

PUBLIC HEALTH AND COLLECTIVE HEALTH: CHALLENGES AND PERSPECTIVES IN THE CONTEMPORARY CONTEXT

SAÚDE PÚBLICA E SAÚDE COLETIVA: DESAFIOS E PERSPECTIVAS NO CONTEXTO CONTEMPORÂNEO

SALUD PÚBLICA Y SALUD COLECTIVA: DESAFÍOS Y PERSPECTIVAS EN EL CONTEXTO CONTEMPORÁNEO.

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ABSTRACT

Objetivo: to critically analyze the distinctions and complementarities between public health and collective health in the Brazilian context, considering their historical, epistemological, and political foundations. **Methods:** this theoretical reflection study employed a critical-reflexive approach based on an analysis of the scientific literature and institutional documents on public health and collective health in Brazil, considering their historical, epistemological, political, and organizational foundations. **Results:** public health has historically been linked to the state control of diseases, with a biomedical and technical-operational emphasis. Collective health emerged from the Brazilian Sanitary Reform as a critical field, broadening the concept of health to encompass a socially determined process and integrating the social sciences, epidemiology, and politics. This paper addresses the roles of both fields in the Unified Health System and during the COVID-19 pandemic, as the pandemic exposed inequalities and institutional weaknesses. While public health supported emergency responses, collective health contributed to analyzing social determinants and defending science, democracy, and equity. The paper emphasizes the importance of integrating both fields to consolidate the contemporary SUS. **Conclusions:** consolidating the SUS in the post-pandemic context requires coordination between public health efficiency and the critical, transformative perspective of collective health.

Keywords: Social Determinants of Health; Health Policy; Public Health; Unified Health System; COVID-19.

RESUMO

Objective: analisar criticamente as distinções e complementaridades entre saúde pública e saúde coletiva no contexto brasileiro, considerando suas bases históricas, epistemológicas e políticas. **Métodos:** trata-se de um estudo de reflexão teórica, com abordagem crítico-reflexiva, fundamentado na análise de literatura científica e documentos institucionais sobre saúde pública e saúde coletiva no Brasil, considerando seus fundamentos históricos, epistemológicos, políticos e organizacionais. **Resultados:** a saúde pública está historicamente vinculada ao controle estatal de doenças, com ênfase biomédica e técnico-operacional. A saúde coletiva emerge da Reforma Sanitária como um campo crítico, ampliando o conceito de saúde como um processo socialmente determinado, articulando ciências sociais, epidemiologia e política. Aborda-se o papel de ambos no Sistema Único de Saúde (SUS) e na pandemia de COVID-19, a qual evidenciou desigualdades e fragilidades institucionais. Enquanto a saúde pública sustentou as respostas emergenciais, a saúde coletiva contribuiu para a análise dos determinantes sociais, bem como para a defesa da ciência, da democracia e da equidade. Ressalta-se a importância da integração entre os campos para a consolidação do SUS contemporâneo. **Considerações finais:** conclui-se que a consolidação do SUS no cenário pós-pandêmico requer a articulação entre a eficiência da saúde pública e a perspectiva crítica e transformadora da saúde coletiva.

Palavras-chave: Determinantes Sociais de Saúde; Política de Saúde; Saúde Pública; Sistema Único de Saúde; COVID-19.

RESUMEN

Objetivo: analizar críticamente las distinciones y complementariedades entre la salud pública y la salud colectiva en el contexto brasileño, considerando sus bases históricas, epistemológicas y políticas. **Métodos:** se trata de un estudio de reflexión teórica, con un enfoque crítico-reflexivo, basado en el análisis de literatura científica y documentos institucionales sobre salud pública y salud colectiva en Brasil, considerando sus fundamentos históricos, epistemológicos, políticos y organizacionales. **Resultados:** la salud pública está históricamente vinculada al control estatal de enfermedades, con un énfasis biomédico y técnico-operacional. La salud colectiva surge de la Reforma Sanitaria como un campo crítico, al ampliar el concepto de salud como un proceso socialmente determinado, articulando ciencias sociales, epidemiología y política. Se discute el papel de ambos campos en el Sistema Único de Salud (SUS) y durante la pandemia de COVID-19, que evidenció desigualdades y fragilidades institucionales. Mientras la salud pública sostuvo las respuestas de emergencia, la salud colectiva contribuyó al análisis de los determinantes sociales y a la defensa de la ciencia, la democracia y la equidad. Se destaca la importancia de la integración entre ambos campos en la consolidación del SUS brasileño contemporáneo. **Consideraciones finales:** se concluye que la consolidación del SUS en el escenario pospandémico requiere la articulación entre la eficiencia de la salud pública y la perspectiva crítica y transformadora de la salud colectiva.

Palabras clave: Determinantes Sociales de la Salud; Política de Salud; Salud Pública; Sistema Único de Salud; COVID-19.

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INTRODUCTION

Debates on health in Brazil frequently use the terms public health and collective health as synonyms, although they present relevant epistemological, practical, and political differences. The distinction between these concepts is not merely semantic or ideological. Whereas public health refers to the institutionalization of disease control by the modern state, collective health emerged as a movement to criticize and reconstruct health practices, originating specifically in the Latin American context⁽¹⁾.

Understanding these distinctions is essential for analyzing health policies, the organization of the Unified Health System (SUS), and contemporary challenges, particularly in the post-COVID-19 pandemic context. The emergence of public health on a global scale, particularly in Europe during the eighteenth and nineteenth centuries, resulted from a structural response to the demands of nascent capitalism and the Industrial Revolution, which required epidemic control to ensure workforce productivity. According to Merhy⁽²⁾, this period marked a transformation in the “technologies of health work,” in which care ceased to be merely a practice of religious or liberal charity and became an object of state technical intervention aimed at disciplining bodies and urban space⁽²⁾.

In Brazil, public health began under the logic of “campaign-based sanitation,” a model characterized by centralized and vertical campaigns to combat epidemics. The state conducted these campaigns through sanitary control measures during the Old Republic, with authoritarian and sporadic interventions (e.g., those led by Oswaldo Cruz) focused primarily on protecting foreign trade and not initially intended to provide universal social protection.

Paim⁽³⁾ observes that Brazil’s health history has been marked by a dialectic between this technocratic model and social exclusion. Most of the population depended on philanthropy or popular medicine, whereas social security institutions (i.e., the Retirement and Pension Institutes and, later, the National Institute of Medical Assistance and Social Security) provided care only to formal workers. The overcoming of this fragmented model began to take shape well before 1988⁽³⁾.

Collective health constitutes a field of knowledge and practices that emerged in Latin America, with strong Brazilian leadership, during the 1970s. It arose as a critique of traditional public health and Preventive Medicine, which were considered insufficient to address population health problems because they disregarded social inequalities. In Brazil, collective health became consolidated as an interdisciplinary field, articulating health promotion,

prevention, and care practices with public policies guided by the SUS principles of universality, comprehensiveness, and equity. Nevertheless, implementing these guidelines faces multiple political, economic, social, and institutional challenges that directly affect access to and the quality of services provided⁽⁴⁾.

Among these challenges, social inequalities stand out as major obstacles to developing equitable public policies. The social determinants of health comprise the social, economic, environmental, cultural, and political conditions that influence the health-disease process in populations, including territory, income, educational attainment, gender, race, and environmental conditions. These factors structure the health-disease process and require intersectoral policies that transcend the health sector⁽⁵⁾. In this context, coping strategies require integration between the state and civil society, as well as actions aimed at social justice and reducing inequities.

Given the above, this article proposes a critical reflection on the principles, practices, and transformations of public health and collective health, considering their specificities and relevance in the current context.

METHOD

This theoretical reflection draws on a critical analysis of the literature on public health and collective health, emphasizing their historical, epistemological, political, and organizational foundations in the Brazilian context. The reflection was guided by classical and contemporary frameworks in the field of collective health, including authors who were fundamental to the development of the Brazilian Health Reform, a political, social, and academic movement that began in the 1970s and 1980s, advocated for health as a citizenship right, and provided the foundation for the creation and organization of the SUS, as well as discussions on the social determinants of health.

Material selection prioritized key publications in the field, along with institutional documents and scientific articles on contemporary challenges in public and collective health, with particular emphasis on the COVID-19 pandemic and the post-pandemic period. For this survey, the Scientific Electronic Library Online (SciELO) and the Latin American and Caribbean Literature in Health Sciences (LILACS) databases were consulted, along with institutional documents from the Ministry of Health and the World Health Organization. The analysis was conducted interpretively and critically-reflexively through comparative reading and thematic categorization of the selected references, aiming to identify convergences, distinctions,

and complementarities between the two fields in light of their theoretical and political assumptions and their implications for public policy formulation and the strengthening of the SUS.

Differences between public health and collective health

Public health is organized around disease prevention, risk control, and the organization of state services aimed at protecting the population. Its main instruments include epidemiological surveillance, health surveillance, and vertical programs, such as immunization and maternal and child health programs⁽⁴⁾.

Predominantly guided by a biomedical perspective, public health is based on traditional epidemiology, normative planning, and centralized administrative practices. From this perspective, health approximates the absence of disease, resulting in fragmented technical and operational interventions closely linked to clinical practice.

Public health professionals implement activities typical of surveillance systems, applying models for controlling health risks, promoting health education, and monitoring the production and circulation of goods and services. This work is generally defined by a biomedical perspective and the state's bureaucratic logic.

Collective health, in turn, proposed an epistemological rupture in its object and moved beyond "disease" alone to encompass the health-disease-care process and its economic, political, and cultural determinants. Its methods incorporated the social sciences such as sociology, anthropology, and political science, in addition to epidemiology and planning. Politically, it assumed a commitment to social transformation and democracy.

Nunes⁽⁶⁾ emphasized that collective health in Brazil developed organically through the Health Reform movement, culminating in the creation of the SUS. It does not deny biology but understands health as a citizenship right and a product of social relations. Thus, collective health became consolidated in Brazil as a field aimed at analyzing and transforming the social determinants of health while advocating universal care, equity, and social participation⁽³⁾.

Its pillars include critical epidemiology, the social sciences applied to health, and democratic planning and management, emphasizing the integration of scientific and popular knowledge, participatory management, and public policies oriented toward social justice. From this perspective, strategies such as health promotion, the

healthy cities movement, and the "health in all policies" approach exemplify its transformative character.

Collective health professionals play a broader, more strategic role, assuming responsibilities in both the epidemiological and social analysis of health needs and in organizational and managerial domains. They therefore seek to select and use technologies and practices that respond to collective needs while promoting co-responsibility and the democratization of care.

To clarify the distinctions identified by the cited authors, Figure 1 presents the main differences. Nevertheless, these differences should be understood from a historical and complementary, rather than dichotomous, perspective, given that public health and collective health intersect and depend on one another within the SUS.

Figure 1 – Comparative table of Public Health and Collective Health. 2026.

Characteristic	Public Health (Traditional)	Collective Health
Origin	Europe (18th–19th centuries) - Industrial capitalism	Latin America (1970s) - Struggle against dictatorships
Main Focus	Disease control and hygiene	Social determinants and the defense of life
Concept of Health	Absence of disease (biologism)	Socially determined process (quality of life)
Theoretical Basis	Biomedical sciences	Social sciences + epidemiology + politics
Practice	Vertical, technocratic ("Medical Police," a historical model of state intervention aimed at controlling the population's health through regulatory and supervisory actions.)	Democratic, participatory, and intersectoral

Source: Prepared by the authors.

Public health and collective health in addressing COVID-19

The COVID-19 pandemic forcefully exposed the structural weaknesses and social inequalities of the Brazilian health system. While highlighting the relevance of the SUS, it also revealed how inequalities in income, housing, employment, and access to services affect health outcomes^(7–9). Both Public Health (institutional/state-based) and Collective Health (sociopolitical/critical) faced distinct yet complementary challenges. Whereas the former

sought to prevent the operational collapse of the care system, the latter debated the civilizational crisis and the social determination of deaths.

For Public Health, understood here as the state's institutional response and the administration of health services, the challenge was primarily technical, logistical, and managerial, focused on preventing an immediate lack of care. The government of Jair Bolsonaro, in particular, adopted a denialist stance toward the pandemic, minimizing the severity of the disease and discouraging the population from following scientific guidance. It promoted antiscientific practices, such as the use of chloroquine, mass gatherings, and denial of mask use. Studies indicate that these attitudes contributed to the spread of misinformation and resistance to control measures, including mask use, social distancing, and vaccination.

According to Campos⁽⁷⁾, Brazilian Public Health faced the dismantling of the Ministry of Health's national coordination capacity. The main obstacle was not only the virus but also federative fragmentation: the absence of a unified directive turned states and municipalities into management islands competing for supplies (e.g., ventilators and masks) and technologies. Another obstacle was hospital-centered care, a model predominantly focused on hospital assistance and high-complexity services. The initial public response prioritized the opening of intensive care unit beds (i.e., high-complexity care) at the expense of Primary Health Care, which should have coordinated care and territorial surveillance but was often paralyzed or underused.

In the context of the COVID-19 pandemic, the literature indicates that institutional responses in Brazil were marked by challenges in federative coordination, fragmented actions, and tensions in implementing health policies. These factors are considered relevant conditions for implementing control measures and organizing the care network, particularly in a context of structural inequalities and overloaded health services. Available analyses indicate the need to consider multiple determinants when assessing the performance of health responses during the crisis, including political, institutional, and socioeconomic factors.

For Collective Health, which analyzes health as a social and political phenomenon, the challenge was to understand the pandemic not as a "biological war" but as a syndemic, an interaction between an epidemic and social, economic, and environmental factors that intensify its impacts on population health (i.e., synergy of epidemics) fueled by social inequality. Collective Health compelled the Ministry of Health to adopt measures, albeit

belatedly, such as purchasing vaccines, which municipal managers successfully administered, and implementing a "war budget" to address the increased costs associated with the pandemic, including vaccines, intensive care unit hospitalizations, and equipment⁽⁷⁾.

Almeida Filho⁽⁸⁾ and Paim⁽⁹⁾ emphasized that the greatest challenge was political and scientific denialism. Collective Health had to confront a battle in the symbolic and informational sphere: the "infodemic," or an excess of information, including false or inaccurate content, that makes it difficult to access reliable data and compromises health decision-making, as government narratives attacked science^(8,9). Moreover, the field denounced that the virus was not "democratic": it killed selectively. The challenge was to demonstrate that Brazil's racist and class-based social structure determined who could isolate themselves and who would be exposed to risk.

Merhy⁽¹⁰⁾, in turn, highlighted the challenge of "soft technologies," which encompass relational care practices such as welcoming, qualified listening, bonding, and communication between professionals and users during a period of distancing. How could bonds, welcoming, and mental health care (the subjective dimension) be maintained when touch and physical presence had become vectors of danger?⁽¹⁰⁾ The challenge focused on combating denialism, defending democracy, protecting vulnerable populations (e.g., Indigenous, Black, and poor people), promoting mental health, and maintaining human connections.

Associação Brasileira de Saúde Coletiva - ABRASCO played a fundamental role. The association mobilized society and health professionals in defense of science and the SUS through publications such as the journal *Ciência & Saúde Coletiva* and by promoting debates on the pandemic's social impacts and the importance of collective health in building equitable and inclusive responses.

Collective Health positioned itself as a defender of universal access to health and social participation, highlighting the social determinants of the pandemic, such as precarious employment, racial and territorial inequalities, and limited access to health services^(10,11). It also mobilized social movements, researchers, and educational institutions to defend the right to health and propose political and intersectoral alternatives. Effective communication strategies, health education, and stronger social oversight proved essential to addressing the crisis.

The COVID-19 experience provided important lessons. On the one hand, it reaffirmed the need for structural investments in the SUS, particularly in primary care

and emergency response capacity. On the other, it showed that Collective Health must continue to challenge limited understandings of the health-disease process, emphasizing the relationship among health, democracy, and social justice. In the post-pandemic context, it is imperative to develop policies that articulate the technical and operational dimension of Public Health with the critical and transformative perspective of Collective Health.

Public health and collective health in the contemporary context

The SUS, conceived as a universal and equitable system, faces limitations that compromise its consolidation, and Public Health and Collective Health continue to face persistent challenges. While Public Health focuses on management and services and deals with resource scarcity and logistical demands, Collective Health focuses on political and social dimensions and confronts the erosion of rights and the precariousness of life.

The main challenges include demographic transition and the triple burden of disease. In Public Health, these include difficulties achieving financial sustainability for chronic and high-technology treatments; in Collective Health, they involve addressing the social abandonment of poor older adults and building community support networks. Other challenges include chronic underfunding, under which Public Health must manage scarcity while Collective Health combats the commodification of the SUS, as well as fragmented management and the growing influence of the private sector in defining agendas and priorities^(4,11). Decentralization and regionalization, as constitutionally established, present practical difficulties, particularly in large urban centers⁽¹²⁾.

Social inequalities constitute central barriers to the effectiveness of public health policies. Determinants such as income, educational attainment, territory, gender, race, and environmental conditions structure the health-disease process and require actions that transcend the health sector and articulate intersectoral policies⁽⁵⁾. By recognizing these determinants, Collective Health seeks integrated strategies focused on social justice, whereas Public Health tends to respond with more normative and fragmented interventions⁽¹³⁾.

Social participation, a founding principle of the SUS, remains a contemporary challenge. Although it has been institutionalized through councils and conferences, it faces barriers related to limited knowledge of social oversight mechanisms and the low effectiveness of participatory practices. In this context, Collective Health

emphasizes co-management, or shared management, and institutional democratization as pathways to strengthen ties between the state and society, expand co-responsibility, and enhance the legitimacy of public policies.

Another relevant challenge is climate change, which leading health authorities recognize as the greatest threat to global health in the twenty-first century and that requires a reorientation of Public Health and Collective Health practices⁽¹⁴⁾. Its impacts extend beyond the environment, directly affecting the social determinants of health and exacerbating preexisting inequities⁽¹⁵⁾.

While Public Health remains relevant for organizing technical and operational responses for health protection, Collective Health broadens the analytical horizon by problematizing social determinants, inequalities, and the need to democratize management. In the current context, complementarity between the two fields is indispensable: Public Health ensures immediate responses, whereas Collective Health contributes a transformative, long-term perspective.

The systematization of the contemporary debate shows that the relationship between Public Health and Collective Health should be understood as complementary and interdependent within the SUS, rather than oppositional. The study also indicates that current challenges, such as system underfunding, social inequalities, climate change, and weaknesses in social participation, require integrated responses that articulate the technical and operational dimension of Public Health with the critical and structural dimension of Collective Health, thereby contributing to the strengthening of more equitable and sustainable public policies in Brazil.

In dialogue with the literature, convergence can be observed among classical and contemporary authors regarding the relevance of the social determinants of health and the systemic organization of health practices. Nevertheless, distinctions can be identified in the analytical perspectives adopted: Paim^(3,4,9) emphasizes the Brazilian Health Reform and the consolidation of the SUS as a state public policy; Merhy^(2,10) prioritizes analysis of the health work process and soft technologies in the production of care; and Nunes⁽⁶⁾ highlighted the constitution of Collective Health as an interdisciplinary scientific field. Together, these approaches show the complementarity between Public Health and Collective Health in understanding and addressing contemporary health challenges.

In this context, the study contributes by systematically integrating these convergences and divergences, reinforcing that the two fields should be understood as

complementary and interdependent within the SUS. It offers a broader interpretation of the health-disease process and health policies in contemporary Brazil. An inherent limitation of the theoretical-reflection design is the absence of empirical investigation, which restricts the analyses to a critical interpretation of the literature and limits the generalizability of the findings to specific contexts of health practice and management. Although the selection of references was well-founded and rigorous, it does not encompass the entire scientific production on the subject. Future studies should develop empirical and comparative research investigating the articulation between Public Health and Collective Health within the SUS, as well as studies analyzing how the social determinants of health are operationalized in service organization and public policy formulation, with an emphasis on reducing health inequities.

CONCLUSIONS

Overcoming persistent challenges requires Public Health's efficiency to converge with Collective Health's humanization and critical perspective. The analysis of the differences between Public Health and Collective Health demonstrates that, although they have distinct origins, instruments, and perspectives, both are complementary and indispensable to consolidating the SUS. With its technical and operational tradition focused on controlling diseases and risks, Public Health ensures surveillance, immunization, and the organization of essential services during emergencies. Collective Health, by integrating social, political, and cultural dimensions, broadens the understanding of health determinants and promotes equity, social justice, and democratic participation.

The COVID-19 pandemic reinforced the importance of articulating these two approaches. Rapid, centralized Public Health responses were crucial for containing viral transmission, whereas collective health helped explain the social inequalities aggravated by the crisis, foster social engagement, and defend the universal right to health. In the post-pandemic context, challenges persist, including adequate financing, strengthening primary care, institutional democracy, intersectoral integration, reducing inequalities, and continuing to defend the SUS as a public asset.

The conclusions align with the study's objectives and findings and could be strengthened by explicitly stating the limitations inherent in the theoretical-reflection design adopted and the original contributions of this work to the fields of Public Health and Collective Health.

The study's original contribution lies in its analytical systematization of the convergences, tensions, and complementarities between these two fields in the contemporary Brazilian context. Its limitation is its exclusively theoretical and reflective nature, without the production or analysis of empirical data, which restricts the scope of generalizations and reinforces the need for future empirical and comparative investigations.

The future of the SUS depends on this integration. Building a health system capable of responding to the challenges of the twenty-first century requires overcoming fragmented perspectives and valuing the synergy between Public Health and Collective Health, recognizing that together they provide the foundations for a universal, comprehensive, and equitable health system.

REFERENCIAS

1. Campos GWS. Saúde pública e saúde coletiva: campo e núcleo de saberes e práticas. *Ciênc Saúde Colet*. [Internet]. 2000 [cited 2026 Feb 15];5(2):219-30. Available from: <https://doi.org/10.1590/S1413-81232000000200002>
2. Merhy EE. *Saúde: a cartografia do trabalho vivo*. São Paulo: Hucitec; 2014.
3. Paim JS. *Reforma sanitária brasileira: contribuição para a compreensão e crítica* [Internet]. Salvador: EDUFBA; Rio de Janeiro: Fundação Oswaldo Cruz; 2008 [cited 2025 Dec 05]. Available from: <https://static.scielo.org/scielobooks/4ndgv/pdf/paim-9788575413593.pdf>
4. Paim JS. Os sistemas universais de saúde e o futuro do Sistema Único de Saúde (SUS). *Saúde Debate* [Internet]. 2019 dez. [cited 2005 Dec 05];43(n.esp.5):15-28. Available from: <https://doi.org/10.1590/0103-11042019S502>.
5. Andrade MAC. Desigualdades sociais em saúde: debates contemporâneos para construção de políticas públicas [Internet]. Porto Alegre: Editora Rede Unida; 2025. 552p. [cited 2025 Sep 05]. Available from: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1592148>
6. Nunes ED. Saúde coletiva: história de uma idéia e de um conceito. *Saude Soc* [Internet]. 1994[cited 2005 Dec 05] ;3(2):5-21. Available from: <https://doi.org/10.1590/S0104-12901994000200002>
7. Campos GWS. O pesadelo macabro da Covid-19 no Brasil: entre negacionismos e desvarios. *Trab Educ Saúde* [Internet]. 2020 [cited 2025 Sep 05];18(3):e00279111. Available from: <https://doi.org/10.1590/1981-7746-sol00279>
8. Almeida Filho N. Modelagem da pandemia Covid-19 como objeto complexo (notas samajianas) *Estud Av* [Internet]. 2020 [cited 2026 Feb 20]; 34(99):97-118. Available from: <https://doi.org/10.1590/s0103-4014.2020.3499.007>
9. Paim JS. Os sistemas universais de saúde e o futuro do Sistema Único de Saúde (SUS). *Saúde Debate* [Internet]. 2020 [cited 2026 Feb 20];43:15-28. Available from: <https://doi.org/10.1590/0103-11042019S502>

10. Merhy EE. O cuidado é um acontecimento e não um ato [Internet]. 2014 [cited 2026 Feb 20]. Available from: <https://doceru.com/doc/xcv15ve>
 11. Machado CV, Lima LD, Andrade CLT. O financiamento federal da política de saúde no Brasil: tendências e desafios. *Cad Saúde Pública* [Internet]. 2014 [cited 2026 Feb 20]; 30(1):187-200. Available from: <https://doi.org/10.1590/0102-311X00144012>
 12. Spedo SM, Tanaka OU, Pinto NRS. O desafio da descentralização do Sistema Único de Saúde em município de grande porte: o caso de São Paulo, Brasil. *Cad Saúde Pública* [Internet]. 2009 [cited 2026 Feb 20]; 25(8): Available from: <https://doi.org/10.1590/S0102-311X2009000800014>
 13. Souza LB, Arcêncio RA, Cândido FCA, Campoy LT, Cartagena-Ramos DA, Fiorati RC. As iniquidades sociais da Atenção Primária à Saúde e a intersetorialidade: um estudo descritivo. *Rev Bras Enferm* [Internet]. 2020 [cited 2026 Feb 20]; 73(6):e20190196. Available from: <http://dx.doi.org/10.1590/0034-7167-2019-019>
 14. World Health Organization. COP26 special report on climate change and health: the health argument for climate action [Internet]. Geneva: World Health Organization; 2021 [cited 2026 Feb 15]. Available from: <https://www.who.int/publications/i/item/9789240036727>
 15. Fundação Oswaldo Cruz. Mudanças climáticas e saúde: o que a Fiocruz tem a ver com isso? [Internet]. Rio de Janeiro: Fiocruz; 2023 [cited 2024 May 10]. Available from: <https://fiocruz.br/mudancas-climaticas>
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