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Realising the future: Health challenges and achievements in Brazil☆

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ABSTRACT

In the present paper, we take a critical public health perspective that accounts for social determinants of health and health inequalities to explore the challenges of healthcare — including mental healthcare — in Brazil. Brazil, which has been described as a country of continental dimensions, a country of contrasts, and the country of the future, was built on principles of exploitation of the land and of its people, and has faced many social, economic, and political challenges throughout its history. The creation of Brazil's Unified Health System (*Sistema Único de Saúde* — SUS), providing universal healthcare free of charge at point of use, attests to the country's resilience. Despite many advances, several issues remain in the promotion, prevention, and care for physical and mental health problems. Particularly for mental health, the recent increased demand for services following the Covid-19 pandemic has exposed the system's vulnerability in terms of coverage and reach, with underserved groups including youths, females, LGBTQIA+, non-white, and low-income individuals. By taking advantage of the SUS installed infrastructure and strengthening the primary care model on which the system is based, the SUS can become the blueprint to consolidate and expand mental healthcare in Brazil.

1. Introduction

Several clichés have been used to describe Brazil, a country that has undergone profound transformations in the last hundred years. As the largest country in South America, covering 510,000 km^2 and a good part of the southern Atlantic coastline, Brazil is known as a "country of continental dimensions." Brazil is also the Latin American country with the largest population, currently estimated at 213 million (Instituto Brasileiro de Geografia e Estatística, 2022a), and is often described as "a country of contrasts," for its marked contradictions in terms of wealth and poverty, progress and backwardness; and it has been heralded numerous times as the "country of the future," a prediction that has not yet materialised.

From an economic point of view, Brazil is known as one of the most unequal countries in the world. In 1976 (Instituto de Pesquisa Econômica Aplicada, 2016a), the country recorded a 0.623 Gini index — defined by the World Bank as a measure of the extent to which the distribution of income or consumption among individuals or households within an economy deviates from a perfectly equal distribution, with 0 representing perfect equality and 1 representing perfect inequality (World Bank, 2023a). With fluctuations over time, in 2021 the Gini index for Brazil was at 0.544 (Instituto Brasileiro de Geografia e Estatística, 2022b), still the highest among countries with available data according to the World Bank (World Bank, 2023b). Further, the latest

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report produced the Brazilian Geography and Statistics Institute (IBGE, the federal agency in charge of producing, analysing, and compiling statistical and geographic information for the country, including the national census) shows an increase in the Gini index for household income, from 0.510 in the first quarter of 2022 to 0.519 in the third quarter; individual income rose from 0.481 to 0.494 in the same period (Carvalho, 2022).

In this environment, over the last three decades Brazil was able to build what is now one of the largest universal systems in the globe — the *Sistema Único de Saúde* (SUS) — which provides healthcare to millions of Brazilians, however still reflecting the marked regional and economic inequalities faced by the country and struggling to fully integrate mental healthcare.

In the present paper, we take a critical public health perspective that accounts for social determinants of health and health inequalities to explore the challenges of healthcare — including mental healthcare, and suggest avenues forward considering both the existing and the untapped power of the SUS, especially the available primary health care structure which has community health agents as one of its main pillars.

2. Country overview

Brazil is divided into five geographical regions, North, Northeast, Midwest, Southeast, and South, comprising 26 states and a federal district where the capital, Brasília, is located. The regions are markedly different in social, economic, environmental, and demographic aspects (Fig. 1). For example, the region with the largest territory, the North (which holds most of the Amazon fForest), has the smallest population and also the lowest population density (3.9 people per km^2); the Southeast covers only 11% of the territory, but is home to 43% of the population, which entails a high demographic density. The Southeast is also the country's strongest economy, producing in 2020 more than 50% of the gross domestic product (GDP) (Instituto Brasileiro de Geografia e Estatística, 2023a), with the state of São Paulo alone accounting for one third of the national economy (Carneiro and Saraiva, 2022).

2.1. Population trends

In the 20th century, population growth in Brazil followed the world

Fig. 1. Brazil: five regions and 27 federation units
Map shows 26 states and the Federal District where the national capital Brasília is located. Data derived from Instituto Brasileiro de Geografia e Estatística, 2021 (area); Instituto Brasileiro de Geografia e Estatística, 2020 (population); Fapespa, Governo do Pará (population density); Instituto Brasileiro de Geografia e Estatística, 2023a (GDP); Instituto de Pesquisa Econômica Aplicada, 2016b (HDI). HDI: Human development index. BRL: Brazilian currency (reais). GDP: Contribution of each region to the Brazilian gross domestic product.

trend, with 3% growth annually in the 1950s and 1960s and a tenfold increase in population over the last hundred years (Instituto Brasileiro de Geografia e Estatística, 2010a). In 1900, the country had 17 million people; in 1970, 90 million. This increase resulted essentially from internal population growth following a drop in the infant mortality rate and a rise in life expectancy at birth: for men, life expectancy at birth increased from 42.9 years in 1940 to around 63.2 years in 1991 and 72.5 years in 2017 (Instituto Brasileiro de Geografia e Estatística, 2018); for women, the increase was from 34.6 to 70.9 in 1991 and 79.6 years in 2017. In the year 2021, life expectancy at birth for men was 73.6 years, and 80.5 years for women.

In 2007, 72% of all deaths in Brazil were due to non-communicable diseases (Schmidt, 2011). Nevertheless, although the crude mortality rate from non-communicable diseases increased 5% between 1996 and 2007, a 20% decline in age-standardised mortality was observed, primarily for cardiovascular and chronic respiratory diseases, following implementation of health policies that curtailed smoking and expanded access to primary health care. According to the Global Burden of Disease (GBD) Study, non-communicable diseases are currently the main source of disease burden in Brazil (Fig. 2), with cardiovascular diseases, neoplasms, and mental disorders leading the rank. It is noteworthy that the group of mental disorders, positioned in 1990 as the ninth cause of disease-related burden measured in disability-adjusted life years (DALYs), rose to the third position in 2019.

Since the 1970s the fertility rate has declined significantly, going from around 6 children per woman in 1960 to 2.8 children in the 1990s, and is currently at 1.6 child per woman (World Bank, 2022). Also noteworthy is the loss of 19% in the gains in life expectancy achieved from 2000 to 2020 as a result of the Covid-19 pandemic in Brazil (Castro et al., 2021). A 1.3 year decline in the life expectancy at birth has been estimated in 2020, corresponding to a mortality level not seen since 2014. Among males, the states of Amazonas and Pará, located in the North region, lost all that was gained over two decades. These two states also had the largest overall setbacks, although losses were recorded for all states.

A major shift from rural to urban also happened over the 20th century. In the 1950s, urbanisation rate was 36% vs. over 80% at the turn of the millennium, with the urban population having become the majority in the 1970s (Instituto Brasileiro de Geografia e Estatística, 2010b). Internal migration occurred mostly from rural regions to urban areas due to the strong process of industrialization and modernization of cities between the 1950s and 1970s, and from the Northeast region to the more urbanised and technologically developed Southeast (Instituto Brasileiro de Geografia e Estatística, 2010c). The rural population growth rate slowed gradually between 1950 and the 1980s, when a population decline was noted (Instituto Brasileiro de Geografia e Estatística, 2010b). Conversely, the urban population continued to grow, at an initial 3.9% annual rate, to reach 5.2% in the 1970s. Even if the growth rate declined, it was still positive in subsequent decades, with annual rates around 2–3%. Currently, around 84% of the population live

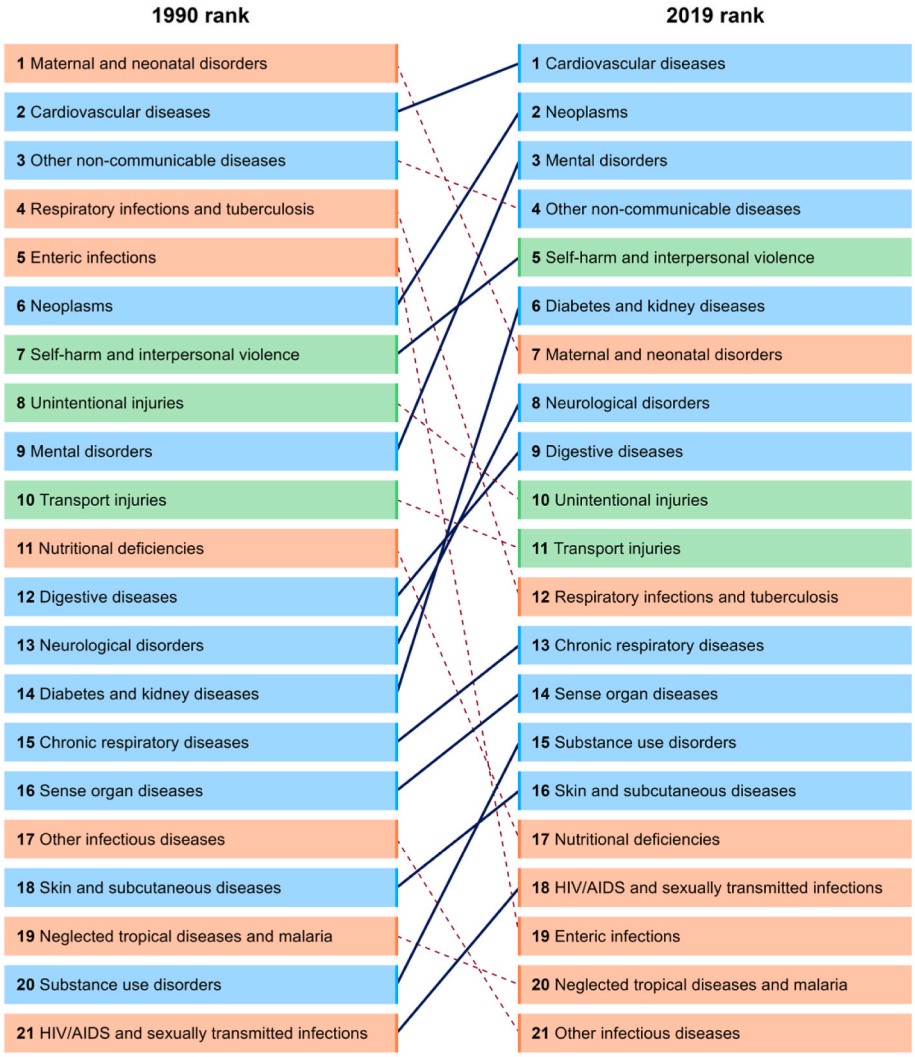

Fig. 2. Leading causes of disease burden in Brazil, 1990 and 2019
Disease burden measured as disability-adjusted life years (DALYs) per 100,000 population for both sexes and all ages in Brazil in 2019 (Global Burden of Disease Collaborative Network, 2020). Blue: non-communicable diseases; orange: communicable, maternal, neonatal, and nutritional diseases; green: injuries. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

in urban areas in Brazil, and only 15.3% live in rural areas. The absolute number of people living in rural areas has remained practically unchanged since 1950 (when the same 30 million population was recorded), while the number of people living in urban areas increased from 18 million in 1950 to 160 million in 2010 (Instituto Brasileiro de Geografia e Estatística, 2010b). Since the 1980s, a small but significant disparity in the ratio between men and women has been noted, as women have increased their proportion in the population relative to men — in 2010, women surpassed men by 4 million (Instituto Brasileiro de Geografia e Estatística, 2010d).

2.2. Ethnicity and race

From the point of view of ethnicity and race — which in Brazil are officially classified in the national census according to self-reported skin colour (see Box 1) — the country was also transformed during the 20th century. During this period, the country experienced a process that has been called "pardization of Brazil," namely an increase in the percentage of people who self-declared as brown (Schwarcz, 2012). According to the most recent decennial census, from 2010, the number of whites and browns is practically the same, around 80 to 90 million people for each self-declaration (80% of the population). Blacks and yellows cover 14 and 2 million people respectively. Importantly, native/indigenous peoples comprise 0.6% of the Brazilian population according to the census (Instituto Brasileiro de Geografia e Estatística, 2010a). The distribution of these population groups is not homogeneous across regions. For example, in the South more than 75% of the population self-identifies as white (and only slightly more than 19% as mixed race), whereas in the Northeast 74% self-identify as brown (and about 25% as white) (Instituto Brasileiro de Geografia e Estatística, 2023b).

2.3. Gender, education, religion, and labour

A conservative view on gender roles still prevails in Brazil, even though, according to the 2010 census, 37% of families had a female declared as "head of household." Still, women earned only 67% of what men earned in the same period (Instituto Brasileiro de Geografia e Estatística, 2010e). The 2019 National Health Survey for the first time covered self-reported sexual orientation of adults, with 1.2% identifying as homosexual and 0.7% as bisexual, while 1.1% of the population stated that they did not know how to answer the question and 0.1% declared that they identified with other orientations (Instituto Brasileiro de Geografia e Estatística, 2022c). The strong conservative component in Brazilian society encourages homophobic behaviours, with significant violence against the LGBTQIA+ community. Same-sex marriage, nonetheless, became legal in Brazil in 2013 (MInistério da Saúde, 2013) and, in 2019, the Supreme Court recognized homophobia as having the same status as racism, but the discussion remains open in the legislative sphere (Supremo Tribunal Federal, 2019).

In terms of educational attainment, again there were marked changes in the 20th and 21st centuries. Illiteracy in the country has declined sharply, going from 56% of the population in the 1940s to the current 6% (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, 1997). However, this figure should be interpreted in context: in 2010, Brazil had 80 million people (Instituto Brasileiro de Geografia e Estatística, 2010d) with less than primary education, and only 12 million people with a higher education degree (Instituto Brasileiro de Geografia e Estatística, 2010c). Further, in comparison to other Latin American major cities, São Paulo recently exhibited the worst schooling indicators, with 23.4% of participants of a multinational study having completed two years or less of schooling (Menezes et al., 2005). There is a significant disproportion between access to higher education based on skin colour, which has been partially mitigated by affirmative action policies in recent decades (Instituto Brasileiro de Geografia e Estatística, 2010d).

Catholicism remains the dominant religion in Brazil, with 123 million people self-declared as Catholics in 2010, when the latest census was completed; at that time, this represented 64% of the population. However, the advance of evangelical religions (including growing neo-Pentecostal churches) and, to a lesser extent, of Afro-Brazilian religions, such as Candomblé and Umbanda (religions often practised underground due to prevailing prejudice arising from monotheistic religions) is noteworthy (Instituto Brasileiro de Geografia e Estatística, 2010f).

Informal labour represents a large proportion of the economy in Brazil. In 2022, a record high number of individuals aged 14 years or older engaged in informal labour was registered — 39.3 million, or 40.0% of the reference population— the highest since the start of the historical series in 2015. Also, in 2022, discouraged workers (no longer actively looking for employment) accounted for 3.8% of the population aged 14 years or older (Instituto Brasileiro de Geografia e Estatística, 2022d). Among youth aged 18–24 years and 25–29 years, 27% and 25% respectively were not in education, employment or training (NEET) in 2020 (Silva and Vaz, 2020).

2.4. Economic model

The 20th century witnessed major shifts in Brazil's economy. The Brazilian agro-export model, which accounted for 49% of the country's GDP in the 1940s, declined to a figure of just under one tenth of the country's GDP in the 1980s, maintaining this level to date. Conversely, industrial activity grew steadily in the 1940s and 1950s, and currently contributes 27% of the country's GDP. The services sector still has the largest GDP slice (Instituto Brasileiro de Geografia e Estatística, 2022e).

Box 1
The name of the colour: skin as a racial-ethnic marker in Brazil

The ethnic-racial classification currently employed by the Brazilian Institute of Geography and Statistics (IBGE) in the national census defines race according to "self-reported skin colour": current categories include white, brown, black, and yellow. The one exception is the "indigenous" category, introduced in the 1991 demographic census. Skin colour categories have been inherited from the first Brazilian census, performed in 1872 (Westin, 2022). At that time, indigenous populations were categorized as "caboclos"; the black and brown categories were the only ones used for the slave portion of the population, although they could also include free people, born that way or released from slavery. In the second census, in 1890, the term "pardo" was replaced with mestizo. Subsequent censuses ignored race and ethnicity; the colour of the population was not surveyed again until 1940, with categories that were almost the same as those used in 1872. "Mestizos" was reversed to "brown," and a "yellow" category was created for Asians. There was no specific category for indigenous people (who were classified as brown). In the 1990s, the "indigenous" category was added; thereafter the census classification began to be designated by colour or race. This classification is also used in other IBGE surveys, in the administrative records of the Brazilian government, and in surveys carried out by other institutions (Petruccelli and Saboia, 2013; Petruccelli, 2007; Osorio, 2003). The lack of complete correspondence between the IBGE official classification and the terms used in international (mostly North American) research literature often poses challenges in the comparison between Brazilian and non-Brazilian data.

The growth of wealth has positioned Brazil as a key regional player and brought it closer to other similar economies — including in terms of inequalities and contradictions — such as Russia, India, China and South Africa (the BRICs). Since the latest economic plan was established in 1993–1994 (the Real Plan), the country's GDP has grown: in 1996, Brazil recorded an annual GDP of USD 850 billion; reaching USD 2.62 trillion in 2011; and subsequently decreasing to USD 1.61 trillion in 2021 (World Bank, 2023c). The country's *per capita* GDP also grew, rising from USD 5,121 in 1996 to USD 5,507 in 2022, and reaching 13, 200 in 2011 (World Bank, 2023d). These fluctuations reveal that the path was not always smooth: especially challenging moments included the government transition in 2002–2003 (Fernando Henrique Cardoso to Lula, the late and post-Dilma government crisis in 2015–2019, and the Covid-19 crisis in 2020–2021). After a period of hyperinflation in the early 1990s, the country reached single-digit annual inflation levels with the Real Plan. Since then, a jagged inflation pattern has been observed, with peaks during crises such as the end of Fernando Henrique Cardoso's second term in 2002 (14.74%), during Dilma Rousseff's second term (11.28% in 2015), and during the Covid-19 pandemic (10.16% in 2021). In 2022, the country's inflation hovers around 5.7%. A similar pattern was observed regarding employment: the current unemployment rate is 8.7% (Instituto Brasileiro de Geografia e Estatística, 2023c), with peaks of 13.9% in 2015 (1st quarter of 2017) and 14.9% in 2020 in June–August, concurrent to the Covid pandemic (Instituto Brasileiro de Geografia e Estatística, 2022f).

Brazil is also positioned to play a key role in leading clean economic growth efforts. Among Brazil's strong points is its energy mix, among the cleanest in the world, a robust legal framework, and active civil society monitoring. However, implementation of policies by government has been lacking (OECD, 2021) and is a crucial next step that remains to be realised in the coming years (Caldeira et al., 2020).

2.5. Violence

Similarly to other Latin American countries, Brazil exhibits extremely elevated violence indicators, including a high rate of homicides by firearms (Global Burden of Disease 2016 Injury Collaborators, 2018). Despite still being the leading country in the world in terms of absolute number of deaths by firearm and ranking sixth in terms of deaths proportional to the population size, Brazil observed a decrease in deaths by firearm since the implementation of a firearm control legislation. Regional effects of this gun control initiative where observed in the sense that more pronounced reductions in number of deaths were observed in states with higher number of guns collected by the government (Malta et al., 2020).

In the last years, the annual number of homicides in Brazil has remained at a steady high: around 40,000 deaths, with a homicide rate of 20–30 per 100,000 population. There are marked regional differences, with a significantly lower rate in the South and Southeast regions. Also remarkable is that the homicide rate practically doubles in the 15- to 29-year-old age group, having reached 45.8/100,000 nationally in 2019. In some states, such as Amapá, the homicide rate in this age group is as high as 101.8/100,000. Specifically for young males, the number again doubles, for a nationwide rate of 84.9 (195.1 in Amapá). Other disparities include the homicide rate of black women (4.1/100,000 population), practically twice the homicide rate of white women (2.5/100,000 population) for the year 2019 (Engel and org, 2015; Instituto de Pesquisa Econômica Aplicada, 2021).

2.6. A sociodemographic context for mental health in Brazil

The demographic characteristics of Brazil may be seen as reflecting on some epidemiological aspects of mental health and ill-health in the country. Unfortunately, nationally representative data on the epidemiology of mental disorders in Brazil are scarce, but existing estimates suggest higher rates in comparison to global averages. The Brazilian segment of the World Mental Health Survey Initiative, conducted in the metropolitan area of São Paulo, identified an overall prevalence of 29.6% for any mental disorder among individuals aged 18 years or older (Andrade et al., 2012). The Brazilian National Health surveys in 2013 and 2019 indicated an increase in the prevalence of self-reported history of depression among adults, from 7.6% (95%CI 7.2 to 8.1) to 10.2% (95%CI 9.9 to 10.6) in the six-year period. There was a marked difference in the prevalence according to geographical region, with 5.0% (95%CI 4.4 to 5.6) in the North and 15.2% (95%CI 14.2 to 16.2) in the South in 2019 (Brito et al., 2022).

In addition to the regional differences in the prevalence of diagnosed mental disorders — explained, at least in part, by disparities in the availability of services — other factors have been consistently associated with an increased probability of meeting criteria for a mental disorder. For instance, a recent pooled analysis of the Consortium of Birth Cohorts in Ribeirão Preto, Pelotas, and São Luís covering three geographically and socioeconomically distinct Brazilian cities evidenced that mental disorders among adolescents and young adults were in general more prevalent among females and individuals with lower socioeconomic status (Orellana et al., 2020). Further, the literature also indicates higher rates of mental disorders among groups such as non-whites (Orellana et al., 2020), LGBTQIA + individuals (Terra et al., 2022), and indigenous populations (Batista and Zanello, 2016).

According to GBD estimates, more than 36 million individuals in Brazil meet diagnostic criteria for at least one mental disorder, and 9 million meet criteria for a substance use disorder. The most prevalent diagnostic categories in 2019 were anxiety disorders (17 million), depressive disorders (9 million), alcohol use disorders (7 million), and attention-deficit/hyperactivity disorder (4 million). In 2019, more than 13 thousand — or 6.3 per 100,000 — deaths by suicide were recorded in Brazil, corresponding to 1.6% (95%UI 1.5 to 1.7) of the years of life lost (YLLs) in the country (GBD Results 2023a; GBD Results, 2023b)..

In terms of morbidity as estimated by the number of years with disability (YLDs) — defined as years of healthy life lost due to disability or ill-health — mental disorders were the leading group in Brazil in 2019 (Fig. 3A), accounting for 4.9 million YLDs across all age groups (GBD Results, 2023c) and corresponding to 18.8% (95%UI 15.7 to 21.7) of all YLDs in the country. For the same year, Fig. 3B shows the proportion of YLDs attributable to mental disorders in Brazil and the world. Anxiety disorders and depressive disorders represented each almost one third of all non-fatal disease-related burden (GBD Results, 2023c) — 6.3% (95% UI 4.9 to 7.9) and 6.2% (95%UI 4.9 to 7.7), respectively —, with alcohol use disorders in third place (2.6%, 95%UI 2.0 to 3.3), a higher proportion than the global average (Fig. 3B) (GBD Results, 2023d).

3. A backdrop for healthcare in Brazil: historical origins of the country

The history of Brazil can be divided into four major phases: (i) the pre-Cabraline period, undated until 1500; (ii) colonial, from 1500 to 1822; (iii) imperial, from 1822 to 1889; (iv) republican, from 1889 until the present day (Prous, 2006; Fausto, 2019).

The pre-Cabraline period refers to the history of native peoples prior to the Portuguese occupation, which began in 1500, during the era of the Great Navigations. Studies in this area have advanced rapidly and significantly, replacing the early general view of the human occupation of the continent, according to which Asian peoples crossed the Bering Strait 12 thousand years ago and established semi-sedentary communities, with sparse population, little institutional complexity and low technological and economic development. However, more recent studies have proposed occupations before the Bering Strait crossing, by Atlantic routes and from the South Pacific (also including African and Oceanian peoples), with the formation of larger and more complex communities, especially in the Amazon region. For now, the pre-Cabraline period is accepted to have ended with the Portuguese invasion in 1500, in search of new routes to the East, products, labour,

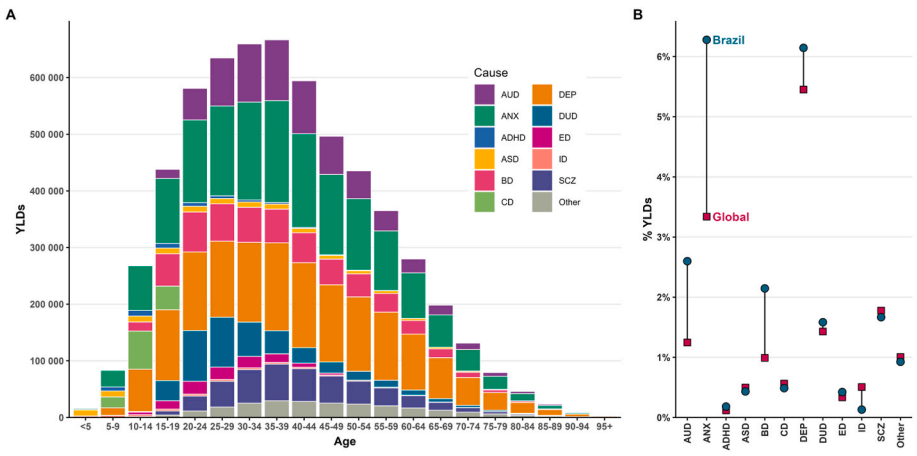

Fig. 3. Number of years lost to disability (YLDs) attributable to mental disorders in Brazil and proportion of YLDs attributable to mental disorders in Brazil and the world, 2019
Bars in (A) show the total number of YLDs (bar height) and the number of YLDs for each disorder (colour rectangles) (GBD Results, 2023c) for age groups. (B) compares the proportion of YLDs for both sexes and all ages in Brazil (green circle) and globally (pink square) (GBD Results, 2023d). AUD: alcohol use disorders; ANX: anxiety disorders; ADHD: attention deficit and hyperactivity disorder; ASD: autism spectrum disorders; BD: bipolar disorder; CD: conduct disorder; DEP: depressive disorders; DUD: drug use disorders; ED: eating disorders: ID: idiopathic developmental intellectual disability; SCZ: schizophrenia; Other: other mental disorders. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

precious metals and wealth in general (Machado, 2018).

The colonial period is extensive, spanning more than three centuries. During the colonial era, the Portuguese explored the coast of Brazil in occupation and exploitation centres for different products, such as pau-brasil, sugar cane, and tobacco, among others. The colonial exploitation model was based on the trinomial of export monoculture, colonial monopoly, and slave labour. In that sense, a major trait of the history of Brazil is the ubiquitous presence of slavery, first of indigenous peoples and later of Africans kidnapped from their continent to work in sugarcane plantations, starting in 1535 and extending beyond the colonial period. Brazil was the last free country to officially extinguish slavery — it was not until the end of the imperial period, in 1888, with the Lei Áurea, that slavery was officially abolished (International Labour Organization, 2008).

A process of interiorization began after gold was found in the region of Minas Gerais. At the end of the 18th century, enlightenment ideas spread in the country, first among the intellectual elite and then reaching the lower classes, provoking attempts at local emancipatory insurrections (Mineira, Rio de Janeiro and Bahia), all of which failed (Maxwell, 1989; MultiRio; Valim, 2020).

Throughout the colonial period, manufacturing activities and the free circulation of ideas and the press were prohibited, and education was not instituted. A few schools of Medicine and Law were created in the eighteenth century. Literacy was a privilege for the few, as even members of the elite were illiterate. The country's first universities were founded in the twentieth century, during the republican period. In contrast, Spanish colonisation did not prevent the formation of universities (already created in the 16th century in Spanish America), as well as English colonisation in the Northeast of the USA (17th century) (Lange et al., 2006).

In the early 19th century, the colony faced a *sui generis* event: with the Napoleonic invasion of Portugal, the entire court, more than 5 thousand people, abandoned the Portuguese metropolis and landed in Brazil at the end of 1807. This lasted until 1821, and it was only in this period, during which the king governed from within the colony, that the first health care institutions were organised in the country. Until then, attempts had been made to reproduce in the colony the decentralised and inattentive health service of the Portuguese "almotacéis" (Fundação Nacional de Saúde, 2017). Already in 1810, the neighbouring colonies of Spanish America began their process of emancipation from Spain, but the unique situation of the Portuguese colony delayed the process in Brazil. With the return of King Dom João VI to Portugal, his son, Pedro, stayed on as prince-regent, and for a series of reasons, he broke with his father and was the spokesman for the country's independence — yet another unique feature of Brazilian history (Green and Skidmore, 2021).

The country became independent in 1822 and another distinct step was taken: the prince emancipated the country and took over as king, that is, ruling as a monarch. With the exception of a short period of Mexican history, only Brazil, in all of America, instituted a monarchy as the system of government upon emancipation. The monarchical period, also called imperial, lasted until 1889, and did not alter the colonial socioeconomic bases, as the country followed its plantation structure, but now in coffee production. Some actions in the area of health were established, related to epidemics in general, public hygiene, vaccines (mainly against smallpox), as well as the municipalization of health services (Lima, 2007).

The pressure to end of slavery that came from nineteenth-century liberalism and from internal and external abolitionist groups produced some palliative laws following independence, but which postponed the end of slavery (Lei "para Inglês ver" [law to appease the English], Eusébio de Queirós law, Lei do "Ventre Livre" [free womb], sexagenarian law). During this period, the country sought a process of population whitening, sponsored by the government through a European immigration policy, especially from Italy, Germany, and Eastern Europe.

The history of the Brazilian Republic is quite troubled, with five distinct periods over a short period of time. The First Republic (1889–1930), tore up the monarchical constitution and instituted a constitution that could be described as a mere formality, given that the period was marked by institutional corruption of various levels. The country was dominated by the so-called coffee barons from the Southeast region, who, through a complex system of electoral corruption, perpetuated themselves in government for more than 30 years (Bradford Burns et al., 2023).

During this period, there were some actions related to the urbanisation of large cities in Brazil, especially Rio de Janeiro, the capital at the time. This process also aimed to institute measures of public hygiene and general sanitation. A famous event in this period was popular revolt against the actions of the General Director of Public Health Oswaldo Cruz, who had carried out mandatory vaccination against smallpox. The uprising, known as the Vaccine Revolt, is one among several anti-vaxxer movements from the second half of the 19th and first half of the 20th centuries (Hochman, 2011). Another important exponent of public health in the country was Carlos Chagas, who in 1909 discovered a new human trypanosomiasis (Chagas' disease), in addition to having created the National Department of Public Health (Sá, 2005).

The 1929 crisis dealt a heavy blow to the agro-export economy of the First Republic. The coffee barons were weakened and a major rupture occurred: the Second Republic saw the rise of Getúlio Vargas, a politician who represents the Brazilian populist model of government. Vargas introduced modernising and urban initiatives aimed at the working class, but also at the national industrial business class, and sought to resolve conflicts through his charismatic figure. This period was a turning point in the country's history, as the agro-export model finally ended, and Brazil began to seek industrial development through public

investment policies financed by loans from foreign countries. Vargas' economic nationalism encountered many internal and external opponents, especially those who defended the liberal model of development, and for this reason and other factors the Second Republic went through important institutional ruptures (three distinct periods, two new constitutions and a dictatorship), which were all handled by Vargas so that he would remain in power. The country developed its basic industry sector in particular, with steelworks and hydroelectric plants, and with the institution of labour rights for urban workers. This was finally the time when a ministry was created that also encompassed health, in 1930 (a dedicated ministry of health would only be created later). His involvement in World War II contributed to his downfall, and in 1945 Vargas withdrew from government and elections were called (Cardoso, 2016).

The country entered the Third Republic seeking a return to democracy. Political parties were allowed again and free and non-corrupt elections took place. The polarisation between nationalists and liberals remained, with a persistent slight margin favouring the former. Vargas was re-elected in 1950 for another term, which tragically ended with his death by suicide. The presidents of this period governed under great turmoil, with only two of them ending their terms as expected. A dedicated Ministry of Health was established in 1953, and many measures were implemented in research and prevention of diseases such as polio (Barreto et al., 2011).

The armed forces, which since the beginning of the republic had meddled in Brazilian politics, exacerbated this interference, now motivated and inflated by the anticommunism of the Cold War. The polarisation between nationalists and liberals from the 1940s and 1950s became a polarisation between communism and anticommunism. The tension between a process of strangling President João Goulart's leftist position and the advanced anticommunism of the Armed Forces led to a *coup d'état* in 1964, which forced the president into exile (Machado, 2018).

A military dictatorship began, which lasted 21 years. Political parties were forced to fit into a bipartisanship, a new constitution was imposed, and five military presidents succeeded each other. Political and social tension advanced enormously with the fifth "institutional act" (AI-5) in 1968 (a top-down government decree that extinguished *habeas corpus* and allowed all kinds of arbitrariness on behalf of the state), and the country entered the "years of lead," in which torture, persecution, exile, censorship, and extermination of possible opponents of the regime became common. During the military dictatorship, in order to control opposition to the government, the military sought to expand the economy, allowing a strong inflow of foreign capital at the expense of public debt. During this period, the National Secretariat for Basic Health Actions (Snabs) and the National Secretariat for Special Health Programs (Snpes) were created, and many disease mapping efforts were developed in the country (Fundação Nacional de Saúde, 2017).

The country grew by around 10% annually during the so-called "economic miracle," but internal contradictions in the plan and the 1973 oil embargo led the country to a crisis that would last 20 years. A political opening had begun in 1974, but it happened slowly and gradually, "for safety" (according to the military view). The end of AI-5 in 1978 allowed the return of exiled politicians and artists. Multipartyism returned in 1979, leading to the creation of some of the parties that still operate today. A democratic transition from the dictatorship to the Fifth Republic took place through an indirect and rather traumatic election, as the appointed candidate, Tancredo Neves, who was esteemed by the population, died before taking office, in 1985 (Machado, 2018).

The current period corresponds to the Fifth Republic. It began with serious economic problems — a situation of stagflation, as the country combined economic stagnation with hyperinflation, reaching the figure of about 80% per month. The first governments sought heterodox initiatives to contain inflation, such as institutional price freezes and even retention of bank deposits, both ill-fated projects. It was only with the Real plan, that the economy stabilised. The new currency reached competitive exchange rates in the international scene, placed the country on the path to globalisation and served to control inflation. This economic plan, instituted under the baton of the finance minister and future president for two terms Fernando Henrique Cardoso, was one of the two great accomplishments of the New Brazilian Republic (Machado, 2018).

The second initiative began timidly under Cardoso's term, but was only organised, expanded and consolidated under the government of Luiz Inácio da Silva, Lula: the *Bolsa Família* cash transfer program, responsible for lifting from poverty and hunger millions of people in Brazil. These two projects, even with occasional setbacks, are still fundamental pillars of the country's current history (Machado, 2018).

The Fifth Republic, also denominated the New Republic, produced Brazil's eighth constitution — the 1988 Constitution, known as the "Citizen Constitution." It was so named because it engaged the population in its formulation, incorporating suggestions and written by a large assembly; and also because it was strongly concerned with the country's social problems. This constitution is quite extensive and covers fundamental points such as legislation on the rights of indigenous populations (in particular, on the preservation of their culture and demarcation of original lands) and the right to vote for illiterates. And very importantly, this constitution established education, security, housing, and health as rights of citizens and obligations of the State. From then on, something quite unique in the country's history was instituted: universal health care was explicitly recognized as a citizen's right and a duty of the state.

4. Healthcare in contemporary Brazil

The mandate of universal healthcare stated in the 1988 Constitution establishes that this responsibility is to be shared between the three government levels in the country — federal, state, and municipal — which have political, financial, and administrative autonomy. Since then, Brazil has made progress towards achieving universal health coverage through the creation of the *Sistema Único de Saúde* (SUS) in 1990 (Castro et al., 2019). The SUS is a unified and decentralised health system that provides a broad range of services, including primary care, hospitals, specialised care, pharmaceutical care, and public health services. Funded by tax revenues and contributions from federal, state, and municipal governments, the SUS provides healthcare — free of charge at point of use — to all residents and visitors, including undocumented individuals.

The implementation of the SUS was based on the principles of universality, integrality, decentralisation, and community participation. This involved transferring responsibility and funds for providing healthcare from the federal to state and mainly to municipal governments, and reorienting political power and responsibility to local governments. Decentralisation of power was accompanied by the creation of inter-managerial commissions with participation from federal, state, and municipal governments for shared decision-making on health policies, as well as health conferences and councils as mechanisms for social participation. The Ministry of Health is responsible for national coordination of the SUS, including policy development, planning, financing, auditing, and control. State governments have responsibilities such as regional governance and coordination of strategic programs, while the health departments in municipalities handle the management of the SUS at the local level (Ministério da Saúde, 2023a).

Community participation in the public healthcare system is guaranteed by the constitution, and health councils and conferences including community members, providers, and health system managers are responsible for deliberating public health policies and monitoring their implementation (Ministério da Saúde, 2023b). Approximately 75% of Brazilians rely solely on the SUS, but bottlenecks in access and dissatisfaction with services have led many middle- and high-income households to seek private care (Mendes, 2019). Private health insurance is voluntary and supplementary to the SUS, and is regulated by the National Agency of Supplementary Health (Ministério da Saúde, 2023c).

In March 2022, around 25% of Brazilians had private medical/hospital insurance (49 million individuals), and nearly 70% of beneficiaries received it as an employment benefit (Agência Nacional de Saúde Suplementar, 2022a).

One of the main goals of the SUS is to provide high-quality healthcare to all Brazilians, regardless of their income or social status. To achieve this goal, the SUS employs a number of strategies, such as implementing universal health coverage, promoting primary care and prevention, and improving the coordination of health care services (Mendes, 2019). A key feature of the SUS is its focus on primary care. Primary care is the first point of contact for patients with the healthcare system, and it is essential for identifying and addressing health issues before they become more serious. The SUS has a network of primary care clinics, known as *Unidades Básicas de Saúde* (UBS), that provide basic health services, such as vaccinations and chronic disease management, to the local community. Another important aspect of the SUS is its emphasis on prevention. The system promotes healthy behaviours, such as regular physical activity and healthy eating, and provides services such as screening and vaccination to prevent the spread of disease. The expansion of pharmaceutical coverage by the SUS was a pioneering initiative, as Brazil was one of the first middle-income countries to offer free access to HIV/AIDS medication (Presidência da República, 1996; Szwarcwald and Castilho, 2011).

Despite its successes, the SUS still faces a number of challenges. One of the main challenges is inadequate funding, which can lead to shortages of medical supplies and staff, and long wait times for care. In addition, there are disparities in the quality and availability of health care services across the country, with some regions receiving better care than others. Another challenge is the high rate of private health insurance coverage, which can create a two-tiered system that undermines the principles of universality and equality of access to care (Massuda et al., 2018).

Both these challenges are especially relevant for mental health in Brazil. In the SUS, the share of funding for mental health has fluctuated around 2% of the overall healthcare resources, with a decrease after 2016 to only about 1.2% (Oliveira, 2017; Antunes da Costa and Mendes, 2020). The reform of Brazil's mental healthcare system, begun the 1990s with a focus on the deinstitutionalisation and humanisation of care, improved the quality of the mental health care provided in the public system and advanced the discussion about the need to decentralise mental health care services, but has not yet achieved all of its goals. As pointed out by Mari (2014), until 2005 there was a 41% reduction in the number of psychiatric beds along with an increase in the provision of community mental healthcare through psychosocial care centres (CAPS). However, in addition to being insufficient, these centres are unequally distributed across the country: data from 2021 show 0.66 CAPS per 100,000 population in the Northeast and Midwest regions, in contrast to the South, with 1.07 CAPS per 100,00 population (Agenda Mais SUS, 2022). Also, there are serious problems in the referral mechanisms across different levels of care, including little attention to the need for specialised care. Further, there seems to be no recognition of the reciprocity between mental and physical health. In this sense, a major challenge for the full implementation of a comprehensive care for mental health is the integration of the mental healthcare structure with the primary care structure, including a desirable focus on prevention beyond treatment.

In the private healthcare system, regulated by the National Supplementary Health Agency (ANS) in Brazil, coverage is limited and has traditionally emphasised hospital care. From 2005 to 2010, a 28% increase in psychiatric admissions was noted in the private sector. Before 2022, the number of psychological consultations was limited, with a maximum number of sessions per year that varied by disorder. Even though private plans are now (since 2022) obligated to cover an unlimited number of therapy (including psychological, occupational, speech and physical) sessions (Agência Nacional de Saúde Suplementar, 2022b), the number of professionals available to provide this care via health care plans is still limited, and psychotherapy-type services are still frequently paid out of pocket by users.

Across all health areas, the Covid-19 pandemic accelerated deterioration of the healthcare system and increased health inequalities in Brazil (Rocha et al., 2021), in addition to reaching 700,000 deaths in 2022 (11% of deaths worldwide) (World Health Organization). Since 2016, vaccination rates have declined (Fujita et al., 2018), and during the pandemic a decrease was noted in the number of procedures performed by the SUS (including consultations, surgeries, diagnostic and therapeutic procedures). This caused a delay in the start of treatment for chronic disorders, such as cancer and cardiovascular diseases (Bigoni et al., 2022). In addition, the overcrowding of services with suspected cases of COVID-19 and the fear of seeking out health units for the control of chronic diseases have aggravated pre-existing conditions. There was also an increase in psychosocial problems, such as domestic violence among the population and mental health problems among health professionals who deal directly with patient care (Massuda et al., 2021).

In spite of its fragilities, the trust of Brazilians in the SUS increased during the response to the Covid-19 pandemic (Exame/Idea, 2021). It is also possible to observe a converging agenda in the position of different stakeholders to strengthen the SUS in the following points (Estadão, 2022): i) primary healthcare is the best way to tackle urgent and chronic health problems, but it needs to be better financed, equipped, staffed, and integrated within health networks using telehealth; ii) the underfinancing of the SUS is recognized and a progressive increase in public resources for health is needed (from 4% to 6% of GDP), along with measures to improve efficiency on health spending; iii) health system regionalization needs to improve to address municipal inequalities; iv) improving private sector regulation to protect the public interest and foster public-private partnerships to expand services delivery; v) aligning health workers' training and provision and development and incorporating health technologies to address the health system needs, vi) enhancing the use of the available data in health system management and speed up digital transformation (Tasca et al., 2020).

5. The way forward

Having recently completed 200 years since its independence, Brazil has yet to come to terms with its turbulent history, as shown by the antidemocratic events of early 2023 (The New York Times, 2023). Notwithstanding all the challenges Brazilian society has faced throughout centuries of inequities, the country was able to recently develop and implement a comprehensive system to take care of the health of its entire population. Built in the last three decades, the *Sistema Único de Saúde* is now one of the largest universal systems in the globe, providing healthcare to millions of Brazilians.

This young model has shown tremendous resilience even in the face of a compounded problem: the Covid-19 pandemic and a federal administration frequently denying scientific evidence in the implementation of public health response measures. In spite of the growing polarisation of the Bolsonaro years, which overlapped the Covid-19 crisis and greatly endangered the country's ability to respond to both the health and the socioeconomic crises (Stuenkel, 2021), the strength of the SUS was sufficient to withstand the blow once minimum conditions were met (e.g., provision of vaccines). In fact, the Covid-19 immunisation effort allowed citizens who had never used the public healthcare system to for the first have a glimpse at its power and complexity — the hashtag #VivaoSUS (long live the SUS) became popular in social media (Varella, 2022) — beyond the usual complaints of long lines or crowded clinics. This opportunity of expanding the SUS not only as a set of services, but also as a view on healthcare, should be further explored as we move forward.

The Covid-19 pandemic delayed Brazil's progress related to risk factors for non-communicable diseases. Physical activity declined, obesity increased, and long-term declines in smoking and alcohol consumption were paused (Hallal et al., 2022). In addition, health inequities

widened during the pandemic. One of the key public health challenges for Brazil is to change the priorities pyramid, from a system mostly based on individual health and curative care, to a system based on collective health and a health promotion perspective. The ageing of the population and the increased burden of non-communicable diseases suggest that the public health system will only be effective if moving in this direction. Focusing on sick individuals instead of on sick populations (Rose, 2001) might jeopardise the constitutional right to health of the Brazilian population.

Also, the sequelae of the pandemic, experienced without appropriate social protection by the poorest in the country, the need to repair the violence perpetrated by the State, the urgency of overcoming structural sores such as racism and a patriarchal social organisation, which produce ill physical and mental health, require more than strict health interventions. This effort must be faced in an integrated way, joining synergistically many social sectors, including culture, education, and justice to render possible the rebirth of hope (Onocko-Campos, 2022).

Health has appeared as the top concern for Brazilians, even before the Covid-19 pandemic, in a survey performed by the Brazilian senate since 2008 (Instituto de Pesquisa DataSenado, 2022). A study also shows that since 2013, and until 2019, having a health problem has remained the main reason for seeking healthcare (Szwarcwald et al., 2021). At the same time, an increase was noted in the number of people seeking healthcare services for preventive purposes. A careful analysis of these aspects must begin in planning for the future. On the one hand, the increase detected in utilisation might reflect the changing epidemiological profile of the Brazilian population and the increase in the prevalence of chronic diseases (15% in 2013 to 20.5% in 2019) (Szwarcwald et al., 2021); but it could also mean some degree of success in expanding the access to healthcare services, both curative and preventive. The number of preventive services offered at the primary care level could have increased following implementation of the National Policy of Health Promotion in 2000 (Szwarcwald et al., 2021).

The increase recorded in the number of black citizens using the healthcare services possibly also reflects an increase in the number of people who self-identify as black, a positive turn. At the same time, there is still insufficient knowledge regarding traditional quilombola communities (officially described as ethnic groups comprising rural or urban predominantly black populations that self-define their status based on specific relationships with the land, kinship, territory, ancestrality and cultural practices), although there is worrisome evidence of more negative outcomes, including in children and adolescents living in these communities (de Jesus et al., 2022). Also, the long-standing crisis among the indigenous Yanomami people in the Amazon, which has recently become the focus of attention (Phillips, 2023), and evidence of increased prevalence of adverse cardiometabolic outcomes in indigenous peoples living in non-traditional settings, such as urban areas, underscore the need for environmental policies to ensure the conservation of the natural ecosystems (Kramer et al., 2022). Although further studies are needed, there is reasonable evidence of a link between pollution and mental disorders (Cuijpers et al., 2023). Attention, acknowledgment, and action focused on special populations is an urgent and crucial step. Especially regarding indigenous populations, a "protect the protectors" policy might help safeguard the environment, supporting the transition to more just economic framework and contributing to the physical and mental wellbeing of populations around the world (Guardian Labs, 2020; São Paulo Declaration on Planetary Health, 2021).

In considering the way forward, the primary health care structure available in Brazil, having community health agents as one of its main pillars, is a prime platform for focusing on the health of populations. Where mental health is considered, the notion of promotion, prevention, treatment and recovery at the primary care level, provided by non-specialists is desirable and possibly feasible, and could be expanded beyond primary care clinics. However, before considering the alternative of lay workers, it is necessary to evaluate and resolve the gaps that hinder the work of teams already constituted within the scope of the SUS. Another point to be considered might be an effort to model the private healthcare Brazil, which is especially disease- and individual-oriented, according to a primary care logic.

Regarding the preparedness of the SUS as a platform for mental health, implementation of evidence-based practices will be crucial to respond to existing challenges potentiated by the pandemic (Mari et al., 2021). Over the last years, the SUS has implemented and expanded community-based centres (CAPS) for psychiatric treatment and psychosocial support/rehabilitation (Onocko-Campos, 2019). Although they are currently insufficient in number and not fully functional, these centres may constitute one of the largest community-based mental health strategies ever implemented outside high-income countries, and could be leveraged upon (Mari, 2014) for articulation of the continuum of care, from non-clinical, community- and school-based up to specialist services, which is so essential for all chronic diseases, and especially mental disorders. For the young, often regarded as a predominantly healthy population group, but who are the most susceptible group to mental disorders, provision of mental health care could be further integrated into youth-centred initiatives, such as education and welfare programs. A preventive policy focused on children and adolescents is likely to benefit all age groups (Kieling et al., 2011).

In fact, Brazil is now uniquely positioned to revolutionise the promotion, prevention, and care for mental health. The country has currently the largest cohort of young people in its history (50 million individuals aged 10–24 years, a contingent that is likely to decrease due to demographic transition in the next decades), and therefore a huge opportunity to prevent and act early to avoid recurrence and chronicity (Kieling et al., 2022). Further, the overall recognition of the importance of mental health has never been higher: whereas in 2018 18% of the overall population indicated mental health as the most important health-related issue, this proportion jumped to 49% in 2022 (Ipsos, 2022).

All these challenges need to be faced in the context of Brazil's past of slavery and colonialism, as well as its struggle to break with this tradition. In fact, by becoming a cherished public institution, the public healthcare system has positively impacted the lives of millions of Brazilians, exhibiting a decisive role during recent health and political crises in the country. In spite of the multiple remaining inequalities, advances in overall health care provision can provide a framework for the expansion and consolidation of initiative towards mental health prevention and care in the country. Leveraging on the accomplishments of the SUS over the last decades, the promotion of the mental health of the Brazilian population, from prevention to specialised care, represents a national priority, now more than ever before.

CRediT authorship contribution statement

Felipe Garrafiel Pimentel: Conceptualization, Writing – original draft, Writing – review & editing. **Claudia Buchweitz:** Writing – original draft, Writing – review & editing. **Rosana Teresa Onocko Campos:** Writing – original draft, Writing – review & editing. **Pedro Curi Hallal:** Conceptualization, Writing – original draft, Writing – review & editing. **Adriano Massuda:** Conceptualization, Writing – original draft, Writing – review & editing. **Christian Kieling:** Conceptualization, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Agência Nacional de Saúde Suplementar, 2022a. Março: assistência médica registra 49,1 milhões de beneficiários. Available from: https://www.gov.br/ans/pt-br/assunto

s/noticias/numeros-do-setor/marco-assistencia-medica-registra-49-1-milhoes-de-beneficiarios. (Accessed 21 January 2023).
Agência Nacional de Saúde Suplementar, 2022b. ANS amplia regras de cobertura para tratamento de transtornos globais do desenvolvimento. Available from: https://www.gov.br/ans/pt-br/assuntos/noticias/periodo-eleitoral/ans-amplia-regras-de-cobertura-para-tratamento-de-transtornos-globais-do-desenvolvimento. (Accessed 5 May 2023).
Agenda Mais SUS, 2022. Evidências e Caminhos para Fortalecer a Saúde Pública no Brasil: Saúde Mental. Instituto de Estudos para Políticas de Saúde, Umane Available from: https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:6ea62759-c3b8-346c-a3d9-cc45bf2631be. (Accessed 20 May 2023).
Andrade, L.H., Wang, Y.-P., Andreoni, S., Silveira, C.M., Alexandrino-Silva, C., Siu, E.R., Nishimura, R., Anthony, J.C., Gattaz, W.F., Kessler, R.C., Viana, M.C., 2012. Mental disorders in megacities: findings from the São Paulo megacity mental health survey, Brazil. PLoS One 7, e31879. https://doi.org/10.1371/journal.pone.0031879.
Antunes da Costa, P.H., Mendes, K.T., 2020. Contribuição à crítica da economia política da contrarreforma psiquiátrica brasileira. Argumentum 12 (2), 44–59. https://doi.org/10.18315/argumentum.v12i2.28943.
Barreto, M.L., Teixeira, M.G., Bastos, F.I., Ximenes, R.A.A., Barata, R.B., Rodrigues, L.C., 2011. Successes and failures in the control of infectious diseases in Brazil: social and environmental context, policies, interventions, and research needs. Lancet 377, 1877–1889. https://doi.org/10.1016/S0140-6736(11)60202-X.
Batista, M.Q., Zanello, V., 2016. Saúde mental em contextos indígenas: escassez de pesquisas brasileiras, invisibilidade das diferenças. Estud. Psicol. 21 https://doi.org/10.5935/1678-4669.20160039.
Bigoni, A., Malik, A.M., Tasca, R., Carrera, M.B.M., Schiesari, L.M.C., Gambardella, D.D., Massuda, A., 2022. Brazil's health system functionality amidst of the COVID-19 pandemic: an analysis of resilience. Lancet Reg. Health Am. 10, 100222 https://doi.org/10.1016/j.lana.2022.100222.
Bradford Burns, E., Momsen, R.P., Martins, L., Schneider, R.M., James, P.E., 2023. Brazil. Encyclopedia britannica. Available from: https://www.britannica.com/place/Brazil. (Accessed 20 January 2023).
Brito, V.C. de A., Bello-Corassa, R., Stopa, S.R., Sardinha, L.M.V., Dahl, C.M., Viana, M. C., 2022. Prevalence of self-reported depression in Brazil: national health survey 2019 and 2013. Epidemiol. Serv. Saude 31, e2021384. https://doi.org/10.1590/SS2237-9622202200006.especial.
Caldeira, J., Sekula, J.M., Schabib, L., 2020. Brasil: Paraíso Restaurável. Estação Brasil.
Cardoso, A., 2016. Work in Brazil: Essays in Historical and Economic Sociology. EdUERJ. https://doi.org/10.7476/9788575114551.
Carneiro, L., Saraiva, A., 2022. Estados de maior peso vão travar resultado melhor, diz Tendências. Valor Econômico, 1 Jan 2022. Available from: https://valor.globo.com/brasil/noticia/2022/01/06/estados-de-maior-peso-vao-travar-resultado-melhor-diz-tendencias.ghtml. (Accessed 29 January 2023).
Carvalho, S.S., 2022. Retrato dos rendimentos do trabalho-Resultados da PNAD contínua do segundo trimestre de 2022. Carta de Conjuntura. Available from: https://www.ipea.gov.br/cartadeconjuntura/index.php/tag/rendimentos-do-trabalho/. (Accessed 20 January 2023).
Castro, M.C., Massuda, A., Almeida, G., Menezes-Filho, N.A., Andrade, M.V., de Souza Noronha, K.V.M., Rocha, R., Macinko, J., Hone, T., Tasca, R., Giovanella, L., Malik, A.M., Werneck, H., Fachini, L.A., Atun, R., 2019. Brazil's unified health system: the first 30 years and prospects for the future. Lancet 394, 345–356. https://doi.org/10.1016/S0140-6736(19)31243-7.
Castro, M.C., Gurzenda, S., Turra, C.M., Kim, S., Andrasfay, T., Goldman, N., 2021. Reduction in life expectancy in Brazil after COVID-19. Nat. Med. (N. Y., NY, U. S.) 27 (9), 1629–1635. https://doi.org/10.1038/s41591-021-01437-z.
Cuijpers, P., Miguel, C., Ciharova, M., Kumar, M., Brander, L., Kumar, P., Karyotaki, E., 2023. Impact of climate events, pollution, and green spaces on mental health: an umbrella review of meta-analyses. Psychol. Med. 6, 1–16. https://doi.org/10.1017/S0033291722003890.
Engel, L.C., org, 2015. Diagnóstico dos homicídios no Brasil: subsídios para o Pacto Nacional pela Redução de Homicídios. Brasília, Ministério da Justiça Secretaria Nacional de Segurança Pública. Available from: https://dspace.mj.gov.br/handle/1/2311. (Accessed 20 January 2023).
Estadão, 2022. Eleições 2022, a crise sanitária e o resgate do SUS. Estadão. Available from: https://www.estadao.com.br/politica/gestao-politica-e-sociedade/eleicoes-2022-a-crise-sanitaria-e-o-resgate-do-sus/. (Accessed 20 January 2023).
Exame/Idea, 2021. Evaluation and approval of the federal government + pandemic. Available from: https://exame-membercenter-static.s3.us-east-2.amazonaws.com/imagens/EXAME+IDEIA+9+DE+ABRIL+DE+2021+(3).pdf. (Accessed 20 January 2023).
Fapespa, Governo do Pará. Densidade demográfica (população/km)^2, segundo Brasil, Grandes Regiões e Unidades da Federação - 2017-2021. Available from: https://www.fapespa.pa.gov.br/sistemas/pcn2021/tabelas/2-demografia/2-densidade-demografica–2017-2021.htm Accessed 22 January 2023.
Fausto, B., 2019. História do Brasil, fourteenth ed. EDUSP, São Paulo.
Fundação Nacional de Saúde, 2017. Cronologia histórica da saúde pública. Ministério da Saúde. Available from: http://www.funasa.gov.br/cronologia-historica-da-saude-publica. (Accessed 29 January 2023).
GBD Results, 2023a. Institute for Health Metrics and Evaluation. Available from https://vizhub.healthdata.org/gbd-results?params=gbd-api-2019-permalink/21aff6227176724cd5b887d41628edac Accessed 20 Jan 2023.
GBD Results, 2023b. Institute for Health Metrics and Evaluation. Available from https://vizhub.healthdata.org/gbd-results?params=gbd-api-2019-permalink/245ef5dbc2d25e0b0739c087405255f1 Accessed 20 Jan 2023.
GBD Results, 2023c. Institute for Health Metrics and Evaluation. Available from https://vizhub.healthdata.org/gbd-results?params=gbd-api-2019-permalink/9f5ae24a84a2fb26d19426a9227ba102 Accessed 30 Jan 2023.
GBD Results, 2023d. Available from https://vizhub.healthdata.org/gbd-results?params=gbd-api-2019-permalink/50cd25d04c8f1a3c3014eecd1a1e9110 Accessed 29 Jan 2023.
Global Burden of Disease Collaborative Network, 2020. Global Burden of Disease Study 2019 (GBD 2019) Results. Institute for Health Metrics and Evaluation (IHME), Seattle, United States, 2020 Available from: https://vizhub.healthdata.org/gbd-results/. (Accessed 29 January 2023).
Global Burden of Disease 2016 Injury Collaborators, Naghavi, M., Marczak, L.B., Kutz, M., Shackelford, K.A., Arora, M., Miller-Petrie, M., Aichour, M.T.E., Akseer, N., Al-Raddadi, R.M., Alam, K., Alghnam, S.A., Antonio, C.A.T., Aremu, O., Arora, A., Asadi-Lari, M., Assadi, R., Atey, T.M., Avila-Burgos, L., Awasthi, A., et al., 2018. Global mortality from firearms, 1990-2016. JAMA 320 (8), 792–814. https://doi.org/10.1001/jama.2018.10060.
Green, J.N., Skidmore, T.E., 2021. Brazil: five centuries of change (Chapter 3). Pedro I and Pedro II. Available from: https://library.brown.edu/create/fivecenturiesofchange/chapters/chapter-3/pedro-i-and-pedro-ii/. (Accessed 20 January 2023).
Guardian Labs, 2020. Climate Academy by Grounded. Why protecting Indigenous communities can also help save the Earth. Available from: https://www.theguardian.com/climate-academy/2020/oct/12/indigenous-communities-protect-biodiversity-curb-climate-crisis. (Accessed 30 March 2023).
Hallal, P.C., Sardinha, L.M.V., Wehrmeister, F.C., de Paula, P. do C.B., 2022. Inquérito Telefônico de Fatores de Risco para Doenças Crônicas não Transmissíveis em tempos de pandemia – covitel. Relatório final. Vital Strategies. Available from: https://www.vitalstrategies.org/wp-content/uploads/Covitel-Inque%CC%81rito-Telefo%CC%82nico-de-Fatores-de-Risco-para-Doenc%CC%A7as-Cro%CC%82nicas-na%CC%83o-Transmissi%CC%81veis-em-Tempos-de-Pandemia.pdf. (Accessed 20 January 2023).
Hochman, G., 2011. [Vaccination, smallpox, and a culture of immunization in Brazil]. Ciência Saúde Coletiva 16, 375–386. https://doi.org/10.1590/s1413-81232011000200002.
Instituto Brasileiro de Geografia e Estatística (IBGE), 2010a. Temas e subtemas. População e demografia. Características gerais da população. População presente e residente Available from: https://seriesestatisticas.ibge.gov.br/series.aspx?no=10&op=0&vcodigo=CD90&t=populacao-presente-residente. (Accessed 20 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2010b. Temas e subtemas. População e demografia. Características gerais da população. População por situação de domicílio (população presente e residente). Available from: https://seriesestatisticas.ibge.gov.br/series.aspx?no=10&op=0&vcodigo=CD91&t=populacao-situacao-domicilio-populacao-presente-residente. (Accessed 20 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2010c. Principais resultados - educação e deslocamento. Homens e mulheres de 10 anos ou mais por nível de instrução. Available from: https://www.ibge.gov.br/estatisticas/sociais/populacao/9662-censo-demografico-2010.html?edicao=9753&t=destaques. (Accessed 21 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2010d. Censo 2010. Available form. https://www.ibge.gov.br/estatisticas/sociais/populacao/9662-censo-demografico-2010.html?edicao=9753&t=destaques. (Accessed 20 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2010e. Estatísticas de gênero. Available from: https://www.ibge.gov.br/apps/snig/v1/?loc=0&cat=-2,-3,128&ind=4721. (Accessed 20 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2010f. Temas e subtemas. População e demografia. Características gerais da população. População por religião (população presente e residente). Available from: https://seriesestatisticas.ibge.gov.br/series.aspx?no=10&op=0&vcodigo=POP60&t=populacao-religiao-populacao-presente-residente. (Accessed 20 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2018. Tábua completa de mortalidade para o Brasil – 2017 Breve análise da evolução da mortalidade no Brasil. Rio de Janeiro, IBGE. Available from: https://ftp.ibge.gov.br/Tabuas_Completas_de_Mortalidade/Tabuas_Completas_de_Mortalidade_2017/tabua_de_mortalidade_2017_analise.pdf. (Accessed 29 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2020. Estimativas da população residente no Brasil e unidades da federação com data de referência em 1° de julho de 2020. Available from: https://ftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2020/estimativa_dou_2020.pdf. (Accessed 29 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2021. Áreas territoriais. Available from: https://geoftp.ibge.gov.br/organizacao_do_territorio/estrutura_territorial/areas_territoriais/2021/AR_BR_RG_UF_RGINT_RGIM_MES_MIC_MUN_2021.xls. (Accessed 30 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2022a. Estimativas da população residente no Brasil e Unidades da Federação com data de referência em 1º de julho de 2021. Instituto Brasileiro de Geografia e Estatística. Available from: https://ftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2021/POP2021_20221212.pdf. (Accessed 20 January 2023), 20 Jan 2023.
Instituto Brasileiro de Geografia e Estatística (IBGE), 2022b. Síntese de indicadores sociais. Available from: https://cidades.ibge.gov.br/brasil/pesquisa/45/95341. (Accessed 20 January 2023).
Instituto Brasileiro de Geografia e Estatística (IBGE), 2022c. Pesquisa Nacional de Saúde. Em pesquisa inédita do IBGE, 2,9 milhões de adultos se declararam homossexuais ou bissexuais em 2019. Available from: https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/33785-em-pesquisa-inedita-do-ibge-2-9-milhoes-de-adultos-se-declararam-homossexuais-ou-bissexuais-em-2019. (Accessed 21 January 2023).

Instituto Brasileiro de Geografia e Estatística (IBGE), 2022d. Pesquisa Nacional por Amostra de Domicílios Contínua trimestral. Tabela 8529 - Taxa de informalidade das pessoas de 14 anos ou mais de idade, ocupadas na semana de referência - total, coeficiente de variação, variações em relação ao trimestre anterior e ao mesmo trimestre do ano anterior, e média annual. Available from: https://sidra.ibge.gov.br/tabela/8529#resultado. (Accessed 30 January 2023) https://painel.ibge.gov.br/pnadc/.

Instituto Brasileiro de Geografia e Estatística (IBGE), 2022e. Contas Nacionais Trimestrais. Indicadores de Volume e Valores Correntes. Available from: https://www.ibge.gov.br/estatisticas/economicas/industria/9300-contas-nacionais-trimestrais.html?=&t=destaques. (Accessed 29 January 2023).

Instituto Brasileiro de Geografia e Estatística (IBGE), 2022f. Divulgação anual. Available from: https://www.ibge.gov.br/estatisticas/sociais/trabalho/17270-pnad-continua.html?=&t=series-historicas. (Accessed 20 January 2023).

Instituto Brasileiro de Geografia e Estatística (IBGE), 2023a. Produto Interno bruto – PIB. Available from: https://www.ibge.gov.br/explica/pib.php. (Accessed 20 January 2023).

Instituto Brasileiro de Geografia e Estatística (IBGE), 2023b. Desigualdades sociais por cor ou raça no Brasil. Available from: https://www.ibge.gov.br/estatisticas/sociais/populacao/25844-desigualdades-sociais-por-cor-ou-raca.html?=&t=resultados. (Accessed 20 January 2023).

Instituto Brasileiro de Geografia e Estatística (IBGE), 2023c. Painel de indicadores. Available from: https://www.ibge.gov.br/indicadores.html. (Accessed 20 January 2023).

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (Inep), 1997. Mapa do analfabetismo no Brasil. Available from: https://download.inep.gov.br/publicacoes/institucionais/estatisticas_e_indicadores/mapa_do_analfabetismo_do_brasil.pdf. (Accessed 21 January 2023).

Instituto de Pesquisa Econômica Aplicada (IPEA), 2016a. Ipeadata. Renda - desigualdade - coeficiente de Gini. Available from: http://www.ipeadata.gov.br/ExibeSerie.aspx?serid=37818&module=M. (Accessed 20 January 2023).

Instituto de Pesquisa Econômica Aplicada (IPEA), 2016b. Desenvolvimento humano nas macrorregiões brasileiras: 2016. PNUD : IPEA : FJP, Brasília. Available from: https://repositorio.ipea.gov.br/bitstream/11058/6217/1/Desenvolvimento%20humano%20nas%20macrorregi%C3%B5es%20brasileiras.pdf. (Accessed 20 January 2023).

Instituto de Pesquisa Econômica Aplicada (IPEA), 2021. Atlas da Violencia v.2.7. https://www.ipea.gov.br/atlasviolencia/. (Accessed 20 January 2023).

International Labour Organization (ILO), 2008. Forced labour in Brazil: 120 years after the abolition of slavery, the fight goes on. Available from: https://www.ilo.org/global/about-the-ilo/mission-and-objectives/features/WCMS_092663/lang–en/index.htm. (Accessed 20 January 2023).

Ipsos, 2022. Ipsos global health service monitor 2022. A global advisor survey. Available from: https://www.ipsos.com/sites/default/files/ct/news/documents/2022-09/Ipsos-global-health-service-monitor-2022-VDEF.pdf. (Accessed 23 January 2022).

de Jesus, V.S., da Conceição Nascimento Costa, M., de Camargo, C.L., Trad, L.A.B., Nery, J.S., 2022. Hypertension in Quilombola children and adolescents. Medicine 101, e28991. https://doi.org/10.1097/MD.0000000000028991.

Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., Rohde, L.A., Srinath, S., Ulkuer, N., Rahman, A., 2011. Child and adolescent mental health worldwide: evidence for action. Lancet 378, 1515–1525. https://doi.org/10.1016/S0140-6736(11)60827-1.

Kieling, C., Salum, G.A., Pan, P.M., Bressan, R.A., 2022. Youth mental health services: the right time for a global reach. World Psychiatr. 21 (1), 86–87. https://doi.org/10.1002/wps.20933.

Kramer, C.K., Leitão, C.B., Viana, L.V., 2022. The impact of urbanisation on the cardiometabolic health of Indigenous Brazilian peoples: a systematic review and meta-analysis, and data from the Brazilian Health registry. Lancet 400, 2074–2083. https://doi.org/10.1016/S0140-6736(22)00625-0.

Lange, M., Mahoney, J., vom Hau, M., 2006. Colonialism and development: a comparative analysis of Spanish and British colonies. Am. J. Sociol. 111, 1412–1462. https://doi.org/10.1086/499510.

Lima, N.T., 2007. Public health and social ideas in modern Brazil. Am. J. Publ. Health 97, 1168–1177. https://doi.org/10.2105/AJPH.2003.036020.

Machado, R.P., 2018. Brazilian History: Culture, Society, Politics 1500-2010. Cambridge Scholars Publishing. Available from: https://lume.ufrgs.br/bitstream/handle/10183/195627/001095724.pdf?sequence=1&isAllowed=y. (Accessed 20 January 2023).

Malta, D.C., Soares Filho, A.M., Pinto, I.V., de Souza Minayo, M.C., Lima, C.M., Machado, Í.E., Teixeira, R.A., Neto, O.L.M., Ladeira, R.M., Merchan-Hamann, E., de Souza, M.F.M., Vasconcelos, C.H., Vidotti, C.C.F., Cousin, E., Glenn, S., Bisignano, C., Chew, A., Ribeiro, A.L., Naghavi, M., 2020. Association between firearms and mortality in Brazil, 1990 to 2017: a global burden of disease Brazil study. Popul. Health Metrics 18, 19. https://doi.org/10.1186/s12963-020-00222-3.

Mari, J.J., 2014. Mental healthcare in Brazil: modest advances and major challenges. Adv. Psychiatr. Treat. 20, 113–115. https://doi.org/10.1192/apt.bp.113.011593.

Mari, J.J., Gadelha, A., Kieling, C., Ferri, C.P., Kapczinski, F., Nardi, A.E., Almeida-Filho, N., Sanchez, Z.M., Salum, G.A., 2021. Translating science into policy: mental health challenges during the COVID-19 pandemic. Rev. Bras. Psiquiatr. 43, 638–649. https://doi.org/10.1590/1516-4446-2020-1577.

Massuda, A., Hone, T., Leles, F.A.G., de Castro, M.C., Atun, R., 2018. The Brazilian health system at crossroads: progress, crisis and resilience. BMJ Glob. Health 3, e000829. https://doi.org/10.1136/bmjgh-2018-000829.

Massuda, A., Malik, A.M., Vecina Neto, G., Tasca, R., Ferreira Junior, W.C., 2021. The resilience of the Brazilian National Health System in the face of the COVID-19 pandemic. Cad. EBAPE.BR 19, 735–744. https://doi.org/10.1590/1679-395120200185.

Maxwell, K., 1989. Conjuração mineira: novos aspectos. Estud. Av. 3, 4–24. https://doi.org/10.1590/S0103-40141989000200002.

Mendes, E.V., 2019. Desafios do SUS. CONASS, Brasília. Avaliable from. https://www.conass.org.br/biblioteca/desafios-do-sus/. (Accessed 4 August 2023).

MInistério da Saúde, 2013. Política Nacional de Saúde Integral de Lésbicas, Gays, Bissexuais, Travestis e Transexuais. Ministério da Saúde, Secretaria Gestão Estratégica e Participativa, Departamento de Apoio à Gestão Participativa Brasília. Available from. https://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_saude_lesbicas_gays.pdf. (Accessed 21 January 2023).

MultiRio. Conjuração do Rio de Janeiro. Available from: https://multirio.rio.rj.gov.br/index.php/historia-do-brasil/brasil-monarquico/8839-conjura%C3%A7%C3%A3o-do-rio-de-janeiro. (Accessed 20 January 2023).

OECD, 2021. Evaluating Brazil's progress in implementing Environmental Performance Review recommendations and promoting its alignment with OECD core acquis on the environment. https://www.oecd.org/environment/country-reviews/Brazils-progress-in-implementing-Environmental-Performance-Review-recommendations-and-alignment-with-OECD-environment-acquis.pdf.

Oliveira, E.F.A., 2017. Gastos da política de saúde mental e os rumos da reforma psiquiátrica. Doctoral dissertation. Vitória, ES: Graduate Program in Social Policy, Universidade Federal do Espírito Santo. Available from: https://repositorio.ufes.br/bitstream/10/8776/1/tese_11140_Edineia%20F.%20A.%20Oliveira.pdf. (Accessed 24 May 2023).

Onocko-Campos, R.T., 2019. Saúde mental no Brasil: avanços, retrocessos e desafios. Cad. Saúde Pública 35, e00156119. https://doi.org/10.1590/0102-311X00156119.

Onocko-Campos, R.T., 2022. Leituras de Winnicott: apontamentos úteis para a cultura brasileira contemporânea. Revista Cult, p. 277.

Orellana, J.D.Y., Ribeiro, M.R.C., Barbieri, M.A., Saraiva, M. da C., Cardoso, V.C., Bettiol, H., Silva, A.A.M. da, Barros, F.C., Gonçalves, H., Wehrmeister, F.C., Menezes, A.M.B., Del-Ben, C.M., Horta, B.L., 2020. Mental disorders in adolescents, youth, and adults in the RPS birth cohort Consortium (Ribeirão preto, Pelotas and São Luís), Brazil. Cad. Saude Publica 36, e00154319. https://doi.org/10.1590/0102-311X00154319.

Osorio, R.F., 2003. O sistema classificatório de "cor ou raça" do IBGE (IPEA). Available from:. Brasília, Instituto de Pesquisa Econômica Aplicada https://repositorio.ipea.gov.br/bitstream/11058/2958/1/TD_996.pdf. (Accessed 20 January 2023).

Instituto de Pesquisa DataSenado, 2022. PEC 32/2022 – resultados parciais da pesquisa Panorama Político 2022. Available from: https://www12.senado.leg.br/institucional/datasenado/arquivos/pec-32-2022-resultados-parciais-da-pesquisa-panorama-politico-2022. (Accessed 20 January 2023).

Petruccelli, J.L., 2007. A cor denominada: estudos sobre a classificação étnico-racial. DP&A, Rio de Janeiro.

Petruccelli, J.L., Saboia, A.L., 2013. Características étnico-raciais da população: classificações e identidades. Instituto Brasileiro de Geografia e Estatística (IBGE).

Phillips, T., 2023. Lula to Visit Amazon amid Vow to Tackle Yanomami Indigenous Crisis. The Guardian. Available from: https://www.theguardian.com/world/2023/jan/20/brazil-indigenous-minister-sonia-guajajara-yanomami-crisis-illegal-miners. (Accessed 22 January 2023).

Presidência da República, 1996. Lei Nº 9.313, de 13 de novembro de 1996. Available from. http://www.planalto.gov.br/ccivil_03/leis/l9313.htm#:~:text=LEI%20N%C2%BA%209.313%2C%20DE%2013,HIV%20e%20doentes%20de%20AIDS. (Accessed 21 January 2023).

Prous, A., 2006. O Brasil Antes do Brasileiros, second ed. Jorge Zahar, Rio de Janeiro.

Rocha, R., Atun, R., Massuda, A., Rache, B., Spinola, P., Nunes, L., Lago, M., Castro, M.C., 2021. Effect of socioeconomic inequalities and vulnerabilities on health-system preparedness and response to COVID-19 in Brazil: a comprehensive analysis. Lancet Global Health 9, e782. https://doi.org/10.1016/S2214-109X(21)00081-4 e792.

Rose, G., 2001. Sick individuals and sick populations. Int. J. Epidemiol. 30, 427–432. https://doi.org/10.1093/ije/30.3.427.

Sá, M.R., 2005. The history of tropical medicine in Brazil: the discovery of *Trypanosoma cruzi* by Carlos Chagas and the German School of Protozoology. Parassitologia 47, 309–317.

São Paulo Declaration on Planetary Health, 2021. Available from: https://www.planetaryhealthalliance.org/sao-paulo-declaration. (Accessed 30 March 2023).

da Saúde, Ministério, 2023a. Sistema Único de Saúde. Estrutura, Princípios e Como Funciona. Available from: https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/s/sus. (Accessed 21 January 2023).

da Saúde, Ministério, 2023b. Conselho Nacional de Saúde. Available from: http://conselho.saude.gov.br/pratica/pratica.htm. (Accessed 21 January 2023).

da Saúde, Ministério, 2023c. Agência Nacional de Saúde Suplementar. Available from: https://www.gov.br/ans/pt-br. (Accessed 21 January 2023).

Schmidt, M.I., Duncan, B.B., Azevedo e Silva, G., Menezes, A.M., Monteiro, C.A., Barreto, S.M., Chor, D., Menezes, P.R., 2011. Chronic non-communicable diseases in Brazil: burden and current challenges. Lancet 377 (9781), 1949–1961. https://doi.org/10.1016/S0140-6736(11)60135-9.

Schwarcz, L.M., 2012. Nem preto nem branco, muito pelo contrário: cor e raça na sociabilidade brasileira. São Paulo, Claro Enigma. Available from: https://www.companhiadasletras.com.br/trechos/35023.pdf. (Accessed 20 January 2023).

Silva, E.R., Vaz, F.M., 2020. Os jovens que não trabalham e não estudam no contexto da pandemia da covid-19 no Brasil. Available from: http://repositorio.ipea.gov.br/bitstream/11058/10414/1/bmt_70_jovens_que_nao.pdf. (Accessed 3 November 2020).

Stuenkel, O., 2021. Brazil's Polarization and democratic Risks. Carnegie Endowment for International Peace. Available from: https://carnegieendowment.org/files/Carothers_Feldmann_Polarization_in_Latin_America_final1.pdf. (Accessed 22 January 2023).

Supremo Tribunal Federal, 2019. STF enquadra homofobia e transfobia como crimes de racismo ao reconhecer omissão legislativa. Available from: https://portal.stf.jus.br/noticias/verNoticiaDetalhe.asp?idConteudo=414010. (Accessed 20 January 2023).

Szwarcwald, C.L., Castilho, E.A., 2011. A epidemia de HIV/AIDS no Brasil: Três décadas. Cadernos de Saúde Pública 27, S4–S5. https://doi.org/10.1590/S0102-311X2011001300001.

Szwarcwald, C.L., Stopa, S.R., Damacena, G.N., Almeida, W. da S. de, Souza Júnior, P.R. B. de, Vieira, M.L.F.P., Pereira, C.A., Sardinha, L.M.V., Macário, E.M., 2021. Changes in the pattern of health services use in Brazil between 2013 and 2019. Cien. Saúde Coletiva 26, 2515–2528. https://doi.org/10.1590/1413-81232021266.1.43482020.

Tasca, R., Massuda, A., Carvalho, W.M., Buchweitz, C., Harzheim, E., 2020. [Recommendations to strengthen primary health care in Brazil]. Rev. Panam. Salud Públic 44, e4. https://doi.org/10.26633/RPSP.2020.4.

Terra, T., Schafer, J.L., Pan, P.M., Costa, A.B., Caye, A., Gadelha, A., Miguel, E.C., Bressan, R.A., Rohde, L.A., Salum, G.A., 2022. Mental health conditions in Lesbian, Gay, bisexual, Transgender, queer and asexual youth in Brazil: a call for action. J. Affect. Disord. 298, 190–193. https://doi.org/10.1016/j.jad.2021.10.108.

The New York Times, 2023. Bolsonaro Supporters lay Siege to Brazil's capital. Available from: https://www.nytimes.com/2023/01/08/world/americas/brazil-election-protests-bolsonaro.html. (Accessed 22 January 2023).

Valim, P., 2020. Um crescendo de tomada de consciência: a Conjuração Baiana de 1798 no primeiro centenário da Independência do Brasil. Intellect 19, 141–176. https://doi.org/10.12957/intellectus.2020.52500.

Varella, M., 2022. 'Viva o SUS' tem de ser mais que uma hashtag: veja o que precisa melhorar. VivaBem UOL. Available from: https://www.uol.com.br/vivabem/colunas/mariana-varella/2022/10/05/viva-o-sus-precisa-ser-mais-que-uma-hashtag-veja-o-que-precisa-melhorar.htm. (Accessed 22 January 2023).

Westin, R., 2022. 1° Censo do Brasil, feito há 150 anos, contou 1,5 milhão de escravizados. Senado Federal, Arquivo S. Agência Senado. Avaliable from. https://www12.senado.leg.br/noticias/especiais/arquivo-s/1o-censo-do-brasil-feito-ha-150-anos-contou-1-5-milhao-de-escravizados. (Accessed 29 January 2023).

World Bank, 2022. Fertility rate, total (births per woman) — Brazil. Available from: https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=BR. (Accessed 22 January 2023).

World Bank, 2023a. DataBank. Metadata Glossary. Available from: https://databank.worldbank.org/metadataglossary/world-development-indicators/series/SI.POV.GINI. (Accessed 20 May 2023).

World Bank, 2023b. Gini index – Brazil. Available from: https://data.worldbank.org/indicator/SI.POV.GINI?locations=BR&most_recent_year_desc=false&type=shaded&view=map&year=2021. (Accessed 5 May 2023).

World Bank, 2023c. GDP (current US$) – Brazil. Available from: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=BR. (Accessed 29 January 2023).

World Bank, 2023d. GDP per capita (current US$) – Brazil. Available from: https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=BR. (Accessed 29 January 2023).

World Health Organization (WHO). Brazil: WHO Coronavirus disease (COVID-19) dashboard with vaccination data. Available from: https://covid19.who.int/region/amro/country/br. (Accessed 20 January 2023).