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Massachusetts Health Council Resiliency Hearing in Worcester

Lessons Learned and Best Practices for Emergency Response
Meeting Date: June 28, 2023

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Executive Summary

Responding to the COVID-19 pandemic required a collaborative effort of Worcester city officials, including the Division of Public Health, the public schools, the healthcare system, and community groups. Once the public health emergency has ended, it's critical to reflect on the experience to help the Worcester community identify lessons learned and prepare for any future public health emergencies.

Purpose

For a resiliency hearing, the Massachusetts Health Council convened community leaders who were key to the Worcester area COVID-19 pandemic response to reflect on their experience during the response and to discuss lessons learned and best practices that may be used in future public health emergencies. The discussion focused on what can be done on the local level and specifically on how to improve outcomes for the most vulnerable communities, including the Black Indigenous and People of Color (BIPOC) communities. The hearing included participants from various sectors key to the emergency response, including healthcare, education, public health, city government, faith communities, and nonprofit community organizations.

Findings: Challenges and Lessons Learned

The workgroup identified key challenges and lessons learned. The key takeaways from this meeting included:

Technology

- Technology needs to be equitably accessible with training for users and platforms available in multiple languages.
- Healthcare and local government and educational leaders need to continue to adopt, expand, and maintain robust technology platforms, and these platforms should be able to communicate across agencies to facilitate coordination during future public health emergencies.

Communications and Community Trust in Public Health

- Use multiple avenues of public communication for effective messaging including TV, radio, and word of mouth.
- Involve trusted community members, including faith-based leaders who are willing to spread a public health message.
- Include members of vulnerable communities, especially multilingual members in developing communications and outreach.
- Continue to build community partnerships, such as the Worcester Public Health Church initiative whose community health professionals answered questions and addressed concerns about vaccines, and included an on-site clinic at a church.

Contact Tracing

- Contact tracing technology (devices and platforms) must remain available and up-todate.
- Government officials, educators, and healthcare leaders should develop playbooks to ensure future efficient contract tracing strategies.

Testing and Vaccine Distribution

- As part of a pandemic preparedness playbook, the city Division of Public Health should establish a list of approved indoor sites in advance that may be used for testing and vaccine distribution.
- The division should set up testing and vaccination sites in places where people already gather during public health emergencies.
- For more vulnerable populations, develop distribution initiatives that can reach people
 who can't make online appointments, such as mobile vans, walk-up sites, and large
 vaccination centers.

Information and Demographic Data Collection and Sharing

• Government, education, and health sectors should continue to improve data collection and adopt technology platforms that can collect and share data across agencies.

Building Infrastructure

- Schools should be retrofitted, or new buildings should be built with efficient air filtration capacity.
- Technology that can disinfect spaces should be made more widely available for continued use.

Personal Protective Equipment (PPE) Supplies

- Healthcare and government agencies should strive to have a cache of PPE on hand if supply chains are interrupted.
- Local governments can develop regional plans to supply PPE to hospitals.

Funding

Even as the public health emergency concludes, initiatives like Worcester Together (a
fund developed as a collaboration of The United Way of Central Massachusetts and The
Greater Worcester Community Foundation) should remain operational to continue to
address community issues like healthcare equity gaps, emergency preparedness efforts,
food insecurity, workforce development, and more.

Workgroup Participants

Name	Title
David Martin	Executive Director, Massachusetts Health Council
Soloe Dennis, MS, MEP	Director of the Public Health, Central Massachusetts Regional Public Health Alliance
Amelia Houghton, MSN, RN	Chief of Public Health Nursing for Worcester Division of Public Health & the Central MA Regional Public Health Alliance
Barry Maloney	President, Worcester State University
John Erwin, MBA	Vice Chancellor for Government Relations, UMass Chan Medical School
Tim Garvin	President, United Way of Central Massachusetts
Rev. Dr. Thomas Ofori	Pastor, Good Shepherd Methodist Ghana Church
Thomas Toney	Principal, Grafton Street Elementary School
FACILITATORS	
Carol Gyurina	Senior Consultant, ForHealth Consulting at UMass Chan Medical School
Lissette Victoriano	Senior Policy Analyst, ForHealth Consulting at UMass Chan Medical School

Post-Pandemic Resiliency Hearing

Responding to the COVID-19 pandemic required a collaborative effort of Worcester city officials, including the Division of Public Health, the public schools, along with the healthcare system, and community groups. Reflecting on the experience after the public health emergency is critical to helping the Worcester community identify lessons learned to be able to prepare for any future public health emergencies.

Purpose

The Massachusetts Health Council convened community leaders who were key to the Worcester area COVID-19 response for a resiliency hearing, to reflect on their experience during the COVID-19 pandemic response and to discuss lessons learned and best practices that may be applied to future public health emergencies. The discussion focused on what can be done on the local level, and specifically on how to improve outcomes for the most vulnerable communities. Attendees included leadership from various sectors key to emergency response, including nursing, Worcester public schools, Worcester higher education (Worcester State), Worcester Together (a fund developed as a collaboration of The United Way of Central Massachusetts and The Greater Worcester Community Foundation), a faith-based leader primarily serving people of color and City of Worcester Division of Public Health leadership.

A post-pandemic resiliency hearing allows a community to reflect and identify best practices in emergency preparedness for the future

Findings

During the hearings, the participants identified the following recurring themes regarding lessons learned and challenges.

Technology

Challenges

The use of technology was a major challenge during the COVID-19 pandemic, especially for public health workers and educators. The Division of Public Health tried several different technology platforms to manage the increasing workload, but these systems lacked a billing component and had issues with bandwidth. Worcester public schools and Worcester State quickly shifted to a remote learning environment to minimize the disruption for students, which required training educators in both using the technology and engaging students with new approaches.

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Public health workers and educators reported that learning how to use new technology platforms, teaching others, and troubleshooting issues was difficult and time-consuming. Additionally, when the new technology platforms could not communicate with one another, it was more difficult to share information across agencies. The pastor and the United Way director also agreed that there was inequitable community access to internet services and technology, which presented a barrier to outreach and communication.

Challenges of technology for vulnerable populations, particularly BIPOC communities:

Technology services are primarily in English, presenting a language barrier to immigrant families. These communities also had less reliable internet, computer, and phone access, resulting in greater difficulty transitioning to a remote learning environment, communicating with medical providers, and receiving relevant messaging from public health officials. The pastor also highlighted that people who cannot read have a much harder time with technology because they cannot use and receive communication.

Lessons Learned and Best Practices

Technology can be a powerful tool for public health, but it is important to ensure equitable access. This includes providing training on how to use technology, making sure that technology platforms are available in multiple languages, and making devices and broadband affordable for the community. There should be continued investment in broadband infrastructure and access, as well as device access. This will support communication, health, education, and business efforts during future public health emergencies.

Some changes implemented during COVID-19, such as telehealth and distance learning, have continued past the pandemic, but some vulnerable communities lack sufficient access to these technological services. Leadership should continue to support wider access to broadband access and devices.

Healthcare, local government, and education leaders should continue to adopt, expand, and maintain robust technology platforms for staff and the populations they serve. These platforms should communicate data across agencies to facilitate coordination during future public health emergencies and ideally be available in the languages most spoken by the population.

If paper forms must still be used for certain populations or in the event of a technology outage, forms should be premade for easy entry into computer systems and made available in various languages.

Communications

Challenges

All the participants agreed that communication and outreach were difficult, particularly for vulnerable populations who were more likely to have limited technology access. Public health officials and healthcare workers faced particular difficulties both with their internal systems and in reaching members of the community.

Public health officials and healthcare workers had to develop a multi-pronged approach to sharing messaging about the transmissibility of COVID-19 and how to "stop the spread."

Communication challenges for vulnerable populations, particularly BIPOC communities: Language presented a significant barrier throughout the pandemic to transmit critical messages. Examples included illiteracy, public messaging around the virus, assistance if becoming ill, job protection during illness and recovery, and vaccine safety, availability, and distribution.

Lessons Learned and Best Practices

Multiple avenues of communication are needed for effective messaging; TV, radio, internet, and word-of-mouth are all necessary. Communications should be in multiple languages, and interpreters should be available at in-person events. It is vital to include trusted community members, including faith-based leaders, who are willing to spread public health messaging. Members of vulnerable communities, especially multilingual members, should be included in communications development and outreach.

The use of technology to communicate private information such as test results, vaccination records, and contact tracing information between city departments and community members can be improved.

Community Trust in Public Health

Challenges

Trust was a major issue during the COVID-19 pandemic in many communities, particularly immigrant and BIPOC populations. Community members were sometimes distrustful of the government, the public health messaging, and the vaccine itself, contributing to greater infection and mortality rates among some groups. Language also presented a significant barrier, making it more difficult to understand messaging and limiting community members' ability to ask questions and make informed decisions. The pastor commented that more multilingual public health speakers are needed.

Community trust among vulnerable populations, particularly BIPOC communities: Trust building among vulnerable communities was difficult for various reasons including: access to the technology to verify information, insufficient public health and healthcare leaders who were part of their communities, insufficient public health workers who spoke their language and understood their concerns, fear of deportation, and more.

Mistrust of vaccines amongst BIPOC communities has been fueled by historical events.

Lessons Learned and Best Practices

Community partnerships initiated during COVID-19 should continue to be cultivated even after the public health emergency to continue trust-building efforts, especially among vulnerable and BIPOC communities. They should continue to encourage and fund efforts to diversify leadership.

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The Worcester Public Health Church initiative was well received and should continue after the pandemic to build the relationship between DPH and the church. The initiative's leaders brought health professionals to answer questions and address concerns about vaccines, followed by an on-site clinic at the church. Specifically, the community health professionals spoke the same language and understood their culture.

Faith-based communities are powerful, established networks for disseminating information and gaining public trust since people already gather there. Faith-based communities already trust their leadership and one another, and inviting public health leaders to those spaces is a wonderful opportunity to disseminate information, answer questions, and dispel fears and misinformation.

Contact Tracing

Challenges

Contact tracing was difficult and expensive, and demand for contact tracing services initially exceeded the system capacity. Organizations had difficulty sourcing and funding the staffing needed for contact tracing efforts. The technology needed to support contact tracing also had to be sourced and funded. Public health nurses assisted public schools and higher education with their initial contact tracing efforts until they were able to staff and fund their own contact tracers. Public health nurses found themselves developing the data collection tools they needed as the pandemic was occurring.

Younger people were more likely to attend larger gatherings and be less mindful of who they had been in contact with, especially when they gathered in defiance of guidelines.

Contact tracing for vulnerable populations, particularly BIPOC communities: Not everyone who needed outreach had the necessary communication technology (phones, internet, devices) or was hesitant to speak with officials to disclose who they had been in contact with. Immigrant and frontline workers also feared deportation or losing wages from being reported as exposed to COVID-19.

Lessons Learned and Best Practices

The technology (devices, platforms) needed to support contact tracing must remain available and updated for any future public health emergency. Ideally, the Division of Public Health should be able to send and receive health data from local hospitals, schools, vaccine clinics, and more. The public health nurse commented that processes should be documented and maintained in the event of another public health emergency. Participants also agreed that government officials, educators, and healthcare leadership should develop playbooks to ensure efficient contact tracing strategies in the future, and these agencies should document the best processes to streamline for a future event.

Testing and Vaccine Distribution

Challenges

Establishing testing and vaccine distribution sites was difficult. Local government officials, healthcare workers, educators, and businesses all participated in the identification, vetting, establishment, staffing, and funding of these sites. Due to the nature of the virus (airborne), ventilation guidelines meant that many testing sites were outdoors, which are susceptible to weather.

Previous emergency preparedness efforts did not include the approval/vetting of these sites. This resulted in state officials scrambling to assess sites for suitability. The city had to assess sites for ADA access, ventilation, space capacity, bathrooms, and refrigerators.

Initially, vaccine supply was limited, and the federal government determined which populations were to be prioritized for vaccination. Unfortunately, intergenerational households were not prioritized for vaccines, but this was outside of local control.

When vaccines became more available (by appointment), distribution was inequitable, with people from vulnerable communities less able to receive vaccinations despite higher infection and mortality rates. Vulnerable communities included those with Limited English Proficiency (LEP), limited or no technology or internet access, and immigrant and BIPOC community members.

Establishing and staffing vaccination sites was a community effort. It required the help of volunteers, retired clinicians, students in the medical or nursing fields, and newly hired temporary staff. Government leadership provided laptops to assist with data collection and appointment scheduling, but the technology platform was new, which meant staff required training, and glitches were frequent.

As vaccine equity efforts developed, mobile vaccination required coordination across health care, government, and community-based organizations. Persons served were more likely to be LEP, and data collection reverted to paper tools available in multiple languages, duplicating the administrative burden.

Lessons Learned and Best Practices

All resiliency hearing participants agreed on some preparatory actions that can be taken to facilitate the establishment of testing and vaccination sites for future public health emergencies. Firstly, the city Division of Public Health should establish a list of approved indoor sites to use for testing and vaccine distribution as part of a pandemic preparedness playbook. Sites should be consistently reviewed for adequacy, and new sites should be added on a regular basis.

Additionally multiple participants thought that setting up testing and vaccination sites where people already gather during public health emergencies is good practice. Examples mentioned included food distribution sites, faith-based organizations, and other community resource organizations.

Testing and vaccine distribution for vulnerable populations, particularly BIPOC communities: The vaccine equity drive highlighted the importance of developing vaccine distribution initiatives that can reach people who can't make online appointments. Examples include vaccine mobile vans, walk-up sites, and large vaccination centers.

Lastly, gaining support for testing and vaccine efforts from trusted community leaders (especially faith-based leaders) has emerged as a best practice. Given that these leaders are already trusted, their support can encourage hesitant community members to follow medical guidelines.

Information and Demographic Data Collection and Sharing

Challenges

Early in the pandemic, all sectors had issues with both data collection and a lack of demographic information. Prior emergency preparedness efforts did not include templates or platforms necessary for contact tracing or information sharing between agencies. Many sectors found themselves developing internal data tools until technology platforms were sourced.

Data collection for vulnerable populations, particularly BIPOC communities: All participants agreed that the lack of race and ethnicity data collection made understanding which people were most affected by COVID-19, and impeded vaccine equity efforts. The lack of household composition data was also mentioned because BIPOC people were more likely to live in intergenerational households, and these more crowded conditions put them at increased risk of infection. These same community members were generally more hesitant to share contact information needed to support pandemic efforts.

Lessons Learned and Best Practices

The pandemic has highlighted the importance of data collection, especially around demographic and household composition. Sectors should continue to develop processes to improve demographic data collection, adopting technology platforms that can collect and share data across agencies. Examples of data to collect include race/ethnicity, infection cases, vaccine distribution, and reporting. It was also suggested that platforms be able to map information down to street level to determine which communities need additional support.

Infrastructure

Challenges

The participants agreed that outdated building infrastructure made the vetting and establishment of testing and vaccine sites more difficult. Several participants mentioned ventilation systems. In public education, older schools have poorer air filtration, while hospitals have more advanced technology for disinfecting spaces and more advanced ventilation systems.

Technology does exist that can disinfect spaces for continued use, but it has been limited to healthcare facilities and businesses. Those without the technology must close for three days for disinfection, hindering service delivery.

Lessons Learned and Best Practices

Part of emergency preparedness planning needs to include retrofitting facilities, especially Worcester public schools and public buildings, with efficient filtration systems. Additionally, any new school building must be built with excellent air filtration capacities. Technology that can disinfect spaces for continued use should be made more widely available.

PPE Supplies

Challenges

Initially, a lack of PPE at both the national and local levels meant the general public and healthcare workers had limited access to PPE, including masks, gloves, hand sanitizer, and cleaning supplies capable of disinfecting surfaces. The federal strategic stockpile could not meet demand, and many local governments and healthcare providers did not have a cache of supplies at the ready.

State officials found that the public was more compliant with masking guidelines at the beginning of a public health emergency, especially while federal and state mandates were still in place. City mandates are harder to enforce.

Lessons Learned and Best Practices

Going forward, local government, healthcare providers, and other sectors should strive to have a cache of PPE on hand in the event supply chains are interrupted. Local government should take the opportunity to develop regional plans to supply PPE to hospitals, develop and maintain a cache, and document processes and sourcing information.

Participants commented that distributing PPE supplies where people gather was good practice, especially in vulnerable communities. Examples included senior centers, food distribution sites, faith-based communities, healthcare centers, and schools.

Notably, while mask mandates were in effect, other airborne diseases (cold and flu) decreased significantly during peak seasons due to mask-wearing. Masking should be encouraged during peak seasons going forward.

Funding

Challenges

All participants shared the need for adequate funding for staffing, supplies, broadband access, activities, and more. Worcester Together and the government sector were key funders for many different groups.

Schools were tasked with supplying students with the technology to participate in remote learning, and local government transitioned to remote work. These changes required funding.

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Healthcare centers invested heavily in technology, staff, and supplies to support COVID-19 treatment, testing, and vaccination.

Grant opportunities to hire additional staff and fund needed equipment often had limitations on how money could be spent. Worcester Together participated in trust philanthropy, which included fast and flexible grants to support community efforts.

Lessons Learned and Best Practices

Sponsored by the United Way of Central Massachusetts and the Greater Worcester Community Foundation, the Worcester Together fund worked across various sectors with government support to combine resources and provide funding for community initiatives. Even as the public health emergency ends, initiatives like Worcester Together should remain operational to address community issues like healthcare equity gaps, emergency preparedness efforts, food insecurity, workforce development, and more.

Conclusion

The Worcester resiliency hearing was an important meeting for city leaders to reflect upon their response to the COVID-19 pandemic and discuss how to be better prepared for future pandemics. The City of Worcester's leadership was very instrumental in coordinating all the response activities during the pandemic. The city response framework was at the forefront of mobilizing public health actions to prevent the spread of the virus and ensuring the health and safety of their communities while keeping essential public health services in place. The city's leadership is constantly working to enhance its capacity to response to future emergencies. This meeting will have a greater impact if city leaders are able to translate the ideas generated into action plans and identify potential funding sources for long-term improvements beyond current city funding.

The Massachusetts Health Council recommends that these hearings be an initial step towards collaborative planning and developing a playbook to use as needed in the future.

Meet Our Team

Carol Gyurina, MMHS | Senior Consultant

Carol is a seasoned ForHealth Consulting expert who brings a wealth of expertise in behavioral health programming, payment methodologies, and healthcare analytics. She has consulted on program development for the Massachusetts Roadmap for Behavioral Health Reform and worked in management and analytics at MassHealth and the Health Policy Commission. She holds a Master of Management of Human Services from Brandeis University and a Bachelor of Arts in Religion from the University of Massachusetts, Amherst.

Lissette Victoriano, MPH | Senior Policy Analyst

Primarily serving government agency clients and nonprofit health policy organizations, Lissette's work includes policy consulting, data analysis, research, and evaluation. Her expertise includes the community health worker workforce, Medicaid services, supports for unhoused individuals, and grandparents raising grandchildren. Her education includes a Master of Public Health from Boston University and a Bachelor of Arts in Political Science and Economics from Brandeis University.

Appendix

Focus Group Guide

Introductions

Introducing why the Massachusetts Health Council organized this meeting. (10 minutes)

Review the agenda for the meeting

- 1. **Sharing Experiences:** We want to hear about your experiences, challenges, and successes during the COVID-19 pandemic. It is important that we hear from everyone as you represent many different sectors in our city.
- 2. **Recognizing Lessons Learned:** Once we hear about your experiences, we will discuss the lessons learned from our local response efforts and identify areas for improvement.
- 3. **Identifying Best Practices:** We want to make sure we identify our strengths and what went right, highlighting best practices and strategies that were effective in managing the pandemic.
- 4. **Developing Strategies for the Future:** We want to allocate at least half an hour at the end of this meeting to develop recommendations for equipping ourselves and our communities with resources and strategies for any future public health emergency. We will develop a decision matrix for what needs to be considered in any future pandemic, which may present different challenges than COVID-19.

We want our discussions to mostly focus on what can be done on the local level, rather than discussing the federal or state response. There may be a few areas where we discuss coordination across levels of government or recommendations for what we think local cities should advocate for.

Since we only have two hours, we likely cannot delve into every aspect of pandemic response. So, we'd like to focus especially on improving outcomes for the most vulnerable communities and exploring approaches to communication.

Sharing Experiences: 25 minutes

1. How did your organization or department respond to the pandemic?

Think about this in terms of:

- a. Staffing / remote work / shortages
- b. Impact on services/education/healthcare
- c. Communication strategies to staff and public
- d. Public health efforts (surveillance, contact tracing, masking requirements, business closures, vaccine clinics, and targeted vaccine distribution to vulnerable communities)

Lessons Learned: 25 minutes

- 2. Think about your experiences what lessons did you learn? What polices or procedures did you try to implement that didn't go as planned or have the hoped-for benefit?
- 3. Were there policies that worked for some populations but didn't reach more at-risk populations?

Consider the following populations:

- a. People of color and those for whom English is a second language
- b. People who live in multi-generational families in more crowded living conditions
- c. People who live in nursing facilities
- d. Front-line workers who could not work remotely
- e. People with less access to technology

Best Practices: 20 minutes

4. What policies worked best for you? Are there any best practices that you want to retain for any future pandemic or that would apply well to other organizations?

Consider areas such as:

- a. Communication strategies
- b. Health equity and outcomes for more vulnerable populations
- c. Availability of PPE and masking
- d. Air filtration systems
- e. Efforts to reduce indoor crowding
- f. Targeted vaccine distribution

Strategies for the future/development of decision matrix: 35 minutes

5. Based on the lessons learned and best practices, what can we do to be better prepared for the next pandemic? Think both in terms of actions we could take now and pandemic policies we could develop now for use during an emergency. Consider policies that might be needed in an even more contagious or deadly pandemic, as well as one similar to COVID-19.