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CARE COORDINATION IN PRIMARY HEALTH CARE IN BRAZIL: CHALLENGES OF MUNICIPAL MANAGEMENT – AN ANALYTICAL ESSAY

Cassimar Dias Ferreira[a], Gabriela Eira Ortoni[b], Maurent Carrion Maurente[b], Juliana Cascaes de Aquino Schneider[b], Oldair Donizete Galeni[b], Juliana Aparecida Pereira Ribeiro[b], Hudson Fábbio Ferraz Feitoza[b], Jussara Barreto Moura Almeida[b]

[a] Universidade de Ribeirão Preto, Ribeirão Preto, São Paulo, Brazil

[b] Universidad de Ciencias Empresariales y Sociales, Buenos Aires, Argentina

Corresponding Author: Cassimar Dias Ferreira

ABSTRACT

Care coordination is a central function of Primary Health Care (PHC) within Brazil's Unified Health System (SUS), aimed at ensuring continuity, comprehensiveness, and integration of care across different levels of the health system. Despite a robust normative framework and the strategic role of municipalities in organizing PHC through the Family Health Strategy, significant structural, managerial, and technological barriers continue to limit the effective implementation of coordinated care. This analytical essay critically examines the challenges of municipal management in operationalizing care coordination in Brazil, focusing on governance fragmentation, operational mechanisms of PHC, and the limits of digital health integration. The analysis highlights that municipal decentralization, while enhancing territorial responsiveness, has also produced substantial inequalities in institutional capacity, resource allocation, and managerial stability. At the operational level, key coordination instruments such as referral and counter-referral systems, multidisciplinary teamwork, care pathways, and matrix support remain inconsistently implemented, resulting in fragmented patient trajectories and weak continuity of care. Furthermore, persistent disparities in infrastructure, workforce stability, and regional health governance undermine the effectiveness of PHC as the coordinating axis of the health system. In addition, the essay discusses the emerging role of digital health systems, including electronic health records and telehealth, as potential enablers of integration. However, issues of interoperability, digital inequality, and insufficient data governance limit their transformative potential. The study argues that care coordination in Brazil remains structurally constrained by the mismatch between normative design and municipal-level implementation capacity, requiring integrated reforms in governance, workforce development, and digital infrastructure.

KEY WORDS: Primary Health Care; Care Coordination; Health Management; Decentralization; Unified Health System

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1. Introduction

Primary Health Care (PHC) in Brazil, structured under the Unified Health System (Sistema Único de Saúde – SUS), has long been recognized as the main gateway to health services and the coordinating axis of care networks. Within this framework, care coordination emerges as a central function, aiming to ensure continuity, integration, and comprehensiveness of care across different levels of the health system. However, despite normative advances, significant operational and structural gaps persist, particularly at the municipal management level, where implementation of coordination strategies is most directly operationalized.

In the Brazilian context, municipalities hold a pivotal role in organizing Primary Health Care through the Family Health Strategy (Estratégia Saúde da Família – ESF). This decentralized model strengthens local governance but simultaneously imposes substantial managerial responsibilities on municipalities, often without proportional technical, financial, and infrastructural capacity. As a result, care coordination becomes fragmented, heavily dependent on local governance maturity, regional integration mechanisms, and availability of health information systems.

From a theoretical perspective, care coordination in PHC is not merely an administrative function but a complex relational and informational process. It involves clinical articulation, shared decision-making, referral and counter-referral systems, and longitudinal follow-up of users across care networks. In Brazil, the challenge is intensified by regional inequalities, heterogeneous implementation of digital systems, and persistent fragmentation between primary, secondary, and tertiary care levels.

Therefore, this essay critically examines care coordination in Brazilian Primary Health Care, focusing on the challenges faced by municipal management. It argues that although SUS provides a robust normative framework for integrated care, structural constraints, governance fragmentation, and digital interoperability gaps significantly limit the effectiveness of care coordination at the local level.

2. Methodology

This article adopts the form of an academic essay grounded in critical and analytical reflection. Rather than presenting empirical primary data, the discussion is based on a structured theoretical synthesis of key concepts, policy frameworks, and scholarly literature on Primary Health Care, care coordination, and health system governance. The objective is to develop an interpretative argument that integrates conceptual and operational dimensions of the Brazilian PHC model.

The methodological approach is qualitative and exploratory in nature, emphasizing analytical reasoning over descriptive reporting. The essay draws on established theoretical contributions in the field of health systems research, particularly those related to integrated care models, municipal health governance, and the organizational principles of SUS. This includes normative policy documents and peer-reviewed academic studies that provide conceptual support for the arguments developed.

The references used in this essay serve as epistemological and theoretical support for critical reflection. They are employed to sustain conceptual reasoning about how social inequalities are translated into health inequalities, and how these processes affect access to public health services. This approach allows for a rigorous yet interpretative discussion of a complex and multidimensional phenomenon.

This editorial decision does not imply the absence of theoretical grounding, but rather reflects an essay-based approach in which the cited literature serves as the intellectual foundation of the argument as a whole.

3. Development

3.1 Municipal Governance, Federal Decentralization, and Structural Fragmentation of Care Coordination

Brazil's municipal management of Primary Health Care (PHC) operates within one of the most ambitious decentralized health systems in the world, the Unified Health System (SUS). In theory, decentralization enhances responsiveness, territorial adequacy, and democratic governance. In practice, however, it has generated a complex landscape of uneven institutional capacities, where care coordination is highly dependent on local managerial sophistication, political stability, and resource availability. This asymmetry produces what can be described as a "fragmented federative coordination environment," in which national principles are uniformly defined but heterogeneously implemented.

A central structural limitation lies in the weak institutionalization of long-term health planning at the municipal level. Health secretariats are frequently subject to political cycles of four years or less, resulting in discontinuities in strategic priorities. This instability undermines the consolidation of care coordination policies, particularly those requiring sustained investment in information systems, workforce training, and integration protocols. As a result, coordination mechanisms often remain project-based rather than system-based.

Fiscal dependency further exacerbates this fragility. Although SUS is formally tripartite, municipalities carry a disproportionate operational burden in PHC delivery, while relying heavily on federal transfers. These transfers are often insufficient to cover the increasing complexity of care coordination demands, particularly in contexts of epidemiological transition and rising chronic disease burdens. Consequently, municipal managers face a structural mismatch between assigned responsibilities and available resources.

Another critical dimension is the uneven development of regional health governance structures. Inter-municipal arrangements, such as regional health consortia and regulatory complexes, were designed to mitigate fragmentation by organizing referral flows and specialized care access. However, their effectiveness varies widely, with many regions lacking strong governance cohesion or operational integration between municipalities.

Human resource instability compounds these governance challenges. High turnover rates in Family Health Strategy teams weaken the continuity of care relationships, which are essential for coordination. The frequent replacement of managers and frontline professionals disrupts institutional memory and reduces the effectiveness of accumulated local knowledge in managing care pathways.

Political interference in municipal health administration also plays a non-negligible role. In many contexts, technical decisions related to service organization, referral prioritization, and resource allocation are influenced by political considerations. This dynamic weakens evidence-based management and introduces variability in care coordination practices across municipalities.

Infrastructure disparities, particularly between urban and rural municipalities, further intensify fragmentation. Limited availability

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of health units, diagnostic services, and transportation networks directly affects the ability to ensure timely referrals and counter-referrals. Without adequate physical infrastructure, coordination becomes logistically constrained rather than clinically guided.

Finally, the lack of standardized managerial technologies across municipalities contributes to systemic heterogeneity. While some municipalities have advanced monitoring systems and integrated digital platforms, others rely on paper-based or partially digital processes. This technological unevenness reinforces inequalities in care coordination capacity across the country.

3.2 Operational Mechanisms of Care Coordination and Their Systemic Limitations in PHC

Care coordination within Brazilian PHC is conceptually anchored in the Family Health Strategy (Estratégia Saúde da Família – ESF), which is designed as the organizing axis of care networks. The ESF model assumes that longitudinal care, territorial responsibility, and multidisciplinary teamwork will ensure integration across levels of care. However, the operational reality reveals persistent gaps between normative design and practical implementation.

One of the most critical coordination instruments is the referral and counter-referral system. In principle, it should guarantee continuity of information and clinical responsibility across care levels. In practice, counter-referral is frequently incomplete, delayed, or entirely absent, resulting in informational discontinuity and fragmented clinical trajectories. This breaks the feedback loop essential for learning and continuity in PHC.

The effectiveness of coordination also depends on the role of multidisciplinary teams, particularly nurses and community health workers. These professionals are central to patient follow-up, home visits, and chronic disease monitoring. However, excessive workloads, administrative burdens, and insufficient support infrastructure limit their ability to perform coordination functions consistently and systematically.

Electronic health records (EHRs), particularly through systems such as e-SUS APS, represent a strategic pillar for care integration. Yet, interoperability remains a structural limitation. Municipal systems often do not communicate effectively with state or federal databases, producing fragmented information ecosystems. This prevents real-time coordination and limits data-driven decision-making.

Care pathways and clinical protocols are designed to standardize care processes and reduce variability in clinical decision-making. However, adherence is uneven, often influenced by local professional autonomy, training disparities, and resource constraints. In many municipalities, protocols exist formally but are not consistently operationalized.

Territorialization, a foundational principle of PHC in Brazil, assigns defined populations to specific health teams. This should enhance population-level coordination by ensuring accountability and continuity. Nevertheless, rapid urban mobility, informal settlements, and population fluidity in metropolitan areas significantly weaken the effectiveness of territorial assignment.

Matrix support (apoio matricial), an innovative Brazilian model of shared care between specialists and PHC teams, aims to strengthen clinical coordination through collaborative case discussions. While conceptually robust, its implementation is irregular and often dependent on the availability of specialized professionals, which is uneven across regions.

Regulation systems for access to specialized care are another key coordination mechanism. These systems are intended to manage demand and organize access flows. However, long waiting times, limited specialized service availability, and weak integration between regulation centers and PHC units compromise their effectiveness.

Health surveillance integration into PHC is theoretically an important mechanism for aligning clinical care with epidemiological monitoring. In practice, however, surveillance activities often operate in parallel rather than integrated systems, limiting their contribution to care coordination.

Finally, continuity of care—arguably the core outcome of coordination—remains fragile. Patients frequently navigate multiple entry points and service levels without a unified care trajectory, resulting in duplication of procedures, delayed diagnoses, and inefficient use of resources. This reflects a systemic failure in translating coordination mechanisms into lived care experiences.

3.3 Digital Health Systems, Interoperability Gaps, and the Limits of Technological Integration

Digital transformation has been widely promoted as a structural solution to the chronic coordination problems in Brazilian PHC. National strategies emphasize electronic health records, telehealth expansion, and data integration as mechanisms to strengthen continuity and efficiency of care. However, the implementation landscape reveals significant contradictions between technological ambition and institutional reality.

Electronic health records (EHRs) are central to digital coordination strategies. Systems such as e-SUS APS aim to standardize data collection and facilitate information sharing across care levels. Despite these intentions, fragmented implementation across municipalities leads to inconsistent data quality, incomplete records, and limited usability for clinical decision-making.

A major structural barrier is the lack of interoperability between different digital platforms. Municipalities often adopt heterogeneous systems developed by different vendors, resulting in “data silos” that prevent seamless information exchange. This fragmentation undermines the very premise of integrated care networks.

Telehealth expansion, accelerated by the COVID-19 pandemic, introduced new possibilities for remote coordination, specialist support, and follow-up care. Nevertheless, its integration into routine PHC workflows remains uneven. Many municipalities lack the infrastructure, training, or organizational protocols necessary to fully embed telehealth into care pathways.

Data governance represents another critical limitation. The absence of standardized governance frameworks for health data management leads to inconsistent practices regarding data storage, analysis, and sharing. Without strong governance structures, digital systems risk becoming underutilized repositories rather than active coordination tools.

Artificial intelligence and predictive analytics are increasingly discussed as future-oriented solutions for improving care coordination. These technologies could enhance risk stratification, resource allocation, and early intervention strategies. However, their adoption in Brazilian PHC remains largely experimental, concentrated in pilot projects with limited scalability.

Digital inequality across territories further constrains system integration. Rural and remote municipalities often face poor internet connectivity, insufficient hardware, and limited technical support. These infrastructural deficits create a digital divide that mirrors and

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amplifies existing health inequalities.

Professional capacity is another limiting factor. Many PHC workers have insufficient training in digital health tools, leading to underutilization of available systems. This skills gap reduces the effectiveness of digital investments and reinforces reliance on informal coordination practices.

Governance fragmentation also extends to the digital domain. There is no fully standardized national architecture that ensures uniform adoption of interoperable systems across all municipalities. As a result, digital health in Brazil resembles a "network of disconnected systems" rather than a unified infrastructure.

Despite these limitations, digital health remains a potentially transformative axis for care coordination. When aligned with governance reforms, workforce development, and infrastructure investment, it could significantly reduce fragmentation and improve continuity of care across Brazil's complex federative health system.

4. Conclusion

Care coordination in Brazilian Primary Health Care represents both a normative strength of the SUS and a persistent operational challenge. While the institutional framework provides strong theoretical support for integrated care, its implementation at the municipal level remains uneven and structurally constrained.

Municipal management plays a decisive role in translating policy into practice, yet it operates under conditions marked by resource limitations, governance fragmentation, and infrastructural disparities. These constraints directly affect the ability to sustain effective coordination mechanisms across health care networks.

Strengthening care coordination in Brazil requires integrated action across governance, workforce development, and digital transformation. Without addressing these structural dimensions, coordination will continue to be partial, fragmented, and dependent on local capacity variations rather than systemic integration.

References

1. ALMEIDA, P. F.; SANTOS, A. M. Primary health care: care coordinator in regionalized networks? *Revista de Saúde Pública*, v. 50, p. 80, 2016. https://doi.org/10.1590/S1518-8787.2016050006602
2. ALMEIDA, P. F.; SANTOS, A. M. Atenção primária à saúde como coordenadora do cuidado em redes regionalizadas. *Cadernos de Saúde Pública*, v. 31, n. 6, p. 1232–1244, 2015. https://doi.org/10.1590/0102-311X00129614
3. ALELUIA, I. R. S. et al. Care coordination in primary health care: an evaluative study in a municipality in Northeast Brazil. *Ciência & Saúde Coletiva*, v. 22, n. 6, p. 1845–1856, 2017. https://doi.org/10.1590/1413-81232017226.02042017
4. BOUSQUAT, A. et al. The Family Health Strategy and the continuity of care in Brazil. *Revista de Saúde Pública*, v. 51, p. 1–12, 2017. https://doi.org/10.1590/S1518-8787.2017051007074
5. BRASIL. Ministério da Saúde. Portaria nº 2.436, de 21 de setembro de 2017. Política Nacional de Atenção Básica. 2017. Disponível em: https://bvsms.saude.gov.br
6. BRASIL. Ministério da Saúde. Portaria nº 4.279, de 30 de dezembro de 2010. Estabelece diretrizes para organização das Redes de Atenção à Saúde. 2010. Disponível em: https://bvsms.saude.gov.br
7. BRASIL. Lei nº 8.080, de 19 de setembro de 1990. Lei Orgânica da Saúde. 1990. Disponível em: https://www.planalto.gov.br
8. BRASIL. Lei nº 8.142, de 28 de dezembro de 1990. 1990. Disponível em: https://www.planalto.gov.br
9. CONILL, E. M. Ensaio histórico-conceitual sobre a Atenção Primária à Saúde: desafios para a organização de serviços básicos no SUS. *Cadernos de Saúde Pública*, v. 24, supl. 1, p. 7–27, 2008. https://doi.org/10.1590/S0102-311X2008001300002
10. GIOVANELLA, L. et al. The Family Health Strategy coverage in Brazil: trends and challenges. *Ciência & Saúde Coletiva*, v. 21, n. 5, p. 1521–1530, 2016. https://doi.org/10.1590/1413-81232015215.17112015
11. KHATRI, R. et al. Continuity and care coordination of primary health care: a scoping review. *BMC Health Services Research*, v. 23, p. 750, 2023. https://doi.org/10.1186/s12913-023-09718-8
12. MENDES, E. V. *As redes de atenção à saúde*. Brasília: Organização Pan-Americana da Saúde, 2011.
13. MENDES, E. V. *A construção social da atenção primária à saúde*. Brasília: CONASS, 2015.
14. MENDES, L. S.; ALMEIDA, P. F. Coordination mechanisms in the Brazilian Health Care Networks. *Revista de Saúde Pública*, v. 54, p. 1–10, 2020. https://doi.org/10.11606/s1518-8787.2020054002475
15. PIRES, M. R. G. M. et al. The Care Management Information System (SI GESCAD) for home care in SUS. *Ciência & Saúde Coletiva*, v. 20, n. 6, p. 1805–1814, 2015. https://doi.org/10.1590/1413-81232015206.00152014
16. SARTI, T. D.; FONTENELLE, L. F.; ALMEIDA, A. P. S. C. Care coordination in primary care for chronic diseases. *Revista de Medicina de Ribeirão Preto*, v. 57, n. 1, 2024. https://doi.org/10.11606/issn.2176-7262.rmrp.2024.220586
17. STARFIELD, B. *Primary care: balancing health needs, services, and technology*. Oxford: Oxford University Press, 1998.
18. WORLD HEALTH ORGANIZATION. *Operational framework for primary health care*. Geneva: WHO, 2020. https://www.who.int

DOI: 10.5281/zenodo.20741849