CHAPTER 4

Public Health Policymaking, Politics, and Evidence

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1 Introduction

In this introductory chapter, we discuss the ways in which the public health community tends to understand the intersections of scientific evidence, policymaking, and politics in its pursuit of protecting and promoting the public's health. This is a rather daunting task, not only due to the heterogeneity of perspectives on these matters but also because the work of public health is accomplished by many individuals from several types of organizations. For our purposes, we take 'public health community' to include a range of actors, including public health researchers (e.g., epidemiologists, health promotion scholars, bioethicists, economists, etc.), advocates working in public health-oriented organizations, professional staff (e.g., nurses, nutritionists, community health workers) working in public health agencies, and medical officers of health

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affiliated with government and public health agencies. Put another way, public health is an applied field in service of achieving specific outcomes.

Our shared interest in public health is derived from diverse perspectives. Over the last twenty years, Kothari has conducted public health services research in partnerships with public health agencies and decision-makers. She has focused on how these programs are organized in response to legislated mandates; often these arrangements aim to support health equity. Kothari's academic background involved training in health research methodology, population health, and health policy and services. Smith's research is primarily in the area of public health ethics, where he bridges moral and political philosophy and social science methods to examine the pursuit of health equity and social justice in public health, particularly in the context of infectious diseases. Smith's academic background involved training in public health, moral and political philosophy, health law, and bioethics.

Understanding how health is conceptualized and how public health functions is a useful place to start the discussion. It is a common view that health is more than the absence of disease or good physical health for everyday functioning. The elements of health include considerations of physical, social, mental, and spiritual wellness. The public health system tends to work within this holistic framework in its pursuit of protecting and promoting the health of community members. These broad goals are achieved through surveillance and epidemiology; infectious disease detection, outbreak investigation, response, control, and elimination; environmental health; control of risk factors for non-communicable diseases; immunizations; emergency preparedness and response; health promotion and education; and oversight of some clinical services (Bloland et al., 2012). Underlying these functions is a strong mission to promote health equity and limit unjust health disparities. Public health research plays a dominant role in the functions described above through describing the scope of the problem and generating viable solutions.

In the rest of this chapter, we describe how we see the public health view of evidence, policymaking, and the role that research evidence plays in the making of public health policy. We conclude with some reflections on what public health can offer political science and where those fruitful interactions between public health and political science might occur.

2 How Does Public Health Understand Evidence?

Public health has a complicated relationship with evidence. Like medicine and other health sciences, public health strives and purports to be 'evidence-based' (Water & Doyle, 2002), propped up by epidemiology, the putative 'basic science' of public health (Krieger, 1999). Like other health sciences, an orthodoxy regarding a hierarchy of evidence dominates, privileging evidence generated via randomized controlled trials, systematic reviews, and meta-analyses (Cairney, 2016; Parkhurst & Abeysinghe, 2016). Public health decision-making 'grounded' in the evidence base and its hierarchy of evidence has a veneer of steering clear of value judgements and other forms of evidence prone to bias and error and tends to obscure the political and ethical dimensions of public health decision-making (Goldenberg, 2006). Explicitly grounding decisions in values or other forms of knowledge may be criticized as being overtly 'politicizing' public health decisions, where decisions should instead be 'based on the evidence'.

Yet, by virtue of the nature of public health challenges and the interventions necessary to address them, it is often not possible to conduct randomized controlled trials to make causal inferences or evaluate public health interventions (Frieden, 2017; Kemm, 2006; Raphael, 2000; Victora et al., 2004). Evidence-based decision-making in public health is therefore challenged by the fact that causal interactions often cannot be adequately identified, evidence may not be available, and/or decisions often need to be made early and quickly in order to avoid significant harm to the public's health (Kriebel & Tickner, 2001).

As a partial consequence of these deficits and associated uncertainty, the precautionary principle has enjoyed some prominence in public health decision-making. While there is no consensus definition of the precautionary principle nor agreement about when and how it ought to be applied in public health, the principle generally suggests that a lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent harms when there are threats of serious or irreversible harms to the public's health (Report of the UN Conference on Environment and Development, 1992). For instance, two Canadian judicial inquiries, the Krever Commission of Inquiry on the Blood System in Canada and the Campbell Commission following the outbreak of Severe Acute Respiratory Syndrome (SARS), recommend

the use of the precautionary principle to guide Canada's response to public health threats (Campbell, 2004; Krever, 1997). Similar calls were made in relation to the public health response to the Coronavirus 2019 (COVID-19) pandemic (Crosby & Crosby, 2020; Ferrinho et al., 2020). Yet, it is unclear how public health as a field reconciles commitments to evidence-based decision-making with the reality of decision-making that must invariably engage with political and ethical values in contexts of uncertainty.

While evidence-based decision-making and the evidence hierarchy is prominent in public health, some embrace a wide range of disciplinary approaches as constituting public health's 'basic sciences', ranging from political science and sociology to anthropology and economics (Savitz et al., 1999). Others embrace the role of the humanities in public health (Saffran, 2014). And while evidence is still considered important because evidence helps to support justifications for decisions, much like in medicine and other health sciences, the concept of evidence-based decision-making and the evidence hierarchy is problematized from these other disciplinary perspectives (Parkhurst & Abeysinghe, 2016). Given that a number of considerations and outcomes are important to consider in policy debates, a shift has occurred in recent years to acknowledge that evidence is necessary but not sufficient in public health decision-making (Guyatt et al., 2000) and that public health should aim instead to be evidence-informed (Parkhurst & Abeysinghe, 2016).

3 How Does Public Health Understand Policymaking?

Evidence-informed decision-making (EIDM) continues to promote research findings as a major driver of policy by citing the advantage of public accountability and transparency in policymaking. EIDM gained widespread acceptance in the health sciences where proponents suggested that more effective policies and programs, ideally based on systematic reviews of research, would emerge through this approach. This rational approach to policymaking was met with some criticism from both the research supply side and the policymaking demand side. In terms of the former, the way that researchers designed research studies did not lead to findings that answered policymakers' questions about optimal solutions, their local application and implementation; the appropriate research was

not available for health systems. In terms of the latter side, multiple influences (e.g., public values) and actors exert pressure on policymaking in the real world.

This view of policymaking intersects with the role of public health—to promote health and prevent disease—and the mechanisms by which to carry out this role. Sometimes public health programs, like a seniors fall prevention program, are introduced locally to address specific community needs. Other times, passive, regional-level strategies that use standardization and legislative enforcement keep communities safe, such as water quality standards or mandatory seatbelt laws. Public health practitioners and researchers intersect with the policymaking process when trying to advocate for this type of legislation, and research findings are the predominant tool used by the public health community in these policy discussions given the strong belief in research evidence as the main justificatory condition for policies. Public health researchers, including epidemiologists and social epidemiologists, can readily establish that a health problem exists and can describe the scope of the problem using research that is timely, accurate, and high-quality. Even complicated issues, like those related to the social determinants of health (e.g., vulnerable circumstances), such as housing or public transportation, can be easily characterized by public health researchers. The challenge comes when trying to 'sell' a public health solution, whether narrow—restricting the availability of alcohol—or broad—implementing a Health in All Policies approach (Crammond & Carey, 2017)—in part because public health researchers may tend to have a simple understanding of the policy process and how to influence it.

This raises the question of why most mainstream public health researchers have limited knowledge of concepts like policy networks, institutions, interests, policy theories, and the like. One possible explanation might be attributed to the policy receptor capacity for public health research. That is, governments might have little time or space to consider the findings from public health research, and thus attempts to determine how to 'break in' to policy discussions might be fruitless. The public health sector competes with resource allocation demands from acute care, long-term care, and community-based health services. Not only is public health typically assigned the smallest portion of the health budget compared to other types of care and services, but it is also a relatively weak lobby group (Vernick, 1999). For example, patients or service recipients can band together to demand more supports for dementia care but recipients of public health services are unlikely to form a pressure group for a

condition that was prevented. Similarly, the health professional workforce caring for those with myocardial infarctions will have more clout than their public health counterparts when demanding funding for treatments. Notwithstanding a pandemic or environmental disaster, there are fewer compelling reasons for policymakers to think of public health researchers as anything more than technical experts along with the other technical experts they may wish to consult.

Critical public health scholars, on the other hand, are one of the exceptions to the generalization that mainstream public health researchers have a weak understanding of policymaking. Critical public health scholars focus on and interrogate the structural determinants of health, including the 'political determinants of health', e.g., the effects of neoliberalism, austerity, and income inequality on health (Viens, 2019). Scholarship in the political economy of health, dating back to the 1970's and historically rooted within the Marxian tradition (Harvey, 2020), has examined the relationship between health and, for example, the production and distribution of wealth and issues of capital accumulation and the organization of labor (Raphael & Bryant, 2006). Central to work in the structural determinants of health, political determinants of health, and political economy of health is the examination of political and social forces that create and exacerbate social inequalities, resulting in health inequities (Kittelsen et al., 2019). However, some have argued that political determinants have received less attention in public health scholarship relative to other social determinants (Mishori, 2019), and others still have argued that limited empirical research has sought to study the relationship between political variables and health outcomes (Mackenbach, 2014). In other words, critical public health scholarship acknowledges the political, economic, and social forces that impact the public's health, including the ways in which these forces manifest within the policy process. This has, in turn, led to a greater appetite to understand and interrogate the messy processes of policymaking, in contrast to mainstream approaches that continue to believe in the rational evidence-to-policy model of policymaking. Though, it is important to note that not all critical public health scholarship advances this aim; while critical public health scholarship may engage with the role of politics and power in public health (e.g., the role of neoliberalism, austerity, etc.), this does not necessarily include an understanding and interrogation of the intricacies of the policymaking process itself.

Understanding both the extent of the structural problem and possible ways to alleviate health inequities requires untangling a web of interdependent, multilevel factors with far-reaching and lasting—often intergenerational—effects. These discussions inevitably consider the distribution of power (Harris et al., 2020; Popay et al., 2020), the politics of science and the research evidence (Schrecker, 2017), and, to advance public health action, critical public health scholars may also have established relationships with policymakers. Thus, there is a small sub-population of public health researchers who are entrenched in discussions about health outcomes and policymaking.

4 How Does Public Health Understand Politics?

In characterizing the extent and ways in which public health understands and engages with politics and political science, in the discussion above we identified two poles between which a gradient exists. At one pole, public health is viewed as apolitical and purposefully divorced from thinking about or engaging with politics. At the other pole, public health is viewed *as* politics (Sundin, 2019). Both poles no doubt exist in public health scholarship and practice, though we suspect the majority of public health policymakers, practitioners, and researchers fall somewhere in between.

On one end of the spectrum, public health is viewed as a value-neutral scientific endeavor that is, and perhaps ought to be, divorced from politics and political realities given the view that engagement with politics 'distorts' or in some way 'biases' otherwise 'objective' scientific quests for public health 'truths' (Brown, 2010; Fafard & Cassola, 2020; Krieger, 1999). This corresponds to a long-standing phenomenon in areas of scientific inquiry where research is conducted in a manner that intends to be (and often purports to be) 'unadulterated' by variables considered to be exogenous to science (Proctor and Proctor, 1991). For some, it may be this positivistic view of public health research that is seen as constitutive of what it means for public health to be 'evidence-based'. On this view, the value and extent of political analysis may be limited to evaluation of political interference and the 'political will' to actually do what the evidence suggests as being the proper course of action, as discussed in Chapter 3 (Greer, 2022).

On the other end of the spectrum, public health is viewed as inextricably political; power is exercised over health as part of a wider political, social, and economic system, (Bambra et al., 2005) where health is

influenced by different ideological positions, power constellations, and interests (Kickbusch, 2015). Inattention to politics on this critical view would be to ignore that which exerts profound influence on the public's health. This view of public health has a pedigree dating back at least 170 years to Rudolf Virchow and his oft-cited argument that medicine—and here we might include public health as well—is a social science and politics is nothing else but medicine on a large scale (Ashton, 2006; Mackenbach, 2009).

The state's influence on people's lives is deep and pervasive, and the state's role in protecting and promoting public health is no exception. Consequently, precisely how the authority of the state ought to be tamed and justified—a common thread in political science—has been the subject of much scholarship in public health ethics, a sub-field of bioethics. Philosophers and others in this space have drawn upon and generated political theory to answer questions about what justice requires for the public's health (Daniels, 2007), how state intervention for the sake of the public's health can be justified (Jennings, 2003) and even which political theories ought to be used to justify and guide public health activities (Jennings, 2007; Latham, 2016; Powers et al., 2012).

There is wide variation in how public health engages with politics in practice. For instance, academic public health researchers may seek to understand epidemiological trends with the hope that generating this knowledge will be taken up by public health officials in future public health programming or policy. In this role, the academic public health researcher may be more distal from the practice of policymaking and the political dimensions of public health decision-making. This corresponds to a wider phenomenon in science where 'basic' questions in science are studied with little attention paid to whether and how knowledge generated will be taken up in policy or practice (Glasgow et al., 2003; McAteer et al., 2019). With that said, it is common for research funding mechanisms to require researchers to articulate their plans for knowledge translation and exchange and even that they embed 'knowledge users' (e.g., policymakers or decision makers) in research projects. Consequently, it is increasingly likely that public health research is being funded with an explicit, if weakly articulated requirement to focus on whether and how knowledge generated from that research might be used in practice, and in particular, to shape public health policy. This creates pressure on public health scholars to develop at least a cursory understanding and engagement with the policymaking process. Some researchers have

observed, however, that traditional knowledge-to-action strategies, which public health scholars will inevitably turn to, are geared to practitioner audiences and may not be directly transferrable as effective knowledge translation strategies for policymakers (Fafard & Hoffman, 2020).

On the other end of the spectrum, public health authorities, such as medical officers of health, are senior officials of governments who often work directly with political leaders. As government officials, while their role may be construed as a voice of science in government, medical officers of health must navigate the political environment in which their expertise and leadership are sought, and therefore often must be politically astute to achieve their goals (Fafard et al., 2018; MacAulay et al., 2021). The upshot is that some working in public health will be far more familiar with, and engaged with, the political dimensions and realities of public health by virtue of their close engagement with decision-makers.

5 How Does Public Health Understand Community in Conceptualizations of Evidence, Politics, and Power?

At the start of this chapter, we noted the applied nature of public health. At its core, the field likes to say that it is driven by community needs. Consequently, the community lens plays a central role in shaping conceptualizations of policymaking and evidence. We talk about 'community' as made up of members of the public to whom a public health agency provides services and have an interest and a duty to understand such that services reflect local values and concerns. This is not to discount residents of the global health community, who also experience health risks and suffer from public health-related conditions, but the discussion in this chapter is particularly applicable to those who live within geographical boundaries associated with legislative mandates for which public health agencies are responsible for fulfilling. This implies that there might be regional or state level agencies who work with specific communities while in parallel a national public health agency will accomplish its work with the larger, country-wide community. The 'community' will benefit, either directly or indirectly, from public health activities.

The intersection of evidence and community plays out in at least two ways. First, those in the public health field who are staunchly evidence-based following the research hierarchy tradition, will seek to understand

community health needs to then identify priorities and appropriate solutions or interventions. Classical epidemiological tools will dominate this path. On the other hand, many mainstream public health researchers along with critical public health researchers take up a broader view of evidence. This alternate path requires that epidemiological studies are balanced with local problems and needs *generated from the community*. Essentially, this community lens invites considerations of values and experiential knowledge into how evidence is produced and how evidence is discussed. In this way, health problems and interventions take on their contours in the context of communities. Critical public health researchers may take this even further with attention to power dynamics and the political determinants of health.

Second, not only do local problems and needs derive from the community, but the public health community engages with its constituents in multiple ways. There is a strong tradition in public health practice of 'being political' at the local or regional level through consultation and coalition building, which often includes research activity, as seen through empirical examples discussed in Chapter 6 (Clavier et al., 2022). This makes space for otherwise excluded experiences and perspectives into decision-making structures. There are several examples of grassroots partnerships and advocacy that have forced higher levels of government to act, sometimes on pragmatic grounds, or to achieve consistent standards, e.g., outdoor smoking control policies. While these activities are carried out without formal political science theories or insights in mind, we could discuss at length how these activities emphasize power relations (e.g., working with marginalized sectors of the community); collaborative research (e.g., the democratization of science); group decision-making (e.g., inter-agency collaborations for resources sharing); or other issues related to policy studies.

This brief description touches on the importance of considering the community in the research-to-action cycle. What this means for interdisciplinary scholars is that if you care about public health and the community, then understanding how politics and policy seeps into public health work is vital.

6 Concluding Remarks

The ways and extent to which public health engages with politics and political science may depend, in part, on where one draws the boundaries of 'public health' (Bambra et al., 2005). For some, public health may be

characterized narrowly in biomedical terms and individual behaviors and lifestyle choices (Goldberg, 2012). The role or significance of politics and policymaking may be attenuated on this view. For others, public health is viewed as a public matter (Coggon, 2012; Krieger & Birn, 1998) and characterized in a more expansive way to include the contexts in which people are born, live, work, and age, which necessitates the interrogation of social, economic, and political systems and the structures that influence health, including policymaking processes. This has obvious implications for the opportunities for collaboration between public health and political science.

Public health tends to understand and treat the intersections of scientific evidence, policymaking, and politics in a manner similar to other health sciences; that is, with a sometimes unsophisticated, and some might argue naïve, view of evidence-based policymaking. Yet, there are important exceptions. Philosophers of public health, public health ethicists, and critical public health scholars are alive to the social, political, and economic forces that impact the public's health and that exert influence on public health policy and have long-standing engagement with political, ethical, and social theory to understand and interrogate these forces. In many ways, political scientists interested in public health have much to draw from given important work that has been done in public health to understand the nature of a just society, the challenges of understanding and acting on inequality and inequity, the justified use of state coercion for matters of health, and many other big questions of political and social theory.

Yet, if these might be considered 'macro' considerations and issues, public health also offers much insight into what is done at the local, or 'micro', level, e.g., the realities of local government and the power of civil society in shaping public health policy. More specifically, the powerful commitment of public health to engage with and reflect community concerns and building coalitions to advocate for change means that public health practice and scholarship can contribute to our collective understanding of governance at the local level. We have raised the importance of the community as the space from which issues are identified, evidence is generated, and how solutions are context-bound. In particular, issues related to health inequities derive their authority and legitimacy from this 'ground zero' location where partnerships are key. While public health as a multidisciplinary practice had evolved in elaborate partnerships with government, market, and citizens, political science is often

still practiced from a monodisciplinary setting. We encourage political science researchers to move away from starting with political science theories, and their accompanying insights, if they want to achieve any practical impact on communities (and the world). Instead, start from where we are at—start with the inequities and community partnerships—and then introduce the relevant policy insights that support sustainable policy action for change.

Perhaps what is most needed, then, is attention to the important work of political science being conducted at the 'meso' level of policymaking—the area where local community interests and needs are navigated alongside (and sometimes in conflict with) political and social forces. We believe that this is perhaps the most fruitful area of potential collaboration between public health and political science.

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