REPORT 2 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (N-21)
Full Commitment by our AMA to the Betterment and Strengthening of Public Health Systems (Resolution 401-JUN-21)
(Reference Committee D)

EXECUTIVE SUMMARY

BACKGROUND: Policy D-440.922 adopted at the November 2020 Special Meeting of the House of Delegates asked that our American Medical Association (AMA) study the most efficacious manner by which we can continue to achieve our mission of the betterment of public health by recommending ways in which to strengthen the health and public health system infrastructure.

Resolution 401-JUN-21, introduced by the Washington Delegation and referred by the House of Delegates asked that our AMA establish a list of all essential public health services that should be provided in every jurisdiction of the United States; a nationwide system of information sharing and intervention coordination in order to effectively manage nationwide public health issues; a federal data system that can capture the amount of federal, state, and local public health capabilities and spending that occurs in every jurisdiction to assure that their populations have universal access to all essential public health services; and a federal data system that can capture actionable evidence-based outcomes data from public health activities in every jurisdiction.

METHODS: This was a qualitative study in which semi-structured, in-depth interviews lasting 45 minutes were conducted with public health and physician experts (n=17) and members of the AMA Board of Trustees (n=11). Public health experts had federal, state, and local public health experience and were affiliated with governmental public health organizations, national public health organizations, schools of public health, public health foundations, and national medical specialty societies. Stakeholder organizations were identified by the members of the Council on Science and Public Health (CSAPH). Members of the AMA Board of Trustees were asked to participate in interviews at the discretion of the Board Chair.

RESULTS: The public health infrastructure interviews identified eight major gaps or challenges in the U.S. public health infrastructure. These include: (1) the lack of understanding and appreciation for public health; (2) the lack of consistent, sustainable public health funding; (3) legal authority and politicization of public health; (4) the governmental public health workforce; (5) the lack of data and surveillance and interoperability between health care and public health; (6) insufficient laboratory capacity; (7) the lack of collaboration between medicine and public health; and (8) the gaps in the public health infrastructure which contribute to the increasing inequities we see in health outcomes.

CONCLUSION: The Council on Science and Public Health recommends that the AMA outline an organization-wide public health strategy, aligned with the findings of this report, to develop a roadmap of the work being done by the AMA in public health and to share accomplishments as the strategy is implemented. The Council also recommends new policy urging the AMA to actively oppose the limits being placed on the authority of health officials, recognizing the authority to implement evidence-based measures may be necessary to protect the health of the public. We also propose a new policy calling for public health agencies to communicate directly with the health professionals licensed within their jurisdiction. Minor amendments are also suggested to further strengthen our existing public health policies based on the findings of this research.

REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 2-N-21

Subject: Full Commitment by our AMA to the Betterment and Strengthening of Public Health Systems (Resolution 401-JUN-21)

Presented by: Alexander Ding, MD, MS, MBA, Chair

Referred to: Reference Committee D

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> Our AMA study the most efficacious manner by which our AMA can continue to achieve its mission of the betterment of public health by recommending ways in which to strengthen the health and public health system infrastructure.

Resolution 401-JUN-21, introduced by the Washington Delegation and referred by the House of Delegates asked that:

> Our American Medical Association study the options and/or make recommendations regarding the establishment of:
> 1.a list of all essential public health services that should be provided in every jurisdiction of the United States;
> 2. a nationwide system of information sharing and intervention coordination in order to effectively manage nationwide public health issues;
> 3. a federal data system that can capture the amount of federal, state, and local public health capabilities and spending that occurs in every jurisdiction to assure that their populations have universal access to all essential public health services; and
> 4. a federal data system that can capture actionable evidence-based outcomes data from public health activities in every jurisdiction (Directive to Take Action); and be it further
>
> Our AMA prepare and publicize annual reports on current efforts and progress to achieve universal access to all essential public health services. (Directive to Take Action)

METHODS

This was a qualitative study in which semi-structured, in-depth interviews lasting 45 minutes were conducted with public health and physician experts (n=17) and members of the AMA Board of Trustees (n=11). Public health experts had federal, state, and local public health experience and were affiliated with governmental public health organizations, national public health organizations, schools of public health, public health foundations, and national medical specialty societies. Stakeholder organizations were identified by the members of the Council on Science and Public Health (CSAPH) and organizations were asked to identify a primary and alternate representative to participate in the stakeholder interview. Alternates were interviewed when there were difficulties scheduling with the primary representatives. Due to timing constraints and scheduling conflicts, some organizations were unable to participate. Members of the AMA Board of Trustees were asked

to participate at the discretion of the Board Chair. The individuals who were interviewed provided verbal informed consent and received no financial compensation.

DATA COLLECTION AND ANALYSIS

The Council identified five objectives to guide the public health infrastructure research. The objectives were as follows:

- Understand the current challenges faced by public health professionals and health departments in preventing, detecting, and responding to emerging infectious disease threats and other public health crises.
- Understand physician and public health professionals' perspectives on what solutions need to be implemented to strengthen public health infrastructure to carry out the 10 essential public health services to improve disease and injury prevention and the health of the public
- Identify barriers and opportunities for improved and increased linkages between the public health and health care systems.
- Understand opportunities for the public health system to protect and promote the health of all people in all communities by removing systemic and structural barriers that have resulted in inequities.
- Identify opportunities for the AMA in supporting, developing, and implementing solutions.

The semi-structured interview guide (Appendix A) was developed with input from the members of CSAPH as well as AMA staff, including representatives from the Health, Science, and Ethics and the Center for Health Equity teams. The interview guide began by asking participants to define public health infrastructure, their experience, and the role of their organization in public health. The guide also asked individuals to identify challenges facing our nation's public health system, noting that these challenges could focus on the COVID-19 pandemic or challenges beyond the pandemic. The guide then aimed to give participants the opportunity to ideate possible solutions. Participants were then asked to identify how the AMA can best support solutions to strengthen public health infrastructure. A separate discussion guide was developed for the interviews with AMA trustees (Appendix B), which asked their reaction to the challenges and solutions identified by the external stakeholders and their perspective on the AMA's role in these efforts. The semi-structured interviews were conducted by C + R Research, an independent research firm. All interviews were recorded and transcribed. Transcripts were analyzed by the independent research firm for major themes. All personally identifiable information was removed from the transcripts prior to analysis. The findings of this research were presented to CSAPH and were shared to the Board of Trustees in July and serve as the basis for this report.

BACKGROUND

Public health has been defined as "what we do together as a society to ensure the conditions in which everyone can be healthy."[1(p0)] CSAPH believes that public health belongs to everyone and is everyone's responsibility. The public health system is broad and has been defined as "all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction"[2] This system includes public health professionals, health care professionals, employers, schools, parks and recreation, community-based organizations, non-governmental organizations, faith-based institutions and more (see Figure 1). However, for purposes of this report, when we talk specifically about strengthening our nation's public health infrastructure, we are talking about the work of governmental public health entities at the federal, state, territorial, local, and tribal levels.[1] The Council acknowledges that additional reports exploring the broader public health system are warranted in the near future.

10 Essential Public Health Services

The 10 Essential Public Health Services (EPHS), originally published in 1994, provide a framework by which the work of public health is to be accomplished in all communities. The 10 EPHS, which were revised in 2020, with input from the AMA, are as follows:

- Assess and monitor population health status, factors that influence health, and community needs and assets.
- Investigate, diagnose, and address health problems and hazards affecting the population.
- Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it.
- Strengthen, support, and mobilize communities and partnerships to improve health.
- Create, champion, and implement policies, plans, and laws that impact health.
- Utilize legal and regulatory actions designed to improve and protect the public's health.
- Assure an effective system that enables equitable access to the individual services and care needed to be healthy.
- Build and support a diverse and skilled public health workforce.
- Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement.
- Build and maintain a strong organizational infrastructure for public health.

Existing AMA Policy D-440.924, "Universal Access for Essential Public Health Services," called for updating the 10 EPHS to bring them in line with current and future public health practice and encourages state, local, tribal, and territorial public health departments to pursue accreditation through the Public Health Accreditation Board (PHAB). The revised EPHS are central to the PHAB framework and inform PHAB standards, which provides a framework for health departments to evaluate their policies, procedures, and programs and to make meaningful improvements.

The Roles of Health Care and Public Health in Prevention

The Council also recognizes that the roles of health care and public health can seem indistinct. The role of health care in prevention is often described as increasing the use of evidence-based preventive services for individual patients and the role of public health is often described as focused on implementing interventions that reach the whole population or a population within a jurisdiction. There is also a shared responsibility for innovative clinical prevention provided outside of the clinical setting (see Figure 2). However, we recognize that there are public health agencies that provide clinical preventive services, particularly in rural communities where there may be a shortage of primary care physicians. There are also health care professionals involved in community-wide prevention efforts.

The COVID-19 Pandemic

Organizations representing U.S. governmental public health agencies have been cautioning for years that their ability to keep the population safe from disease and public health emergencies is constrained by the lack of dedicated and sustained funding.[3] In addition to funding, our public health infrastructure has been threatened by high rates of staff turnover and obsolete data collection and reporting methods, which lead to delayed detection and response to public health threats of all types.[4,5] The COVID-19 pandemic did not create these problems, but it inarguably exposed the cracks that had long existed in our public health infrastructure. For decades, public health professionals have been advocating for greater resources to plan and prepare for just such a crisis.

The challenges of the COVID-19 pandemic response have been well documented.[6,7] While it is true that there certainly have been errors and omissions in the COVID-19 response, public health leaders should also be recognized for their successes and the tireless work that they have done under incredibly challenging circumstances.[8] The development, authorization, distribution, and administration of over 300,000,000 doses of safe and effective vaccines in the United States in 20 months since the identification of the SARS-CoV-2 novel pathogen has been nothing short of remarkable.

RESULTS

The public health infrastructure interviews identified eight major gaps or challenges in the U.S. public health infrastructure. These include:

(1) the lack of understanding and appreciation for public health;
(2) the lack of consistent, sustainable public health funding;
(3) legal authority and politicization of public health;
(4) the governmental public health workforce;
(5) the lack of data and surveillance and interoperability between health care and public health;
(6) insufficient laboratory capacity;
(7) the lack of collaboration between medicine and public health; and
(8) the gaps in the public health infrastructure which contribute to the increasing inequities we see in health outcomes.

Lack of Understanding and Appreciation for Public Health

Challenge: When public health is working, it is invisible. Because of this, individuals outside of public health too often take it for granted and do not realize the way it impacts health and well-being on a daily basis. The public assumes the air is clean and their food and water is safe without giving the work of public health recognition for these accomplishments. As a result of this invisibility, public health is not prioritized or adequately funded.

There is broad consensus that the gaps we see in the public health infrastructure stem from a broad misunderstanding of what public health is and what it does. Some stakeholders indicated that public health is misunderstood by the public as "health care for poor people" and it is disregarded or devalued given this misjudgment. Others believe governmental and some health care organizations do not fully understand the role of public health professionals. Alternatively, health care is highly visible and well-regarded and is better understood by the public as it has a clear outcome (i.e., treating people when they are sick). Although health care's mission is an important one, it does little to prevent people from becoming sick in the first place and health care is only one of several determinants of health.[9]

Solution: Prioritize public health by communicating about the work that public health agencies and practitioners do and their vital role in the health of our nation. Medical societies, at the county, state and national levels, can share their power with public health and raise its visibility in their communities. At the individual level, physicians can become advocates for public health programs, activities, policies, and campaigns. Physician groups can encourage more physicians to go into public service roles and provide support for more physicians to specialize in preventive medicine and related disciplines.

> *"That white coat carries a lot of power with county commissioners and mayors, you know. I've worked in state legislatures, and I remember doctor days and you would just be like, oh man,*

you know, you've got 40 people walking around in white coats. People respect that, right? Physicians do have an exalted place in our society…so that's a huge thing. We've just never been able to kind of crack that group…as a real advocate." – Public Health Stakeholder

Existing AMA Policy: Our AMA should collaborate with national public health organizations to explore ways in which public health and clinical medicine can become better integrated; such efforts may include the development of a common core of knowledge for public health and medical professionals, as well as educational vehicles to disseminate this information (Policy H-440.912, "Federal Block Grants and Public Health").

Lack of Consistent, Sustainable Funding

Challenge: Funding for public health is not consistent or sustainable. Stakeholders, in discussing public health funding referred to it as "anemic" and "emergency of the day" funding. In the past 20 years, the nation has responded to every public health crisis with temporary funding measures that have not provided state and local public health agencies with the people and the tools needed to build enduring programs and infrastructure which address the populations health and adequately prepare for or prevent future emergencies. Shoring up the system will take years of consistent effort by public health officials and policymakers. While billions are now coming from the Biden Administration in short-term funding to address the COVID-19 pandemic, the current infrastructure is ill equipped to handle the large influx of funds. Systems and administrative capabilities to distribute, manage and oversee spending quickly, adequately and equitably are lacking.

"The system has been so underfunded for so long that it's sort of playing a constant catchup. And now that we have money coming into the system, you have to figure out how to absorb it." – Public Health Stakeholder

Solution: Strong and consistent funding levels are necessary for our public health system to respond to everyday health needs, sustain hard-fought health gains, and prepare for and prevent unexpected public health emergencies. Consistent and sustainable funding is needed not just for public health programs, but also for foundational capabilities (i.e., communication and information technology). Similar to the way that the Federal Emergency Management Agency (FEMA) is consistently funded to prepare for and respond to the "unexpected crises" regardless of whether they occur, public health needs a strategy to fund for the long-term future of our population rather than focusing on the emergency of the day and after-the-fact. A shared common goal between health care and public health would drive more collaboration and shared funding between medicine and public health.

Existing AMA Policy: Our AMA urges Congress and responsible federal agencies to establish set-asides or stable funding to states and localities for essential public health programs and services, provide for flexibility in funding but ensure that states and localities are held accountable for the appropriate use of the funds; and involve national medical and public health organizations in deliberations on proposed changes in funding of public health programs. The AMA also supports the continuation of the Preventive Health and Health Services Block Grant, or the securing of adequate alternative funding, in order to assure preservation of many critical public health programs for chronic disease prevention and health promotion and will communicate support of the continuation of the Preventive Health and Health Services Block Grant, or the securing of adequate alternative funding, to the US Congress (Policy H-440.912 "Federal Block Grants and Public Health"). The AMA recognizes the importance of flexible funding in public health for unexpected infectious diseases to improve timely response to emerging outbreaks and build public health infrastructure at the local level with attention to medically underserved areas (Policy H-440.892, "Bolstering Public Health Preparedness").

Legal Authority and Politicization of Public Health

Challenge: The COVID-19 pandemic raised concerns about the structure of our public health system due to the politicization of specific public health measures to mitigate the spread or impact of the pandemic. Concerns were raised about the interference with the scientific guidance put out by the CDC and the impact that had on both public trust and the willingness to follow evidence-based recommendations. Concerns were also raised about collaboration and the lack of consistent messaging across the federal, state, territorial, local, and tribal levels. It was noted that at the state level, in some jurisdictions, public health leaders may have believed that requiring certain public health measures was the right thing to do (e.g., requiring masks or vaccines for returning college students), but they would not say it because the governor was not in favor of it.

> *"You must remember that public health is a confederated system. Based on the Tenth Amendment to the U.S. Constitution, the responsibility for public health falls to the states. Federal government can pump as much money as they'd like into it, but that money goes through governors' offices. So, you have any number of governors…who have, throughout the pandemic, taken policy positions that were 180 degrees opposite public health practice recommendations."* – Public Health Stakeholder

Concerns were also raised that state legislatures have passed laws to severely limit the legal authority of public health agencies, necessary to protect the population from serious illness, injury, and death, which will lead to preventable tragedies.[10] Public health is not in a position, on its own, to be able defend against the curtailing of public health authorities.

Solution: There was agreement among the stakeholders that public health agencies need to be able to communicate openly and make recommendations to protect and promote the health of the public based on the science. It was noted that some federal agencies seem to be able to navigate this better than others, including during the pandemic. How to best achieve this for the CDC and state health agencies in particular was not agreed upon. However, there was broad support for advocating for public health officials to have the authority they need to lead and make evidence-based decisions including emergency declarations. This includes defending against efforts by legislatures to strip that power away or efforts by governors to countermand evidence-based recommendations.

> *"I think the AMA and the state medical societies really need to take a strong stance on that. This is a health and medical issue. I mean, if you can't act quickly to curtail…infectious disease outbreaks, or maybe environmental disasters…and, do that in an evidence-based way…we could find ourselves in serious trouble."* – Public Health Stakeholder

Existing AMA Policy: Our AMA: (1) recognizes the Office of the United States Surgeon General as the esteemed position of the "nation's doctor;" and (2) calls for the Office of the United States Surgeon General to be free from the undue influence of politics, and be guided by science and the integrity of his/her role as a physician in fulfilling the highest calling to promote the health and welfare of all people (Policy H-440.863, "Restoring the Independence of the Office of the US Surgeon General").

Workforce Shortages

Challenge: There is a growing public health workforce shortage at the local, state, and federal levels. Within the next few years, state and federal public health agencies could lose up to half of their workforce to retirement and to the private sector. Due to local and state budget crises and federal budget cuts, the potential for a shortage of highly skilled public health professionals has become

more immediate and severe in scope. In addition, governmental public health salaries are not competitive with other industries. Recent public health graduates are opting for careers in other industries. Public health agencies struggle to attract and retain top talent because they cannot afford to pay them salaries comparable to the private sector.

> *"Even though schools of public health are producing a lot of public health-trained graduates, they're not going into governmental public health where we need them at that federal, state and local level because of differences in pay parity with the private sector…it's very difficult to get highly-trained individuals because of competition with private sector in areas, for example, like informatics that IT and informatics, which is a very large and growing area of public health."* – Public Health Stakeholder

Public health workers might be at risk for negative mental health consequences because of stresses associated with the prolonged demand for responding to the pandemic and for implementing an unprecedented vaccination campaign.[11] Among a survey of 26,174 state, tribal, local, and territorial public health workers, 53.0 percent reported symptoms of at least one mental health condition in the past 2 weeks (during the pandemic).[11] Symptoms were more prevalent among those who were unable to take time off or who worked ≥41 hours per week.[11] The COVID-19 pandemic has been exceptionally challenging for the public health workforce due to the personal threats to their safety or even the safety of their family members that some public health officials have faced.

> *The turnover that we're experiencing right now is extraordinary. There are lots of things driving that, it's just been a horrific time to be in public health, in any capacity, given the attacks on individuals, the attacks on science, the undermining of authority, all of those things make these jobs incredibly challenging…and so we're now in a position where I'm seeing people leaving the field, leaving these positions and there is not a workforce at the ready to stand into those roles. So, figuring out what that pipeline of public health professionals is, is absolutely critical."* – Physician Stakeholder

Solution: To strengthen the workforce, the first step should be to raise the visibility of public health as a potential career choice and promote it as a valuable component to keeping populations healthy. In addition, providing competitive salaries would also help attract talent, as would student debt reduction or elimination programs and loan repayment programs. The public health workforce is aging and efforts to recruit young talent are direly needed. Supporting strengthening of the Commissioned Corps of the US Public Health Service, the Epidemic Intelligence Service Program and the expansion of preventive medicine residency programs and occupation and environmental health residency programs are also important solutions. There is also an important role for health care in standing up for science, against misinformation, and supporting health officials who are facing threats.

Existing AMA Policy: Our AMA will work to support increased federal funding for training of public health physicians through the Epidemic Intelligence Service program and work to support increased federal funding for preventive medicine residency training programs (Policy D-305.964 "Support for the Epidemic Intelligence Service (EIS) Program and Preventive Medicine Residency Expansion"). Our AMA strongly supports the continuation of the Commissioned Corps of the US Public Health Service (Policy H-440.989 "Continuation of the Commissioned Corps".) Our AMA supports investments that strengthen our nation's public health infrastructure and the public health workforce (Policy H-440.820, "Vector-Borne Diseases").

Our AMA: (1) acknowledges and will act to reduce the incidence of antagonistic actions against physicians as well as other health care workers including first responders and public health

officials, outside as well as within the workplace, including physical violence, intimidating actions of word or deed, and cyber-attacks (Policy H-515.950, "Protecting Physicians and Other Healthcare Workers in Society").

Antiquated Data Systems

Challenge: Public health data systems are outdated and in dire need of modernization. This issue was brought to light during the COVID-19 crisis. Many public health agencies did not have access to real-time data around testing results and incidence of infections and illness to efficiently respond to the emerging crisis. Health departments are often unable to access accurate, complete, and timely data to effectively surveil disease outbreaks and promote healthy communities. Many state and local public health departments rely on paper documents, phone calls, and faxes to communicate. Many also require manual input of data into systems with limited functionality. Consistency of demographic data collection has been particularly poor. Race and ethnicity data for infections, hospitalizations, and deaths have been missing, or slow to be published, in many states.

Financial investments were made to modernize the health care data infrastructure, but the same has not happened on the public health side. In health care, data is collected in the electronic health record (EHR) and despite there being requirements for data to be reported to public health, it can be days and weeks before public health is alerted. When public health receives case reports, they are often missing key information, including race and ethnicity data. Reports are also missing data elements like a patient's address, so public health cannot geo-locate or map the cases to determine if there's an outbreak occurring in a particular area. Case reports are also often missing a patient's phone number, which is needed to conduct interviews for contact tracing. Furthermore, clinical medicine is not getting what it needs from public health. Clinicians should be able to work very closely with state and local health departments to get population-based data about their practice community.

Public health department data and systems are siloed. They work independently of each other and do not have an easy way to share information across state lines or even, at times, between agencies within a given state, preventing them from efficiently supporting each other. It is important to note that even with public health data modernization, data shared with public health agencies for review and action, will only be shared in accordance with applicable health care privacy and public health reporting laws. Improving antiquated data systems will overall improve data governance and security as well as improving access to vital surveillance data.

Solution: Data are the foundation to both population medicine and public health and rapid access to timely and accurate data are essential to drive decision-making. Priorities for public health data modernization should include automating the reporting of clinical and laboratory data from clinical health area data systems to public health. Clinicians should be incentivized to upgrade their EHR systems to support electronic case reporting and be incentivized to submit complete case reports and timely case reports. For example, if the case report is complete, including the race and ethnicity information, then clinicians should receive a bonus.

The U.S. also need to ensure interoperability among health care and public health as well as among core public health surveillance systems. There are core pieces of the public health data infrastructure that need to be modernized, such as the National Notifiable Diseases Surveillance System and the vital records systems which capture data from births and deaths annually and which can signal changes in trends, monitor urgent events and provide faster notification of cause of death. It is also important to support modernization of our syndromic surveillance system, so public health receives

data in real-time from hospital emergency departments and urgent care centers to maintain a pulse on emergency-type visits and how the health care system is being impacted by emerging syndromes.

Existing AMA Policy: Our AMA recognizes public health surveillance as a core public health function that is essential to inform decision making, identify underlying causes and etiologies, and respond to acute, chronic, and emerging health threats and recognizes the important role that physicians play in public health surveillance through reporting diseases and conditions to public health authorities. The AMA supports increased federal, state, and local funding to modernize our nation's public health data systems to improve the quality and timeliness of data and supports electronic case reporting, which alleviates the burden of case reporting on physicians through the automatic generation and transmission of case reports from electronic health records to public health agencies for review and action in accordance with applicable health care privacy and public health reporting laws. The AMA will advocate for increased federal coordination and funding to support the modernization and standardization of public health surveillance systems data collection by the Centers for Disease Control and Prevention and state and local health departments and supports data standardization that provides for minimum national standards, while preserving the ability of states and other entities to exceed national standards based on local needs and/or the presence of unexpected urgent situations (Policy H-440.813, "Public Health Surveillance"). Our AMA encourages hospitals and other entities that collect patient encounter data to report syndromic (i.e., symptoms that appear together and characterize a disease or medical condition) data to public health departments in order to facilitate syndromic surveillance, assess risks of local populations for disease, and develop comprehensive plans with stakeholders to enact actions for mitigation, preparedness, response, and recovery (Policy H-440.892, "Bolstering Public Health Preparedness").

Insufficient Laboratory Capacity

Challenge: Our nation lacks the capacity to conduct adequate testing and surveillance of infectious diseases and other pathogens, including a lack of whole genome sequencing during the pandemic needed to identify SARS-CoV-2 variants. Public health labs have the technology to identify a wider range of diseases and are therefore expected to support clinical labs. However, public health labs often lack the resources needed to keep up with the workload, that has been especially true during the pandemic. Throughout the pandemic, all laboratories have faced challenges obtaining the necessary testing supplies. While public, commercial and hospital labs have shared resources throughout the pandemic, this has varied by jurisdiction and has occurred informally based on relationships among lab directors rather than systematically or consistently

Solution: Our public health labs at the state and local level need to be better resourced and would benefit from more formal relationships between them and commercial labs, hospital and academic labs, and the CDC. The components of the laboratory community, though they may have different missions, need to see themselves as partners within a very interconnected system. As a nation, we need to do more whole genome sequencing, working with urgent care clinics, emergency departments, and hospitals, so that trends in virus variants can be identified and tracked. We also need to strengthen and broaden supplies within the Strategic National Stockpile and the capacity to ramp up production of supplies domestically; overreliance on international sources of supplies can be a national security issue.

Existing AMA Policy: Our AMA supports the Centers for Disease Control and Prevention's national Laboratory Response Network for communicating, coordinating, and collaborating with physicians and laboratory professionals on public health concerns (Policy H-440.891, "Support of the National Laboratory Response Network"). Our AMA: (1) encourages payers, regulators and providers to make clinical variant data and their interpretation publicly available through a system

that assures patient and provider privacy protection; and (2) encourages laboratories to place all clinical variants and the clinical data that was used to assess the clinical significance of these results, into the public domain which would allow appropriate interpretation and surveillance for these variations that can impact the public's health (Policy D-460.971, "Genome Analysis and Variant Identification"). Our AMA urges Congress and the Administration to work to ensure adequate funding and other resources for the CDC, the National Institutes of Health (NIH), the Strategic National Stockpile and other appropriate federal agencies, to support the maintenance of and the implementation of an expanded capacity to produce the necessary vaccines, anti-microbial drugs, medical supplies, and personal protective equipment, and to continue development of the nation's capacity to rapidly manufacture the necessary supplies needed to protect, treat, test and vaccinate the entire population and care for large numbers of seriously ill people, without overreliance on unreliable international sources of production (Policy H-440.847, "Pandemic Preparedness").

Lack of Collaboration between Health Care and Public Health

Challenge: While the work of health care and public health are interconnected, the work is done in silos. Both physicians and public health practitioners that were interviewed expressed a strong desire for more collaboration. Some of the challenges in collaborating were mentioned previously around data modernization and the need to share information between health care and public health. Physicians also expressed frustration that they do not hear directly from their state and local health departments. During the pandemic, most physicians received updates on what is happening in their community through the news media. There is a desire for health departments to provide updates to clinicians in their jurisdictions directly. Beyond collaboration between health agencies and the physicians in their jurisdiction, there is also the desire for more collaboration between medicine and public health at the local, state and national levels among their professional organizations.

Solution: A critical component to improving public health infrastructure is to promote more collaboration and communication pathways between medicine and public health. There is a need to jointly arrive as the point of consensus that prevention is a shared goal which, if emphasized, will advance both fields. To that end, we need a "health" system--not divided between public health and health care, which unites in its shared goal of prevention. Greater collaboration also means that health-related jobs become easier, with fewer high-risk patients needing clinical care and more prevention activities to reduce demand on the health care system. The AMA should use some of its political capital, in collaboration with national public health organizations, to rebuild our public health infrastructure.

It is worth noting that in 1994, the AMA and the American Public Health Association (APHA) co-convened the Medicine and Public Health Initiative (MPHI).[12] In 1996, MPHI hosted a Congress inviting 400 representatives from Medicine & Public Health and provided grants at the state/local level to build sustainable, collaborative partnerships. By the year 2000, changes in leadership at the state and national level resulted in difficulty sustaining momentum. In 2002, following the September 11th attacks, the presidents of the AMA and APHA reiterated their dedication to MPHI. In 2004, the AMA and the CDC hosted the First National Preparedness Congress. This collaboration was not sustained due to shifting priorities. The Council urges consideration of the best way for clinical medicine and for our AMA and member organizations of the Federation of Medicine to collaborate with public health in a meaningful and sustainable way going forward.

Existing AMA Policy: Our AMA (1) encourages medical societies to establish liaison committees through which physicians in private practice and officials in public health can explore issues and mutual concerns involving public health activities and private practice; (2) seeks increased dialogue, interchange, and cooperation among national organizations representing public health professionals

and those representing physicians in private practice or academic medicine; (3) actively supports promoting and contributing to increased attention to public health issues in its programs in medical science and education; (4) continues to support the providing of medical care to poor and indigent persons through the private sector and the financing of this care through an improved Medicaid program; (5) encourages public health agencies to focus on assessment of problems, assurance of healthy living conditions, policy development, and other related activities; and (6) encourages physicians in private practice and those in public health to work cooperatively, striving to ensure better health for each person and an improved community as enjoined in the Principles of Medical Ethics (Policy H-440.960, "Organized Medicine and Public Health Collaboration").

Ensuring Equity

Challenge: The gaps in the public health infrastructure mentioned previously all contribute to health inequities. The COVID-19 pandemic highlighted the equity gap in health outcomes for marginalized communities, as shown by the substantially higher rates of infection, hospitalization, and death in marginalized communities compared with White people. Incomplete data and fragmented access to data prevents public health from accurately identifying populations at greatest risk and prioritizing efforts and funding. Inadequate and inequitable funding means increased disparities in health outcomes because resources will not reach those in most need. The workforce needs to change so it has more people who are known and trusted in their communities, working on many of the issues that we face. These efforts require resources, and there are currently insufficient resources to support those kinds of meaningful efforts.

> *"Public health is for everybody. It's just not for the poor. It's not just for the rich. Public health is something that everyone should have access to. But some people need more help than others to get that access. And that's got to be solved."* – Physician Stakeholder

Many practicing physicians lack the training to consider and address the social determinants of health with their patients. Limited time for patient visits contributes to doctors not having time to address social determinants during a regular visit even if they are trained in understanding and incorporating the social determinants of health. Physicians do not have to do this work alone; public health is here to address the social determinants of health in communities collaboratively, but we need a common language and a common understanding.

> *"I think as physicians, we increasingly realize that our patients' diseases that we're treating them for, diabetes, whatever, are being driven by risk behaviors that they're taking that we don't always feel like our counseling … is effective … without other interventions at the community level. Living conditions, social environment, institutional things, inequities that are happening, that are affecting their freedom, and housing, and transportation, … are affecting the disease that shows up in our office."* – Physician Stakeholder

Solution: All of these gaps in the public health infrastructure contribute to the increasing inequities we see in health outcomes in the United States. Fragmented access to data prevents public health from accurately prioritizing efforts. Access to data is needed to inform equitable policy. Adequate funding is needed to decrease inequities in health outcomes and ensure resources reach those in most need. The workforce that is leading the charge against inequities needs to include more persons who look like the population it serves. Equity involves engagement with communities in an ongoing and meaningful way so those most affected by public health challenges are part of the conversations and part of the solutions.

Existing AMA Policy: Health equity, defined as optimal health for all, is a goal toward which our AMA will work by advocating for health care access, research, and data collection; promoting equity in care; increasing health workforce diversity; influencing determinants of health; and voicing and modeling commitment to health equity (Policy H-180.944, "Plan for Continued Progress Toward Health Equity").

DISCUSSION

When public health stakeholders were asked about the work the AMA does in public health, there was little recognition of current public health activities. Some stakeholders referenced the work the AMA has done to address tobacco use and more were familiar with the AMA's health equity strategy, which had been released around the time of the interviews. When asked about the AMA's role in strengthening public health infrastructure, public health stakeholders highlighted the following as the strengths of the AMA and where the organization should focus its efforts:

- Communicating - Raise the visibility of public health to ensure the work public health professionals do is not invisible; share power--ensuring public health is at the table;
- Advocating - Elevate physicians' and organized medicine's influence in policy and support initiatives that focus more on public health; help build bi-partisan support for public health; and
- Educating - Help further emphasize public health and the social determinants of health in medical education, support training opportunities for medical students in health departments (see Appendix C, which outlines relevant existing activities).

Public health stakeholders encouraged the AMA to be a champion for public health while maintaining our brand position of being in the health care sector.

The AMA trustees who were interviewed as a part of this research strongly agreed with the challenges that were identified by the public health stakeholders as impacting our nation's public health infrastructure. There was also general agreement that these efforts would fit within the AMA's current strategic arcs. Trustees recommended solutions that are on-brand, fiscally responsible, and aligned with current strategy and operating goals. Some trustees cautioned that the AMA should not try to do all of these things, but to pick a few where the organization can be the most impactful. In addition to communicating, advocating, and educating, the trustees felt the AMA was well-equipped to be a convener and should focus on this while also engaging in other opportunities.

CONCLUSION

There is widespread recognition that our nation's public health infrastructure needs to be strengthened. The AMA already has extensive policy aligned with many of the challenges and solutions outlined in this report. These policies, adopted by the House of Delegates over the past decades, serve as the basis for the AMA to act. We recognize that there are many programs and initiatives happening across the organization that are relevant to this work. Members of the AMA Board of Trustees who participated in this process indicated that this work fits into the AMA's currently articulated strategic priorities. Therefore, your Council on Science and Public Health recommends that the AMA outline an organization-wide public health strategy, aligned with the findings of this report, to develop a clear roadmap of the work being done by the AMA in public health and to share accomplishments as the strategy is implemented. The Council also recommends new policy urging the AMA to actively oppose the limits being placed on the authority of health officials, recognizing the authority to implement evidence-based measures, including mandates, may

be necessary to protect the health of the public. The Council also calls on the AMA to advocate for the solutions identified through this research, including sustainable funding to support public health infrastructure, incentives to help recruit and retain staff within the governmental public health workforce, public health data modernization and efforts to promote interoperability between health care and public health, and efforts to ensure equitable access to public health funding and programs. The Council also proposes new policy encouraging public health agencies to communicate directly with the health professionals licensed within their jurisdiction. We recognize that some jurisdictions are doing this well, but in many jurisdictions, there is little communication between health care professionals and their public health agency. Minor amendments are also suggested to further strengthen our existing public health policies based on the findings of this research.

RECOMMENDATIONS

The Council on Science and Public Health recommends that the following be adopted in lieu of Resolution 401-JUN-21 and the remainder of the report be filed.

1. That Policy D-440.922, "Full Commitment by our AMA to the Betterment and Strengthening of Public Health Systems" be amended by addition and deletion to read as follows:

   Our AMA will: (1) champion the betterment of public health by enhancing advocacy and support for programs and initiatives that strengthen public health systems, to address pandemic threats, health inequities and social determinants of health outcomes; ~~and (2) study the most efficacious manner by which our AMA can continue to achieve its mission of the betterment of public health by recommending~~ (2) develop an organization-wide strategy on public health including ways in which the AMA can ~~to~~ strengthen the health and public health system infrastructure and report back as needed on progress; (3) work with the Federation and other stakeholders to strongly support the legal authority of health officials to enact reasonable, evidence-based public health measures, including mandates, when necessary to protect the public from serious illness, injury, and death and actively oppose efforts to strip such authority from health officials; (4) advocate for (a) consistent, sustainable funding to support our public health infrastructure, (b) incentives, including loan forgiveness and debt reduction, to help strengthen the governmental public health workforce in recruiting and retaining staff, (c) public health data modernization and data governance efforts as well as efforts to promote interoperability between health care and public health; and (d) efforts to ensure equitable access to public health funding and programs. (Modify Current AMA Policy)

2. That Policy H-440.960, "Organized Medicine and Public Health Collaboration" be amended by addition and deletion to read as follows:

   Our AMA (1) encourages medical societies to establish liaison committees through which physicians in private practice and officials in public health can explore issues and mutual concerns involving public health activities and private practice; (2) seeks increased dialogue, interchange, and cooperation among national organizations representing public health professionals, including representatives from governmental public health, and those representing physicians in private practice or those employed in health systems and in academic medicine (3) actively supports promoting and contributing to increased attention to public health issues in its programs in medical science and education; ~~(4) continues to support the providing of medical care to poor and indigent persons through the private sector and the financing of this care through an improved Medicaid program;~~ (~~5~~4) encourages public health agencies to focus on assessment of problems, assurance of healthy living conditions, policy development, and other related activities; ~~and~~ (~~6~~5) encourages physicians in private practice and those in public

health to work cooperatively, striving to ensure better health for each person and an improved community as enjoined in the Principles of Medical Ethics; and (6) encourages state and local health agencies to communicate directly with physicians licensed in their jurisdiction about the status of the population's health, the health needs of the community, and opportunities to collectively strengthen and improve the health of the public. (Modify Current AMA Policy)

3. That AMA Policy H-440.912, "Federal Block Grants and Public Health" which calls on the AMA to collaborate with national public health organizations to explore ways in which public health and clinical medicine can become better integrated and urges Congress and responsible federal agencies to: (a) establish set-asides or stable funding to states and localities for essential public health programs and services, (b) provide for flexibility in funding but ensure that states and localities are held accountable for the appropriate use of the funds; be reaffirmed. (Reaffirm Current AMA Policy)

4. That AMA Policy H-440.989, "Continuation of the Commissioned Corps," be amended by addition to read as follows:

   Our AMA strongly supports the expansion and continuation of the Commissioned Corps of the US Public Health Service and recognize the need for it to be adequately funded. (Modify Current AMA Policy)

5. That our AMA reaffirm Policies D-305.964, "Support for the Epidemic Intelligence Service (EIS) Program and Preventive Medicine Residency Expansion," and D-295.327, "Integrating Content Related to Public Health and Preventive Medicine Across the Medical Education Continuum." (Reaffirm Current AMA Policy)

6. That our AMA reaffirm Policy H-440.89, "Support of the National Laboratory Response Network," and Policy D-460.971, "Genome Analysis and Variant Identification." (Reaffirm Current AMA Policy)

7. That our AMA amend Policy H-440.813, "Public Health Surveillance" by addition and deletion to read as follows:

   Our AMA: (1) recognizes public health surveillance as a core public health function that is essential to inform decision making, identify underlying causes and etiologies, and respond to acute, chronic, and emerging health threats; (2) recognizes the important role that physicians play in public health surveillance through reporting diseases and conditions to public health authorities; (3) encourages state legislatures to engage relevant state and national medical specialty societies as well as public health agencies when proposing mandatory reporting requirements to ensure they are based on scientific evidence and meet the needs of population health; (4) recognizes the need for increased federal, state, and local funding to modernize our nation's public health data systems to improve the quality and timeliness of data; (5) supports the CDC's data modernization initiative, including electronic case reporting, which alleviates the burden of case reporting on physicians through the automatic generation and transmission of case reports from electronic health records to public health agencies for review and action in accordance with applicable health care privacy and public health reporting laws; (6) will advocate for incentives for physicians to upgrade their EHR systems to support electronic case reporting as well as incentives to submit case reports that are timely and complete; (~~6~~7) will share updates with physicians and medical societies on public health surveillance and the progress made toward implementing electronic case reporting; (~~7~~8) will advocate for increased federal coordination and funding to support the modernization and standardization of public

health surveillance systems data collection by the Centers for Disease Control and Prevention and state and local health departments; ~~and~~ (~~8~~9) supports data standardization that provides for minimum national standards, while preserving the ability of states and other entities to exceed national standards based on local needs and/or the presence of unexpected urgent situations. (Modify Current AMA Policy)

Fiscal Note: $650,000

Figure 1

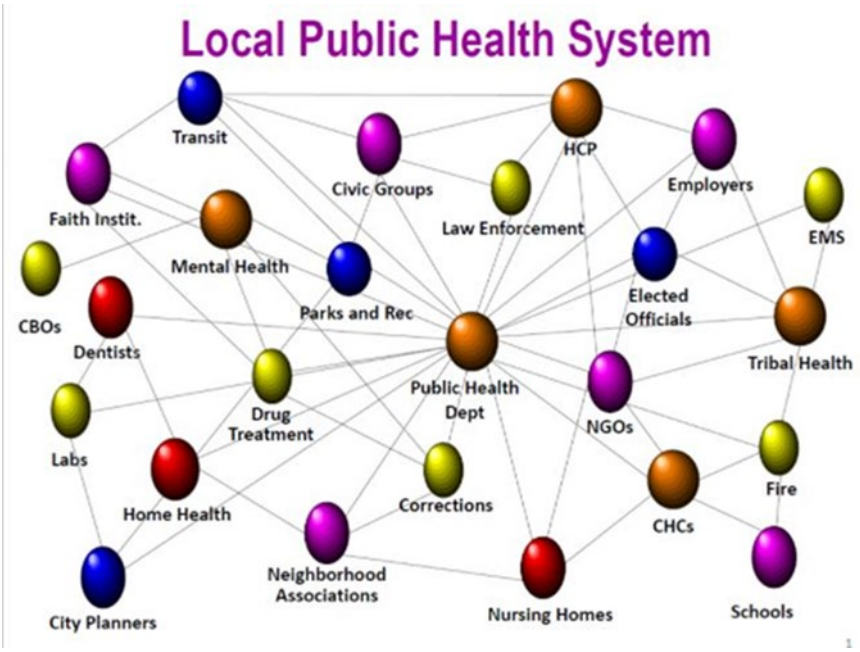
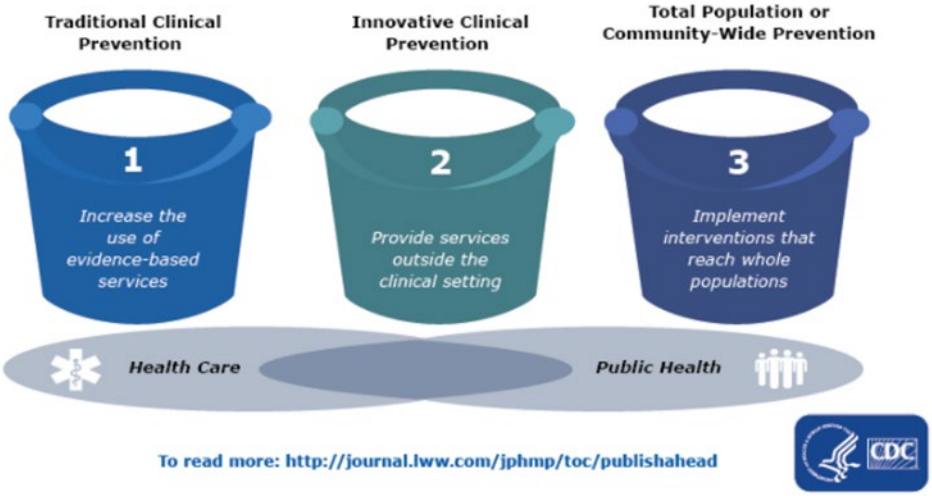


Figure 2



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APPENDIX A

#24495 Public Health Infrastructure Interviews

Background and Objectives

The American Medical Association's Council on Science and Public Health is assessing ways to strengthen our nation's public health infrastructure, and the AMA's role in supporting and improving public health systems. More specifically:

- Understand the current challenges faced by public health professionals and health departments in preventing, detecting, and responding to emerging infectious disease threats and other public health crises.
- Understand physician and public health professionals' perspectives on what solutions need to be implemented to strengthen public health infrastructure to carry out the 10 essential public health services to improve disease and injury prevention and the health of the public
- Identify barriers and opportunities for improved and increased linkages between the public health and health care systems.
- Understand opportunities for the public health system to protect and promote the health of all people in all communities by removing systemic and structural barriers that have resulted in inequities.
- Identify opportunities for the AMA in supporting, developing, and implementing solutions.

Methodology and Sample

N=30-33 External stakeholders

- Government and Public Health (n=10)
- National Public Health (n=6)
- Federation of Medicine (n=12)
- Foundations (n=2)

Note on in-depth interviews format:

Questions might not be asked in the order below and all questions will likely not be asked. Rather, they are used as a guideline for the discussion. We will aim to have a natural conversation with the interviewees and touch upon the topics as they become part of the discussion and as they are relevant to the interviewee.

Intros (2-3 minutes)

- C+R Research – independent market research firm
- Talking with Physicians and Public Health Professionals like you for research purposes but don't belong to any health organization – think of me as a neutral third-party
- No wrong answers!

- I'm a moderator, not an expert in this field, so I may ask you to clarify things along the way
- Documenting the interview with audio (for notetaking and report writing purposes only)
- Other C+R and AMA researchers may join your interview to observe your responses. They may also view session recordings or notes in the future. The AMA may publish research reports or articles that include your anonymous comments and experiences shared. C+R and the AMA will not provide any details with its use of the information resulting from the interview which would allow any third party to identify you, nor will it use this information in any way that can be damaging to you.
- Questions before we get started?

BACKGROUND AND CONTEXT 5 minutes

- First off, we mentioned that we would be talking about the public health infrastructure in our interview today. From your perspective, how do you define "public health infrastructure"?
- Can you briefly describe your organization/your position and how long you have been in that role?
- How would you describe your background in terms of your expertise or involvement in public health?
    - *Understand whether their focus is research, epidemiology, policy & management, environmental health, etc.*
    - *Understand primary issue/area of focus within the field of public health (e.g., immunizations, maternal health, gun violence, health equity, etc.)*
- What previous roles have you had related to public health (in other organizations)? *Listen for if they were previously a state/local health official*

For Governmental/National Public Health Organizations:

- What is the role of your organization and/or members in the public health system?
- Can you briefly **describe your location or jurisdiction/population of focus?**

For physicians/primary care organizations:

- How do you or your members support or interact with the public health system?
- Can you briefly **describe your location or jurisdiction/population of focus?**

CURRENT CHALLENGES 15 minutes

Now I'd like to talk more about the challenges facing our nation's public health system. You are welcome to focus this conversation on COVID-19, as we understand it's likely a main part of what your organization is currently focused on, or you can consider challenges beyond the pandemic.

Successes + What Works Well

- **National Public Health Organizations:**
    - What are some **"big picture" successes** your organization/members/our public health system have had?

  - What's an example of a **"small success"** your organization/members/our public health system have had on a given day or week?
  - Please share some **examples of how your organization/members/the public health system has successfully collaborated** with physicians or healthcare delivery systems to address a public health issue.
  - *Probe: how do we sure the **10 Essential Public Health Services** are available to all people in all communities?*
  - *Probe: is there an explicit strategy to advance equity?* Please describe any explicit **strategies to advance equity** that you/your organization/members use consistently.

- **National Physician Organizations:**
  - What are some **examples of how physicians/your members/health care systems have successfully collaborated** with public health agencies? Have these been sustained?
  - Please share an **example from your or your organization's perspective** of when the public health and healthcare sectors were in **alignment** on a significant public health issue in your local community and/or nationally.
  - *Probe: how do we sure the **10 Essential Public Health Services** are available to all people in all communities?*
  - *Probe: Do you have an explicit strategy to advance equity?* Please describe any explicit **strategies to advance equity** that your organization/members use consistently.

Previous and/or Ongoing Challenges

- What would you say are the three to five **biggest challenges facing the nation's public health infrastructure** today?
  - Why do you think each of these is an important issue?
- How would you prioritize these issues?

  - *Probes: authority, communication, collaboration across levels of government, public health workforce, data modernization, linkages between health care and public health, ensuring equity*
  - **Physician Orgs:** How do challenges in public health infrastructure impact physician practices and patients?
- *Probes: for those who are former state/local health officials to think about what they needed when they were in that job and what would have been most beneficial.*

- **[For each challenge mentioned]** Tell me about a recent challenge the public health system faced. These challenges can be specific to the COVID-19 pandemic or on issues other than the pandemic.
  - What was the issue/challenge?
  - What made it challenging or difficult?
  - What was the plan to resolve this issue?
  - How was it implemented (whether successfully or unsuccessfully)?
  - What were the outcomes?
  - What was the impact on health equity?
  - What did you or your organization learn from this? What will be done differently in the future?

Repeat as time allows to understand multiple issues and their context.

IDEATE FUTURE SOLUTIONS 10-15 minutes

Now that we've talked about these challenges, I'd like to hear more from you about your thoughts on how these can be solved.

- From your perspective, what do you think **needs to be done to improve** the public health infrastructure?

- Thinking back to each of those challenges you have faced, what would have made these issues easier to solve?

  - **National Public Health Organizations:**
    - What can help your **organization/members/the public health system** be more successful in their efforts?
    - What can help you/your members/the public health be more successful in your/their job?
    - What would improve collaboration between medicine and public health and lead to better health outcomes for patients and communities?

  - **National Physician Organizations:**
    - What would improve collaboration between medicine and public health and lead to better health outcomes for patients and communities?
    - What is the perspective of physicians/your members on linking the principles of public health (upstream approaches) into the language and practice of medicine?
      How do we move health care upstream to improve the structural and social drivers of health and equity?

- What's **one thing you'd want to change** that would make the work of the public health system easier, more effective and equitable tomorrow?
  - What about making the next few weeks/months easier more effective and equitable?
  - And the next few years?

- How would you **prioritize** these changes?
  - What should be focused on first? What is most important?
  - What are areas that could be addressed at a later time?

- What **goals** do you or your organization already have in place to address these in the future?
  - Which are more short-term, and which are longer term goals?
- Which organizations (for profit, not-for-profit, public, private) would be part of the solution to the U.S.'s public health infrastructure problems? What roles/contributions would they have in the solution?
- *If time allows.* Who would be a **reliable and trustworthy source** for you related to recommendations on how to better manage future public health issues?
  - Why are these sources more reliable than others? *Probe to get beyond simply peer reviewed research or the CDC.*

AMA POTENTIAL SOLUTIONS + WRAP UP 10 minutes

I'd like to talk more specifically about how the AMA can **support efforts to strengthen public health infrastructure.**

- Public Health Orgs: In what way(s), does/do the AMA already help support you in your role/organization improve public health?
- Physician Orgs: In what ways does the AMA already support you in addressing the upstream factors that impact health?

- Thinking back to your previous challenges, how, if at all, can the AMA help with these?
    - What can the AMA do to help you face these challenges in a better way?
    - What would the AMA need to do? What would this solution look like?
    - What should the AMA provide?

- Do you have any **final words of advice** for those designing and implementing future public health policies, recommendations, and programs?

Moderator will check with back room for additional questions, thank and close

APPENDIX B

#24495 Public Health Infrastructure Interviews
FINAL GUIDE – Internal B.O.T. Interviews
45 minutes

Background and Objectives

The American Medical Association's Council on Science and Public Health is assessing ways to strengthen our nation's public health infrastructure, and the AMA's role in supporting and improving public health systems. More specifically:

- Understand the current challenges faced by public health professionals and health departments in preventing, detecting, and responding to emerging infectious disease threats and other public health crises.
- Understand physician and public health professionals' perspectives on what solutions need to be implemented to strengthen public health infrastructure to carry out the 10 essential public health services to improve disease and injury prevention and the health of the public
- Identify barriers and opportunities for improved and increased linkages between the public health and health care systems.
- Understand opportunities for the public health system to protect and promote the health of all people in all communities by removing systemic and structural barriers that have resulted in inequities.
- Identify opportunities for the AMA in supporting, developing, and implementing solutions.

Methodology and Sample

N=11 Internal B.O.T. Members

Note on in-depth interviews format:

Questions might not be asked in the order below and all questions will likely not be asked. Rather, they are used as a guideline for the discussion. We will aim to have a natural conversation with the interviewees and touch upon the topics as they become part of the discussion and as they are relevant to the interviewee.

Intros (2-3 minutes)

- C+R Research – independent market research firm
- Working with the AMA and talking with internal board members like you as well as external stakeholders in public health – think of me as a neutral third-party
- No wrong answers!
- I'm a moderator, not an expert in this field, so I may ask you to clarify things along the way

- Documenting the interview with audio (for notetaking and report writing purposes only)
- Other C+R and AMA researchers may join your interview to observe your responses. Just a reminder that this is all for research purposes and your responses will be reported back in the aggregate along with other board members like you.
- Questions before we get started?

BACKGROUND AND CONTEXT 2-3 minutes

- Can you briefly describe **your role** as it relates to the AMA and how long you have been in that role?

- Today, we are going to be talking about the public health infrastructure as well as ways AMA can help. When I say **public health infrastructure**, I am talking about the governmental public health system at the federal, state, local, territorial and tribal levels.
  Can you describe **your background** along with any previous involvement in efforts **related to public health** (if applicable)?

CURRENT CHALLENGES 10 minutes

As you may know, we just completed an initial round of interviews with external public health experts from a variety of organizations. They provided their perspective on what challenges are facing our nation's public health infrastructure today. But before we talk about what they told us, I'm curious what your perspective is.

Challenges (Unaided) – 3 minutes

- Just briefly, what would you say are the top three **biggest challenges facing the nation's public health infrastructure** today?
  - *Listen for and probe around any mentions of misperceptions of public health, funding, workforce, data modernization, collaboration between healthcare and public health, equity issues, etc.*

- How do these challenges **impact your practice or your patients**? *(do not ask if respondent is not a clinician)*

Challenges (Aided) – 7 minutes

- When we spoke with the external public health stakeholders, here are some of the **biggest challenges they mentioned**. I am curious to get your perspective on these and hear how you would prioritize them.
  HAVE RESPONDENT RANK ORDER CHALLENGES FROM HIGHEST TO LOWEST PRIORITY
  - Perception problems/lack of understanding of public health (i.e., public health is invisible)
  - Lack of consistent, sustainable funding
  - Workforce/staffing issues

- Data modernization and lack of interoperability with health care
- Lack of collaboration between healthcare and public health
- Equity issues

IDEATE FUTURE SOLUTIONS **15 minutes**

Now that we've talked about these challenges, I'd like to hear more from you about your thoughts on **how the AMA could help address each of these areas.**

- **[For each challenge mentioned, ask in order of priority] What could the AMA do** to help solve this challenge?
  - What would the potential solution(s) look like?
  - Who would need to be involved?
  - What would it take to accomplish this? (what would have to happen?)

- In addition to the solutions we just discussed, here are some other ideas the external stakeholders mentioned as **possible solutions, which include the AMA's role in strengthening the public health system.** I'd like to get your perspective on which of these the AMA feels best suited to support and why.

  - **Collaboration Between Medicine and Public Health**
    For example, sharing of data across public health and healthcare, more communication between public health and health care, sharing the common goal of prevention, etc.

  - **Prioritizing Public Health**
    For example, raising the visibility of our public health system to help ensure the work they do is not invisible and share power ensuring their voice is at the table.

  - **Advocating for Sustainable Public Health Funding**
    For example, advocating at the federal level for sustainable funding for the public health infrastructure (communications, IT, workforce) and services (immunizations, chronic disease, injury prevention to ensure that public health isn't only funded well in a crisis.

    Working with state/county medical societies to advocate for evidence-based public health polices as well as support for public health authority during emergencies.

  - **Data Modernization**
    For example, supporting interoperability between health care and public health as well as incentives for health care professionals who report timely, accurate and complete data on notifiable conditions to public health agencies.

    Supporting incentives for clinicians to upgrade the EHR systems to support electronic case reporting.

- **Strengthening the Public Health Workforce**
  For example, supporting incentives for those who work in governmental public health so public health can attract the talent it needs to be successful.
  Prioritizing physician and medical student education in public health as well as education focusing on, equity and the social determinants of health.

  Supporting residency programs for preventive medicine specialists.

- How would you **prioritize** these changes?
  - What should be focused on first? What is most important?
  - What are areas that could be addressed at a later time?

AMA POTENTIAL SOLUTIONS + WRAP UP 15 minutes

I'd like to talk more specifically about what else the AMA can do to **support efforts to strengthen public health infrastructure.**

- How does strengthening the public health system **fit into the AMA's current strategic plan and operating goals?** *Moderator may reference slide for strategic plan and operating goals*

- What do you think the AMA **should do** to further strengthen the public health infrastructure beyond what it is already doing?

  - What should the AMA do to strengthen collaboration between medicine and public health?

- What, if anything, would you **caution the AMA <u>not</u> to do or not to get involved in?**

- Do you have any **final words of advice** for those considering the AMA's role in strengthening public health infrastructure?

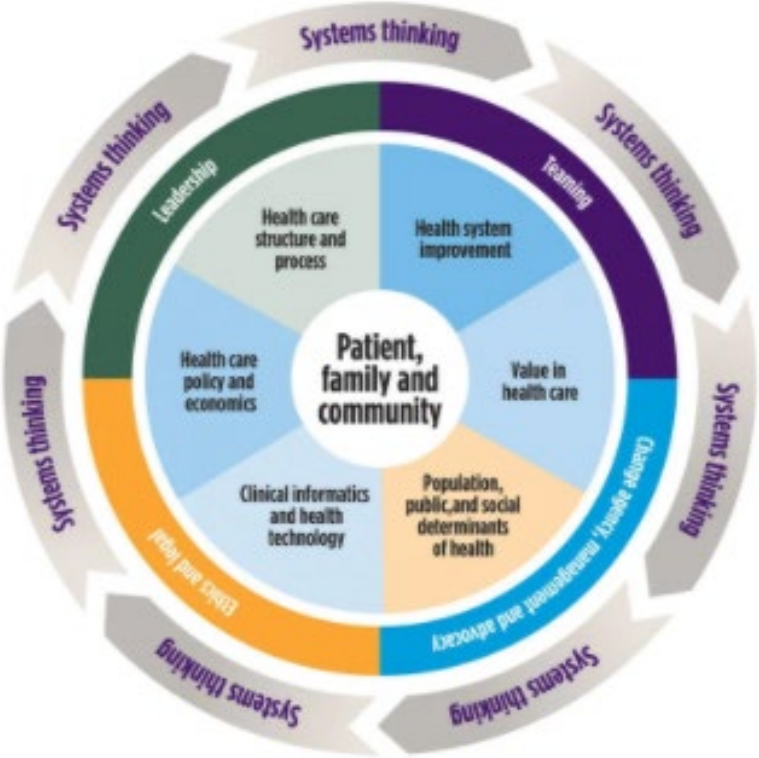
Moderator will check with back room for additional questions, thank and close

APPENDIX C

Health System Science

Health systems science (HSS) is the third pillar of medical science, along with the basic and clinical sciences. It involves understanding how care is delivered, how health care professionals work together to deliver that care and how the health system can improve patient care and health care delivery. It is critical for the successful functioning of a health system. Physicians need to know the domains of health systems science, understand how it intersects with the basic and clinical sciences and explore how it can maximize health for patients and society.

The HSS cirriculum includes issues related to how social determinants of health effect the entire population and the improvement strategies at the population health level to address gaps in care such as the organized assessment, monitoring or measurement of key health metrics necessary to improve health outcomes for a group of individuals.



Core functional, foundational, and linking domains of health systems science

AMA ACE Consortium

Relevant exemplar medical school efforts in the consortium, funded by AMA grants:

- Brown Warren Alpert School of Medicine established the Primary Care-Population Medicine in which students receive a Masters of Science in Population Medicine in addition to their MD https://pcpm.med.brown.edu/curriculum/scm-curriculum
- AT Still School of Osteopathic Medicine in Arizona embeds 2nd-4th year medical students in underserved communities where they perform needs assessments and work with

community health center leadership and community stakeholders to perform community-based research, quality improvement or service projects that recognize the local, social and economic determinants of health.

- Florida International University Herbert Wertheim College of Medicine (FIU HWCOM) NeighborhoodHELP program places medical students on inter-professional teams that perform home visits that have resulted in increased use of preventive health services and a trend toward decreasing the use of the emergency department as a regular place of care. The program also allows for collaboration with local hospitals to improve population health outcomes.

- Similarly, University of Texas Rio Grande Valley School of Medicine (UTRGV) places medical students on inter-professional teams that serve colonias, impoverished rural settlements in unincorporated areas along the U.S./Mexico border, providing integrated care and connecting patients and families with public health services

- The University of California, Davis, School of Medicine (UC Davis) established a model three-year education track, the "Davis Accelerated Competency-based Education in Primary Care" (ACE-PC) that addresses pressing societal needs by including work with medically underserved populations and enhanced training in population management, chronic disease management, and preventive health skills

AMA Reimagining Residency initiative

The goal of the Reimagining Residency grant program is to transform residency training to best address the workplace needs of our current and future health care system. It supports bold and innovative projects that provide a meaningful and safe transition from undergraduate medical education to graduate medical education, establish new curricular content and experiences to enhance readiness for practice and promote well-being in training.

Examples of relevant projects:

- Montefiore is developing a curriculum in social determinants of health in four primary care residency programs.
- COMPADRE is a collaboration between OHSU and UC-Davis to address workforce in the predominantly rural and indigenous communities in the corridor between their institutions. They are providing training in those communities, so trainees understand the social context for care and the community resources available to support their work.
- The FIRST program at UNC expanding its 3+3+3 model (3 years of medical school, 3 years of residency, 3 years of early career mentorship) to 4 regions in the state (3 of them AHECs) and across disciplines. This is also an effort to link training and early career experience to community resources.
- Penn State is collaborating with Geisinger, Allegheny, and Kaiser Permanente to define the personal and learning environment characteristics that contribute the creation of "systems citizens" – those physicians who effectively navigate health systems and appropriately apply system and community resources to the care of their patients.