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**Joint Senate Task Force on Opioids, Addiction & Overdose Prevention Hearing Testimony**

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Good Afternoon.

Thank you Co-Chairs, Senator Harekham, Senator Carlucci and Senator Rivera, for your leadership on the New York State Joint Senate Task Force on Opioids, Addiction and Overdose Prevention and for inviting my testimony today.

My name is Magdalena Cerdá, DrPH, MPH. I am the Director of the Center on Opioid Epidemiology and Policy and Associate Professor in the Department of Population Health at NYU Langone Health. The Center for Opioid Epidemiology and Policy at NYU Langone launched in 2018 to serve as a central source of research on the United States' rapidly shifting opioid overdose epidemic. The center seeks to inform evidence-based policies to prevent opioid misuse, disorder, and overdose in populations nationally and globally.

The center has three areas of focus in our efforts to reduce the impact of the opioid overdose crisis:

- leveraging data and machine learning approaches to track the evolution of the opioid epidemic and to predict future hotspots of opioid overdose
- evaluating the impact that specific drug policies and other social determinants have on opioid misuse
- examining the impact of community-level spikes in opioid misuse on the health of local populations

Our current research focuses on evaluating the impact state policies and laws regulating the legal drug supply, access to naloxone, and access to treatment have on opioid overdose.

Opioid overdose deaths have increased sharply in New York State in the past few years: for example, the rate of overdose deaths involving any opioid was almost three times higher in 2016 than in 2010. Today, I want to talk about the value of high-quality, timely, and individually-linked data to address the opioid overdose crisis in New York State.

**1. We need data to understand and address the opioid overdose crisis.**

There are three key reasons why we need to invest in building a high-quality, timely, and individually linked data system to address the overdose crisis in New York State. **First**, we need linked data to understand who, where, and when the epidemic is affecting the most, so that we can target our response to those most highly affected populations and areas. A study conducted by Josh Barocas et al., in Massachusetts, for example, showed that by linking data across 7 administrative sources, such as death certificate data, substance abuse treatment records, and inpatient and emergency department records, they could estimate a prevalence of opioid use disorder that was nearly double that estimated solely from those individuals with opioid use disorder

detected by the health care system. They are now using these adjusted estimates to plan prevention, treatment and recovery responses to those areas in Massachusetts that need them the most. Each data source captures only a fraction of the affected population – by linking them, we can get a much more accurate picture of the magnitude of the problem. This can help us more accurately assess investments needed in the state. **Second**, we need data to predict how the epidemic will evolve in the future, and which population groups and areas of the state will experience an increase in overdoses, so that we can set the systems in place to prevent new epidemics from happening in the first place. We can get much more accurate predictions of risk by combining information from multiple data sources than if we relied on any one source. In a new study I am starting in Rhode Island, along with colleagues from Brown University, we plan to link data across 12 different sources to predict which census block groups will experience overdose deaths in the next year. We can do the same in New York, if the data systems are in place to make this possible. **Third**, we need data to figure out what works to address the opioid overdose crisis. There have been a high number of opioid-related bills proposed to date – how do we know which of these bills is effective in reducing rates of opioid use disorder and overdose? Data can help us evaluate how opioid overdoses and opioid use disorder changes after implementation of new laws and policies. For example, at the Center for Opioid Epidemiology and Policy, we are using data from more than 3,000 counties across the US to examine the impact that laws that regulate opioid prescribing have on local patterns of opioid overdose rates. These types of studies can help policymakers most effectively direct policy and limited state resources.

## **2. The HEALing Communities Study: an opportunity for New York State**

I am a Co-Investigator on the New York HEALing Communities Study led by Principle Investigator Nabila El-Bassel from Columbia University School of Social Work. The HEAL (Helping to End Addiction Long-term) Initiative is a trans-agency effort launched by the National Institutes of Health (NIH) to speed scientific solutions to stem the national opioid public health crisis. The HEALing Communities study aims to test a set of integrated approaches to increase access to treatment for opioid use disorder, distribution of naloxone, and to reduce high-risk opioid prescribing, and by doing so, to reduce opioid overdose deaths across New York State by 40% in three years.

## **3. The New York State Opioid Data Sharing Plan**

The leaders of the New York State HEALing Communities Study, spearheaded by Dr. Nabila El-Bassel, are proposing the **New York State Opioid Data Sharing Plan**, a policy strategy to enable the creation, management, sharing, linking, and use of data to address the opioid overdose crisis in New York. This strategy is modeled after Massachusetts' Chapter 55 legislation signed into law in 2015, involving the linkage and analysis of ten datasets from five different government agencies (Massachusetts Department of Public Health, 2016) and more than 20 administrative datasets after its 2016 reauthorization of Chapter 133 (2017). We advocate for the following New York State systems, among others, to share and link their data: Statewide Planning and Research Cooperative System (SPARCS); Bureau of Vital Statistics; Office of Alcoholism and Substance Abuse (OASAS); Prescription Monitoring Program, I-STOP; All Payer Database; Bureau of Emergency Medical Services; Department of Corrections and Community Supervision (DOCCS).



Related experiences in Massachusetts, Allegheny County, Pennsylvania and in Maryland, demonstrate that we can link datasets in a secure and confidential fashion. Four elements are critical to ensure data privacy. First, **encryption**: all data need to be encrypted in transport and at rest. Second, **de-identification**: direct identifiers are removed from each dataset, and unique identifiers are randomly generated and are project-specific, so that no record IDs can be used to trace information back to any other dataset. Rather than merging datasets, a crosswalk can be developed between them to minimize risk of re-identification. Third, **securing the server**: the server on which the datasets are stored needs to be secured, so the likelihood of unauthorized access is minimized. Fourth, **preventing misuse by analysts**: additional restrictions need to be placed on authorized access to the server on which the datasets are stored in order to prevent misuse of the data.

#### 4. Prior experience illustrates the value of creating linked data systems

The New York State Data Sharing Plan provides a unique opportunity to use data to solve the opioid overdose crisis. **First**, we can create a publicly available dashboard of individually-linked, de-identified data that can be used for overdose risk surveillance, to identify, with much higher accuracy than would be possible with any one data source, those counties and population groups that are at highest risk for overdose, and to identify vulnerable patients that would benefit from being connected to a care team focused on reducing their overdose risk. **Second**, we can use such a dashboard to guide opioid risk reduction interventions for local communities. By linking data across multiple administrative databases, we can substantially enhance our ability to predict community- and individual-level risk for overdose in the future, and use these predictions to target our resources to those communities that need them the most. In the same way, we can use such data to track how overdose risk changes after new laws and policies are implemented. **Third**, with an integrated, linked data system, we can add patient overdose risk scores into prescriber decision support tools such as prescription drug monitoring programs, to help prescribers to tailor opioid prescribing decisions based on patient risk for opioid misuse, and to activate appropriate clinical interventions such as initiation and referral to opioid use disorder treatment and naloxone distribution for those patients who need it.

Assembly Member Linda Rosenthal, Chair of the Assembly Committee on Alcoholism and Drug Abuse, is working on a draft bill to advance such a data linkage initiative. We are aware there are preliminary conversations underway with the Senate as well and look forward to continuing to work together to advance this legislation.

Again, thank you for your leadership in bringing us together today. I hope that the Center on Opioid Epidemiology and Policy at NYU Langone Health and the New York State HEALing Communities Study will serve as valuable resources for policymakers as we continue to work towards a shared goal of ending the opioid epidemic. I, as well as Dr. Nabila El-Bassel and the leadership team of the New York State HEALing Communities Study, would be happy to answer any questions and to continue to engage in discussions as you work to formulate ideas for legislation and assess the effectiveness of policy in this area.

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