Reimagining Public Health Leadership for Health Equity: Moving Toward Collective and Community-Centered Applied Practice

Policy Date: November 8, 2022
Policy Number: 202210

Abstract

This proposed policy seeks to address the current lack of an APHA policy statement on public health leadership to achieve health equity. We define public health leadership for health equity as the creation of conditions, especially in the face of uncertainty, to improve health through a population-level-focused and community-centered public health approach. Such an approach should enable equitable improvements in health by drawing from collective, adaptive, and emergent leadership perspectives that necessitate commitment, flexibility, and humility. The proposed policy statement builds on APHA Policy Statement LB20-04, which recognizes structural racism as a public health crisis, and joins prior policy statements calling for the inclusion of communities and people with lived experience as instrumental in developing and implementing public health. It aims to move us toward health equity by recognizing communities and their lived experiences as vital for public health research, practice, and leadership.

Relationship to Existing Policy Statements

- APHA Policy Statement 20189: Achieving Health Equity in the United States
- APHA Policy Statement LB20-04: Structural Racism is a Public Health Crisis: Impact on the Black Community
- APHA Policy Statement 200412: Support for Community Based Participatory Research in Public Health
- APHA Policy Statement 20091: Support for Community Health Workers to Increase Health Access and to Reduce Health Inequities
- APHA Policy Statement 20005: Effective Interventions for Reducing Racial and Ethnic Disparities in Health
- APHA Policy Statement LB-15-01: Opportunities for Health Collaboration: Leveraging

Community Development Investments to Improve Health in Low-Income Neighborhoods

- APHA Policy Statement 201015: Securing the Long-Term Sustainability of State and Local Health Departments Policy Statement
- APHA Policy Statement 20066: Conduct Research to Build an Evidence-Base of Effective Community Health Assessment Practice

Problem Statement

Public health leadership has traditionally been conceptualized as technical expertise implemented through a top-down hierarchy.[1,2] Evidence of this conceptualization dates back to the original formulation of American public health department staff as three tiered, with leaders trained in sanitation, public health, and public health administration at the top; specialists with deep knowledge in a specific area of public health at the next level; and then frontline workers who execute tasks.[3] Despite guidance as far back as 1920 clarifying that medical degrees cannot be used as a substitute for public health training, the requirement for a clinical degree, legally determined or required per job duties, continues to appear as a requirement for senior public health leadership roles, often as a substitution for public health training and experience.[4–6] Under this conception, leadership is based on clinical expertise and training evinced through degrees and certifications.

However, this conceptualization of leadership in public health has not led to health equity in the United States. Health equity is defined by the Centers for Disease Control and Prevention (CDC) as the ability of all individuals to achieve their “full health potential” without a “disadvantage due to social position or other socially determined circumstances” existing across race, ethnicity, gender, sexual orientation, socioeconomic status, and other characteristics.[7] The presence of health inequities was made abundantly clear in the COVID-19 pandemic, when the fissures in our society were exploited and disproportionate morbidity and mortality occurred in historically, economically, and socially marginalized and structurally disadvantaged communities.[8]

Despite health inequity being first identified by the public health community nearly 40 years ago, the American public health system has yet to overcome inequity.[9] COVID-19 also showed that health inequities coexist with the highest achievements in public health science. For example,

COVID-19 vaccine development was an unprecedented scientific achievement, with vaccines available merely months after the pandemic's classification; yet, public vaccine rollout was marked by inequity, from dose availability to appointment scheduling to uptake.[10] Subsequently, in its latter stages the public health response continued to repeat common mistakes, failing to effectively engage communities or consistently implement community-wide harm-reduction approaches, instead placing the burden of the pandemic on the most vulnerable of our society and accepting the highest death rate of any wealthy nation.[11]

The early response of the United States to the latest public health emergency, the monkeypox virus, again shows the need for public health leadership that learns from past practice and truly works to improve public health by meeting populations where they are, developing nonstigmatizing public health responses, and understanding the importance of adopting a scientific approach to real-life situations.[12] Considerations often thought of as secondary, such as community engagement, how to utilize community health workers, identifying who the public is, and promoting transparency, are critical components of public health intervention planning stages.[13–15] These skills require practice and training from leaders who not only have technical experience but can inform public health activities through lived experience and an understanding of the transdisciplinary nature of the social determinants of health (SDOH).[16,17]

The SDOH determine much of an individual's health status and span wide-ranging issues, including housing, mental health, and environmental health. Many of these issues are inherently political, such as gun violence and climate change. Others are complex challenges that require new learning, such as adverse childhood experiences and racism. Accordingly, finding solutions to improve health and address health inequities requires broad and diverse skill sets such as those present in public health science.[18]

Unfortunately, the conventional concept of public health leadership may impede the cultivation of leaders with skills to systematically address the SDOH and thus achieve health equity for the following three reasons. First, the concept prioritizes leaders with skills in specific technical

domains. As seen in the example of the COVID-19 vaccine, the highest level of technical expertise was not enough to ensure an equitable rollout and ultimate impact.[19] Another example in which a medicalized approach has been used involves abstinence-first approaches to sexually transmitted infection prevention efforts. Success for such health interventions comes from the incorporation of community leaders who co-develop strategies that complement the prescribed approach in partnership with communities.

Second, the traditional conception obstructs leaders from the communities experiencing the most social inequity.[20] These communities face systemic barriers limiting their access to opportunities to advance academically, particularly in the fields of science, technology, engineering, and mathematics.[21] A conception of leadership based on academic credentials limits opportunities to uplift leaders from these structurally disadvantaged communities.[22,23] Nevertheless, members of these communities have unique skills necessary to achieve health equity.[24] It is well established that, to address health inequities, the field of public health must recognize and remediate the access gaps that exclude communities from opportunities to lead systemic advancements and change.[18,25]

Third, the traditional leadership concept prevents leaders from different fields from emerging within public health, despite the relevance and impact of nontraditional public health activities. As mentioned, the SDOH are broad and encompass far more than the health sector. Accordingly, community-engaged and community-guided leaders capable of and experienced in partnering and sharing power with communities will be needed to address prevalent systemic drivers of inequity.[26]

As resource scarcity continues to require that public health systems move out of siloed operations and toward effective collaboration, we must continue to hold our leaders and public health systems accountable to the public to ensure ongoing measurable progress in reducing health inequities before the next public health crisis.

Evidence-Based Strategies to Address the Problem

Mobilizing the necessary resources to achieve health equity requires a radical reimagining of public health leadership centered around the power of collective, community-driven efforts. This approach necessitates a concept of public health leadership grounded in three leadership models—collective, adaptive, and emergent—that build on the power of serving and mobilizing others throughout the system to achieve a shared goal.[27–30]

Collective leadership is a model that moves toward shared power.[29] Collective leaders develop a sense of self-awareness, practice humility, remain open to learning, and recognize that the community will continue to demonstrate its wisdom. They prioritize investment in human capital and measure success in their capacity to collaborate and produce collective achievements. Developing mutually beneficial partnerships and relationships is essential in framing a shared vision and establishing goals and metrics for success.

Adding to this approach is adaptive leadership, which prioritizes community engagement and meeting communities where they are.[27] Adaptive leaders are sensitive to community values and beliefs and work with communities to identify challenges and build solutions. Adaptive public health leaders are prepared to assist in changing the long-standing structural and systemic factors that inhibit health equity and are effective in helping to manage the stress that comes with change. This model complements collective leadership by highlighting the importance of trauma-informed care and asking public health leaders to ensure a safe, collaborative space while listening to the community. Most public health challenges require adaptive leadership skills and abilities.

Emergent leadership focuses on overcoming inequity and systems of oppression.[30] Emergent leadership complements the collective and adaptive leadership models and is intended to generate transformational change through applied systems theory.[31] When elements of each leadership model are combined, an integrative and inclusive approach can be created to address the SDOH.

Leadership, as a concept, has iteratively evolved over time. Yet, there is no broad consensus in

terms of the characteristics of an effective leader. Making meaningful progress toward health equity requires evaluating not only what public health leaders do but how they do it. Accordingly, the traditional leadership and hierarchical structures that disincentivize efficient collaboration and power sharing and do not effectively incorporate community engagement must be reassessed.[32] One of the most important functions of public health leadership is to convene people to solve complex problems. This refreshed concept of public health leadership must focus on the following areas: systems-based views, collaborative/team-based organizational cultures, diversity, community centrism and cultural humility, transdisciplinary approaches, and social movement building.

Systems-based views: Health inequities are exacerbated and perpetuated by and through systems. Systems engineering appraises the target community's needs and the environment through which those needs must be met by coordinating system components and addressing gaps. Systems thinking is a holistic transdisciplinary approach to understanding the interrelated components and interactive connections of how a system works.[33] Systems approaches concentrate on understanding the dynamic complexity and relationship of systems by visually mapping processes, consequences, and unintended challenges in problems.[33] Systemic issues require systemic approaches to shift core principles and perspectives with solutions that can be sustained for generations to come.[2,32,34] An example of successful systems integration is the eradication of smallpox in the United States in the 1980s, when effective leadership and cross collaboration among multiple systems, including the World Health Organization, the CDC, and community leaders, led to a solution to a complex problem.

Collaborative, team-based approaches: The lessons learned from major public health disasters such as Hurricane Katrina and COVID-19 demonstrate the importance of community-based public health and community infrastructure investments. While hierarchical leadership can be leveraged during times of acute crises, we argue that this model can also benefit from community-centered and community-engaged practice. The transiency of the reactive leadership approach inherently limits the ability of these leaders to build community trust and resilience. Addressing this requires collective and ongoing investment across systems less sensitive to high-

level leadership changes and resilience in crises. A new collective or "team" approach to leadership will be vital to integrating systems and reducing silos. It will engender innovative working models with diverse, dynamic, emerging collaborations that sustain themselves.[35] Moving forward, public health leaders and organizations will need to create adaptive cultures that allow organizations to have a strategic focus that considers the external environmental needs of communities while remaining flexible and inclusive of innovative values, beliefs, and norms.[36] Community-led groups such as Moms Demand Action and Time's Up are examples of collective impact as they reduce duplication and provide the opportunity to lead systems change efforts.[37]

Importance of diverse perspectives: Conventional leadership concepts do not ensure that leaders can integrate public health systems with the communities they serve or address systemwide issues. As such, they may prevent the inclusion of community members possessing the skills necessary for health equity–oriented leadership.[20] The pervasive nature of systemic racism results in a lack of diversity and community connections within the pool from which public health leaders are identified; most state and local government public health leadership positions are held by people who identify as White.[38] Previously cited systemic and structural disadvantages limit pathways for members from these disadvantaged communities to achieve leadership roles.[6,22,23] Furthermore, it is well established that addressing health inequities requires the public health field to recognize and remediate the access gaps that systemically exclude communities from opportunities to lead advancements and systemic change.[2,18,25,38] This is essential as improving workplace diversity not only benefits patient outcomes but also has been found to enhance innovation and team communication and increase financial performance.[39]

Community-centered engagement and cultural humility: Ongoing and emerging stressors on the public health system present an opportunity to cultivate a new vision of public health leadership by building a public health workforce that prioritizes communities.[40,41] This includes leadership approaches that incorporate self-reflection of worldviews and awareness of blind spots and bias to effectively communicate with humility. With advancements in communication

technology, communities are using their platforms to call for systemic change, demonstrating their willingness to lead more effective and resilient public health solutions.[42,43] As the public health community continues to respond to simultaneous public health crises and prepares for the next, it is critical that we adapt our public health leadership models to sustainably address health inequities by listening, uplifting, and promoting community-centered leadership in our communities.[24] Incorporating community leaders has been vital to public health efforts throughout history; community-led boards have also demonstrated effective ways to address health care corruption in countries such as Bolivia, Madagascar, the Philippines, and Uganda, illustrating the vital importance and power that community-centered approaches can have at the individual and policy levels.[44]

A critical element of this approach to public health leadership is community centrism and systems thinking, emphasizing the importance of effective community engagement. Community engagement is defined as "involving communities in decision-making and in the planning, design, governance and delivery of services."[45] It involves dynamic dialogue between community members and other stakeholders throughout every stage of public health planning.[24] Brazilian educator Paulo Freire's liberatory pedagogy for the oppressed was born from the suffering of poor wage laborers fighting for their rights in the 1970s. Freire argues that most interventions fail because experts design them according to their personal realities rather than the perspectives of the affected communities.[46,47] His pedagogy emphasizes articulating discontent to facilitate dialogue for democratization, empowerment, and revolution.[47] As structural racism is recognized as a driving force perpetuating health inequity, anti-racist systems-level thinking informed by Freire's principles is promising for effecting systemic change.

Transdisciplinary approaches: Effective community engagement utilizes culturally appropriate engagement mediums. For instance, art embraces the priority community's unique culture, history, and strengths while advancing public health approaches that value diversity and inclusive practice. Art is created by people and is inherently participatory, often used throughout participatory action processes to support public and clinical health initiatives.[48,49] Throughout

history, the arts have communicated, emoted, and facilitated social change.[26] Community-based arts, such as performing and visual arts, recognize creativity as a community asset and can help develop community leadership through the creative process while supporting the co-creation of community-appropriate public health solutions.[50]

In addition to the arts, approaches that recognize the importance of the lived experience of community members and bring stakeholders together to depict the dynamic interactions of assets and barriers within a particular community, such as community-based systems dynamics (CBSD) and community health work, bear significance. Community health workers represent grassroots public health in action; they are recruited for their lived experiences and trained to be public health leaders in their own right.[50,51] Through CBSD, the community characterizes the influence of community-level factors on health, identifying potential leverage points for interventions and ultimately informing more effective solutions and actionable strategies throughout the system.[52] These methodologies can foster community dialogue about critical issues and help strengthen social ties and networks through reciprocity, trust, and opportunities for collective action and community-centered leadership.[50,53]

Social movement building: Historically, public health leadership has been successful when integrated as part of popular social movements. Social or community organizing has regularly reinvigorated public health efforts in the United States, including movements related to urban health and social determinants of behavioral health (e.g., mineworker efforts to reduce respiratory diseases, Chicano student movements in Los Angeles to raise awareness of education system inequities, HIV/AIDS activism, women's health movements in the 1960s and 1970s); yet, contemporary public health has often relied on biomedical or scientific advances to determine areas for focus and action.[54]

The emphasis of many schools of public health has shifted away from public health applied practice toward models intended to support research.[55] In conjunction with academic access barriers, this shift may limit public health leaders' expertise in engaging with the communities they are hired to serve, which may also be burdened by health inequities. Expanding public

health leadership to include social movement building directed by community members (for example, community health workers) could be mutually beneficial. Thus, investment in leadership is necessary to ensure the sustainability of social movements, and such investment cannot be limited to a single strategic outcome or moment in time.[56]

Generating evidence through participatory action: To advance this work on a secure evidence base, public health also needs to change how research is conducted. Collective leadership in public health, informed by adaptive and emergent models, dictates that empirical evidence for public health be community centered. Participatory action research (PAR) builds on community strengths and issues, systematically engages the community across every stage of the research process, and was recommended by APHA in a 2004 policy statement.[57] In the years since this policy recommendation, communities and practitioners have co-developed new mechanisms and opportunities to implement PAR methods within public health models, including developing, designing, implementing, and evaluating public health interventions.[24] PAR principles are a guiding light for community-engaged practice, and methods can be varied and creative, connecting to existing community practices and leveraging new and emerging technologies.

Public health leadership that supports and advances the critical role of the community will be of paramount importance as we move to address systemic racism and promote health equity. It must be bold, creative, and courageous in its commitment to promoting community-based public health. Furthermore, integrating communities and public health systems can be achieved through community-centered systems thinking and collaborative leadership models, as well as specific methodologies that could include PAR, art, community health work, motivational interviewing, and CBSD. In this way, public health entities can promote an interdisciplinary approach rooted in the social movements for justice, equity, and inclusion to uplift and amplify the voices of community leaders.

Opposing Arguments/Evidence

Since the biomedical revolution in public health, leadership has placed importance on paternalistic hierarchical approaches and available scientific evidence, resulting in significant

gains in life expectancy in the 20th century.[55] Following practices in clinical care, these approaches focus on a single leader and conventionally derived evidence, with little room for community wisdom and knowledge.

In the United States, traditional top-down public health leadership approaches are aligned with the Public Health Service (PHS) leadership model. The PHS has had an illustrious history serving the United States since the late 1700s, with notable collaborations with other military branches during the AIDS pandemic and climate-related disasters, including Hurricane Katrina.[58] However, each of these responses has been recognized as having had systemic issues resulting in adverse effects on communities that initially experienced the highest burdens related to the public health emergency.

Just as public health in the United States has largely been shaped by sporadic crisis response periods, it has also been influenced by the systemic issues that adversely affect high-need communities and has failed to make sufficient sustained progress toward achieving health equity.[55] In addition, within the valuable effort to promote evidence-based strategies, it is important to also recognize the absence of "evidence" connected to systemic racism. Others have written about the reality and effects of this evidence gap, which is an important step in creating systems change.[59–61] The evidence gap perpetuates inequities, and we must collectively overcome this gap to make gains toward erasing health inequities. The public health community must make space for the absence of evidence that should exist and create intentionality in acknowledging the systems-wide effects of racism and oppression.

Other opponents may argue that the leadership model proposed here excludes clinical expertise, which has demonstrated promising health outcomes, from public health decision making.[62] In their view, public health practice and policy should be informed by clinical research and evidence-based medicine, which have previously been linked to a reduction in mortality disparities.[62,63] Clinical expertise on disease etiology at the individual level is useful; however, it should not dismiss population health decision making and leadership in the pursuit for health equity.[64] Clinical training and expertise requirements may result in a narrow

approach that disregards people's experiences, values, and contextual information, such as power and other sociopolitical forces.[63]

In addition, as the United States grapples with the legacy of racist understandings of clinical care and clinical approaches, we must also recognize the impact of applying this to public health. For decades, scientists have documented the impact of racist clinical care on the health of patients of color. Implementing curricular changes across medical programs to correct inappropriate guidelines and help clinicians-in-training recognize their own biases and address them in the clinical setting is an ongoing process.[65] By contrast, nonclinical public health graduate programs provide complementary education that connects clinical care with the whole person, resulting in a holistic approach that aims to resolve the root causes of adverse health outcomes; people with lived experience have a lifetime of expertise in navigating the realities of our health systems, often leading community advocacy efforts to call for change. This statement offers the perspective that a clinical degree does not indicate aptitude for public health leadership. Rather, leadership teams composed of individuals with diverse backgrounds, training, and skill sets produce a more equitable public health approach.

A reason for hesitancy in including or sharing power with community members is the belief that they require experts to guide them because they "don't know what is best for them."[66] Such arguments involve paternalistic thinking that restricts individuals from independence to decide and consent for themselves.[67] This philosophical thinking model is plagued by a logic bias assuming that individuals lack the judgment to think and act for themselves and a confirmation bias in which selective psychological research is used to support claims.[66] A clear example of the dangerous impact of paternalistic approaches today is the use of paternalistic language in legislation and legal arguments used to revoke the human right to reproductive health and well-being.[68] Yet, advancing public health efforts and reducing inequities require decisions to be made in partnership with communities. In addition, leaders can use motivational interviewing communication styles to disrupt inequitable decision making and ensure that community members have a leadership role in initiatives. Research and public health efforts have demonstrated that co-creation with communities can assist in adopting health behaviors and

provide insights into tailored approaches to effectively reduce inequities during public health emergencies, including COVID-19 and Hurricane Katrina.[69,70]

An additional opposing argument stems from a growing concern within some communities about initiatives promoting diversity, equity, inclusion, cultural competency, health equity, and anti-racism. Those opposing the inclusion of these initiatives within educational curricula cite concern for the racialization of training and leadership and a perception that such initiatives are creating a divided society.[71,72] Those arguing from this perspective indicate that including these components within curricula, including medical school training, focuses on ideology rather than population health or patient care.[71] Evidence against this opposing argument is clearly articulated in APHA's 2020 policy statement Structural Racism is a Public Health Crisis: Impact on the Black Community.

A commonly cited reason for limited community engagement efforts is time. Building trust with the community and investing in community-led solutions requires a more significant time investment than implementing preexisting programs. However, recent public health emergencies have shown that the traditional approach is not advancing health equity at the necessary pace and may be exacerbating mistrust in public health. As we work to continue to respond to and recover from these public health crises, we must recognize the deficiencies of prior strategies and move forward with decisive public health leadership that appreciates the need for meaningful collaboration with the public. Community voices are important because they reflect reality. Public health is about people, not necessarily scientists, politicians, or academic institutions. It follows reason, then, that public health leadership should embrace humanity's diversity and potential contribution.

Action Steps

This proposed APHA policy statement recommends that the U.S. public health community adopt collaborative, community-centered leadership for public health to achieve health equity. APHA recommends the following actions:

Federal, State, and Local Governments

1. Provide comprehensive leadership training in community-centered and community-responsive approaches as a job responsibility for publicly appointed public health leadership positions.
    a. Require public health leaders to partner and share power with communities and people with lived experience in a formal arrangement, such as through paid advisory councils.
    b. Evaluate leaders' community-centered competencies, approaches, and success and include them in performance management reviews yearly.
    c. Expand opportunities for people with lived experience to enter public health and community health domains through mechanisms such as mentorships and apprenticeships.
    d. Develop thoughtful and intentional collaborations among public health, health care, and community groups, such as housing programs, correctional health, and reentry programs, that support communities overrepresented in the criminal legal system based on where they live.
    e. Evaluate public health schools' foundational competencies and alignment with community-centered applied practice and engagement, community-centered leadership approaches, and collective leadership strategies.
2. Review job requirements to promote equitable opportunities for leadership.
    a. Include lived experience and/or require demonstrated experience with community engagement and systems-level thinking as a substitution for academic credentials.
    b. Where there is legislation or some other legal requirement for public health leaders to possess a clinical or other academic degree, consider an amendment to remove exclusionary criteria for any position that does not involve clinical duties. If a position involves clinical duties or requires clinical expertise or licensure/certification, consider creating a role specifically for those duties to enable expansive, adaptive leadership.
3. Promote transparency throughout hiring practices, including in job posting development. Include salaries, add lived experience as a supplementary or replacement qualification, clarify the hiring time line, and communicate how rejected candidates could improve

their candidacy for future roles.

4. Conduct salary and compensation assessments in the national economic context and private sector to better understand and address challenges related to salary and compensation. Consider routine cost-of-living adjustments aligned with national inflation, provide performance bonuses, and pay differentials to financially acknowledge the many roles staff cover during periods of high vacancies or turnover.
5. Elevate individuals with lived experience, such as community health workers and beyond, to critical leadership roles in public health departments to ensure rapid integration of knowledge and practice.
6. Require the Public Health Accreditation Board (PHAB) to evaluate public health departments by equity metrics and collaborative applied practice. Consider opportunities to incorporate feedback from the public into this evaluation. Also, consider opportunities for PHAB to evaluate public health departments' capacities to implement public health initiatives that prioritize the health of service communities independent of political pressure.
7. Integrate community-based public health coalitions and community advisory boards within the framework of public health systems that serve to earn the trust of communities, understand community sentiments, and translate rapidly evolving scientific knowledge. Empower these stakeholders to identify opportunities to reduce silos and promote efficient cross-system collaboration.

Public Health Agencies and Program Implementation Teams

1. Acknowledge, recognize, and address the historical and ongoing atrocities communities of color have experienced in the name of scientific advancement.
2. Identify, recognize, and uplift community leaders to build their capacity to understand and work within public health systems.
3. Establish partnerships with local community-based leaders. Ensure inclusion of organizations serving smaller or chronically underfunded communities.
4. Incorporate community-based participatory action methods into public health programming (problem identification and solution development, implementation, monitoring, and evaluation).

5. Ensure that public health efforts on the ground are culturally competent via community engagement that is authentic, respectful, mutually beneficial, transparent, and nurtured through relationship building to be sustained over time.
    a. Host regular and ad hoc community events where community members can share their experiences and expertise.
    b. Member-check public information campaigns and media tools.
6. Identify the role of public health in all industries and create partnerships with stakeholders.
7. Evaluate successes based on community collaboration, engagement and participation, systems integration and collaboration, transdisciplinary approaches, and cultural humility.
8. Conduct training and/or coaching for leaders to continuously practice, reflect, and improve community-centered leadership approaches and incorporate evaluations that hold leaders accountable for putting this into practice.

References

1. Institute of Medicine, Committee for the Study of the Future of Public Health. The Future of Public Health. Washington, DC: National Academies Press; 1988.
2. Nissen LB, Merrigan DM, Kraft MK. Moving mountains together: strategic community leadership and systems change. Child Welfare. 2005;84(2):123–140.
3. Fee E, Acheson RM, eds. A History of Education in Public Health: Health That Mocks the Doctors' Rules. New York, NY: Oxford University Press; 1991.
4. Knowles M, Scharff MR. New specifications for health officers. Am J Public Health. 1920;10(1):8–13.
5. New York Codes, Rules and Regulations. Section 11.2: Qualifications. Available at: https://regs.health.ny.gov/content/section-112-qualifications. Accessed July 19, 2022.
6. Beitsch LM, Brooks RG, Grigg M, Menachemi N. Structure and functions of state public health agencies. Am J Public Health. 2006;96(1):167–172.
7. Centers for Disease Control and Prevention. Health equity. Available at: https://www.cdc.gov/chronicdisease/healthequity/index.htm. Accessed January 12, 2022.

8. den Broeder L, South J, Rothoff A, et al. Community engagement in deprived neighbourhoods during the COVID-19 crisis: perspectives for more resilient and healthier communities. Health Promot Int. 2022;37(2):daab098.
9. Gibbons MC. A historical overview of health disparities and the potential of eHealth solutions. J Med Internet Res. 2005;7(5):e50.
10. Ojikutu BO, Stephenson KE, Mayer KH, Emmons KM. Building trust in COVID-19 vaccines and beyond through authentic community investment. Am J Public Health. 2021;111(3):366–368.
11. Tran L, Blackstock O. Now's not the time to dispense with Covid-19 precautions. Available at: https://www.washingtonpost.com/opinions/2022/04/20/covid-pandemic-mask-mandate-flights-not-the-time-to-lift-precautions. Accessed April 20, 2022.
12. Fryhofer SA. We must learn from the past in responding to monkeypox. Available at: https://www.ama-assn.org/about/leadership/we-must-learn-past-responding-monkeypox. Accessed August 5, 2022.
13. Scott K, Beckham SW, Gross M, Pariyo G, et al. What do we know about community-based health worker programs? A systematic review of existing reviews on community health workers. Hum Resour Health. 2018;16:1–17.
14. Gilmore B, Ndejjo R, Tchetchia A, et al. Community engagement for Covid-19 prevention and control: a rapid evidence synthesis. BMJ Glob Health. 2020;5:1–11.
15. Akintobi TH, Jacobs T, Sabbs D, Holden K, et al. Community engagement of African Americans in the era of Covid-19: considerations, challenges, implications, and recommendations for public health. Prev Chronic Dis. 2020;17:1–18.
16. MacQueen KM, McLellan E, Metzger DS, et al. What is community? An evidence-based definition for participatory public health. Am J Public Health. 2001;91(12):1929–1938.
17. DeSalvo KB, Wang C, Harris A, et al. Public Health 3.0: a call to action for public health to meet the challenges of the 21st century. Prev Chronic Dis. 2017;14:1–9.
18. Koh HK, Nowinski JM. Health equity and public health leadership. Am J Public Health. 2010;100(suppl 1):S9–S11.
19. Burgess RA, Osborne RH, Yongabi KA, et al. The COVID-19 vaccines rush: participatory community engagement matters more than ever. Lancet. 2021;387:8–10.

20. Lang T, Rayner G. Ecological public health: the 21st century's big idea? BMJ. 2012;345:e5466.
21. Education Commission of the States. Ending the double disadvantage: ensuring STEM opportunities in our poorest schools. Available at: https://www.ecs.org/wp-content/uploads/CTE_STEM-Desert-Brief_FINAL.pdf. Accessed June 8, 2022.
22. Fry R, Kennedy B, Funk C. STEM jobs see uneven progress in increasing gender, racial, and ethnic diversity. Available at: https://www.pewresearch.org/science/2021/04/01/stem-jobs-see-uneven-progress-in-increasing-gender-racial-and-ethnic-diversity/. Accessed June 8, 2022.
23. Ly DP. Historical trends in the representativeness and incomes of black physicians, 1900–2018. J Gen Intern Med. 2022;37(5):1310–1312.
24. Holden K, Akintobi T, Hopkins J, et al. Community engaged leadership to advance health equity and build healthier communities. Soc Sci (Basel). 2016;5(1):2.
25. Pittman P, Chen C, Erikson C, et al. Health workforce for health equity. Med Care. 2021;59(suppl 5):S405–S408.
26. Griffith DM, Semlow AR. Art, anti-racism and health equity: "don't ask me why, ask me how!" Ethn Dis. 2020;30(3):373–380.
27. Heifetz R. The Practice of Adaptive Leadership. Boston, MA: Harvard Business Review Press; 2014.
28. Greenleaf R. The Power of Servant Leadership. San Francisco, CA: Berrett-Koehler Publishers; 1998.
29. Ospina S, Foldy EG. Enacting collective leadership in a shared-power world. In: Perry J, Christensen RK, eds. Handbook of Public Administration. 3rd ed. San Francisco, CA: Jossey-Bass; 2015.
30. Brown A. Emergent Strategy. Chico, CA: AK Press; 2017.
31. Obolensky N. Complex Adaptive Leadership: Embracing Paradox and Uncertainty. New York, NY: Routledge; 2010.
32. Capra F, Luisi PL. The Systems View of Life: A Unifying Vision. New York, NY: Cambridge University Press; 2014.
33. Paxton A, Frost LJ. Using systems thinking to train future leaders in global health. Glob Public Health. 2018;13(9):1287–1295.

34. Kossiakoff A, Swet N, Seymour J, Biemer M. Systems Engineering Principles and Practice. 2nd ed. New York, NY: John Wiley & Sons; 2011.
35. O'Donovan R, Rogers L, Khurshid Z, et al. A systematic review exploring the impact of focal leader behaviours on health care team performance. J Nurs Manage. 2021:29(6):1420–1443.
36. Daft RL, Armstrong A. Organization Theory and Design. 4th ed. Toronto, Ontario, Canada: Cengage Canada; 2021.
37. Altpeter M, Schneider EC, Whitelaw N. Examining strategies to build and sustain healthy aging programming collaboratives. Health Educ Behav. 2014;41(suppl 1):27S–33S.
38. Coronado F, Beck AJ, Shah G, Young JL, Sellers K, Leider JP. Understanding the dynamics of diversity in the public health workforce. J Public Health Manag Pract. 2020;26(4):389–392.
39. Gomez LE, Bernet P. Diversity improves performance and outcomes. J Natl Med Assoc. 2019;111(4):383–392.
40. de Beaumont Foundation. PH WINS: 2021 preliminary findings. Available at: https://debeaumont.org/phwins/2021-findings/. Accessed July 18, 2022.
41. Markle-Reid M, Dykeman C, Ploeg J, et al. Collaborative leadership and the implementation of community-based fall prevention initiatives: a multiple case study of public health practice within community groups. BMC Health Serv Res. 2017;17:1–12.
42. Domínguez DG, García D, Martínez DA, Hernandez-Arriaga B. Leveraging the power of mutual aid, coalitions, leadership, and advocacy during COVID-19. Am Psychol. 2020;75(7):909–918.
43. Haldane V, De Foo C, Abdalla SM, et al. Health systems resilience in managing the COVID-19 pandemic: lessons from 28 countries. Nat Med. 2021;27(6):964–980.
44. Lewis M. Tackling health care corruption and governance woes in developing countries. Available at: https://www.cgdev.org/sites/default/files/7732_file_GovernanceCorruption.pdf. Accessed July 13, 2022.
45. O'Mara-Eves A, Brunton G, Oliver S, et al. The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. BMC Public Health. 2015;15:1–23.
46. Singhal A, Cody MJ, Rogers EM, Sabido M, eds. Entertainment-Education and Social

571 Change: History, Research, and Practice. Hillsdale, NJ: Lawrence Erlbaum Associates; 2004.
572 47. Freire P. Pedagogy of the Oppressed. 30th anniversary ed. New York, NY: Continuum; 2000.
573 48. Galea S. The arts and public health: changing the conversation on health. Health Promot
574 Pract. 2021;22:8S–11S.
575 49. Jackson RM. Addressing inequity through public health, community development, arts and
576 culture: confluence of fields and the opportunity to reframe, retool, and repair. Health Promot
577 Pract. 2021;22:141S–146S.
578 50. Epstein NE, Bluethenthal A, Visser D, Pinsky C, Minkler M. Leveraging arts for justice,
579 equity, and public health: the Skywatchers Program and its implications for community-based
580 health promotion practice and research. Health Promot Pract. 2021;22:91S–100S.
581 51. Rookwood AC, Abney M, Butler-Robbins HS, Westmark DM, Idoate R. Arts-based research
582 methods to explore cancer in indigenous communities. AMA J Ethics. 2022;24(7):E563–E575.
583 52. Hovmand P. Community Based System Dynamics. New York, NY: Springer; 2014.
584 53. Boal A. Theatre of the Oppressed. New York, NY: Theatre Communications Group; 1985.
585 54. Brown TM, Fee E. Social movements in health. Annu Rev Public Health. 2014;35:385–398.
586 55. Fee E, Brown TM. The past and future of public health practice. Am J Public Health.
587 2000;90(5):690–691.
588 56. Ganz M. Leading change: leadership, organization, and social movements. In: Nohria N,
589 Khurana R, eds. Handbook of Leadership Theory and Practice. Boston, MA: Harvard Business
590 School Press; 2010:509–550.
591 57. Baum FE. Power and glory: applying participatory action research in public health. Gac
592 Sanit. 2016;30:405–407.
593 58. U.S. Department of Health and Human Services. Commissioned Corps of the U.S. Public
594 Health Service history page. Available at: https://www.usphs.gov/history. Accessed February 9,
595 2022.
596 59. Necefer DL, Siler W, Hansman H. Paying lip service to indigenous knowledge won't fix
597 climate change. Available at: https://www.outsideonline.com/culture/opinion/indigenous-
598 knowledge-climate-change/. Accessed July 2, 2022.
599 60. Taft JG. Academia's community impact gap. Available at:
600 https://www.dli.tech.cornell.edu/post/academia-s-community-impact-gap. Accessed July 22,

2022.
61. Williams M. Racism in academic publishing. Available at: https://www.psychologytoday.com/us/blog/culturally-speaking/202007/racism-in-academic-publishing. Accessed July 22, 2022.
62. Bekemeier B, Grembowski D, Yang Y, Herting JR. Leadership matters: local health department clinician leaders and their relationship to decreasing health disparities. J Public Health Manag Pract. 2012;18(2):E1–E10.
63. Oliver K, Pearce W. Three lessons from evidence-based medicine and policy: increase transparency, balance inputs and understand power. Palgrave Commun 2017;3:43.
64. Yearby R. Race based medicine, colorblind disease: how racism in medicine harms us all. Am J Bioeth. 2021;21(2):19–27.
65. Brooks KC, Rougas S, George P. When race matters on the wards: talking about racial health disparities and racism in the clinical setting. MedEdPORTAL. 2016;12:10523.
66. Gigerenzer G. On the supposed evidence for libertarian paternalism. Rev Philos Psychol. 2015;6(3):361–383.
67. Grill K. Paternalism. In: Chadwick R, ed. Encyclopedia of Applied Ethics. 2nd ed. New York, NY: Academic Press; 2012:359–369.
68. Jesudason S, Weitz T. Eggs and abortion: “women-protective” language used by opponents in legislative debates over reproductive health. J Law Med Ethics. 2015;43(2):259–269.
69. Afolabi AA, Ilesanmi OS. Addressing COVID-19 vaccine hesitancy: lessons from the role of community participation in previous vaccination programs. Health Promot Perspect. 2021;11(4):434–437.
70. Morello-Frosch R, Brown P, Lyson M, Cohen A, Krupa K. Community voice, vision, and resilience in post-Hurricane Katrina recovery. Environ Justice. 2011:4(1):71–80.
71. Flood B. Critical race theory-related ideas found in mandatory programs at 39 of top 50 US medical schools: report. Available at: https://www.foxnews.com/media/critical-race-theory-medical-schools-report. Accessed July 22, 2022.
72. Butcher J, Gonzalez M. Critical race theory, the new intolerance and its grip on America. Available at: https://www.heritage.org/civil-rights/report/critical-race-theory-the-new-intolerance-and-its-grip-america. Accessed July 22, 2022.