Thank you for allowing me this opportunity to address the issues with the purpose of how research, data and coordination efforts must evolve as COVID-19 surges ebb and flow. My name is Karen Ayala, and I serve as the Executive Director of the DuPage County Health Department. DuPage County, IL, is the second largest county in Illinois home to nearly 1 million residents, and is located adjacent to Cook County, home of Chicago, in Northeast Illinois.

Throughout the past 28 months, the public health employees of the DuPage County Health Department have been in active response to the COVID-19 pandemic. DuPage County has been identified as one of the healthiest counties by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute’s annual County Health Rankings.

The DuPage County Health Department, itself, was established in 1945, and is certified as a local public health department in the State of Illinois, as well as being accredited through the Public Health Accreditation Board (PHAB) and The Joint Commission. Through the support of DuPage County taxpayers, we receive just over $18 million annually, and through the State of Illinois, we are awarded an annual grant of approximately $700,000. We then leverage those funding streams to generate an additional $42 million through grants, fees/permits and reimbursement for services, to operate a $61 million annual budget, as of 2022.

One of the most unique elements of the DuPage County story is that although the Health Department is a separate legal entity, overseen by completely different individuals, from the DuPage County Board, we have developed and maintained an extremely synergistic and positive relationship between the two entities which has been further bolstered as the result of our COVID-19 pandemic response. In fact, the support of the DuPage County Health Department from the local, State and Federal level has been elected officials has been extremely helpful from the very first days of the pandemic to the present time.

Since the start of the pandemic, DCHD leveraged available data, provided analysis and transparency of the unfolding needs of the impact on residents. Our COVID-19 online dashboard, developed as a resource for our community in early 2020, has provided over 8 million views over the past 28 months, and links to other data elements have been used to educate, justify, and promote healthy behaviors across our communities. Through our response efforts, and together with our partners, DuPage County has one of the highest rates of COVID-19 vaccination of all U.S. counties with 77% of our entire population fully vaccinated. This puts DuPage County among the top 4% of over 3,000 counties. (CDC COVID Data Tracker)

Even with these noteworthy benefits, funding, political support and public health capacity/expertise, the response to the COVID-19 pandemic has been the challenge of a lifetime. I applaud Chairman Foster for hosting this hearing to explore how measures and resources can be brought to address the research, data and coordination efforts, both to address the remainder of the current pandemic, but also to prepare for the next pandemic. The lessons learned over the past 2 years have offered both specific,
short-term strategies that can be put in place immediately, as well as longer term projects/priorities that will require a longer-term commitment to address.

In addressing the first question,

**I. What are the most useful metrics to judge whether your county should implement increased protective measures? How can data collection and communication be improved to ensure you are making decisions based on the best available information?**

Above all, we’ve learned that no single metric or index accurately conveys the situation in any one phase of the pandemic. I offer the following comments to inform our thinking about the data we need to better understand the current situation, the impact of our work, and what we need to be prepared for in the future:

**Useful Metrics:**

- Many of the data elements currently provided by the Centers for Disease Control and Prevention (CDC), through the COVID Data Tracker, provide useful and helpful information, including data about new cases, hospitalizations and deaths.
- Additional demographic information of positive cases, e.g., age, race, ethnicity, underlying conditions, is also useful- efforts need to be increased, however, to assure the completeness of the data elements, specifically racial/ethnic data to assure accuracy and promote equity.
- Rate of new cases per 100,000 per week allows for a standardized approach to compare geographies, as would routine updates on the r-naught value.
- Any/all data that is reflected longitudinally is also extremely valuable.
- Currently not available, but it would be very helpful, is information on the utilization of COVID-19 treatments being prescribed and dispensed, as well as COVID-19-related outpatient and ER visits, to provide an earlier warning rather than relying upon hospitalization numbers.

**Ideas for Improvement:**

- Case rates have served as a cornerstone metric throughout this pandemic, but increasingly are becoming less relevant due to the decrease in convenient, low/no cost laboratory-based testing available at the same time as the proliferation and encouragement of the use of over the counter, at home tests. There is no public health awareness of the results of at-home testing, and therefore we are missing an increasing number of positive tests being identified every day.
- Wastewater metrics appear to provide a valuable resource in identifying trends and higher levels of viral shedding, but there are limited, if any, standardized thresholds or actionable levels identified to propel public health prevention measures.
- Hospital/healthcare capacity and utilization are another key metric; however, it is a difficult one to objectively understand/communicate with the public. It would be helpful to identify more objective ways to both assess and communicate critical staffing shortages, supply shortages and the impacts of those to better reflect the local healthcare capacity to address COVID-19 and the myriad other urgent health conditions that develop in communities every day.
- Communication around specific issues, such as the impact of COVID-19 on children, needs to be more effectively communicated. We have some information about the impact on children, but
not enough, and in lieu of clear messages about the impact on children, the public has increasingly decided the risk for children is low. Not only communicating the impact of the actual disease to kids, but an ability to quantify and communicate the deep and broad-reaching impact of loss of caregivers within our community is needed.

- Greater regulation and oversight of CLIA-certified COVID-19 testing sites are critically necessary to improving accuracy and quality of data collected. Widespread non-compliance with COVID-19 electronic laboratory reporting (ELR) requirements has contributed to:
  - Increased administrative burden for the local health department (LHD) as a significant amount of time is spent by LHD staff to obtain lab report copies and then manually enter these results into the secure online disease surveillance system.
  - Delayed case/contact/outbreak investigations, likely resulting in delayed containment efforts.
  - Potential risk of increased COVID-19 transmission in high-risk settings and the broader community.
  - Incomplete or delayed representation of the burden of COVID-19 disease in our communities; and
  - State and federal investigations into fraudulent practices and wasted COVID-19 response federal funding.

- Given increased transparency with provisional data, CDC needs to be prepared to proactively address misinterpretations of data and mis/disinformation with specific counters to falsehoods that are being spread.

- Clear, consistent COVID-19 diagnostic testing result interpretation guidance for clinicians and laboratories is sorely needed to accurately identify cases/contacts and provide timely public health and clinical recommendations for isolation/quarantine, treatment, etc. In the absence of this, there has been pervasive confusion and miscommunication of test result interpretation and recommendations between clinicians and patients.

- Finally, if local health departments are going to be providing recommendations for increasing/decreasing prevention measures and further directing local response, we must have direct access to any/all data that is available, as timely as possible. We have had to wait for data to flow through state agencies before being shared with local health departments or we had state agencies analyze data in meaningful ways to the state-wide response, and never provide the actual data to us. The delay of sharing data from the CDC in the early days of the pandemic response created a preventable delay in equipping local health departments with information to begin developing their responses.

II. When looking at the lessons learned around the communication of COVID-19 information, both to and from the public:

- It was apparent in this public health response that one size fits all around the issue of data and communication will not address the different needs of our communities. There must be, concurrently, as much real time data as possible, that allows for those interested to review and manipulate data themselves, while addressing the need for simple, easy to understand (non-jargon) to summarize key elements of that data.
Based upon our experiences, we have identified the critical need of keeping local public health officials informed of changes in guidance and recommendations. Early on, local public health officials became some of the most trusted messengers — with this responsibility comes the need for local leaders to be armed with clear rationale and scientific understanding to explain changes to federal guidance. Examples were plentiful in our experience as we are the ones explaining changes to our local stakeholders about CDC isolation/quarantine guidance, vaccination priority groups, etc., but routinely needed to do so in the absence of rationale and rarely with the tools, evidence, or data to reinforce those decisions. While national policy direction is critical, we must act together to explain and back up these policies with the local stakeholders that look to local public health and medical organizations for guidance when implementing these policies.

- Communication flow from federal, to state, to local, to community residents needs to be more coordinated. Many times, there were instances when federal guidance and state guidelines were inconsistent which created frustration in the community and resulted in lack of confidence in the guidance the local public health officials were providing.
- Support national and state/local educational campaigns with direct, simple, and redundant messaging for medical providers, testing sites, and public for real-time recognition and counseling of suspect and known cases to self-isolate and contacts to self-quarantine.
- Need national and state/local educational campaign efforts and recommendations to build vaccine confidence and trust with equity, toward improving COVID-19 vaccination rates among all age groups, especially youth aged 5-11 years and 12-17 years. It would also be helpful to have a target/aspirational goal to achieve (perhaps 90% or higher, like the target identified for influenza vaccination among healthcare personnel [per Healthy People 2020 target] and MMR pediatric vaccination coverage level [per Healthy People 2030 target]).
- We would strongly recommend additional support for the Centers for Disease Control and Prevention to develop strong, simple, nuanced public health messages for development, timing and delivery of guidance. Most of the public will understand guidance will change as the result of the “scientific process,” but the timing and the delivery of those messages needs to be coordinated more strategically. Funding/support at all levels (federal, state and local) could then be leveraged, consistently and effectively.

III. What research and infrastructure investments can the federal government make to improve COVID-19 outcomes at the individual level?

Short-term Strategies:
- Evaluation of the use and impact of the at-home COVID-19 testing strategy.
- Investment into the evaluation of the impact of home testing on community level data about positivity and new cases. Refer to a response to Q1, with the inability of local public health to understand current disease activity due to the decreased laboratory-based testing efforts, and no transparency into at-home test results.
- Development of a national infrastructure to rapidly distribute and track personal protective equipment (PPE), tests, vaccines, therapeutics, etc. down to the community (and ideally even further) level. Pharmacies were great partners in tracking vaccination roll out, but not in the other areas of need. In DuPage County, and in counties throughout the country, many local health departments demonstrated significant capabilities to receive and distribute medical countermeasures — capabilities developed and supported since 9/11 through Congressional
support of the CDC’s Public Health Emergency Preparedness or PHEP grants to local health departments.

- Focus needs to be provided to emphasize the recovery phase of the current pandemic. As we have entered into a phase where transmission is lower, many resources have been pulled or will soon be reduced (e.g., testing, funding for treatment, Medicaid expansion). Understanding that the level of support needs to transition with the actual level of need, pulling these resources too quickly will result in creating avoidable challenges later, e.g. early identification of increased spread, increases in hospitalizations, etc.

- Although there has been public recognition and discussion that highlights the impact on mental health on first responders, public health and healthcare workers and others, there have not been strategies identified as being effective in addressing those concerns. It would be extremely useful, from the local perspective, to have strategies identified to support our exhausted workforce as we work with our communities on the COVID-19 recovery and return to the other elements of our public health efforts.

Long-term Strategies:

- Establishing a minimum threshold for public health funding across the country would be helpful. According to an Issue Brief, published in May, 2021, the average per capita investment in public health across the United States sits at $22.83. (2021_PHFunding_Fnl.pdf (tfah.org) Contrast ed with the per capita spending for healthcare by United States citizens, reported to be $12,050/annually, (Health spending per capita in U.S. 1960-2020 | Statista) and the concern comes into focus.

- Once established, assuring public health funding is maintained or increased over time is the top need. Continuing the policy and practice of surging dollars during an emergency and cutting them when not in that emergency is harmful, ineffective and leaves public health and our residents vulnerable to the next crisis. In fact, federal funding for emergency preparedness and response programs administered by the Centers for Disease Control and Prevention has been slashed by 50% over the past decade, according to Trust for America’s Health (TFAH), the nonpartisan health policy research organization. That same TFAH study highlighted other concerning trends as well, such as a general decline in funding for the Strategic National Stockpile as well as the Hospital Preparedness Program. That program is the sole source of federal funding for emergency response by regional health care systems, and had its budget slashed from $515 million in 2004 to $275.5 million in 2020.

- Information systems containing valuable public health data have not been fully leveraged, due to the systems being outdated and not equipped with modern technology standards for accessibility. Investments to address this may entail creating funding and as importantly, a guided pathway (e.g. pre-designed consulting services) for system owners to build and document modern, open programming interfaces to their systems. This would allow providers and partners to easily create meaningful integration with their own existing systems.

- Finally, although not a revelation, the salaries for our governmental public health workforce often lag the traditional healthcare sector, we would recommend some strategic investments in the area of data scientists, ETL programmers, and other areas to assist in this area.

Once again, I would like to express my sincere appreciation to Congressman Foster and the esteemed members of the Science, Space and Technology Committee for this opportunity to share our input and
feedback. More importantly, however, we applaud this Subcommittee, for the willingness to invest time into identifying and evaluating these important issues.

On behalf of the entire team of the DuPage County Health Department, thank you.

Sincerely,

Karen J. Ayala, MPH
Executive Director