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, Denver, Douglas, El Paso, Jefferson, and Larimer counties)

- **Purpose**
  - To provide weekly updates to Public Health partners regarding a disease trend of the rate of all hospital visits (all ED and some inpatient) via the Syndromic Surveillance data that meets the Centers for Disease Control and Prevention (CDC) COVID-19 symptoms and case definition.
- **Definitions used for COVID-19 Syndromic Surveillance (SyS)**
  - Rate of COVID-19 related all hospital visits (all ED and some inpatient) is calculated by using counts of visits meeting the CDC’s case definition, which is based on searching visits with text terms in the ED chief complaint and triage notes (fever and either cough, or shortness of breath).
  - Rate of flu-related ED visits is based on counts of visits with flu-specific discharge diagnosis ICD10 codes (J09, J10, or J11).
  - The information below includes all records captured from Colorado Local Syndromic Surveillance counties (Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Larimer, and Jefferson counties).

- **COVID-19 Related Symptoms and Flu-Related ED Visit Rates in Colorado Local Syndromic Surveillance Counties**
  - Total hospital visits decreased for the MMWR weeks: 2020-10 and 2020-12.
  - For the past three weeks (2020-10 and 2020-12), the percentage (%) of Flu decreased from 2.24% to 0.8%.
  - For the past two weeks (2020-10 and 2020-12), the percentage (%) of COVID-19 related symptoms increased from 0.89% to 3.84%. COVID-19 related symptoms including fever and either cough or shortness of breath. The most updated CDC SyS case definition of COVID-19 related visits excluded patients was diagnosed with flu.

![Trends of COVID-19 Related Symptoms and Flu ED Visits](image)

**Figure. Trends of COVID-19 Related Symptoms and Flu ED Visits in Syndromic Surveillance for Colorado Local Syndromic Surveillance Counties, by MMWR Week**

* The analysis above in the Figure included all records from all facilities which included both domestic patients and patients from other states.
* Children’s Hospital is not currently submitting syndromic surveillance data.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>MMWR Week of 2020-11 (%)</th>
<th>MMWR Week of 2020-12 (%)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>00-04</td>
<td>6.88</td>
<td>7.45</td>
<td>0.57</td>
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<tr>
<td>05-24</td>
<td>3.23</td>
<td>4.70</td>
<td>1.47</td>
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<tr>
<td>25-49</td>
<td>2.20</td>
<td>3.55</td>
<td>1.35</td>
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<tr>
<td>50-64</td>
<td>2.07</td>
<td>3.62</td>
<td>1.55</td>
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<tr>
<td>65+</td>
<td>1.70</td>
<td>2.75</td>
<td>1.05</td>
</tr>
</tbody>
</table>

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