



Lessons Learned

These projects show that syndromic surveillance data can provide supplemental information to:

- **Enhance substance OD prevention programs** to inform timely assessments of burden, define populations at risk, and guide prevention efforts.
- **Track emerging trends in drugs (or drug types) being used and where ODs occur—all in near real-time.** Findings could be used to direct naloxone and treatment resources and to inform local public health departments and prevention coalitions that provide education and prevention activities.

Project success is largely due to collaboration, high percent of data completeness, access to resources provided by the National Syndromic Surveillance Program and its Community of Practice (CoP), and participation in the CoP Overdose Surveillance Committee.

Nebraska Department of Health and Human Services Syndromic Data and Collaboration Enhance Substance Overdose Surveillance

Public Health Problem

Opioid misuse is an urgent public health concern in the United States. Although most of the nation is focusing on the opioid epidemic, other substances remain as serious threats in Nebraska. Per the *2014 Treatment Episode Data Set* report,¹ most primary drug treatment admissions in Nebraska are related to methamphetamines and amphetamines, followed by marijuana and then opioids. Moreover, Nebraska's 2011–2015 death certificate data indicate that methamphetamines and amphetamines are leading causes of overdose (OD) deaths, along with opioids and benzodiazepines. Through public health surveillance, the Nebraska Department of Health and Human Services (NDHHS) sought to improve its understanding of how substance use and OD deaths were affecting its communities.

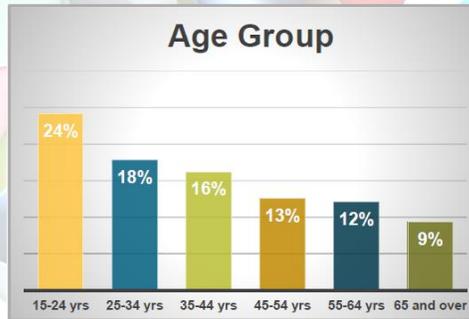
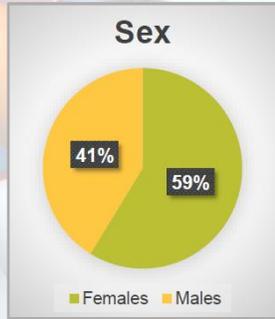
Actions Taken

NDHHS's Division of Public Health (DPH) Syndromic Surveillance (SyS) Program used NSSP Community of Practice (CoP) resources to collaborate with the NDHHS DPH Drug Overdose Prevention (DOP) Program on two pilot projects to characterize substance use and OD deaths as follows:

1. Develop and validate a Chief Complaint and Discharge Diagnosis SyS definition for monitoring opioid OD-related emergency department (ED) visits across multiple public health jurisdictions. (*Collaboration with NDHHS's DOP Program, Division of Behavioral Health [DBH], and Tri-County, Colorado Health Department.*)
2. Evaluate the utility of SyS ED data for monitoring all-substance ODs. NDHHS developed SyS definitions for OD-related ED visits resulting from opioids, benzodiazepines, methamphetamines, cannabis, cocaine, psychodysleptics, barbiturates, opioids+benzodiazepines, and opioids+methamphetamines. NDHHS also developed SyS definitions for expanded surveillance of total ODs and poisonings. Definitions followed the Council of State and Territorial Epidemiologists (CSTE) Substance Abuse and Mental Health Workgroup/Alcohol and Other Drugs Subcommittee's recommended indicators. Distribution of total substance OD-related ED visits was stratified by sex, age group, and discharge disposition. (*Collaboration with NDHHS DOP Program and NDHHS DBH.*)

¹ Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality. *Treatment Episode Data Set (TEDS): 2004–2014. State Admissions to Substance Abuse Treatment Services*. BHSIS Series S-85, HHS Publication No. (SMA) 16-4987. Rockville (MD): SAMHSA; 2016. Available from: www.dasis.samhsa.gov/dasis2/teds_pubs/2014_teds_rpt_st.pdf

Total Overdoses: Demographic Distribution
October 2015–October 2017



PROJECT SUCCESS IS LARGELY DUE TO COLLABORATION

Outcome

Both projects demonstrate how SyS can enhance substance OD prevention programs by characterizing populations at risk and guiding prevention efforts. SyS data are one more indicator that can be used to inform public health assessments of the burden of opioid misuse in communities. The project findings also show that SyS can be used in near real-time to track emerging trends in drugs (or drug types) being used and identify where ODs occur.

Collaboration with internal and external partners was key—NDHHS described its work with Tri-County, Colorado Health Department in July 2017 at the International Society for Disease Surveillance (ISDS) Opioid Webinar Series and at the 2018 ISDS Conference. NDHHS also presented an abstract about the collaboration between its DOP Program and DBH at the 2018 CSTE Conference. The SyS Discharge Diagnosis definitions developed through collaborative efforts are now being used routinely, and both collaborative internal partnerships and projects will continue throughout 2019.

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The findings and conclusions of this report are those of the authors and do not reflect the official position of the Centers for Disease Control and Prevention.

- ✓ This success story shows how NSSP:
 - Improves Data Representativeness
 - Improves Data Quality, Timeliness, and Use
 - Strengthens Syndromic Surveillance Practice
 - Informs Public Health Action or Response

