



ASPPH COVID-19 STORYTELLING PROJECT

**How Schools and Programs Made
an Impact During the Pandemic**

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A LETTER FROM LAURA MAGAÑA, PHD, MS

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January 2023
Washington, DC

The year 2020 began with ominous news. Officials in Wuhan, China, were reporting an outbreak of a previously unknown pneumonia-like illness. Dozens of people were hospitalized with high fevers and breathing difficulties. No one had died yet, but several patients were critically ill. On January 6, *The New York Times* **reported** that workers in hazmat suits had disinfected a Wuhan seafood market and that officials were planning to check travelers' temperatures at airports and rail stations. People across China were rushing to buy face masks.

"I have to emphasize this is a new disease, and no one on earth has gone through this before," a public health expert from the **University of Hong Kong MPH Program** told *The Times*.

We all know what happened next.

The last three years have greatly tested all of us. Globally, millions have died, and hundreds of millions have contracted COVID-19, sometimes with devastating long-term effects. The pandemic that public health officials had long predicted had arrived, and the world proved to be disturbingly unprepared. Nevertheless, urgent actions were taken to protect populations and to learn about this new virus. Unprecedented global scientific collaborations allowed for rapid production of vaccines and treatments, and communities around the world rallied to prevent, test, treat and vaccinate.

Frustratingly, these efforts were also hampered by confusing guidance and deliberate misinformation campaigns. The pandemic has brought out the full spectrum of human emotions and responses: fear, panic and paranoia, but also courage, compassion and resolve. We all felt grief at the immense human toll and anger at the reckless disregard for facts and the truth.

Through all of these struggles, the public health community has persevered — gathering data, studying the virus, learning, teaching, collaborating, communicating, being with the communities and saving lives. Countless stories demonstrate the dedication of health professionals around the world.

What follows is a synopsis of ASPPH members' pandemic response. While this account is not meant to be comprehensive, it does seek to give a broad sense of the magnitude and diversity of the actions

taken. The practice of public health can be easily overlooked or taken for granted. COVID-19 turned our contingencies into brutal reality, cold facts on the ground, and we are proud, as a group, of how we managed that sudden change.

In interviews and surveys, we asked members to recount their schools' and programs' pandemic responses in six main areas: research, data analytics & forecasting, advocacy, education & training, community support, and partnerships. Their answers displayed a wide range of experiences — a reflection of the diversity among ASPPH-member schools and programs, but also of the many different impacts and responses to the pandemic in diverse communities and regions around the country. In a country without a national public health system, there are wide variations in how regional, state and local public health systems are organized and funded, how agencies and administrations work with (and sometimes against) one another, and how — particularly in the case of COVID-19 — local populations reacted to the demands and challenges of public health emergencies.

Perhaps it is no surprise that this pandemic led to a lot of scrambling, confusion, frustration, missteps and course corrections, considering it had been more than a century since the last one. Funding for, and interest in, public health preparedness and response had long been waning, and COVID-19 strained our knowledge and resources. We in the public health realm had a lot to learn — and we learned a lot. We had a lot to do — and we did a lot. We had many to help — and we helped many. And our work continues.

We have also compiled individual stories of academic public health institutions — accounts shared by our members of what each of them did, in their universities, communities, regions and states to keep the public safe. ASPPH-member schools and programs were invited to contribute to this effort, and the supplemental **pages offered here** tell many of their stories. Each one is a vital piece of the bigger mosaic, and we are grateful to our members for their generosity in sharing their time and reflections, and for their candor in telling their stories.

ASPPH is proud to share the accomplishments of our members in responding to the COVID-19 pandemic.

COVID19storytelling.aspph.org

Laura Magaña, PhD, MS, President and
CEO of the Association of Schools and
Programs of Public Health (ASPPH)





1

GENERATING THE EVIDENCE AND RESEARCH NEEDED TO MOBILIZE OUR SCHOOLS AND PROGRAMS ON COVID-19

*Photograph courtesy of
Texas A&M School of
Public Health*

In early 2020, when the COVID-19 wave slowly rose and then crested as a global pandemic, many governments and institutions struggled to keep up with rapidly changing events. As an association whose mission includes helping others to understand and respond to events like these, ASPPH moved quickly. Our schools and programs mobilized their considerable expertise and resources to start answering the many pressing questions that needed answering.

How was the disease affecting people? How did it spread? How could frontline workers in hospitals and clinics be protected? And what could be done to prevent transmission and to treat the sick, while laboratories around the world were racing to find a vaccine?

UNDERSTANDING TRANSMISSION

ASPPH members began investigating the dynamics of transmission. During this time, it was still unclear exactly how people got sick and how they infected others, how “superspreader” events occurred, and how — and even whether — indoor spaces like restaurants and offices could be made safe. Our members moved quickly to find answers to these questions and provide evidence-based solutions.

Initial studies on airborne transmission, for example, were conducted by the **University of Nebraska Medical Center College (UNMC) of Public Health**. UNMC also conducted studies that looked at the reuse of personal protective equipment (PPE), an important effort because PPE had become vanishingly scarce. Thousands of frontline workers in hospitals were having to improvise for safety, using materials like plastic trash bags and duct tape.

MODELING SPREAD AND IMPACT

ASPPH members across the country and around the world contributed to efforts at modeling the pandemic — using epidemiological evidence to trace the emergence of the disease and predict its spread and impact. Mathematical and statistical models were desperately needed to help public health agencies deploy resources effectively and equitably.

Many member institutions developed models or contributed data to modeling efforts to project rates of infection and mortality. One of the most influential models came from the University of Washington’s Institute for Health Metrics and Evaluation (IHME). It predicted as early as **March 2020** that the new disease would potentially kill more than 80,000 people by that July, a stunning tally that nevertheless quickly was surpassed as new data emerged. By June 24, IHME had **declared** that its latest model predicted nearly 180,000 deaths by that fall, a staggering number at a time when many people in and out of government were still in denial about the scale of the catastrophe.

Models were updated in real time as the virus shifted and more data emerged. The evolving picture of virus transmissibility informed policies and recommendations for the public, such as social distancing, handwashing and mask-wearing. All of these efforts were motivated by the real hope that communities could use them to “flatten the curve” of infection — that is, use all preventive means available to avoid a catastrophic spike in COVID-19 cases that would overwhelm hospitals. If the rate of new cases could be slowed to a manageable pace, medical systems could, in theory, keep up. Exhausted and demoralized health care workers could cope.

TRACKING THE COURSE OF DISEASE

One of the most important early research efforts involved tracking the course of the disease through contact tracing — finding as many people as possible who might have come in contact with an infected patient and getting them to test and isolate if necessary. In the days before effective COVID-19 vaccines, contact tracing was an important way to try to get a handle on the burgeoning pandemic.

New York City was one of the first areas to be swamped with COVID-19 cases. The **Graduate School of Public Health and Health Policy at the City University of New York** (CUNY) launched its COVID-19 Tracking Survey on March 13, 2020. It quickly became a vital resource, as the data it presented in weekly reports was made available to news outlets and to public health officials and policymakers to aid in informing the pandemic response.

CUNY also conducted a research survey of its own neighborhood, in Harlem, to gain invaluable insights into the spread and effects of the disease. The **CUNY Harlem COVID-19 Survey** painted a vivid picture of how a community responded to a daunting and unexpected public health challenge.



2

GENERATING THE EVIDENCE AND RESEARCH NEEDED TO MOBILIZE OUR SCHOOLS AND PROGRAMS ON COVID-19

*Photograph courtesy of
East Carolina University
MPH Program*

As ASPPH members around the country have confirmed, the national pandemic response was actually a varied patchwork of responses — some robust, some weaker — depending on pre-existing preparations and protocols and the strength of public health partnerships in states, regions, cities, tribal communities and other localities.

As members moved quickly on data collection and analysis in order to forecast and manage the spread of the disease, the success of their efforts depended largely on the quality of their pre-pandemic preparations.

ACTIVATING CONTACT TRACING

A prime example of our members' rapid deployment occurred in Ohio, where **Case Western Reserve University MPH Program** began coordinating on COVID-19 with the City of Cleveland's Department of Public Health on March 10, 2020, the day before the city declared a civil emergency due to the pandemic. The program director and student volunteers with technical and epidemiological expertise were embedded in the health department. Their partnership was formalized in October 2020 through an agreement that formally aligned CWRU faculty, staff and students in the local public health agency to foster the cross-pollination of technologies, methods and communication. This design ensured rapid response to community health needs and emerging gaps in the public health workforce caused by unprecedented stressors of the novel and long-lasting pandemic.



Our team shared data, modeled projections and outlined the potential devastation of COVID-19 if we did not take quick action. State policymakers considered the guidance from our school and ultimately decided to take proactive measures to mitigate the spread of the virus.”

Dean F. DuBois Bowman of
The University of Michigan
School of Public Health

At **Georgia State University School of Public Health**, Dean and Professor Rodney Lyn (who himself became ill with COVID-19 early on) mobilized quickly on contact tracing, among other initiatives. “We worked closely with the Georgia Department of Public Health, and they desperately needed individuals to serve as contact tracers,” Dean Lyn said. “We put a call out to our students and sent 50 of them over to the state to be hired as contact tracers and case investigators.”

At the **University of Massachusetts (UMass) - Amherst School of Public Health and Health Sciences**, the contact tracing effort involved over 100 student volunteers, who also used social media messaging to promote health and COVID-19 safety. Says Dean Anna Maria Seiga-Riz, our contributions to the university’s asymptomatic testing and contact tracing efforts helped turn the UMass Amherst Public Health Promotion Center into “one of the largest and most efficient COVID detection and prevention programs in the state.”

Dean Ellen MacKenzie of the Johns Hopkins Bloomberg School of Public Health said, “One thing we’re very proud of is the free contact tracing course that we developed and launched on Coursera. It was used so broadly, not just here in the United States, but also globally, and was translated into many different languages. Due to the urgency of the crisis, we had to move much more quickly than usual. We developed the course within weeks, drawing upon decades of research and experience, and launched it on May 11, 2020. We were thrilled to be able to combine our deep experience in both contact tracing and online teaching to make this training widely available fast.”

ACTING ON RESEARCH

At the **University of Memphis School of Public Health**, Dean Ashish Joshi contacted the university president to offer the school’s services in pandemic planning and response. Their faculty served on various committees, contributing expertise to the university’s COVID policies and communication related to masking, social distancing, physical cleaning procedures, transition to online instruction, return to campus, case reporting, modified freshman orientation and campus vaccine distribution — even guidelines for the marching band’s practice.

In addition, the School of Public Health collaborated with the county health department to measure compliance with Memphis’ citywide mask law. Their research examined trends in the use of masks through direct observation in retail settings and review of videotapes captured by city cameras of public areas. Results were provided to the mayor’s COVID-19 Joint Task Force to guide their continued COVID response.

Those universities were hardly alone — their fast action was the norm, as ASPPH members deployed their expertise in a range of areas.

PROJECTING CASE COUNTS

The **University of Michigan School of Public Health**, in collaboration with the Michigan Department of Health and Human Services and the governor’s office, began using data to model projected case counts in the state. “Our team shared data, modeled projections and outlined the potential devastation of COVID-19 if we did not take quick action,” said Dean F. DuBois Bowman. “State policymakers considered the guidance from our school and ultimately decided to take proactive measures to mitigate the spread of the virus.”

Similar work took place at the **Indiana University Richard M. Fairbanks School of Public Health - Indianapolis**, where faculty were mobilized to support epidemiological modeling and forecasting for hospital partners, the state health department and the local county public health department. According to Dean Paul

Halverson, “We developed guidance, investigated testing and developed mitigation strategies. For the state health department, we helped with developing dashboards, forecasting tools and assisted in communication with the local health departments.”

The **University of South Florida College of Public Health** benefited from having an academic health center on campus and longstanding relationships with the Florida Department of Health and Division of Emergency Management, as well as various county governments and elected officials. “We started making those connections immediately,” said Dean Donna Petersen. “We also committed to transparency right from the beginning and immediately set up webpages, email inboxes and a data dashboard to track case activity on our campuses. I spoke to any group who would have me — we held virtual town halls with staff, faculty, students, parents. We made ourselves available to our local colleagues and to the media and to myriad organizations in the community.”

The university modified its emergency task force, building upon the credibility that its emergency management division had earned because of Florida’s frequent hurricanes. “People seemed to, without hesitation, reach out to ask us questions, share ideas, offer to help,” Dean Petersen said. “There was a high degree of trust in the group, and we were able to encourage and then capitalize on the creativity of our colleagues. People ransacked every closet on campus looking for stashed PPE. One of our basic scientists designed a nasal swab that could be quickly 3D printed.”

Urgency was one thing — preparation was another. And in communities around the country where public health was a priority long before COVID-19, officials had a head start.



*Photograph courtesy of
Drexel University Dornsife
School of Public Health*



3

USING OUR VOICE TO ADVOCATE AND CHAMPION TRUTH AND JUSTICE

*Photograph courtesy of
Temple University College
of Public Health*

ASPPH has long been proud of its role as a leading voice — not just for our members in academic public health — but as an advocate for the health of the public. Dean Wayne Giles of the **University of Illinois at Chicago School of Public Health** speaks for many of his colleagues when he said: “It became clear to us as a school that in a moment of global crisis, this was public health’s moment to lead and shape a response that recognized social, economic and political determinants of health.”

Professor and Director Chunhuei Chi of the **Center for Global Health, College of Public Health and Human Sciences in Oregon State University** cited the importance of being an informed health communicator — and the very hard work that this entails. “As a public health scholar, I have to keep up to date on all relevant knowledge,” Professor Chi said. “Each media interview is like an oral exam to me, which is what I told my students. What I said will become a permanent public record. The toughest interview was on the COVID-19 vaccine, and the target audience was physicians and medical researchers. That interview took me 12 hours of study and preparation, in addition to the knowledge I already acquired prior to the interview.”

CHALLENGING HATE AND SPREADING TRUTH

An example of our vocal advocacy involves countering the rise of anti-Asian violence and hate since the pandemic began. Politicians and the media began spreading ignorant, irresponsible messages about the pandemic’s beginnings in China, leading to widespread scapegoating of people of Asian descent. ASPPH stepped up to spread the message that “the enemy is COVID-19, not our fellow human beings.”

In addition to the challenge of bigotry, ASPPH members have worked diligently to address the concerns of the public about this emerging, unfamiliar disease, while also fighting the “infodemic” of misinformation and disinformation.



It's not just the lay public that suffers the consequences of misinformation that became rampant on the internet."

Dean Ayman El-Mohandes
of the CUNY Graduate
School of Public Health and
Health Policy and Chair of the
ASPPH Board of Directors

University of Pittsburgh School of Public Health Dean Maureen Lichtveld notes that a major pillar of this fight involved understanding and putting into practice "the golden principle of crisis communications: be first, be right, be credible."

ASPPH members told of the challenges in bringing credible, science-based evidence and facts to the heated COVID-19 discussion. Many would agree with Dean Smith, dean of the **Louisiana State University Health Sciences Center School of Public Health**, who said, "A good story or a lie spreads as quickly as the truth." Dean Smith said that misinformation — "provided innocently as well as deliberately" — was one of the two biggest challenges his school had to confront. The other, he said, was "individual and organizational resistance to constraints on freedoms" — like masking and social distancing. "We don't care about each other as much as we might say that we do," Dean Smith said.

Dean Emeritus Sten Vermund at the Yale School of Public Health (YSPH) adds, "Vaccine and mask hesitancy, wild rumors about viral origin and spread, and hostility toward public health officials are all widespread. We must do better in educating the public and our policymakers about the importance of public health, well before crises kick in."

BATTLING MISINFORMATION

The disjointed national response — the lack of a commonly shared understanding of the nature and threat of COVID-19 — was reflected in anti-vax sentiments that ASPPH members confronted around the country. These were distressing but not entirely unexpected.

Dean Ayman El-Mohandes of the **CUNY Graduate School of Public Health and Health Policy** and Chair of the ASPPH Board of Directors, noted: "Even within a university environment, there can exist sometimes misinformation. It's not just the lay public that suffers the consequences of misinformation that became rampant on the internet. So, we were playing our role in that regard in helping the university administration, supporting them technically and psychologically, to reach good, science-based decisions on policies that were changing as time went on."

This important work of battling bad information and lies took its toll.

"I have to say, it has been heartbreaking listening to people, and I have the same experience when I talk to practitioners," Dean Hilary Godwin of the **University of Washington School of Public Health** said. "It's not that it's been easy here. It's been really hard, and the same thing at our institution. Students were suffering. Faculty were suffering. Staff were suffering, but I just can't even imagine adding on top of that the chaos and not having the support of your boss or the elected officials. It's just heartbreaking."

But for the ASPPH community, the responsibility of telling the truth was, and is, paramount. It is a commitment ASPPH has honored throughout the pandemic. Nobody has expressed the value of our truthful, science-based work better than Dean El-Mohandes of CUNY, who said: "Now, we are not a residential university. So, our students go back to the community every day. And so, if you believe that every one of these quarter million students have three significant people in their lives, a set of parents and a beloved person or a dear friend, you're talking about the half million becoming 2 million, or the quarter of a million becomes a million people, which is by no standard an insignificant proportion of the population of the city. So, we were contributing by choosing mindful, well-informed, logical approaches toward meeting the challenges of infectious disease, as well as the life challenges of the pandemic, by informing students of existing resources, especially in the area of access to food, informing them about their rights in terms of housing, protecting them from eviction. All sorts of things were happening at that moment."

LEADING WITH FACTS

As leaders in the public health community, ASPPH members played a prominent role in guiding the pandemic discussion — both publicly through traditional and social media, and privately in consultation with local officials and government agencies as well as neighbors, family and friends.

For example, at the [University of North Carolina Gillings School of Global Public Health](#), Dean Emerita Barbara Rimer notes, “We stepped up conversations in the school and university about what could be done and what our role should be in addressing the pandemic. We operated on many fronts. There were weekly calls with university leaders to discuss and reach conclusions about appropriate actions, including tracking campus cases. We organized and delivered regular online COVID-19 conversations (monthly at the height of the pandemic), a highly interactive Zoom forum in which Gillings COVID experts met with the Gillings and university communities, explained what was happening and helped us all collectively take necessary actions. I participated as part of a National Academy of Medicine committee that mounted a series of webinars on the pandemic. Gillings leadership also offered a series of webinars — ‘Emergency Preparedness, Ethics and Equity’ — to elevate visibility and action on the systems of racism and COVID. We met with state legislators from both parties who provided support to investigators at UNC, including our school, to address questions urgent for North Carolina.”

ASPPH took seriously our responsibility to bring facts and evidence to a conversation that was often clouded with misperceptions and disinformation. And as academics, we often had an ability to speak freely in a way that elected representatives or agency officials could not, as Dean Ali Khan explained.

“I’m fortunate to be in a college of public health as the dean of public health in a tenured position that really gives you the ability to say things that others can’t,” Dean Khan said. “My colleagues in the federal government by definition are limited in what they can say and what criticism they can do of their own agencies or partisan meddling in their messaging. It’s important to have other experts outside of the federal government who can respectfully point out where things aren’t working well within an agency or across the response. And colleges of public health at large have the ability to do that.”

Many ASPPH members agreed that politics complicated their jobs. “I do think that the response was crippled by political interference,” said Dean Godwin, who could have been speaking for many of her counterparts in our academic public health.

POLICY AND ADVOCACY

ASPPH played a leading role advocating for sound public policy and funding in response to the pandemic. This included advocating for funding for testing, vaccine development and implementation, and research, as well as new resources to grow the public health workforce. There was an immediate need for more staff to respond to the pandemic. In addition, as many people left the field of public health, we advocated for long-term investments in public health workforce development. Congress included some \$3 billion in the American Rescue Plan Act to the Centers for Disease Control and Prevention (CDC), which resulted in grants to organizations including ASPPH that can grow the workforce. ASPPH also spoke out on policy matters such as the poor quality of the original CDC COVID-19 test kits, urged the CDC to reconsider its testing guidelines, and opposed President Trump’s decision to withdraw the US from the World Health Organization (WHO). This policy and advocacy work ensured that the voice of academic public health was heard and made an impact on the response to the pandemic.



*Photograph courtesy of
Emory University Rollins
School of Public Health*



Public health is chronically underfunded and underprepared. A short-term infusion of money and people will not fix it. We need to see a much longer-term commitment to public health capacity at local, state and national levels.”

Dean Lynn Goldman of the
George Washington University
Milken Institute School of
Public Health

IDENTIFYING NEEDED CHANGES IN PUBLIC HEALTH

The lack of a unified federal public health system led to decentralized decision-making and the widely varying pandemic responses around the country. Dean Linda Fried at **Columbia University Mailman School of Public Health** concurs: “We believe that the time is ripe for an insightful conversation on the question — or urgency — of reframing public health as a vital public good, necessary for the successful function of societies. If the country is to be prepared for the next inevitable pandemic and able to improve the health of all Americans so that we are less vulnerable to pandemics, the public health system mission, capabilities and responses must be reimagined and reinvested in, creating an updated system with modernized infrastructure, goals and capabilities, integrated across federal, state and local levels of government. Investment would include rebuilding a depleted public health workforce that is fully trained in the expertise needed to conduct surveillance and develop rapid responses, to deliver programs to communities that prevent disease, disability and injury, and to further protect the vulnerable in ways that mitigate infection. In sum, the United States must value public health as a public good and invest in it as such.”

Dean Lynn Goldman at the **George Washington University Milken Institute School of Public Health** believes that the response to the pandemic has implications for the state of public health in the US as a whole. She says, “First, public health is chronically underfunded and underprepared. A short-term infusion of money and people will not fix it. We need to see a much longer-term commitment to public health capacity at local, state and national levels. Federal authorities need to be strengthened to allow for clearer and more consistent direction when we have a national public health emergency. Public health research needs to be much stronger and the role of our schools and programs better understood not only by policymakers, but the agencies themselves. The gaps in our research and how slow we were to apply the public health science we already know (such as around spread and control of aerosols, vaccine hesitancy, and issues around chronic disease and health disparities risks) highlighted the lack of understanding by policymakers of public health science and research and the need for more support.”

IMPACTFUL PUBLIC HEALTH COMMUNICATIONS

ASPPH engaged with its member community in responding to the need for effective communications during the pandemic. ASPPH-member schools and programs include some of the world’s leading experts in infectious disease control, preparedness and response. As an academic public health community, we turned to these experts for guidance and clarity in times of uncertainty. We elevated the expertise of our members through our website, social media and media outreach. Deans such as Ashish Jha, then of **Brown University’s School of Public Health**, and current White House COVID-19 Coordinator, were some of the most prominent voices in the media articulating the importance of taking a public health approach to the pandemic.

In early April 2020, ASPPH created a COVID-19 coverage section in our weekly newsletter, “The Friday Letter” to increase visibility of our members’ response to COVID-19, as well as to serve as a vital information resource to the public health community. The COVID-19 coverage included, but was not limited to, online resources, preparedness, response, events and news from members. Our members also effectively and creatively used social media to spread the word on the most up-to-date scientific information about the response to COVID-19. This included deans who gained national followings on Twitter and institutions that developed infographics and videos on Instagram, Facebook and LinkedIn. This engagement on social media served as a powerful counterbalance to the slue of mis/disinformation that was posted by sources without public health knowledge or experience.



4

STRENGTHENING THE WORKFORCE THROUGH EDUCATION AND TRAINING

*Photograph courtesy of
The Ohio State University
College of Public Health*

ASPPH members took their public-facing role seriously. Across the country they were developing training materials for the workforce, educating and training students and health care workers. They were speaking to the public on social media, educating them in real time as the alarming story of COVID-19 kept shifting and evolving. ASPPH members also used their social media platforms creatively to inform the public about COVID-19, ways to prevent its spread and to promote the need to get vaccinated.

Much of the training conducted by ASPPH members was for frontline workers. The work of the Rutgers School of Public Health in New Jersey was typical: The school trained over 1,000 contact tracers using materials and tools developed by its own faculty and staff. Its Community Contact Tracing Corps - who regularly undertake contact tracing for infectious diseases like Hepatitis A and HIV - assisted local health departments, with the influx of COVID-19 cases by providing much needed support by conducting in-depth interviews with those infected and any of their close contacts.



COVID-19
has really
shown the
importance of
public health
in addressing
the current
pandemic.”

Won Choi, professor
and vice chair for
education of The University
of Kansas' School of
Medicine's Department of
Population Health

ASPPH members have found that public education and outreach has considerable, often unexpected, benefits. Dean Jennifer Ibrahim at **Temple University College of Public Health** in Philadelphia has reason to be proud of her school's education and vaccination program, called RapidVax.

“In March of 2021, we were awarded a grant from the City of Philadelphia to begin educating and vaccinating Philadelphia residents through our RapidVax program,” Dean Ibrahim explained. “The grant – initially for about \$800,000 but later increased to \$1.2M – funded not only the doses and equipment needed to vaccinate residents, but also efforts to educate the public and fight hesitancy. Our strategy was to bring the clinics to residents instead of making residents travel long distances and wait in long lines. We went to nursing homes, social service agencies and neighborhoods across the city. We partnered with community groups to get the word out. We also offered the vaccine at our Vaux Community Health Center.”

She added: “Successfully advocating for the expansion of emergency authorities was one key to our success with RapidVax. Students, faculty and staff from many of the college's departments and programs, including nursing, physical therapy, occupational therapy, athletic training, social work and public health – as well as students from Temple's School of Pharmacy – came together to make these mobile clinics possible, creating a protocol for managing clinical processes, launching efforts to market the clinics to and educate local residents, and managing the sites and injecting the doses. Through this program, we became a vital part of the city's response to COVID-19, ultimately vaccinating thousands of residents.”

SURGING INTEREST IN STUDYING PUBLIC HEALTH

Amongst the challenges, one benefit of the increased visibility of public health was the surge in interest in studying public health. The field experienced a growth of interest from prospective students across all areas of study and across a variety of demographic groups.

During the pandemic, applications to graduate-level public health degree programs saw a 40% increase from March 2020 to March 2021. Additionally, other effects from the pandemic contributed to the increase: changes to higher education application processes and course delivery, as well as the economic impact on employment. Never in our lifetimes has the advancement of public health education and solutions been more critical.

In September 2021, the **University of Kansas Medical Center** announced that it had launched an online generalist concentration for the Master of Public Health degree along with related online certificates in essentials of public health, epidemiology and public health practice, policy and management.

“In Fall 2022, we wanted to bring our CEPH-accredited MPH degree to our regional community and beyond to help strengthen the public health workforce and show a new generation the importance of public health,” said Won Choi, professor and vice chair for education in **The University of Kansas' School of Medicine's Department of Population Health**. “COVID-19 has really shown the importance of public health in addressing the current pandemic.”

Within schools and programs, officials have adjusted during the pandemic to better prepare their students for communicating with the public. Dean Joshi of the **University of Memphis School of Public Health** noted the importance of such an effort, adding that a CARE curriculum — focused on Coping, Adaptability, Resilience and Empathy — would be a valuable learning tool for the public health workforce and the next generation of public health leaders.



5

SUPPORTING THE COMMUNITY THROUGH ACADEMIC WORK AND ON-THE-GROUND PUBLIC SERVICE

Photograph courtesy of St. Louis University College for Public Health and Social Justice

The pandemic has been notable for how, more than before, it has brought the world of academic public health outside of the university — literally out into the community, not only with contact tracing and conducting surveys but also delivering food, assisting in hospitals and establishing programs for vulnerable populations.

Dean El-Mohandes of CUNY speaks for many ASPPH members by affirming academia's importance as a community partner. "The role of our school is so important in assisting community-based organizations as vehicles for health communication in relationship to important preventive measures including the mask, in relationship to vaccine hesitancy, in relationship to the statistics of the pandemic and its presence and impact in our community. Our community partners recruited our technical support in giving them guidance and practical expertise in that very important domain. And to be honest with you, the community-based organizations during that critical phase found themselves burdened with communication-focused activities and responsibilities that they did not necessarily either have the capacity for nor the resources to conduct. So, finding a good partner in a school of public health was very important."



[Iowa has] an increasing immigrant population, particularly with large numbers of Africans and folks from Latin America, many of whom were really greatly impacted during the pandemic in the Midwest, because they work in meat-packing industries. [...] So we did a lot of work with them to get vaccines and to work around vaccine hesitancy, which has been a big issue in rural populations, regardless of ethnicity.”

Dean Edith Parker of the
University of Iowa College of
Public Health

JOINING THE COMMUNITY

Public health students were among those who took the lead in helping out, often as unpaid volunteers, as the pandemic took hold. “Their dedication and commitment to continuing public health was pretty phenomenal,” said Dean Edith Parker of the **University of Iowa College of Public Health**. Her sentiments are doubtless widely shared among ASPPH members.

“We had a group of about 40 or 50 undergrads who initially volunteered and then were hired by our local public health department to do contact tracing and did an extraordinary job. We had some graduate students who helped to fit folks for N95 masks, and a lot of that was volunteer. What a wonderful experience and education it was for them. A lot of our students had opportunities to be engaged in everything from disease modeling to risk communication, and some of our doctoral students took the lead on some of that work and helped with any kind of contact tracing. Students and faculty have also been involved in working to reverse vaccine hesitancy.”

She added: “There were other ways that we contributed. For our campus facilities, to figure out what to do and how to open up safely in fall of 2020, we relied primarily on faculty, particularly those who were in industrial hygiene or knew about aerosol exposure. They were the ones who could inform us about mask wearing and ventilation systems and other things.

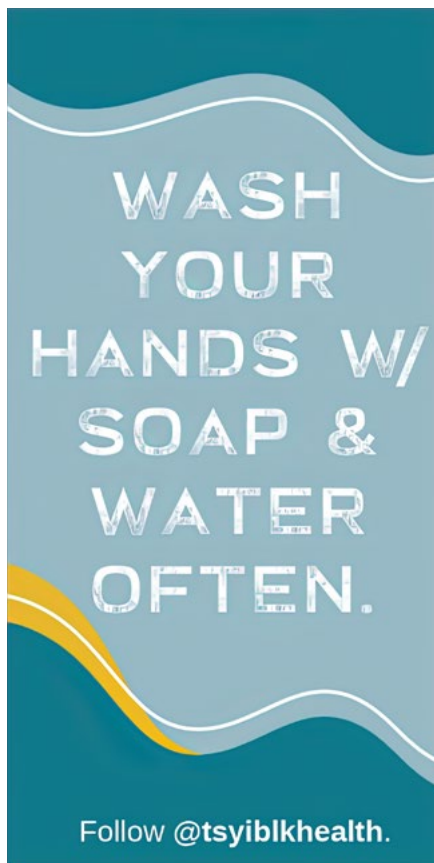
“We played that role, and not only on our campus, on how do we open up safely, how do we set up systems to track cases. A lot of constituents came to us. For example, we did a webinar in 2020 for arts and entertainment venues. A lot of them were saying, ‘Hey, we’re all trying to figure out what we’re going to do to open up after COVID.’ That was the optimistic time period. And so we organized a webinar. There were probably 150 individuals that joined from throughout the country that had nowhere else to go to figure out how to prepare for live audiences, how to set them up, how to protect patrons and performers. We also did a lot of things responding to school systems, businesses, and local and state agencies. We did COVID-19 modeling for the state.”

REACHING UNDERSERVED COMMUNITIES

Reaching out to underserved communities was an important part of the ASPPH members’ response. This was true across all states and localities.

“Iowa is not the most diverse state,” Dean Parker said, “but we have an increasing immigrant population, particularly with large numbers of Africans and folks from Latin America, many of whom were really greatly impacted during the pandemic in the Midwest, because they work in meat-packing industries. And that’s one that was deemed to be an essential industry with very little protections. So we did a lot of work with them to get vaccines and to work around vaccine hesitancy, which has been a big issue in rural populations, regardless of ethnicity. We also had faculty working with community-based Spanish-language media organizations to ensure accurate COVID information was available to Iowa’s Latino community. And we have a lot of rural white populations that suffer from health disparities, too. And so we’ve tried to do quite a lot in reaching out using community-based partnership approaches on those issues also.”

Early in the pandemic, even top faculty and leaders rolled up their sleeves to help the community. Evangeline Motley-Johnson, senior associate dean for biomedical education in the **School of Graduate Studies and Research at Meharry Medical College Division of Public Health Practice** in Nashville, participated in discussions about creating drive-up and walk-through testing sites — and she volunteered at the sites three days a week. She told *Physiologist Magazine* in September 2020 that she wanted to be able to look back and say, “Meharry stepped up and was there to give a service to the community.”



*The Skin You're In:
Coronavirus and Black
America Campaign cour-
tesy of Tulane University
School of Public Health
and Tropical Medicine*

In Atlanta, the **Emory University Rollins School of Public Health** partnered with colleagues at the Latino Community Fund to set up the first Latino-specific vaccination event in Georgia at the Mexican Consulate, vaccinating 500 people in the first two clinics. They also partnered with the Atlanta Mayor's Office to provide vaccinations at pop-up sites in areas where people experiencing homelessness spent time.

According to Dean Thomas LaVeist at **Tulane University School of Public Health and Tropical Medicine** (SPHTM), staff and faculty played a direct role with state and city governments, providing guidance to address the COVID-19 pandemic. "Centers and programs of the school distributed masks to community members. Faculty participated in city and state responses and even consulted with some corporate and nonprofit entities on their responses."

Even though vaccines have become more accessible as the pandemic has dragged on, the vaccination rate has long since plateaued - too many people aren't fully vaccinated against COVID-19. This is a problem, because as **The Commonwealth Fund found**, "Without a vaccination program, by the end of June 2021 there would have been approximately 279,000 additional deaths and up to 1.25 million additional hospitalizations." Ensuring access to the vaccine and factual education are vital public health services and the responsibility to which ASPPH members are deeply committed.

ASPPH's faculty, staff and students played an important role both as educators and exemplars with their family members, colleagues and neighbors. To this end, ASPPH has intensified its efforts to promote vaccinations and advocate for vaccine equity.



6

BUILDING AND MAINTAINING EFFECTIVE PARTNERSHIPS AT LOCAL, STATE AND GLOBAL LEVELS

*Photograph courtesy of
The University of Arizona
Mel and Enid Zuckerman
College of Public Health*

From the onset of the pandemic, it was clear that ASPPH-member schools and programs would not succeed by working in isolation — that the only way to confront a national and global emergency was to team up with national and global partners.

ASPPH has assisted leaders at every level in addressing the greatest public health crisis of our generation. ASPPH found partners and collaborators to form global networks with institutions that are evolving the education and scholarship of public health.

This has involved working with the World Health Organization (WHO) and advising the Global Outbreak Alert and Response Network, as well as the National Institutes of Health (NIH), the CDC and the Department of Health and Human Services (HHS), not to mention the countless state, county, tribal and local health departments and agencies that all had a hand in the pandemic response.

“In line with our commitment to forge meaningful connections between our school and the city, we collaborated with public health leaders in our home community of Baltimore on projects to provide much-needed services and resources to the local residents. And as always, the work of the Bloomberg School extended around the globe, with our network of researchers and practitioners addressing each new challenge,” said Dean MacKenzie of Johns Hopkins.



One metric that I've heard our state health officer and governor use is, when you compare fatality rates for our region compared with some demographically comparable region that had a much less coordinated response, we saved somewhere between 10,000 and 17,000 lives in the State of Washington."

Dean Hilary Godwin of the
University of Washington
School of Public Health

Dean Galea of **Boston University School of Public Health** seconded Dean MacKenzie's emphasis on the importance of partnerships. "We have engagements at the global, national, state, municipal levels. We have faculty who serve on committees at the World Health Organization, national advisory groups, state and local through a range of municipalities. We have faculty in the advisory and steering group capacities at all these levels and we have students who are engaged in the practice of public health in a much more local Boston-based way through health departments, city, state, in the 'boots-on-the-ground' response to the pandemic."

At the **National Taiwan University College of Public Health**, which realized the threat of COVID-19 very early on because of the close interaction between Taiwan and China and the 2003 SARS outbreak, people were acutely aware of the need for close cooperation and partnerships to save lives. The school swiftly expanded its infectious disease expertise by recruiting more faculty members from this field. "This was proven to be critical later, because our newly recruited staff interacted and worked closely with Taiwan CDC during the later waves of the pandemics," said Dean Shou-Hsia Cheng.

The **University of South Carolina Arnold School of Public Health** built a strong partnership with the City of Columbia, structuring its public health team to include an effective mix of scientists and practitioners who were able to translate the evolving information on COVID-19 into workable mitigation strategies.

Dean Hilary Godwin at the **University of Washington School of Public Health** also noted their partnerships with the county and city health departments. "The ways in which schools of public health engaged in response to the pandemic vary significantly depending upon the strength and size of their local health jurisdictions," she said. "We're just incredibly blessed in Seattle to not only have a top state health department, but also one of the most fantastic local health departments in King County. On top of that, we have elected officials at the state, county and city levels who all support public health and work collaboratively with their public health leaders and have done so pre-pandemic, throughout the pandemic and continue to do so. Not that it's been fun for the last two-and-a-half years, but when I talk to folks in other areas, I realized how fortunate we have been and what a difference that makes in terms of outcomes for the population as a whole."

As Dean Godwin of the **University of Washington School of Public Health** explained it, the benefits of close and effective collaboration can be both verifiable and profound. "One metric that I've heard our state health officer and governor use is, when you compare fatality rates for our region compared with some demographically comparable region that had a much less coordinated response, we saved somewhere between 10,000 and 17,000 lives in the State of Washington."

How? Through cooperation, preparation — and determination. "Back in 2011, leaders in state and local governmental public health in Washington State began development of what would become the Foundational Public Health Services (FPHS). They understood that government plays a unique role in protecting and promoting health and that it was critically under-resourced. And that cyclical and unpredictable funding meant they could not provide the public health system their community's deserved," Dean Godwin said. "Fast forward to 2021 with a year of pandemic under our belts, the partners of local/tribal/state health, State Board of Health, academia, nonprofits and labor came back to the legislature with a substantial ongoing funding request. The legislature in Washington witnessed what an under-resourced system meant to the public's health. They then made the largest investment in state history into public health. That investment added \$147 million on top of the existing \$28 million for FPHS for the 2021-23 biennium. While many states have begun or have developed FPHS, only Washington State has made a considerable investment assuring those public health services that are unique to government and should be afforded to all - is funded. And more is to come. The partners are requesting an additional \$100 million be added to the existing funding for the 2023-25 biennium."

7

SHARING LESSONS LEARNED FROM THE PANDEMIC

An urgent question arises as we look back on the last three challenging years: Where do we go from here, as national and global leaders in academic public health and as members of the public health community? What lessons have we learned? What successes should we appreciate and replicate — and are there any habits or practices that should be un-learned?

Across ASPPH, the COVID-19 pandemic has inspired a host of observations and opinions reflecting the lived experiences of ASPPH's program and school leaders. We all have been left with many battle scars and searing memories, and some hard-won wisdom about how the public health field works, where it fails, and where it can and must improve.

HERE IS WHAT WE HAVE LEARNED:

Disease modeling is more complex than expected.

In so many ways, COVID-19 never followed the path that we thought it would. Many of our models were based on basic assumptions that had to be quickly thrown out. It was a very difficult pandemic to model because of its unexpected twists and turns. Gathering clinical data that is consistent and comparable to other data sets proved particularly challenging across the globe. This made the process of data analytics and modeling very difficult. Several schools and programs of public health stepped up to fill the gap in data gathering analysis of COVID-19 cases, which proved critical for policy makers making decisions in their state and local jurisdictions.

Once public confidence is lost, it is hard to regain.

Many of the things our leaders and elected officials told the press and the public about where the pandemic was heading turned out to be wrong. We did the best we could, with predictions based on current models and the data we had at hand, but then the models had to be discarded as the disease took unexpected turns. As with any infectious disease, the information about COVID-19 and our response evolved based on the best science at the time. This meant the messages to the public changed over time. And that led to a lot of mistrust.

Transparency — especially transparency about failures — is key.

Of course we continue to support the CDC and NIH and state, local and regional public health agencies. But we have learned that it pays to be honest about their shortcomings and failings and not to be afraid to point out when experts stumble. It was disappointing to see some of the missteps with COVID-19 re-surface when monkeypox arrived — along with the usual failures of data sharing among agencies, risk communication and community engagement.



Many of the difficulties with the US pandemic response occurred because we just didn't have good data on what was going on."

Dean Ali Khan of the University of Nebraska Medical Center College of Public Health

Communicating to the public can make a difference.

One example of constructive public engagement occurred in New York City in September 2021, when thousands of students returning to high school faced dangerously chaotic crowding in halls and classrooms. The local media took note, with alarming photos and quotes from worried parents. In an article in the *New York Post*, Dean Kitaw Demissie of SUNY Downstate's School of Public Health was quoted as urging the city to "stagger the times to change classes and ramp up student testing beyond the 10% of unvaccinated kids at each school that are to be randomly tested every other week."

"Every student, every week needs to be tested," Dean Demissie warned. "Ten percent is very small."

The lack of an integrated national public health system to collect, access and analyze data is highly problematic.

As Dean Ali Khan said: "Many of the difficulties with the US pandemic response occurred because we just didn't have good data on what was going on. I was so disappointed that we went to Israel to ask how the Pfizer vaccine was working — when we had administered even more Pfizer vaccines here in the United States! We had no way to collate our own data to combine who got tested and infected, who got vaccinated and how they did. Israel could, because they had better data systems. So that was a disappointment and remains a disappointment."

Productive relationships among scientists, who are accountable to facts and evidence, and elected officials, who are accountable to the public they serve, are crucial.

According to our members, politics and science can and should go hand in hand. You can't have good public health policy without good science and good politics. When one of these key elements is missing, the result is poor policy and poor health.

Public health has no room for partisanship, which has caused much grief during the pandemic.

Many of our members never thought that misinformation and disinformation would be as rampant as it was during COVID-19. To be sure, there was politicizing and distrust during the H1N1 influenza outbreak, and media outcries over whether the H1N1 vaccines were appropriately vetted and safe. But all of that ill will exploded again during this pandemic. Shouting and suspicion replaced listening and empathy. We learned very quickly that the people who disagreed with us had their own alternative "facts" and would not listen to ours. So we had to find different approaches to reach them. We did not always succeed.

Global pandemics require global cooperation and communication.

On the global level, as Professor Keiji Fukuda, former director of the **School of Public Health at the University of Hong Kong** notes, "Many countries approached COVID-19 as an individual national or local issue rather than as a collective global challenge. If countries want to avoid another COVID-19-like situation, they need to make the domestic political, bureaucratic and financial commitments to make sure their capacities are adequately prepared for another major pandemic and to adopt the political position that pandemics are global rather than national events."



RECOMMENDATIONS: SUPPORTING PUBLIC HEALTH INTO THE FUTURE

*Photograph courtesy
of St. Louis University
College for Public Health
and Social Justice*

In many ways, our job is just now beginning as the pandemic shifts into a new phase. COVID-19 is not over. We face a big challenge, and we need to think big. We need to apply the urgency of the last three years to the scale of the problems we face. As a field, and as a profession, ASPPH offers the following recommendations to help shore up the public health infrastructure and address health disparities that exist across the country.

Reimagine how the country and world thinks about and trusts public health.

We need a broader national effort to bolster confidence in science and facts. This means finding ways to nurture and advance science literacy. People may have different interpretations and policies, but at some point we all need to agree to follow the science and support evidence-based decisions. And if we can't do that, future pandemics and health crises may be our undoing.

Build and repair public health systems from the ground up with a focus on prevention.

Only 2% of federal dollars go to prevention while 98% go for treatments and cures. We all know we would be better off in the long run, for the inevitable next pandemic, if we were more effective at integrating public health approaches into the health response system, and if we were to act on the social determinants of health, while focusing on promoting health and well-being.

Establish reliable surveillance and data collection systems.

The CDC has multiple streams of data, but they can't necessarily converge the data streams they currently have. The CDC needs to be supported for data modernization and forecasting capabilities. The CDC also lacks the full authority from Congress to gather the data it needs to prepare for the next pandemic. Congress should fully fund the CDC Center of Data Analytics and provide the necessary authority to gather data from every state, county and city. The CDC should fund data analytics research at Schools and Programs of public health through the Center for Forecasting and Outbreak Analytics (CFA).



Science can give us answers, and develop vaccines at astonishing speed, but it can't change minds. So many talented individuals have dedicated their lives to public health, and yet we face information and communication challenges that we have never seen before. The path to winning back public trust and countering disinformation with facts will require all of our intelligence and expertise."

Dean Iman Hakim of the
University of Arizona Mel and
Enid Zuckerman College of
Public Health

Enable academic public health to play a leading role in the response to pandemics.

It is clear from this report that the schools and programs of public health spontaneously responded to the COVID-19 crisis with critical impact, but it was not preplanned. Governments at all levels should work with academic public health to prepare for the next pandemic, so there can be an integrated and coordinated approach that takes advantage of the great resources the schools and programs have to offer.

Ensure vaccines are available to all and accelerate immunization rates across all ages.

Even though vaccines are more accessible than they were a year ago, there are many reasons people may not be fully vaccinated against COVID-19. Ensuring access to the vaccine and factual education is a vital public service and responsibility, which should be encouraged by all. Vaccine development is also critical to combat future outbreaks of COVID-19. We must also develop new, more effective methods of convincing a public that is tired of the pandemic that they still need to stay vigilant and keep up with their boosters.

Support community participatory research.

We need to recognize — and to help navigate — a community's fears and anxieties in times of peril. Using the expertise of public health professionals to keep our communities as intact as possible, to reassure people that we are working for them, to protect their health, safety, families and livelihoods, and that whenever a crisis strikes, we are all going to get through it together.

Achieve universal health coverage.

Achieving universal health coverage will lessen the impact of future pandemics. According to findings published in June 2022 in the *Proceedings of the National Academy of Sciences USA*, from the pandemic's beginning until mid-March 2022, universal health care could have saved more than 338,000 lives from COVID alone. Since the Affordable Care Act passed, ASPPH has supported universal health care coverage for all. Such coverage will enable all to benefit from the public health measures despite the costs associated with the disease.

Dismantle racism and structural racism in academic public health.

Racism is an ongoing public health crisis, and racial equity is needed to achieve health equity. The public health community must work to transform systems and dismantle policies that perpetuate systemic racism and inequities and empower all faculty, staff and students to succeed in the 21st century. This includes preparing our public health workforce so they are able to protect and promote the health of all people across all populations.



THESE RECOMMENDATIONS ARE IMPORTANT — BUT IT IS NOT GOING TO BE EASY.

We're working on it. This is one of the unexpected upsides of the last three troubling years. We at ASPPH are engaged — and re-engaged — with our communities as never before. We have more students and prospective students who believe in our mission and want to be part of it. And together we are committed to moving forward.

COVID-19 is not going anywhere. We are learning to live with what will be an endemic virus. It will spike and recede. Eventually we will understand its patterns. It will mutate, and we will respond. New diseases will emerge and test us. New failures and setbacks will occur. But new discoveries, too, will be made, new processes and systems built, and old ones revived and repaired. New heroes will emerge. And through it all, we at ASPPH will be there, doing our jobs and doing our best.

*Photograph courtesy of
University of Iowa College
of Public Health*