Health care networks: a strategy for health systems integration

Abstract: Objective: to discuss and reflect on Health Care Networks, their theoretical concepts and legal frameworks in health policies. Method: a reflective theoretical study, based on the scientific literature on theoretical concepts and legal frameworks of Health Care Networks. Results: the integration of health services is a response to the fragmentation of care, and has a multiplicity of concepts, principles and dimensions. Health Care Networks are revealed as a strategy for the integration of services and are an alternative in the qualification of care. National and international experiences indicate that networked care ensures greater effectiveness of health actions with multiple care based on a systemic integration. Conclusions: the conformation of Health Care Networks contributes to overcoming the vertical model. The structuring is based on the epidemiological profile and contributes to improving the care provided, overcoming care gaps and reducing costs.

Descriptors: Primary Health Care; Systems Integration; Health Services Coverage; Delivery of Health Care, Integrated

Resumo: Objetivo: discutir e refletir sobre as Redes de Atenção à Saúde, seus conceitos teóricos e marcos legais nas políticas de saúde. Método: estudo teórico reflexivo, baseado na literatura científica sobre conceitos teóricos e marcos legais das Redes de Atenção à Saúde. Resultados: a integração dos serviços de saúde é uma resposta à fragmentação do cuidado e possui multiplicidade de conceitos, princípios e dimensões. As Redes de Atenção à Saúde revelam-se como uma estratégia para integração dos serviços e são uma alternativa na qualificação do cuidado. Experiências nacionais e internacionais indicam que o cuidado em rede, garante maior eficácia das ações de saúde com cuidados múltiplos pautados em uma integração sistêmica. Conclusões: a conformação de Redes de Atenção à Saúde colabora para superação do modelo verticalizado. A estruturação é pautada com base no perfil epidemiológico e colabora para melhoria da atenção prestada, com superação de lacunas assistenciais e redução de custos.

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Introduction

The responsibility of Primary Health Care (PHC) in coordinating care and ensuring continuity of care has been the subject of discussion and reflection in the health field. For the current health situation, with the increasing incidence of chronic diseases and changes in the age structure of the population, a response from health services is necessary for the organization of a responsible, efficient and integrated referral system.¹

The International Conference in Alma-Ata indicated primary care as an integral part of the national health systems. Thus, they constitute the central function and the main focus with respect to the global socioeconomic development of communities. They should, among other functions, be supported by integrated, functional and mutually supported referral systems, leading to the progressive improvement of general health care for all, giving priority to those in greatest need.²

New ways of integrating health services have been proposed based on PHC strengthening, mainly through its coordination attribute, placing it as a structuring axis of the system.³ One of the integration proposals is the implementation of Health Care Networks
(HCNs), in which PHC assumes the role of a structural axis in the design and operation of these systems.4

The HCNs are defined as the services and actions that intervene in health-disease processes, based on different technological, logistic and management densities to ensure comprehensive care, improve access, equity, and the proposed effectiveness in the Unified Health System (Sistema Único de Saúde, SUS).4-6 In addition, the common objectives and cooperative and interdependent actions within participatory and democratic organizations, with sets of health services that offer continuous and integral attention to a given population, overcoming the fragmentation of attention and management of health services.4-6

Against this background, HCNs are considered the best strategy for addressing care fragmentation and public health problems,7 since the care models are different for both chronic and acute conditions.8 Although HCN conformation has been emphasized in health policies, there are some questions about its effectiveness and its contributions to PHC strengthening, such as: how can the difficulty in access to health services by the population be overcome?, or how to overcome the fragmentation of care involving managers, professionals and users of health services?

Considering these questions, this article aims to discuss and reflect on the Health Care Networks, their theoretical concepts and legal frameworks in health policies.

Integration of the health systems

The World Health Organization (WHO) conceptualizes integrated services such as preventive and curative services, continually offered over time to users at different levels of attention.9 The discussion about health systems integration arose in response to the fragmentation of care and the obstacles to be overcome to promote articulation between health services.10,11
However, the literature presents a multiplicity of concepts, principles and dimensions about the integration of the health systems. Thus, the integrated health services account for the health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care, according to the lifelong needs. In addition, those responsible for setting up and maintaining these services are intended to coordinate their interdependence to work on collective and coherent projects for the financing, administration, organization and delivery of services.\textsuperscript{11-13}

Although there are a variety of approaches and strategies for systems integration, the literature identifies ten universal principles for the integration of health services. These principles cover comprehensive services at all levels of the care continuum as well as patient focus, geographic coverage, and standardized care delivery by inter-professional teams, and service performance management. Also the communication systems, organizational culture, physicians integration in the team, governance structure and financial management, and, finally, elements that can be used by decision makers with the aim of integration.\textsuperscript{14}

In addition to the above principles, conceptual and taxonomic elements that allow for the understanding of the integration of health services are indicated, which include the type of integration (organizational, professional, cultural and technological); the level at which integration occurs (macro, meso and micro); the integration process (how integrated care is organized and managed); the extent of the integration (to an entire population group or to a specific group of clients); and the degree or intensity of integration (via a continuum ranging from informal liaisons to more managed care coordination and fully integrated teams or organizations).\textsuperscript{12-14}

The application of these concepts is an alternative for changing the care model for efficient and effective health services that prioritize PHC as a scenario of health co-production. This encompasses the need for a secure and integrated reference system. It requires clear
investment in new forms of care that must be consistent and have pre-defined rules, for example in the case of chronic conditions that require the simultaneous use of multiple services.

**Health care networks**

The first complete description of a regionalized network was submitted by the Dawson Report, published in 1920. In that context, changes were sought in the social protection system and the organization of health service provision in the United Kingdom after World War I, based on coordination between preventive and curative services.¹⁵

For Dawson, the territory would establish the organization of services, which should offer integral attention to the population, based on the characteristics of the system's "gateway". In addition, it would consider population distribution, means of transport, and established flows, varying in size and complexity, depending on the circumstances.¹⁵,¹⁶ The cases that could not be resolved in primary and secondary centers would be referred to a referral hospital linked to such services. The organization of the professionals would be integrated so that they could accompany the individuals assigned from the initial complaint to the return home.¹⁶

The Dawson Report was also responsible for introducing the territorialization of global health systems and indicating the need for articulation between public health and individual care. In the service organization scenario, it formulated the concepts on care levels gateway, bond, referral and coordination by the primary care. And above all, it considered integration mechanisms as information and transport systems.¹⁶

Networking was conceived as a response to ensuring access and quality to the entire population by providing services and adopting referral mechanisms. Therefore, regionalization should be based on territories compatible with self-sufficiency in health resources at all levels of care, subdivided into districts, sub-regions or micro-regions as a means for ensuring access.¹⁷,¹⁸
HCN conformation, as well as its importance for the qualification of health systems, is justified by the increasing incidence and prevalence of chronic diseases, which require the construction of integrality to intervene in the rising costs of health systems.\textsuperscript{4,17} Thus, it is understood that the provision of services should respond to the search for users’ needs, from the expanded look, which may benefit their health in their contacts with the different points of the system.

Network proposals in support of public policies have been increasingly adopted to overcome the hegemonic bureaucratic and hierarchical model, in the context of discussions of social issues, privatization processes, accelerated decentralization, globalization, proliferation of non-governmental organizations and strengthening public control.\textsuperscript{18,19} Thus, the reorientation of care models needs to include intersectoral actions and include discussions on the complex challenges of health production, with a comprehensive understanding of their problems in a regionalized way, articulating policies for promotion focused on a comprehensive care model.

**Conceptual elements of the Health Care Networks**

The HCNs are a way of organizing health promotion, prevention and recovery actions and services at all levels of care in a given territory.\textsuperscript{17} Thus, the integrality of care can be guaranteed by the construction of such actions, as well as health services with different technological densities and integrated through technical support, logistics and management systems.\textsuperscript{11} Therefore, the implementation of user-centered health services and their health needs should be the basis for the clear definition of referral services and information flows in the territory.

In its conformation there are three inseparable elements: population, operational structure and health care model. Regarding the population, it is placed under its sanitary and economic responsibility, and should be organized in the form of management, with emphasis on the management of health care provision. The operational structure consists of the “nodes” of the networks and the material and immaterial links that communicate these different nodes. Nodes are understood as the communication center, primary health care; secondary and tertiary...
care points; the supporting systems; the logistic systems and the governance system of the health care network. Finally, health care models are the third component of the HCNs. They can be conceptualized as the logical systems that organize their functioning, uniquely articulating the relationships between the population and their risk-stratified subpopulations, the focus of health care system interventions and the different types of health interventions, defined by situational health analysis.\textsuperscript{4,11}

In addition, actions may be taken to successfully implement the HCNs. In this context, it is possible to highlight the availability of professionals with training to work in the community and using the best scientific evidence in the treatment of the most prevalent problems; comprehensive and articulated health actions including surveillance, disease prevention and health promotion; and care management to ensure continuity through regulation of access and integration with other levels of care; availability of a range of services, including other medical specialties of higher prevalence when needed.

International evidence reinforces that the HCNs provide better health and economic outcomes of the health care systems, for example, in caring for people in palliative care,\textsuperscript{20} in evaluating inappropriate admissions,\textsuperscript{21} in the health of the elderly,\textsuperscript{21} and in mental health.\textsuperscript{22} Therefore, the construction of a broad health care network implies considering the level of care, due to the specificity of the services, the organization by specialty by life cycle or other criteria based on situational diagnosis.

**Care Networks Scenario in Brazil**

In the SUS, the modeling of regional health care networks is currently favored by the Management Pact, which aims to improve the effectiveness and quality of SUS management, with the definition of health goals. To this end, it should integrate health promotion, primary health care, outpatient and hospital specialized care, health surveillance and work management and health education into the changes in the health care model, aiming at regionalization.\textsuperscript{23}
This process requires cooperation between the municipalities of a given health region, in addition to the qualification of PHC as an organizing body of the system and coordinator of the care offered. Thus, all of the HCN components are important and differentiated by their technological densities, since the concept of hierarchy is replaced by that of polyarchy and the system is organized in the form of a horizontal health care network, having PHC at the center.\textsuperscript{4,11} The referral and counter-referral system, for example, is considered as one of the key elements for this organization. The use of a reference and counter reference form aims to provide useful information that contributes to the quality of care and communication among professionals.

Officially in the SUS, there are two legal frameworks for the HCNs. Ordinance No. 4,279, of December 30\textsuperscript{th}, 2010, which establishes guidelines for the organization of health care networks under the SUS and Decree No. 7,508, of June 28\textsuperscript{th}, 2011, which defines the HCN as a form of organization of health promotion, prevention and recovery actions and services integrated by means of technical, logistical and management support systems to ensure comprehensive care.\textsuperscript{5,6,11}

Thus, after the agreement between the Ministry of Health, the states and the municipalities, the conceptual consolidation and operational proposal points for the implementation of thematic networks in the health regions of Brazil were sought.\textsuperscript{5} In an initial moment, the HCNs were stipulated as a structuring policy of the SUS, the areas to be prioritized due to the epidemiological and care profile being discussed with states and municipalities. The efforts were concomitant with the desire to expand the scope of PHC, in order to make it resolute, by strengthening teamwork, expanding and enhancing the actions of professionals.

Subsequently, respecting the specificities of each thematic network, the phases for the implementation process were considered: diagnosis (situational analysis) and adherence (policy and technique with definition of the driving group); network design (agreement of flows, points
of attention and their missions); contractualization for care points; network element qualification and network certification. It is noteworthy that the greatest effectiveness of health actions is the constitution of more horizontal relationships, with multiple care based on a systemic integration between the various services, which now behave as interrelated points of attention and with permanent channels of care communication.

Thus, acting in these actions, accompanied by the management of clinical care, which is essential for HCN consolidation, requires that the participation of professionals may surpass the vertical care models, including social, managerial and administrative participation. In Brazil, studies focusing on the implementation of maternal and child care, puerperium, follow-up of children’s growth and development networks have been identified, in planning the actions of the Emergency Units (EUs) in the health services network. In this sense, regionalized and integrated health care networks offer a structurally more appropriate condition for achieving comprehensive care and reduce the costs of services by conferring greater systemic rationality in the use of the resources.

Although regulated, the challenge of consolidating the HCNs in the SUS faces the allocation of resources to meet care needs, the relationship between the spheres of government and their attributions in the context of health decentralization, intergovernmental management and integration into a care model, where PHC has centrality. It is understood that the bureaucratic and fragmented financing model is incompatible to enable planned, scheduled and agreed actions that contemplate the conceptual elements of the HCNs. To ensure this proposal, it is necessary to create formal contracting mechanisms, between regulators and service providers, in programming between services and actions at different care levels.
Conclusions

This article provided a reflective theoretical study on the HCNs and their theoretical concepts and legal frameworks in health policies. The concepts on health services integration, the history and conceptual elements of the HCNs were included. The integration of health services and systems has a positive impact on the quality of life of patients and their families, ensuring continuous and comprehensive care, improving treatment adherence and preventing the onset of health problems and adverse events. International experiences and priority axes in Brazil with their applications were listed. The HCN has been shown as a strategy for the integration of health services, providing an indispensable condition for care qualification and continuity. It is understood that the HCN is paramount in overcoming gaps in care, in the rationalization and in the optimization of the available resources.

The challenges for the consolidation of the proposal lie in the central role of PHC services and, above all, in the funding model. The production about the HCNs in the context of the SUS, still underdeveloped, may be a limiting factor in the scope of the reflections submitted in this article. The considerations herein submitted may contribute to the dissemination of relevant evidence for strengthening Primary Health Care.

References


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