



Perspective

The Perils of Medicalization for Population Health and Health Equity

PAULA M. LANTZ,* DANIEL S. GOLDBERG,†
and SARAH E. GOLLUST‡

*Ford School of Public Policy and School of Public Health, University of Michigan; †University of Colorado Anschutz Medical Campus; ‡School of Public Health, Center for the Study of Political Psychology, and Hubbard School of Journalism and Mass CommunicationUniversity of Minnesota

Policy Points:

- Medicalization is a historical process by which personal, behavioral, and social issues are increasingly viewed through a biomedical lens and "diagnosed and treated" as individual pathologies and problems by medical authorities.
- Medicalization in the United States has led to a conflation of "health" and "health care" and a confusion between individual social needs versus the social, political, and economic determinants of health.
- The essential and important work of population health science, public health practice, and health policy writ large is being thwarted by a medicalized view of health and an overemphasis on personal health services and the health care delivery system as the major focal point for addressing societal health issues and health inequality.
- Increased recognition of the negative consequences of a medicalized view of health is essential, with a focus on education and training of clinicians and health care managers, journalists, and policymakers.

The Milbank Quarterly, Vol. 101, No. S1, 2023 (pp. 61-82) © 2023 The Authors. *The Milbank Quarterly* published by Wiley Periodicals LLC on behalf of The Milbank Memorial Fund.

This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

HE WORLD HEALTH ORGANIZATION DEFINES health as the "state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity." Anchored in this broad view of health, population health is a longstanding multidisciplinary science that examines the patterns and distributions of health outcomes and their causes in populations, primarily defined by geopolitical spaces and social characteristics such as age, gender, race/ethnicity, and socioeconomic position.² Significant attention in the field of population health is devoted to understanding the upstream (structural and macrolevel), midstream (meso- or community-level), and downstream (micro- or individuallevel) social determinants of health, and the limits of medical care in both producing health and reducing socially driven health inequities within populations.^{2,3} An important focus of population health science is understanding the ways in which upstream structural factors—such as macroeconomic forces, cultural factors, social systems and institutions, and public policy and law—are the fundamental drivers of socioeconomic stratification in society, which in turn shape the more proximate psychosocial and material conditions for health, including food, shelter, safety, clean environments, and medical care.

Public health, a sister discipline, is also concerned with the causes of health, illness, and injury in populations, the unequal distributions of outcomes within them, and opportunities for prevention and other interventions at upstream, midstream, and downstream levels.⁴ As a field of practice and policy, public health is primarily grounded in the role of the government and partnering organizations in preventing disease and injury, prolonging life and health equity, and protecting, assuring, and improving the health of populations in geopolitical units at the local, state, regional, and national levels.⁵

Medicine is a distinctly different enterprise from population health science and public health practice, with a focus on the diagnosis and treatment of illness and injury in individuals. Advances in biomedical science and medical interventions have, without question, had a positive impact on both individual and population health. However, the ways in which many policymakers, health care leaders and clinicians, researchers, the media, and the general public view health has become increasingly "medicalized" to the detriment of the actions needed to promote and improve overall population health, respond to public health crises, and reduce health inequities.

In this Perspective, we argue that *medicalization*—the process by which personal, behavioral, and social issues are increasingly viewed through a biomedical lens and "diagnosed and treated" as individual pathologies and problems—has fueled an overemphasis on personal health care services as the primary avenue for promoting health. We provide key examples and analyze how medicalization and its focus on health at the micro or individual level presents one of the greatest challenges to improving population health in the United States. We describe how the processes of medicalization pose serious impediments to the research, resource allocation, and public policies needed for meaningful improvements in population health outcomes, including the reduction of long-standing social inequities in health. We conclude by offering strategies needed to counter the perils of medicalization in order to achieve sustained population health improvement and health equity.

Medicalization: Definition and History

The concept of "medicalization" has been the focus of scholarship in the humanities and social sciences for more than six decades. Zola defined medicalization as a historical and social process that involves the dramatic "expansion of medicine as an institution and the use of a medical lens to view human processes and behavior." Zola was concerned that "more and more of everyday life has come under medical dominion, influence and supervision." Conrad defined the "engines of medicalization" as processes "by which non-medical problems become defined and treated as medical problems."

In *The Birth of the Clinic*, Foucault (1963) offered both a theoretical framework and a chronology that locates the rise of medicalization and the "medical gaze" in modern Western history in the late 1700s. The increasing dominance of an allopathic medical perspective on health shifted physicians' focus of the causes of their patients' suffering from broader social contexts (e.g., poverty, malnutrition, housing and working conditions, environmental hazards, etc.) to the individual sick body. Starting in the 1800s, trade associations strengthened the social power of medicine by enhancing the professional status of physicians and regulating who could provide care. The subsequent emergence of germ theory in the late 19th century and the increased understanding of pathophysiology further fueled a more individualistic focus on health.

What difference does a patient's social situation make if the more proximate morbid pathology causing illness can be diagnosed and eliminated by a learned physician?¹⁰

The 19th century was a period of intense social change in the West, including industrialization, urbanization, and class struggles. In this context, allopathic physicians asserted the ability to locate the genesis of disease in pathologies that could be clinically associated with a patient's symptoms and complaints.¹¹ These claims reinforced an understanding of disease and illness that lay primarily within medical doctors' domain. In the United States, professionalization efforts drove out competing therapeutic traditions, enabling physicians to further establish themselves as the primary professional source for the understanding and relief of illness and injury.¹⁰ This increase in intellectual authority, elite status, and social power given to physicians over time is central to the historical understanding of medicalization.¹²

In addition, reforms in the early 20th century shifted the traditional view of hospitals as charnel houses or places for dying to facilities for sick people to go for treatment and recovery. ^{10,13} Inside these hospitals, novel technologies (like the X-ray) continued to transform medical practice, connect ideas of illness and disease to the pathologies these technologies could detect, and promote notions of health and illness primarily grounded in individual bodies. ^{14,15}

Medicalization is not always a negative force. For example, reframing the behavior of tobacco use as "nicotine dependence" with its own diagnostic criteria and International Classification of Diseases code brought with it a significant increase in research and development regarding smoking cessation treatments along with increased insurance coverage. 16 Even so, multiple scholars have raised concerns about the encroachment of a medicalized view of social processes related to health. 4,5,17 Such concerns include the ways in which medicalization often serves as a method of *social control*, particularly in regard to cultural notions of deviance and stigma. 18 Groups with less socioeconomic and political power, including women, children, people of color, people with disabilities, and those living in poverty, are more likely to be the subjects of a medicalized and stigmatized view of their social standing, disadvantage, and hardships. Furthermore, the modern tendency to view health as a function of "individual responsibility" meshes with medicalized frameworks that narrowly and negatively view health as illness/disease caused by pathology within individual bodies that is often the result of personal behavioral choices or moral failures.

Medicalization goes against long-standing and firmly rooted understandings of both the individual and social causes of disease, injury, and death in communities. Early public health efforts recognized the importance of living conditions and environments (e.g., air, water, workplaces) for health, and also that the poor were much more likely to suffer from disease, injury, and early death. 1,19 Szreter, examining the 200-year history of population health in the West, documented an increasing recognition that although the industrial revolution created significant serious social, environmental, and public health problems, it also fueled economic and social welfare reforms that could bring improved well-being for the masses, not just the wealthy elites. 20 However, as Fairchild et al. noted, later advances in both science and medical authority in the 19th and 20th centuries allowed public health practice "to ignore social factors—including the racial segregation, poverty, inequality, and poor housing that had been the traditional foci of public health reformers only thirty years before—and explain and address disease without any of the disruptive implications of a class analysis."²¹

At the foundation of the fields of population and public health is a deep understanding of how the more proximate determinants of individual health (income, food, housing, safe environments, health care, psychosocial factors, etc.) are influenced and unequally distributed by macro- and mesolevel social, economic, and political factors. It is this core understanding that is being overshadowed and threatened by medicalization, representing a dramatic and ongoing shift from the historical origins of these fields.

Key Examples of Medicalization

Scholarship on medicalization offers a plethora of examples that illustrate the challenges it presents for population health science and policy. For example, Barker analyzed the medicalization of pregnancy during the 20th century, through which biomedicine claimed authority over pregnancy, deemed it a medically risky illness state, and asserted the need for oversight in the form of "prenatal care" delivered by clinicians to individual patients.²² Similarly, scholars have analyzed the declaration of obesity as a "disease" by medical associations as an example in

which medical authorities deem a behavioral outcome as a pathology that in turn shifts the focus of interventions from primary prevention at the macro and meso levels of society to the clinical treatment of individuals.^{23,24}

Another example of medicalization is Conrad's 1975 analysis of childhood "hyperkinesis," now widely known as attention deficit and hyperactivity disorder (ADHD).²⁵ Conrad argued that when children's behavioral attributes became redefined as a medical problem with the "discovery" of the hyperactivity diagnosis, the resulting solutions became individualized (e.g., pharmacological treatment), which thwarted "seriously entertaining the idea that the 'problem' could be in the structure of the social system." Contemporary research supports the notion that social contexts contribute to the medical diagnoses of ADHD: the incidence of ADHD is higher in resource-constrained urban schools and also among children born close to enrollment age cutoffs, ostensibly because younger children's behaviors are compared to older peers in the same grade. 26 As Conrad predicted, when children's behavioral problems are medicalized as brain disorders, solutions are aimed "downstream" at individual medical treatment and educational plans without examination of additional solutions located in the upstream and midstream social contexts of families or school policies.²⁷

In a historical analysis of psychiatric disorders, Metzl detailed the process by which the 1960s civil rights movement and accompanying "cultural anxieties" about social change and racial protest intersected with changing clinical understandings, which in turn contributed to revised diagnostic criteria for schizophrenia that became disproportionately applied to Black men.²⁸ The result was a manifestation of social control in the form of structural racism: institutional definitions (including in the *Diagnostic and Statistical Manual*) contributed to the perpetuation of racialized stereotypes of aggression/hostility and the overdiagnosis of schizophrenia among Black men. The revised criteria and their intersection with racist stereotypes further perpetuated stigma of mental illness. Another consequence was a medicalized framing of "the problem" of racial anger and social unrest as mental illness, which limited actions promoting social justice reforms and civil rights gains.

The Medicalization of Public and Population Health

Scholars have also been concerned about the ways in which medicalization impacts the fields of public and population health. Fairchild et al. documented an "exodus" of public health efforts from centering on social reform of oppressive structures and institutions at the same time medicine was gaining status and power in the United States. Government-supported public health departments advanced in the late 1930s with a newly defined focus on providing six basic public health services (vital statistics, communicable disease control, environmental sanitation, laboratory services, maternal and child health services, and the promotion of healthy behaviors). These core services are important; nonetheless, this reframing of public health practice prioritized a smaller set of aims "over social reform and alliances with relatively powerful progressive constituencies such as labor, charity, social welfare organizations, and housing reformers."

Medicalization has also contributed to a conflation of "health" with "health care," of "health policy" with "health care policy," and of the "social determinants of health" with individual patients "social needs" in national, state, and local health policy discourse. ^{29,30} For example, many health care systems have implemented processes and interventions that attempt to identify and sometimes address individual patient social needs, often labeling these efforts as addressing the "social determinants of health." ³¹ Physicians engage in "social prescribing" for nonmedical resources, such as food pantries or social welfare services. ³² However, there is no evidence that such screening and social-prescribing efforts have a significant positive impact on individual patients, and they do nothing to change or reform the mid- and upstream fundamental drivers of population health and health inequities.

Another current example is the health care system's usurping of "population health" with "population health management." Lantz has raised concerns about this trend, including that populations become narrowly defined by their current and often temporary relationship with specific health care providers, and that the most common interventions offered are downstream at the individual or patient level and are often ineffective. ³³ We should not be surprised that individual-level interventions fail to immediately improve health conditions that have

arisen from structural disadvantage, risks, and exposures that have accumulated over a lifetime.³⁴

The process and power of "medicalization" has relevance for population health science and policy in two major ways. First, medicalization defines behavioral and physiological responses to social phenomena as individual pathology and disease (often with elements of stigma and social control), which are in turn viewed as individual medical problems to be diagnosed, treated, and influenced by authorities within the field of medicine. Second, medicalization has encroached into both population health science and public health, bringing with it a myopic focus on the role of the medical care delivery system in intervening upon individual acute medical and social needs. This leaves the root-cause social, economic, and political drivers of population health invisible, ignored, and undisturbed.

Implications of Medicalization for Population Health Science and Policy

The history and ongoing medicalization of health within the United States has produced important challenges for population health improvements, including for identifying priorities for reducing socioeconomic and racial/ethnic health inequities. Four major negative implications of medicalization for population health are discussed in this section and outlined in Table 1.

First, as discussed earlier, a medicalized view of "health" focuses on illness or injury as expressed within individual bodies. This obscures the fact that health is also a population-level phenomenon that is socially, economically, and politically driven and must be understood and addressed at the social-ecological levels in which individuals exist. These macrolevel forces include the "commercial determinants of health" or the myriad important ways in which the profit motive in markets for many goods and services (e.g., tobacco, alcohol, firearms, gambling, energy, automobiles, information technology, pharmaceuticals) strongly influences how laws, regulations, and other forms of public policy are considered, crafted, and thwarted.³⁶

In addition, medicalization privileges health care and medical/clinical professionals as the dominant authority on all matters related to health. This has led to the dangerous conflation of "health" and "health care"

Key Concerns Regarding the Medicalization of	
Health	Major Implications
Defines health	Frames health in context of individual disease, disability, and injury
primarily as an	• Obscures the fact that both "health" and "illness" are socially, economically, and politically
individual and	produced
biologic	 Gives physicians and others trained in clinical care assumed expertise and authority
phenomenon	• Creates conflation of "health" with "health care," "health disparities" with "health care
that is diagnosed	disparities," "health policy" with "health care policy," and "social determinants of health"
and treated by	with "patient/individual social needs"
clinicians	

Key Concerns Regarding the Medicalization of	
Health	Major Implications
Directs majority of	· Gives health care delivery system primary responsibility for addressing population health and
public policy,	health inequity
interventions, •	Directs primary focus of research and interventions to individual-level risk factors while
and resources for	ignoring their social determinants
improving .	Denominator shrinkage: Diverts attention and resources from a global population/community
population	focus to the "population health management" of patients within insurance plans or health care
e	delivery systems
health care	· Ignores basic principles in population health science regarding shifting risk distributions,
delivery system	structured nature of opportunities/ resources/benefits, and importance of life course exposures
and the •	· Leaves macro-/structural- and meso-/community-level drivers of health and health inequity
individual level	unchecked, including structural/systemic racism and the macroeconomic/commercial and
	political determinants of health

Table 1. (Continued)	
Key Concerns Regarding the Medicalization of Health	Major Implications
Focus on individuals and	Reinforces narratives regarding health as the primary result of individual behavior or choices and individual responsibility
the worthiness of health	 Places health care delivery system as primary institution for addressing or fixing societal health issues
interventions	• When downstream interventions and services do not "work," reinforces notion that
and investments	socioeconomic and racial/ethnic health inequities are intractable, unavoidable, and/or deserved
gets reinforced in media,	 Fuels growth in attitudes regarding personal responsibility and deservedness in public opinion, policy design and discourse, and clinical care
culture, and public opinion	
Gives strength to	• Contributes to increased pushback against the purpose and authority of public health laws
political notions	and regulations
of health and	• Results in changes that weaken public health system design and infrastructure, workforce,
personal health	and policy
choices as autonomous and	 Contributes to serious chancinges in the OS response to public health cuses including the rising rates of diabetes, the opioid epidemic, and the COVID-19 pandemic
individual right	

and other related constructs, including confusing the upstream socioe-conomic structural drivers of population health levels and patterns with individual patient social circumstances and needs. This conflation fuels the fallacy that societal problems having to do with health can and should primarily be solved by professionals within health care delivery systems and institutions.³⁷

Second, it is the upstream structural determinants of health that drive racial and socioeconomic stratification in society that, in turn, shape the more proximate factors that influence health. Medicalizing a problem or issue involves defining and then addressing it within individuals without the social complexity and political messiness of addressing the macrolevel structural drivers of stratification and social inequality. A medicalized approach to health ignores a basic principle in epidemiology, promoted by Rose, which is the need to distinguish between sick people and sick populations.³⁸ As Zola warned, by "locating the source and the treatment of problems in an individual, other levels of intervention are effectively closed."

Medicalization also frames and directs health-related research priorities and funding to focus on diseases, conditions, and organ systems in ways that are as siloed as the subspecialties of medicine. This medicalized approach to science and interventions restricts the ability to understand and address the common, root causes of unequal distributions of health in populations. For example, there is now ample research describing racial/ethnic disparities in most individual health risk behaviors, medical conditions, diseases, and causes of death. This work typically includes the treatment of race/ethnicity as an individual "risk factor" for the outcomes under study. However, as Jones explains, it is racism—not race—that drives and explains racial and ethnic differences in almost every social and health outcome in the United States.³⁹ Accordingly, it is structural racism that needs to be addressed with public policy and institutional reforms to reduce racial health inequities in the United States.⁴⁰

Third, the focus on individuals and the value placed on health care interventions and physician authority is strongly reinforced in media and public opinion. While there have been some shifts in media attention to the social determinants of health in the past two decades, the dominant narrative continues to emphasize individual behaviors and individual responsibility as the main drivers of health. Public opinion surveys also consistently reveal a limited understanding of socioeconomic and racial health inequities including relatively low recognition of the social

factors that shape health and strong beliefs that personal behavioral factors and health care are the main causal factors. 43,44

Because individual and medicalized narratives have attained cultural prominence for decades, these long-standing ideas of personal responsibility in public discourse become accessible reservoirs of counterarguments when alternative narratives are presented. 45 As a consequence, the public may interpret information about health risks and disparities through a lens of individual blame, and/or they may respond with resistance to messages about the structural factors that shape health. 46 Given the long-standing correlation between partisanship and underlying values related to personal responsibility, public understanding of the social determinants of health and health equity has become politically patterned. 47 Further, as described earlier, individual-level interventions to address acute social needs have demonstrated little measurable impact on health outcomes or well-being. When these types of downstream interventions and services do not "work," this reinforces cultural attitudes that socioeconomic and racial/ethnic health inequities are intractable and therefore undeserving of more public resources and investments.³³

Fourth, a medicalized view of health in which individuals are deemed as in control of their own health gives further credence to politicizing health as an individual right, which the state in turn has a duty to protect (versus a duty to ensure the public's health). This leads to increased political pushback against public health policies and laws that infringe on individual behaviors, even those that have an impact on the health and welfare of others. Similarly, individualizing health makes it more difficult to define population health problems as being *collective* societal problems that deserve public attention, resources, and community (policy) responses that may include some restrictions on personal freedom. When public health is devalued and its role in the promotion and protection of population health is hidden and misunderstood, another result is disinvestment that weakens public health system design, infrastructure, workforce, and policy. 48

The US Medicalized Response to the Covid-19 Pandemic

The effects of the medicalization of population and public health have been especially apparent in local, state, and federal policy responses to the COVID-19 pandemic in the United States, which ranks among the worst nations in incidence, mortality, and social inequities. At the federal level, both the Trump and Biden administrations advanced strategies heavily focused on vaccines and treatments while also deprioritizing and insufficiently resourcing important nonpharmaceutical interventions, including contact tracing, rapid testing, indoor ventilation, masking, protection for frontline service workers, and paid leave for sick workers.

Changes by the Centers for Disease Control and Prevention (CDC) to its COVID Community Guidelines in early 2022 reinforce this point, as they explicitly departed from using incidence as a primary metric for triggering recommended interventions. Instead, the Community Indicators focus on "new hospital admissions with confirmed COVID-19/100,000 people" and "percent of inpatient beds occupied with COVID-19." These revised guidelines position hospital capacity and health system collapse as the paramount pandemic metrics, and in so doing permit counties to stay in the lowest threat level even at transmission rates previously labeled as "high" (>100 cases/100,000).

While prioritizing health care system capacity is important, elevating this to the top metric for surveillance reflects a medicalized approach. These guidelines permit high and even exponential growth in community transmission before triggering "enhanced prevention measures." Individuals are charged with assessing their own risk and making their own behavioral choices in response. Mask mandates are no longer recommended as community-level prevention measures regardless of the COVID-19 Community Level and indeed are conceptualized as a means of controlling individual risk only.

The CDC's updated guidance in August 2022 further extended this medicalized approach, stating that "public health efforts should promote health equity by purposefully reaching out to all populations at high risk for severe illness to broaden access to pre-exposure prophylaxis, testing, and oral antivirals." This language not only places the onus on the most marginalized people and communities to protect themselves, but also emphasizes medical- and health care—oriented interventions at the individual level.

Medicalized framings of exposure and risk sit comfortably within politicized constructs of "freedom," "individualism," and "personal responsibility for health," which in turn both pressures and permits government actors to offload responsibility for collective public health responses onto individuals. Furthermore, the notion that health risk

taking is an individual choice has been apparent in the anger directed at state and local public health professionals as they attempted to implement communication, prevention, and mitigation plans in a novel pandemic. Medicalization is responsible for additional deficiencies in pandemic management, response, and control, including the ceding of leadership, authority, and communication in the media almost exclusively to physicians. Finally, there has been a deep failure to explicitly recognize and actively address the unequal toll the pandemic will continue to take by race/ethnicity, socioeconomic position, age, health/disability status, and type of employment.

Summary and Recommendations

In this Perspective, we argue that population health has become increasingly "medicalized" in health-related research, practice, policy discourse/action, and the media to the detriment of the actions needed to improve population health, respond to public health crises, and reduce health inequities. The juggernaut of medicalization is a complex and powerful social and historical process that cannot be stopped with a pithy set of recommendations for cultural shifts, systemic and institutional changes, and policy reform. Medical authority over all things related to "health" is not only ingrained in our culture but is also reinforced by the large commercial interests in medical care in the United States, including the pharmaceutical and insurance industries and large for-profit health care systems. Even so, we believe that the best response to the ongoing perils of medicalization includes the following general strategies.

First, medicalization and its negative aspects need to be better recognized and resisted. There are many audiences in need of a deeper understanding and appreciation of the dangers of the current overly medicalized view of population and public health and the conflation of health with health care. This includes physicians and other types of clinicians, along with health care administrators, executives, and analysts. Alberti and Pierce argue that medicine, in efforts to improve population health and achieve health equity, "must become the best partner it can be in the multisector collaborations necessary to shift underlying structures and systems towards health opportunity for all communities." They also conceptualize a Population Health Impact Pyramid for Medicine to demonstrate how medicine and health care

systems can maximize their actions and contributions to population health through specific actions, collaborations, and policy reform.

Second, because of the strong focus on individuals and personal responsibility in United States culture, it is critical to expand the capacity for the media to tell different types of stories. Journalists frequently draw from individual anecdotes and thus may require training or resources to effectively tell structural stories in compelling ways. A number of important efforts in this regard are underway. The Berkeley Media Studies Group has produced excellent media analyses and trainings to help journalists and advocates expand their perspectives and promote and defend an upstream lens in public health. Strategic efforts by organizations like Kaiser Health News that emphasize health equity are also promising. At the same time, population health researchers and social scientists could benefit from additional training to expand their voice in news media and the public discourse generally, so that their expertise can counter the dominance of biomedical perspectives.

Third, more health-related research funding is needed across a variety of domains to move beyond medicalized perspectives in research and policy recommendations. A host of behavioral and social science research at the micro, meso, and macro levels needs to be elevated in order to better understand and address the core issues that cut across health status outcomes. One important example is research on effective communication about racial health inequalities—and specifically, how to communicate about the systematic and institutionalized racism that produces inequitable health outcomes—in ways that avoid potential for backlash.⁵⁷

Fourth, public policy narratives and priorities for health need to be changed. The conflation of health policy and health care policy must be halted, along with a de-emphasis on health care policy as the main route to improved population health. The problems of health insurance coverage and affordability along with health care access and quality in the United States are indeed dire and merit the policy attention they receive. However, while addressing these problems is necessary, it is insufficient for addressing the fundamental drivers of social and racial stratification that are the root causes of health inequity.

Public policy plays a deep and fundamental role in shaping the myriad upstream macro and structural forces that cascade downstream to create both social and health inequities in the individuals who comprise populations. And this means that addressing the root causes of population health problems and inequities must involve significant redirection and reform of the public policies that shape our social struc-

tures, systems, and institutions. Ray, Lantz, and Williams argue that although the list of policies and systems that are in need of significant reform to improve population health is long and complex, the priority agenda should include public policy related to (a) safeguarding the well-being of children (e.g., reducing poverty, establishing income security, and creating high-quality pre-K); (b) correcting the legacies of racial residential segregation; and (c) reducing racial discrimination (both structural and interpersonal) related to education, employment, criminal justice and policing, and health care. Similarly, Brown and Hohman argue that population health research and action should focus on the upstream structural drivers of the social conditions that drive social and health inequality, with a deep focus on structural racism, structural sexism, and other forms of structural oppression. Similarly, and other forms of structural oppression.

Conclusion

The "engines of medicalization" continue to drive a narrow and restrictive view of health and health policy in the United States under the authority and expertise of physicians who diagnose and treat illness and injury within individuals. A medicalized view of health ignores the limited role that personal health care services and health insurance play in producing levels and distributions of health within communities and populations. Medicalization also has far-reaching negative effects on cultural and media representations of health and illness; on the allocations of funding for research, interventions, and public health infrastructure; and on agenda setting for the social policy reforms needed to address the fundamental drivers of social and health inequity. Furthermore, medicalization and individualism go hand in hand, thus giving more power and political ammunition to the view that health is individual and autonomous and thus outside the purview of governmental authority and action.

The essential and important work of population health science, public health practice, and health policy writ large is being thwarted by a medicalized view of health and an overemphasis on the health care delivery system as the major focal point for addressing societal health drivers. Without a de-escalation of this medicalized view of health, the United States will continue to spend an exorbitant proportion of its gross domestic product on health care while experiencing lower life

expectancy, higher rates of premature mortality and morbidity, and greater levels of health inequity than other developed nations.

References

- 1. Solar O, Irwin A. A conceptual framework for action on the social determinants of health. World Health Organization. https://apps.who.int/iris/handle/10665/44489. Published 2010. Accessed January 23, 2023.
- 2. Lantz PM. Population health: definitions, tensions, and new directions. In: Boulton ML, Wallace RB, eds. *Maxcy-Rosenau-Last Public Health & Preventive Medicine*. 16th ed. New York, NY: McGraw Hill; 2022.
- 3. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States. Communities in Action: Pathways to Health Equity. Baciu A, Negussie Y, Geller A, et al., eds. Washington, DC: National Academies Press; 2017.
- 4. Castrucci BC. Meeting individual social needs falls short of addressing social determinants of health. *Health Affairs Blog*. January 16, 2019. https://debeaumont.org/news/2019/meeting-individual-social-needs-falls-short-of-addressing-social-determinants-of-health/. Accessed January 23, 2023.
- 5. Banta HD, de Wit GA. Public health services and cost-effectiveness analysis. *Annu Rev Public Health*. 2008;29:383-397.
- 6. Zola IF. Medicine as an institution of social control. *Sociol Rev.* 1972;20(4):487-504.
- 7. Conrad P, Mackie T, Mehrotra A. Estimating the costs of medicalization. *Soc Sci Med.* 2010;70(12):1943-1947.
- 8. Foucault M. The Birth of the Clinic: An Archaeology of Medical Perception. London, UK: Vintage Books; 1994.
- 9. Starr P. The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry. New York, NY: Basic Books; 1982.
- 10. Wikler D. Personal and social responsibility for health. *Ethics Int Aff.* 2002;16(2):47-55.
- 11. Goldberg DS. Pain, objectivity and history: understanding pain stigma. *Med Hum*. 2017;43(4):238-243.
- 12. Leichter HM. "Evil habits" and "personal choices": assigning responsibility for health in the 20th century. *Milbank Q*. 2003;81(4):603-626.

- 13. Stevens R. In Sickness and in Wealth: American Hospitals in the Twentieth Century. Baltimore, MD: Johns Hopkins University Press; 1999.
- 14. Reiser SJ. Medicine and the Reign of Technology. Cambridge, UK: Cambridge University Press; 1981.
- 15. Howell JD. Technology in the Hospital: Transforming Patient Care in the Early Twentieth Century. Baltimore, MD: Johns Hopkins University Press; 2003.
- 16. Dingel MJ, Karkazis K, Koenig BA. Framing nicotine addiction as a "disease of the brain": social and ethical consequences. *Soc Sci* Q. 2012;92(5):1363-1388.
- 17. Armstrong EM. Conceiving Risk, Bearing Responsibility: Fetal Alcohol Syndrome and the Diagnosis of Moral Disorder. Baltimore, MD: Johns Hopkins University Press; 2003.
- 18. Conrad P. Medicalization and social control. *Annu Rev Sociol*. 1992;18:209-232.
- 19. Institute of Medicine Committee for the Study of the Future of Public Health. Chapter 3: A history of the public health system. In: *The Future of Public Health*. Washington, DC: National Academies Press; 1988.
- 20. Szreter S. The population health approach in historical perspective. *Am J Public Health*. 2003;93(3):421-431.
- 21. Fairchild AL, Rosner D, Colgrove J, Bayer R, Fried LP. The EX-ODUS of public health: what history can tell us about the future. *Am J Public Health*. 2010;100(1):54-63.
- 22. Barker KK. A ship upon a stormy sea: the medicalization of pregnancy. *Soc Sci Med.* 1998;47(8):1067-1076. doi:10.1016/s0277-9536(98)00155-5.
- 23. Saguy A. What's Wrong with Fat? New York, NY: Oxford University Press; 2013.
- 24. Oliver JE. Fat Politics: The Real Story Behind America's Obesity Epidemic. New York, NY: Oxford University Press; 2005.
- 25. Conrad P. The discovery of hyperkinesis: notes on the medicalization of deviant behavior. *Soc Probl.* 1975;23(1):12-21.
- Layton TJ, Barnett ML, Hicks TR, Jena AB. Attention deficit hyperactivity disorder and month of school enrollment. N Engl J Med. 2018;379(22):2122-2130.
- 27. Dopp AR, Lantz PM. Moving upstream to improve children's mental health through community and policy change. *Adm Policy Ment Health*. 2020;47(5):779-787.
- 28. Metzl JM. The Protest Psychosis: How Schizophrenia Became a Black Disease. New York, NY: Beacon Press, 2010.

- 29. Lantz PM, Lichtenstein RL, Pollack HA. Health policy approaches to population health: the limits of medicalization. *Health Affairs* (*Millwood*). 2007;26(5):1253-1257.
- 30. Alderwick H, Gottlieb LM. Meanings and misunderstandings: a social determinants of health lexicon for health care systems. *Milbank Q.* 2019;97(2):407-419.
- 31. Crook HL, Zheng J, Bleser WK, Whitaker RG, et al. How are payment reforms addressing social determinants of health? Policy implications and next steps. *Milbank Memorial Fund*, Issue Brief, February, 2021; https://healthpolicy.duke.edu/sites/default/files/2021-02/How%20Are%20Payment%20Reforms%20Addressing%20Social%20Determinants%20of%20Health.pdf. Accessed March 13, 2023.
- 32. Nowak DA, Mulligan K. Social prescribing: a call to action. *Can Fam Physician*. 2021;67(2):88-91. doi:10.46747/cfp.670288.
- 33. Lantz PM. The medicalization of population health: who will stay upstream? *Milbank Q.* 2019;97(1):36-39.
- 34. Goldberg DS. Social justice, health inequalities and methodological individualism in US health promotion. *Public Health Ethics*. 2012;5(2):104-115.
- 35. Centers for Disease Control and Prevention. The social-ecological model: a framework for prevention. https://www.cdc.gov/violenceprevention/about/social-ecologicalmodel.html. Published 2015. Accessed January 23, 2023.
- 36. Freudenberg N. Framing commercial determinants of health: an assessment of potential for guiding more effective responses to the public health crises of the 21st century. *Milbank Q*. 2023;101(S1):83-98.
- 37. Navarro V, Shi L. The political context of social inequalities and health. *Int J Health Serv.* 2001;31(1):1-21.
- 38. Rose G. Sick individuals and sick populations. *Int J Epidemiol*. 1985;14:32-38.
- 39. Jones CP. Invited commentary: "Race," racism, and the practice of epidemiology. *Am J Epidemiol*. 2001;154(4):299-304.
- 40. Braveman PA, Arkin E, Proctor D, Kauh T, Holm N. Systemic and structural racism: definitions, examples, health damages, and approaches to dismantling. *Health Affairs (Millwood)*. 2022;41(2):171-178.
- 41. Gollust SE, Lantz PM. Communicating population health: print news media coverage of type 2 diabetes. *Soc Sci Med*. 2009;69(7):1091-1098.
- 42. Kim AE, Kumanyika S, Shive D, Igweatu U, Kim SH. Coverage and framing of racial and ethnic health disparities in US news-

- papers, 1996-2005. *Am J Public Health*. 2010;100(Suppl.1):S224-S231.
- 43. Booske BC, Robert SA, Rohan AM. Awareness of racial and socioeconomic health disparities in the United States: the national opinion survey on health and health disparities, 2008-2009. *Prev Chronic Dis.* 2011;8(4):A73.
- 44. Bye L, Ghirardelli A, Fontes A. Promoting health equity and population health: how Americans' views differ. *Health Affairs (Millwood)*. 2016;35(11):1982-1990.
- 45. Gollust SE, Cappella JN. Understanding public resistance to messages about health disparities. *J Health Commun*. 2014;19(4):493-510.
- 46. Gollust SE, Nelson KL, Purtle J. Selecting evidence to frame the consequences of adverse childhood experiences: testing effects on public support for policy action, multisector responsibility, and stigma. *Prev Med.* 2022;154:106912.
- 47. Gollust SE, Fowler EF, Vogel RI, Rothman AJ, Yzer M, Nagler RH. Americans' perceptions of health disparities over the first year of the COVID-19 pandemic: results from three nationally-representative surveys. *Prev Med.* 2022;162:107135. doi:10.1016/j.ypmed.2022.107135.
- 48. Baker EL, Potter M, Jones DL, et al. The public health infrastructure and our nation's health. *Annu Rev Public Health*. 2005;26(1):303-318.
- 49. Indicators for monitoring COVID-19 community levels and COVID-19 and implementing COVID-19 prevention strategies: overview and scientific rationale. Centers for Disease Control and Prevention. https://www.cdc.gov/coronavirus/2019-ncov/downloads/science/Scientific-Rationale-summary-COVID-19-Community-Levels.pdf. Published February 25, 2022. Accessed January 23, 2023.
- Massetti GM, Jackson BR, Brooks JT, et al. Summary of guidance for minimizing the impact of COVID-19 on individual persons, communities, and health care systems—United States, August 2022. MMWR Morb Mortal Wkly Rep. 2022;71:1057-1064.
- 51. Mello MM, Greene JA, Sharfstein JM. Attacks on public health officials during COVID-19. *JAMA*. 2020;324(8):741-742.
- 52. Wardrope A. Medicalization and epistemic injustice. *Med Health Care Philos*. 2015;18(3):341-52.
- 53. Khanijahani A, Iezadi S, Gholipour K, et al. A systematic review of racial/ethnic and socioeconomic disparities in COVID-19. *Int J Equity Health*. 2021;248. doi:10.1186/s12939-021-01582-4.

- 54. Alberti PM, Pierce H. A population health impact pyramid for medicine. *Milbank Q*. 2023;101(S1):770-794.
- 55. Niederdeppe J, Winett LB, Xu Y, Fowler EF, Gollust SE. Evidence-based message strategies to increase public support for state investment in early childhood education: results from a longitudinal panel experiment. *Milbank Q.* 2021;99(4):1088-1131.
- 56. KFF's Kaiser Health News expands with a new Southern bureau to grow journalism about health, equity, race and poverty in the South and Texas. *Kaiser Health News*. August 16, 2021. https://www.kff.org/other/press-release/kffs-kaiser-health-news-expands-with-a-new-southern-bureau-to-grow-journalism-about-health-equity-race-and-poverty-in-the-south-and-texas/. Accessed January 23, 2023.
- 57. Skinner-Dorkenoo AL, Sarmal A, Rogbeer K, André C, Patel B, Cha L. Highlighting COVID-19 racial disparities can reduce support for safety precautions among White US residents. *Soc Sci Med.* 2022;29:114951.
- 58. Ray R, Williams DA, Lantz PM. Upstream policy changes to improve population health and health equity: a priority agenda. *Milbank Q.* 2023;101(S1):20-35.
- 59. Brown TH, Hohman PA. The future of structural determinants of health: looking upstream to structural driver. *Milbank Q*. 2023;101(S1):36-60.

Address correspondence to: Paula M. Lantz, PhD, MS, James B. Hudak Professor of Health Policy, Ford School of Public Policy, University of Michigan. Email: plantz@umich.edu