Preserving Public Health Capacity by Protecting the Workforce and Authority

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Abstract

While the SARS-CoV-2 pandemic has exacerbated known and long-standing challenges to the nation's public health system, including a neglected infrastructure and inadequate funding, new actions to limit the authority of public health in an environment of mistrust and disregard for public health science, public health measures, and public health officials add to the complexity of the challenges we are facing. The ability to determine whether public health measures are needed to address issues that pose significant risks to the health and well-being of communities has been dramatically limited or reassigned to elected officials without any requisite knowledge of science or public health. Public health professionals who have promoted and worked to implement evidence-informed public health measures have been contradicted or ignored by elected officials and others while being harassed or threatened for doing their work. A substantial number of professionals have been fired, have retired early, or have terminated their employment due to fear for themselves and their families, an inability to protect the communities they have served, exhaustion, and a bleak forward-looking picture. The mission of public health to ensure conditions in which all people can be healthy has been eclipsed by assorted national, state, and local policymakers and community residents. Public health's future rests on our work to understand and address these challenges, to strengthen systems that are lacking, and to be innovative in looking forward and implementing what is needed to carry out our mission to protect the health of the public we serve.

Relationship to Existing APHA Policy Statements

- APHA Policy Statement 202118: Preparing Public Schools in the United States for the Next Public Health Emergency: Lessons Learned from COVID-19
- APHA Policy Statement 20171: Supporting Research and Evidence-Based Public Health Practice in State and Local Health Agencies
- APHA Policy Statement 201511: Impact of Preemptive Laws on Public Health
- APHA Policy Statement 201015: Securing the Long-Term Sustainability of State and Local Health Departments
- APHA Policy Statement 200911: Public Health's Critical Role in Health Reform in the United States

- APHA Policy Statement 200609: Responding to Disasters: Protection of Rescue and Recovery Workers, Volunteers, and Residents Responding to Disasters
- APHA Policy Statement 20063: Preparing for Pandemic Influenza
- APHA Policy Statement 20034: Protecting Essential Public Health Functions Amidst State Economic Downturns
- APHA Policy Statement 200023: The Need for Continued and Strengthened Support for Immunization Programs

Problem Statement

While the SARS-CoV-2 pandemic has exacerbated known and long-lasting challenges facing the country's public health system, such as neglected infrastructure and stagnant or declining funding[1] that periodically receives a temporary boost based on emerging needs,[2] new actions to limit the authority of public health in an environment of mistrust and disregard for public health science, public health actions, and public health officials add further concerns and complexity.[3] Laws that limit or prohibit public health interventions or shift authority to the legislative branch impede quick and effective action, lessen access to expertise, reduce helpful redundancy in the ability to act, violate separation of powers, and place the nation's health at risk. As defined in 45 CFR 46.102(k), "Public health authority means an agency or authority of the United States, a state, a territory, a political subdivision of a state or territory, an Indian tribe, or a foreign government, or a person or entity acting under a grant of authority from or contract with such public agency, including the employees or agents of such public agency or its contractors or persons or entities to whom it has granted authority, that is responsible for public health matters as part of its official mandate."[4]

Recent dramatic increases in legislative actions to limit the power of public health have been reported by the Network for Public Health Law and the National Association of County and City Health Officials (NACCHO).[5] As of mid-September 2021, more than half of states had passed legislation that limits public health authority, and additional bills limiting public health authority were introduced in the remainder of states in late 2021 and 2022.[6] Idaho now allows county commissioners to override countywide public health orders.[7] At least 10 states now have laws that ban or limit mask mandates (Florida, Texas, Arkansas, Arizona, Iowa, Oklahoma, South Carolina, Utah, Montana, Georgia), and five states have executive orders or court rulings that limit mask requirements.[8] In at least 16 states, the power of public health officials to order mask mandates, quarantines, or isolation has been limited. A number of governors have opted not to implement mask mandates and are relying on local public health agencies to determine whether mandates are needed and to implement them. Seventeen states have passed

laws banning COVID vaccine mandates or vaccine passports or have made it easier to get around vaccine requirements.[5,6]

Other state-level policies include limiting public health's ability to close businesses to prevent the spread of disease (Kansas), restricting the use of quarantine (Montana), stripping authority from local health departments and local governments to respond to local emergency conditions (Texas), blocking state universities from requiring vaccinations for students and employees (Arizona, Georgia), prohibiting hospitals from requiring employees to be vaccinated (Arizona), setting arbitrary time limits for emergency orders (Florida), and shifting power from state and local public health to legislatures (Ohio, Indiana). Lawsuits have been filed in a number of states including California, Kentucky, Louisiana, and Virginia claiming that state or local restrictions on religious gatherings are in violation of the First Amendment right to free exercise of religion. Some states have classified religious gatherings as "essential" to elude public health recommendations.[9]

The judicial branch has typically upheld delegations of authority to national, state, and local official public health entities. The U.S. Supreme Court, in the 1905 Jacobson v. Massachusetts case, ruled in favor of the state to require that Reverend Henning Jacobson be vaccinated for smallpox or pay the required $5 fine, recognizing that public good outweighed the rights of the individual.[10] Over the years, the courts have continued to grant public health agencies substantial deference in imposing requirements to control preventable diseases, for example by requiring childhood vaccinations for school entrance. In using the power from the Jacobson court ruling, public health authorities should not merely be reasonable and transparent in their actions but should also "adopt the least restrictive alternative that will meet the public health goal."[11]

Two legal challenges to national COVID-related protections were heard by the U.S. Supreme Court. Opponents of vaccination and masking mandates argued that the Occupational Safety and Health Administration (OSHA) and the Centers for Medicare & Medicaid Services (CMS) do not have the authority to impose these mandates on employers. The court upheld the CMS rule and returned the OSHA case to the 6th Circuit Court of Appeals with a stay.[12–14] Title VII of the 1964 Civil Rights Act provides for reasonable accommodations that do not pose undue hardship on an employer's business. This may be due to a sincerely held religious belief, practice, or service. In addition, employees who are not vaccinated because of pregnancy may be entitled to exemptions under Title VII.[15]

Opposition to science-based public health measures that have been utilized during the pandemic has taken a number of forms. In some locales, public health agencies have gone to court to ensure enforcement of public health orders, as these agencies do not have other ways of enforcing compliance. For example, Dr. Dawn Comstock, executive director of Jefferson County Public Health (Colorado), issued a public health order to require masks in schools. Three private schools in the county did not comply with the order, nor did they allow Jefferson County Public Health to enter the school buildings unannounced to determine whether the order was being followed. A court hearing was held in September 2021. The judge decided to allow the order to stand temporarily. The cost of the court hearing was borne by Jefferson County. As the pandemic progressed, Comstock was openly and publicly criticized for implementing public health measures including mask mandates, and on February 7, 2022, she resigned during an executive session of the Jefferson County Board of Health. Details of the reason for her resignation were not made public, and she immediately was relieved of her executive director position and authority. This is but a single example of the types of actions that were taken because of public dissatisfaction with public health measures to mitigate the pandemic (personal communications between Dawn Comstock, PhD, and Linda Degutis, DrPH, September 2021 and February 2022).

Another difficulty that health departments face with respect to public health orders is that, in their efforts to enforce a COVID-related order, departments may have a single option for action if the order is violated. For example, if there is a mandate for mask wearing in schools, and there is a report to the health department that a school is violating the public health order, the health department will investigate to document compliance or noncompliance. If the school is found to be noncompliant, the only choice that may be available to the health department is to shut the school down, thereby preventing the children attending that school from participating in in-person learning. This differs from the types of actions that might be undertaken in a situation such as a restaurant inspection, in which the department inspects a restaurant and identifies levels of compliance with food safety regulations. The restaurant will receive a score, and if the score is below a specified level, the restaurant will be given a warning and will be reinspected within a short time frame. If its score remains low, the restaurant may be fined, and continued noncompliance may result in closure. This stepwise process provides an opportunity to take corrective measures that help to ensure that restaurant patrons are not at risk of foodborne illness, an illustration of an ethical problem-solving approach not available in the either-or decision to shut down the noncompliant school.[16,17]

NACCHO has tracked more than 250 public health officials who have left their positions.[11] Contributing to an environment of mistrust among those most hurt by ineffective responses to COVID is

our history of unethical public health practices, including the coercive treatment in 1900 of San Francisco Chinese immigrants in response to a bubonic plague outbreak. Whites were evacuated while immigrants were required to stay quarantined in rat-infested neighborhoods and to be inoculated with an experimental vaccine.[18] The Tuskegee Syphilis Study is commonly cited as a reason for mistrust due to the extent and duration of the deception and mistreatment of African Americans; others include the stolen cell line of Henrietta Lacks for biomedical research and the disproportionate sterilization of Latinx individuals under California's 1920–1945 Eugenic Sterilization Program.[19,20] Actions to strip public health of its ability to take measures to protect the public have included harassing and threatening public health officials and limiting or restricting the release of data related to the pandemic by public health officials.[21]

News accounts report on a substantial number of personnel who have voluntarily left their positions or been fired at local and state levels. In May 2021, NACCHO tracked more than 250 public health officials who left their positions,[22] and in October 2021 a New York Times review of health departments identified more than 500 top health officials as having exited.[23]

Attacks have come not just from elected officials but also from the public in the form of physical threats directed at public health workers and their families. Vitriolic postings on social media, radio attack ads, armed protesters, suspicious packages left on doorsteps, vandalized cars, and demonstrations at clinic sites have exacted a toll as documented by a Centers for Disease Control and Prevention (CDC) summer 2021 survey of mental health among state, tribal, local, and territorial public health workers. The results document self-reported symptoms of depression, anxiety, posttraumatic stress disorder, and suicidal ideation.[24] In addition, a systematic review and meta-analysis linked psychological stress at work to mental health symptoms and increased absenteeism, high turnover, lower productivity, and lower morale.[25] A Boots on the Ground post[26] suggests that public health borrow the concept of "moral injury" from combat medicine to describe the psychological, behavioral, social, and/or spiritual distress experienced by an overworked and undervalued public health workforce.

Attacks have also come from within. The Tennessee Department of Health's deputy medical director, a pediatrician overseeing vaccine-preventable diseases and immunizations programs, encountered fierce resistance to her response to a question regarding making health departments aware of Tennessee's 1987 Mature Minor Doctrine, which allows children older than 14 years to be vaccinated without parental consent. Assuring that the doctrine is legal and used sparingly, the state health commissioner initially

stood with her deputy director but later fired her amid pressure from "outraged and uninformed legislators."[27,28]

The disappearance of experienced public health professionals through resignation or dismissal results in the loss of institutional memory, expertise, and experience. The Association of State and Territorial Health Officers (ASTHO) determined that one third of the state health officer turnover as of August 2020 could be attributed to conflicts with elected officials and/or threats of physical harm and harassment from the public. The already short tenure of state health officers has been exacerbated by COVID-19 and warrants earnest consideration as the country emerges from the pandemic.[29] In the past decade, public health positions at the state and local levels have declined 15% from before the onset of the pandemic.[30] Historically, health care workforce shortages have been addressed through workforce programs of the Health Resources and Services Administration (HRSA). In 2021, the U.S. Department of Health and Human Services reported that 22,700 health care providers are now practicing in underserved communities.[31] HRSA could take a similar approach to efforts to rebuild the public health workforce.

While these issues affect public health authority and the public health workforce, there is also a downstream impact on the population served by public health agencies. Public health has a broad impact on the community it serves, and the impact includes health promotion strategies and initiatives, food safety, water and air quality monitoring, immunizations, prenatal health, nutrition, disaster and pandemic preparedness and mitigation, and epidemiological surveillance. As social justice is a foundational principle of public health, ensuring equity in access to services and strategies is also a crucial component of the public health system.

Assuming that new leaders can be found, having to replace leadership is an unwanted, unnecessary detraction. Recruitment of new personnel is a daunting task when the last office holder's home was the staging ground for gun-toting protesters, as was the case for one state health commissioner.[32] There are particular challenges to recruitment of new leaders and personnel in rural and remote areas.

Collaborators have lost valued colleagues from other public health jurisdictions. The community's confidence in public health and public administrators has eroded.[33] Udow-Phillips and Lantz[34] suggest that public health leaders acknowledge the importance of transparency and share known and unknown risks. When made, errors should be acknowledged.[34] Further politicization of the pandemic occurred when new scientific information necessitated that federal, state, and local public health leaders modify recommendations. A portion of the public viewed inconsistent messaging as inaccurate

information. Disrupters used this to sow seeds of distrust and disdain and to portray public health leaders as incompetent. Malinformation, the deliberate use of fake information to make a position more believable, thrived.[35]

People's view of public health, public health leaders, and the pandemic was also shaped by the data they received. Initial data terms were confusing[36] and left the public unsure of data's value. Policymakers needed public health data. Jurisdictions across the country had data gaps and inadequate and inconsistent data definitions. Reporting timetables varied, as did access to data, and in some jurisdictions data were underreported or not reported at all.[37]

Disparate systems at state and local levels continue to challenge data's usability and accuracy. During the pandemic, data systems struggled with disaggregation by key characteristics. COVID laid bare the patchwork of U.S. mortality tracking systems, including issues related to accuracy, completeness, and timeliness.[38] Challenges with data exchange between hospitals and public health agencies included both technology and workforce shortfalls.[39] The public health system, out of necessity, engaged academics as well as private sector consultants in assisting with data analysis and visualization, but valuable time was lost and lack of coordination across states led to varying case definitions and methods of measuring COVID-19-related deaths.[40] International comparisons were hampered by inconsistencies across countries. The pandemic has provided an incentive to develop a dynamic data system, a system called for in a 1995 report in Science.[41]

The need to better understand the complexities of human, animal, plant, and environment interactions that will give rise to future pandemics calls for data systems to include global early warning surveillance that takes advantage of metagenomic sequencing and incorporates a One Health perspective in a worldwide security approach.[42]

The pandemic has also elevated the need to rethink public health services and systems at all levels, to take a critical look at current activities and priorities, and to examine what can be done better, done differently, or not done. While public health continues its mission of protecting the health of the public, the system might benefit from a reexamination of structure and function and apply lessons learned during the pandemic. Organizations that serve to support state, regional, tribal, and local health departments and their leaders and staff can collaborate to identify model structures and functions that will contribute to the redesign and evolution of the public health system.

Evidence-Based Strategies to Address the Problem

The best means of communicating public health messages is an area of research across the country. Recently, Cornell researchers evaluated strategies to increase source credibility through strategic message design in the context of vaccine hesitancy.[43] Research has established that there are three core components of source credibility: expertise, trustworthiness, and caring/goodwill. The authors found that messages designed to convey source expertise produced greater perceived trustworthiness and reduced vaccine hesitancy. Observing that perceptions of credibility of sources differed, they called for more research on how strategic messaging might serve to increase the credibility of a specific source. The researchers noted that while perceptions of caring/goodwill may be of particular importance for those who distrust institutional science, this is an underresearched area.[43] Only relatively late in the pandemic was there a focus on seeking recommendations from one's trusted health care provider.

An initial step to investigate how to better incorporate the public in discussions of acceptable risk is found in the work of Porat et al.[44] on strategies to assist with cutting through what the authors call the pandemic's "infodemic." Their review of the literature on and application of self-determination theory to understand human behaviors and motivations offers guidance to public health agencies in providing choice within limitations, creating messages that are actionable and can be integrated into people's circumstances, communicating the social norm to avoid the "us versus them" mentality, and being transparent while acknowledging uncertainty.[44]

The APHA Code of Ethics provides a framework for analyzing public health actions and speaks to, among other points, the need to enforce public health laws" "While coercive legal measures limiting behavior can be ethically justified in certain circumstances, overall the effective and ethical practice of public health depends upon social and cultural conditions of respect for personal autonomy, self-determination, privacy, and the absence of domination in its many interpersonal and institutional forms. Contemporary public health respects and helps sustain those social and cultural conditions."[45] This code provides a foundation for engaging in public health actions, including policymaking, to work toward creating and sustaining healthy communities and for designing the future of public health. An international ethics council notes that democratic legitimacy requires public health policy not to be solely based on science but also to take values into account.[46] Policymakers during the pandemic have focused on the ethics of liberty restrictions rather than more broadly addressing values such as beneficence and distributive justice.[47]

In public health, evidence has a number of different audiences: practitioners; local, state, regional, tribal, national, and international policymakers; nongovernmental stakeholders whose mission is to improve health; researchers/academics; and the public.[48] Evidence should inform our policies, programs, and systems. The systematic development and synthesis of evidence for these audiences has been ongoing, but there is much yet to learn coming out of this pandemic, particularly about the interface of evidence with policymakers and the public. The public's lack of understanding or recognition of the progression of science regarding the SARS-CoV-2 virus has interfered with acceptance of changing "facts." Some policymakers and members of the public are dismissive of accumulating science and evidence. Strategies to use with those with hardened positions warrant careful study. McKinlay and Marceau[49] maintain that "public health workers, motivated by humanism and utilitarianism, deserve to get somewhere by design, not just by perseverance." Just what is that design?

Machado and Goldenberg[50] speak to the need for policymakers and public health practitioners to place greater emphasis on equity-focused and antiracist health research, interventions, and training. Ethical and respectful engagement, commitment, and collaboration with accompanying accountability are, the authors note, part of sharpening our public health lens and doing better in dealing with a pandemic.[50]

Opposing Arguments/Evidence

Opposing arguments have focused on prioritization of individual rights over collective good, reliance on readily available misinformation and malinformation, concern regarding locus of control of promulgation of public health measures, a pattern of distrust in government, the right to freedom to choose whether to comply with public health orders, politicization of a public health issue, and perceptions of overreach in the implementation of public health measures.

Much of the legal basis for public health measures, orders, and emergency orders resides within the authority of states. As definitions and assignments of authority lack uniformity across states, policies and practice also differ from one state to another, leading to questions regarding what best practices and actions are based on evidence.

Decisions about what strategies are appropriate to prevent or mitigate a public health emergency are dependent upon the designated decision maker's knowledge and understanding of the issue at hand. If the decision maker lacks the requisite public health background or knowledge and does not have a knowledgeable and reliable set of advisors (or does not heed their advice), decisions may be contrary to established public health evidence. The decision maker may prioritize economic, social, or community

outcomes. When public health experts are prohibited from exercising authority to construct science-based public health orders and initiatives, the health of the community may be threatened and undervalued as other aspects of society are prioritized at the expense of the health of the public.

Economists studying the health (infections, deaths, and hospitalizations) versus wealth trade-off with COVID-19 point out that it is more than an economic calculation that has driven responses to public health actions. Political party, economic sector of concern, and age have also been found to be important.[51,52]

A prime example of the denigration of public health, as well as the inadequate response by some public health leaders, occurred at the beginning of the pandemic, when the White House set the stage for an unprecedented circumvention of public health agencies. Politicians rather than public health officials communicated with the public about the pandemic and the associated health risks. There were repeated denials of the potential severity of illness and risk of death as politicians continued their communications. Heads of federal agencies that focus on public health and health research—the Centers for Disease Control and Prevention and the National Institutes of Health—were not called upon to present the evidence for effective mitigation measures. Politicians promoted “cures” and treatments that were not only unproven but dangerous (e.g., hydroxychloroquine, bleach).

Early criticism from the White House of the CDC’s guidance made it appear politicized, eroding public trust in both the organization and its messages. Four former CDC heads penned an editorial appearing in the Washington Post titled “We Ran the CDC. No President Ever Politicized Its Science the Way Trump Has.” They noted that over their collective tenure at the CDC, spanning both Democratic and Republican administrations, they could not recall a single instance when political pressure resulted in a change in the interpretation of scientific evidence.[53] The secretary of the Department of Education described CDC guidelines for reopening schools as an impediment rather than characterizing them as actions to protect the safety of children and staff.[54]

According to Brown, “public health interventions often stir controversies about the legitimate role of the state vis-à-vis individual autonomy and liberty and about the scope of personal versus social responsibility.”[55] Public health measures implemented during the pandemic have relied on collective action to derive the most benefit, but a portion of society has a deep-seated belief that individual freedom trumps such actions. The breadth of the government’s action angered this population, as evidenced by their behavior toward public health officials and policymakers.[8,56–58]

During the pandemic, some political leaders decided to trust that their constituents would make the best decisions about protecting their health and the health of their community, regardless of their understanding of the evolving science of the pandemic and the efforts being made to end it. In addition, various sectors, including political groups, the media, and social networks, promulgated statements and theories that reinforced opposition to evidence-based public health measures and the continued erosion of public health authorities.

The pandemic catapulted public health experts to the forefront of what was viewed as political decision-making with polarizing reactions. Little is known about what citizens think of expert involvement in political decision-making. A study conducted in Europe showed that citizens prefer independent experts over national elected representatives in the policy change and implementation stages but that such acceptance is linked to specific issues.[59]

Opposition has also been built on the massive amounts of misinformation and malinformation available on social media platforms and discussions with others with similar views. Messaging about the pandemic changed in real time as more was learned about SARS-CoV-2. Acknowledgment of uncertainty related to lack of available data was viewed as a negative rather than an understanding of the legitimacy of evolving science.[35,60]

Action Steps

System

APHA calls for Congress, governors, mayors, tribal leaders, local leaders, and boards of health to form and support a comprehensive, nonpartisan, multisector commission to assess public health actions taken at the federal, state, tribal, regional, and local levels during the pandemic to control the spread of COVID-19.

APHA calls on policymakers at all levels to:

- Defend existing statutes that allow public health officials to implement public health measures that will aid in protecting the community from the impact of public health emergencies.
- Reinstate authority to public health officials to control outbreaks and manage other emergent and ongoing threats to the public's health.
- Take an approach to policymaking that is mindful of equity.

Funding

APHA calls for Congress and state, tribal, and local governments to fund:

- Transformation of the nation's public health infrastructure at a level that allows the system to provide essential public health services to all and to address the inequities highlighted during the pandemic.
- Local, state, and tribal health departments in a sustained, committed fashion to avoid a slow slide back into the complacency that comes with an ebb in media attention and loss of public interest and political will.
- Development of dynamic data systems that are timely, accurate, and relevant; involve analyses that can be configured for distribution to stakeholders and members of the community in a range of formats; and include interoperability for monitoring public health issues, emerging issues, and public health actions. System development should recognize legal limitations on data sharing and legal strategies to enable data sharing.
- A distinct, parallel public health HRSA education and training program that includes basic core public health training in all health professional programs and emphasizes that public health issues are shaped and amplified by social, biological, and political factors.
- Efforts to monitor implementation of the recommendations articulated in the United States Health Security National Action Plan framework,[61] including study of risk communication, strengthened real-time surveillance, and expanded public health emergency response capacity.

Workforce Threats

APHA calls on Congress to require a reporting system of threats and harassment against public health workers in the performance of their official duties to the CDC and the CDC to build a database to better understand these occurrences.

APHA calls on groups such as the National Council of State Legislators, the National Governors Association, ASTHO, and NACCHO to develop model legislation and advocate for all state governors and legislative bodies to endorse a policy condemning harassment of or threats against public health officials (e.g., Colorado's governor signed a law making it a misdemeanor to threaten public health officials or their families and California's governor instituted an executive order protecting the privacy of public health officials) and implement legislation to protect public health officials.

Research

APHA calls on the National Institutes of Health, the CDC, the Department of Defense, the Department of Homeland Security, and foundations to increase funding for research addressing public health crisis

interventions with options for just-in-time funding to prospectively study actions during public health emergencies, including those designed to ameliorate health inequities.

Education

APHA calls on the Council on Education for Public Health to:

- Consider a mandatory requirement for inclusion of public health communication coursework to ensure that people who complete public health degrees are familiar with means to counteract misinformation and malinformation, communication technology options and limitations, evidence-based communication strategies, crisis communication, communication with population subgroups, and communication with policymakers so that they can better understand and use evidence-based public health measures.
- Encourage public health schools and programs to provide communication coursework through continuing education to practicing public health professionals.
- Collaborate with public health schools and programs to recruit and educate students of diverse backgrounds in sufficient numbers to allow agencies to hire a workforce that reflects the community.

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