



Overdose Data to Action (OD2A): Innovative Surveillance Community of Practice

Key Findings from the Local Outbreak Detection (LOD) Workgroup

In 2019, the CDC National Center for Injury Prevention and Control (NCIPC) expanded support for overdose surveillance and prevention activities by launching the [Overdose Data to Action \(OD2A\)](#) cooperative agreement. Funds awarded as part of this agreement support state, territorial, county and city health departments in obtaining more comprehensive and timelier data on overdose morbidity and mortality, implementing innovative surveillance projects and using these data to inform prevention and response efforts.

In partnership with the CDC, the Council of State and Territorial Epidemiologists (CSTE) established the Innovative Surveillance Community of Practice (CoP) to support jurisdictions implementing innovative surveillance strategies. The CoP consists of three distinct workgroups: 1) Linkage to Care (LTC) Surveillance; 2) Local Outbreak Detection (LOD); and 3) Monitoring Illicit Drug Supply (MIDS). This executive summary contains key findings specifically related to the LOD workgroup.

The authors participated in all CoP workgroup meetings held between January and June of 2021, facilitated discussions with workgroup members, and reviewed materials that pertain to workgroup meetings held during the second half of 2020. Key findings from the LOD workgroup include the following:

- The purpose of local outbreak detection is to identify anomalies and elevations in drug overdose counts and rates in near real time within a specific geographic area and for specific subpopulations (e.g., individuals experiencing homelessness, incarcerated populations, persons who use intravenous drugs).
- Many LOD workgroup participants monitor nonfatal overdoses using hospital discharge (i.e., ED discharge data and inpatient hospitalization data) and syndromic data, which can include emergency department (ED) and emergency medical services (EMS) data (among other syndromic data sources). Syndromic nonfatal overdoses often are monitored via the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE). Some jurisdictions also use poison control data (in partnership with poison control centers), treatment data, and law/drug enforcement agency data to monitor overdoses and detect local outbreaks.
- Some jurisdictions also monitor overdoses and detect local outbreaks using mortality data, for example, using the State Unintentional Drug Overdose Reporting System (SUDORS).

- The most common indicators obtained and tracked by OD2A recipients and participants in the LOD workgroup include the following:

- a) Number of suspected overdoses based on ED syndromic data
- b) Number of probable or confirmed overdoses based on ED discharge data
- c) Number of opioid-related deaths
- d) Number of opioid-related ED visits
- e) Number of naloxone administrations based on EMS, law enforcement or other first responders

- Many OD2A recipients across workgroups have developed opioid data dashboards that include indicators related to LOD. The frequency of dashboard data updates can vary significantly by jurisdiction (e.g., monthly, quarterly, annually). A review of some of these dashboards reveals that some jurisdictions are using the following data sources and indicators to conduct local outbreak detection:



- a) **Overdose mortality**, including overdose deaths involving any opioid and overdose deaths involving synthetic opioids other than methadone
 - b) **Overdose morbidity**, including all ED visits and hospitalizations involving any opioid- or heroin-involved overdose and hospital discharges involving opioid use (including abuse, poisoning, dependence and unspecified use)
 - c) **Opioid use**, including outpatient ED visits and inpatient hospitalization discharges involving opioid abuse, dependence, and unspecified use
 - d) **EMS data**, including naloxone administration
 - e) **Treatment data**, including opioid-related treatment admissions
- LOD workgroup participants noted a number of challenges related to detection of local outbreaks, including the following: a) gaps in surveillance data; b) creating and using alerts to detect outbreaks; c) integrating data across multiple sources; d) ensuring data quality; e) developing and using dashboards; and f) disruptions caused by the COVID-19 pandemic.
 - Opportunities and promising practices were also identified by LOD workgroup participants to strengthen surveillance of local outbreaks. These included the following: a) partnership models that are critical to a jurisdiction's ability to obtain and use the data necessary for local outbreak detection; and b) automated daily reporting that can be used to provide the timeliest overdose and outbreak data to stakeholders.

Based on information gathered from all CoP workgroup discussions and presentations, CSTE identified recommendations for additional guidance and technical assistance to OD2A recipients on building capacity for data governance to facilitate data sharing and continuing to support collaborative learning across OD2A-funded jurisdictions. The insights gained from the conversations with subject matter experts and proposed recommendations will be used by CSTE to inform efforts to support public health jurisdictions implementing innovative surveillance strategies related to surveillance of local outbreaks.