Commentary

Reducing the Clinical Medicine and Population Health Divide

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IN THE JUNE ISSUE OF *THE MILBANK QUARTERLY*, CHIN-YEE and colleagues¹ discuss 5 recent trends in the published medical literature—disease prevention strategies, the rise of precision medicine, applications of human microbiome research, and new treatments for hepatitis C virus—that may have implications for population health. In doing so, the article illustrates that what is traditionally understood to be the domain of clinical medicine is not clearly different from the concerns of public health. The article nudges us to consider the robustness of the conventional distinction between clinical medicine and biomedical research on the one hand and public health and population health science on the other.

Distinguishing between clinical medicine and public health is a relatively modern idea. Clinicians, typically doctors of medicine, were originally prominent in early movements to promote the health of the public. In the early days of organized public health, doctors were leaders in, for example, movements to address poor conditions in mid-19th-century industrial European cities. Their leadership contributed to the British Public Health Act of 1848 and in the French *cordon sanitaire* movement. In many parts of the world this leadership continues, with clinicians driving health improvement agendas for populations. However, the concerns of public health professionals and practitioners of clinical medicine diverged over the past century as medical specialization increased and schools of public health and governmental health departments grew in size and professional stature.

This conceptual and practical divide is reflected in a fundamental difference between the worldviews of clinicians and public health professionals when it comes to the production of health. Clinicians prioritize asking how they can intervene—typically through pharmaceutical agents and medical devices—to improve functioning, mitigate suffering, and manage the consequences of disease facing individuals. Public health

professionals, in contrast, ask how they can remove hazards, reduce risks of illness and injury, and create health-promoting opportunities so that members of populations can be healthy for as long as possible.

The article by Chin-Yee and colleagues makes an important contribution to reducing this divide by showing how several biomedical interventions have significant implications for the health of populations. For example, the authors highlight advances in hepatitis C where a recent new suite of drugs have created the possibility, for the first time, of curing this disease. A public health approach to hepatitis C focuses, appropriately, on prevention, including supplying clean syringes to drug users to minimize transmission. Although these preventive efforts are important, they complement treatment that can eliminate, or at least reduce, the incidence of the disease. This example, along with the others in the article, are evidence of opportunities to reconnect medicine and public health as well as biomedical research and population health science.

The health status of individuals and populations should be reconceived as the result of social, environmental, and economic factors that intersect with individual behavior and biology.² Once we accept that the production of health is inevitably linked to context—but also inextricably bound to the individual—it removes tiresome “either/or” arguments and helps us focus on “and/both” approaches and solutions. Our interest should be in health and its creation, and we should be dexterous enough to recognize that there is a complex causal architecture that generates health; that the causes of health status range from national policies to individual biology.

To continue using the hepatitis C example, this new linkage of research on interventions with individuals and population health science could lead to policy that would scale up hepatitis C treatment to populations and address related issues such as drug pricing, access, and the relationship between equity and efficiency, as well as to compare the return on investment, in different time frames, of scaled-up treatment approaches and efforts at primary prevention. The article by Chin-Yee and colleagues helps us understand how clinical and public health interventions can preserve and promote health and prevent disease.

The article uses other examples of published research to demonstrate potential links between clinical and public health interventions. For example, the authors discuss trends in nutritional research, focusing on how the findings of the Prevention with Mediterranean Diet study

and the Lyon Diet Heart Study encourage a shift toward understanding the role of diet in cardiovascular health. While this insight emerged from clinical trials, the response to it, as Chin-Yee and colleagues point out, is not exclusively in the realm of clinical medicine. Population health improvements building on the findings of these clinical studies should address questions of food policy; the role of the private sector in generating calorie-dense, nutrient-poor food; and the intersection of public policy and individual choice.

The article by Chin-Yee and colleagues demonstrates persuasively that the health of the public has much to gain from advances in clinical research. I wonder then what comes next. Can we build on this work and develop sufficient flexibility of thought and practice to embrace an aspiration to create a healthy population by all means available to us? That will require us to understand the treatment of sickness as but one aspect of a broader agenda that aligns public health and clinical practice.

References

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