of structural and institutional racism compromise the analysis of racial inequality in access to vaccines for Covid-19, with effects on the investigation of the impact of vaccination among racial minorities, due to the low quality of information. Norms determining the collection of that data are not highly effective.

The analysis of the views of governmental (CONASS and CONASEMS) and non-governmental (ABRASCO, CNS, United for the Vaccine and experts) actors interviewed about vaccine inequality — complemented by desk

research – did not find actual public policies aimed at reducing inequalities in access to vaccines in the cleavage studied (gender, race/colour and income), even though there was constant pressure from civil society and experts. Rather, there were specific initiatives by local governments or civil society aimed at specific audiences – some of which can be considered as good practices in favour of equality.

However, these are non-systematic and, from a national point of view, fragmented initiatives. Among managers, the idea prevails that the best policy is 'vaccine for all,' without any distinction. Among social organizations, ABRASCO took strong stances through its WG on Racism and Health, as well as the National Health Council, which since its first public interventions has denounced inequalities and made proposals related to income, gender and race, in addition to entities and social movements that advocate the rights of vulnerable groups, especially the black population and native communities. Among the main obstacles to accessing vaccines for Covid-19 during the pandemic, respondents pointed out global inequality in the distribution of immunizers, poor negotiation for vaccine purchase by the Federal Government, rejection of scientific evidence and good management practices by the Ministry of Health, absence of national coordination for the National Immunization Plan and federal communication strategies, delay in purchasing supplies, disagreements in defining priority groups, insufficient and undertrained health staff, loss of hegemony by the pro-vaccine discourse (even within the SUS), challenges in accessing vaccination sites, and difficulties in data collection.



# **PROPOSALS AND** RECOMMENDATIONS

Based on previous sections, some proposals and recommendations of local, national and regional scope are presented below, classified according to their timeframe (short, medium and long term).

#### **SHORT TERM**

Immediately implementing a mechanism for evaluation and review of the PNO, with effective participation of experts, representatives of subnational entities, society and parliaments, in order to discuss income, race/colour and gender inequalities in Covid-19 vaccination, among others.

Improving mechanisms to collect data on vaccination for Covid-19, including both immediate investments to improve the system/hire staff to feed it and incentives to following the current rules for entering data on race/colour.

Organizing, under the leadership of the Ministry of Health, national health communication campaigns to promote vaccination, including pro-vaccine communication actions in partnership with black organizations, groups and collectives in territories primarily occupied by the black population - quilombos, slums, outskirts of cities, African-Brazilian religious places, settlements, rural populations, public schools, occupied areas, valleys, lowlands, communities, villages, wetlands, precarious housing, stilt houses, and the homeless, among others.

Organizing national communication campaigns under the leadership of the Ministry of Health that face the main elements of propaganda against public health care promoted by the Federal Government in the last four years, especially with regard to vaccination.

Organizing training initiatives for health workers, especially those assigned to the PNI and Community Health Agents, focused on combating anti-vaccine movements and denialism of science.

Uraently resuming the National Policy Comprehensive Health for the Black Population and adopting incentive and regulatory strategies to increase its effectiveness.





### **MEDIUM TERM**

Enacting a federal law that reorganizes the National Health Surveillance System and the PNI, eliminating the sparse nature of Brazilian epidemiological legislation and adopting a human rights approach towards health security.

Expanding funding for actions to prevent infectious and contagious diseases and preparing for health emergencies, notably vaccination campaigns.

Expanding partnerships between national and foreign technology centres to produce, in Brazil, vaccines of interest to the SUS, considering the perspectives of international cooperation in health, with emphasis on strategies to strengthen large Brazilian state-owned laboratories.

Resuming Brazil's foreign policy for health care, with the development of international cooperation in the field of vaccines, mainly within the BRICS and South America.

Still as a resumption of Brazilian foreign policy for health, exercising Brazilian leadership in the areas of international negotiation directly or indirectly related to access to vaccines for Covid-19, particularly in forums related to intellectual property and the agreement on pandemics currently negotiated under the WHO.

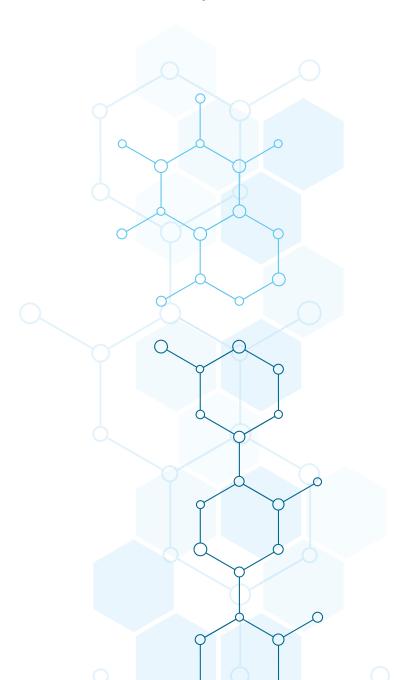
Taking initiatives to foster research that promote methodological strategies in collective health in order to take into account structural racism and other dimensions of inequality, including specific open selection procedures from funding agencies and mechanisms to reward researchers and acknowledge their work.

#### **LONG TERM**

In partnership with international organizations and social entities, creating programmes to foster and disseminate good practices in terms of promoting equity in access to vaccines for Covid-19 that address income, racial and gender issues.

Public investment in Brazil's economic and industrial vaccine complex, including pharmaceutical innovation.

Induction of social innovations in the pharmaceutical field, especially vaccines and medicines for unmet health care needs (rare and neglected diseases).



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