

## Introduction to Using Syndromic Surveillance for Monitoring Mental Health-related Indicators

### What is Syndromic Surveillance?

Syndromic surveillance is a collaborative effort between local and state health departments, CDC, and other partners. Syndromic surveillance data are collected from deidentified electronic patient encounter data received from emergency departments, urgent and ambulatory care centers, inpatient healthcare settings, and laboratories. These data include chief complaint, diagnosis codes, patient characteristics, and location. Syndromic surveillance provides public health officials with a timely system for detecting, understanding, monitoring health events, and collaborating with partners. By tracking patients' symptoms in emergency departments (EDs) - before a diagnosis is confirmed - public health practitioners can detect unusual levels of illness or injuries to determine whether a response is warranted. Syndromic surveillance data can serve as an early warning system for public health concerns such as flu outbreaks and have been used in responses to opioid overdoses, e-cigarette or vaping product use-associated lung injury, Zika virus infection, and natural disasters (<https://www.cdc.gov/nssp/index.html>).

Quarterly mental health surveillance reports are intended to provide basic information about trends in selected mental health outcomes in emergency department visits in New Mexico. Additional data on other mental health syndromes, geographic, or demographic views in both emergency departments and other sources of surveillance are available upon request. Mental health concerns represent a major public health issue and numerous community wide strategies involving prevention, health promotion, and intervention can be implemented to improve outcomes.

### Methods

Data provided in these reports comes from New Mexico's Syndromic Surveillance Database via the Center for Disease Control and Prevention (CDC) ESSENCE web query system. This data is compiled using RStudio which pulls New Mexico's data from the CDC ESSENCE web portal and produces charts and data totals presented in this report. Syndromes search the chief complaint and discharge diagnosis fields to search for free text, ICD-10 and SNOMED codes which correspond with syndromes of interest (**Syndrome Definitions**). Data pulls used to make charts in this report restrict results in data to only include emergency department events in New Mexico facilities where the discharge diagnosis field has been completed. Hospital data is removed when facilities have had large variations in overall reporting of events using a cutoff for Coefficient of Variation (CoV) of 45 or less and hospitals whose past 30 day records do not have a completed discharge diagnosis field in at least 80% of the events. These strategies are intended to show trends reflecting changes in events related to the syndrome rather than changes which may be related to hospital participation in syndromic surveillance. Many charts present data by sex due to known substantial differences in mental health outcomes and suicide-related behaviors by sex.

### Limitations

Hospitals operated by the Indian Health Service and Veteran's Affairs do not report to the New Mexico Syndromic Surveillance Database and hospitals with inconsistent or incomplete records are excluded for data quality purposes. As such, reported numbers of events are under-counted and do not represent all populations of New Mexico. Because participating hospitals can change from report to report due to data quality filters, reports should not be directly compared to each other. Reported results include all events with a chief complaint entry or discharge diagnosis related to the mental health syndrome regardless of the primary reason for an emergency department visit. These reports do not provide a comprehensive view of all mental health issues available, however, those interested in additional information are encouraged to contact the mental health epidemiologist ([dylan.pell@doh.nm.gov](mailto:dylan.pell@doh.nm.gov)) for more detailed data views.

# Syndrome Definitions

## Short Description of Syndromes in the Mental Health Quarterly Reports

Topic	NSSP Syndrome	Description of Query
<b>Mental Health Events</b>	CDC Mental Health v1	This definition measures ED visits with any mental health condition, including psychiatric screening. This includes visits where there are acute mental health crises (i.e., the sole or primary reason for the visit is only related to mental health) as well as visits where mental health conditions are present (defined as coded in the discharge diagnosis or mentioned in the chief complaint text) but may not be the sole reason for the visit
<b>Suicide Attempts</b>	CDC Suicide Attempt v2	This query measures ED visits with a suspected suicide attempt.
<b>Suicide-related Events</b>	CDC Suicide Attempt v1 and CDC Suicide Ideation v1	This query measures ED visits with suspected suicide ideation, self-harm, or a suspected suicide attempt .
<b>Depressive Disorder</b>	CDC Depressive Disorders v1	This query measures ED visits with a suspected depressive disorder.
<b>Anxiety Disorder</b>	CDC Anxiety Disorders v1	This query measures ED visits with a suspected anxiety disorder.

Note - Other available syndromes not reported in the quarterly report include:

- Attention-defecit Hyperactivity Disorders
- Obsessive-compulsive Disorders
- Trauma and Stressor-related Disorders
- Bipolar Disorders
- Schizophrenia Spectrum and Other Psychotic Disorders
- Disruptive Behavioral and Impulse-Control Disorders
- Eating Disorders

**Full definitions including ICD-9, ICD-10, SNOMED codes, and chief complaint fields searched are available upon request - ([dylan.pell@doh.nm.gov](mailto:dylan.pell@doh.nm.gov))**

---

This document was created on April 5, 2023 and last updated on May 16, 2023. All quarterly reports and other mental health surveillance documents are made available at <https://www.nmhealth.org/about/erd/ibeb/mhp/>.

---

Published by the Survey Unit, Epidemiology and Response Division with the New Mexico Department of Health. Contact mental health epidemiologist, Dylan Pell ([dylan.pell@doh.nm.gov](mailto:dylan.pell@doh.nm.gov)), for more information about quarterly mental health reports or to request New Mexico mental health data.

---