Syndromic Surveillance

Syndromic surveillance is a relatively new surveillance system in Nebraska that allows the collection and analysis of near-real time electronic health data to monitor relevant health indicators. This system was originally developed to enhance emergency preparedness efforts by monitoring possible bioterrorism or outbreak health hazards. Later, syndromic surveillance was expanded to monitor all types of health conditions including infectious diseases (e.g. influenza), chronic diseases (e.g. asthma), and injury (e.g. motor vehicle crash-related injuries). Syndromic surveillance supports public health efforts by allowing a more rapid identification and response to key health events.

In this report we focus on:

- Indicators related to seasonal health hazards in emergency department (ED) visits during June to August, 2016.
- ED visits from 32 facilities located in 23 counties throughout the state, as indicated in the map below.

Seasonal Health Hazards

In this report we see how the following health hazards affected Nebraskans over the summer:

- Heat-Related Illness (HRI)
- Firework-Related Injuries
- Insect Bites
- Motor Vehicle Crash (MVC) - Related Injuries

Contact Information:

For more information, please contact Nebraska Department of Health and Human Services (DHHS) Syndromic Surveillance program at (402) 471-0141.
Heat-Related Illness (HRI)

This chart shows the number of HRI ED visits during June-August, 2016.* Spikes in the number of HRI ED visits were detected on June 10-12, June 16-18, June 21, July 5-6, and July 20-22. These spikes correspond to dates when extreme heat events were reported for Nebraska. Extreme heat events include excessive heat warnings, excessive heat watches, and heat advisories as defined by the National Weather Service (http://www.nws.noaa.gov/om/heat/ww.shtml).

Firework-Related Injury

This chart shows the number of possible firework-related injury ED visits during June-August, 2016.* A total of 138 possible firework-related injury ED visits were detected during June 25-July 5, 2016.

*All data are preliminary and may change as more reports are received.
Insect Bites

This chart shows the number of insect bite-related ED visits during June-August, 2016.* Spikes in the number of insect bite-related ED visits were detected on June 5, June 19, July 5, July 10, July 30, August 6 and August 14. These spikes occurred on weekends and the day after the Fourth of July holiday: days when people tend to be outside.

Motor Vehicle Crash (MVC)-Related Injury

This chart shows the number of MVC-related ED visits during June-August, 2016.* Spikes in the number of daily MVC-related ED visits were detected on July 11, July 31, August 11, and August 19. These spikes correspond to days when rain or thunderstorms were detected in the area where hospitals reporting these MVC-related injury ED visits were located.

*All data are preliminary and may change as more reports are received.

Seasonal Health Hazards

Insect Bites  Outdoor activities during the summer increase the risk for mosquito or other bug bites. You can protect yourself against West Nile virus and tick-related diseases by using bug spray, wearing protective clothing while you are outside, limiting outdoor activities when mosquitoes are most active, and checking for ticks after being outdoors (http://dhhs.ne.gov/Pages/newsroom_2016_june_julyfourth.aspx).

Syndromic surveillance looks for indicators of insect bite-related ED visits.

MVC-Related Injury  Driving too fast for the conditions, drunk driving, and distracted driving increase the risk for MVC-related injury and death. (http://dhhs.ne.gov/publichealth/Pages/codes_trafficsafety.aspx).

Syndromic surveillance looks for indicators of motor vehicle crash-related injury ED visits.