ISDS 2019 Conference Abstracts

Keyword Surveillance and the Development of Evolving Reporting in Austin, Texas

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Objective

Austin Public Health's Public Health Emergency Preparedness program utilizes a variety of tools and resources to create informative, event-specific, and engaging syndromic surveillance reports to share 1) internally within Austin Public Health; 2) with City of Austin and Travis County partners; 3) local health care coalition members; and 4) the public during events that affect the Austin, Texas metropolitan area.

Introduction

Austin Public Health creates a variety of syndromic surveillance reports for events throughout the Austin, Texas metropolitan area. These events range from responses to major disasters such as the 2017 Hurricane Harvey sheltering to ongoing special event monitoring such as University of Texas football games and the Austin City Limits music festival. Partnerships within the Austin metropolitan region are crucial to ensuring the information-sharing necessary to create robust reports, as well as during the follow-up process of requesting feedback from partners on the usefulness of the reports. Austin Public Health's Public Health Emergency Preparedness program utilizes a variety of tools and resources to create informative, event-specific, and engaging reports, fulfilling multiple reporting needs for all partners.

Methods

The process of generating syndromic surveillance reports begins by keyword surveillance of hospital emergency room chief complaint data. Keywords are keyed into the Austin metropolitan area's hospital free-text chief complaints via the Capital Area Public Health and Medical Coalition. The searchable keywords are queried to create a baseline picture of an evolving event. Data are also requested and gathered from multiple partners including local news stations, the National Weather Service, the City of Austin's Office of Vital Records (birth and death certificates), social media platforms, Austin 3-1-1, and Austin/Travis County Emergency Medical Services. All data are then analyzed, visualized and displayed in reports that are distributed via multiple platforms including email, social media, governmental websites, Geographic Information System (GIS) storymaps, and WebEOC. Reports are then combined into event end summaries. Accompanying the final summary report are feedback surveys.

Results

The ability to request keywords in an open communication pathway between hospitals, the Capital Area Public Health and Medical Coalition, and the local health department has bolstered area partnerships. Previous surveillance reports have been reported to be both useful and beneficial to departmental, community and health coalition partners. For example, the 2017 report following Hurricane Harvey was used by local hospitals for planning staffing and surge needs, and the 2018 heat report is being used to determine the placement of future cooling stations at special events. A 2019 surveillance report on dockless scooter injuries will be used to inform risk factors and trauma injury severity. Requested changes from partners have included: the addition of graphs, keyword-specific changes, inclusion of social media and broadcast media data, and the use of information from other partners to create a final event or year-end summary report.

Conclusions

Keyword surveillance of hospital chief complaint data and of other local real-time data are innovative tools to creating meaningful syndromic surveillance reports that provide situational awareness and are adaptable to the needs of events and situations in the area. The development and evolution of these syndromic surveillance reports has helped to build a rapidly deployable syndromic surveillance system that can provide key data for preparing for and responding to future disaster events. By engaging local and regional partners in an iterative process for developing these reports, APH ensures ongoing improvement, thereby providing more powerful and useful reports to all partners involved.

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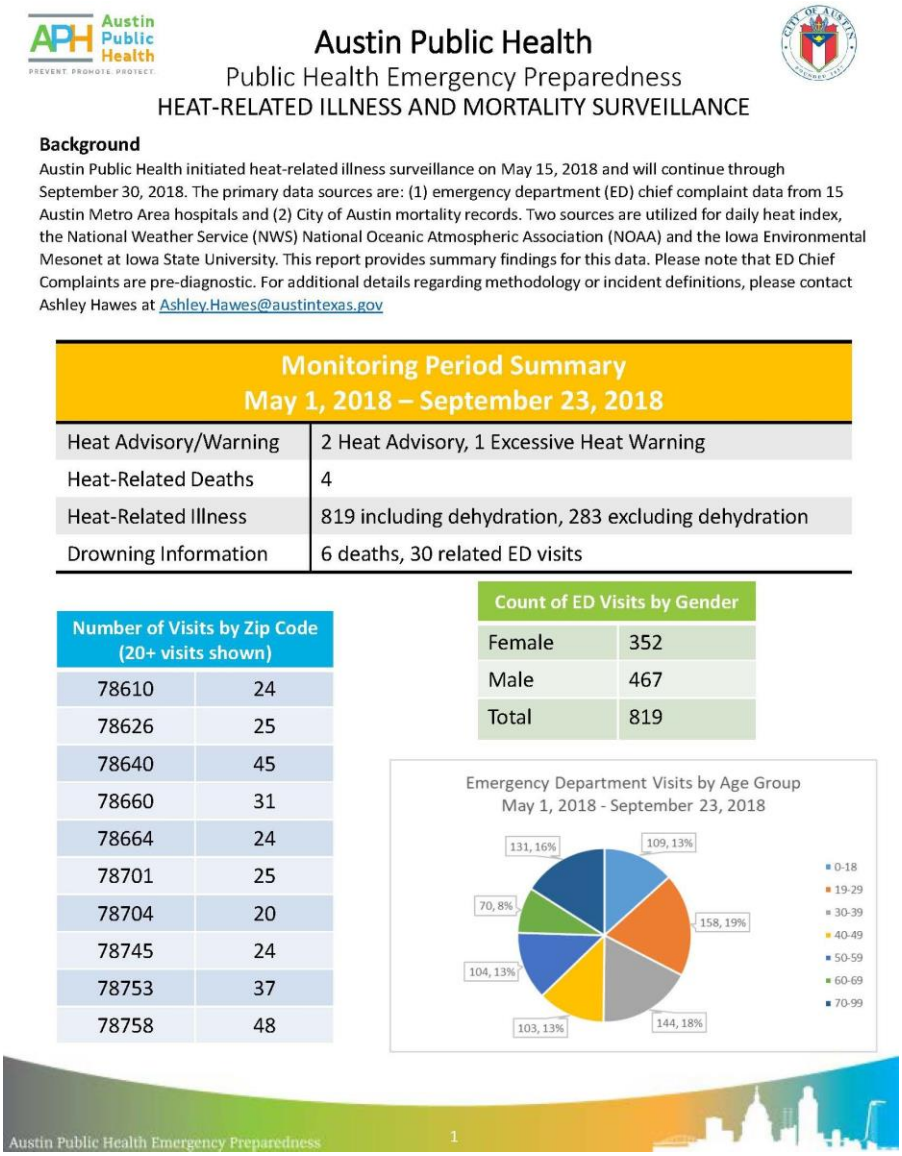
Acknowledgement

Austin Public Health, City of Austin, Travis County, Capital Area Public Health and Medical Preparedness Coalition



Austin Public Health
Public Health Emergency Preparedness
HEAT-RELATED ILLNESS AND MORTALITY SURVEILLANCE

Background

Austin Public Health initiated heat-related illness surveillance on May 15, 2018 and will continue through September 30, 2018. The primary data sources are: (1) emergency department (ED) chief complaint data from 15 Austin Metro Area hospitals and (2) City of Austin mortality records. Two sources are utilized for daily heat index, the National Weather Service (NWS) National Oceanic Atmospheric Association (NOAA) and the Iowa Environmental Mesonet at Iowa State University. This report provides summary findings for this data. Please note that ED Chief Complaints are pre-diagnostic. For additional details regarding methodology or incident definitions, please contact Ashley Hawes at Ashley.Hawes@austintexas.gov

Monitoring Period Summary May 1, 2018 – September 23, 2018	
Heat Advisory/Warning	2 Heat Advisory, 1 Excessive Heat Warning
Heat-Related Deaths	4
Heat-Related Illness	819 including dehydration, 283 excluding dehydration
Drowning Information	6 deaths, 30 related ED visits

Number of Visits by Zip Code (20+ visits shown)	
78610	24
78626	25
78640	45
78660	31
78664	24
78701	25
78704	20
78745	24
78753	37
78758	48

Count of ED Visits by Gender	
Female	352
Male	467
Total	819

Emergency Department Visits by Age Group
May 1, 2018 - September 23, 2018

Austin Public Health Emergency Preparedness 1

Figure 1. Example of page 1 of 2018 Heat Report sent out by Austin Public Health to partners

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