INTRODUCTION

Just over a decade after the Brazilian government instituted a constitutional health care reform in 1988 granting integrated, equitable and universal health, the government illustrated its commitment to disease prevention and control with the enactment of the Sistema Nacional de Vigilancia Sanitaria — SNVS (law 9.782/99) and subsequent creation of the Agencia Nacional de Vigilancia Sanitaria — ANVISA. Despite a historical movement towards health surveillance as early as the turn of the 20th century, it was not until the restructuring of the health system in the late 1980s and ensuing political and social participation that the concept of health surveillance was institutionalized in Brazil. Prior to 2001, health surveillance only existed as the oversight of health services and products, yet with the creation of ANVISA, the federal entity within the SNVS with the mission to promote and protect the community’s health, health surveillance became an independent and autonomous component within the greater public health system in the country.

Given that nearly 10 years have passed since the conception of ANVISA, leading researchers, professors and workers in health surveillance have come together to reflect upon the past, present and future trajectory of health surveillance in Brazil. The authors comprising the volume, Vigilancia Sanitaria: Desvendando o Enigma, edited by Ediná Alves Costa, provide a comprehensive analysis of both the historical development in the 20th century as well as the current state of health surveillance in the country. The compilation is a result of a technical

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partnership between the Federal University of Bahia, the Collective Health Institute and ANVISA illustrating the history between the academic and service fields.

Enhancing the ongoing debates on the strategies and effectiveness of health surveillance, the book posits to clarify the enigma of health surveillance, as it involves health risk, protection and promotion. Moreover, Costa attempts to place health surveillance within a larger intersectorial and international setting, highlighting the connections between overseeing health risks and social and economic policies, thereby demonstrating the importance and relevance of health surveillance. While Costa presents the concepts intermittingly, the authors expand upon the following general themes: the conceptual framework of health promotion and epidemiological vigilance, the use of scientific knowledge in the decision making process and the current application in Brazil. Overall, the book is a solid introduction to health concepts and health surveillance in a Brazilian context, though it is evident that the intended reader is someone with a public health background.

This article analyzes each contributing authors’ concepts in the following sections: a) the conceptual framework of health surveillance; b) health surveillance in Brazil: from reform to ANVISA; c) scientific knowledge in the decision making process and d) practical applications of health surveillance. These sections are followed with the final reflections of the text.

**THE CONCEPTUAL FRAMEWORK OF HEALTH SURVEILLANCE**

Acting as a theoretical foundation to understand health surveillance, four articles discuss various fundamental theories or concepts. Naomar de Almeida Filho writes on medical anthropology theories, Volnei Garrafa focuses on ethics, Carlos Machado de Freitas explores the idea of risk, and Eliseu Alves Waldman and Fabiana Ramos Martin de Freitas delineate epidemiological vigilance. While it is beneficial if the reader has prior knowledge of the pillars of medical anthropology, ethics and epidemiology, the authors sufficiently explain frameworks to facilitate understanding the complexity of health surveillance.

The book begins with a well-structured summary of the fundamental theories of medical anthropology describing the subtle differences between sickness and illness and the varying types of prevention specific to individual or collective levels of health. In order to model health promotion, Almeida Filho delves into the local construction of disease and the imaginary and symbolic elements of which it is composed and how this production of knowledge influences the collective health. In addition to the semantic demarcation of health hypothesized by Kleinmann, Young, Bibeau, Corin and Canguilhem, Almeida Filho presents the principal elements of health.
promotion, dividing it into three strategies — prevention, protection and promotion — and showing how health surveillance encompasses multiple roles within the health sector and moves beyond the medical assistance paradigm.

Considering the incorporation of equitable health into the constitution, Garrafa illustrates the theories and conceptual definitions of ethics, responsibility, equality and equity. Garrafa defines equity as “the disposition of equally recognizing the right of each person” and equality as the “point of arrival of social justice,” and also argues that in order to have equity you need equity first. Moreover, the author asserts that equity, along with responsibility and justice, is one of the necessary ethical concepts that should be a factor in health surveillance. Indeed, Garrafa’s argument that ethics is a vital component to any scientific knowledge or technique, and even as a tool for prevention, is an important observation.

In addition to implying uncertainty and the probability that something will occur, the concept of risk is associated with prevention and control, and thus is of concern when discussing health surveillance. Machado de Freitas attempts to clarify the complexity of risk itself, risk evaluation and the dilemma that scientific advances may reduce some risks and produces new ones by explaining the ideas by way of a utilitarian paradigm. The author concludes that effective evaluation and risk management requires an integrated approach addressing the multifaceted characteristic of risk. Furthermore, taking into account the difficulty of defining an abstract idea, Machado de Freitas provides the reader with multiple ideas to begin to think about risk in a more concrete manner.

Subsequently, Waldman and Martin de Freitas define the concept of epidemiological vigilance, interpreting effective vigilance as the ability to measure risks and construct a continuous database that can be used in the planning, implementation and evaluation of public health interventions. Moreover, the authors perceive its main functions to be creating and revising technical databases used in epidemiological control, identifying knowledge gaps and constructing the point of articulation between service provision and research. Additionally, Waldman and Martin de Freitas depict a disease eradication campaign in the 1970s to exhibit the history of health surveillance in Brazil, where in which health surveillance gained importance within the medical field. Considering the previously elaborated section on the functions of health surveillance highlighting the importance of risk assessment and the use of databases, it would have been interesting for the authors to link the ample examples they mention to the concept of epidemiological vigilance and its purpose more directly.

**HEALTH SURVEILLANCE IN BRAZIL: FROM REFORM TO ANVISA**

Focusing on different but interconnected components, Jairnilson Silva Paim, Carmen Fontes Teixeira, Edina Alves Costa and Luis Fernandes de

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Souza provide a well-rounded account of health surveillance within the Brazilian context from the beginning of the health reform of the 1980s to the current situation in the country. Paim concentrates on the theoretical background of the Brazilian Health Reform and ensuing medical and prevention paradigms; Teixeira and Costa center on the evolution of the Sistema Único de Saúde (SUS) since the 1990s; and Souza contemplates public administration reform in relation to ANVISA. These chapters highlight the complexity of health surveillance as a model and the difficulty of incorporating prevention into a medical assistance paradigm.

Paim presents a clear historical account of the incorporation of health surveillance into the health sector beginning with the Brazilian Health Reform of the 1980s that culminated in constitutional changes, in which health became a guaranteed right to all citizens. Within a medical assistance paradigm, health surveillance took on the role of risk control, otherwise denoted as health protection or the reduction of risk. Nevertheless, health surveillance serves the dual purpose of both protecting and promoting health as it also encompasses advocacy and defense of health with the production of health policy. Reflecting on the limits of a medical based model, Paim argues that a particular intervention program must not only treat the specific ailment, but identify the determinants of health in a given population so as to protect and promote the health of the cohort. Moreover, the author concludes that the health surveillance model can be used to defend health given that it incorporates prevention, promotion and protection of health, not just treatment.

Teixeira and Costa depict the legislative norms and evolution of the SUS and medical treatment paradigm during the 1990s, a decade of debate that lead to the creation of a government agency, ANVISA, specifically focusing on health surveillance in 2001. According to the authors, the debate surrounding health surveillance in the early 1990s consisted of 3 models: a) health surveillance as an analysis of health situations, b) health surveillance as a proposal of institutional integration between epidemiological and health control, and c) health surveillance as a proposal to redefine prevention and health practices. At the core of the debate, was, and arguably still is, how to incorporate the main constitutional guarantees of integrated, equitable and universal health into the management and organization of the national health system. The authors conclude that, despite political advancements, a social shift incorporating health prevention, promotion and protection has yet to fully occur in society suggesting that considerable work is needed to produce a social change.

Viewing health surveillance from a broader perspective, Souza discusses the public administration reform that took place at the same time as the health reform during the re-democratization and neoliberalization process of the 1980s, noting the importance of placing public health within a larger political agenda. Souza describes 4 models of “new public administration”
focusing on efficiency, downsizing and decentralization, bottom up and top down, and accountability that were used in a study of the British health system. By proposing to apply these models to the Brazilian case and pointing the reader to previous papers that involved ANVISA more specifically, Souza indicates that there is considerable research that could be done using ANVISA as a case study.

**SCIENTIFIC KNOWLEDGE IN THE DECISION MAKING PROCESS**

Building upon the concepts of state responsibility, citizenship, epidemiological risk and scientific knowledge, Sueli Gandolfi Dallari, Mauricio Barreto and Dina Czeresnia offer varying perspectives of the vital role of scientific knowledge in the development of and protection of health surveillance. While Dallari and Barreto explore the relationship between state responsibility and knowledge, Czeresnia considers the importance of data through the lens of risk evaluation. The combination of the investigative areas formulates a strong argument in favor of the necessary use of scientific knowledge in the formulation of policy related to health.

Noting the constitutional recognition that health is linked to social and economic policies, Dallari asserts that the dissemination of scientific knowledge is necessary for effective governance and as a tool to decrease the “democratic deficit” embedded in the model of health surveillance. Dallari describes the evolution of the concept of responsibility in Brazil, illustrating the way in which the State incorporated mechanisms of health promotion and protection within the constitution. Interestingly, one of the pillars of the health care reform and ANVISA, decentralization, is also a noteworthy challenge in the realm of accepting and implementing responsibility. Dallari affirms that the “autonomy reached by the agency (ANVISA) simultaneously puts at risk the democratic control,” explaining that often times political responsibility connotes administrative irresponsibility. Therefore, the act of distributing scientific knowledge counters this lack of credibility by informing the public and promoting effective social participation in the decision making process.

Scientific knowledge not only empowers the public to enact their rights as citizens, but also affects the State’s strategy to implement decisions that have the greatest impact. Adding to the previously mentioned idea of State responsibility, Barreto argues that with the State’s increasing responsibility in formulating and executing effective health policies, the State has also become a top consumer of scientific knowledge. As one of the government’s functions is to regulate and monitor the possible adverse effects of risks, knowledge becomes a necessary element to make an informed decision. Nevertheless, Barreto notes a peculiar dilemma especially relevant to smoking policy that even in cases where there is sufficient data to influence a decision that will
protect the public’s health, the government may not have to the capacity or the political will to follow through with a decision based on the information.

While Barreto presents a thorough analysis of research and development, one area that could have been further explored is the role of political lobby or strategic advocacy in the creation of knowledge or data. This adds another layer to the dilemma he describes, as biased data can influence the decision-making process just as much as impartial information. Thus, the inclusion of data favoring an industry rather than the health of the population could have a similar effect as the government inaction that forms the second part of the dilemma.

In addition to explaining the origins of and limits to epidemiological risk, Czerensnia proposes that the main challenge of using knowledge is that it remain connected to the elements the information is meant to address. Moreover, it is important that the construction of knowledge occur both because of necessity and the demand from concrete problems. Also, Czerensnia asserts the comprehension of problems and the evaluation of risk calculation associated to them becomes a vital component in the decision-making process.

**PRACTICAL APPLICATIONS OF HEALTH SURVEILLANCE**

Contributing to the ongoing debate of the role of health surveillance in the legal and health sector, Costa explores the subject matter from the perspective of the health surveillance employee. While health surveillance has diverse action points, it is dependent on legal norms, serves a regulatory function, and requires the Police Power to impose its norms. After examining the legal nature of health surveillance, Costa posits that the work force involved in regulating health should be comprised of individuals representing multiple professions, thereby accurately reflecting the complexity and variability within the field. Nevertheless, the author notes the ever-present predicament of health surveillance in a medical assistance paradigm, citing that although inextricably linked to the health sector, health surveillance is often times not included in social control. Ultimately, it is important to take into account that the health surveillance worker is a link between treatment and prevention.

**FINAL CONSIDERATIONS**

One of book’s objectives is to contribute to the current academic and professional debates regarding the purpose and function of health surveillance within a medical assistance model. Indeed, the editor succeeds in organizing a collection of articles that, in conjunction with one another, represent a current
overview of the ideas and concepts in these debates. Furthermore, as the title of the book establishes, the purpose of this compilation is to reveal the enigma of health surveillance, suggesting that the contributing authors intend to use this text to explore rather than provide definitive answers. Moreover, considering that health surveillance is a relatively new institutionalized entity in Brazil that is still in flux, it comes as no surprise that the chapters leave the reader asking more questions.

Showing the complexity of health surveillance, one aspect of the volume that can arguably be seen as a critique or a merit, is that the authors define health surveillance somewhat differently. This mirrors the versatility of the field and exemplifies the notion that it remains a rather novel area in which there continues to be much debate. Nevertheless, I believe that it would have been useful for the editor to perhaps offer a general explanation of the role of health surveillance for which the other authors could build upon. Additionally, while the volume does an excellent job of describing the historical developments of health surveillance, the text falls short in analyzing possible future applications or foreseen changes in the health system. This would have been a beneficial component to the compilation, as it would have provided a practical examination of where health surveillance may be in the upcoming decades.

Taken as a whole, the book is a good demonstration of where the research in relation to health surveillance in Brazil stands today, as well as the areas that have yet to be fully examined. For instance, the final chapter illustrates the void in the literature regarding the application of the public administration reform to the specific case of ANVISA. While not explicitly divided into sections, the chapters do provide a framework for understanding health surveillance both in a conceptual and practical manner. Therefore, the book is a concrete introduction to the topic offering a rich compilation of multiple points of views and perspectives of leading researchers and professionals in health surveillance in Brazil.