

## Technological innovation from the perspective of health promotion and primary health care

*Inovação tecnológica na perspectiva da promoção da saúde e da atenção primária à saúde*

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Over the decades, the frequent social, cultural, political, and economic transformations have had a direct impact on health through their multidimensionality.

The Ottawa Charter of 1986, arising from the debate at the Alma Ata Conference in 1978, enhanced the knowledge about the health field, creating forms of dialogue with all countries about the potential and the need to think about and intervene in the health field taking into account the needs of individuals and communities. In a consistent and lucid manner, this charter has paved the way for a more effective and sustainable path for health systems, with an intense demonstration of the different health dimensions in people's ways of living. It has thus become evident that to obtain more positive outcomes to improve the quality of life of the populations, it is necessary to address issues related to social, economic, cultural, ethnic, and behavioral problems and to implement new alternative technologies for a new form of public health, with better outcomes that expand the provision of care services.

National health systems with universal coverage are the most humanized and dignified option for access to health. Their doctrinal principle is the extension of the coverage to all citizens and health equity. Primary health care (PHC) is the gateway to these systems, with open access to health promotion and disease prevention services and interventions, which are crucial for promoting individuals' well-being, healthy life, and work capacity while contributing to the economic and social development of a country.

PHC is a type of care organization in a transversal, shared, intersectoral way, with responsibility for access to quality and affordable care, strengthening health promotion, and providing home care. It addresses the unique problems of a community and offers appropriate prevention, treatment, rehabilitation, and cure services for each specific situation. It organizes and rationalizes the deployment of all resources (basic, specialized, and technological), namely processes directed at promoting, maintaining, and improving health (Starfield, 2002).

Concerning health technologies, the World Health Organization (WHO) published in 2021 a document called "WHO compendium of innovative health technologies for low-resource settings: COVID-19 and other health priorities", which addresses new concepts of health technologies to improve people's health and quality of life. In this compendium, *health innovation* is defined as aiming "to develop and deliver new or enhanced health policies, systems, products, technologies, services, and technologies to improve people's health." (WHO, 2021, p. 9).

Health technologies comprise a set of techniques, knowledge, medicines, materials, equipment and procedures, organizational, educational, information, and support systems, and care programs and protocols, through which health care is provided to the population. They are divided into product and process health technologies depending on the action to be performed. Process technologies include professionals' technical and scientific knowledge, the ability to listen and the quality of the conduct, guidance, counseling, monitoring, information, home visits (development of bonds and relationships, autonomy, welcoming, and management of work processes). Product technologies include machines, instruments, equipment, examinations, medicines, and standards. Discussing technology is not only about discussing equipment, devices, or the modern and the new, but rather discussing effective procedures of specific knowledge areas and their purposes (Merhy, 2002). The way we approach people, our patients, with their own histories and ways of

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living and understanding the health/disease process is as important as a piece of equipment, especially because of the social determination of health that directly influences the access of this individual to several goods, services, and information.

Having teams with doctors and nurses does not improve the health practices or the integrality of care, that is, the care model is not a guarantee of success *per se* but rather a possibility to improve the quality of health interventions, as long as they are refined. It should be noted that health services utilization is at the core of health systems functioning, and professionals usually define the type and intensity of resources needed to solve health problems (Travassos & Martins, 2004).

Health organizations operate within fields of tension:

the production of health acts as living work in which soft relational technologies predominate over hard technologies, equipment and structured knowledge, and it is precisely this characteristic that opens great possibilities for strategies that allow the development of new values, understandings, and relationships. (Merhy, 2016, p. 68)

Health technologies refer to everything that is used as a tool to provide care to people, and, in this way, professionals themselves can be considered a technology in their interactions.

Living work in action invites us to look at two dimensions. One dimension is that of the activity as a producer of products and different types of goods, which is linked to the purpose of the product (what it is for, what needs it satisfies, what use value it has). The other dimension is linked to who produces the act - the workers - and their relationship with their productive act and products, as well as their relationships with other workers and the potential users of their products. Detailing these two dimensions is essential to understand health work as social practice and technical practice, as a productive act of things and people (Merhy, 2016).

From this perspective, it is important to distinguish between process and product health technologies and identify their value for primary care and the advancement of care models and the NHS. In several countries, to a lesser or greater degree, health systems, although inserted in market economies, have been strongly influenced by public policies with diverse perspectives, as well as by the strengthening of the role of their professionals and users who, together, exert strong pressure for the incorporation of new technologies. The development, incorporation, and use of technologies in health systems and their sustainability is part of social and economic contexts that derive from the continuous production and consumption of goods and products (Almeida, 2012; Paim, 2019).

Strategies and analysis of different experiences lead to the discovery and exchange of health technologies to promote technological innovation in the health field of the NHS and PHC regarding the operation, organization, and quality of health services and the quality of life of the populations.

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