Texas State Senate
Committee on Health and Human Services
Invited Testimony
December 7, 2020

Good morning and thank you for inviting me to provide testimony on our public health and emergency response activities for COVID-19. I am Dr. David Persse and I serve as the Chief Medical Officer and Local Health Authority for the City of Houston as well as the Chair of SETRAC. I am glad to have my friends and colleagues joining with me to today to provide information about how important it has been for us to have closely coordinated efforts in our responses from the beginning. My goal today is to share with you key local, regional and state coordination activities for our response, COVID data collection and reporting regarding test, case, and mortality numbers, the essential public health functions underway with the Houston Health Department, and finally what are some immediate needs and achievable wins with this response.

Testing large numbers of people, particularly in medically vulnerable, and otherwise underserved neighborhoods has been a priority for us from the beginning. Testing allows us to have an idea about how active the viral spread may be and in what neighborhoods. This allows us to be able to direct education and other interventions to those populations where these efforts are likely to have the greatest impact. Once we have the test results, we can then move forward with contact tracing to notify those persons who may unknowingly be infected and educating them on the need to quarantine. The Houston Health Department has been able to hire over 350 employees for our contact tracing program.

The way in which the Houston Health Department has been able to ensure accuracy of the data being publicly reported is it receives labs daily that are reported from external partners ranging from major hospitals, smaller free-standing testing centers, neighboring Health Department jurisdictions reporting patients found to be in Houston City limits proper. These are in addition to the labs directly imported internally using Electronic Laboratory Reporting from the HHD's COVID-19 lab testing. From the smallest reporting provider to the most sophisticated lab with transmission capabilities we can accommodate them all to facilitate quick delivery to the HHD of test results. The HHD uses a Maven-based data system, the Houston Electronic Disease Surveillance System (HEDSS), and the data is managed through

a collaboration between an Informatics teams of Biostatisticians and Epidemiologists and an IT team of project managers and developers.

Most external sources have been contacted by the HHD team and provided with a formatted template that allows for standardized lab data reporting. They are then given a choice of delivery to The HHD based on their tech capabilities to report the required information timely. The choice of delivery can include use of secure fax, delivery to a designated secure COVID-19 provider email, use of a SFTP portal specifically for the provider, or they can be onboarded to use the Electronic lab reporting interface. Each provider sends a daily update of both positive and negative lab results that may range from a few up to hundreds of tests.

To give you an idea of the volume the total for the week of 11/10/2020 to 11/16/2020 that was received thru methods of delivery was 103,752 labs which has increased to 272,275 for the week of 11/17-11/30/2020. There is a designated team of people that cover all these avenues for reporting and a workflow that allows for the data to then be imported into the HEDSS internal collection system upon receipt. The cases once imported into HEDSS undergo an automated matching and deduplication process for routine matches and a secondary manual quality check for problematic cases by a deduplication team.

- Table detailing the method of delivery for the week of 11/10/2020 to 11/16/2020.

Method of Report Delivery	**Number of Facilities Reporting**
Secure FAX	70
COVID-19 Secure Provider Email Box	27
Secure File Transfer Protocol (sFTP)	11
Electronic Laboratory Reporting (ELR)	122

Once the cases have been matched and deduplicated based on an automated algorithm in HEDSS, a daily count can be tabulated based on the aggregated data

set pulled from HEDSS. A reporting team pulls the most recent data daily, ensuring that any updated information is captured, including changes in Jurisdiction and updates to laboratory information.

In addition, a team of Biostatisticians and Epidemiologists is dedicated to validating death cases and ensuring the accuracy of the information reported. They use several different data sources to confirm that a COVID-19 reported death is valid, including matching with HHD Vital Statistics and testing data. The team deduplicates any multiple case reports, validates demographics, and the cause of death against the current accepted diagnoses qualifying for COVID-19 before the death can be included in the daily reported count.

The HHD works closely with DSHS but takes the lead in data collection in the region and disseminates any out of jurisdiction cases to the respective Health Departments. The HHD receives reports directly from providers and laboratory facilities in Houston and Harris County and also receives ELR data from DSHS on a daily basis. The HHD works closely with Harris County Public Health (HCPH) to update a shared dashboard daily to accurately report cases in Houston and Harris County.

The HHD also provides data back to DSHS, sending all lab data weekly based on reporting requirements. The HHD has a work process in place that identifies Out of Jurisdiction (OOJ) reports received by the HHD and disseminates them to the correct health departments in the Region. Over the past few months, HHD has received large backlogs from DSHS of reported cases that have caused lags and delay in contact tracing efforts and we are working through those delays.

I'd like to provide you with an example of how we've utilized data in an innovative program by exploring wastewater testing for coronavirus. In collaboration with Rice University, Baylor College of Medicine and Houston Public Works and Engineering Dept., the Houston Health Department has validated laboratory testing and a strategy to monitor the amount of coronavirus found in the sanitary sewer system. The team has further devised analytics that allow us to know if the amount of virus in the neighborhoods served by a sewer system is rising or falling. The results are determined weekly and are comprehensive to the entire City of Houston. Our experience has shown that this analysis is highly accurate and demonstrates changes in the viral activity much more quickly than community

oral/nasal swab testing or hospitalization data. The Houston Health Dept was the first in the nation to embark on this innovative strategy and it is now being implemented in communities across America. To date we have tested each of the City's 39 separate sewage systems, and three buildings to include the Harris County Jail and two homeless shelters. We will soon be adding sampling capability for approximately 60 school campuses.

As you know, in addition to our overall goal of keeping people healthy, one of the goals of our public health efforts is to help ensure a hospital bed is available for anyone who needs one. Our integrated efforts with the Southeast Texas Regional Advisory Council (SETRAC) has allowed us to monitor for conditions within hospitals not only for overall capacity, but also the COVID patient burden on general beds, ICU beds, pediatric populations, ventilator needs, etc. SETRAC provides us such visibility not only for Houston and Harris County but for three trauma service areas (TSA's) across 25 counties. We have also developed a close working relationship with the leadership of the Texas Medical Center and all of their member institutions over a multi-county area.

Another innovative program supported by the City of Houston is the adaptation of our emergency telehealth and navigation (ETHAN) program where EMT's and paramedics on city ambulances can directly connect with an emergency physician to redirect patients away from emergency departments to a specialized coronavirus testing center. This program gets the ambulance or fire truck back in service immediately and avoids sending potentially COVID infected persons to the waiting room of an area hospital for a service better provided elsewhere.

As you all are aware, COVID-19 has created a need to support local restaurants in underinvested neighborhoods. A program we have created as a solution, the Houston Eats Restaurant Support (H.E.R.S.) Program provides food security to individuals affected by COVID-19 with subsidized meals and delivery services from those very restaurants. The program delivers economic stimulus to local restaurants and their employees while providing critical food access from November 1, 2020 through the end of this year. Our goal is to ensure that 10-25 identified restaurants provide a minimum of 37,500 meals to qualifying Houston residents per week.

The COVID-19 health emergency has revealed the fragility present between all entities in regard to data sharing and functional integrated systems. There is a need to improve systems to promote easily accessible data that can be shared in a timely manner for quick public health action to intervene in any disease transmission. This will require forward thinking to provide resources to upgrade the public health reporting system using updated and automated solutions versus the ad hoc system that has been created to meet the current demand of actionable data. There needs to be a focus on the entire system rather than focus on the issue of the day. The scale of this response has shined a greater light on the challenges for data and information sharing that have been identified in previous public health emergencies such as Ebola, Zika, and H1N1. Each of these public health emergencies resulted in a bolus of funding that quickly disappears as the emergency. This feast and famine approach to public health funding limits the ability to generate sustainable and enduring change. A greater level of sustained support to public health will allow for greater investment in infrastructure and personnel for these systems. Beyond funding, there are policy changes that can be implemented. States such as Massachusetts have updated their statutes to mandate electronic reporting of notifiable conditions. Other policy changes can include expanding the minimum data set put forth by the CARES act to all notifiable conditions.

The Houston Health Department has been responding to the COVID-19 pandemic since February 14, 2020. Initial activities were done by existing HHD staff. The department then received a $5 million grant from the CDC. HHD was able to significantly expand its response through the allocation of over $108 million in funding from CRF funding. With this funding HHD was able to establish a 300 member contact tracing unit, expand testing partnerships to provide over 11,000 tests per week, implement a robust public information and education program to promote prevention and mitigation strategies and increased the capacity of the public health laboratory to perform 1300 tests per day.

Continued funding is essential to maintain the response level required to mitigate the negative health outcomes associated with COVID-19.

Last and certainly not least, there are two challenges related to vaccination that I would like to address with you today. One of the greatest challenges we have is vaccine hesitancy due to misinformation specifically in underserved communities. As you are aware Houston is one of the most diverse cities in the great state of Texas. Creating a robust media and marketing campaign that is culturally and linguistically relevant is vital to mobilizing the community. Engaging community trustees in the development and ongoing distribution messaging will be an essential component. Another anticipated challenge is enrollment of existing 'access points of trust' to serve as COVID-19 vaccinators. The successful engagement and enrollment of non-traditional vaccination sites such as consulate offices, churches, and community centers will be key to high immunization coverage. It is vitally important that we are intentional in our plans to build on the existing relationships organizations of trust have with individuals living in underserved communities and communities that have been disproportionately impacted by COVID-19.

Thank you for your time hearing these local experiences and recommendations. I also thank you for your continued support.