**Building Trust in Public Health: Coordinating our Public Health and Managed Care Systems**

The health care system and the related entities that pay for care are often bystanders when it comes to the work and performance of the public health system. But their interdependence has rarely emerged as clearly as it has during the coronavirus pandemic.[[1]](#endnote-1)

**Introduction**

During the COVID pandemic the U.S. population suffered to a much greater extent than people in other industrialized countries.[[2]](#endnote-2) The U.S. experienced ten times the death rate, adjusted for population, as compared to, for example, Australia.[[3]](#endnote-3) The key difference between the two countries is trust. Australians have a much greater trust in government than do Americans.

The roots of public distrust of government in the U.S. run deep and are multifaceted. But as it relates to the pandemic, a weak response characterized by poor communication between the health system and the public and between the public health system and medical care providers contributed to the problem.[[4]](#endnote-4) To increase confidence in our public health system in a sustained manner, greater links between public health and communities and between the public health and acute care systems are essential.

We need a new paradigm, one that moves from a *patient-centered* care system (our traditional acute care, managed care, long term care system) to a *community-centered* health and social care ecosystem. However, recognizing that a comprehensive national or federal public health initiative will be difficult if not impossible to implement in today’s polarized climate, this chapter suggests a state-level approach as in Massachusetts, the author’s place of residence. In the U.S., states have historically taken the lead on many important national issues. Of significance, both the legalization of gay marriage and the system of health care coverage advanced in the Affordable Care Act passed under President Obama began in Massachusetts under a Republican governor. Thanks to bipartisan leadership, we can point to an effective statewide public health system with effective coordination between the public health and acute health care systems in Massachusetts that could be a model for the country.

These recommendations build on Massachusetts’s history, already existing regulations, and recently passed and/or implemented initiatives, including the excellent report published in June 2022 by the Massachusetts Joint Committee on COVID-19 and Emergency Preparedness and Management (hereafter, the Joint Committee). The Massachusetts Joint Committee is an arm of the Massachusetts State Legislature.[[5]](#endnote-5)

This proposal addresses our pandemic public health needs today and for the future by

* coordinating our Public Health (PH) and Patient Care Centric systems (hereafter PCC). For the purposes of this chapter, PCC includes acute care, primary/specialty care, long term care along with arrangements for managed care, including accountable care organizations, or ACOs.
* using Community Health Workers (CHWs) to activate this engagement between PH and PCC health systems. Most importantly, CHWs represent the link between the two (PH and PCC) health systems.[[6]](#endnote-6) While technology can provide a tremendous amount of information, a human interface, locally recognized in the community, can more effectively address the profound socioeconomic and simply human dimensions of any pandemic, including contact tracing. PH and PCC both already have CHWs, but they need to be better coordinated with PH. The CHW will be empowered to implement neighborhood- and home-centered care.
* adopting validated quality metrics tied to financial incentives to maximize quality outcomes.
* addressing the needs of the entire population with a focus on those most at risk.
* implementing this approach initially in several counties, revising it, and then reintroducing it using continuous quality improvement with standardized metrics throughout the state within 24 months.

The underlying rationale is that we will continue to face ongoing pandemics and endemics. Pandemics worsen socioeconomic disparities in health. Thus, interest groups that represent disadvantaged populations should be looking for comprehensive yet realistic solutions that will significantly benefit their constituencies. Pandemics and COVID in particular[[7]](#endnote-7) also represent a significant drain on our overall economy (trillions in economic cost![[8]](#endnote-8)), and thus should be of vital interest to the commercial sector. If commercial interests work together with advocacy groups representing the disadvantaged, then these two groups can make this proposal reality and, in turn, encourage health care organizations to facilitate greater linkages between PH and PCC.

**Public health challenges** **in the United States; the Massachusetts Health Care Landscape**

The United States, like the rest of the world, preferentially invests in the acute health care system rather than public health. Of the $3 trillion in health spending in the U.S., public health receives at most 3 percent.[[9]](#endnote-9) This 3% does not reflect the wide variation of state and local investments in public health; that where you live determines the level of public health protection you receive.

As another example of disparity, MassHealth, the health insurance program for low income people, provides coverage for more than 1.8 million people - over a quarter of the state’s residents. MassHealth is an important contributor to the state’s high insured rate—currently, more than 97%. (uninsured rate in Texas is 19%; uninsured rate in the United States is 9%.[[10]](#endnote-10))

Who delivers traditional public health services today in Massachusetts? The 351 cities and towns are independently organized for the delivery of local public health services and operate autonomously from the Massachusetts Department of Public Health. Massachusetts local boards of health or Local Health Departments (LHDs) are charged with a complex set of responsibilities, including enforcement of state sanitary, environmental, housing, and health codes. Within a county, one town might have a mask mandate and the next one might not; one town might have professionally trained public health staff, while the next town over might rely on volunteer staff.

To begin to address inadequacies in our public health system, the Massachusetts legislature signed the SAPHE 1.0 (State Action for Public Health Excellence) into law in 2020. In this chapter, I propose a new bill, which we will call Community Health Resilience Plan or CHRP). It builds on what has been accomplished (SAPHE 1.0) and what passed (SAPHE 2.0) the MA House and Senate but did not come into law because the Governor returned the bill for further consideration.[[11]](#endnote-11) CHRP is much more ambitious than SAPHE 2.0. See Supplemental Data Content (SDC) for further description of both bills.

T**he Critical Role of Community Health Workers (CHWs) in a Coordinated PH-PCC System**

In a *community-centered* health and social care ecosystem as defined in this proposal, the CHW will implement both neighborhood and family centered care. A nationally recognized definition adopted by the American Public Health Association (APHA), CHW section, describes the CHW as a:

Frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A community health worker also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy.[[12]](#endnote-12)

CHWs are extensively trained in their field.[[13]](#endnote-13) Practically speaking CHWs constitute the ideal link between PH and PCC and, in fact, would serve as focal point of the health care and social work professional team for fulfilling several specific Joint Committee recommendations. The titles of these Joint Committee recommendations directly relevant to CHWs are: “Create a mechanism to report at-home and rapid testing results to local board of public health and the Department of Public Health”; “Invest and Prepare for Contact Tracing” and “Fund contact tracing efforts by investing in local public health and supplemental funding during disease outbreaks”; “Improve data gathering and release by the Commonwealth to make it more transparent, readily accessible, detailed and timely.” CHWs in both PH and PCC that communicate and coordinate with each other are the ideal human interface for implementing each of these recommendations.

Another Joint Committee recommendation involves CHWs but merits additional comment and, in some ways, goes to the heart of the challenge that the United States faces in rebuilding our public health system and effectively addressing this and future pandemics. In “Establish a temporary COVID-19 Recovery Corps,” the Joint Committee highlights how such a Corps would “engage volunteers in the ongoing need for response and recovery assistance in the Commonwealth. Throughout the pandemic volunteers played a crucial role in our response and recovery and organized volunteerism can continue to be an important part of the ongoing response to this and future crises.”

Researchers have amply documented the relationship between health and civic engagement. The latter is an important social determinant of health and, importantly, can impact the outcomes of the political determinants of health.[[14]](#endnote-14) The National Academy of Sciences (NAS) in June 2022 published a report entitled “Civic Engagement and Civic Structure to Enhance Health Equity.” According to this NAS report:

Civic engagement, like affordable housing, a living wage, and a good education, is a social driver of health status, affecting the health of both engaged individuals and society. “In other words,…the health of members of a democratic society and the health of the democracy are intertwined.” Good outcomes for democracy and for health equity require:

* Authentic community organizing by local people
* Civic engagement that brings together and lifts up diverse voices which is crucial for a healthy democracy
* Taking community needs into account
* Research, such as community-based participatory research and participant-driven interviews that treat participants with dignity and respect (e.g. explaining to community members how data will be used)

Simply put, CHWs working together with COVID-19 Recovery Corps would provide the person power and local credibility to connect social and political determinants of health with improved outcomes especially during a pandemic. CHWs represent the “address” for maximizing effectiveness of this Joint Committee’s recommendation. CHWs are the key to a community-focused population-based health system that links PH and PCC. In turn, such an effectively implemented population-based health system can be a critical element in not only effectively dealing with this and future pandemics but also, in fact, rebuilding trust in American institutions.

**Community Health Resilience Plan (CHRP): Coordinating Public Health and Patient Centric Care Systems; The Next Step in Pandemic Preparedness**

A dramatically improved public health system could decrease fractionation of current public health resources and maximize communication between traditional government-provided/funded public health services and PCC organizations. CHRP, which builds on the Joint Committee report of the Massachusetts legislature and SAPHE 1, aims to significantly enhance the public health system by inextricably coordinating LHDs with the PCC health systems in Massachusetts. CHRP accomplishes this integration by

* distributing CHWs throughout both LHDs and the PCC system, making CHWs the linchpin of this coordinated dual system.
* encouraging quality improvement through financial and administrative incentives for LHDs and PCC to work collaboratively. Together, they can continuously improve public health quality outcomes that are adjusted for socioeconomic disparities.

Both legislation and regulation are required to implement CHRP. Legislation must be passed to provide the overall framework of a coordinated PH and PCC system, including

* the CHW linchpin.
* the establishment of a Special Assistant to the Governor for COVID-19 Vaccine Administration
* the specification, via a senior executive level position, of the relationship between the Department of Public Health and MassHealth; and
* funding for a strengthened PH infrastructure. (Recommendations pertaining to funding are specified in the Joint Committee Report).
* funding for improved indoor air quality in schools and public spaces also requires legislation and should follow the specific recommendations identified in the Joint Committee Report.

In addition, critical elements of CHRP need to be addressed via regulation. It will be critical to specify how to embed CHWs as the center of the spokes of the public health “wheel.” The most recent Massachusetts ACO waiver extension request to the federal government states that ACOs will: “Streamline care coordination to ensure members have a single accountable point of contact.”[[15]](#endnote-15) CHWs should be the single accountable point of contact. Regulation, in particular, can encourage communication between LHDs and PCC via a CHW on what constitutes “high and rising-risk members.” Contact-tracing regulations can highlight the best-practice patterns in light of what we have learned from initial efforts such as the contact-tracing contract that the state gave to Partners in Health at the start of the pandemic.[[16]](#endnote-16)

CHWs can also provide the critical link between the community, primary care, and the schools. Schoolchildren are among those who have suffered the most during this pandemic, especially from an emotional and social perspective. During the pandemic, education inequality has widened.[[17]](#endnote-17) CHWs should be engaged with, for example, school counselors to best coordinate family-centered public health, emotional, and physical care, especially as it pertains to children under stress.[[18]](#endnote-18)

Regulations will be needed to specify CHW-based outcomes and process metrics to be tracked for the entire state, with a specific focus on areas with significant socioeconomic disparities. See Supplemental Data Content for a suggested set of metrics that improve quality outcomes, measure the impact of PH and PCC coordination, and specify the financial incentives to improve outcomes of socioeconomic disparities. These metrics are all validated. Additionally, the current payment system must be adjusted, with a particular focus on risk adjustment and how to incorporate CHWs into the payment system.

**Conclusion**

In summary, this proposal provides a politically challenging but much needed approach to addressing our pandemic public health needs by

1. encouraging coordination between public health and patient centric health systems.
2. using validated quality metrics with accompanying financial metrics and CHWs to guide the implementation of this coordination.
3. addressing the needs of the entire population with special focus on those most at risk.
4. implementing as soon as practicable a small-scale test of this approach so that necessary details for its feasibility, budgetary implications, effectiveness, and sustainability can be appraised. Small-scale interventions (in several counties) could occur within 6 months and full-scale implementation within 24 months.

Interest groups outside health care including the commercial sector and groups advocating on behalf of those who have suffered the most during the pandemic will need to be engaged for CHRP legislation to pass.

*But the price of failure is severe. Without public trust, polarization in American society will lead to increased American fragility. This will only exacerbate this and future pandemics and our socioeconomic disparities. Today we have an opportunity to address these issues if all interest groups, political parties, and the population of Massachusetts come together.*

**Supplemental Data Content**

Appendix 1: Summary of SAPHE 1 and SAPHE 2 (the latter passed the MA House and Senate in 2022 but the Governor returned it back to the legislature for further consideration)

*SAPHE 1.0.*

The Massachusetts legislature signed SAPHE 1.0 into law in 2020. The Act provides resources to elevate performance standards to improve the municipal and regional public health system. In addition, it increases cross-jurisdictional sharing of public health services to strengthen the service delivery capabilities of the municipal and regional public health system. It improves planning and system accountability of the municipal and regional public health system and lastly establishing workforce standards, including, but not limited to, education and training standards for municipal and regional public health officials and staff. Under SAPHE 1.0 the above are all recommendations and subject to appropriation.

*SAPHE 2.0*

SAPHE 2 did not become law in the session that finished July 2022. It proposes to:

* Ensure minimum public health standards for every community,
* Increase capacity and effectiveness by encouraging municipalities to share services,
* Create a uniform data collection and reporting system, and
* Establish a sustainable state funding mechanism to support local boards of health and health departments.

Appendix 2: **SUMMARY OF** **REPORT OF THE JOINT COMMITTEE ON COVID-19 AND EMERGENCY PREPAREDNESS AND MANAGEMENT : FINDINGS AND RECOMMENDATIONS OF THE COMMITTEE . January 2021 – June 2022**

Scope of the Committee: The Committee on COVID-19 and Emergency Preparedness and Management serves as an oversight and advisory committee to monitor and investigate issues related to coronavirus disease (COVID-19) emergency response and recovery.

Purpose of the Report: While this report does not make recommendations on all areas that are affected by the COVID- 19 pandemic, the Committee has endeavored to highlight key areas focused on emergency preparedness and management.

**Recommendation: Statewide response must be transparent, predictable, and well-communicated**

**Recommendation:** The Committee recommends that the statewide response to COVID-19 be communicated thoroughly and with significant advance notice of any changes. Where appropriate, the state must consider and integrate input from responding local and regional officials into its response plans.

The Committee heard consistently about sudden and dramatic shifts in the state’s response, particularly around COVID-19 testing and the vaccine rollout. For example, some local and regional boards of public health and HMCC stakeholders prepared to administer and manage vaccine clinics, with some stakeholders conducting local vaccine drills, before the Commonwealth suddenly shifted its early strategy to focus on high throughput mass vaccination sites.

**Recommendation: Plans for vaccines should be suited to communities, particularly communities of color and other high-risk populations**

**Recommendation:** The Committee recommends that emergency response planning prioritize those who are hardest hit to promote racial equity and cultural competency. Building trust among high-risk communities requires bringing people into the planning process and the implementation of response actions. Adhering to existing local action plans will help the state reach these populations.

While mass vaccination sites may have been efficient at delivering large quantities of vaccinations, the Commonwealth’s initial, almost singular, focus on these vaccine super-sites raised substantial and persistent equity concerns. In all, the state launched eight mass vaccination sites, located at Gillette Stadium in Foxborough, Fenway Park/the Hynes Convention Center in Boston, the Reggie Lewis Center in Boston, the Natick Mall, a Doubletree Hotel in Danvers, the Eastfield Mall in Springfield, and the former Circuit City in Dartmouth. Some of these sites were poorly served by public transportation, and only accessible via car or ridesharing

**Recommendation: Strengthen local and regional public health infrastructure**

**Recommendation:** The Committee recommends strengthening local and regional public health infrastructure so local officials can lead and plan for local emergency response. This will require sufficient funding streams and expanding regional initiatives.

However, there are stark differences and long-standing inequities between and within public health departments in the state’s 351 cities and towns. The Commonwealth is one of the few states that does not dedicate annual baseline or formulaic funding to local public health departments. As a result, municipalities in the Commonwealth have widely varying abilities to provide public health protections to residents. While some cities and towns have well-funded, professionally-staffed local public health departments, some local boards of health are staffed solely by volunteers, and others have only a single part time staff member. This is always dangerous for public health, and during the pandemic the consequences were severe.

**Recommendation: Fortify supply chains and stockpiles**

**Recommendation:** The Committee recommends that the Commonwealth have a well-maintained stockpile of personal protective equipment (PPE) and additional medical and non-medical supplies that can be immediately accessed and distributed when needed. The Commonwealth should also take efforts now to increase its capacity to manufacture key supplies in Massachusetts in order to fortify its supply chains.

**Recommendation: Create a mechanism to report at-home and rapid testing results to local boards of public health and the Department of Public Health**

The Committee recommends the creation of a mechanism to report at-home and rapid testing results. Once implemented, DPH should publish the relevant data on how many positive rapid tests have been reported daily.

At the start of the pandemic testing was sparse, reflecting the limited available supplies and high demand. As the pandemic progressed, supplies of tests have generally improved. Now, at-home, self-administered, rapid COVID-19 antigen tests have been authorized for use by the FDA, and can be purchased online or over the counter at pharmacies. These tests are covered by health insurance, providing up to 8 tests per person per month, at no cost to the consumer

**Recommendation: Prepare and plan for testing needs, including local production of testing materials**

The Committee recommends that the Commonwealth prepare a scalable plan to increase testing and production of testing materials locally during emergencies. The Commonwealth should be prepared to be self-sufficient in its ability to provide testing for its residents during a pandemic.

Efforts to provide Commonwealth residents with COVID-19 testing resources faced many challenges in the early days of the pandemic, and some of those challenges persisted throughout, or resurfaced through multiple spikes. Some of these testing challenges were unique to COVID- 19, some of those challenges were outside of the state’s control, and some could have been avoided with better preparation and by following previously developed plans.

**Recommendation: Invest and prepare for contact tracing**

The Committee recommends that the state invest in developing a branch of the MAVEN software or its equivalent specifically for contact tracing that contact tracers who are not from local health departments can access directly.

Because the state was unprepared to conduct contact tracing, the system that was developed was inefficient, ineffective and expensive. Laboratories would upload COVID-19 test results into the state’s Massachusetts Virtual Epidemiologic Network (MAVEN) system where local boards of health, local health departments or their representatives at regional health collaboratives could access the information on positive COVID-19 test results. Local boards of health could then conduct contact tracing on a positive case within their jurisdiction or could assign a case, multiple cases, or all cases to the CTC.

These difficulties in part stemmed due to the initial lack of representation of local public health in the process. Public health nurses and other local and regional board of health staff could have brought their expertise to the software design and work flow protocols.

**Recommendation: Fund contact tracing efforts by investing in local public health, with supplemental funding during disease outbreaks**

The Committee recommends that the Commonwealth prepare and fund local health officials to lead contact tracing in future pandemics.

**The Committee recommends that the Commonwealth prepare local health jurisdictions to lead contact tracing in future pandemics.**. Having both local public health jurisdictions and the CTC conduct contact tracing meant that two entities were responsible for performing the same task, which is inefficient. Local health jurisdictions experience cross-jurisdictional problems when conducting contact tracing, such as when a resident lives in one town but works in another. Regional health collaboratives are the solution, but they require flexible funding as recommended by this report.

**The Committee recommends that local health jurisdictions should also be funded to deliver baseline public health protections.** Local health departments and regional health collaboratives should be the Commonwealth’s first choice for conducting contact tracing, and any emergency funding should support their work.

**Recommendation: Continue and expand state supported wastewater monitoring and epidemiology**

The Committee recommends that the Commonwealth use wastewater surveillance as an essential tool for detecting and tracking the presence of COVID-19 and other diseases over time. This surveillance should be used as a mechanism to warn of re-emergences or outbreaks of disease and trigger the deployment of countermeasures to reduce transmission. The Commonwealth should initially expand additional wastewater monitoring, focused on adding more within municipalities, institutions of higher education, office campuses, congregate care settings, and prisons.

**Recommendation: Improve data gathering and release by the Commonwealth to make it more transparent, readily accessible, detailed, and timely**

The Committee recommends that when making pandemic data public, DPH should work to include cross tabulations detailing infections, hospitalizations, and deaths by racial and ethnic background, and by age. To track surges, the data should be as granular as possible, mindful of the complexities in reporting for small populations.

**Recommendation: Restructure and update the Commonwealth’s incident management structure to better align with well-established standardized incident organizational structures**

**Recommendation: Utilize anchor dates and trigger thresholds for emergency planning, response, and recovery**

The Committee recommends identifying key indicators that provide early signals about virus transmission rather than relying on lagging indicators such as hospitalizations or mortality rates to trigger response actions.

The implementation of anchor dates, key data indicators, and trigger thresholds will enable better collaboration and increase trust in the government response. Projecting dates or publicizing thresholds for action helps the public know the purpose of and what to expect, as well as any collective pandemic management goals.

**Recommendation: Establish a temporary COVID-19 Recovery Corps**

The Committee recommends establishing a temporary COVID-19 Recovery Corps to engage volunteers in the ongoing need for response and recovery assistance in the Commonwealth.

Throughout the pandemic volunteers played a crucial role in our response and recovery and organized volunteerism can continue to be an important part of the ongoing response to this and future crises. The Medical Reserve Corps, which includes both clinical and non-clinical volunteers, along with student volunteers in the Academic Public Health Corps played important roles. In addition, the Massachusetts Service Alliance (MSA) was a consistent supporter of volunteerism throughout the pandemic.

The MSA is a private, non-profit organization that works to expand volunteerism and service in Massachusetts by providing individuals and organizations with funding, training, and support to enable them to strengthen our communities. The MSA also operates the Commonwealth Corps program, a service program founded by Governor Patrick in 2007, that focuses on cultivating, training, and placing service members and nurturing volunteerism across the Commonwealth.

MSA’s network of service members assisted with the distribution of face masks, hand sanitizer, and other safety supplies to residents in Worcester. MSA service members also distributed hand warmers, a particular help to people experiencing housing insecurity or homelessness during the pandemic. Additionally, service members assisted with health education and youth education programs, adapting lessons to be conducted completely outside or shifting to remote online learning. The MSA also assisted organizations in increasing capacity for volunteers, administering over $200,000 worth of COVID-19 resilience grants to 56 non-profit organizations. These grants targeted organizations that needed additional financial support for volunteer capacity, supplies, or projects that were impacted by COVID-19.

**The Committee recommends that a COVID-19 Recovery Corps be established to further aid the recovery process, given the quantity and quality of work done by the MSA and Commonwealth Corps before and during the pandemic.** If established, service members could be placed with health-focused organizations, including municipal public health departments, community health centers in high-risk communities, and service organizations providing food and supply distribution. As the recovery progresses, service members could help connect residents with job training, adult education, work readiness, and employment opportunities.

Creating a COVID-19 Recovery Corps, will cultivate a class of service members with the skills and commitment needed to remedy the deep scars this pandemic has left on the Commonwealth.

**Recommendation: Improve indoor air quality in schools and other public settings**

The Committee recommends that the Commonwealth establish a plan and funding mechanism to improve indoor air quality in schools and other public buildings.

Air quality is important for population health. Prolonged exposure to polluted air can cause respiratory disease. Those with pre-existing respiratory conditions were more likely to become severely ill from COVID-19. Additionally, adequate ventilation and filtration in indoor settings can help reduce transmission of COVID-19 and other airborne respiratory viruses. However many school buildings in the Commonwealth are old, have poor ventilation, or lack right-sized filtration devices. The Commonwealth also does not have comprehensive data on the air quality of our K-12 classrooms, where students and teachers alike spend at least eight hours per day.

**Recommendation: Designate a “Special Assistant to the Governor for COVID-19 Vaccine Adminstration” for all efforts related to vaccinations.**

The Committee recommends that a special assistant to the Governor be created to serve as the senior level position in the administration for the purposes of reinvigorating the efforts to close existing vaccination gaps, planning for future surges, and setting and meeting immediate and long term goals for COVID-19 vaccination rates in the Commonwealth

Many of these recommendations are included in omnibus legislation approved by the Committee, H. 4714, *An Act for a Better Prepared Massachusetts*.66 As of June 23, 2022, the legislation was also approved by the Health Care Financing Committee and is pending before the Senate Committee on Ways and Means.

While the Committee has presented a number of recommendations to improve our future preparedness and emergency response capacity and capabilities, these observations are by no means exhaustive of all possible improvements. Similarly, the successes and challenges that have been described above represent only a piece of the overall response to the pandemic. A statewide after-action-report will be needed to properly outline the Commonwealth’s response in the past two years with the level of detail that it deserves, including a substantive analysis of the entirety of our pandemic response, especially as we transition into a new phase(s) of pandemic management. This kind of after action analysis could be accomplished as part of a comprehensive commission charged with a complete review of what transpired during the pandemic.

Despite these challenges, there is reason for optimism. Our understanding of how the virus behaves and what we can do to protect individuals and communities and minimize spread has improved. The COVID-19 vaccines have proven to be effective at limiting transmission, hospitalizations, and death. Researchers and scientists have published studies that detail the effectiveness of the pharmaceutical and non-pharmaceutical tools we have available to protect ourselves via collective and coordinated action if another surge arises.

Early in the pandemic, the state government acted with diligence to make substantive changes – from a public health order to stay home, to strong eviction protections, and more. In so doing, the state has proven it can lead adaptively. Dedicated officials at all levels clearly demonstrated that they can be trusted during a pandemic to get the job done. Legislation and funding has been passed to bolster local public health infrastructure so that we enter the next pandemic with stronger tools to fight back. The reflections in this Committee report and the efforts of so many continue to point the way forward toward what is needed now and the work to prepare for the next contagion, the next pandemic, the next disaster. These recommendations include components that require unwavering commitment in order to achieve the intended reforms. The Committee recommends that the state begin this work without delay.

**Appendix 2: A Suggested “Flight Instrument Panel” or Dashboard of Quality and Financial Metrics** *– System Wide, Public and Patient Care Centric Health Systems;*

*Patient Reported Outcome Information*

General Measures: Bull C, Teede H, Watson D, Callander EJ. Selecting and Implementing Patient-Reported Outcome and Experience Measures to Assess Health System Performance. *JAMA Health Forum.* 2022;3(4):e220326. doi:10.1001/jamahealthforum.2022.0326

What Matters Index: Wasson JH, Ho L, Soloway L, Moore LG. Validation of the What Matters Index: A brief, patient-reported index that guides care for chronic conditions and can substitute for computer-generated risk models. PLoS One. 2018 Feb 22;13(2):e0192475. doi: 10.1371/journal.pone.0192475. PMID: 29470544; PMCID: PMC5823367.

Patient Activation/Empowerment Measure: Hibbard JH, Stockard J, Mahoney ER, Tusler M. Development of the Patient Activation Measure (PAM): conceptualizing and measuring activation in patients and consumers. Health Serv Res. 2004 Aug;39(4 Pt 1):1005-26. doi: 10.1111/j.1475-6773.2004.00269.x. PMID: 15230939; PMCID: PMC1361049.

Health Confidence: Wasson J, Coleman EA. Health confidence: an essential measure for patient engagement and better practice. Fam Pract Manag. 2014 Sep-Oct;21(5):8-12. PMID: 25251348.

*Claims Data*

Greene J, Hibbard JH, Sacks R, Overton V, Parrotta CD. When patient activation levels change, health outcomes and costs change, too. Health Aff (Millwood). 2015 Mar;34(3):431-7. doi: 10.1377/hlthaff.2014.0452. PMID: 25732493.

Risk Adjusted ER rate – divided into the following categories: Potentially Preventable Conditions including Ambulatory Care Sensitive Conditions, COVID related, Mental Health/Substance Abuse

Risk Adjusted Hospitalization rate divided into the following categories: Potentially Preventable Conditions including Ambulatory Care Sensitive Conditions, COVID related, Mental Health/Substance Abuse

Immunization Status

Timeliness of Prenatal and Postpartum Care

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3. Reference [↑](#endnote-ref-3)
4. Reference [↑](#endnote-ref-4)
5. reference [↑](#endnote-ref-5)
6. Goldfield NI, Crittenden R, Fox D, McDonough J, Nichols L, Lee Rosenthal E. COVID-19 Crisis Creates Opportunities for Community-Centered Population Health: Community Health Workers at the Center. J Ambul Care Manage. 2020 Jul/Sep;43(3):184-190.  [↑](#endnote-ref-6)
7. reference [↑](#endnote-ref-7)
8. Atlantic Article [↑](#endnote-ref-8)
9. https://www.cdc.gov/nchs/data/hus/hus16.pdf#094 [↑](#endnote-ref-9)
10. reference [↑](#endnote-ref-10)
11. https://commonwealthmagazine.org/politics/lawmakers-advocates-hit-bakers-opt-in-approach-to-public-health/?fbclid=IwAR3H\_-VRP\_Oi14R1Dya4SS5Wnoj04TUHC6nM9GuKjxrb3jH7IKoJDPIdePw [↑](#endnote-ref-11)
12. APHA, 2020 [↑](#endnote-ref-12)
13. See https://nachw.org/membership/chw-networks-and-certification-programs/ [↑](#endnote-ref-13)
14. Ayers, Dawes, Hunter Ramakrishnan [↑](#endnote-ref-14)
15. https://www.mass.gov/doc/1115-waiver-extension-request-summary/download [↑](#endnote-ref-15)
16. https://www.pih.org/ma-response [↑](#endnote-ref-16)
17. https://www.edweek.org/leadership/could-the-pandemic-pod-be-a-lifeline-for-parents-or-a-threat-to-equity/2020/07 [↑](#endnote-ref-17)
18. https://www.schoolcounselor.org/getmedia/52aaab9f-39ae-4fd0-8387-1d9c10b9ccb8/History-of-School-Counseling.pdf [↑](#endnote-ref-18)