

# Chapter 4

## Innovation in the Health System: Evidences from Brazilian Local Production and Innovation Systems

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### ABSTRACT

*This chapter discusses the main findings of five empirical studies focusing on local health innovation systems in Brazil. It focuses on the articulation of service and manufacturing segments within the Health complex and the other organizations that constitute a Local Innovation and Production System (LIPS) and discusses the learning, capacity building and innovation processes and their effective and potential impact on the local territory. The findings suggest that the types and intensity of interactions are closely related to the characteristics of what can be called a local cognitive territory. The directions of capacity building and scientific and technological evolution are directly influenced by conflicts among individuals and groups. The influence of these power relations, which are often associated with diverging private and public (collective) interests, highlights the importance of the institutional and policy dimensions for mediation and for promoting an evolution of the system that favors social inclusion and efficiency.*

### INTRODUCTION

Health and, specifically, the service and manufacturing segments of the health complex are of central importance for development at the national, regional and local level. This importance is related to two general vectors of development: on one side health figure as a structuring factor of the Welfare State (life quality and citizenship), and on the other side it is a major driver of economic growth, given the mass consumption characteristic of health products and services, as well as its potential for job creation, investment and innovation.

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This is especially relevant in the case of Brazil where the 1988 constitution guaranteed universal and integral access to health treatment for the entire population. Given its almost 200 million inhabitants, it constitutes the biggest universal and integral public health system in the world. Thus, the analysis of health from a development perspective cannot be exclusively subordinated to the logic of industry competitiveness. Both from an analytical point of view and from a normative one, the health system must be understood from a dual perspective that encompasses economic competitiveness and its dimensions as a public and social essential service. This involves criteria of availability, access and quality. The state plays a fundamental role, not only for introducing active policies aimed at strengthening the technological production base, as well as for ensuring the convergence with social objectives.

Reducing interregional and intraregional inequalities figure as one of the main goals of the Brazilian development policy. The trend towards concentration of the manufacturing activities within the health industry that occurs on the international sphere is reproduced within the country. Thus, recognizing and mobilizing the productive, scientific and technological potential related to health in different states, counties and micro-regions of the country is a key goal.

A territorial approach to the health production and innovation system allows using the capillarity health services have to stimulate the territorial diffusion of productive and innovative activities and to articulate the economic and social dimensions of development. If, on the one hand, health services are relatively evenly spread across the territory, the same is not true for the manufacturing segments, nor to the process of generation and dissemination of knowledge and innovation. Recognizing the territorially and socially rooted dimension of learning process and the generation of innovations, health offers a potential to make transformations that are relevant and related to the needs and opportunities of each local territory.

Thus, the focus of this chapter is to discuss the empirical evidences related to the processes of learning and innovation in healthcare production/service provision activities in a local territorial dimension. The empirical findings come from the research project “Health and Innovation: Territorialization of the Health Economic-Industrial Complex” where five different cases were analyzed.

These studies were based on the analytical and methodological framework of Local Innovation and Production Systems (LIPSs), which emphasizes a systemic perspective for the analysis of social processes in a specific territory. The cases cover five different states of the country, offering a broad and diversified set. The findings from these studies converge to form a complex mosaic of issues that are of central relevance for the territorialization of the health system. Therefore, we focus on those aspects that represent general implications that may help to advance on federal and state policies for health system on a territorial sphere.

The text is structured in five sections. The first one discusses the conceptual framework for the analysis of health production and innovation systems. The second section offers a concise overview of the five cases. The next section discusses the findings related to the learning and innovation processes. The fourth section focuses on the institutional dimension that influences the development of these local cases. Finally, the conclusion addresses some policy implications.

## **HEALTH INNOVATION SYSTEMS**

The Brazilian industrial policy directed to the health industry has been carried out in the last decade under the header of the Health Economic-Industrial Complex – HEIC. It encompasses both manufactur-

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