

Using NC DETECT for Comprehensive Morbidity Surveillance on Poisoning and Overdose

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Objective

Twelve new case definitions were added to the NC DETECT Web Application to facilitate timely surveillance for poisoning and overdose. The process for developing these case definitions and the most recent outputs are described.

Introduction

A retrospective analysis of emergency department data in NC for drug and opioid overdoses has been explained previously [1]. We built on this initial work to develop new poisoning and surveillance reports to facilitate near real time surveillance by health department and hospital users. In North Carolina, the availability for mortality and hospital discharge data are approximately one and two years after the event date, respectively. NC DETECT data are near real time and over 75% of ED visits receive at least one ICD-9-CM final diagnosis code within two weeks of the initial record receipt.

Methods

The case definitions were developed with input from the North Carolina Division of Public Health, the Injury Prevention Research Center at UNC Chapel Hill, the Carolina Center for Health Informatics in the UNC Department of Emergency Medicine, as well as feedback from end users. Case definitions from the Centers for Disease Control and Prevention, the Substance Abuse and Mental Health Services Administration, and the Safe States Injury Surveillance Workgroup were reviewed. Given the wide variation among the case definitions among these national groups, the NC expert group decided to develop case definitions for use in North Carolina, with the expectation that they may be revised over time and may eventually inform surveillance approaches in other states. The case definitions cover acute alcohol poisoning, poisoning, unintentional poisoning, heroin overdose, medication or drug overdose, methadone overdose, opioid overdose, prescription opioid analgesic overdose, Narcan/naloxone, and unintentional medication or drug overdose. All but the naloxone report search in the first six of up to 11 ICD-9-CM final diagnosis codes received for each ED visit in NC DETECT. Some of the reports include keyword searches as well and the Narcan/naloxone report is entirely keyword-based. The case definitions are available on the NC DETECT Website at http://ncdetect.org/images/pdf/fact_sheets/NC_DETECT_ODPoisoning_Definitions_20140115.pdf

Results

The new case definitions were added to NC DETECT in May and June 2014. Authorized users can access detailed line listing information for all case definitions back to 2009. Local health department users can compare their counties at the aggregate level to other counties and the state. Figure 1 compares heroin-related ED visits by week from January to July 2013 and 2014. Figure 2 compares weekly ED visits for medication or drug overdose from January to July 2013 and 2014.

Conclusions

Establishing poisoning and overdose reports in a near real time surveillance system allows local health departments to gather timely

feedback on these issues to inform interventions and the work of partner agencies. Additional efforts are ongoing to improve the systematic dissemination of this information to those who are not NC DETECT users but are involved in overdose prevention efforts.

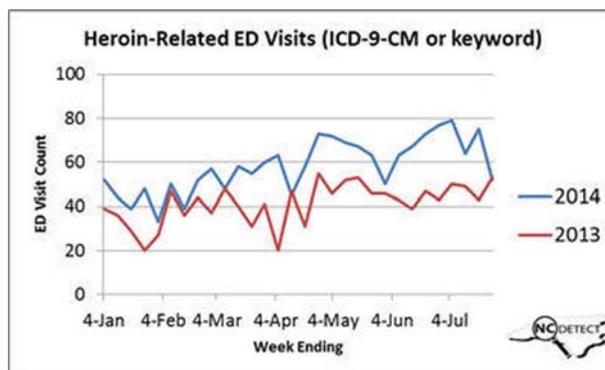


Figure 1

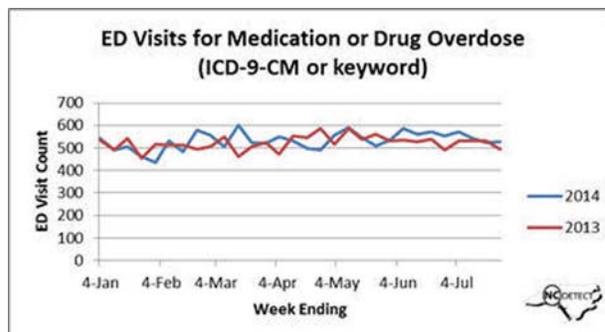


Figure 2

Keywords

poisoning; overdose; timely surveillance

Acknowledgments

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