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 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, X71-70, 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: T40, F11.12, F11.22, or F11.92).

- **COVID-19 Related Symptoms and Diagnosis in Colorado Local Syndromic Surveillance Counties**
  - In Syndromic Surveillance (SyS) data, overall hospital visits increased from 06/02/2020-06/08/2020 compared to the previous week. The case count with COVID-19 related symptoms decreased in the same period of time (Figure). Please note, the last data point may not be complete.
  - From 06/02/2020-06/08/2020, decreased numbers of patients were assigned COVID-19 diagnosis code compared to the previous week. Among patients diagnosed with the specific diagnosis code (U07.1), inpatient visits were less than other visit types (e.g. Emergency Departments and Urgent Care).
  - For COVID-19 lab orders submitted in SyS the week of 06/02/2020, zero COVID-19 lab orders were detected for persons experiencing homelessness, eight COVID-19 lab orders were detected for people living in nursing homes, and twelve COVID-19 lab orders were detected from correctional facilities.
  - Compared to the previous week, hospital visits related to suicidal ideation and suicide attempts slightly increased from 06/02/2020-06/08/2020 (Figure) compared to the previous week. Additionally, hospital visits related to alcohol overdose and opioid overdose remained stable from 06/02/2020-06/08/2020 (Figure) compared to the previous week.

Figure. Daily Trends of Hospital Visits, COVID-19 Related Symptoms, Suicidal Ideation, Suicide Attempts, Alcohol Overdose, and Opioid Overdose in Colorado Local Syndromic Surveillance Counties*

* The following counties’ information was added on 06/24/2020: Broomfield, La Plata, Mesa, Montezuma, Pueblo Counties.
* Children’s Hospital is currently onboard for submitting SyS data.

Contact Information: Yushiuan Chen   Tri-County Health Department, Colorado   Contact: ychen@tchd.org | 720-200-1481   Website: http://www.tchd.org/