

# Beyond the Status Quo: 5 Strategic Moves to Position State and Territorial Public Health Agencies for an Uncertain Future

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### **Beyond the Status Quo**

The 75th anniversary of the Association of State and Territorial Health Officials (ASTHO) presents an opportunity to celebrate the past accomplishments of state and territorial health agencies (SHAs) and consider their potential future. Several authors have examined the current and future needs of the governmental public health workforce and future trends impacting the governmental public health system.<sup>1-7</sup> The Institute for Alternative Future's Public Health 2030 Scenarios aptly describe 4 potential futures that public health agencies may face (Table 1), and several of these scenarios would have negative impact on SHA capacity to address public health challenges and improve population health.8 Brownson and Kreuter described future trends impacting public health in the new millennium in 1997. Their forecast was updated and elaborated upon 20 years later by Erwin and Brownson, who provide an excellent summary of the macrotrends and "forces of change" facing public health today (see Table 2).<sup>3,4</sup> When these trends are combined with increasing political partisanship, declining support for government, disdain for science, and popular debates over what constitutes fact

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or truth, we predict an uncertain future for public health. Despite this prevailing uncertainty, one thing is clear: the status quo will not generate the significant improvements in health that we desire and for which so many are working so hard to achieve.

To help respond to this uncertain future, in late 2016, local, state, and national public health leaders convened to craft "Public Health 3.0." Public Health 3.0 is a set of recommendations describing the upgrade needed to move public health from its current state of managing various programmatic activities and outcomes toward an intentional, strategic focus on the social determinants of health and wellness that crosscut disease "stovepipes."9,10 The key insight of Public Health 3.0 is the realization that the most effective interventions to improve health are the result of what local, state, and federal public health organizations do themselves and their collaborative work with other agencies and organizations in health care delivery, housing, education, employment, and economic development. A core concept in Public Health 3.0 is the need for governmental public health officials to become the "chief health strategists" for their jurisdictions and embrace their leadership roles in moving upstream to address the social determinants of health and well-being.10,11

Efforts to imagine an upgraded public health system are needed and welcome. Public Health 3.0 capitalizes on the idea that the future, however uncertain, holds incredible opportunity for governmental public health but also poses significant challenges. The specific strategies and tactics needed for SHAs to upgrade from Public Health 2.0 to 3.0, however, have not been well described. Waiting for the future is a much less effective strategy than working proactively to shape it. In reviewing the perspectives, trends, and approaches that will define the governmental public agency of the future, we propose 5 key strategic moves that leaders of SHAs can take to assure optimal health for all. Despite new investments in health care delivery that incentivize payers and providers to promote population health, we posit that SHAs are the

## TABLE 1 Public Health 2030 Scenarios<sup>a</sup>

Scenario 1: One step forward, half a step back

Amidst continued fiscal constraints, public health agencies and health care slowly advance their capabilities. Many use automation and advanced analytics to improve services and community and population health. However, climate change challenges continue to grow, and there is little progress in improving the social determinants of health. Great variations in technological capabilities, funding, and approaches to prevention—along with a continuous rise in health care costs—significantly limit public health gains.

Scenario 2: Overwhelmed, under-resourced

Funding cuts and a hostile political context undermine the role of public health agencies, which subsequently fail to attract talented young people. Public health crises grow worse and more frequent, largely due to climate change. Private sector initiatives produce significant innovations for health and wellness, but these primarily benefit the middle-class and affluent groups. Technological, economic, educational, and health disparities grow, and the institutions of public health have little capacity for doing anything about them.

Scenario 3: Sea change for health equity

National and local economies gradually grow, and changes in values and demographics lead to "common sense" policies and support for health equity. Public health agencies develop into health development agencies that use advanced analytics, gamification, and diverse partnerships to identify problems and opportunities and catalyze and incentivize action to improve community health. While some disparities persist, in 2030, the vast majority of US residents have attained greater opportunity for good health through quality improvements in housing, economic opportunity, education, and other social determinants of health.

Scenario 4: Community-Drive Health and Equity

Public health agencies, partners, and local health improvement initiatives coalesce via technology and social media into a national web of community health-enhancing networks. These networks help communities exchange their innovations and best practices and leverage the expertise of public health agencies and others. The nation also strives to come to terms with its racial and socioeconomic histories and supports real changes and legislation to create a more equitable society. This value shift to equity is accelerated by the proliferation of new community economic models that help households sustain themselves and improve health and well-being. Public health sheds many functions and facilitates these movements to improved health.

<sup>a</sup>Adapted with permission from Institute for Alternative Futures.<sup>8</sup>

true "accountable care organizations" in their jurisdictions and the natural leaders to convene and align governmental and nongovernmental assets toward achieving both the Institute for Healthcare Improvement's "triple aim" of health care and ASTHO's triple aim of health equity.<sup>12,13</sup>

## The 5 Strategic Moves

Our use of the term "strategic" refers to the alignment of organizational activities and planning efforts a SHA uses to guide its work toward defined goals and outcomes. It aligns best with the work of Lafley and Martin,<sup>14</sup> who define strategy as making organizational decisions about "where to play" and "how to win." Thus, strategic moves are the plays or actions a SHA can take to effectively reach its goals. Our view of strategy is also based on the work of Michael Porter, who views strategy as organizational considerations about trade-offs (what the organization will and will not do) and the alignment or "fit" between the various parts of a business enterprise (how activities join to create a cohesive whole).<sup>15</sup> In sum, the strategic moves described later inform the tactics SHAs can use to align efforts that will lead to better health outcomes. Upgrading from categorical, fragmented Public Health 2.0 organizations to collaborative Public Health 3.0 enterprises provides

TABLE 2

Erwin and Brownson <sup>4</sup>
The Patient Protection and Affordable Care Act
Public Health Agency Accreditation
Climate change
Health in all policies
Social media and informatics
Demographic transitions
Globalized travel

the move needed to fully leverage SHA potential with that of other agencies and organizations that share a mission of improving current and future public health needs.

## **Strategic Move 1: From Programs to Populations**

The Institute of Medicine's landmark report Future of Public Health expertly characterized the state of public health in the late 1980s as a field in "disarray," and its follow-on study made similar observations about where public health stood early in the 20th century.<sup>16,17</sup> A major factor for this disarray was attributed to inflexible, categorical systems of funding for various disease-specific public health programs. The categorical nature of public health funding is perhaps the greatest barrier and biggest opportunity for SHAs in the future. Funding "stovepipes" create fiefdoms within agencies. Categorical funding limits the drive to collaborate and directs resources to where successful grants are written, not necessarily where there is greatest need. Staff working in silos spend countless hours on separate program reports, separate funding applications, and separate meetings, and they create separate strategic plans, separate logic models, and disconnected work plans. A major cause of programmatic stovepipes is the way federal funding is appropriated by Congress and how the federal agencies implement public health programs. For example, a SHA cannot legally use its human immunodeficiency virus surveillance dollars for surveillance of other sexually transmitted infections. Support for categorical programs is often reinforced by advocates and interest groups that lobby for specific lines in federal and state budgets and define success as sustained or increased funding for those lines even when those increases are obtained by decreasing resources to others.

The strategic move from program to population is crucial to positioning SHAs for the future. Flexible funding streams allow SHAs to address local and state priorities that most certainly will differ from those of federal agencies. Public Health 3.0 calls for innovative funding models that blend and braid funds from a variety of funding streams to support both core public health capacity and community-level efforts to address the social determinants of health and well-being. The Institute of Medicine made a similar call in its 2012 study For the Public's Health: Investing in a Healthier Future. In that report, the Institute of Medicine recommends that the US Department of Health & Human Services allow greater flexibility in the use of grant funds to achieve population health goals at the state and local levels, Congress adopt legislative changes to allow such flexibility, and federal agencies "design and implement funding opportunities in ways that incentivize coordination among public health system stakeholders."<sup>18</sup>

Recognizing that changing the way the Congress appropriates federal resources for state and local public health is a difficult if not impossible task, advocates for SHAs have focused on working with federal agencies to allow for more flexibility in directing programming dollars based on state needs within the administrative authority currently delegated to federal agencies. The Centers for Disease Control and Prevention's (CDC) "State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health" is one example of a federal funding opportunity that addresses several different chronic disease programs at once that are often funded separately (diabetes, heart disease, stroke).<sup>19</sup> The Preventive Health and Health Services Block Grant is the only major source of crosscutting, flexible funding for most SHAs (\$160 million for all states and territories in FY2017). Created in 1981, the "Prevent Block" allows states to use federal resources to address a variety of state and territorial public health priorities including communicable and noncommunicable disease prevention and health promotion. Similar to the US Congress, state and territorial legislatures also limit funding flexibility to specific program categories or budget lines. State and territories may want to consider ways to promote the flexibility their government agencies have to address health priorities using consolidated or other block grant programs that allow for funds to be blended or braided to address local needs.

Maternal, child, and family health (MCH) is one of the best examples to describe the move from program to population taking place now in SHAs. Because MCH focuses on interventions to improve health across the life course, MCH leaders take a population perspective on health improvement.<sup>20-22</sup> Federal funding through the Title V Maternal and Child Health Services Block Grant is supportive of this approach and, when combined with state matching funds, becomes a flexible mechanism for SHAs to use in supporting MCH efforts across the country with national performance measures that ensure accountability for outcomes.<sup>23</sup> The strategic move from program to population health is taking place now in MCH where there is major emphasis on using life stages to organize SHA programmatic work. The move connects agency stovepipes to address the crosscutting, population needs of mothers, babies, fathers, and families. Figure 1 shows how the Hawai'i Department of Health's Strategic Plan 2015-2018 masterfully illustrates the way that health agency activities touch the lives of all residents across the life course from preconception to "kupuna" (honored elder).<sup>24</sup>



Moving from programs to populations will take more than just changing the way SHAs are funded, however. The public health workforce must be trained and incented to build systems that address the needs of populations versus continued reinforcement of the pervasive stovepipe approach. The National Consortium for Public Health Workforce Development prioritized the need for public health workforce development efforts to "build systems, not silos."7 Despite this need, many contemporary public health workforce development efforts remain mired in traditional, disjointed training solutions heavily loaded toward discipline-based content versus systems and population thinking. These approaches can reinforce silos and prevent crosscutting connections to other activities within the same agency or with other units of state government that might lead to synergies. One only needs to look at the variety of leadership trainings for the public health workforce to see that every major program area has its own academy, institute, or professional development experience, most of which are funded by programmatic categories with little interest in building the system as a whole. Exceptions that lead the way for collaborative, coordinated, and

systems approaches to workforce development include the Public Health Institute's CDC-funded "National Leadership Academy for Public Health" and the ASTHO "State Health Leadership Initiative" funded by the Robert Wood Johnson Foundation. These programs prioritize crosscutting skills and multisector work that complement those traditionally found among the governmental public health workforce.<sup>25</sup>

## **Strategic Move 2: From Clinic to Community**

While several SHAs provide health care services in communities where there is little to no other provider capacity, overall most SHAs have moved away from the provision of clinical services toward ensuring that those services are provided by health care delivery partners at the local and state levels.<sup>26</sup> Tennessee's Commissioner of Health, Dr John Dreyzehner, makes the case for how SHAs need to move upstream toward community-wide disease prevention and health promotion in his description of how the Tennessee Department of Health has worked to address the health consequences of the "Big 4": physical inactivity, excessive caloric intake, tobacco and nicotine addiction,

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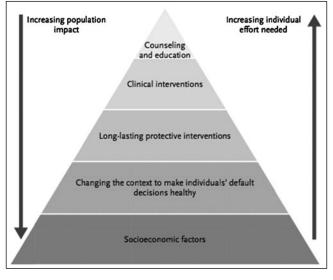
and other substance use disorders.<sup>27</sup> The root causes of the Big 4 are social and environmental and very few, if any, clinical interventions successfully prevent these conditions. John Auerbach proposes that the work of governmental public health includes identifying innovative approaches to clinical prevention that combine public health's traditional focus on upstream prevention with the health care delivery system's focus on downstream clinical services.28 This intersection of public health and clinical care, what he refers to as the "second bucket" or "innovative preventive interventions that extend care outside the clinical setting," is ripe with opportunities to integrate clinical and community approaches to health promotion and disease prevention.<sup>28</sup> Combining Dreyzehner's Big 4 with Auerbach's "3 Buckets" provides a framework for further efforts to reduce chronic disease burden within states nationwide.

The ASTHO-convened "Integration Forum" is a platform to share and spread successful models of integrating public health and primary care, further demonstrating the move from clinic to community. The Forum brings together public health professionals and primary care providers to identify model practices leading to effective integration between primary care and public health. The Forum has helped catalyze efforts to bridge clinical and community health and identify collaborations and partnerships to improve the health of populations, achieve high-quality care, and reduce health care costs. The Department of Family and Community Medicine at the University of New Mexico Medical School and the New Mexico Department of Health, along with other partners, have supported a "Health Commons" model that supports the integration of governmental, social, behavioral, and medical services for the uninsured to improve health, address disparities, foster economic development, and provide links to services that can address a wide range of health and social issues.<sup>29</sup> The Health Commons model offers an exciting example of the colocation of population health services that provide a "one-stop shop" for residents who utilize primary care, behavioral and mental health services, public health services such as WIC (Special Supplemental Nutrition Program for Women, Infants, and Children), and other social services including employment and training. Evaluation of the model demonstrates that the Health Commons model created jobs and attracted local investment and external public and private funding for its services.<sup>29</sup>

These and other initiatives that integrate clinical and community prevention are at the vanguard of efforts to implement Public Health 3.0. Their introduction nationwide should become intentional practice of chief health strategists at the local, state, and federal levels. The "clinic to community" strategic move involves positioning SHAs to make plays that move the health care delivery system further "upstream" to address the social and economic factors that contribute to downstream morbidity and mortality. The challenge of Public Health 3.0 is to implement such upstream approaches despite our nation's staggering spend on the provision of clinical services and medical care without commensurate investments in public health that could reduce the need for so much health care spending in the future.

## **Strategic Move 3: From Patients to Policies**

We know that to prevent many chronic diseases, we should exercise, eat well, sleep enough, maintain a healthy weight, and avoid tobacco. While these are often framed as individual choices, "just saving no" is not that simple. Not everyone can afford nutrientdense food, avoid tobacco and secondhand smoke, or go to a well-equipped park or gym to exercise. Individuals make choices within contexts and communities shaped by policies and politics, and the default choice is not always the healthy choice. Former CDC Director Tom Frieden's "Health Impact Pyramid" graphically illustrates the impact of policy change on health by showing the range of public health interventions and their scope (Figure 2) moving beyond a patientby-patient approach to improving health toward a much broader policy perspective.<sup>5</sup> As SHAs implement programs across the Health Impact Pyramid, the level of individual effort needed increases and the impact on the population decreases. Frieden makes the case for broad public health action to promote policy



**FIGURE 2** The Health Impact Pyramid<sup>a</sup> <sup>a</sup>From Frieden.<sup>5</sup>

change and the need to address socioeconomic factors that impact health if SHAs and their partners are to be successful. The SHAs can work to advocate for policy changes that improve health and make the default choice the healthy choice.

The SHA of the future actively participates in the development of policy changes that contribute to improved health and well-being. This strategic move involves positioning SHAs to support interventions at all levels of the health impact pyramid. Frieden describes efforts to reduce the use of tobacco, which contributes more to morbidity than any other factor, as a prime example. Evidence shows that one-on-one tobacco counseling and education is effective but requires a great deal of resources to implement in an entire population.<sup>30</sup> Policies that increase the pricing of tobacco products, however, can significantly reduce the use of tobacco, especially among young people who have never tried it, with much less clinical resources required than implementing face-to-face interventions.<sup>31</sup> Similarly, policies that establish a sugar-sweetened beverage tax have contributed to reduced consumption of sugary drinks and, by extension, excess caloric intake associated with such products.<sup>32</sup>

Tax policy is just one example of health-promoting legislation. Two recent, national initiatives provide examples of the breadth of policy options that can favorably impact health. The CDC's "Health Impact in 5 Years" Initiative (HI-5) identifies 14 policies, including school-based violence prevention, safe routes to school, clean diesel bus fleets, and home improvement loans and grants that can improve health and well-being within 5 years of implementation.<sup>33</sup> City-Health identified 9 policies in diverse areas such as housing, alcohol density, and early childhood education and then assessed the presence of these policies in the nation's 40 largest cities.<sup>34</sup> While these policies were evidence-based and politically achievable, of the 360 possible policies (9 policies across 40 cities), less than half (171) were enacted creating many opportunities to further boost residents' well-being and build stronger communities. These policy initiatives reach beyond patient-focused clinical interventions toward broad community change that impact the health of thousands of individuals at once.

Policy development and public health advocacy have been identified as 2 of the greatest needs of the public health workforce.<sup>1</sup> A tactic to promote the strategic move from patients to policies is to prioritize training and competency development in public health policy and advocacy. The public health leaders of the future should be as competent in policy development as they are in the public health sciences. The public health workforce of the future must be engaged in the policy-making process to address health concerns and advance support for governmental public health. Indeed, being a "chief public health advocate" is a core element of being an effective chief health strategist.

### Strategic Move 4: From Small to Big Data

Using data to identify health problems, monitor health status, and measure the effectiveness and impact of public health actions is a core competency of public health professionals and one of the Ten Essential Public Health Services. Unfortunately, core features of many of these data collection systems include being disease-specific, failing to allow for "real-time" reporting to public health agencies, and are often dispersed throughout an agency at the state or territorial level with different program areas acting as data "owners." These challenges make obtaining a holistic view of a community's health difficult to ascertain quickly and comprehensively. Separate and disconnected surveillance systems prevent many SHAs from taking advantage of the advances in health informatics being implemented by health care delivery partners to monitor the communicable and noncommunicable disease threats in their patient populations. Faster, better, more connected surveillance systems are urgently needed to improve real-time public health decision making and policy development.

The innovation and drive that led to the mapping of the human genome needs to be matched in public health. Advances in technology have the same potential to impact population health when systems are created to consolidate data, localize information, and allow for real-time reporting. Precision medicine offers tremendous opportunity for better clinical medicine. It does not, however, allow the kind of analysis needed to advance community health and address social determinants of health and well-being.35 Information systems that aggregate and consolidate data to understand health trends and predict health outcomes will inspire greater public health action. This is the move from "small data" or individual categorical data systems to "big data," the development of comprehensive analytical tools that aggregate various data sources to illustrate both clinical and community health status.

Exciting innovations in precision medicine and "predictive public health" will evolve quickly once big data become a standard feature of SHA's information systems. Information technology system architecture that moves from small, categorical data sets to big enterprise-wide, population health information systems is essential to realizing the vision of Public Health 3.0. The ability of SHAs to use big data to better understand the drivers of health in their jurisdictions is immense. Imagine an SHA that can merge disease surveillance data and health information from electronic health records with other sources of information such as pharmacy sales, grocery store purchases, with data on education, employment, and housing, to create a holistic view of the many drivers of health at the local, regional, and state levels. The SHAs are well behind private entities in this area but can catch up quickly as the keepers of large data sets on the health of their jurisdictions. These data are critical to health systems and other health care decision makers who need public health data for their own data warehouses and big data efforts. Brokering data exchanges and enforcing the rules to ensure confidentiality and adherence to existing privacy laws are key functions of SHAs in the future as they move from small to big data approaches.

## Strategic Move 5: From Regionalization to Rationalization

Perhaps the single biggest challenge to moving SHAs from the status quo is a reconsideration of the future functionality of local public health agencies and their relationship with state or territorial health agencies. While politically toxic, merging smaller local public health jurisdictions to realize economies of scale and increase the resources available to larger, combined entities is paramount. Efforts to regionalize public health by consolidating smaller local agencies have met stiff opposition from incumbents who fear a loss of local control over setting community health priorities.<sup>36,37</sup> Even efforts to share services without full-on agency mergers or consolidations have been slow to be adopted, raised questions about authority and ownership, and present many (surmountable) legal challenges.<sup>38</sup> The delivery of public health services at the local level is often a historical artifact reflecting the early development of local and state government and not the most effective way to deliver essential public health services. The variety of local and state public health systems confounds efforts to enumerate them, makes the creation of a uniform method of accounting for public health activities practically impossible, and leads to the hackneyed phrase that when "you've seen one health department, you've seen one health department."

If public health officials are truly to become chief health strategists for their jurisdictions, some minimal level of agency capacity is needed to develop and execute strategic moves to improve health beyond the typical public health nursing and environmental health services at the local level.<sup>39</sup> Defining a base level of capacity to deliver core public health services

allows for more uniform comparisons between agencies and helps enumerate the costs and impacts of public health across the country by comparing "apples to apples" when looking at various states and territories. An effort to standardize a "uniform chart of accounts" for public health agency accounting systems is underway to allow public health professionals and policy makers to look at the true costs of public health services and estimate program and unit costs.40 "Foundational public health services" and their related "foundational capabilities" have been enumerated and serve as a guide for describing those things that all public health agencies should provide to their populations.<sup>41</sup> Oregon and Washington states have used the foundational public health services and foundational capabilities to inform efforts to consider modernizing their public health systems and define the purview of state and local health agencies.42,43

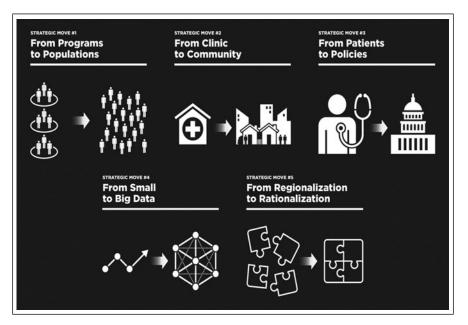
The accreditation of public health agencies is a central topic within Public Health 3.0 and often used as an example of another way to modernize or standardize governmental public health agencies. To date, 23 state and 155 local public health agencies have been accredited by the national Public Health Accreditation Board.<sup>44</sup> Health agency accreditation is focused on verifying that plans and procedures are in place rather than certifying an agency's impact with respect to the delivery of a set of foundational public health services. As such, public health accreditation provides a basis for performance management and quality improvement centered on verifying procedural capacity. But accreditation alone does not predict the effectiveness with which an agency will respond to potential health threats or public health emergencies, or that accredited agencies are comparable in the programs and services they provide to improve the public's health. For instance, the accreditation process will assess the completeness of a health agency's emergency operations plan by documenting the existence of health agency's phone trees, communications plans, a process for activating emergency operations plan, and evidence that drills are completed. Accreditation does not assess how well the drills were executed, their timeliness, or identify emergency operations plan deficiencies. In short, accreditation serves more to answer the question "does the public health agency have the capacity to do its job," whatever its various jobs may be, rather than "what comprises an effective, functional, governmental public health agency at the program and policy level for our local and state jurisdiction," or "what jobs should we be doing in our community and our state?" Future work on the reaccreditation process and revised standards for agency accreditation will help resolve this disconnect between SHA process and performance.

Little has been done to rationalize the multiple ways that public health services are delivered at the local and state levels, especially in states that have a strong tradition of home rule and local control of a variety of governmental services including police, fire, education, and public health. Efforts to regionalize local health agencies would have a major impact on the functionality of the governmental public health system, especially in states where there are many small, autonomous local public health agencies. This strategic move involves SHA collaboration with community partners to better understand the efficiencies and inefficiencies of the current systems versus some variation of regionalization or other rationalization of the local and state public health infrastructure. Defining the core or foundational capabilities of public health at the local and state levels must be a priority for state and territorial health leaders in the future (Figure 3).

## The 5 Strategic Moves: Back to the Future

One hundred years ago, public health professionals relied on multisector, community-based solutions for health improvement such as establishing sanitary sewage systems, promoting sterile environments for childbirth, and improving the living conditions of the poorest Americans. As modern medicine advanced, public health moved with it and developed effective clinical preventive solutions to community health problems. Slowly, emphasis shifted from communitybased interventions and the social determinants of health and well-being toward individual, medical interventions to improve health (immunizations and antibiotics are good examples). The evolution toward clinical preventive medicine and providing health care services for those who could not otherwise afford them meant that public health became easily confused with publicly financed health care for the indigent. The success of communicable disease control in the United States, and concomitant increase in chronic disease burden, shifted focus from population health (how do we make society healthier) toward emphasizing individual behavior change to improve health (how do we make this patient healthier).

In an uncertain future, Public Health 3.0 describes the opportunity for public health leaders to embrace their roles as chief health strategists, including their role as public health advocates, and work with multisector partners to upgrade their approaches to improving the public's health. Ironically, the upgrade to Public Health 3.0 brings us back to the early days of public health practice when health officials advocated directly for policy and environmental change and led engaged communities in collaborative efforts to improve health. The strategic moves presented previously are paradoxically directions for both getting "back to our roots" and also moving the field forward. These 5 strategic moves guide public health efforts toward both patient-centered and population-focused programs and policy development, leading to more effective and efficient ways to improve health whatever the future may bring.



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