Good afternoon, my name is Nicholas Soulakis, I serve as the Chief Public Health Informatics Adviser at the Chicago Department of Public Health. My qualifications are briefly listed on Slide 2 for your review.

First, allow me to express my gratitude for this opportunity to offer public testimony.

In my time at CDPH, I have grown accustom to the laser focus on equity in all things, often referred to as our ‘hyper-local approach’ and communicated en masse to the public as ‘#ProtectChicago’ where equity is not only part of our COVID-19 strategy, equity is our strategy. This is proudly illustrated in my this slide from our Vaccine Operations Center, recognizing the hard work of our staff to provide the most equitable vaccine distribution in the US for April 2021.

I will now speak to the following question, offered by the committee for our consideration: 
What real and/or perceived barriers exist that continue to inhibit progress in integrating public health and clinical data sources while responding to public health emergencies?

On April 6, 2020 Dr. Allison Arwady, Commissioner of Health of the City of Chicago, issued PUBLIC HEALTH ORDER No. 2020-4: Medical Data Sharing Requirements. This order requires hospitals within the City of Chicago to provide CDPH with access to electronic health records, while taking steps to protect patient confidentiality, to help CDPH in its effort to stop COVID-19. In brief, this order laid the policy foundation for city-wide reporting from hospitals. In practice, we receive Continuity of Care Documents from 18 of 28 Chicago hospitals for all individuals tested, positive or negative, through secure file transfer, HL7 messages or the Fast Healthcare Interoperability Resources (FHIR) standard. Slide 4 summarizes this Executive Order and basic components.

While this timely policy allowed Chicago unprecedented access to clinical records, it also shone an early light on the challenges of an equitable move towards standards-based reporting such as the imminent nationwide rollout of electronic case reporting.
If your lens is equity... in Chicago you must firstly consider community hospitals, large FQHCs, and neighborhood healthcare providers. In a pandemic, time, resources, and sanity grow scarce. The lure of building single-purpose applications, which are often over-fit to the problem at hand and disposable, offers an attractive alternative to building new integrated systems and learning new workflows. If an innovation like e-case reporting is to succeed we must recognize not all hospitals are equally capable of architecting sophisticated, sustainable solutions. This is reflected in my next slide, which plots the connection status of our Chicago-area hospitals overlaid with our Chicago COVID-19 Community Vulnerability Index. It is easy to see that connections have not been realized in the most vulnerable neighborhoods as revealed by the hatched red lines.

A simple example of how inequity frustrates progress is catching the attention of your EMR vendor to kick off such an innovation. Large academic medical centers often enjoy the highest tier of support with instant or two-hour support service level agreements. Lesser resourced providers enjoy... muzac, on hold while they languish in a queue. This would not be so bad if it were not for the workarounds, like manual reporting on paper forms, that must be sustained in the meantime by the same staff. It is a simple example, but one we avoid at all costs.

In closing, I would summarize our hard-fought progress, which has evolved into the particular brand of informatics we practice in Chicago and upholds three fundamental principles:

1. **Informatics is for everyone.** We owe our entire Chicago community the opportunity to participate in informatics innovations. By measuring our impact not only in depth but breadth, we arrive at the most robust solutions, which stem from requirements born out of the most challenging working environments.

2. **People are an essential ingredient of Informatics.** This falls under the rubric of ‘Don’t monitor what you cannot respond to.’ Information does not exist in a vacuum. To measurably improve a public health intervention with informatics, users must be better able to achieve their objectives.

3. **The basic unit of informatics is the task, which rolls up to a job.** Breakthrough informatics, by definition, requires job redesign and process engineering. Equity by design reflects the practice whereby we fortify, not replace, experienced staff. By developing a more informatics-capable workforce, we create professional depth and opportunities for growth.

With that, I will close. I thank you for your time and attention.

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