

## What is Population Health and What Should It Do? A Philosopher's View

*Philosophy of Population Health.* Sean A. Valles.  
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Concepts of population health have been spreading like wildfire in the health sciences, but what do they mean? Population health is a broad, collaborative movement to update and expand approaches to improving health and making its distribution more equitable. Because population health engages individuals and institutions from all corners of science and society, coming to a perfect consensus on what population health is and how it can be advanced is a work in progress. Like the proverbial blind men and the elephant, specific concepts can depend on one's angle of approach.

Some fundamental principles, however, are widely shared. One is the importance of understanding not just the causes of individual cases of disease but also the reasons why health is so unevenly distributed among population groups. This includes not only pervasive disparities in health by race, ethnicity, and SES but also the marked differences in health across nations, even among those that are economically advantaged.<sup>1</sup> Another shared principle is the need to address the upstream causes of health such as public policy, built environments, structural racism, and economic disadvantage as well as the more proximate biological causes that have been the center of attention for so long. In effect, "the causes of health and disease are distributed throughout every corner of social life."<sup>2</sup>

Philosopher of science Sean Valles makes an important contribution to unpacking and advancing the conversation around population health in his recent volume, *Philosophy of Population Health*.<sup>2</sup> His work complements the many articles, popular books, and texts that have emerged in recent years by delving into the philosophical and ethical principles underlying the population health framework and population health science.

Highlights include chapters on the historical development of population health science, the implications of population health approaches for the meanings and methods brought to research and practice, issues of

ethics and health equity, and his call for "epistemic humility" to enable non-hierarchical collaborations across disciplines and sectors. Each of his chapters contains a brief case study to illustrate his arguments.

Population health has deep implications for the ways in which we approach health science and intervention. Valles explains why it is critical to adopt the broad definition of health promoted by WHO,<sup>3</sup> which provides a framework that encompasses both the many dimensions of well-being and those of disease outcomes. He argues that concepts of health should incorporate a temporal dimension, given that health unfolds over time and the human life course.

Moving the focus from the individual to the population also requires the expansion of concepts of causality, from a one-cause, one-effect model to one that accounts for "fundamental causes,"<sup>4</sup> such as poverty and stigma, which have predictable effects on health but may operate through variable pathways. It also forces a reckoning with the widely accepted position that randomized trials are the gold standard of evidence. Because health plays out in heterogeneous contexts that cannot typically be subjected to experimental manipulation, population health studies have to rely on a broad range of methods (including experiments) for causal analysis. The heterogeneous contexts and causal pathways highlighted by population health also challenge the generalizability of experimental methods and help to explain why experiments may fail to replicate.

Unsurprisingly, Valles strongly emphasizes health equity as a central driver of population health efforts. Research designs should be driven by more than equity considerations; interventions should be carefully analyzed for the risk of exacerbating inequities while improving the health of populations overall.

Valles deftly and compellingly responds to critics who see the turn to upstream determinants as overly broadening the domain of health and the purview of the medical and public health communities. If health determinants lurk in every corner of society, does this not imply that issues like education, transportation systems, and policing become the business of public health officials? Valles points out the fallacy in this thinking. Doctors can contribute in vital ways to addressing gun violence, for example, without diminishing the critical roles that policymakers, law enforcement, educators, and families must also play. Similarly, scientists trained in a multitude of disciplinary traditions can address

gun violence in complementary ways, using methods and concepts of causality that are appropriate to the specific questions asked. These contributions are mutually reinforcing, not competing.

In his call for “epistemic humility,” Valles stresses that no one group, discipline, or institution has the expertise to be the final arbiter on how to study or improve health. This is a direct challenge to the dominance of medicine in health issues and to the paternalism that has often characterized public health action. It is consistent, however, with the trend toward the involvement of communities in the design of population health research and interventions. Valles strongly endorses the trend, consistent with the principle that all knowledgeable actors, whether professional or lay, should contribute what they know to improving health. Here, I would have liked to see more philosophical guidance in the knotty questions of implementation. What constitutes a community and who, within an identified group, has the privilege of speaking for the group?

Valles’s analysis of the population health enterprise is told largely through the lens of epidemiology and medicine. Going back to the blind men and elephant analogy, this view inevitably leads to some distortions and omissions. For example, despite its central importance to understanding upstream determinants of health, social science is largely ignored. This has implications for the

treatment of participatory research (social science has a long history of addressing the “knotty questions” mentioned above) and for Valles’s discussions of methods and ethics. That said, Valles clearly acknowledges the book’s limitations. His work will be enormously useful to anyone eager for a thoughtful analysis of population health and it lays down a foundation for continuing conversations about what this exciting new field can and should be.

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