

COUNTRY COOPERATION STRATEGY 2022-2027 BRAZIL

Revised version



Country Cooperatiown Strategy 2022-2027 Brazil. Revised Version

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Message from the Minister of Health of Brazil

n the year we celebrate the 120th anniversary of the Pan American Health Organization (PAHO) and the bicentennial of Independence of Brazil, we are very pleased to sign the Country Cooperation Strategy (CCS) 2022-2027.

The Federal Constitution of 1988 consecrated health as a fundamental right, a right of all and a duty of the State, originating one of the largest national health systems, the Unified Health System (SUS), guided by the principles of universality, equality, and completeness and gratuity of assistance.

The technical cooperation promoted by the PAHO/WHO Office in Brazil, already traditional, was important for the consolidation of SUS, in coordinated actions, aiming at: promoting health and well-being of the people; expand health care access and coverage in a comprehensive and equitable manner, with emphasis on primary care; and qualify human resources. It also enabled equitable and rapid access to medicines and vaccines, through the innovative mechanisms of the Revolving Fund and the Strategic Fund.

In the context of the greatest global health challenge in modern history, represented by the COVID-19 pandemic, the partnership with PAHO proved to be equally fundamental.

With the expansion in surveillance capacity, SUS was able to expand its primary and specialized health care. More than BRL 100

Billion were allocated exclusively for tackling the pandemic, in addition to more than BRL 492 billion for regular health financing in the 2020-2022. triennium Brazil also carried out the largest vaccination campaign in its history, with more than 500 million vaccines distributed, and about 80% of the population with a complete vaccination schedule.

The five strategic priorities defined for this CCS allow us to move forward in the cooperation agenda and, at the same time, expand our own objectives with the purpose of strengthening the health system's response capacity, promoting the recovery of the pandemic scenario of COVID-19, such as:

- (i) protect and promote the health of the population;
- (ii) restore health services; (iii) contribute to the development of SUS; (iv) boost research, innovation, and knowledge production; and
- (iii) strengthen prevention, preparedness, and response to health emergencies.

We shall go forward, together, working towards the right to health for all Brazilians, without leaving anyone behind!

Dr. Marcelo Queiroga

State Minister of Health

Message from the Director of PAHO and WHO Regional Director for the Americas

The Pan American Health Organization/
World Health Organization (PAHO/
WHO) and the government of the
Federative Republic of Brazil present the Country
Cooperation Strategy (CCS) 2022–2027. It is a
document that guides technical cooperation,
in addition to corroborating the long history
of partnership between PAHO/WHO and
the Brazilian government and ratifying the
commitment to work to achieve health as a right
for all and a duty of the State.

For more than 30 years, Brazil has had the Unified Health System (SUS), a world benchmark, a source of knowledge for the Region of the Americas and other regions of the world, based on the principles of "universality, integrality, and equity", and that brings popular participation as a fundamental element for the exercise of the right to health.

In the last two decades, Brazil has advanced in improving the well-being and health of the population, with the development of health policies, the expansion of access to comprehensive services for the population, the expansion of its health care model focused on the family and community, and the management structures and governance models that aim to ensure the sustainability of the system.

However, the COVID-19 pandemic had a strong impact on people's lives, daily lives, and health,

and consequently required from SUS a rapid and effective response to the pandemic and its consequences. In this context, this CCS, in addition to being based on achieving the strategic priorities and respective areas of focus agreed upon in the wake of strengthening SUS, strongly considers the repercussions of the COVID-19 pandemic on the health and life of the population.

CCS 2022-2027 is an opportunity to reinforce commitments and alliances to face the challenges that still exist in the field of public health with the support of technical cooperation between PAHO/WHO and Brazil. The post-COVID-19 pandemic must be an opportunity to resume progress and collaboration for a timely, strategic, and sustainable recovery towards universal health in the country.

We will continue to work together in the coming years to ensure universal health, healthy living, and well-being for all people in Brazil without leaving anyone behind.

Dra. Carissa F. Etienne

Director of the Pan American Health Organization Regional Director of the Regional Office for the Americas of the World Health Organization

Message from PAHO/WHO Representative in Brazil

he technical cooperation of the Pan American Health Organization/World Health Organization (PAHO/WHO) with Brazil is of long date. We are very proud to be part of the effort to strengthen the Unified Health System (SUS) in its mission to universalize health, so that all Brazilians can exercise their constitutional rights.

It is in this context that we present the Country Cooperation Strategy (CCS) 2022-2027. This is a new opportunity to face the old and new challenges imposed on public health and seek innovative ways to achieve greater health and well-being for the Brazilian population.

Brazil is a continental country, with much diversity and a history of overcoming challenges in public health. The COVID-19 pandemic was important evidence of the capacity and resilience of SUS. The country has much to share about numerous results and lessons learned in health. It is essential that we record and share our accumulated knowledge and successful experiences, as Brazil continues to play its leading role in promoting regional and global health targets.

PAHO reaffirms its commitment to SUS and the Brazilian population. We are sure that the implementation of this CCS, within the framework of our technical cooperation, will improve the health of all Brazilians, without leaving anyone behind.

Dra. Socorro Gross Galiano

Pan American Health Organization/World Health Organization Representative in Brazil



he signing of the Country Cooperation Strategy (CCS) 2022-2027 was carried out on July 18, 2022 by the Ministry of Health and the Pan American Health Organization/World Health Organization (PAHO/WHO).





The CCS signing ceremony was attended by important Brazilian institutions that also contributed to the preparation of this document, such as the National Council of Municipal Health Departments (CONASEMS), the National Council of Health Departments (CONASS) and the National Health Council (CNS).



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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome	
AM	Amazonas	
Anvisa	National Health Surveillance Agency (acronym in Portuguese)	
AP	Amapá	
APC	Alcohol per capita	
PHC	Primary Health Care	
SHAA	Sustainable Health Agenda for the Americas	
BA	Bahia	
Bio-Manguinhos/ Fiocruz	Institute of Technology in Immunobiologics of the Oswaldo Cruz Foundation (acronym in Portuguese)	
BIREME	Regional Library of Medicine (acronym in Portuguese)	
СС	Collaborating Centers	
CD49/10	49th Directing Council	
CD59/8	59th Directing Council	
HEIC	Health Economic-Industrial Complex	
CES	State Health Councils (acronym in Portuguese)	
FC	Federal Constitution	
BIC	Bipartite Interagency Commissions	
CIEVS	Centers for Strategic Information on Health Surveillance (acronym in Portuguese)	
RIC	Regional Interagency Commissions	
TIC	Tripartite Interagency Commission	
CLAP/SMR	Latin American Center of Perinatology, Women and Reproductive Health (acronym in Portuguese)	
CNS	National Health Council (acronym in Portuguese)	
CONASEMS	National Council of Municipal Health Departments (acronym in Portuguese)	
CONASS	National Council of Health Departments (acronym in Portuguese)	
CONITEC	National Commission for the Incorporation of Technologies (acronym in Portuguese)	
CPLP	Community of Portuguese Speaking Countries (acronym in Portuguese)	
VC	Vaccination coverage	
CNCD	Chronic Noncommunicable Diseases	
CVD	Cardiovascular Diseases	
DF	Federal District (acronym in Portuguese)	
PIDs	Parasitic and Infectious Diseases	
DSEI	Special Indian Health Districts (acronym in Portuguese)	
ccs	Country Cooperation Strategy	
EMSI	Indian Multidisciplinary Teams (acronym in Portuguese)	
ES	Espírito Santo	

FHS	Family Health Strategy
FES	State Health Funds (acronym in Portuguese)
FMS	Municipal Health Funds (acronym in Portuguese)
FNS	National Health Fund (acronym in Portuguese)
Funai	National Indian Foundation (acronym in Portuguese)
Funasa	National Health Foundation (acronym in Portuguese)
HIV	Human Immunodeficiency Virus
HPV	Human papillomavirus
IBGE	Brazilian Institute of Geography and Statistics (acronym in Portuguese)
HDI	Human Development Index
ILTB	Latent Z Infection
INCQS	National Institute of Quality Control in Health (acronym in Portuguese)
INEP	National Institute of Educational Studies and Research Anísio Teixeira (acronym in Portuguese)
LACEN	Central Laboratories (acronym in Portuguese)
LDO	Law of Budgetary Guidelines (acronym in Portuguese)
LDRT	List of Work-Related Diseases (acronym in Portuguese)
LOA	Annual Budget Law (acronym in Portuguese)
MA	Maranhão
Mercosul	Southern Common Market (acronym in Portuguese)
MG	Minas Gerais
МН	Ministry of Health
MT	Mato Grosso
LB	Live Births
OCDE	Organization for Economic Co-operation and Development (acronym in Portuguese)
SDG	Sustainable Development Goals
PAHO/WHO	Pan American Health Organization/World Health Organization
OTCA	Amazon Cooperation Treaty Organization (acronym in Portuguese)
PA	Pará
PALOP	Portuguese Speaking African Countries (acronym in Portuguese)
Panaftosa/SPV	Pan American Center for Foot and Mouth Disease and Veterinary Public Health (acronym in Portuguese)
RD&I	Research, development and innovation
PPD	Partnerships for productive development
PEP	Post Exposure Prophylaxis
PI	Piauí
GDP	Gross Domestic Product
PICS	Integrative and Complementary Practices in Health (acronym in Portuguese)
PMA	Performance Monitoring and Assessment
PNAD	National Continuous Household Sample Survey (acronym in Portuguese)
PNASPI	National Health Care Policy for Indigenous Peoples (acronym in Portuguese)
PNI	National Immunization Program (acronym in Portuguese)

PNS	National Health Fund (acronym in Portuguese)
PPA	Multi-Year Plan (acronym in Portuguese)
PPP	Purchasing Power Parity
PRAIS	Regional Platform on Access and Innovation for Health Technologies (acronym in Portuguese)
PrEP	Pre-exposure prophylaxis
PROTEJA	National Strategy for the Prevention and Care of Childhood Obesity (acronym in Portuguese)
РТВ	Biennial Work Program (acronym in Portuguese)
PLHIV	People living with HIV
RAS	Health Care Networks (acronym in Portuguese)
Rebrats	Brazilian Health Technology Assessment Network (acronym in Portuguese)
RedETSA	Health Technology Assessment Network of the Americas (acronym in Portuguese)
RENAME	National List of Essential Medicines (acronym in Portuguese)
RJ	Rio de Janeiro
RMM	Maternal Mortality Ratio (acronym in Portuguese)
PASB	Pan American Sanitary Bureau
SasiSUS	Indian Health Care Subsystem (acronym in Portuguese)
SC	Santa Catarina
SCZ	Congenital syndrome associated with Zika virus infection (acronym in Portuguese)
EW	Epidemiological Week
SES	State Health Departments (acronym in Portuguese)
Sinan	Notifiable Diseases Information System (acronym in Portuguese)
SIVEP-Gripe	Influenza Epidemiological Surveillance Information System (acronym in Portuguese)
SMS	Municipal Health Departments (acronym in Portuguese)
Anvisa	National Health Surveillance Agency (acronym in Portuguese)
SP	São Paulo
SUS	Unified Health System (acronym in Portuguese)
ART	Antiretroviral therapy
ТВ	Tuberculosis
DR-TB	Drug-resistant tuberculosis
TC/TA	Term of Cooperation/Term of Adjustment
MTCT-HIV	Mother-to-child transmission of HIV
UNAIDS	Joint United Nations Program on HIV/AIDS
UNCT	United Nations Country Team
UNICEF	United Nations Children's Fund
UNSDCF	United Nations Sustainable Development Cooperation Framework (acronym in Portuguese)
VigiAR-SUS	Surveillance, Alert and Response to Public Health Emergencies (acronym in Portuguese)
OPV	Oral Polio vaccine
OPV	Oral Polio vaccine

Executive Summary

he Pan American Health Organization/ World Health Organization (PAHO/WHO) has developed a solid partnership with the Federative Republic of Brazil to promote the development of the national health system and its international projection. PAHO/WHO monitors the performance of the health sector, facilitates learning, fosters the improvement of methodologies and technologies, and encourages sustainability and the exchange of successful experiences. The final objective of the PAHO/WHO technical cooperation is to contribute to universal health, the improvement of the Unified Health System (SUS) and the achievement of better health outcomes in Brazil.

The Brazilian State has the right to health as a core value, established in the Federal Constitution of 1988, and advocates its promotion and protection without distinction. In the last two decades, we observed important advances in the health of the Brazilian population: an increase in the Human Development Index (HDI), which measures the dimensions of health, income, and education; and an increase in life expectancy at birth, which increased by 6.8 years between 2000 and 2019. Despite the advances and economic growth achieved, poverty and inequalities continue to be a challenge not only for Brazil, but also for the entire Region.

Dealing with inequalities is a complex task due to emerging epidemiological and demographic patterns. The coexistence of communicable and non-communicable diseases, violence, increased life expectancy, and urbanization require that health systems and services increasingly respond in different and innovative ways.

The Country Cooperation Strategy (CCS) 2022-2027 is an opportunity to reinforce commitments and alliances to face the challenges that still exist in the field of public health with the support of PAHO/WHO technical cooperation with Brazil.

Since March 2020, when the World Health Organization (WHO) declared the novel coronavirus (SARS-CoV-2) a public health emergency of international concern, efforts have been made to promote cooperation, guided by the principle of international solidarity, with the common objective of halting the spread of the virus and preventing deaths.

It is undeniable that the COVID-19 pandemic has affected the entire population, changing trends in health indicators. Over the past two years, there has been an increase in important risk factors for Chronic Noncommunicable Diseases (CNCDs), such as physical inactivity, overweight, consumption of ultra-processed products, and the harmful use of alcohol or other drugs. Vaccination coverage (triple viral vaccine, BCG, polio vaccine) was also seriously affected. The maternal mortality indicator, which had been reducing until 2019, had a significant increase in 2020, and it is the highest since the year 2000.

COVID-19 had not only biomedical and epidemiological impacts on a global scale, but also unprecedented social, economic, political, and cultural repercussions and impacts in the recent history of epidemics, leaving effective coordination between health and other sectors as one of the main challenges, with the objective of implementing successful intersectoral initiatives.

The implementation of social policies in a federative system requires the adoption of linking mechanisms between the different spheres of government, emphasizing cooperation and complementation.

To this end, solid bilateral partnerships, and South-South cooperation, as well as multilateral and regional cooperation, along with dynamic integration processes, are basic mechanisms for exchanging effective approaches and experiences, as well as products and services, to achieve common targets and overcome health inequities.

The development of the CCS 2022-2027 resulted from the dialogue between the Organization and its partner

institutions, especially with the Ministry of Health (MH), the National Council of Health Departments (CONASS), the National Council of Municipal Health Departments (CONASEMS) and the National Health Council (CNS).

In addition, it considered high-level strategic documents such as the PAHO Strategic Plan (2020-2025), the Sustainable Health Agenda for the Americas (2018-2030), the 13th WHO General Programme of Work, the SDG targets, and the drafting process of the United Nations Sustainable Development Cooperation Framework (UNS-DCF) 2023-2027, the Sustainable Development Goals of the 2030 Agenda, the Strategy for Universal Access to Health, the universal health coverage, among other documents.

This entire work process culminated in the definition of five strategic priorities:

- Protect and promote the health of the population, focusing on people, families, and communities, especially those in vulnerable situations
- Recover, improve, and strengthen health services and priority programs impacted by the COVID-19 pandemic.
- **3.** Contribute to the development of a more resilient, equitable and effective SUS, in accordance with the health needs of the population.
- 4. Boost research, innovation, and the generation of scientific and technological knowledge in health, including those aimed at research, development and production of medicines, herbal medicines and traditional health products, vaccines, biotechnological products, and health technologies.
- **5.** Strengthen prevention, preparedness, timely response and recovery in emergencies and disasters, with the participation of affected communities.

The CCS is a strategic reference for the process of planning and allocating technical cooperation resources to Brazil, which must be continually reviewed and updated to ensure constructive interaction between the Country's priorities and those of the Organization, in addition to allow its adaptation to new national health scenarios in the country. It also aims to promote the sustainability of actions, contribute to the strengthening and improvement of the Unified Health System (SUS), align interagency actions, support the implementation of the 2030 Agenda, and the international cooperation in Brazilian health, in addition to building and disseminating new

scientific and technological knowledge, in addition to contextualizing and strengthening the continuity of the Terms of Cooperation that are under development and close to being implemented with the three spheres of management and other partners in the Country.

The CCS must expand and catalyze joint efforts to recover and make SUS stronger and more resilient, as well as to respond in a timely manner to the effects and impacts of the COVID-19 pandemic, to resume the advances achieved and mitigate negative effects, and to boost essential services and priority health programs impacted by the pandemic, leaving no one behind.

In summary, the CCS represents the priorities to be developed and the commitment and shared responsibility between the Country and PAHO/WHO, therefore, signed by the Federative Republic of Brazil and by the Pan American Health Organization, in the city of Brasília, Distrito Federal, on July 18, 2022:

Dr. Marcelo Queiroga

State Minister of Health

Dra. Carissa F. Etienne

Director of the Pan American Health Organization Regional Director of WHO Regional Office for the Americas

In witness whereof, representatives of the following entities signed this document:

Nésio Fernandes de Medeiros Junior

President of the National Council of Health Departments

Wilames Freire Bezerra

President of the National Council of Municipal Health Departments



n 2020, WHO published the updated guidelines for the elaboration of the Country Cooperation Strategy (CCS). This guide presents updates for the preparation of a new generation of CCS aimed at implementing actions to fulfill the SDGs and the "triple billion" targets, foreseen in the 13th WHO General Programme of Work, whose objectives until 2023 are: 1 billion more people benefiting from universal health coverage; 1 billion more people better protected from health emergencies; and 1 billion more people enjoying better health and well-being.(1)

CCS is the reference for work in the countries, it guides the planning, programming, budgeting, and resource allocation processes for the implementation of technical cooperation. These are the principles that guide PAHO/WHO's cooperation with countries. CCS represents the country's responsibility for the development process; alignment with national priorities and strengthening of national systems in support of the National Health Policy, Strategy or Plan. In addition to harmonizing with the work of other United Nations bodies and other partners in the country, to render aid even more effective.

Considering the particularities of the Region of the Americas and the independent governance of PAHO, which has its own strategic planning process, specific guidelines were needed. Since 1999, PAHO has started to elaborate the CCSs. Since then, several editions have been published.

In this context, the preparation of the CCS 2022-2027 was based on important global and regional milestones. At a global level, the year 2015 marked the beginning of a new era in world development, in which the Member States of the United Nations formulated and committed to the implementation of the 2030 Agenda. There are 17 Sustainable Development Goals (SDGs) and 169 targets that seek to eradicate poverty and address its underlying causes, fight inequalities, protect the environment, promote prosperity, as well as implement a development model that benefits all people, leaving no one behind. (2)

Still at a global level, the 13th General Programme of Work of the World Health Organization (WHO) (3), approved in May 2018 at the 71st World

Health Assembly. It declares the purpose of drastically improving the health of populations in the next five years. The Organization recognizes that it will only succeed by basing its work on the 2030 Agenda.

In the Region of the Americas, the 2018-2030 Sustainable Health Agenda for the Americas stands out (4), representing the response of the health sector to the commitments assumed by PAHO Member States in the 2030 Agenda, as well as the emerging regional public health challenges. The Agenda is operationalized through PAHO's plans and strategies, considering subregional and national health plans. Furthermore, the PAHO Strategic Plan 2020-2025: equity, the core of health (5), which defines the strategic direction of the Organization based on the collective priorities of its Member States and the attention given to the countries, in addition to specifying the public health results to be achieved during the 2020-2025 period. The Plan establishes the joint commitment of PAHO Member States and the Pan American Sanitary Bureau (PASB) for the next six years. The Strategic Plan is one of the main instruments for implementing the 2018-2030 Sustainable Health Agenda for the Americas (SHAA 2030) and, therefore, for achieving the health-related SDGs in the Region of the Americas.

At the national level, a careful analysis of the country's context, the health and equity situation, the health agenda and the national development was carried out. Another relevant aspect for the elaboration of the CCS was the partnership environment and the main results achieved in previous cycles of strategic cooperation planning in the country.

The five priorities presented in this Strategy were collectively prepared based on all the aspects mentioned above, added to a listening and dialogue process in political, strategic and technical meetings with the Ministry of Health (MH), the National Council of Health Departments, (CONASS), the National Council of Municipal Health Departments (CONASEMS) and the National Health Council (CNS), and internal to the Organization.



2.1 Universal health and access to health services

2.1.1 Origin and structure of the Unified Health System

The Unified Health System (SUS) is the result of a movement of Brazilian society, known as Sanitary Reform. It was foreseen in the Federal Constitution (FC) of 1988 with principles of universality, completeness, and equity. It provides free health services to the entire population, from vaccines to overly complex treatments, and has been consolidating itself as one of the largest health systems in the world with universal access. It distinguishes the social development of Brazil and dignifies Brazilians.

The FC determines that health is everyone's right and a State's duty, it must be guaranteed through social and economic policies, universal and equitable access, through health actions and services for people and communities. SUS was regulated by Law no. 8,080, of September 19, 1990, which provides for the conditions for the promotion, protection and recovery of health, the organization and functioning of the corresponding services and other measures.

International human rights treaties incorporated into the Brazilian legal system reaffirm the right of every human being to the highest attainable standard of physical and mental health. Everyone has the human right to health, without any discrimination for reasons of race, skin color, sex, language, religion, political or other opinion, national or social origin, economic status, birth, or any other status. The right to health is universal, indivisible, interdependent and interrelated with other human rights. The Committee on Economic, Social and Cultural Rights highlights essential and interrelated elements of the right to health, namely: availability; accessibility, which includes non-discrimination, physical accessibility, economic accessibility, access to information; acceptability or social and cultural appropriateness and quality.

SUS is structured based on three organizational principles: Regionalization and Hierarchization; Decentralization and Single Command; and Popular Participation. Regionalization is the organization and management of national, state, regional and municipal territories. Hierarchization is the organization of health services according to levels of care. Decentralization is the redistribution of responsibility among the three levels of government, with a single command. Finally, popular participation. This means that society must participate in the day-to-day running of the system. And their participation must be guaranteed through Health Councils and Conferences, which aim to formulate strategies, control, and assess health policies.

SUS has an original and powerful management governance, structured in a tripartite way: MH, CONASS, and CONASEMS have the co-responsibility for agreeing on and standardizing health policies, programs, and actions. The Tripartite Intermanagers Commission (TIC) is the permanent forum for negotiation, linking and decision-making between national, state, and municipal health managers. Likewise, the system has, at the state level, Bipartite Interagency Commissions (BIC), which have a similar mission to the TIC, bringing together the SES and SMS to link, discuss, negotiate, and agree on the organization and operation of actions and health services in each of the 26 states. Within the scope of the Health Regions of the Country, there are also Regional Interagency Commissions (RIC).

The MH is responsible for formulating, standardizing, inspecting, monitoring, regulating, and evaluating policies and actions at the federal level. State managers, the SES, are responsible for coordinating and planning SUS at the state level, respecting the tripartite agreement, and are responsible for organizing health care in their territory. And municipal managers, the SMS, are responsible for carrying out health actions and services at the local level. The municipality formulates its own policies and is also one of



Primary care unit with health care organized according to the needs of the coverage area.

Photograph: Karina Zambrana/PAHO/WHO

the partners for the implementation of national and state health policies. The SES and SMS organize the whole service at a regional level for their population. In this way, the health system is structured under the three governance structures, the five geographic macro-regions, the 27 SES and the 5,570 SMS.

Social participation is guaranteed through active listening processes by the SUS ombudsman and other communication mechanisms, such as e-mail, social networks, and in the formulation of policies in the thematic committees of specific programs and policies. Social control is guaranteed through two mechanisms: Health Councils and Health Conferences. The Councils are permanent and deliberative bodies, composed on an equal basis by representatives of the government, service providers, health professionals, and users.

The National Health Council (CNS), the 26 State Health Councils (CES), the District Health Council (DF) and the 5,570 Municipal Health Councils act in the formulation of strategies to control the implementation of the policy of health. Health Conferences are held at the three levels of government, every four years, with representation from various social segments, to assess the situation of health and propose guidelines for the formulation of health policies. A total of 16 National Health Conferences have already been held, with the 17th Conference convened for 2023.

SUS provides for an Indian Health Care Subsystem (SasiSUS), created in 1999 (Decree no. 3,156/1999) to act considering the ethnic composition of the Indigenous peoples in the Country. On that occasion, responsibilities for health passed from the National Indian Foundation (Funai) to the National Health Foundation (Funasa), and since 2010 to the Special Department for Indian Health (Sesai). Sesai has the authority to manage SasiSUS, to carry out inter-federative linking and to coordinate the implementation of the National Policy for Health Care for Indigenous Peoples (PNASPI). A total of 34 Special Indian Health Districts (DSEIs) were created, territorially and ethnically based organizational units, linked to SUS in its distinct levels of complexity. The division of the DSEIs considers the social relationships between different peoples, the epidemiological characteristics and the traditional demographic distribution of the Indigenous groups that make up the territories. The service network is organized in a hierarchical manner and is made up of basic health facilities located in villages, base poles, Indian health centers and DSEI headquarters. Health care is offered by Indian Multidisciplinary Teams (EMSI). (6)

2.1.2 Development Plans

The National Health Plan (PNS) is the guiding instrument for planning, monitoring, and evaluating the MH policies and programs. It guides the actions of the federal sphere by establishing guidelines, priorities, targets, and indicators for a period of four years. The PNS is aligned with government instruments, such as the Pluriannual Plan (PPA), the Budget Guidelines Law (LDO) and the Annual Budget Law (LOA).

The PNS is a basis for implementing, monitoring, and assessing of the management of the health system. Its framework for the period 2020-2023 has its scope expanded to include aspects of the MH. Strategic Planning The Strategic Planning is the instrument that guides the prioritization and definition of targets, indicators, and projects. For the present period, the following strategic objectives have been outlined: (1) to guarantee universal and integral health; (2) to expand access to quality and timely health services; (3) to reduce and control diseases and conditions; (4) to intensify access to vaccines, medicines and other strategic supplies; (5) to strengthen the image of SUS; (6) to expand primary care in an integrated manner; (7) to expand the offer of specialized care services; (8) to intensify health surveillance actions; (9) to improve the subsystem of comprehensive health care for indigenous peoples; (10) to optimize the acquisition and distribution of medicines and other strategic supplies; (11) to qualify the work and professionals in health; (12) to improve SUS financing model; (13) to improve the integrated management of the health network; (14) to strengthen the monitoring and evaluation of public health policies; (15) to expand scientific

knowledge and offer technological solutions in health; (16) to modernize health services, with a focus on digital transformation; (17) to improve institutional governance and integrity; (18) to develop information and knowledge management; (19) to develop strategic people management; (20) to integrate systems and technologies focusing on digital transformation; (21) to improve budget and financial management; (22) to expand the use of medicinal plants and herbal medicines in SUS; and (23) to expand the number of Live Pharmacies in Brazil.

National health policies, which are based on the expanded concept of health and present guidelines and strategies at the individual and collective levels, with responsibilities and agreements between the three federal entities, are fundamental for SUS.

2.1.3 Health Care Networks

Brazil has advanced considerably towards universal health coverage with the creation of SUS. Over the past 30 years, access to outpatient care has increased substantially. One of the key points for this result was the expansion of Primary Health Care (PHC) through the Family Health Strategy (ESF). Between 2000 and 2018, the coverage expanded from 13 million to 130 million people, exceeding 60% of the population, particularly in the poorest regions. Investment in ESF was accompanied by the development of Health Care Networks (RAS).(7)

RAS are organized using health care points, i.e., places where services that determine the structure of secondary and tertiary care are offered. RAS are organized to respond to health conditions, through a complete cycle of care, which implies continuity and comprehensiveness at distinct levels (primary, secondary, and tertiary care).(8) PHC is the organizer of care. Its operational structure features the following components: communication center; points of attention (secondary and tertiary); support systems (diagnosis and therapy, pharmaceutical care, telecare, and health information); logistical systems (electronic health records, medical records, regulated access to health care systems

and health transport systems); and governance system. (9) MH, through Ordinance N°. 4,279, of December 30, 2010, establishes guidelines for the organization of RAS within the scope of SUS.(10) In March 2022, the PHC coverage of MH-funded teams was 69.63%. Considering the territory of the country, marked by social inequalities, PHC coverage in the country is distributed heterogeneously. The highest coverage was observed in Piauí (PI) and Santa Catarina (SC), with 94.93% and 91.44%, respectively, and the lowest were registered in Amapá (AP), with 42.77% and in São Paulo (SP), which had 53.08% of the population covered. (11-13)

2.1.4 SUS funding and health spending

SUS funding comes from financial resources from the Social Security Budget, through taxes and contributions from the Union, states, municipalities, and other sources. These funds are administered by Health Funds. In each sphere of government there is a Health Fund, which is the financial manager of the resources: at the federal level, the Ministry of Health manages the resources, through the National Health Fund (FNS); at the state level, State Health Funds (FES) manage resources through the State Health Departments; and at the municipal level, Municipal Health Funds (FMS) are the financial managers, through the Municipal Health departments. SUS financing and resource use are supervised by the Health Councils at their corresponding levels (municipal, state, and national) and by the Inspection and Control Bodies, such as the Audit Courts of each administrative sphere (Table 1).

From 2000 to 2020, total health spending increased from 8.3% to 9.6% of Gross Domestic Product (GDP) (3.8% public) and from USD 312 to USD 853 per capita. As to comparisons with GDP, spending by Brazilians on health corresponded to 8.9% in 2015 and increased to 9.6% of the GDP in 2019. The growth in expenditures relative to GDP is due more to lower GDP growth than to an increase in health expenditures. Public schemes accounted for 3.9% to 4.0% of GDP, whereas private regimens accounted for 5.0% of GDP

in 2015 and came to represent 5.7% of GDP in 2019. This pattern of health expenditures is in stark contrast to that observed in Organization for Economic Co-operation and Development (OECD) countries, where, in 2019, public regimens responded, on average, for 6.1% of GDP and private regimens responded, on average, for 2.1%. In a comparative analysis with the OECD, it can be said that total health spending in Brazil, considering both public and private contributions, is above the current OECD average and will probably have to expand substantially in the coming years as result of the demographic and epidemiological transition of the population. (14) In per capita terms, total health spending, in current values in the 2015 to 2019 period, grew by 29.3% in BRL and 13.3% in USD in purchasing power parity (PPP). Compared to countries in Latin America and the Caribbean (15), Brazilian per capita spending is above the average for the region, (1,026 PPP dollars).

Considering the differences between current per capita expenditures in SUS financing regimen and supplementary health, a person representing the average per capita expenditure, who has expenses covered by health plans, by SUS (by constitutional right) and by direct disbursement, added together, would have an average expenditure of BRL 4,685, in 2015, and BRL 6,620, in 2019. In turn, a person who depended exclusively on SUS (without health insurance) and had no out-of-pocket resources would benefit from an average per capita expenditure of BRL 1,083, in 2015, and BRL 1,320, in 2019. I.e., the first person would have, in 2015, an expense 4.3 times greater than the person who depends exclusively on SUS. This difference increased fivefold in 2019.(16)

Per capita monthly expenditure on health was higher for residents of urban areas, white women, white men, and people with complete higher education. As the indicator is correlated with purchasing power, regional inequalities are more noticeable. The average monthly expenditure on health care, which includes expenditure on medication and health plans, represented 6.5% of the total expenditure of families. Spending on medication in families with the lowest income accounted for 70.4% of total health spending;

whereas in the highest class, the burden was 25.5%. In turn, the share of expenses with health plans was greater in the higher income classes (53.2%), whereas in the lowest class the percentage corresponded to 6.8%. (17)

Analyzing health expenditure during the years 2020 and 2021, there was an important increase in resources destined to face the COVID-19 pandemic. In 2020, data from the Public Health Budget Information System (SIOPS) showed an increase in total *per capita* spending in the three spheres, reaching BRL 1,600.14, compared to BRL 1,384.22 in 2019. This value is still far from the BRL 4,485.49 *per capita* applied by supplementary health in 2019, but it was necessary to maintain the values achieved as a necessary legacy for maintaining an important installed capacity to respond to similar situations.

SUS was responsible for Brazil's effective response to the challenges posed by the COVID-19 pandemic, demonstrating that it is an essential asset to the country's social and economic development. From the control of the pandemic with decisive action to vaccinate more than 80% of the Brazilian population and strengthening the financing of health services, with the investment of an additional BRL 65 billion in 2020, there was a clear message of the need to reposition the health care system as a tool capable of responding to future global health events.

In addition to the demographic transition and the need for new sources of public funding for universal health, the digital transformation in health, the improvement in the quality of resource allocation in health and the improvement in quality to meet the needs of the population make up a list considered priority for the fiscal sustainability of the system.

2.2 General characterization

Brazil is a Federative Republic formed by the indissoluble union of states, municipalities, and the Federal District (DF), it constitutes a Democratic State of Law, having as fundamentals: sovereignty; citizenship; dignity of human person; social values of work and free initiative; political pluralism. The fundamental objectives set out in article 3 of the FC are: to build a free, fair, and solidary society; to ensure national development; to eradicate poverty and marginalization and to reduce social and regional inequalities; to promote the good of all, without prejudice of origin, race, sex, color, age, and any other forms of discrimination.

The political-administrative organization comprises the Union, the states, the Federal District, and the municipalities, all autonomous, whose jurisdiction are established by the FC. The country is territorially divided into the DF, 26 states, and 5,570 municipalities. The federal capital is Brasília.

Brazil has the sixth largest population in the world (213 million inhabitants, in 2021), behind China, India, the United States, Indonesia, and Pakistan.(18) Brazil occupies about 50.0% of the total area of South America, with a territory of 8,515,767 km². It is the third largest country in the Americas and the fifth largest in the world, behind Russia, Canada, China, and the United States. It has borders with 10 of the 12 countries in South America (Argentina, Bolivia, Colombia, Guyana, French Guiana, Paraguay, Peru, Suriname, Uruguay, and Venezuela). About 16.7% of the territory is distributed in 588 municipalities along the land border, the largest in the North Region. However, the South is the region with the largest number of municipalities in the land border (418). In the Midwest, the largest border area is in the state of Mato Grosso do Sul.(19) In Brazil there are six types of biomes in the territory: Amazon (49.5%), Atlantic Forest (13%), Cerrado (23.3%), Caatinga (10.1%), Pampa (2.3%), and Pantanal (1.8%), which are characterized by plant and animal life under similar conditions of climate and geography. (20)

There are three types of climates in the country: equatorial, tropical, and temperate. The equatorial climate covers a large part of the country, including mainly the Amazon Forest region, where it rains almost daily and it is very hot. The tropical climate varies according to the region, but it is also hot and with less regular rainfall.(21)

2.2.1 Demographic profile

The last estimate (2021) by the Brazilian Institute of Geography and Statistics (IBGE) for the population was 213.3 million inhabitants.(22) The population of the 26 capitals and the DF exceeds 50 million inhabitants (23.9% of the total population). São Paulo (SP) is the most populous state (46.6 million inhabitants), followed by Minas Gerais (MG) (21.4 million), and Rio de Janeiro (RJ) (17.5 million). The five least populous states total around 5.8 million people (Roraima, Amapá, Acre, Tocantins, and Rondônia). The municipality of São Paulo is the most populous (12.4 million), followed by Rio de Janeiro (6.8 million), and Salvador (2.9 million). 21.9% of the population are concentrated in 17 municipalities, with more than a million inhabitants; and 14.8% of the Brazilian population live in 3,770 municipalities, with less than 20 thousand inhabitants (Table 2).

As can be seen, Brazil is very disparate in terms of demographic density. The average is 25.1 people per km2, the Southeast Region has the highest density (96.9), and the North Region, the lowest (4.8). The state with the highest density is DF (537.0), followed by RJ (399.2), and SP (187.9). Among the smallest are Amazonas (AM) (2.7), Roraima (2.9), and Mato Grosso (MT) (3.9).(23) The majority of the Brazilian population lives in urban areas (84.7%), and only 15.3% in rural areas. The Southeast Region concentrates the largest urban population (93.1%), and the Northeast, the smallest (73.1%).(24)

IBGE estimate for 2019 indicates the existence of a total of 13,151 thousand slums, invaded lands, caves, floodplains, communities, shacks, stilt houses, subdivisions, these all referred to as subnormal agglomerations, located in 13.2%

(734 of 5,570) of the municipalities, in all states of the Country, including the DF. The highest concentration of these clusters is in Amazonas (AM), Espírito Santo (ES), Amapá (AP), Pará (PA), Rio de Janeiro (RJ), and Bahia (BA). The populations of these communities live under poor socioeconomic, sanitation, and housing conditions. (25)

Estimates for the year 2020 showed that there were 1.11 million people residing in indigenous villages and 1.13 million in *quilombos* in Brazil. The largest *Quilombola* population is concentrated in the Northeast Region (61.8%), with emphasis on Bahia (BA) and Maranhão (MA). And the Legal Amazon concentrates 63.6% of all residents in indigenous areas in the country. (26)

The demographic and epidemiological transition is particularly accelerated in the Country. Since the last decades of the 20th century, a reduction in fertility and mortality has been observed, leading to a major transformation in the age structure. Between 2000 and 2020, Brazil almost doubled the participation of those aged over 64 in society, from 5.6% to 9.8%, respectively; at the same time, the participation of children under 15 years old decreased from 30.0% to 20.9%. In 2011, the elderly population (60 years and over) in Brazil represented 11.0% of the total population, increasing to 14.8% in 2022, with a projection of 16.2% for 2025. It is estimated that, in 2030, the number of elderly people will exceed the total number of children between 0 and 14 years old. Aging as a tracking indicator in the context of differentiated demographic and epidemiological transitions determines that states with faster aging need to organize their health services to provide an adequate response.(18, 23)

In the second half of the 20th century, there was a considerable migration to São Paulo, attracted by the development of industry and agriculture. In the 2000s, new migration dynamics within the country were observed, especially in the states of the Central-West Region. (27) In the period from 2011 to 2020, the largest flows of immigrants were from Venezuela, Haiti, Bolivia, Colombia, and the United States. Currently, it is estimated that 1.3 million immigrants reside in Brazil. (28)

Brazil has received and welcomed a considerable population of refugees and migrants from Venezuela. By May 2022, there were more than 345,000 refugees and migrants from Venezuela in Brazil. (29)

2.2.2 Inequalities and Social Determinants of Health

In the last two decades, important advances have been observed in the health of the Brazilian population. The life expectancy at birth increased by 6.8 years from 2000 to 2019. A reflection of this is the increase in the Human Development Index (HDI), which measures the dimensions of health, income, and education. However, from 2020 onwards, the effect of the COVID-19 pandemic affected the entire population, changing trends in health indicators. Over the last two years, there has been an increase in important risk factors for CNCDs, such as physical inactivity, excess weight, consumption of ultraprocessed products, and the harmful use of alcohol or other drugs. Vaccination coverage (triple viral vaccine, BCG, polio vaccine) was also seriously affected. The maternal mortality indicator, which had been reducing until 2019, had a significant increase in 2020, and it is the highest since the year 2000 (Table 3).

Tackling inequalities in Brazil remains a major challenge for the country, due to its history of high concentration of income in a small portion of the population, which was amplified by the COVID-19 pandemic. The Continuous National Household Sample Survey (PNAD), in 2020, revealed that the richest 10.0% held 41.6% of all income, and the poorest 10.0%, only 0.9%. Between 2019 and 2020, there was a reduction in the Gini index, especially in the North and Northeast, regions with a higher proportion of households receiving emergency assistance. (30) The Continuous PNAD 2020 showed that the distribution of the poor and extremely poor population in the national territory differs from that observed for the entire population.

The occupation level of Brazilian workers between 2019 and 2020 reached 51.0%. Compared to 2019, the effects of the pandemic more intensely affected the population with less education and vulnerable groups, especially women and the Black or Brown population. Regarding the breakdown by gender, inequality reflected both the greater participation of men in the workforce and the difficulties women face in finding employment and staying employed. The situation of inequality related to gender is greater when compared to the level of education combined with race or color, especially for women without education or with incomplete primary education, which reduces their degree of autonomy and independence for decision-making and can even increase vulnerability in relation to violence.(31)

The pandemic has impacted the guarantee of access to school for all children and adolescents from 4 to 17 years of age. Educational inequalities were intensified both by factors internal to the education system, in its ability to propose alternative activities, and external factors, due to the different realities of access to these activities by students with different socioeconomic characteristics. Public school students, with lower income, black or brown, living in rural areas and in the North and Northeast regions, had the worst educational conditions.(2) A survey carried out by INEP (2021) showed that schools were on average 279.4 days without face-to-face classes (basic education) in 2020. The United Nations Children's Fund (UNICEF) declared that COVID-19 has placed children and adolescents in a vulnerable situation.(32, 33)

In 2019, of the 72.4 million households, 97.6% had piped water, and 88.2% (63.8 million) had access to the general water supply network. About 97.8% of the households had a bathroom for exclusive use and, in 68.3%, the sewage flow was done through the general network or a septic tank connected to the general network. The percentage of households that had a bathroom for the exclusive use of the household ranged from 90.2% in the North Region to 99.8% in the South Region.(34)

2.3 Health Status

2.3.1 Morbidity and mortality and risk factors – COVID-19 pandemic

As of 2020, Brazil and the world faced the worst health crisis in the last 100 years, the Public Health Emergency of International Concern arising from the novel coronavirus (SARS-CoV-2). From its beginning in 2020 until May 22, 2022, Brazil had 30,791,220 cases and 665,627 deaths. During its course, the South Region had the highest incidence rate, 22,123 per 100,000 inhabitants, followed by the Midwest region (20,365). And the Midwest (389) and Southeast (360) regions had the highest mortality rates. (35)

The magnitude of this pandemic was so great that the impact was observed in a systemic way, from health promotion and prevention actions to rehabilitation, including the disruption of surveillance of other diseases and conditions. Health services have been reorganized to provide assistance to the population and to reduce the risk of transmission of the virus to patients or health professionals during care. Elective and preventive consultations were postponed, such as immunizations, pre and postnatal care, annual physical examinations, cancer research, tests for the early detection of some diseases or conditions, care for diseases that need continuous attention such as CNCDs, among others.

Impacts on maternal and child health were observed with unfavorable outcomes such as increased maternal mortality; the reduction in the proportion of seven or more prenatal consultations (from 72.4% to 71.0%); and increase in the proportion of no appointments performed in the year 2020 (1.5%) to 2019 (1.7%). These indicators reflect the need to recover access to and coverage of health services for women, pregnant women, newborns, children, adolescents, and the elderly interrupted by the COVID-19 pandemic. All these changes have influenced the health status of the population, which can be observed in the indicators of

morbidity and mortality, risk factors and health systems (Table 3).

Significant impacts on mental health and psychosocial well-being of the population were also observed, especially in some groups, such as health professionals, women, children, adolescents, and people with pre-existing mental conditions. Results of a national survey detected a high prevalence of depression (61.3%), anxiety (44.2%), stress (50.8%), and psychological impact (54.9%) due to the isolation imposed by the disease.(36) The percentage of health care workers with symptoms consistent with severe depression was 13%.(37)

2.3.2 Mortality scenario by group of causes

Over the years, Brazil continues to be plagued by a triple burden: rising trends in lifestyle-related non-communicable diseases, persistent problems of infectious diseases along with epidemics, and external causes of mortality. However, in the last two years, the COVID-19 health emergency brought about a major change in the course of trends in causes of death. (38)

CNCDs and conditions were responsible for the highest morbidity and mortality in Brazil in recent decades, resulting in loss of quality of life, limitations, disabilities, premature mortality, and greater impact on the most vulnerable populations. In 2019, CNCDs and conditions were responsible for 76.0% and 12.0% of all deaths, respectively, resulting in nine of the ten main causes of death. Cardiovascular diseases (CVD) and neoplasms led the mortality ranking, followed by diabetes and kidney diseases; respiratory infections and tuberculosis; suicides and assaults; and maternal and neonatal conditions. Since 2015, there has been a 1.5% reduction in the premature mortality rate due to four main CNCDs (CVD, neoplasms, diabetes, and chronic respiratory diseases). (39, 40) This decrease

has slowed down in recent years due to the stagnation of premature mortality from cancer, chronic respiratory diseases, and diabetes. Cervical cancer is the third most frequent cause of cancer death in women. (41, 42)

In 2020, there was an important reduction in the participation of CNCDs in mortality (49.0% of the total in defined causes), due to the effect of survival of competing risks, in which people with CNCDs have the highest risk of developing the most serious forms and die when they get sick from the coronavirus, rendering deaths from CNCDs invisible. The future scenario is worrisome, indicating a possible upward trend in mortality from CNCDs, given that it was necessary to partially or completely interrupt health care services for people with CNCDs and mental disorders due to the pandemic, rendering it necessary to reorganize and prioritize treatment, screening, prevention of CNCDs and conditions and health promotion actions.(43)

Road traffic injuries, assaults, and suicides lead external causes of mortality. From 2000 to 2019, the mortality rate from traffic injuries decreased by 18.8%, reaching 14.4 deaths per 100,000 inhabitants. In that same period, deaths from assaults rose from 27.6 to 22.8 deaths/100,000 inhabitants; and suicides, from 4.3 to 6.1 per 100,000 inhabitants. The mortality rate for interpersonal violence against girls and women increased from 5.8 to 5.2 per 100,000 from 1990 to 2019. Analyzes by age group indicated that young and adult women, aged 15 to 49 years, had a higher risk of dying from interpersonal violence, compared to other age groups. (44)

The maternal mortality ratio (MMR) dropped from 73.3 to 57.9 per 100,000 live births (LB), between 2000 and 2019. In 2020, it increased to 74.7 per 100,000 LB, the highest value in the last two decades due to the pandemic; the MMR of the North Region was 2.2 times greater than that of the South, consistently showing regional inequalities in Brazil.(45) This year, Brazil was the country with the highest number of maternal deaths due to COVID-19 in the Region (33.7%). Maternal death reflects the socioeconomic context, inequalities in access to comprehensive health and the quality of reproductive health

services for women during pregnancy, childbirth, and the postpartum periods.(46)

The infant mortality rate (children under 5 years old) has decreased from 32.0 to 14.0 per 1,000 LB from 2000 to 2020; children mortality rate fell from 16.0 to 12.2 per 1,000 LB; and neonatal mortality fell from 16.7 to 8.8 per 1,000 live births. In 2020, the North Region had a risk of death in infancy, infant and neonatal death of 1.8, 1.8, and 1.6 times higher than the South Region, respectively.(45) In 2019, the infant mortality rate in the Indigenous population was 32.1 per 100 LB, 2.6 times higher than in the general population (Figure 1). Between 2018 and 2021, 40 deaths were reported, mostly in children under 5 years of age, due to confirmed measles and, in 2020, one confirmed case of neonatal tetanus. This heterogeneity reflects the social inequalities observed in the country and the inequities produced in access to health and other basic needs such as access to potable water, sanitary sewage and food and nutritional security.(47)

Breastfeeding is one of the greatest strategies for reducing infant mortality. Breastfeeding in the first hour of life and exclusive breastfeeding (EBF) for up to six months have enormous potential to reach the global target (70%) by 2030, as the prevalences in 2019 were 62.4% and 45.8%, respectively.(48)

2.3.3 Risk factors

From 2013 to 2019, the percentage of overweight adults increased from 42.3% to 61.7%, and obesity more than doubled, from 12.2% to 26.8%. The prevalence of overweight and obesity was higher among women (58.0%). The consumption of ultra-processed foods is among the main risk factors for obesity and CNCD. In contrast, there is a high prevalence of chronic malnutrition in more vulnerable groups, such as Indigenous children, in addition to iron, vitamin A, and vitamin B1 and thiamine deficiencies, with the resurgence of cases of beriberi. These data express the multiple burden of malnutrition in the country, characterized by the coexistence of obesity, malnutrition, and micronutrient deficiencies. (49)

Brazil is one of the countries with the least active population in the Region of the Americas. The percentage of adults who do not get enough physical activity is 48.2%, above the percentage for the region (39.3%) and global (27.5%).(49)

On a positive note, the percentage of adult smokers has shown a significant drop in recent decades due to the numerous multisectoral tobacco control actions. Brazil is the second country in the world to comply with WHO MPOWER measures, according to the plan to reverse the tobacco epidemic, provided for in the

WHO Framework for Tobacco Control Convention. Between 1989 and 2010, it is estimated that 420,000 deaths were prevented. In 2019, the total percentage of adult smokers was 12.6% (50), and of young people aged 13 and 17, 6.8%. It is possible to declare that due to the history of the fight against tobacco, Brazil achieves global leadership and could be one of the first countries in the world to be considered free from the use of exposure to tobacco as a public health problem.(51)

Weekly consumption of alcoholic beverages increased from 23.9% to 26.0% between 2013 and 2019, being higher among women. Despite a decline in *per capita* alcohol consumption (APC) in the country, more frequent alcohol consumption has increased over the last decade. If new measures are not taken to reduce the harmful use of alcohol, these numbers may not decrease. Another worrisome factor was drinking and driving: 17.0% of Brazilian drivers reported such behavior in 2019.(50)

Finally, the increase in life expectancy of the population in recent decades has made it possible for the causes of disabilities to be increasingly related to CNCD. In 2013, 6.2% of the population over 18 years old reported some type of disability. Visual impairment is the most common (3.6%), followed by physical (1.3%), auditory (1.1%), and intellectual (0.8%) deficiencies. In 2019, visual impairment was present in 3.4%, physical impairment in 4.9%, hearing impairment in 1.1%, and intellectual impairment in 1.2%.(52)

2.3.4 Priority communicable diseases

Brazil maintains the elimination status of rubella, congenital rubella syndrome, and neonatal tetanus (Figure 2).(53) With regard to measles, the country has lost the status of elimination of this disease in 2019, and has been recording the sustained transmission of the measles virus since 2018 until Epidemiological Week (EW) 19/2022, reporting 39,379 confirmed cases, with 40 deaths, mostly children under 5 years of age. The country has developed effective strategies to reverse the spread of the disease in the national territory, avoiding the introduction of new cases, controlling the ongoing outbreak, and preventing future resurgences of measles cases.

Brazil is the second country, after India, with the highest burden of leprosy in the world. In the Region of the Americas, it is the country with the highest number of reported cases. (54) In 2019, 27,863 new cases were reported, and in 2020, 17,979 cases. The 35.5% reduction can be attributed to the overload of health services and the restrictions imposed by the COVID-19 pandemic. Among these cases, the highest number was among browns (58.9%), with low education (40.9%), and between 30 and 59 years of age (> 50.0%). High detection rates were observed in the Midwest, North and Northeast regions, with low detection rates in the South region.(55)

In the years 2019, 2020, and 2021, 77,891, 68,939, and 68,271 new cases of tuberculosis (TB) were reported, respectively. The sharp drop in cases reported in 2020 can be explained by the COVID-19 pandemic, which affected assistance and surveillance services. In the last ten years, the country has reported an average of 4,500 deaths per year (2.2 deaths per 100,000 inhabitants).(56)

The Amazon region is responsible for 99.0% of the indigenous cases of malaria in the country. In 2021, 139,130 cases were reported, of which 41.5% were in the state of AM. The Amazon, due to its environmental structure and epidemiological scenario, presents challenges for the control of malaria and for the management of the population's health protection. Most cases

in the Amazon region are registered in rural environments, with a reduction in the number of cases in recent years.(57)

Approximately 1.5 million people live in areas at risk of contracting schistosomiasis. The Northeast and Southeast regions are the most affected due to the presence of transmitting molluscs (freshwater snails). Schistosomiasis is more intensely present in 19 federal units. (58, 59) In Latin America, Brazil accounts for 43.0% of cases of people living with HIV (PLHIV), 40.0% and 37.8% of new HIV infections and deaths, respectively (33.0%). It is estimated that, in 2020, there were 936,000 PLHIV in the country, of which 88.0% were diagnosed; 82.0% had been linked to some health service; 74.0% were retained in services; 71.0% were on antiretroviral therapy (ART), and 63.0% had viral suppression. The HIV epidemic is concentrated in groups in situations of greater vulnerability, such as sex workers, men who have sex with men, the transgender population, among others.(60)

Mother-to-child transmission of HIV (MTCT-HIV) in Brazil has been dropping significantly. In 2019, Brazil reached the conditions to apply for MTCT-HIV certification, with an annual proportion of 2.0% of children infected with HIV among children exposed to HIV (49.0%). Since 2021, there is a demand to strengthen policies for the elimination of mother-to-child transmission of HIV, syphilis, hepatitis B, and Chagas disease. In 2020, there was a reduction in cases of syphilis, possibly related to data transfer problems or the mobilization of health professionals caused by the COVID-19 pandemic (Table 4).(61, 62)

Between 1999 and 2020, 254,389 people were diagnosed with hepatitis B virus and 262,815 with hepatitis C virus. These infections are the main causes of chronic liver disease, liver cirrhosis, and hepatocellular carcinoma. In the same period, 78,642 deaths due to viral hepatitis types A (1.6%), B (21.3%), C (76.2%), and D (0.9%) were recorded.(63)

Since the reintroduction of dengue in the country in 1981, there has been an increase in the incidence of the disease, reaching 735.2 cases per 100,000 inhabitants in 2019.(64,65)

In 2014, the Chikungunya virus was detected, and, in 2015, the Zika virus. These arboviruses are transmitted by the *Aedes aegypti* mosquito, which is present in all states. Between 2016 and 2018, the largest re-emergence of yellow fever occurred, with more than 2,100 cases. Policies are aimed at impacting health determinants (poverty, uncontrolled urbanization, disposal of solid waste, water supply, among others) that are part of the response to fighting arboviruses.

2.3.5 Workers' health

In the first quarter of 2022, the informality rate for Brazil was 40.1% of the employed population. The highest rates were with PA (62.9%), MA (59.7%), and AM (58.1%), and the lowest with SC (27.7%), DF (30.3%), and SP (30.5%). The unemployment rate in Brazil was maintained at 11.1%. The states of BA (17.6%), PE (17%), and RJ (14.9%) had the highest unemployment rates. The lowest rates were in SC (4.5%), in MG (5.3%), and in MS (6.5%).(66)

In Brazil, the List of Work-Related Diseases (LDRT) has 15 infectious and parasitic diseases (PIDs). Health workers are at higher risk of PIDs. In 2018, 16,877 cases of leptospirosis were reported in the Notifiable Disease Information System (SINAN). For 621 of these cases (3.7%) the link with work was recorded, with 44 deaths, with an occupational lethality of 7.1%. Of a total of 7,316 cases of yellow fever reported on Sinan, 219 were recognized as occupational, and 72 evolved to death, with an occupational lethality of 32.9%. Among the 71,216 cases of viral hepatitis reported, only 0.2% were recognized as being related to work. Between 2006 and 2019, 852,655 serious accidents at work were recorded, of which 65.9% were due to exposure to biological material, and 33.1% to venomous animals. In the period, for work-related diseases and conditions, 184,867 cases were registered, the most frequent being repetitive strain conditions and musculoskeletal diseases (48.5%); exogenous intoxications (33.6%); mental disorders (6.2%); and noise-induced hearing loss (4.1%).(67)

Health service workers are all those who work in health spaces and facilities. Occupational

exposure is an important form of transmission of the novel coronavirus (SARS-CoV-2) for these professionals. In Brazil, by Epidemiological Week 21 of 2022, SIVEP-Flu had received 252 case reports from professionals hospitalized with severe acute respiratory syndrome (SARS). Of these, 166 (65.9%) were caused by COVID-19. Among these, 22.3% were nursing technicians/ assistants, 14.5% doctors, and 13.3% nurses; and 28.3% evolved to death.(68)

2.3.6 Climate change and environmental determinants of health

Weather events have impacts on food and nutrition security, air quality, access to clean water, population migration, and transmission patterns of vector-borne diseases. Their health effects can include an increase in respiratory, cardiovascular, and infectious diseases, mental health problems, among others.

From 20.0% to 30.0% of hospitalizations due to respiratory diseases may be related to air pollution. A substantial proportion of diarrheal diseases can be prevented by providing safe and adequate drinking water, sanitation, and hygiene, and eliminating open defecation. (69) In 2018, 80% of the municipalities had information on the forms of water supply, including water for human consumption monitored by health surveillance. (70)

Air pollution and climate change make up one of the ten main axes of WHO global agenda (71), and populations under the influence of bushfires and forest fires are considered a priority in public health. Monitoring the evolution of fires in the Amazon and the Cerrado (72) point to a strong tendency towards an increase in the incidence of respiratory diseases during the period that coincides with the decrease in rainfall, the drop in humidity levels, the occurrence of fires, and atmospheric contamination by several types of pollutants.

The percentage of Brazilian municipalities with water supply provided through the general network reached 99.6% in 2017, and 60.3% of

them have a sewage collection service. (73) Most of the population that does not have a safe source of water for consumption, or that does not have a solution for the disposal and adequate treatment of waste, lives in areas considered rural or in traditional communities.

In Brazil, from 2016 to 2018, 304,384 confirmed cases of exogenous poisoning were reported. Intoxications are not homogeneously distributed and may be related to geographic, social, and economic factors.(69)

2.3.7 Immunization

2.3.7.1 Vaccination coverage

The National Immunization Program (PNI) includes 45 immunobiologics with a gradual increase, especially for groups under special conditions. (74) Vaccination Coverage (VC) is considered when the child has the complete vaccination schedule recommended in the corresponding period, following the national schedule. In the country, VC was 67.1%, ranging from 59.9% in the Northeast Region to 73.4% in the South Region, according to the vaccination survey carried out by the Ministry of Health in children born during 2017 and 2018. (75)

The lowest VC was for the Oral Polio Vaccine (OPV) (80.9%) and the highest was for the 1st dose of MMR (91.9%). Except for the Triple Viral vaccine (1st dose), Pneumococcal 10 valent (2nd dose), BCG, and hepatitis B vaccine, all others had a VC lower than 90.0%. There is a decrease in VC over time according to the national schedule (89.2% for BCG, and 55.7% for the varicella vaccine). The VC for the 3rd dose of IPV was 82.7% in Brazil, and nine capitals had VCs below 80.0%, with Vitória and Natal having coverage close to 50.0%. The VC for the 2nd dose of meningococcal C vaccine was 89.9% in Brazil, and six capitals had coverage below 80.0%: Porto Alegre, Florianópolis, Natal, Fortaleza, Belo Horizonte, and Rio de Janeiro.

The VC for the 1st dose of Triple Viral vaccine in the capitals was 91.9%, with nine capitals reaching the target of 95%, and three having VC less than 80.0% (Maceió, Natal, and Belo Horizonte). The 2nd dose of Triple Viral vaccine was 85.7% in Brazil, only two capitals reached the target foreseen for elimination (Curitiba and Teresina) and nine had VC lower than 80.0% (Fortaleza, João Pessoa, Natal, Maceió, Rio de Janeiro, Belo Horizonte, Florianópolis, Aracaju, and Rio Branco).

VC of the HPV vaccine from 2013 to 2021 as to the 1st and 2nd dose in girls was 74.9% and 56.2%, whereas for boys it was, respectively, 55.5% and 36.0%, lower than the target of 90.0% established by WHO.(76-78)

Until June 2022, the number of vaccines applied against COVID-19 was approximately 399 million doses. The target population that received one dose was 91.5%, and the full schedule (two-dose or single-dose schedule) was 85.8%.(79, 80)

Some challenges remain for the VC reach. The first is vaccine hesitancy, which reflects vaccine refusal despite availability at the health service. Therefore, VC has been falling in recent years and diseases considered eradicated or eliminated, such as mumps, have increased. (81, 82) Another challenge is the continental dimension and socioeconomic diversity of the country. In large metropolises, low-income neighborhoods, slums, border regions, and in isolated communities such as indigenous villages, there are difficulties in vaccination processes, especially in more distant places. (83)

2.3.7.2 Supply

Over almost 50 years of existence of the PNI, SUS has been investing resources for technological modernization; adaptations in the cold chain; development of information systems and surveillance of post-vaccination adverse events; incorporation of technology to produce supplies and immunobiologics; decentralization of actions and technical-managerial training of health professionals and managers. The advances and results are undeniable and have helped Brazil reach satisfactory levels of vaccine coverage, as well as to control and eradicate serious epidemics of infectious and contagious diseases.(83, 84)

Brazil is one of the countries that offer the highest number of vaccines for free. With vaccines for more than 30 diseases, the PNI provides about 300 million doses annually and has about 38 thousand vaccination rooms distributed throughout the national territory. With the increasing expansion of immunobiologics in the last 22 years, the program's expenditure grew 44 times, from BRL 94.5 million, in 1995, to BRL 4.7 billion, in 2019.(53)

The pandemic caused by the novel coronavirus has impacted the entire world and highlighted the inequalities present in our societies. Mass vaccination was the most effective measure to overcome it. The approval of the emergency use and production of CoronaVac (Butantan Institute) (85) and the Oxford/Astrazeneca vaccine (Bio-Manguinhos/Fiocruz) were possible due to the technological capacity of these institutions, and for they having led clinical studies of phase 3. Brazil's role in vaccine research and production is possible because the country has public institutions capable of receiving technology transfers. Both Butantan and Bio-Manguinhos established technology transfer agreements that allowed the production of two vaccines for the Brazilian population at the critical moment of the pandemic. Currently, the Bio-Manguinhos COVID-19 vaccine is 100% produced in this institution. This is a strategic asset for the country, and the production of COVID-19 vaccines is the result of science and must be available and accessible to the entire population.(86)

2.3.8 Emergency

According to WHO, all countries are susceptible to global threats with a serious impact on public health such as outbreaks, epidemics, pandemics, conflicts, natural and technological disasters, as well as the emergence of antimicrobial resistance, increasing rates of obesity and other converging comorbidities in multiple humanitarian crises.(87)

In this context, with the occurrence of environmental, technological and biological events that affect public health, Brazil has been managing several crises, such as the response to the COVID-19 pandemic, floods in different municipalities, the high circulation of arboviruses, the measles epidemic, technological events, such as the increased work accident in Barcarena, the disasters resulting from the rupture of the Mariana and Brumadinho dams, in addition to controlling the risk of reintroduction of vaccine-preventable diseases resulting from poor adherence to vaccination programs accumulated over the last few years.

The management of these crises is based on the structuring of surveillance systems and health services that have the capacity to prevent, detect, assess, notify, and respond to public health risks and acute events within the scope of SUS. The implementation of the National Surveillance, Alert and Response Program to Public Health Emergencies (VigiAR-SUS Program) provided the country with advances in strengthening these structures. One of the gains obtained was the strengthening of health surveillance structures in detecting, monitoring, alerting, and responding to emergencies, with the expansion from 55 to 164 Strategic Information Centers on Health Surveillance (CIEVS), distributed throughout the Brazilian national territory, including Indian Health Districts, border municipalities, strategic municipalities, and capitals.

Emergencies and disasters cause social, economic, and environmental impacts that interfere with the living conditions of affected communities in the long term and generate different effects on the health of people, health professionals and on the infrastructure of services. The line of comprehensive care for children affected by Congenital Syndrome associated with Zika virus infection (SCZ), risk assessment studies to human health resulting from exposure to environmental contaminants and, more recently, the direct and indirect impacts of the COVID-19 pandemic are examples of responses to emergencies.

SUS has been responsive and resilient to multiple crises, having been the main pillar of Brazil's response to the COVID-19 pandemic. Therefore, Brazil understands and promotes the qualification of the capacity of laboratories, of rapid response and care teams, incorporating innovative technologies into SUS, readjusting

regulatory frameworks, information systems, in addition to developing mechanisms to mobilize financial resources. for actions of preparation, response and recovery to health emergencies and disasters, enabling the country to become a regional benchmark for response to pandemics and epidemics.

2.3.9 Access to technologies

2.3.9.1 Pharmaceutical care: access to medicines and biologicals

Brazil has made progress in the implementation of the National Pharmaceutical Assistance Policy and in expanding access to essential medicines. The constant updating of the National List of Essential Medicines (Rename), the offer of free medicines through the Popular Pharmacy Program in Brazil, the launching of the national program for the qualification of pharmaceutical care and the inclusion of medicinal plants and herbal medicines in SUS are examples of these advances. (88-90)

Universal pharmaceutical care also encounters challenges for its implementation, such as reduced funding, incorporation of effective medicines with economic viability, fighting indiscriminate use and encouraging the rational use of medicines, supply crises and financial resource management, in addition to issues associated with judicialization of health.(91-93)

Brazilian medicine market had a turnover of BRL 77 billion in 2020, equivalent to around USD 15 billion. There was a 11.4% growth compared to the previous year, representing approximately 2.0% of the world market, being the seventh largest revenue in the ranking of the 20 main economies in the world, and the main market in Latin America. In 2020, Brazilian medicine market had 441 pharmaceutical companies. Of these companies, 89 (20.2%) were of international origin and 352 (79.8%) of national capital. Multinational companies held 42.4% of the market in revenue and 22.4% in units sold (boxes). National laboratories accounted for 57.6% of the market in revenue. (94)

Recently, the expiration of patents and/or data protection for the first major group of reference biologics has ushered in an era of products that are designed to be "like" an original licensed product. Important issues associated with the use of "Similar Biological Products" need to be defined by national authorities. These include intellectual property issues, interchangeability and substitution of Similar Biological Products with the Reference Biological Product, pharmacovigilance plans, and medical prescription.

The polarization between innovation and access has already been discussed for some years, however, the pandemic brought discussions about the problems due to factors such as low manufacturing capacity and high prices, among others, and that such problems can be aggravated in times of public health emergencies. At the last PAHO Directing Council, Member States committed to increasing national and regional production, as well as access to vaccines, essential medicines, and health technologies. This will only be possible with the creation of government mechanisms to strengthen national capacity for research, development, innovation, and production.

2.3.10 Sanitary regulation: National Health Surveillance Agency (ANVISA)

The national regulatory system plays a key role in the health system, and its purpose is to promote and protect the health of the population, through sanitary control of the production and consumption of products and services subject to health surveillance, including environments, processes, supplies and related technologies, as well as the control of ports, airports, borders and customs areas.

The National Health Surveillance System (SNVS) is composed of the National Health Surveillance Agency (Anvisa), health surveillance agencies of the 26 states, the Federal District and municipalities, the public health central laboratories (LACEN) at state level, the municipal laboratories, and the National Institute of Quality Control in Health (INCQS). The INCQS,

like the other official laboratories, is part of the SNVS through the National Health Surveillance Laboratories Network, and is the only federal level laboratory.

Law No. 9,782, of January 26, 1999, refers to the field of action and establishes that it is up to health surveillance to develop a set of actions related to goods, products, and services:

- Food, beverages, bottled water, their ingredients, their packaging, food additives, limits on organic contaminants, residues of pesticides and veterinary medicines.
- 2. Medicines for human use, their active substances and other supplies, processes, and technologies.
- Cosmetics, personal hygiene products and perfumes.
- **4.** Sanitizing agents intended for cleaning, disinfection or disinfestation in home, hospital, and collective environments.
- **5.** Kits, reagents, and supplies for diagnosis.
- **6.** Medical-hospital, dental, hemotherapy, laboratory and imaging diagnostic equipment and materials.
- Immunobiologics and their active substances, blood, and blood products.
- **8.** Human and veterinary organs, tissues for use in transplants or reconstitutions.
- **9.** Radioisotopes for in vivo diagnostic use, radiopharmaceuticals and radioactive products used in diagnosis and therapy.
- Cigarettes, cigarillos, cigars, and any other smoking product, whether derived from tobacco or not.
- **11.** Any products that involve the possibility of risk to health, obtained by genetic engineering, by another procedure or even submitted to sources of radiation.

- **12.** Services aimed at outpatient care, whether routine or emergency, those carried out on an inpatient basis, diagnostic and therapeutic support services, as well as those involving the incorporation of new technologies.
- **13.** Services of interest to health, such as: kindergartens, nursing homes for the elderly, prisons, cemeteries, beauty salons, school canteens and cafeterias, gyms, clubs, etc.
- 14. Physical facilities, equipment, technologies, environments, and procedures involved in all stages of the production processes of goods and supplies subject to sanitary control and inspection, including the destination of the respective waste.

During the COVID-19 pandemic, health surveillance had a strategic role by disseminating information to travelers, approving new health requirements for the import and export of goods and products, among other measures. It also produced guidelines on measures on infection prevention and control, field hospitals, implementation of patient safety practices and personal protective equipment (PPE), participation in health campaigns. It established extraordinary criteria, requirements, and procedures for evaluating applications for the registration of medicines and biological products for the prevention and treatment of the disease and authorization of clinical studies for COVID-19.

Regulatory measures were adopted on the sale of masks to the population, approval of rapid tests, and guidelines on N95 masks or equivalent, and prioritization of analysis of requests for lung ventilators registration. In addition, the health surveillance established criteria and procedures for the manufacture, sale, and exposure for sale of antiseptic or sanitizing preparations.

In addition, measures were also adopted to expand the national public laboratory capacity for the diagnosis of COVID-19 and special funding for places with greater difficulties, especially those on the borders. The use of plasma from convalescent patients who have recovered from COVID-19 was also discussed as an experimental procedure for treatment, and guidelines were released on clinical trials and the experimental use of advanced therapy products.

2.3.11 Revolving and Strategic Funds

Despite the considerable progress that countries are making in the region of the Americas, access to medicines and other health supplies continues to be a major challenge for several reasons: rising costs, lack of financial resources, limited product availability, and inferior quality.

The Revolving Fund for Access to Vaccines, created in 1977 by PAHO Member States, aims to facilitate the timely availability of quality vaccines at lower prices. In 2000, at the request of Member States, PAHO established the Regional Revolving Fund for Strategic Public Health Supplies, also called the Strategic Fund, aiming at improving access to quality-assured, safe, and effective medicines and other supplies by increasing the efficiency and sustainability of public health systems in the Region of the Americas.

The Revolving and Strategic Funds are regional technical cooperation mechanisms that facilitate joint procurement of vaccines and essential medicines and health supplies. These help countries meet their commitments to achieve the SDGs by improving access to vaccines, medicines, and public health products.

The Revolving and Strategic Funds helped mitigate supply chain disruption of vaccines and essential medicines from priority programs (including HIV, tuberculosis, and malaria) and alleviated severe shortages related to COVID-19, whereas continuing the effort to improve demand forecasting and consolidation, joint negotiation, facilitating production, guaranteeing quality, and ensuring the economic accessibility of medicines.



he PAHO/WHO technical cooperation in Brazil is carried out based on a broad agreement that assumes the different capacities and institutions present in the country and the support and collaboration networks, having as main partners the SUS governance institutions, the Ministry of Health (MH), the State Health Departments (SES), the Municipal Health Departments (SMS), represented by the National Council of Health Departments (CONASS), and the National Council of Municipal Health Departments (CONASEMS), respectively. The National Health Council (CNS) and the State and Municipal Health Councils, which are bodies linked to social control. In addition to these bodies, PAHO/WHO has partnerships with other ministries, regulatory agencies and other autonomous state institutions, entities of the Legislative and Judiciary branches, scientific and academic associations, PAHO/ WHO Collaborating Centers, non-governmental organizations, the private sector, embassies, agencies of the United Nations System and the Inter-American System, among others.

The partnership environment must be constantly analyzed and updated according to changes in the national and international scenario, which allows identifying new partnerships and new relationships for technical cooperation, as well as carrying out a work based on the exchange of experiences, innovations, solutions, and communication. The partnership environment enhances technical cooperation, helping achieve the priorities set out in CCS.

Relationship with the Ministry of Health (MH)

The relationship with the Ministry of Health, its departments and related bodies is a powerful basis for cooperation in the country. It is based on the alignment of the priorities established in the PAHO/WHO technical cooperation with the strategic health frameworks in Brazil. The relationship with MH aims to strengthen SUS by supporting the formulation of public health policies.

At the same time, MH is constantly sharing its good practices, knowledge, experiences, supplies, and equipment with other countries in the Region and the world. Cooperation with PAHO/

WHO has a dual perspective, inside and outside the Country, based on Pan-American solidarity and global health, contributing to the equitable progress of the Member States.

Relationship with CONASS, CONASEMS, COSEMS, SES, and SMS

The subnational levels allow the identification of experiences for scaling up practices and knowledge that strengthen technical cooperation in the country. CONASS and CONASEMS are fundamental partners for strengthening the governance of SUS, as they allow the construction and deliberations of national public policies at the level of the Tripartite Interagency Commission (TIC), along with the MH, and in the definition of strategies for the implementation of technical cooperation both at the national level and for subnational cooperation.

Allied to these levels of representation, SES and SMS are important partners for the implementation of technical cooperation, mainly in the agreements and development of cooperation at the state level (Bipartite Interagency Commission – BIC) and at the regional level (Regional Interagency Commission – RIC). Another important actor is the Council of Municipal Health Departments (COSEMS), in which municipal health departments are represented in the states.

Relationship with the National Health Council (CNS), the State Health Councils (CES) and the Municipal Health Councils (CMS)

Social control in SUS is one of the pillars of its strategic management. (95) The Health Councils, at the national, state, and municipal levels, allow the strengthening of social control for the construction, follow-up, evaluation of projects, having the citizen's perspective in the developed cooperations, as well as carrying out projects aimed at regulating health measures, the participation of society, and vulnerable groups in discussion forums and in regional, bipartite, and tripartite agreements.

Regulatory agencies and other autonomous state institutions

Cooperation actions between regulatory agencies and PAHO/WHO contribute to the improvement of the institutional capacities of the health authorities of the Region of the Americas and in the fulfillment of their support functions for the protection and promotion of the population's health. PAHO's partnership with the National Health Surveillance Agency (Anvisa) aims to support the guarantee of access to medicines, food, and health products with greater quality, safety, and efficacy. When considering the actors involved in the field of production and consumption of health goods and the existence of numerous market failures, health surveillance becomes a key part in protecting health and in establishing ethical relationships between production and consumption.

International relations and integration processes

PAHO/WHO in Brazil collaborates with the country in the development of South-South cooperation in health in geopolitical spaces of high strategic value for international cooperation in Brazil, such as Mercosur, the Amazon Cooperation Treaty Organization (ACTO) and the Community of Portuguese Speaking Countries (CPLP). This political relationship is centered on taking care of the alignment of projects of an international nature with triangular cooperation, using legal instruments already signed as a reference, such as the Memorandum of Understanding on Cooperation between Mercosur and PAHO.

Relationship with scientific and academic associations

Universities and scientific societies contribute to technical training and the production of scientific knowledge. The relationship takes place through the production of scientific articles, meetings and technical workshops aimed at the production and dissemination of knowledge of public health interest. These institutions are fundamental partners for implementing technical cooperation as a space of excellence for the production and dissemination of knowledge and carrying out research in public health.

Relationship with PAHO/ WHO Collaborating Centers

The Collaborating Centers (CC) are a cooperation mechanism of institutions of high technical and scientific level. They are benchmark institutions designated by PAHO/WHO to support the implementation of its programmatic and strategic objectives. The institution, upon being designated, gains access to other centers of world excellence, improving its ability to support activities and ensure the scientific consistency of its work in health at the global level. The CCs have existed since the founding of WHO. Currently, there are more than 800 Centers located in more than 80 WHO Member States, with approximately 193 present in 14 countries in the Region of the Americas. Today, Brazil has 19 active CCs (Table 7).

Since the year 2000, WHO Executive Board has urged the Member States to provide CC support for services and expertise with the aim of strengthening national capacity for training, research, and collaboration for health. Centers are encouraged to develop working relationships with other counterparts, promoting the creation of collaborative networks. This has enabled the Centers to adopt a more dynamic model, in addition to the bilateral relationship with PAHO/WHO, by participating in and promoting multilateral networks. The network model promotes greater interaction in global health, and the identification of synergies and opportunities between peers.

It was in this context that PAHO Brazil created the Brazilian CC Network, with the objective of enhancing the capacity to act in research, development, and innovation; capacity building and South-South cooperation with networking in support of the 2030 Agenda. In 2020, a mapping of 176 CC activities in Brazil with the Sustainable Development Goals (SDGs) was published. (96)

Relationship with embassies

The relationship with the diplomatic corps is based on regional integration processes or leadership and participation in the World Health Assembly and the Pan American Sanitary Conference and/or PAHO Board of Directors.



Doctor assisting Indigenous children in action of the Onchocerciasis Eradication Program in the Americas, a partnership of the Ministry of Health with Fiocruz, PAHO, and other entities.

Photograph: Alejandro Zambrana/Sesai

This political relationship also addresses issues of resource mobilization for strengthening SUS through international cooperation projects between countries.

Relationship with PAHO and WHO Headquarters, other Country Offices and Regional Centers

PAHO/WHO in Brazil maintains a political, strategic, and technical relationship with its headquarters and centers to align institutional capacities and respond in a complementary way to CCS priorities. PAHO has three Regional Centers, and the first two of them are based in Brazil: (1) The Latin American and Caribbean Center on Health Sciences Information – known as the Regional Library of Medicine, which gave rise to its acronym in Portuguese BIREME; it promotes the democratization of access, use, and exchange of scientific and technical information on health, which contributes to the strengthening of health systems and services; (2) The Pan-American Center for Foot and Mouth Disease and Veterinary Public Health (Panaftosa/ SPV); it coordinates the Veterinary Public Health Program in the Americas, offering cooperation in three areas: eradicating foot-and-mouth disease and strengthening animal health programs; prevention, control and elimination of zoonoses and prevention of emerging infectious diseases; and food safety and antimicrobial resistance in the food chain of animal origin; and (3) The Latin-American Center for Perinatology, Women

and Reproductive Health (CLAP/SMR), based in Uruguay, which provides technical cooperation to promote, strengthen, and improve health care for women, mothers, and newborns in the countries of the Region of the Americas.

Relationship with the United Nations System in Brazil

PAHO/WHO's relationship with the UN system in Brazil takes place within the scope of the United Nations Country Team (UNCT) and other levels of linkage and joint work, providing joint planning, programming, and implementation processes. The Organization participates in the preparation of strategic documents, such as the United Nations Sustainable Development Cooperation Framework, and, through dialogue and interagency action, in projects and other actions. It is worth mentioning the partnerships in interagency groups, such as the Interagency Thematic Group on Gender, Race, and Ethnicity, and the Joint UNAIDS Program; in addition to the UNAIDS Working Group and the R4V Coordination Platform for Refugees and Migrants from Venezuela in Brazil, made up of 55 partner organizations.



The five strategic priorities and their respective focus areas were developed considering the national strategic frameworks, as well as PAHO/WHO and the United Nations System regional and global frameworks.

With the advent of the COVID-19 pandemic, strategic approaches were developed, supported by the principles of equity and solidarity, based on Pan Americanism, namely: "(a) Protect public health gains while ensuring an effective response to COVID-19; (b) Recover from the impact of the pandemic by accelerating actions to catch up on the 2030 targets; and (c) Build to Strength, leveraging innovation for universal health and sustainable health development in a people-centered manner" (Figure 3).

- **5.1.** Strengthen health system organization and resources for emergency and disaster prevention and preparedness.
- 5.2. Strengthen coordinated, integrated and timely response to emergencies and disasters with special emphasis on border areas.
- **5.3.** Build health system capacities for timely and effective recovery.

- 1.1 Maintain and accelerate gains in the elimination and eradication of diseases of public health interest.
- **1.2** Address social and environmental determinants and the health effects of climate change.
- **1.3** Promote health, including mental health, and prevent conditions and risk factors for chronic noncommunicable diseases.

FOCUS AREAS FOCUS AREAS Protect and promote Strengthen prevention, preparedness, timely response and recovery in emergencies and disasters, the population health, centered on people, families, and communities, especially those in with the participation of the vulnerability situation. affected communities. STRATEGIC Boost research, **PRIORITIES** innovation, and the generation of scientific and technological Recover, improve, knowledge in health, and strengthen health including those aimed at services and priority the research, development, programs impacted by the COVID-19 pandemic. **FOCUS** and production of medicines, herbal medicines and **AREAS** traditional health products, vaccines, Contribute to the biotechnology, and development of a more **4.1.** Encourage research technologies resilient, equitable generation, dissemination and in health. and effective SUS implementation of evidence according to the health in science and technology needs of the population. in health, as well as the evaluation of policies and technologies in health. **4.2.** Reinforce national capacities for regulation, development, and production of raw **FOCUS AREAS FOCUS AREAS** materials, medicines, vaccines,

- and other technologies.4.3. Promote relevant innovations in health
- 4.4. Promote innovation in medicinal plants and herbal medicines based on native biodiversity, recognizing knowledge, practices and ensuring sharing of benefits arising from the commercialization of these products with traditional communities.
- 3.1 Consolidate a strong PHC as a foundation of the health system, with universal access and coverage, in integrated networks of health services and incorporating new digital technologies.
- 3.2 Strengthen governance, leadership, regulation, participation, and social control in SUS, with funding, remuneration models and adequate, sufficient, and sustainable human resources.
- **3.3** Revitalize the development of human resources in health.
- 2.1. Strengthen access, comprehensive care, and implementation of effective interventions throughout the course of life, prioritizing vulnerable populations and border areas.
- 2.2. Improve the prevention, detection, and treatment of communicable, emerging, and re-emerging diseases, especially those with the greatest impact on morbidity and mortality.
- Reinvigorate comprehensive care for mental health and non-communicable diseases and conditions.

he universal access to health and the universal health coverage are concepts that guided the definition of the five priorities. Both require that the determination and implementation of policies and actions have a multisectoral approach based on the social determinants of health. The right to health is the core value of universal health coverage, to be promoted and protected without distinction of any kind.(97) For PAHO/WHO, the achievement of universal health advocates that health services are accessible, comprehensive and of quality, with effective governance of the health system, sufficient and stable funding, with public spending on health of at least 6.0% of GDP, and the promotion of actions on the social and environmental determinants of health.(98)

The strategic priorities and their areas of focus for the CCS 2022-2027 are based on the human rights approach, the promotion of equity, the perspective of gender, ethnicity, and race – cross-cutting priorities of PAHO/WHO in Brazil. Interculturality and a perspective on impacts for future generations are also essential. In addition, it is worth mentioning the relevance of the SUS

model and the country's leadership and strategic position in the regional and world scenario.

The strategic priorities and areas of focus are complementary, interrelated, and interdependent, with equal relevance to achieving higher levels of health and well-being for all people, families, and communities.

The life course approach offers comprehensive care and promotes health at all levels of care, centered on people, with services oriented towards health promotion, disease prevention, care for people, and disease rehabilitation.

The right to health includes access to adequate, timely, and quality services during all stages of life (newborns, children, adolescents, adults, and the elderly), recognizing that improving the state of health in each life stage can lead to a healthy and favorable outcome in the following stages. In this context, the relevance of timely and equitable actions in the initial cycles is highlighted, prioritizing groups in situations of greater vulnerability such as Indigenous peoples and populations in border areas.

Strategic Priority 1

Protect and promote the health of the population, centered on people, families, and communities, especially those in vulnerable situations

The Family and Community Health Model has an approach to health care not only centered on people's illness, but also in relation to their family, their community, and their environment. It provides participatory social management through the Primary Health Care renewal strategy, which includes the principles that guide the organization of health systems. Family and community health considers the health of children, adolescents, and young people, adults, and the elderly as a continuous process that encompasses all stages of life. And it respects the Right to Health guaranteed by the State.



Family who lives by the river showing vaccination card. Photograph: Karina Zambrana/PAHO/WHO

1.1 Focus area: Maintain and accelerate gains in the elimination and eradication of diseases of public health interest

To protect gains in public health and, at the same time, accelerate actions towards the 2030 targets, it is essential to focus on maintaining the gains achieved and also accelerating the elimination and eradication of diseases of public health concern.

The Technical cooperation will focus on improving and implementing strategies to improve monitoring, detection, and timely treatment of cases, to maintain progress and accelerate the elimination of malaria; elimination of mother-to-child transmission of HIV, syphilis, hepatitis B, and congenital Chagas disease; tackling leprosy; elimination of cervical cancer, hepatitis B and C as public health problems; as well as elimination of filariasis, trachoma, and onchocerciasis. It also includes technical support for elimination certification processes with WHO and support for research for the production and implementation of innovative technologies.

As to immunization, it is necessary to reinforce preparation for risk identification, data analysis, vaccination actions, epidemiological and laboratory surveillance, and preparation and qualification in rapid response. The expectation is to increase Vaccination Coverage annually to allow, in the short term, the end of the sustained transmission of the measles outbreak, to obtain the recertification of a country free of this disease, and maintain the sustainability of the eradication of poliomyelitis, and the elimination of rubella, congenital rubella, and neonatal tetanus. In addition to the preparation and implementation of plans for the elimination of vaccine-preventable diseases for the 2030 target, even in the face of emerging public health challenges.

It is crucial to strengthen tripartite management, in interventions during life, especially for population groups in vulnerable situations such as Indigenous peoples, *Quilombola* communities, people deprived of liberty and others.

The cooperation should also promote a follow-up on the implementation of the national plan for the operationalization of COVID-19 vaccination (PNO), with social and community participation, as well as improve regional collaboration for the cold network and partnerships, considering the territorial extension of the country and neighboring countries and border municipalities.

1.2 Focus area: Focus on social and environmental determinants and the health effects of climate change

The Technical cooperation should act on social and environmental determinants, including commercial determinants of health, as well as on the health effects of climate change, through technical and strategic support from PAHO, to help improve access to quality drinking water, adequate sanitary sewage, food, and nutritional security (in terms of quality and quantity), and control of vector diseases.

For effective action on social and environmental determinants, intersectoral action is fundamental, i.e., technical cooperation considering partnership environments, such as universities, Collaborating Centers, and non-governmental organizations, the Legislative Power and other organizations committed to the right to health. The Technical cooperation will adopt strategies to strengthen the health sector and implement intersectoral actions to intervene on risk factors and health determinants, especially considering future generations and vulnerable groups, such as Indigenous peoples, *Quilombola* and riverside communities, migrants and refugees, children, elderly people, among others.

The Technical cooperation will also support a set of actions to be strengthened in environmental health for the preparation of guidelines and training, such as: the development of National Guidelines for Air Quality and Health, the implementation of a course to analyze the situation in environmental health, the improvement of the Environmental Information System Integrated to Health, the universalization of access to water and sanitation services, the qualification of surveillance actions for

the quality of water for human consumption, the strengthening of health surveillance of populations exposed to pesticides, the development of initiatives in child environmental health and human biomonitoring of chemical substances, the Sectorial Plan for the Implementation of the Minamata Convention on Mercury and the strengthening of institutional capacities for prevention, preparation and response to technological disasters, with emphasis on the rupture of mining dams.

1.3 Focus area: Promoting health, including mental health, and prevent conditions and risk factors for chronic noncommunicable diseases

The country has made efforts to reduce the burden of conditions due to accidents, violence, and CNCDs, through actions to promote and protect health, prevention of diseases and conditions, health care, and surveillance.

Cooperation should continue to promote healthy lifestyles and consider situations of vulnerability and health inequalities, and tackle risk factors such as tobacco use, harmful use of alcohol or other drugs, consumption of ultra-processed foods, sedentary lifestyle, overweight, unfavorable working and environmental conditions, unhealthy urbanization, and climate extremes.

Health promotion and prevention of diseases and disease risk factors will be linked in a cross-sectional, intersectoral approach, with social participation aimed at health-promoting environments (example: Health at School). Cooperation should help boost the achievement of the targets of the Strategic Action Plan for Fighting Chronic Diseases and Noncommunicable Diseases in Brazil, 2021-2030 (Dant Plan).

This focus area will strengthen efforts made through the National Food and Nutrition Policy, the National Health Promotion Policy, and the Health Equity Promotion Policy. Training actions, the creation of tools to develop or monitor and evaluate policies in an ascending way will be developed, with special emphasis on the dissemination of these efforts to the territories.

inducing the formation of collaborative networks for the implementation of new methods of data collection and analysis, as well as new instruments linked to the SDGs, and to guide the management of the main risk factors for CNCD.

With regard to food and nutrition, the cooperation will include the strengthening of the Food Guide for the Brazilian Population, the Food Guide for Brazilian Children Under 2 Years of Age and the Strategy for Prevention and Attention to Childhood Obesity (PROTEIA), as inducers to reduce the consumption of ultra-processed products, and, in turn, to halt the rise of overweight and obesity. To this end, existing coalitions, academic institutions, professional associations, civil society, and community organizations will be strengthened. Country leadership will also be supported in the implementation of WHO Accelerated Plan to STOP Obesity. In addition, actions to promote, protect, and support breastfeeding should be carried out, including the strengthening of the Human Milk Bank Network and the Baby Friendly Hospital Initiative (BFHI).

This focus area will support the implementation of the *Physical Activity Guide* for the Brazilian population and environments that promote physical activity, as provided for in the Physical Activity Incentive in Primary Health Care, PROTEJA, the Dant Plan (2021-30) and the WHO Global Action Plan for physical activity (2018-30), as inducing instruments for increasing the practice of physical activity (or for reducing physical inactivity) and, consequently, for the prevention and control of CNCDs.

With regard to tobacco, cooperation will advance in measures that reduce the accessibility of tobacco products, with an increase in taxes that may impact product prices and, in turn, reduce consumption. Cooperation will also be focused on complying with the ban on all forms of sponsorship, publicity and advertising, enforcing smoke-free environments, eliminating additives that impart flavor and aroma, and maintaining the ban on trade in new and emerging tobacco products, such as electronic cigarettes and heated tobacco, to avoid the increasingly early initiation of young people.

As for morbidity and mortality in traffic, the cooperation strategy should reinforce legislative achievements and strengthen inspection measures, guide the health, and transport sectors, as well as linking governments, in the three administrative spheres.

Recognizing the enormous impact of the COVID-19 pandemic on the mental health and psychosocial well-being of the general population, health professionals and vulnerable groups such as women, children, adolescents, elderly people, capacities will be strengthened to the implementation of policies, actions, and programs to promote mental health and prevent conditions. This will be done through training, elaboration, and dissemination of strategic guidelines, tools, and materials, with mental health promotion actions aimed at children and adolescents in school environments, work environments, with

emphasis on self-care and stress management of health workers, and in strengthening psychosocial and community support in vulnerable populations, such as women, migrants, and refugees in border contexts.

This priority will contribute to the advancement of regulatory measures to reduce risk factors and address commercial determinants of health, such as fiscal measures, food labeling and advertising restriction to provide healthy environments and discourage consumption of unhealthy products, such as tobacco, alcohol, ultra-processed products, and others included in the Brazilian Standard for Marketing Food for Infants and Young Children, Bottle Nipples, Pacifiers, and Baby Bottles (NBCAL). In addition, communication and social marketing strategies will be addressed to raise awareness and inform about healthy choices, in line with WHO Best Buys.

Strategic Priority 2

Recover, improve, and strengthen health services and priority programs impacted by the COVID-19 pandemic

Faced with the impacts of the COVID-19 pandemic, it is essential to undertake strategic actions and catalytic efforts to mitigate interruptions in the provision and availability of essential health services, to protect and resume the advances achieved in public health, overcome the negative effects, and identify existing loopholes. In addition, all the impacts of the pandemic on the health of people, families and communities are not yet fully known and evidenced.

Recent experiences exemplified by the COVID-19 pandemic and the H1N1 flu epidemic unequivocally demonstrate the need to recover and improve health services and priority programs, in addition to integrating measures to strengthen the health system to guarantee the integrated and continuous performance of essential public health functions. A better



and stronger reconstruction of priority services and programs is urgently needed to achieve universal health. At the same time, it is critical to offset the impact of the disruption and fragility of services during the pandemic and take steps to bolster the response capacity of essential services, protect public health gains, and move towards the 2030 targets.

With the effects of the pandemic, it is imperative to recover access to and the coverage of health services, driven by technical cooperation aligned with the policies, strategies and plans adopted by the Country. SUS proved to be responsive and resilient to COVID-19, constituting the main pillar in the fight against the pandemic.

Considering the impacts of the pandemic on people's health, it is urgent to pay attention to post-COVID-19 conditions. The *Management Manual for Post-COVID-19 Conditions in Primary Health Care* is a document based on scientific evidence intended for Primary Health Care (PHC) professionals, with the aim of describing the main post-COVID-19 conditions and their management. In addition to helping in the identification of patients who need to be referred to a specialized service, this document is of fundamental importance to guide the care provided by the PHC for post-COVID-19 conditions.

2.1 Focus area: Strengthen access, comprehensive care, and implementation of effective interventions throughout the life course, prioritizing vulnerable populations and border areas

The Technical cooperation will be aimed at improving and implementing strategies for a sustainable agenda for the implementation of priority policies, strategies and interventions that contribute to the integral health of women, children, adolescents, and elderly people in the life course and social determinants approach, aiming to reduce inequities and strengthen PHC.

Support will be given to the development and implementation of a comprehensive plan to contribute to the reduction of severe maternal morbidity and maternal mortality, including the implementation of effective interventions to prevent complications from prevalent causes (hemorrhage, hypertension, sepsis, COVID-19), as well as in the reduction of prematurity and neonatal mortality and mortality in children under 5 years of age. Actions will also be supported to avoid unplanned pregnancies, ensure a healthy interval between pregnancies, maintain the trend of reducing teenage pregnancy, improve prenatal control, reduce premature mortality from cervical cancer, promote maternal-infant health and strengthen the follow-up of child growth and development in PHC, through childcare consultations.

Healthy Aging should also be a focus for cooperation within the framework of the Healthy Aging Decade (2021-2030). Intersectoral actions that promote healthy aging should be carried out, such as "Friendly Cities and Communities", and also an adaptation to health services with an integrated vision, centered on the person, that promotes self-care and focused on maintaining functional ability of elderly people and strengthening the training of human resources, as well as the fight against ageism in the most different scenarios, including the health system.

Actions will be carried out to implement the Comprehensive Men's Health Care Policy, which aims to "promote the improvement of the health status of the Brazilian male population, effectively contributing to the reduction of morbidity and mortality in this population, by addressing the risk factors and vulnerabilities", with an emphasis on expanding the access of the male population to Primary Health Care, encouraging the exercise of fatherhood, preventing morbidity and mortality from violent causes, and reducing male mortality from most causes of death, especially due to CNCDs.

Actions will also be carried out to strengthen attention to specific populations, to promote equity within the scope of PHC for homeless, riverside and river populations, and populations in the countryside and forest.

Brazil has expanded its international public health activities, working in neighboring countries on a bilateral or multilateral basis. Border municipalities face the challenge of organizing the coordination for the formulation and implementation of development policies. Work in border areas can improve access to health care, with coordinated and cooperative actions between countries. Cooperation between countries is increasingly urgent and necessary, in view of the increase in cross-border flow and public health emergencies of international concern, such as COVID-19.

Regarding Indigenous peoples, the elimination of inequities must be accelerated. It is imperative to improve the quality and problem-solving capacity of PHC in indigenous areas/villages; to promote

the cultural relevance of priority strategies for reducing maternal and child mortality; to expand access to quality water and sanitation and to manage information and knowledge on topics related to the health of Indigenous peoples, with an intercultural and human rights approach.

2.2 Focus area: Improve the prevention, detection, and treatment of communicable, emerging, and re-emerging diseases, especially those with the greatest impact on morbidity and mortality

It is fundamental to maintain immunization with safe and effective vaccines, acquired by national production and by the PAHO Revolving Fund, to render feasible the availability to the population via routine vaccination programs and campaigns. In addition, it is necessary to modernize the immunization program considering the strengthening of governance, leadership and funding of immunization programs; improving monitoring of vaccine coverage and surveillance, incorporating digital intelligence strategies; strengthening the integration of immunization programs into the PHC system; developing innovative communication approaches and population awareness strategies, which include mitigating vaccine hesitancy; strengthening human resource capacity; and using evidences for decision-making.(99, 100)

Furthermore, the strengthening of epidemiological surveillance of vaccine-preventable diseases stands out, especially considering the success of the PNI, which promotes the reduction of social inequalities by granting access to a vast range of immunobiologics to the entire population, offered by a public program. This fact has resulted in the reduction of diseases that directly impact the lives of millions of Brazilians, in particular those in situations of greater vulnerability.

With regard to Tuberculosis (TB), it is necessary to recover the country's gains through continuous updating of technical guidelines and innovations; the expansion of prevention, diagnosis, treatment and rehabilitation of sensitive TB



Endemic disease control agents working in low-income areas. Photograph: Joshua Cogan/PAHO/WHO

and DR-TB; the improvement in TB control in populations in situations of greater vulnerability; and concentration of efforts for the preventive treatment of LTBI and its diagnosis. The use of information will also be paramount in technical cooperation activities such as artificial intelligence to support TB diagnosis, georeferencing of cases as a strategy for identifying geographic areas with higher risk of new cases of TB and DR-TB. And, also, the implementation of the TB Control Strategy in Large Cities and large metropolitan areas.(101)

The country's achievements must be reinforced, considering universal access to antiretrovirals by the health system, along with the continuous improvement of indicators of continuous care for HIV/STI, as well as combined prevention strategies aiming at reducing the incidence and improve ongoing HIV care in the country. The Technical cooperation should support the expansion of combined prevention strategies, including targeted testing, PrEP, PEP and self-tests, and the promotion of expansion of community-based actions aimed at populations. In addition, support for research and innovation on rapid tests for opportunistic diseases in advanced HIV infection is important; remote PrEP; use of long-acting injectable ARVs for ART and PrEP; implementation of molecular biology for the detection of chlamydia, gonococcus, trichomonas in pregnant women in prenatal services, and research on the treatment of syphilis with cefixime in pregnant women.

As for neglected diseases, this focus area should facilitate technology transfer and implementation of the Multiplex platform with the aim of strengthening serological surveillance of neglected, vaccine-preventable, water/ foodborne and malarial diseases. It should also support the elaboration of the National Plan of Action for Fighting Schistosomiasis and Geohelminthiasis. The Technical cooperation should develop the capacities of PHC health professionals to integrate diagnosis and treatment using distance learning methods. Mapping of endemic areas for taeniasis/ cysticercosis; prevention, control, and treatment of tungiasis in indigenous and rural communities with a human, animal, and environmental health approach, and implementation of interventions for the prevention and control of Leishmaniasis in priority areas and borders with the use of impregnated collars should also be carried out.

The Technical cooperation should strengthen the Epidemiological Surveillance of Worker-Related Diseases and Conditions; qualify the Occupational Health Situation Analysis; support the development and implementation of strategies to promote health and healthpromoting environments. It is necessary: the strengthening of the National Network of Integral Attention to Worker's Health; the qualification of the actions of the Reference Centers in workers' health; support for the implementation of the Permanent Education Program in Occupational Health; support for mental health strategies and psychosocial care for health professionals; and the strengthening of the National Hospital Epidemiological Surveillance Network.

Regarding Antimicrobial Resistance, cooperation will be focused on updating the National Action Plan for Prevention and Control; on the development and implementation of strategies for infection control and antimicrobial management in PHC; on improving the education and training of professionals and managers; on promoting health communication and education strategies, and on updating the scientific base.

2.3 Focus area: Reinvigorate comprehensive care for mental health and non-communicable diseases and conditions

The partial or total interruption of health services during the pandemic has aggravated the burden of diseases, making it necessary to recover, reorganize, and prioritize actions for the promotion, prevention, treatment, and tracking of CNCDs and conditions. This area of focus aims at qualifying health care, with emphasis on PHC, using priority lines of care to address CNCDs, such as hypertension, diabetes, and obesity. It is also focused on expanding the role of nursing care and the multidisciplinary team; on updating medications and simplifying clinical treatment protocols; on the implementation of counseling protocols to address risk factors, and on the development of innovative technologies to expand access to health services. Priority should be given to linking health surveillance and care, through the use and availability of essential data for monitoring, evaluating, and improving health care.

A regard to cancer prevention and control, this strategy focuses on supporting the implementation of global and regional strategies through national policies, especially the global strategy to accelerate the elimination of cervical cancer, aiming at achieving the target of 90.0% HPV vaccine coverage, 70.0% screening coverage, and 90.0% cervical disease treatment coverage. For this, it is important to prioritize the implementation of the HPV-DNA test and qualify the line of care to guarantee comprehensive care for women in vulnerable groups and those most affected by COVID-19.

It also aims to catalyze efforts to strengthen and implement the National Mental Health Policy and the Psychosocial Care Network. The emphasis will be on strengthening leadership and governance capacity; on the integration of the mental health component in PHC and on the development of actions for the promotion of mental health and the prevention of conditions, especially in vulnerable groups and those most affected by the COVID-19 pandemic, such as women, children, young people, health professionals, people with preexisting mental conditions.

Strategic Priority 3

Contribute to the development of a more resilient, equitable, and effective SUS, in accordance with the health needs of the population

The health system must be able to adjust its activities in the face of challenges and crises, maintaining its functionality towards universal health and in accordance with the health needs of the population. A more resilient and equitable SUS requires strengthening the capacities of health agents and institutions to respond to the health needs of people, families and communities, as well as to prepare and respond to the crisis, adapting the system to maintain its functions in crisis situations and organize and transform it if the conditions so require, as well as having sustainability for the services and recovery of the impacted health gains.(102)

Resilient health systems are responsive, predictive, adaptive, robust, integrated, centered on people and communities, and based on the production of information and evidence. The Technical cooperation will support the improvement of the resilience of SUS, the construction of processes to generate evidence, promoting participatory processes, intrinsically contributing to individual and collective health and well-being using a cross-sectional approach. (103)

3.1 Focus area: Consolidate a strong PHC as a foundation in the health system, with universal access and coverage, in integrated health service networks and incorporating new digital technologies

PHC is the gateway to a health system that is closest to people, families, and communities, and where 90.0% of the population's health needs can be resolved in an integral way with cost-effective and comprehensive interventions, in addition to primary care of diseases.



Health management workers forming the acronym "SUS". Photograph: PAHO/WHO

Cooperation in this area of focus will be centered on strengthening PHC attributes ("access, integrality, longitudinality, coordination, cultural competence, and family and community guidance") through the identification of experiences in the incorporation of new technologies, organization models in integrated networks, management tools, financing and compensation models in the search to improve its problem-solving capacity and sustainability. The proposed actions will have priority in small municipalities and in vulnerable communities. It will be essential to continue research on better organization and management in small towns and in frontier towns.

The improvement of PHC innovation laboratories will also continue, with the systematization of successful experiences and the analysis of the characteristics that enable their replicability in other territories; as well as the expansion of international knowledge of the virtual learning environment classes of the "Canal Mais CONASEMS" to contribute to the exchange of experiences and the strengthening of the education platform.

The cooperation will also encourage the incorporation of Integrative and Complementary Health Practices (PICS) in PHC, aiming at comprehensive care with an emphasis on welcoming listening and integration of people with the environment and the community.

In addition, regulation and expansion of telemedicine and digital health resources will be supported.

The cooperation will encourage the expansion of the actions of the Policy and the National Program of Medicinal Plants and Herbal Medicines, aiming at access to herbal medicines and traditional health products, within SUS, based on rational use, quality, safety, and efficacy/effectiveness.

The cooperation will encourage the dissemination and qualification of data insertion in the information systems, aiming at the correct data filling of health information systems, as well as data sharing to support decision-making within the scope of PHC. To this end, e-SUS Primary Care (e-SUS APS) is recognized as a strategy to restructure PHC information at the national level. This action is in line with the broader proposal for restructuring health information systems, with the understanding that the qualification of information management is essential to increase the quality of care for the population

To strengthen PHC and its attributes, and provide comprehensive care, the development and evaluation of technical materials should be promoted, aimed at reviewing, updating, and preparing clinical guidelines, implementing lines of care, Notebooks of Primary Care (CAB), and referral protocols to other levels of health care.

To encourage the sustainable development of productive chains of medicinal and phytotherapeutic plants, to encourage research and innovation with native Brazilian plants, respecting traditional knowledge and sharing benefits with communities.

Finally, cooperation will also provide institutional support, as a technical benchmark for states and municipalities, seeking to promote shared management of work among state and municipal health departments, aiming at implementing policies agreed on a tripartite and shared management basis, and collaborating to improve the quality of the services provided by PHC.

3.2 Focus area: Strengthen governance, leadership, regulation, participation, and social control in SUS, with funding, remuneration models and adequate, sufficient, and sustainable human resources

In this area of focus, cooperation will focus on the production of evidence that supports the strengthening of essential public health functions and that provides input for the formulation of policies, programs, norms, guides, and guidelines that support the discussions and agreements of SUS, in all its spheres, such as the Tripartite Interagency Commission (TIC), the Bipartite Interagency Commission (BIC), and the Regional Interagency Commission (RIC).

The consolidation of participation and social control of SUS is fundamental. The cooperation will support the holding of Health Conferences and other events for discussion and social participation, such as seminars, meetings, and plenary meetings of councils, entities, and social movements. Support for the CNS and state and municipal health councils will be carried out to improve their autonomy and capacity for social control in the country, through technical cooperation, for the exchange of experiences and identification of best practices for popular and community participation in the SUS, consolidation of the network of state and municipal councils, among other actions. Support will also be given to improving management, analyzing successful participation experiences and social control of the health system in other countries.

The cooperation will facilitate the development of research, evaluations and pilot projects that make it possible to identify lines and forms of financing, investment and contracting that are more equitable, more cost-effective, and more viable for integration and incentive with the other areas of performance of the PHC field. Cooperation will also be supported for the improvement and integration of health information systems, at the national and subnational levels, with emphasis on an integrated information system for decision-making and trend analysis.

3.3 Focus area: Revitalize the development of human resources in health

The focus will be on the development of human capacities for health based on training, provision, qualification, and regulation. Valuing and improving working conditions are of fundamental importance to achieve a satisfactory distribution of the workforce and to enhance innovative and sustainable activities, as well as the roles of different professionals in family health teams, which, through the expansion of competences, "community agents and nursing professionals" could exercise other essential functions in the PHC.

The Technical cooperation will give priority to supporting the permanent education strategy. This dimension will also be developed at the interface between the fields of Health, Education, and Communication, i.e., in the production of Educommunication practices aimed at connecting communities, among others, through information technologies and

health communication, distance learning, and multimedia production. All of this will come true through joint work with different partners in the country, such as the Councils of Health Secretaries, universities, Collaborating Centers, and other actors who are strongly interested and involved in the active development of SUS, in addition to enabling direct contact with the population.

The Technical cooperation will also be offered to improve epidemiological surveillance and health surveillance actions, to promote and protect the health of the working population, as well as for better recovery and rehabilitation of the health of the working population facing the risks and conditions arising from work conditions, with a special focus on the health of the health worker population, which has been particularly impacted by the COVID-19 pandemic. In this sense, the cooperation will support the generation of evidence to understand the reality of the working population health, regardless of the form of insertion in the labor market; to intervene in the determining factors of health problems in the working population, among others.

Strategic Priority 4

Promote research, innovation, and the generation of scientific and technological knowledge in health, including those aimed at research, development, and production of medicines, herbal medicines and traditional health products, vaccines, biotechnological products, and health technologies

This priority is in line with the objectives of the WHO Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property, which, among its guidelines at the regional level, should strengthen productive development in Member States with a focus on public funding for: Research, Development and Innovation (RD&I); Health Technology Assessment Network of the Americas (RedETSA); organizational models for



Production of COVID-19 vaccine by Bio-Manguinhos/ Fiocruz. Photograph: Karina Zambrana/PAHO/WHO.

procurement of medicines and public health supplies (consortia, joint procurement and the PAHO Strategic and Revolving Funds), Regional Platform on Access and Innovation for Health Technologies (PRAIS); and implementation of the PAHO/WHO policy on research for health (CD49/10) in the country; increase in the capacity of production of essential medicines and health technologies (CD59/8).

The EVIPNet Brazil Network, managed by the Ministry of Health, has been working to strengthen evidence ecosystems, promoting networking among Brazilian institutions, and also carrying out exchanges with international institutions, managing to subsidize knowledge translation strategies throughout the world in all the cycle of public policies, in an innovative and sustainable way.

In addition to encouraging research and generating evidence, technical cooperation will also support the discussion to strengthen national capacities for the development and production of medicines, herbal medicines, and traditional health products, vaccines, biotechnological products, and essential health technologies, in addition to the digital technologies and other innovative and relevant tools in health.

4.1 Focus area: Encourage research, generation, dissemination, and implementation of evidence in science and technology in health, as well as evaluation of health policies and technologies

Strengthening research and technology in health, mainly in public institutions, is the main strategy for reducing external dependence on access to health technologies and, consequently, for reducing the trade balance deficit in the sector, as it encourages the generation of knowledge and national production of medicines, pharmaceuticals, herbal medicines, and traditional health products, blood products, vaccines, diagnostic reagents, biomaterials, medical equipment and devices.

The expansion of access to health technologies permeates other social demands such as the generation of investment, employment and income opportunities, emphasizing the importance of initiatives such as partnerships for the productive development (PPD) of

technologies for SUS, which take place within the scope of the health economic-industrial complex (CEIS) and promote the internalization of knowledge and new technologies, favoring national production and using purchasing power of the State as a catalyst for setting up the aforementioned PPDs.

4.2 Focus area: Strengthen national capacities for regulation, development and production of raw materials, medicines, vaccines, and other technologies

Promoting access to medicines and other health technologies is an essential condition for achieving important levels of problem-solving capacity in health actions. However, while fostering access, it is also necessary to promote the rational use of the diagnostic and therapeutic arsenal, otherwise the benefits inherent to each technology might not be obtained or there may be a risk of iatrogenic events.

Incorporating medicines and other technologies by evidence guides the acquisition and delivery of safe, effective, quality, and cost-effective technologies. The incorporation of technologies into SUS from this perspective is ensured by the National Commission for the Incorporation of Technologies into SUS (CONITEC), created to coordinate the analyzes and issue a technical opinion on the evaluations of technologies proposed for incorporation into SUS.

Strengthen the expansion of the technological park that produces medicines, herbal medicines, and traditional health products, immunobiologics and health technologies, not only for the country but also for other countries in the Region of the Americas and other regions of the world. As an example of these efforts, WHO launched a call for expression of interest in April 2021, in which manufacturers and public and private research institutions were invited to contribute to the establishment of technology transfer centers for COVID-19 mRNA vaccines (WHO Hub to develop COVID-19 mRNA vaccines) in emerging economies. The initiative was supported by PAHO/WHO global partners, such as *Medicines*

Patent Pool. Brazil, along with Argentina, was selected to be part of the Hub, based on a project developed by the Institute of Technology in Immunobiologics of the Oswaldo Cruz Foundation (Bio-Manguinhos/Fiocruz).

This foundation has a long history of manufacturing vaccines and has made promising advances in the development of an innovative COVID-19 mRNA vaccine.

Promote actions and measures that enable the global geographic reconfiguration of pharmaceutical sites intended to produce Active Pharmaceutical Ingredients (API), starting materials, synthesis intermediates, degradation products etc. Strengthen the pharmaceutical industrial park in the region, to provide the strategic layout of hubs / industrial districts / pharmaceutical complexes around the world.

Promote the expansion of the technological park producing biological, synthetic, semi-synthetic medicines, vaccines, among other strategic supplies, through the adoption of projects based on the best operational, control, and continuous improvement practices. Such as, when technically feasible, those anchored in the *Advanced Manufacturing Assessment*, performed through continuous manufacturing and integrated processes, with fewer steps and shorter processing times, sometimes requiring smaller equipment and allowing scaling modulation; among other strategies.

Also, with the objective of reinforcing national capacities for regulation, development and production of raw materials, medicines, vaccines and other technologies, it is necessary: to support the development of actions for the qualification of Pharmaceutical Care; to improve interventions to qualify the prescribing and dispensing of antimicrobials, and their rational use; to promote research and initiatives to foster safe access and rational use of medicines; to support the implantation and implementation of pharmaceutical clinical services in the three levels of SUS care; and to promote the integration of digital pharmaceutical care solutions with other technological tools available at SUS.

4.3 Focus area: Promote relevant innovations in health

Collaboration experiences between different areas of government and the private sector were highlighted during the pandemic to offset, to a certain extent, unmet needs for health supplies. In this context, it is important to geographically diversify global value chains, highlighting the need to reduce dependence on the rest of the world and increase intra-regional trade and ensure the sustainability of the supply network in the region. Therefore, technical cooperation acquires special relevance to facilitate dialogues and boost research, innovation, and production in the country, considering the national industrial and technological park, technology hubs and reference laboratories, as well as the capacity of generating, transferring, and using health evidence and knowledge, and the potential for cooperation with other countries in the region.(104)

State and municipal consortia have been established for years in the country. With the pandemic and lack of PPE and strategic health supplies, states and municipalities have adapted to carry out cooperative actions in each territory to gain scale and scope to mitigate the pandemic. Public consortia are associations formed by federal entities for the cooperative management of public services, they promote relevant innovations in the regional management process, as they are a way of working within the federalism of cooperation in Brazil, and for the PAHO technical cooperation process for procurement of international supplies via the revolving fund and the strategic fund.

In partnership with the Organization, Brazil can play an important role in cooperation between countries for the development of innovations in health, as it has a well-established policy to promote national RD&I, the e-SUS, and the Brazilian Health Assessment Network Technologies in Health (Rebrats) and several institutions are actively acting in RedETSA and the Country was one of the promoters of the development and use of PRAIS.

4.4 Focus area: Promote innovation in medicinal plants and herbal medicines based on native biodiversity, recognizing knowledge, practices and ensuring sharing of benefits arising from the commercialization of these products with traditional communities

The National Policy on Medicinal Plants and Herbal Medicines is one of the world benchmarks on the subject. The cultivation of medicinal plants is a reality in more than two thirds of the Brazilian municipalities that offer phytotherapy services in the Unified Health System (SUS). Therefore, technical cooperation must above all strengthen this national policy by developing qualification and promotion activities for the *Farmácia Viva Program*.

In addition to internationalization and the sharing of country experiences, technical cooperation will support the construction of regional strategies for medicinal plants and herbal medicines within the scope of BRICS, IBSA, and Mercosur. Another important aspect is to strengthen and qualify the scope of phytosurveillance of phytotherapeutic supplies, through the review and update of guidelines, technical standards to guarantee safe use.

Strategic Priority 5

Strengthen prevention, preparedness, timely response and recovery in emergencies and disasters, with the participation of affected communities

The response to public health emergencies is not exactly new for the Country. SUS responses on previous occasions made it possible to organize the system's capacities. Faced with the magnitude, scale and impact of the COVID-19 pandemic, the Brazilian health system was put to the test and strong intersectoral cooperation was required. The COVID-19 pandemic showed that Brazil has a high power of response, the hospital network grew, laboratory surveillance expanded, monitoring and evaluation actions were implemented and operational and strategic information centers were implemented; however, even if it proves to be responsive, it is necessary to qualify and strengthen the preparedness for responses in emergencies, disasters and future pandemics, and also define strategies to improve access for affected communities.

The areas of focus for cooperation involve the qualification and dissemination to states and municipalities of the best actions for: preparation, rapid response and recovery to emergencies, disasters, and future pandemics.



Community health agent giving password to resident to take a fractional dose of yellow fever vaccine in a basic health unit, to avoid urban transmission of the virus. Photograph: Sonia Mey-Schmidt/PAHO/WHO

5.1 Focus area: Strengthen health system organization and resources for emergency and disaster prevention and preparedness

Preparedness for emergencies includes surveillance actions, monitoring and rapid detection of potential events, laboratory capacity, and agility and flexibility of information systems. The Technical cooperation will include qualifying and expanding the surveillance of epidemic intelligence centers, units for investigating deaths, metagenomics in the five macro-regions of the country.

In addition, the aim is to modernize and interconnect information systems and implement mobile biosafety level 4 (BSL-4) and biosafety level 3 (BSL-3) laboratories in the five macro-regions.

The Technical cooperation should work to improve the national capacity to produce supplies and equipment, with the aim of reinforcing preparedness for emergencies and disasters, fostering the sovereignty and self-sufficiency of its technological park for responses to emergencies.

Cooperation will include strengthening the organization and resources of SUS, including the review of regulatory frameworks and access to strategic financial resources to enhance preparedness and prevention actions for emergencies and disasters. At the same time, there are plans for the preparation and maintenance of rapid response teams, the expansion and qualification of the National Force of SUS with the participation of the affected communities. In addition, the development of medical response teams is planned to support other countries in the Region of the Americas and other regions of the world.

The cooperation strategy should also include education, communication, and social mobilization actions involving the area of health surveillance and immunizations, which includes support for the implementation of the Training Program in Emergencies in Public Health and technical support for offering the Program of Training in Applied Epidemiology to SUS Services (EpiSUS).

5.2 Focus area: Strengthen coordinated, integrated and timely response to emergencies and disasters with special emphasis on border areas

The Technical cooperation will include strengthening the capacity for rapid expansion and adequacy of SUS, including information systems and the technological park during emergencies and disasters. PAHO should also work to

support the coordination and interconnection of situation rooms, crisis rooms, and intersectoral and multi-threat emergency operations centers in the country (federal, state, and municipal level), as well as with other countries.

With the expertise gained in responding to the latest public health emergencies, a relevant focus area is technical cooperation for emergency preparedness and response between Brazil and other countries. Brazil can become a benchmark for WHO in training professionals (training in surveillance of epizootics, arboviruses and other pathogens with zoonotic potential), rapid deployment of emergency and disaster response teams, including the deployment of medical emergency teams, maintenance of a storage and distribution center for supplies and medicines for countries in emergency situations; and, finally, developing an intelligence and strategic analysis center for public health events in the Region of the Americas.

5.3 Focus area: Build health system capacities in timely and effective recovery

In this area of focus, cooperation will support Brazil in the development of an information system, and analysis of health indicators, to monitor the impact of emergencies and disasters on the health status of the population; the implementation of qualified teams and services to support the states and municipalities in planning actions for monitoring and evaluating the health status in the emergency and disaster recovery phase, with the participation of the affected community.

Cooperation will include strengthening SUS to organize flows, guidelines and services related to sequelae, impact, and recovery from emergencies and disasters. The cooperation will also work to promote studies in partnership with the Academia to evaluate the processes of surveillance, alert, care, and response in the recovery phase.



PAHO/WHO provides technical cooperation in Brazil in line with the priorities of the Brazilian government and the Organization, based on the current regulatory framework and especially in the Complementary Adjustment to the Basic Agreement between the Organization and the Federative Republic of Brazil.

Brazil contributes significantly to the regional and global agenda, and actively participates in the governing bodies of PAHO and WHO. In addition, it also contributes to a variety of forums such as: Southern Common Market (Mercosur), Ibero-American Summit, G-20, BRICS, among others.

The country has a variety of institutions of excellence recognized as WHO Collaborating Centers, in different themes, of great international relevance. These are organized in the Brazilian Network of Collaborating Centers for national and global technical cooperation.

The Strategic Priorities presented in this document need to be approached from cooperation modalities that recognize the multiplicity of processes and initiatives developed by the Country, the functions of PAHO/WHO and the guiding values such as the right to enjoy the maximum degree of health, Pan-American solidarity, equity in health, universality and social inclusion. An integrated action scenario with the incorporation of crosscutting themes such as human rights, equity, gender, ethnicity, and race, as well as the alignment of human, technical and financial capacities should be considered for its implementation.

For collaboration in Brazil, it is essential to have a decentralized cooperation structure in the entities that make up SUS, and coordination with the various levels of PAHO/WHO, as well as the follow-up of sub-regional cooperation.

The Technical cooperation is carried out in a decentralized manner to strengthen national, state, and local capacities, in line with Brazil's federative model and the organization of the health system, considering the situation in each territory, whether with technical support to health authorities for decision-making or the implementation of actions and policies to strengthen SUS. In addition, PAHO/WHO works hard to boost Brazil's leadership through the

exchange of experiences and best practices among countries, South-South and regional cooperation, and cooperation across borders.

Therefore, to provide technical cooperation aiming at achieving the Strategic Priorities and areas of focus of this CCS, it is necessary:

- 1. The permanent generation of evidence for policies, systems and clinical practice, translation of knowledge, management and dissemination of knowledge through cooperation networks, as well as identification, systematization, and dissemination of innovative experiences, good practices, communities of practices, observatories, innovation laboratories, integrated intelligence, and evidence platforms for decision-making, modernization of information systems aligned with the principles of digital transformation in the health sector.
- 2. South-South cooperation is triangular with the prioritization of cooperation at the borders aimed at exchanging experiences, transferring practices and technologies, mobilizing national and international resources and strategic supplies for health.
- **3.** The coordination of spaces for dialogue, debate, and concertation for taking a stand on relevant issues and generating consensus.
- 4. The identification of national institutions and cooperation networks in public health for the development of strategic partnerships, dialogue, and elaboration of proposals between diverse actors.
- 5. Strengthening institutional capacities, making preferential use of national resources, mobilizing human talent from MH and other counterparts; developing hubs in strategic areas that contribute to the country and also at a regional and global level as nuclei and centers to produce RNA vaccines.
- **6.** Support for the country's leadership in harmonizing and aligning technical cooperation.
- **7.** The approach to health in all policies based on intersectoriality in accordance with the national policy.
- **8.** The use of the Strategic and Revolving Fund to facilitate access to medicines, strategic quality supplies for public entities (MH, states, and municipalities).

9. Carrying out coordinated and linked work at the borders, considering all the vulnerability of the populations living in these territories.

The Terms of Cooperation and the Terms of Adjustment (TC/TA) are instruments that enable the implementation of PAHO's technical cooperation with the Ministry of Health, states, and municipalities, and aim to contribute to the implementation of agreed priorities.

For cooperation, it is essential to implement and improve the management of TCs as a process of continuous improvement of its implementation, driven by institutional learning, by the results achieved, by methodological advances, and by the establishment of evaluation practices. This dynamic process leads to a constant search for updated good management practices and what is most advanced and appropriate in conducting health projects and programs.

Implications for the subregional level

Brazil's participation in integration processes presents opportunities and challenges for the implementation of CCS. On the one hand, the commitments that the country assumes in sub-regional forums offer the opportunity to incorporate the cooperation of other countries in the implementation of the CCS, through cooperation modalities such as South-South, triangular or for development. And, on the other hand, the technical team of the Office in Brazil must be attentive to the decisions that the entities at the sub-regional level take, identifying the opportunities that may arise for the implementation of the CCS.

Implications for the regional level

The response from the technical entities, in addition to being rapid, must be comprehensive and always coordinated with the Country office. Interventions particularly related to priority of developing health technologies, biological production, and medical supplies will require sustained support. In addition, in recognition of Brazil's participation in various sub-regional integration processes, technical entities and



Influenza and measles vaccination sweep, in partnership with the state of Amapá and the Brazilian Ministry of Health. Photograph: Karina Zambrana/PAHO/WHO

members of the Executive Management will support the efforts of the office in the country in managing cooperation between countries and in mobilizing resources, which will serve for the implementation from the CCS. Members of the Executive Management should also coordinate collaborations with the regional directors of other WHO regions, of which the countries interested in cooperation with the Country are members. For the management of financial, human, and institutional resources, the regional entities that manage resources in the themes related to the priorities identified in the CCS must share strategic information and guide the necessary resources, including those of an institutional nature that PAHO/WHO Collaborating Centers, other centers of excellence, and regional networks could offer.

Implications for the global level

CCS implementation requires a comprehensive and coordinated global response. Support and advocacy for cooperation with countries from other regions interested in bilateral cooperation with Brazil should be taken into account.

Support for the expansion of national production capacity for biologicals, medicines, herbal medicines and traditional health products, and other health technologies will require significant support from WHO headquarters, as well as for the creation and maintenance of a regional intelligence hub for pandemics and epidemics in Brazil. In both cases, encouraging progress in Brazil through close cooperation with PAHO/WHO will also result in gains for the Region of the Americas.



he launch of CCS, with official signature by the Minister of Health and the director of PAHO/WHO, with the participation of all actors involved in its elaboration process, marks the beginning of the implementation phase.

In this phase, it will be necessary to ensure that the PAHO/WHO operational plans are aligned with the CCS, starting with the review of the biennial plan, approved for the 2022-2023 period, and the review of the human, financial and technological resources available in the organization, verifying that they are adequate to provide the expected cooperation. The first phase of CCS implementation will include the definition of the baseline and targets for the indicators agreed upon for the CCS strategic priorities in 2027, according to the annexed table.

The PAHO Strategic Plan 2020-2025 includes 28 impact indicators, 28 outcomes, and 99 outcome indicators. Performance in implementing the PAHO Strategic Plan and the respective Programmes and Budgets will be monitored in relation to the achievement of impact targets, outcomes, and health outcomes, on a bi-annual basis. This CCS, in addition to enabling the review of the Biennial PAHO/WHO Programme of Work (PTB) in Brazil for the 2022-2023 biennium, will be the starting point for the preparation of the PTBs for the 2024-2025 and 2026-2027 biennia while contributing to regional and global expected results.

PAHO/WHO focuses on the work carried out in and for the countries, recognizing the existence of three levels with coordinated work to promote the health agenda, always oriented towards results. The transformation of WHO recognizes the complementarity of the three levels of the organization in which each one of them has its functions that, coordinated at the country level, make cooperation much stronger and allow the desired objectives and results to be achieved.

It is relevant to create a working group among the signatories and strategic actors to build a monitoring and evaluation process to subsidize the necessary adjustments in its implementation, as well as to monitor decision-making to optimize the expected results of the CCS. The Ministry of Health, CONASS, CONASEMS and CNS stand out as the main strategic partners that were part of the validation of this CCS and will continue to be key players in the implementation process, always working together with the other key partners in technical cooperation.

It is important to recognize the work to be strengthened in border areas with access to health care and coordinated and cooperative actions between countries, with a special focus on vulnerable populations. Brazil is the country in the Region of the Americas with the largest border territory. The work of cooperation between countries is increasingly urgent and necessary in view of the increase in cross-border flow and public health emergencies. It is necessary to seek the joint development of nations with the precepts of equity and solidarity.

The CCS also offers the opportunity to strengthen the country's relationship with UN agencies, considering the challenges and opportunities for cooperation, therefore generating a multisectoral response to its priorities, since many of the problems require actions outside the health sector. UN partners are actively involved in many issues related to the social determinants of health, and the CCS provides valuable information for defining planned interventions. UN Agencies can also influence sectors where PAHO/WHO relationships are not as strong. In addition, the use of CCS evidences, priorities and areas of focus promotes the mobilization of resources from the common funds of the UN in health interventions, ensuring a win-win approach, granting greater political relevance and attracting funding from other donors, considering the 2030 Sustainable Development Agenda and the United Nations Sustainable Development Cooperation Framework to support UN activities in Brazil.

A strategic aspect of CCS implementation is the identification and systematization of good practices in technical cooperation between PAHO/WHO and Brazil. The Technical cooperation activities necessarily imply the exchange of information, knowledge and accumulated experiences and practices. The identification of successful experiences and/or practices, their systematization and sharing are essential to assess what works or not in each context, and to give visibility to what was (or was not) a good practice so that other initiatives can be replicated and/or redirected. They are still important to better apply the different available resources that will be invested.

Good practices carry the potential of inspiration for other contexts in the Americas, contributing to the strengthening of Technical Cooperation actions. The exchange of knowledge can not only improve implemented practices, but also support those who initiate new interventions to avoid common mistakes and catalyze the development of actions.



he monitoring and evaluation processes make a significant contribution to identifying the results achieved, for organizational learning and for sharing experiences with partners at the national, regional, and global levels. CCS's strategic priority indicators will be monitored for the mid-term and final reviews, according to the attached table. The first phase of implementation consists of defining the baseline and targets for the agreed indicators for the CCS strategic priorities. The contribution to the SDGs and WHO GPW 13 Impact Framework indicators of health and to the SHAA2030 targets are listed in Annex B of the PAHO Strategic Plan 2020-2025.

Whereas CCS monitoring is the responsibility of the PAHO/WHO Country Office, this work should be carried out in collaboration with national and subnational government, and involve all three levels of the Organization, where appropriate, to encourage joint accountability for results to be achieved. The process of monitoring and evaluation is consolidated by three distinct

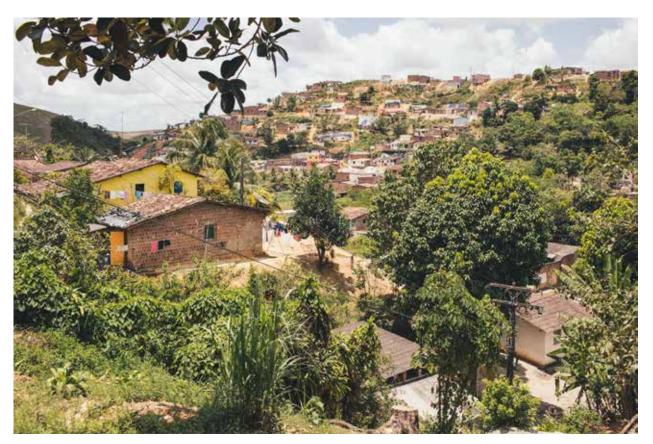
processes: monitoring, intermediate evaluation, and final evaluation.

Monitoring

Monitoring ensures that actions are being implemented in a timely and efficient manner, providing an early warning system for identifying problems related to the achievement of strategic priorities and areas of focus, as well as offering an opportunity to adjust any of their aspects, if necessary.

The Performance Monitoring and Assessment (PMA) reports and the end-of-biennium Evaluation of the Country office will serve as the basis for monitoring the implementation of the CCS. The monitoring processes accumulate evidence base for the intermediate and final evaluation of the CCS.

It is relevant that the CCS monitoring process is a routine practice among the signatories of this document, with a duly identified working group.



Community in a vulnerable situation. Photograph: Joshua Cogan/PAHO/WHO.

Intermediate evaluation

It should occur during mid-implementation to support necessary adjustments to priorities, areas of focus and/or contextual needs in Brazil. The focus of the mid-term review is to determine whether the implementation of the strategic priorities and areas of focus is progressing, based on the Country results framework; and, if not, identify deterrents and possible risks that may require changes in strategic priorities and areas of focus, as well as actions to accelerate progress in the second half of the CCS cycle.

Specific intermediate evaluations may be carried out to the extent that the signatories or the monitoring working group identify the need, especially when an important event occurs in the country, such as, for example, an emergency situation, disasters, or changes in government policy.

The CCS mid-term evaluation signals an opportunity for adjustments that may be necessary with the approval of the new PAHO Strategic Plan starting in 2026, with the identification of public health priorities and updated targets.

Final evaluation

The final evaluation is the most complete and conclusive phase and describes achievements, deficiencies, challenges, lessons learned, and provides recommendations for future collaboration between PAHO/WHO and Brazil. An independent team can conduct this step. The final evaluation should start when the implementation of the CCS is finalized and should be directly used in the elaboration of a new CCS.

Performance in the implementation of the PAHO Strategic Plan 2020-2025, as well as the first biennium of the 2026-2030 Plan and the respective Programmes and Budgets, will be evaluated by monitoring progress towards achieving the targets of impact, outcomes, and results of health, with biannual frequency. The results of the mid-term evaluation should serve as a basis for aligning PAHO/WHO's technical cooperation should the Country's priorities change for whatever reason and should changes occur in the PAHO/WHO Strategic Planning Frameworks.

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Annexes

TABLE 1 – Evolution of SUS financing (BRL million) and participation (%) of federated entities. Brazil, 2015 a 2019

Federated	2015		2016		2017		2018		2019	
Entities	R\$	%								
Federal	100.410	45,5	108.833	46,0	111.841	45,0	118.985	45,9	128.154	46,2
State	54.461	24,7	57.177	24,1	62.048	24,9	62.981	24,3	67.605	24,4
Municipal	65.571	29,7	70.779	29,9	74.880	30,1	77.425	29,8	81.632	29,4
TOTAL SUS	220.443	100,0	236.789	100,0	248.769	100,0	259.390	100,0	277.390	100,0

Source: IBGE, Health Satellite Account, 2022

TABLE 2 – Estimated population according to the population size of the municipalities. Brazil, 2021.

Size	Munici	palities	Population		
population	n	%	n	%	
< 20 thousand	3.770	67,7	31.623.332	14,8	
De 20 a <100 thousand	1.474	26,5	58.671.795	27,5	
De 100 a <500 thousand	277	4,9	54.999.084	25,8	
De 500 mil a <1 million	32	0,6	21.313.720	10	
>= 1 million	17	0,3	46.709.708	21,9	
Total	5.570	100	213.317.639	100	

Source: IBGE.

FIGURE 1 – Infant mortality rate, comparison between the Indigenous population and the general population. Brazil, 2010-2019

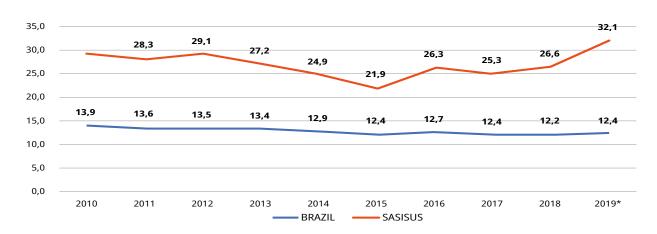


TABLE 3 - Basic health indicators. Brazil, 2000 to 2021

	Indicators	2010	2015	2019	2020	2021	
1	Population (in millions)w	190,74	204,45	210,15	211,76	213,32	
2	Life expectancy at birth (in years)	73,9	75,5	76,6	-	-	
3	Gross Birth Rate (GBR) (live birth per 1,000 inhab)	14,60	14,80	13,50	12,90	12,50	
4	Gross Mortality Rate (GMR) (deaths per 1.1,000 inhab)	5,82	6,18	6,41	7,34	8,52	
5	Human Development Index (HDI)	0,727	0,756	0,765	-	-	
6	Minimum wage - purchasing power parity (USD)	310,5	368,3	431,1	433,9	443,8	
7	Expenditure on health goods and services (per capita in USD)	896,7	785,3	853,4	-	-	
8	Expenditure on health goods and services (% of GDP)	8,0	8,9	9,6			
9	Direct disbursement (out-of-pocket) of current health expenditures	29,4	24,7	24,9	-	-	
10	Extreme poverty (% of population) USD 1.90 PPP	5,8	4,9	6,8	5,7	-	
11	Poverty (% of population) USD 5.50 PPP	26,5	23,7	25,9	24,1	-	
12	Number of hospital beds (per 10,000 inhabitants)	23,7	21,8	20,6	20,9	-	
13	Doctors (per 10,000 inhab.)	14,9	17,2	19,4	20,0	-	
14	Nurses (per 10,000 inhab.)	4,4	7,7	9,9	10,9	-	
15	Number of municipalities with population < 20,000 inhab.	-	3.824	3.796	3.781	3.770	
16	Index of total water service (% of the population of the country that is served)	81,1	83,3	83,7	84,1	-	
17	Water supply (number of municipalities with supply)	-	5.088	5.191	5.350	-	
18	Treatment of generated sewage (% of how much is treated)	37,8	42,7	49,1	50,8	-	
19	Total sewage service rate (% of the country's population served)	46,2	50,3	54,1	55,0	-	
20	Sanitary sewage (number of municipalities with sewage)	-	3.799	4.225	4.744	-	
21	Adults (≥18 years old) who, in the last 30 days, drank heavily (%)	18,1	19,1	18,8	20,9	18,3	
22	Smoking (% of smokers in the adult population as a whole (≥18 years old))	14,1	10,4	9,8	9,5	9,1	
23	Physical inactivity in adults (≥18 years old) (%)	14,0	16,0	13,9	14,9	15,8	
24	Overweight in adults (% of adults (≥ 18 years old) with BMI ≥ 25 kg/m2)	52,6	53,9	55,4	57,5	57,2	
25	Obesity (% of people with BMI from 30 kg/m2)	15,0	18,9	20,3	21,5	22,4	
26	Hypertension (% of individuals who reported medical diagnosis of hypertension)	23,3	24,9	24,5	25,2	26,3	
27	Diabetes (% of individuals with previous medical diagnosis)	6,3	7,4	7,4	8,2	9,1	
28	Triple Viral D1 (CRS vaccine coverage (%) - measles/mumps/rubella)	99,9	96,1	93,1	79,6	73,1	
29	Triple Viral D2 (CRS vaccine coverage (%) - measles/mumps/rubella)	-	79,9	81,6	62,8	51,4	
30	Polio vaccination coverage (%)	99,3	98,3	84,2	76,1	69,5	
31	BCG vaccination coverage (%)	100,0	100,0	86,7	74,3	68,5	
32	Prevalence of breastfeeding () (exclusive up to 6 months)	37,1(2006)	-	45,8	-	-	
33	Prevalence of breastfeeding in the 1st hour of life () (children <2 years old)	-	-	62,4	-	-	
34	Tuberculosis incidence rate (per 100,000 inhab.)	35,9	34,3	37,1	32,6	-	
35	Tuberculosis mortality rate (per 100,000 inhab.)	2,3	2,3	2,2	2,1	-	
36	Premature mortality rate (30 to 69 years) due to CNCDs (per 100,000 inhab.)	140,0	142,3	146,8	145,3	-	
37	Maternal mortality ratio (MMR) (per 100,000 live births)	68,9	62,0	57,9	74,7	-	
38	Infant mortality rate (per 100,000 live birth)	18,6	15,8	15,4	14,0	-	
39	Infant mortality rate (IMR) (per 100,000 live birth)	16,0	13,3	13,3	12,2	-	
40	Neonatal mortality rate (per 100,000 live birth)	11,1	9,4	9,2	8,8		
41	Traffic injury mortality rate (per 100,000 inhabitants)	22,0	19,0	14,4	-	-	
42	Mortality rate due to assaults (per 100,000 inhab.)	27,8	28,9	22,8	-	-	
43	Mortality rate due to self-harm (per 100,000 inhabitants)	5,4	6,7	6,1	-	-	
	Situation						

Note: Indicators 23, 24, 34, 35 the first record in the table corresponds to 2011. Indicators 10 and 11 the first record in the table corresponds to 2011.



FIGURE 2 – Distribution of measles cases, according to month and date of rash onset and deaths. Brazil, 2018 to 2022

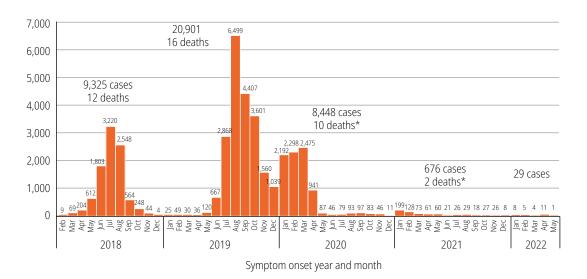


TABLE 4 - Cases and deaths from syphilis notified in 2020, and variation (%) in relation to 2019

	(n)	Coefficient	Variation (%) of coefficient in relation to 2019
Cases of acquired syphilis	115.371	54,5 casos/100.000 hab.	-26,5
Cases of syphilis in pregnant women	61.441	21,6/1.000 nascidos vivos	-0,9
Cases of congenital syphilis	22.065	7,7/1.000 nascidos vivos	-10,0
Deaths from congenital syphilis	186	6,5/100.000 nascidos vivos	4,0

^{*} Ministry of Health. Syphilis Epidemiological Bulletin, 2020

FIGURE 3 - PAHO/WHO 2020-2025 Strategic Plan Approaches

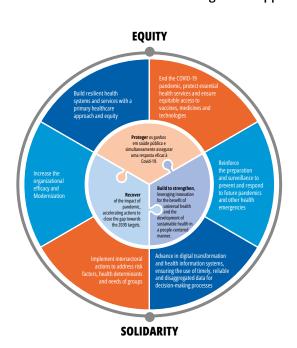


TABLE 5 – Implementação dú agenda estratégica e implicações para o secretariado da OPAS e da OMS

		POLICY		ST	STRATEGY	Ā	TE	TECHNIQUE	JE	MAI	MANAGEMENT	HNE
PRIORITY OF CCS 2022-2027	an an co	Advocacy and political coordination	y sal	Pla def impl	Planning and definition of implementation strategies	nd of tion s	Pro kn pra mech techi	Production of knowledge, practices and mechanisms of a technical nature	of e, nd of a ture			
	МНО	РАНО	PAHO/ WHO- Brazil	МНО	PAHO	PAHO/ WHO- Brazil	МНО	РАНО	PAHO/ WHO- Brazil	МНО	РАНО	PAHO/ WHO- Brazil
Protect and promote the health of the population, centered on people, families and communities, especially those in vulnerable situations	×	×	×	×	×	×	×	×	×		×	×
Recover, improve and strengthen health services and priority programs impacted by the COVID-19 pandemic	×	×	×	×	×	×	×	×	×		×	×
Contribute to the development of a more resilient, equitable and effective SUS, in accordance with the health needs of the population	×	×	×	×	×	×	×	×	×		×	×
IBoost research, innovation and the generation of scientific and technological knowledge in health, including those focused on research, development and production of medicines, herbal medicines and traditional health products, vaccines, biotechnological products, and health technologies	×	×	×	×	×	×	×	×	×		×	×
Strengthen prevention, preparedness, timely response and recovery in emergencies and disasters, with the participation of affected communities	*	*	×	×	×	×	×	×	×		×	*

TABLE 6 – Relationship between the 2020-2023 National Health Plan, the 2020-2023 Institutional Strategic Plan and the PAHO-WHO CCS 2022-2027

	2020-2023 PNS	2020-2023 Institutional Strategic Plan	PAHO-WHO CCS 2022-2027
1	Promote the expansion and problem-solving capacity of primary care actions and services in an integrated and planned manner	(6) Expand primary care in an integrated manner	3 Contribute to the development of a more resilient, equitable and effective SUS, in accordance with the health needs of the population
2	Promote the expansion of the offer of specialized care services with a view to qualifying access and reducing regional inequalities	(7) Expand the offer of specialized care services	Contribute to the development of a more resilient, equitable and effective SUS, in accordance with the health needs of the population
3	Reduce or control the occurrence of diseases and conditions that can be prevented and controlled	(3) Reduce and control diseases and conditions	 Protect and promote the health of the population, centered on people, families and communities, especially those in vulnerable situations Recover, improve and strengthen health
			services and priority programs impacted by the COVID-19 pandemic
4	Foster the production of scientific knowledge, promoting the population's access to health technologies in an equitable, egalitarian, progressive and sustainable manner	(15) Expand scientific knowledge and offer technological solutions in health(16) Modernize health services, focusing on digital transformation(18) Develop information and knowledge management	4 Boost research, innovation and the generation of scientific and technological knowledge in health, including those aimed at research, development and production of medicines, herbal medicines and traditional health products, vaccines, biotechnological products and health technologies
5	Promote actions that ensure and expand the population's access to medicines and strategic supplies, with quality, safety, efficacy, in a timely manner, promoting their rational use	(4) Intensify access to vaccines, medicines and other strategic supplies(10) Optimize the acquisition and distribution of medicines and other strategic supplies	4 Boost research, innovation and the generation of scientific and technological knowledge in health, including those aimed at research, development and production of medicines, herbal medicines and traditional health products, vaccines, biotechnological products and health technologies
6	Strengthen the protection, promotion and recovery of indigenous health	(9) Improve the subsystem of comprehensive health care for indigenous peoples	Protect and promote the health of the population, centered on people, families and communities, especially those in vulnerable situations
7	Improve SUS management aiming at ensuring access to equitable health goods and services and	 Ensure universal and comprehensive health Expand access to quality and timely health services Strengthen the image of SUS Intensify health surveillance actions Qualify work and health professionals Improve the SUS funding model Improve the integrated management of the health network Strengthen the monitoring and evaluation of public health policies Improve institutional governance and integrity Develop strategic people management Integrate systems and technologies with a focus on digital transformation Improve budget and financial management 	 Contribute to the development of a more resilient, equitable and effective SUS, in accordance with the health needs of the population Strengthen prevention, preparedness, timely response and recovery in emergencies and disasters, with the participation of affected communities

TABLE 7 – PAHO/WHO Collaborating Centers in Brazil

		o Collaborating Centers III I	
Institution	Title	Theme	Type of activity
Institute of Social Medicine (IMS) State University of Rio	WHO Collaborating Center for Health Workforce Planning and Information	 Health information; statistics; measuring & evaluating trends Health promotion & education Human resources for health (excluding nursing) 	 Training and education Disclosure of information Product development (guidelines; manual; methodologies; etc.)
Federal University of Rio Grande do Norte	WHO Collaborating Center on Innovation in Virtual Health Education	Virtual health education	Virtual health training and education
Lauro de Souza Lima Institute	WHO Collaborating Center for Personnel Training in Leprosy Control & Research, mainly for Portuguese-speaking countries	• Leprosy	Training and education
Oswaldo Cruz Foundation (Fiocruz)	WHO Collaborating Center for the Education of Health Technicians	 Human resources for health (excluding nursing) Health Technology (including laboratory services; but excluding blood safety) 	Disclosure of informationTraining and educationInvestigation
Oswaldo Cruz Foundation (Fiocruz)	WHO Collaborating Center for Pharmaceutical Policy	Medicines (including medicines and essential medicines)	 Collecting and collating information Training and education Product development (guidelines; manual; methodologies; etc.)
General Hospital of the University of São Paulo	WHO Collaborating Center for Rehabilitation	Disability and rehabilitation (excluding accident prevention)	 Training and education Implementation of WHO programs and activities at country level Collecting and collating information
Oswaldo Cruz Institute (Fiocruz)	WHO Collaborating Center for Leptospirosis	 Bacterial diseases other than those specifically mentioned Zoonoses Communicable diseases other than those specifically mentioned 	 Implementation of WHO programs and activities at country level Training and education Investigation
Oswaldo Cruz Institute (Fiocruz)	WHO Collaborating Center to strengthen human milk banks	Human milk bank	Strategies to promote, protect and support breastfeeding, both at the intra-hospital level, seeking articulation with primary care
José Alencar Gomes da Silva National Cancer Institute (Inca)	WHO Collaborating Center for Tobacco Control	• Tobacco	 Coordination of activities carried out by different institutions (for example, other WHO collaborating centers) Implementation of WHO programs and activities at country level Training and education
Federal University of Pelotas	WHO Collaborating Center for monitoring equity in health	• Equity in health	 Collecting and collating information Product development (guidelines; manual; methodologies; etc.) Training and education
Tropical Dermatology and Venereology "Alfredo da Matta" Foundation (FUAM)	WHO Collaborating Center for Leprosy Control, Training and Research for the Americas	• Leprosy	 Training and education Investigation Product development (guidelines; manual; methodologies; etc.)

conclusion

Institution	Title	Theme	Type of activity
Evandro Chagas Institute, Ministry of Health	WHO Collaborating Center for Emerging and Resurging Arboviruses and Other Emerging Zoonotic Viruses	Emerging and Resurging Arboviruses and Other Emerging Zoonotic Viruses	 Training and education Investigation
University of São Paulo	Who Collaborating Center for Monitoring Equity in Nursing	Nursing	 Disclosure of information Product development (guidelines; manual; methodologies; etc.) Supply of reference substances and other services
Secretary of State of São Paulo	WHO Collaborating Center for Rabies	• Rabies	 Training and education Provision of technical advice to WHO Supply of reference substances and other services
City Hall of São Paulo	WHO Collaborating Center for Training and Research in Urban Zoonosis Control	• Zoonoses	Training and educationDisclosure of information
University of São Paulo	WHO Collaborating Center for Healthy Cities and Health Promotion	Healthy CitiesHealth promotion & education	 Product development (guidelines; manual; methodologies; etc.) Collecting and collating information Coordination of activities carried out by different institutions (for example, other WHO collaborating centers)
Oswaldo Cruz Foundation (Fiocruz)	WHO Collaborating Center for Global Health and South-South Collaboration	 Health promotion & education Human resources for health (excluding nursing) Research and development policy 	 Coordination of activities carried out by different institutions (for example, other WHO collaborating centers) Implementation of WHO programs and activities at country level Training and education
Pro-Sangue- Hemocenter Foundation of São Paulo	WHO Collaborating Center for Serology Quality Control in Blood Banks	Safety of Blood Transfusion and Blood Products	EvaluationSupply of reference substances and other servicesTraining and education
University of São Paulo	WHO Collaborating Center for Violence Prevention Research	Injuries; violence and accident prevention	 Disclosure of information Product development (guidelines; manual; methodologies; etc.) Training and education

TABLE 8 - Structure of outcomes and CCS correlation with Intermediate Outcomes PAHO 2020/2025 Strategic Plan and SDGs

icator SDG indicator	3.3.5 Number of people in need of interventions against neglected tropical diseases (NTDs)	3.34 Incidence of hepatitis B per 100,000 inhabitants life	3.3.3 Incidence of malaria per 1,000 inhabitants d	3.7.1 Proportion of women of reproductive age (15 to 49 years) whose need for family planning is met with modern methods regnant women	3.35 Number of people in need of interventions against neglected tropical diseases (NTDs) nented	WHA68.3 Number of polio cases caused by wild poliovirus SHAA2030 Target 10.4 Fight waterborne and other communicable diseases	SHAA2030 Target 10.4 Fight waterborne and other communicable diseases	SHAA2030 Target 10.4 Fight waterborne and other communicable diseases	SHAA2030 Target 10.4 Fight waterborne and other communicable diseases	SHAA2030 Target 10.5 Halt viral hepatitis transmission and accelerate the reduction of chronic hepatitis infections and deaths to end viral hepatitis as a major public health threat in the Region of the Americas	3.4.1 Mortality rate due to diseases of the circulatory system, malignant tumors, diabetes mellitus, and chronic respiratory diseases 3.b.1 Population vaccination coverage rate in relation to vaccines included in the National Vaccination Program 70%
PE20-25 indicator that contributes to the Strategic Plan SDG indicator	Impact indicator 24 Elimination of neglected infectious diseases in countries Immermediate output indicator 17.c. (e-g) Interruption of transmission of neglected infectious diseases (DNs) in countries, following WHO criteria and guidelines	Impact indicator 19 Mortality rate caused by chronic viral hepatitis Intermediate output indicator 17.f Mean regional coverage of newborns with hepatitis B vaccine during the first 24 hours of life	Impact indicator 21 Malaria incidence rate Immemediate output indicator 17.b Inniber of countries and territories with >80% of malaria cases investigated and classified in areas marked for elimination or prevention of disease re-establishment	Impact indicator 17 HIV mother-to-child transmission rate Impact indicator 18 Indence rate of congenital syphilis (including stillbirths) Intermediate output indicator Number of countries and territories with at least 95% treatment coverage for syphilis in pregnant women	Impact indicator 24 Elimination of neglected infectious diseases in countries Intermediate output indicator 17.c (a-g) Interuption of transmission of neglected infectious diseases (DINs) in countries, following WHO criteria and guidelines Vumber of endeumic countries and territories with Chagas screening and diagnosis implemented for all newborns of mothers who test positive (for Chagas disease) during antenatal care	Intermediate output indicator 17.g. Number of countries and territories reporting cases of paralysis due to wild poliovirus or circulation of a vaccine-derived poliovirus in the previous year	Impact indicator 15 Measles incidence rate to 0 per 1 million population	Intermediate output indicator 4.g. Number of countries and territories reporting coverage of at least 95% at the national level for the second dose of measles and rubella vaccine	Intermediate output indicator 17.e. Number of countries and territories where endemic measles or rubella wirus transmission has been re-established	Intermediate output indicator 17.f Mean regional coverage of newborns with hepatitis B vaccine during the first 24 hours of life	Impact indicator 10 Mortality rate caused by cervical cancer Intermediate output indicator 5.3 Number of countries and territories with cervical screening programs that achieve at least 70% screening coverage in women aged 30.49 or in the age range defined by national policy,
Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	OCM 17	OCM 17	OCM 17	OCM 17	OCM 17	OCM 17					OCM 5
Focus area	1.1 Maintain and accelerate advances in the elimination and eradication of diseases of public health concern		•								
CCS STRATEGIC PRIORITIES 2022-2027	ote the ion, iities,	vulnerable situations									

CCS STRATEGIC PRIORITIES 2022-2027	Focus area	Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	PE20-25 indicator that contributes to the Strategic Plan SDG indicator	SDG indicator
	1.2 Focus on social and environmental determinants and the effects of climate	OCM 18	Impact indicator 27 Death rare attributed to unhealthy water, inadequate sanitation and poor hygiene Intermediate output indicator 18.c Proportion of population using safely managed drinking water services	3.9.2 Death rate attributed to unsafe water sources, unsafe sanitation and poor hygiene 6.1.1 Proportion of population using safély managed drinking water services
	change on health		Impact indicator 27 Death rate attributed to unhealthy water, inadequate sanitation and poor hygiene Immemediate output indicator 18.4 Proportion of population vaing, safely managed sanitation services and facilities for handwashing with soap and water	3.9.2 Death rate attributed to unsafe water sources, unsafe sanitation and poor hygiene 6.2.1 Proportion of population using safely managed sanitation services and handwashing facilities with soap and water 6.3.1 Proportion of safely treated domestic and industrial wastewater flow
			Impact Indicator 26 Mortality rate attributed to air pollution in households and the environment Intermediate output indicator 18.f Number of cities with ≥ 500,000 inhabitants (or at least the country's main city) in each country or territory that show an adequate level of progress or are making progress towards meeting the WHO guidelines on air quality with respect to annual average levels of fine particles in suspension (2.5 µm)	3.9.1 Mortality rate due to environmental (external and domestic) air pollution 11.6.2 Average annual level of inhalable particles (e.g.: less than 2.5 µm and 10 µm in diameter) in cities (weighted population)
			Intermediate output indicator 18.g. Number of countries and territories with capacity to address health in chemical safety (including human health exposure to metals and/or pesticides)	3.9.3 Mortality rate attributed to unintentional poisoning
			Intermediate output indicator 18.h Number of countries and territories with capacity to address the health-related effects of climate change	13.2.1 Number of countries that reported the establishment or operationalization of an integrated policy/strategy/plan that increases their capacity and adaptation to the adverse impacts of climate change and promotes climate resilience and the development of low greenhouse gas emissions in a manner that does not threaten food production (including a national adaptation plan, a nationally determined contribution, a national communication, a biennial update report or other) Total greenhouse gas emissions per year. Relevant to health, but it is the environment that measures and controls this data
		OCM 26	Intermediate output indicator 26.a Number of countries and territories with institutional responses and accountability mechanisms that are moving towards equity in health, ethnic and gender equality in health, and human rights that are moving towards equity in health, ethnic and gender equality in health, and human rights	1.1.1 Percentage of population living below the international extreme poverty line, by sex, age, occupation status and geographic location (urban/rural) 1.2.2 Proportion of men, women and children of all ages living in poverty on all dimensions according to national definitions 5.1.1 Extractions according to national definitions 5.1.1 Extraction of women and girls aged 15 years and over who have extracted physical, sexual or psychological volence by a current or former intimate partner in the 1st 12 months, by form of violence and by age experienced physical, sexual or psychological volence by a current or former intimate partner in the 1st 12 months, by form of violence and by age as 2.2. Proportion of women and girls aged 15 years and over who have suffered sexual violence by other people who are not intimate partners, in the last 12 months, by age and place of occurrence 10.2. Proportion of commercial living below 50% median income. by sex, age, and people with disabilities. 11.1. Proportion of othen population living in precarious settlements. infinited such as the violence of course of the population living and management that operates regularly and democratically 11.3. Proportion of bull-up are ain cities that is open public space for everyone to use, by sex, age, and people with disabilities.
	1.3 Promote health, including mental health, and prevent conditions and risk factors for chronic noncommunicable diseases	OCM 16	Impact indicator 14 Death rate due to suicides Intermediate output indicator 16.a In Winber of courtifies and territories with ongoing collaboration between government montal health services and their denartments services and services.	3.4.2 Suicide mortality rate

CCS STRATEGIC PRIORITIES 2022-2027	Focus area	Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	PE20-25 indicator that contributes to the Strategic Plan SDG indicator	SDG indicator
		OCM 15	Impact indicator 13 Number of deaths due to road traffic injuries Intermediate output indicator 15.a Number of countries and territories with an operational road safety advisory committee or lead body that supported the formulation and/or implementation of a national road safety strategy	3.6.1 Mortality rate from traffic accidents
		OCM 6/15	Impact indicator 11 Impact indicator 12 Impact indicator 12 Impact indicator 12 Proportion of women and girls aged 15 to 24 year-olds Proportion of women and girls aged 15 to 49 who have had a partner and who have been victims of physical and/or sexual violence by a current or former intimate partner in the last 12 months Immermediate output indicator 15.b Intromediate output indicator 15.b Intromediate output indicator 15.b Intromediate output indicator 15.b Intromediate output indicator 15.b	5.2.1 Proportion of women and girls aged 15 years and over who have experienced physical, sexual or psychological violence by a current or former inthe last 12 months, by form of violence and by a get 16.1.1 Number of victims of intentional homicide, per 100,000 inhabitants, by sex and age 16.2.1 Proportion of children aged between 1 and 17 years who suffered any physical punishment and/or psychological aggression from caregivers in the last month
		OCM 19	Intermediate output indicator 19.a Number of countries and territories implementing the health framework in all policies to improve both health equity and health and well-being	11.1.1 Proportion of urban population living in precarious settlements, informal settlements or inadequate housing 11.3.2 Proportion of diese with a structure for direct participation of civil society in urban planning and management that operates regularly and democratically 11.7.1 Proportion of built-up area in cities that is open public space for everyone to use, by sex, age, and people with disabilities 11.3.1 Proportion of population residing in cities that implement urban and regional development plans that include population residing in cities that implement urban and regional development plans that include population projections and resource assessment, by city size 12.1.1 Number of countries incroproating sustainable consumption and production into national action plans or as a priority or goal in national policies.
		OCM 19	Intermediate output indicator 19.b Number of countries and territories that have incorporated health promotion into health services based on the principles of primary health care	3.8.1 Primary Health Care Coverage (defined as the average coverage of primary health care measured by indicators of reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases, and access to and capacity of services, for the general population and the most disadvantaged populations)
		OCM 19	Intermediate output indicator 19.c. Number of countries and territories that are implementing policies or strategies based on regional guidance on healthy schools	4.2.1 Proportion of children under 5 years old who are in adequate development in health, learning, and psychosocial well-being by gender 4.3.1 Youth and adult participation rate in formal and nonformal education, in the last 12 months, by gender formal education, in the last 12 months, by gender 4.7.1 To what extern are (i) leducation for global criticarship and (ii) education for sustainable development, including gender equality and human rights, incorporated at all levels off. a) national education policies; (b) school curricula, c) teacher training; and (ii) education for sustainable 12.8.1 Degree to which (i) education for global citizenship and (ii) education for sustainable development, including gender equality and human rights, are disseminated at all levels in: (a) national educational prolgrams, (c) teacher training, and (d) student assessment.
		OCM 14	Intermediate output indicator 14.b Prevalence of wasting in children under 5 years of age Intermediate output indicator 14.c Prevalence of overweight in childhood (under 5 years old) Intermediate output indicator 14.f Percentage of infants under 6 months who are only breastfed	2.2.2 Prevalence of mainutrition in children under 5 years of age, by type of mainutrition (underweight and overweight) (weight for height > +2 or <-2 standard deviations from the median of the Standards of WHO Child Growth)
		OCM 14	Intermediate output indicator 14.d Prevalence of obesity in childhood and adolescence (5 to 19 years old)	
		OCM 13	Intermediate output indicator 13.c Average salt (sodium chloride) intake, standardized by age, by population, per day, in grams, among persons aged 18 and over Intermediate output indicator 13.d Number of countries and territories that have phased out industrially produced trans fatty acids	

CCS STRATEGIC PRIORITIES 2022-2027	Focus area	Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	PE20-25 indicator that contributes to the Strategic Plan SDG indicator	SDG indicator
		OCM 13	Intermediate output indicator 13.e Prevalence, standardized by age, of people aged 18 years or older who do not do enough physical activity	
		OCM 5	Impact indicator 9 Unconditional probability of dying between the ages of 30 and 70 from conditional probability of dying between the ages of 30 and 70 from Unconditional probability of dying between the ages of 30 and 70 from Intermediate output indicator 5.a Number of countries and territories achieving the 2025 global NCD target to halt the rise of diabetes as measured by age-standardized prevalence of the pregivceun-indicabetes among persons aged 18 years and older 5.b Number of countries and territories achieving the target of 35% population-wide prevalence of controlled hypertension (< 140/90 mmHg) among persons with hypertension aged 18 years and older	3.4.1 Mortality rate due to diseases of the circulatory system, malignant tumors, diabetes mellitus, and chronic respiratory diseases
		OCM 13	Intermediate output indicator 13.a Prevalence of smokers in the population aged 15 and over	3.A.1 Prevalence of smokers in the population aged 15 and over
			Intermediate output indicator 13.b Total consumption (recorded and unrecorded) of alcohol per copita among persons aged 15 and over in a calendar year, in liters of pure alcohol, adjusted for consumption by tourists	3.5.2 Harmful alcohol consumption, based on the national threshold defined for the consumption of liters of pure alcohol per capita (persons aged 15 or over) per year
2. Recover, improve, and strengthen health services and priority programs impacted by the COVID-19 pandemic	21 Strengthen access, comprehensive care and implementation of effective interventions throughout the life course, prioritizing vulnerable populations and border areas		Impact indicator 6 Maternal mortality rate (deaths per 100,000 live births) Impact indicator 7 Mortality rate from preventable causes through health care (deaths per 100,000 inhabitants)	3.1.1 Maternal mortality rate
		OCM 2	Intermediate output indicator 2.c Proportion of births in health units Intermediate output indicator 2.d Proportion of births attended by a qualified professional	3.1.2 Proportion of births attended by qualified health personnel
			Intermediate output indicator 2.a Proportion of women of reproductive age (15 to 49 years) whose Proportion of women of reproductive age (15 to 49 years) whose Intermediate output indicator indicator in indicator indicator in the original are of women age of 10 to 19 years (disaggregated into age groups 10 to 14 years and 15 to 19 years) in Latin America and the Caribbean	3.7.2 Number of live births to adolescent mothers (age groups 10-14 and 15-19) per 1 000 women in these age groups 3.7.1 Proportion of women of reproductive age (15 to 49 years old) using modern family planning methods
			Impact indicator 3 Neonatal mortality rate	3.22 Neonatal mortality rate
			Impact indicator 4 Under-5 mortality rate	3.2.1 Mortality rate in children under 5 years old
			Intermediate output indicator 2.f Number of countries and territories that formulate, implement and monitor policies or strategies with an integrated approach to addressing human health	
		OCM 14	Intermediate output indicator 14.a Prevalence of stunted growth in children under 5 years of age Intermediate output indicator 2.e Number of countries and territories with capacity to implement and monitor national policies or strategies to improve young children's health and development based on WHO/UNICEF framework Nurturing care for early childhood development	2.2.1 Prevalence of stunting in children under 5 years of age (height for age <-2 standard deviations from the median of the World Health Organization (WHO) Child Growth Standards)
		OCM 2	Impact indicator 5 Proportion of children under 5 who are well-developed in terms of health, learning and psychosocial well-being	

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CCS STRATEGIC PRIORITIES 2022-2027	Focus area	Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	PE20-25 indicator that contributes to the Strategic Plan SDG indicator	SDG indicator
		OCM 3	Impact indicator 2 Healthy life expectancy Impact indicator 8 Proportion of adults over 65 years of age dependent on care Intermediate output indicator 3 Number of countries and territories with capacity to prevent dependence (3. Quality care for the elderly)	
•	2.2 Improve the prevention, detection, and treatment of communicable, emerging,	OCM 24	Intermediate output indicator 24.b Number of endemic countries and territories with 80% yellow fever vaccination coverage	Vaccination coverage of risk groups for diseases prone to epidemics or pandemics SHAA2030 Target 10.10 Control the transmission of dengue, chikungunya, zika, and yellow fever with an integrated and intersectoral approach
	and re-emerging diseases, especially those with the greatest impact on	0CM 8	I ntermediate output indicator 8.a Affordable, safe, quality supply of vaccines delivered effectively	3.8.1 Proportion of population immunized with vaccines included in the national immunization program
	morbidity and mortality.	'	Intermediate output indicator 4.h Number of countries and territories reporting coverage of at least 95% of three doses of diphtheria, tetanus, and pertussis vaccine (DPT3) in 80% of municipalities	SHAA2030 Target 5.2 Achieve 95% vaccination coverage in children under 5 years of age through national immunization programs
			Intermediate output indicator 4.i Number of countries and territories reporting coverage of at least 95% of three doses of pneumococcal vaccine at the national level	SHAA2030 Target 10.4 Fight waterborne and other communicable diseases
			Intermediate output indicator 4.j Number of countries and territories that have incorporated HPV vaccines into their national immunization program	SHAA2030 Target 10.4 Fight waterborne and other communicable diseases
		OCM 04	Impact indicator 16 Incidence rate of HIV infections Incidence rate of HIV infections Percentage of upput indicator 4.a Percentage of HIV-infection deposite who have been diagnosed Intermediate output indicator 4.b Coverage of antivetroviral therapy (ART) in people infected with HIV Intermediate output indicator 17.a Number of countries and territories addieving 90% viral suppression (viral load < 1,000 copies/ml) in people on antivetroviral therapy (ART)	3.3.1 Number of new HIV infections per 1.000 population, by sex, age, and specific populations
		,	Impact indicator 20 Tuberculosis incidence rate Intermediate output indicator 4.d Tuberculosis treatment coverage	3.3.2 Incidence of tuberculosis per 1,000 inhabitants
			Impact indicator 21 Malana incidence rate Intermediate output indicator 4.e Number of endemic courtines and territories with > 70% of malaria cases diagnosed and treated within 72 hours of symptom onset	3.3.3 incidence of malaria per 1,000 inhabitants
			Impact indicator 19	3.3.4 Incidence of hepatitis B per 100,000 inhabitants
		,	Mortality rate caused by chronic viral hepatitis	3.3.5 Number of people in need of interventions against neglected tropical diseases
			Impact indicator 24 Elimination of neglected infectious diseases in countries Intermediate output indicator 12.b Number of countries and territories where the entire territory or endemic territorial unit (by vector transmission) has a domestic infestation rate (by the main species of triatomine vector or by the substitute vector, as the case may be) equal to or less than 1%	3.3.5 Number of people in need of interventions against neglected tropical diseases
		OCM 18	Intermediate output indicator 18.b Number of countries and territories with capacity to prevent major occupational diseases	8.8.1 Fatal and non-fatal occupational injury frequency rates, by sex and migration status

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CCS STRATEGIC PRIORITIES 2022-2027	Focus area	Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	PE20-25 indicator that contributes to the Strategic Plan SDG in dicator	SDG indicator
			Impact indicator 25 Number of bloodstream infection cases per 1,000 patients/ year caused by carbapenemase-producing organisms Immediate output indicator Innuber of countries and territories where antimicrobial resistance surveillance capacity has increased to guide public health interventions to reduce the risk and prevent transmission of multidrug-resistant infections through intersectoral action	Percentage of bloodstream infections with antimicrobial-resistant organisms
	2.3 Reinvigorate comprehensive care for merall health and non-communicable diseases and conditions	OCM S	Impact indicator 9 Unconditional probability of dying between the ages of 30 and 70 from cardiovascular disease, cancer, diabetes, or chronic respiratory disease intermediate output indicator 5.a. Number of countries and territories achieving the 2025 global NCD target to halt trens of diabetes as measured by age-standardized prevalence of hypoglycaemia/diabetes among persons aged 18 years and older intermediate output indicator 5.b. Number of countries and territories achieving the target of 35% population-wide prevalence of controlled hypertension (< 1402/90 mmHg) among persons with hypertension aged 18 years and older intermediate output indicator 5.c. Number of countries and territories with cervical screening programs that achieve at least 70% screening coverage in women aged 30.49 or in the age range defined by national policy, intermediate output indicator 5.d. Number of countries and territories increasing access to palliative care, as measured by increased consumption of morphine equivalents of opioid analgesics (excluding methadone) Intermediate output indicator 5.d. Number of countries and territories whose surveillance systems are able to report on key indicators of the Global Monitoring Framework for Noncommunicable Diseases	3.4.1 Mortality rate due to diseases of the circulatory system, malignant tumors, diabetes mellitus, and chronic respiratory diseases
			Intermediate output indicator 5.g Number of countries and territories that have increased capacity to manage mertal health disorders at the first level of care Intermediate output indicator 5.h Number of countries and territories that have increased the rate of people admitted with mental disorders to general hospitals Intermediate output indicator 5.I Intermediate output indicator 5.I Number of countries and territories that have increased the rate of people receiving treatment (pharmacological, psychosocial, and rehabilitation and post-treatment sentices) for substance use disorders in the health care network	3.4.2 Suicide mortality rate 3.5.1 Coverage of interventions (pharmacological, psychosocial, rehabilitation, and post-treatment) for the treatment of substance abuse
			Intermediate output indicator 5.f Number of countries and territories that have tertiary care centers that provide rehabilitation services with multidisciplinary teams for complex injuries	
		0CM 6	Intermediate output indicator 6.b Number of countries and territories that provide comprehensive post-rape care in emergency health services, according to WHO guidelines	
3. Contribute to the development of a more resilient, equitable and effective SUS, in accordance with the health needs of the population	3.1 Consolidate APS Forte as the basis of the health system, with universal access and coverage, in integrated health service networks and the incorporation of new digital technologies	OCM 1 OCM 1	Intermediate output indicator 9.a Number of countries and territories that have achieved, by 2025, a reduction of at least 10 percentage points in the population reporting obstacles to accessing health services compared to 2020 Intermediate output indicator 1. 1.a Number of countries and territories experiencing at least a 10% reduction in hospitalizations for conditions that could be treated in outpatient care 1.b. Number of countries and territories that have implemented strategies to strengthen resolving capacity at the first level of care Intermediate output indicator 10.b 10.b. Number of countries and territories that allocated at least 30% of public spending on health to the first level of care	3.8.8.1 Primary Health Care Coverage (defined as the average coverage of primary health care measured by indicators of reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and access and capacity of services, for the general population and the most disadvantaged populations)

CCS STRATEGIC PRIORITIES 2022-2027	Focus area	Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	PE20-25 indicator that contributes to the Strategic Plan SDG indicator	SDG indicator
		OCM 8	Intermediate output indicator 8.a Number of countries and territories that ensure that products on the Essential Medicines List are available without out-of-pocket payments at the point of care 8. Number of countries and territories that their implemented institutional frameworks and strategies or legal frameworks for the evaluation, selection and rational use of medicines and other health technologies, including antibiotics	3.b.3 Proportion of health facilities that have a core set of essential and relevant medicines available and affordable on a sustainable basis. 3.8.2 Proportion of people in families with high health expenses in relation to total family expenses.
		OCM 20/21	Intermediate output indicator 20.a Number of countries and territories that implement integrated and interoperable health information systems that perform subnational disaggregation Intermediate output indicator 21.b Number of countries and territories generating, analyzing and using data and information according to health priorities, disaggregated by geopolitical and demographic strata, as appropriate to the national context	17.17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics
	3.2 Strengthen governance, leadership, regulation, participation, and social control in SUS, with funding, remuneration models and adequate, sufficient and sustainable human resources.	, OCM 9	Intermediate output indicator 9 9.a Number of countries and territories that have achieved, by 2025, a reduction of at least 10 eleventage points in the population reporting to oxstacts to accessing health services compared to 2020 9.b Number of countries and territories that have achieved at least 60% of their capacity to implement essential public health functions. Intermediate output indicator 10 10.a Number of countries and territories that have increased public spending on health to at least 6% of gross domestic product.	3.8.2 Proportion of people in families with high health expenses in relation to total family expenses
		OCM 11	10.b Number of countries and territories that allocated at least 30% of public spending on health to the first level of care Intermediate output indicator 11.a. Number of countries and territories that have reduced by 20% the percentage of people in households reporting catastrophic out-of-pocket health expenditures the informediate output indicator 11.b. Number of countries and territories that have reduced by 10% the percentage of people in households experienting catastrophic out-of-pocket health expenditures households experienting impoverishment due to out-of-pocket health expenditures	
	3.3 Revitalize the development of human resources in health	OCM 7	Intermediate output indicator 7.a Number of countries and territories that have closed the density gap with respect to doctors, nurses and midwives, having achieved at least 2.5 health workers per 10,000 population in under served areas, considering the global target of 44.5 by 2030 7.b Number of countries and territories that have an interprofessional health team at the first level of care, consistent with their model of care	3.C.1 Density and distribution of health professionals
 Boost research, innovation and the generation of scientific and technological 	4.1 Encourage research, generation, dissemination and implementation of evidence in science and	OCM 22	Intermediate output indicator 22.a Number of countries and territories that are implementing a health research and innovation policy, strategy and/or funded agenda	9.5.1 R&D expenditure as a proportion of GDP 9.b.1 Proportion of added value in industries of medium and high technological intensity in total added value 3.b.2 Total Net Official Development Assistance for Medical Research and the Basic Health Sectors
knowledge in health, including those aimed at research, development and production of	technology in health, as well as evaluation of health policies		Ministry of Finance/Foreign Affairs reports to the Organization for Economic Cooperation and Development (OECD)	9.b.1 Proportion of added value in industries of medium and high technological intensity in total added value 3.b.2 Total Net Official Development Assistance for Medical Research and the Basic Health Sectors
medicines, herbal medicines and traditional health products, vaccines, biotechnological products	4.2 Strengthen national capacities for regulation, development and production of raw materials,	OCM 8	Intermediate output indicator 8.a Number of countries and territories that ensure that products on the Essential Medicines List are available without out-of-pocket payments at the point of care	3.b.1 Population vaccination coverage rate in relation to vaccines included in the National Vaccination Program 3.b.3 Proportion of health facilities that have a core set of essential and relevant medicines available and affordable on a sustainable basis
מות ווממניו נכרווווסוס פכי	medicines, vaccines and other technologies		Intermediate output indicator 8.f Number of countries and territories that have implemented institutional frameworks and strategies or legal frameworks for the evaluation, selection and rational use of medicines and other health technologies, including antibiotics	Patterns of antibiotic consumption at the national level 3.d.2 Percentage of biodstream infections due to selected antimicrobial resistant organisms WHA68.7 "ACCESS" group antibiotics account for 60% or more of total antibiotic consumption

SDG indicator	9.5.1 R&D expenditure as a proportion of GDP 9.b.1 Proportion of added value in industries of medium and high technological intensity in total added value	3.D.1 International Health Regulations (IHR) capacity and health emergency preparedness		11.5.1 Number of deaths, missing persons and directly affected people attributed to disasters per 100,000 inhabitants	11.5.1 Number of deaths, missing persons and directly affected people attributed to disasters per 100,000 inhabitants
	9.5.1 R&D expendit 9.b.1 Proportion of high technological i	3.D.1 International		11.5.1 Number of c people attributed to	11.5.1 Number of c people attributed to
PE20-25 indicator that contributes to the Strategic Plan SDG indicator	Intermediate output indicator 22.a Number of countries and territories that are implementing a health research and innovation polity, strategy and/or funded agenda	Intermediate output indicator 23.b Number of signatory states that have and maintain the basic capacities provided for in the International Health Regulations	Intermediate output indicator 5.g Number of countries and territories that have increased capacity to manage mental health disorders at the first level of care	Impact indicator 28 Mortality rate caused by disasters (per 100,000 inhabitants)	Impact indicator 28 Mortality rate caused by disasters (per 100,000 inhabitants)
Intermediate Outputs - PAHO STRATEGIC PLAN 2020/25	OCM 22	OCM 23	OCM 5		
Focus area	4.3 Promote relevant innovations in health 4.4 Promote innovation in the area of medicinal plants and herbal medicines based on native bioliversity, recognizing knowledge, practices and ensuring sharing conferential as fring from the commercialization of these products	5.1 Strengthen health system organization and resources for emergency	and disaster prevention and preparedness.	5.2 Strengthen coordinated, integrated and timely response to emergencies and disasters with special emphasis on border areas.	5.3 Build health system capacities in timely and effective recovery
CCS STRATEGIC PRIORITIES 2022-2027		5. Strengthen prevention, preparedness, timely response and recovery in	emergencies and disasters, with the participation of affected communities	'	

Notes: The first phase of CCS implementation consists of defining the baseline and targets for the agreed indicators for the strategic priorities and respective focus areas. The contribution of the SP20-25 indicators to the SDGs and WHO GPW 13 Impact Framework indicators of health and to the SHAA2030 targets are listed in Annex B of the PAHO Strategic Plan 2020-2025.

Intersectoral response to violence and injuries

Health promotion and intersectoral action Social and environmental determinants Integrated health information systems

Elimination of communicable diseases Intersectoral action on mental health

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- Problem-solving capacity for communicable diseases Access to comprehensive and quality health services Health throughout the entire life cycle Quality care for the elderly
 - Access to health services for non-communicable diseases (NCDs) and mental health issues Problem-solving capacity for violence and trauma Health workforce
 - Strengthening management and governance Access to health technologies
 - Risk factors for communicable diseases Increased public funding for health Strengthening financial protection
- Risk factors for noncommunicable diseases (NCDs) Poor nutrition
- Management and administration Leadership and governance 15. 116. 117. 22. 22. 24. 25. 27. 27.

Cross-cutting themes: equity, gender, ethnicity, and human rights Detection of health emergencies and their respective response

Prevention and control of outbreaks and epidemics

Emergency preparedness and risk reduction Data, information, knowledge, and evidence Research, ethics, and innovation for health

Legal basis of PAHO/WHO Technical Cooperation in Brazil:

- Legislative Decree N°. 11, of 1956 Approves the Basic Agreement between Brazil and the World Health Organization for Technical Assistance of an Advisory Nature.
- Decree N°. 59.308, of September 23, 1966 Promulgates
 the Basic Technical Assistance Agreement with the United
 Nations, its Specialized Agencies and the International Atomic
 Energy Agency.
- Legislative Decree N°. 108, of 1983 AGREEMENT BETWEEN
 THE GOVERNMENT OF THE FEDERATIVE REPUBLIC OF BRAZIL
 AND THE PAN AMERICAN HEALTH DEPARTMENT, FOR THE
 OPERATION OF THE AREA OFFICE.
- Decree N° 97,590, of March 22, 1989 Promulgates the Addendum to the Agreement for the Operation of the PAHO/WHO Area Office in Brazil, between the Federative Republic of Brazil and the Pan American Organization of Health/World Health Organization.
- Decree N°. 3,594, of September 8, 2000 Provides for the implementation of the Complementary Adjustment to the Basic Agreement between the Government of the Federative Republic of Brazil and the World Health Organization and the Agreement between the Government of the Federative Republic of Brazil and the Pan American Sanitary Bureau for the Operation of the Area Office of the Pan American Health Organization/World Health Organization in Brazil, March 16, 2000.

The Country Cooperation Strategy 2022-2027 – Brazil was prepared based on dialogue with national and international strategic actors and in light of the WHO and PAHO guideline documents, "Country Cooperation Strategy Guide 2020 – WHO" and "PAHO Guidance for the use of WHO 2020 CCS Guide", respectively.

In Brazil, dialogue and joint elaboration were carried out with strategic actors of SUS, especially with the Ministry of Health, and also with the National Council of Health Departments, the National Council of Municipal Health Departments, and the National Health Council.

At the international level, it received contributions from strategic actors from both WHO and PAHO.

The PAHO/WHO Brazil Office was responsible for coordinating, preparing, editing, and revising the document. The entire process was coordinated and carried out by Socorro Gross Galiano, Rodrigo Monrroy, Akemi Kamimura, Janine Giuberti Coutinho, Juan Cortez-Escalante, and Sandro Terabe. In addition, the PAHO/WHO team in Brazil produced information for the preparation of this document.

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