

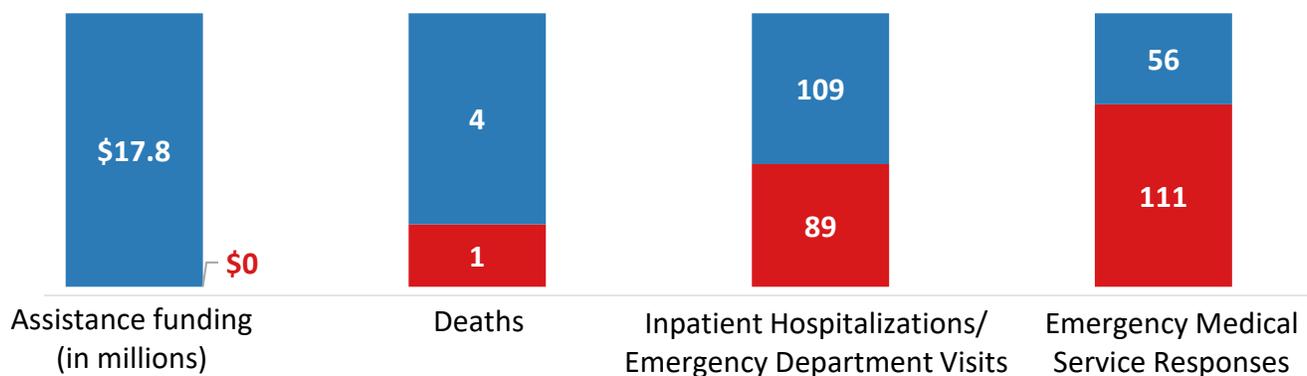
# Illness and Death due to Hot and Cold Weather

## Vermont Climate & Health Program

Prolonged exposure to cold or hot temperatures can cause serious illness and even death. Exposure to cold temperatures can cause frostbite or hypothermia, while exposure to hot temperatures can cause heat exhaustion, heat stroke and other heat-related illnesses. In addition to these direct impacts of cold or hot temperatures, prolonged exposure can aggravate heart and breathing problems or lead to other health complications. While everyone is at risk for temperature-related illnesses and death, those at highest risk include older adults, young children and people with disabilities or pre-existing chronic health conditions.

Regardless of age or health status, risks are higher for people who are homeless or cannot keep their home at a safe temperature. Vermont dedicates substantial state and federal resources to help Vermonters stay safe and healthy during cold weather, which is critically important given our harsh winters. During the 2017-2018 winter, the Low-Income Home Energy Assistance Program (LIHEAP) provided nearly \$17 million to help make heating more affordable through its Fuel Assistance and Crisis Fuels programs, and the General Assistance Program provided over \$800,000 for emergency housing on 135 qualifying nights. Additional funds supported local programs that offered fuel assistance, warming shelters and other housing.

**Both hot and cold weather cause illnesses and deaths in Vermont, but current assistance resources only help to prevent cold weather impacts.**



Data Sources: Deaths: Vermont Vital Statistics, 2009-2018; data from 2018 are preliminary and subject to change. Inpatient/ED visits: Vermont Uniform Hospital Discharge Dataset, 2012-2016. EMS responses: Statewide Incident Reporting Network, 2017-2018. Note: Deaths, inpatient/ED visits, and EMS responses are displayed as annual averages.

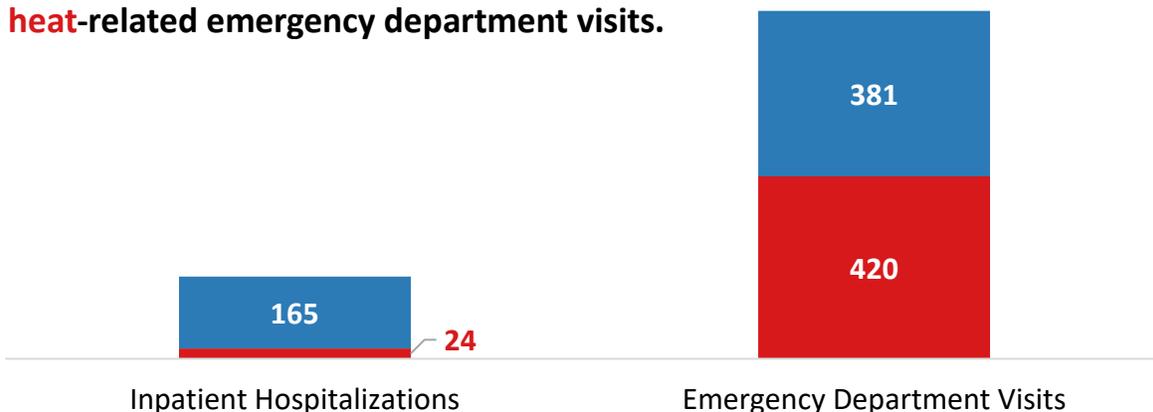
In recent years, hot weather has increasingly affected Vermonters' health, and these impacts are expected to grow as our climate continues to warm. Having access to an adequately cooled environment is a critical protective measure for staying safe and healthy during hot weather. During the 6-day heat wave of 2018, four older Vermonters died in their homes due to excessive heat exposure, and emergency medical calls for heat complaints were 15 times higher than normal. Vermont 2-1-1 and other organizations receive calls for emergency cooling assistance during hot weather, but **there are no dedicated state or federal funds for these purposes.**

While there was a larger total number of **cold**-related deaths, a greater percentage of **heat**-related deaths occurred in the person's home.



Data Source: Vermont Vital Statistics, 2009-2018; 2018 data are preliminary and subject to change. These data are for Vermont residents who died in Vermont from 2009-2018. Note: We cannot determine from the death certificate alone if home conditions contributed to a person's death, only that a person died at home.

There were more **cold**-related inpatient hospitalizations, but more **heat**-related emergency department visits.



Data Source: Vermont Uniform Hospital Discharge Dataset, 2012-2016.

There were more **heat**-related emergency medical service (EMS) responses to a person's home and overall.



Data Source: Statewide Incident Reporting Network, 2017-2018. Note: We cannot objectively determine from an EMS report if home conditions contributed to illness, only that EMS responded to a home. Based on review of narratives, it appears that home conditions contributed to at least 21 heat-related and at least 4 cold-related responses.