Syndromic Surveillance Notification Report

Notification: Increase in Emergency Department (ED) and Hospital Visits Related to COVID-19 Symptoms

Updates Provided by: Tri-County Health Department in coordination with Colorado Local Syndromic Surveillance counties (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, La Plata, Mesa, Montezuma, and Pueblo counties)

- **Purpose**
  - To provide weekly updates to Public Health partners regarding a disease trend of the percentage of all hospital visits (all ED and inpatient) via the Syndromic Surveillance data that meets the Centers for Disease Control and Prevention (CDC) COVID-19 related symptoms and case definition.
  - As the COVID-19 pandemic has secondary impacts for people across the country, mental health indicators, heart attack, stroke, and substance overdoses are critical for Public Health to monitor during the pandemic.

- **Definitions used for COVID-19 Syndromic Surveillance (SyS)**
  - COVID-19 related hospital visits were captured if patients meet the updated CDC’s case definition, by searching ‘fever and cough or shortness of breath or difficulty breathing or the presence of coronavirus diagnosis code’ in the SyS data.
  - Suicidal ideation related hospital visits were identified if patients met the case definition by searching text terms about suicidal ideas and thoughts or the presence of suicidal ideation diagnosis code (ICD-10 CM: R45.851). Suicide attempt related hospital visits were identified if patients intentionally harmed themselves by searching text terms about injuries due to suicide attempt, intentional self-harm, self-poison, and intentional overdose. Patients were also identified if they were assigned diagnosis codes of suicide attempts (ICD-10 CM: T14.91, X71-7.0, or T36-50).
  - Alcohol overdose related hospital visits were identified if patients met the CDC case definition by searching text terms and diagnosis codes (ICD-10 CM: R90, F10, T51, or R78). Opioid overdose related hospital visits were identified if patients met the CDC case definition by searching text terms and diagnosis codes (ICD-10 CM: T40, F11.12, F11.22, or F11.92).
  - Mental health related hospital visits during/after disasters were identified if patients met the SyS case definition by searching text terms regarding mental health impacts (e.g. stress, phobic, and anxiety) and diagnosis codes (ICD-10 CM: F41, F43, R45.7) showing an increase after a disaster.

- **COVID-19 Related Symptoms and Diagnosis in Colorado Local Syndromic Surveillance Counties**
  - In Syndromic Surveillance (SyS) data, overall hospital visits increased from 08/10/2020-08/17/2020 compared to the previous week. The case count with COVID-19 related symptoms remained stable for the past week (Figure). Please note, the last data point may not be complete.
  - From 08/10/2020-08/17/2020, decreased numbers of patients were assigned COVID-19 diagnosis code (ICD-10 CM: U07.1) compared to the previous week in SyS data.
  - For COVID-19 lab orders submitted in SyS the week of 08/10/2020, one COVID-19 lab order was detected for a person experiencing homelessness, two COVID-19 lab orders detected for persons living in a nursing home, and four COVID-19 lab orders were detected from correctional facilities.
  - Compared to the previous week, hospital visits related to suicidal ideation and suicide attempts increased from 08/10/2020-08/17/2020 (Figure) compared to the previous week. Additionally, hospital visits related to alcohol overdose and opioid overdose increased from 08/10/2020-08/17/2020 compared to the previous week.

Figure. COVID-19 Related Symptoms, Suicidal Ideation, Suicide Attempts, Disaster Mental Health Impacts, Alcohol Overdose, and Opioid Overdose in Colorado Local Syndromic Surveillance Counties*


*The following counties’ information was added on 04/03/2020: Broomfield, La Plata, Mesa, Montezuma, Pueblo Counties.

*Children’s Hospital is currently boarding for submitting 548 data.

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