Public Health Impact of Heat Exposure*

Policy Brief prepared by The Institute for Health Policy The University of Texas School of Public Health



The effects of summer heat on public health gained international attention following the August 2003 heat wave in Europe when 15,000 people died in France alone. On average, there are 1,700-1,800 heat-attributable deaths reported in the U.S. each year. Typically, the most deaths are recorded in July, followed by August, and then June. Heat takes a larger toll on human life than any other single, weather-related event. The Centers for Disease Control and Prevention encourages communities to implement heat response plans that will identify populations at the highest risk of heat-related illness and determine strategies to reduce their heat exposure. Access to air conditioning is prominent among these strategies. Consider the data for Texas.

The Record of Health Effects in Texas

- Deaths from heat-related illness

 Preliminary figures for 2005 from the Department of State Health Services show 59 heat-related deaths in Texas; they report 44 deaths in 2004. Our analysis of the mortality data for prior years shows 62 deaths in 2003, 58 in 2002 and 26 in 2001. The total for the 5-year period is 249 for the state; 46 of these were in Harris County.
- Hospitalizations for heat-related illness during the spring and summer months (April through September) In 2001, 475 patients were admitted to hospitals in Texas with a heat-related condition (based on admitting code, principal diagnosis or external injury code). In 2002, the number was 461. In 2003, however, the number increased to 564. The average length of stay was 3 days.
- Emergency room visits for heat-related illness
 From June through September in 2005, in Harris County alone, over 700 people were diagnosed with a heat-related illness in hospital emergency rooms. More than 120 of these coincided with the heat wave that preceded Hurricane Rita.

Persons Most at Risk

According to the scientific literature, those most at risk of heat-related illness include the elderly and those with chronic diseases such as diabetes, the very young, and those among the poor who are without access to air conditioning. In 2005 approximately 4.9 million Texans or 22% of the population fell below the state's poverty standard (125% of the federal poverty level). About 440,000 of these were over 65 years of age.

Service Disconnection

For 2006, the Public Utility Commission reported that an average of 656,000 customers per month received a service disconnection notice for non-payment. Of those receiving notices, 111,000 cases resulted in disconnection orders. Over 70% of these orders were executed. In almost 80% of the disconnections, services are subsequently reconnected, once payment arrangements are made. Disconnections are suspended for two days each time a health advisory is issued by the National Weather Service.

Reinstating the Summer Moratorium

The moratorium on disconnections during the summer of 2006 did not affect enrollments in deferred payment plans. Over 25,000 customers enrolled in plans offered by Reliant and TXU Energy during this period. Although no one has documented whether service disconnections increase the incidence of heat-related illness, we do know that access to air conditioning can prevent these illnesses, especially among high risk populations. Based on the available evidence, we believe that it is prudent from a public health perspective to reinstitute the summer moratorium on disconnections.

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