PREFACE

The thoughtful work of a task force flourishes when its members are afforded distance from the issue at hand. The ability to reflect on an event or circumstance after a period of rest, to set aside the urgencies of one's daily schedule to fully focus mental resources on the areas of concern, and to devote considerable time to uninterrupted issue deliberation all contribute to the ability to think with both the breadth and the depth that the complex issues we study deserve. The North Carolina Institute of Medicine (NCIOM) and the South Carolina Institute of Medicine and Public Health (IMPH) strive to provide a task force process and forum that allows task force members to have this ideal distance and space for reflection.

Due to the extensive response efforts necessary to address seasonal and variant-based surges of COVID-19, the gifts of distance were elusive in this task force process, and we commend our Carolinas Pandemic Preparedness Task Force members for nonetheless achieving the level of quality research and recommendations represented in this report. Task force members jumped onto remote Zoom sessions in between a bevy of other critical pandemic response tasks, such as attending to patient care concerns, organizing complex vaccine administration efforts, and supervising children logging into school from home.

When IMPH and NCIOM began to organize this task force in January 2021, we hoped to be moving toward the end of the response phase and into the recovery period of the pandemic. At that point, the charge for this group was to reflect on lessons learned from the first year of the pandemic. COVID-19, however, had other plans, and while we endeavored to place ourselves back in 2020 and mine those insights, the urgent concerns of the present – the heroic, exhausting, and demanding response efforts of 2021 – competed for our attention. To use a term oft-repeated this past year, we had to "pivot," and embrace a focus on what we were learning and experiencing in real time to inform the recommendations in this report.

This report represents the thoughtful reflections of a group of deeply committed Carolinians who are knee-deep in an extended pandemic response phase and simultaneously doing our level best to document priority lessons in real time – those that we believe are most important and most applicable to future public health emergencies. We do not have the benefits of hindsight in offering these recommendations for improvement, but we do offer something equally as valuable: a time capsule of our "in the thick of it" experience of the COVID-19 pandemic, and the recommended actions our task force members believe are most salient from that perspective. A companion report prepared by the South Carolina IMPH documents the findings particular to our neighbors in South Carolina. The recommendations from the IMPH report can be found in appendix B.

Since we are all Carolinians, perhaps a sports metaphor is in order here. While we had originally anticipated that this task force might be more of a post-game analysis (watching the films, evaluating key plays and possessions), instead we found ourselves gathered in the locker room at half-time, in the heat of a challenging game against a relentless adversary. These recommendations represent our task force's best efforts to reflect on what has been working well and should continue, gaps that remain unfilled and continue to undermine our success, and solutions we ought to consider immediately and for future challenges. We humbly but confidently offer the reflections and recommendations of this committed team of task force members, and the valuable snapshot of this specific – and hopefully unique – moment in time that they represent.

This initiative was a cross-state effort, affording leaders from multiple sectors the opportunity to hear unique lived experiences, and NCIOM and IMPH staff teams the opportunity to learn from one another. The learnings included experiences during COVID-19, efforts that worked well and the reasons behind the success, and equally importantly, efforts that could have gone better and the challenges that were and were not overcome.

The NCIOM and IMPH reports contain areas of commonality across the Carolinas, but also recommendations and priorities unique to each state. We take the opportunity here to highlight seven foundational priorities that are critically important for both states. We emphasize that these are not new issues but rather are perennial concerns across the Carolinas and the United States. The COVID-19 pandemic has exacerbated the challenges our states have been battling for decades, and we must make advancements in these foundational areas to improve our response in a future pandemic, prevent illness and death, and preserve economic stability in the face of upheaval caused by a novel infectious agent.

As Carolinians, we are familiar with the ravages of powerful hurricanes. While we are deeply grateful to committed first-responder teams that undertake courageous rescues of people trapped when the flood waters rise, we know that our most critical investments in hurricane preparedness are not rescue boats and helicopters. Attention to foundational concerns and solid planning and infrastructure, such as assuring that sturdy homes and buildings are constructed on suitable land, saves lives and property during the heaviest storms, and has benefits outside the crisis periods. Likewise, some of the most effective strategies for pandemic preparedness, such as overall health improvement, reliable systems of care, and established partnerships, will help us weather the next pandemic and improve the health and well-being of communities and individuals in our states. The foundational elements listed below are shared strategies to ensure North and South Carolina are better prepared to efficiently plan for and respond to future contagious disease outbreaks.

1 Identified as a priority and framing for all the task force's work at the very beginning, the need to promote **health equity** was pervasive throughout our research, discussions, and recommendation development. While all North Carolinians were at risk from COVID-19, rates of illness, death, unemployment, and other forms of instability did not affect all of us equally. People who face marginalization due to race, ethnicity, income, housing precarity, gender identity, immigration status, and disability faced inequitable challenges in accessing treatment, preventing infection, and finding trusted sources of reliable information. The evidence clearly demonstrates that COVID-19 exacerbated existing inequalities and injustices; our task force members emphasized that creating systems designed to achieve health equity should be a priority for our states, and that they will require new resources, commitment, and an intentional focus on equity.

2 The need for a robust, supported **workforce** underpins many of our recommendations and is a concern for implementation of any of the recommendations of the task force. Without an adequate, high-functioning workforce prepared to respond to a crisis, the best programmatic recommendations will be limited in their effectiveness. An environment ready to respond to and endure a pandemic requires doing more to support the traditional and non-traditional public health and health care workforces across the Carolinas before, during, and after an emergency.

3 Providing accurate **information** to the public about what is happening and how to stay safe during a pandemic is essential, but communicating about evolving situations can be tricky and lead to mistrust if not done with extreme caution and care. We must strengthen the infrastructure for data collection and analysis, communicate to targeted populations through trusted messengers, and ensure that health care providers have the **data** they need to make the best evidence-based recommendations for patient care.

4 The Carolinas need to improve the resiliency and flexibility of **supply chain** operations to safeguard an adequate supply and equitable distribution of personal protective equipment, food, and other commodities needed during an emergency.

5 **Health care** systems must be accessible to all and innovative in their care delivery. Traditional models must evolve to meet the needs of people in their communities and address the social determinants of health along with more clinical concerns. Systems must be flexible enough to shift to emergency operations as needed. Should the next contagious disease outbreak have equal or higher hospitalization rates than COVID-19, the strain on health systems will be too much to bear without appropriate planning and adaptive leadership and systems.

6 Everyone needs the ability to access a continuum of **behavioral health** services and resources. Within and beyond the current context of a strained workforce, our states need better access to services for people who are struggling with everything from serious mental illness to the anxiety and depression caused by the virus and ensuing isolation. The social isolation of the pandemic also led to a significant rise in substance use and deaths from overdose.[1] We must do more to care for people of all ages before and then, during a pandemic, especially those working on the front lines of the crisis.

7 Our states need more adaptive **educational systems** to limit the impact of gaps in school attendance and to support the people working in early care environments, schools, and universities. The impacts of not attending school go beyond educational attainment and learning; we must also adapt to meeting the social and emotional needs of students in the event a virus makes in-person instruction too risky.

We recognize these are bold and ambitious goals, with many applications to pandemic and non-pandemic times. Our reports focus on specific recommendations and action steps that can be taken in each state to address these concerns and provide context from COVID-19 that may be helpful in fighting future pandemics. Experts tell us that new contagious disease outbreaks are imminent.[2,3] For the sake of the health of all the people of the Carolinas, we must act now to ensure a better response in the future.

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