



HEAT-ASSOCIATED DEATHS & EMERGENCY DEPARTMENT VISITS 2024 REPORT

To inform Clark County residents and visitors about the impact of heat-associated illness and mortality, the Southern Nevada Health District has developed this report presenting data on heat-associated deaths and emergency department visits for 2024. The Centers for Disease Control and Prevention (CDC) define extreme heat as reaching higher than average temperatures or humidity levels for a particular location and time of year. Heat-related illness occurs when a person’s body temperature rises faster than it can cool down, which may lead to heat exhaustion or heat stroke, ultimately damaging the brain or other vital organs. Older adults, young children, and individuals with mental illness or chronic health conditions are at the highest risk for heat-related illnesses. However, all individuals are susceptible, particularly those engaging in strenuous physical activity in high-temperature environments. As of March 4th, 2025, there were 513 heat associated deaths in 2024, a 73% increase compared to the 296 heat associated deaths in 2023. Out of these 513 deaths, 23% were identified as non-Clark County residents. A total of 3548 heat related ED visits were recorded, with the peak for both ED visits and deaths occurring in the month of July.

Figure 1. Heat-associated deaths in Clark County by week, 2024

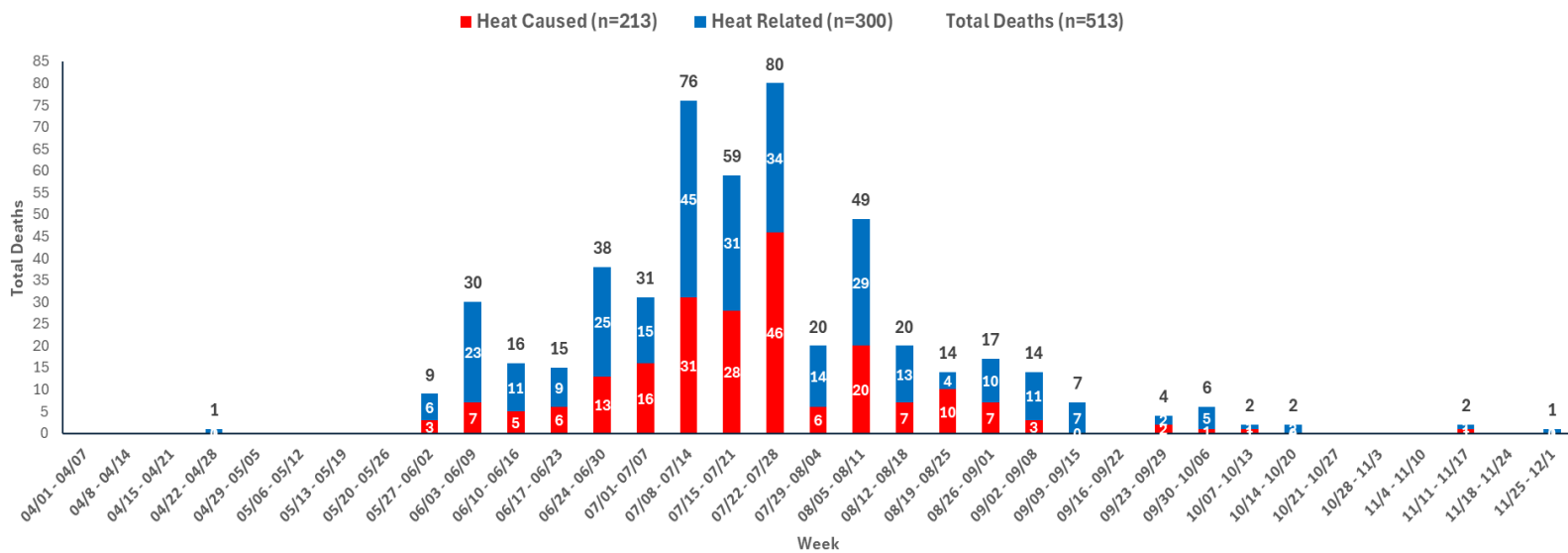


Figure 2. Age-adjusted mortality rate of heat-associated deaths, Clark County Residents by year, 2020 – 2024

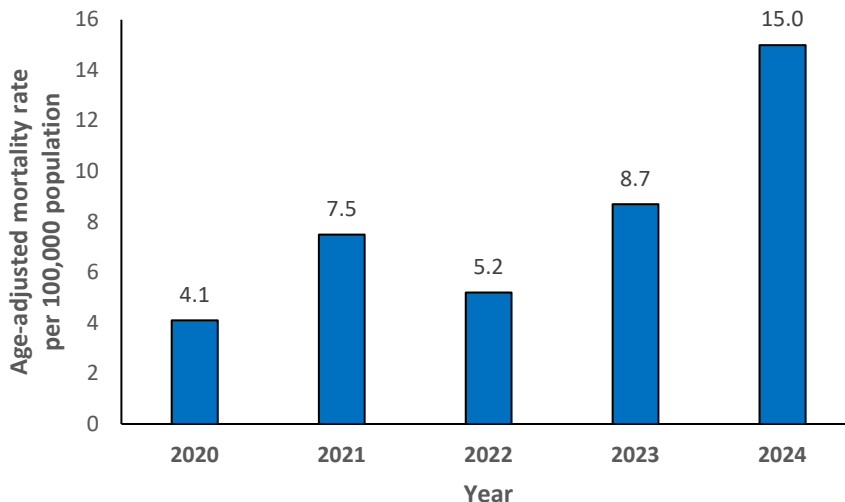


Figure 3. Percentage of heat-associated deaths in Clark County by Gender, 2024

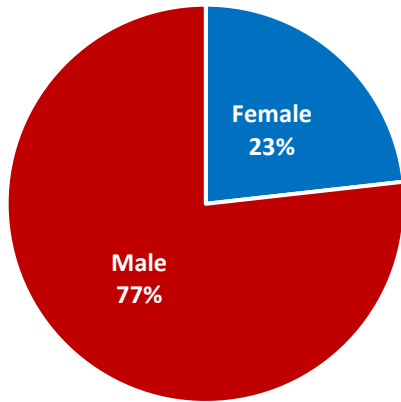


Figure 4. Percent of heat-associated deaths in Clark County by age group, 2024

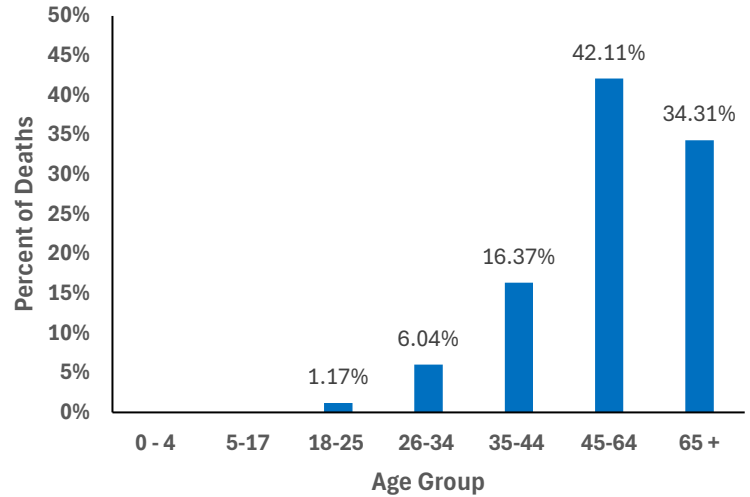


Table 2. Count and Age-adjusted rates of heat-associated deaths, Clark County residents by Race, 2024

| Race/Ethnicity | | Count | Age-adjusted Rate |
|----------------|--------------------------------|-------|-------------------|
| Non-Hispanic | White | 226 | 16.1 |
| | Black | 81 | 30.9 |
| | Asian/Pacific Islander | 19 | 5.6 |
| | American Indian/Alaskan Native | 0 | - |
| Hispanic | | 48 | 6.7 |

Note: Race and Hispanic origin are reported separately on death certificates. People of Hispanic origin may be of any race. For this table, non-Hispanic individuals are classified by race. Age-adjusted rates are calculated per 100,000 population.

Figure 5. Heat-associated deaths in Clark County by involvement of substances, 2024

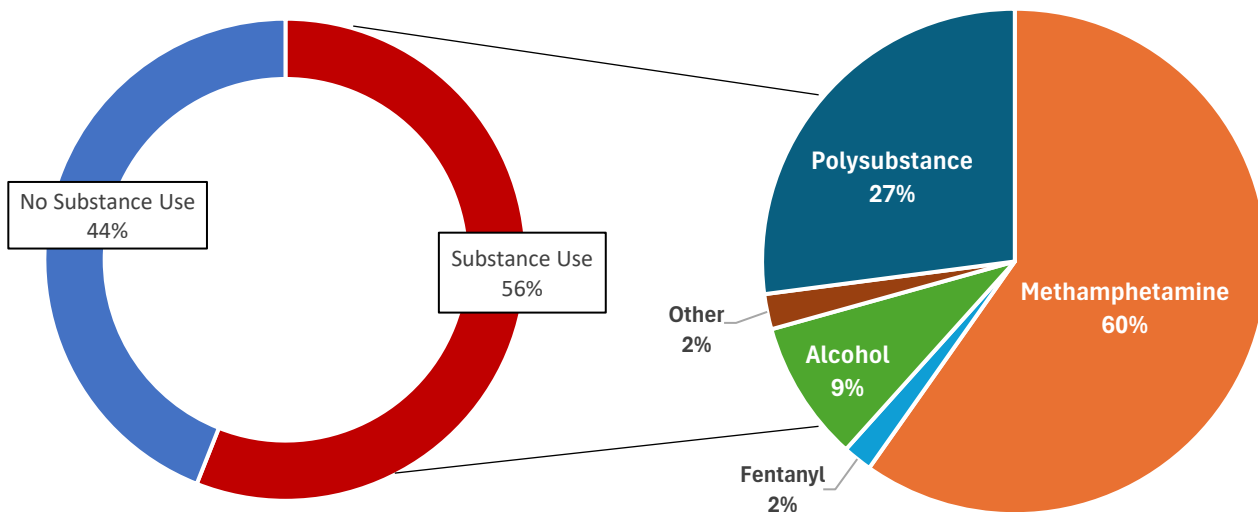


Figure 6. Daily count of heat-associated deaths due to heat-related illness in Clark County, 2024

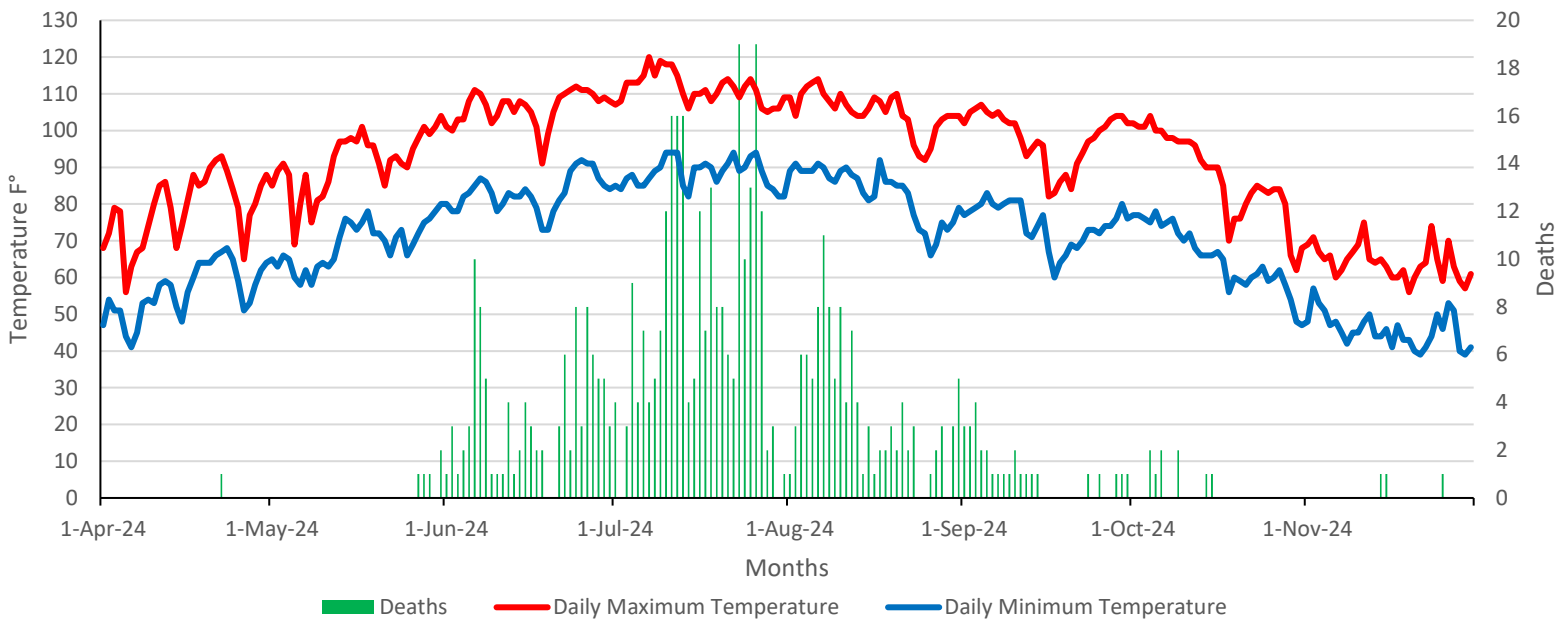


Figure 7. Heat-associated deaths in Clark County by location of heat injury and percentage of deaths by month, 2024

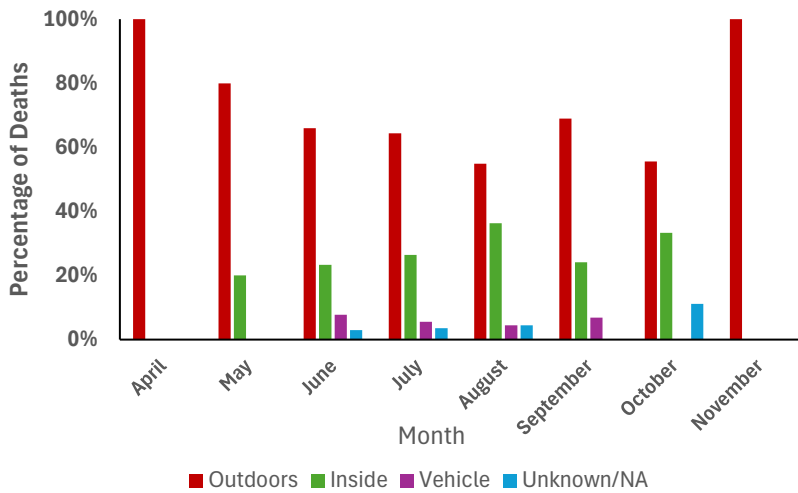


Figure 8. Heat-associated deaths in Clark County by housing status, 2024

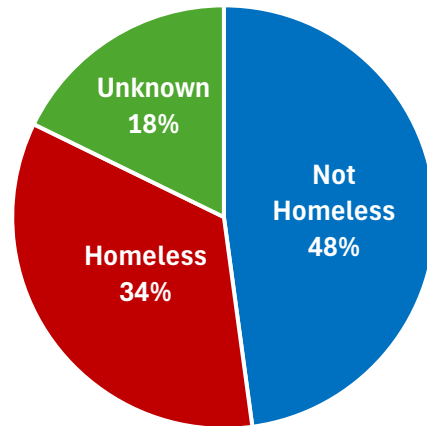


Figure 9. Heat-associated deaths in Clark County by temperature, 2024

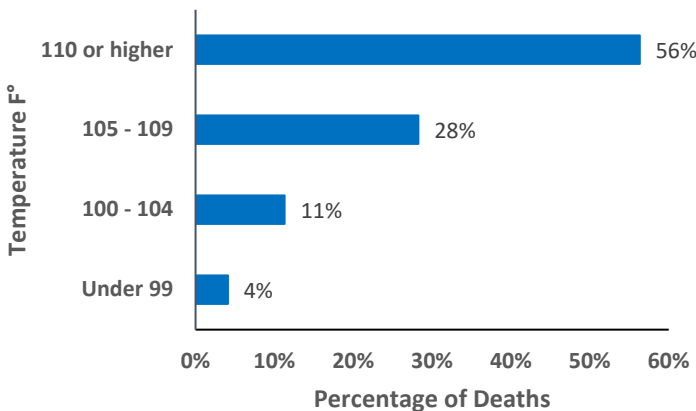
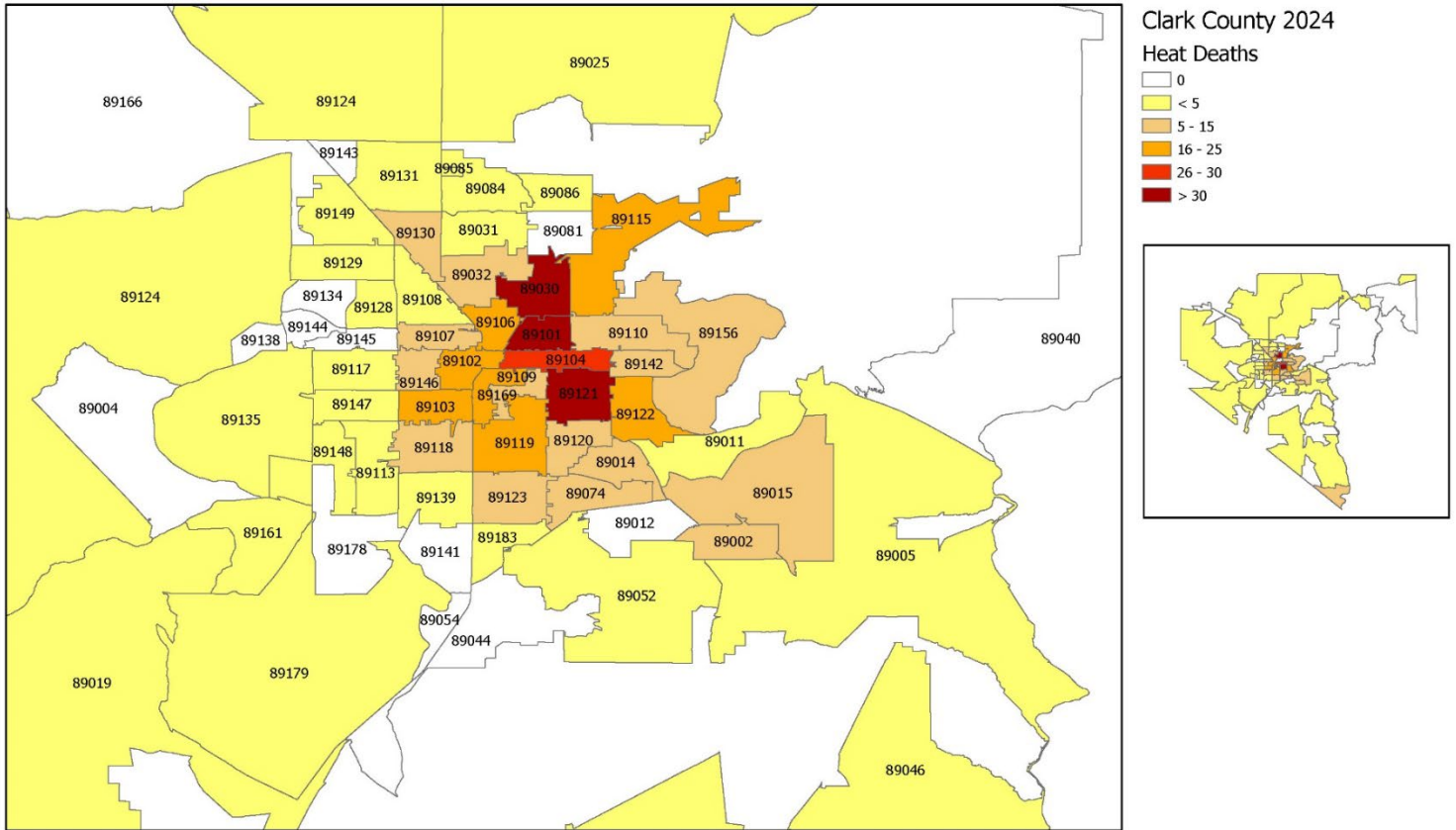


Figure 10. Location of injury for heat-associated deaths among ZIP codes associated with Clark County, NV*



*28 cases did not have a known ZIP code for the location of heat injury.

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Figure 11. Daily count of emergency department visits due to heat-related illness in Clark County, 2024

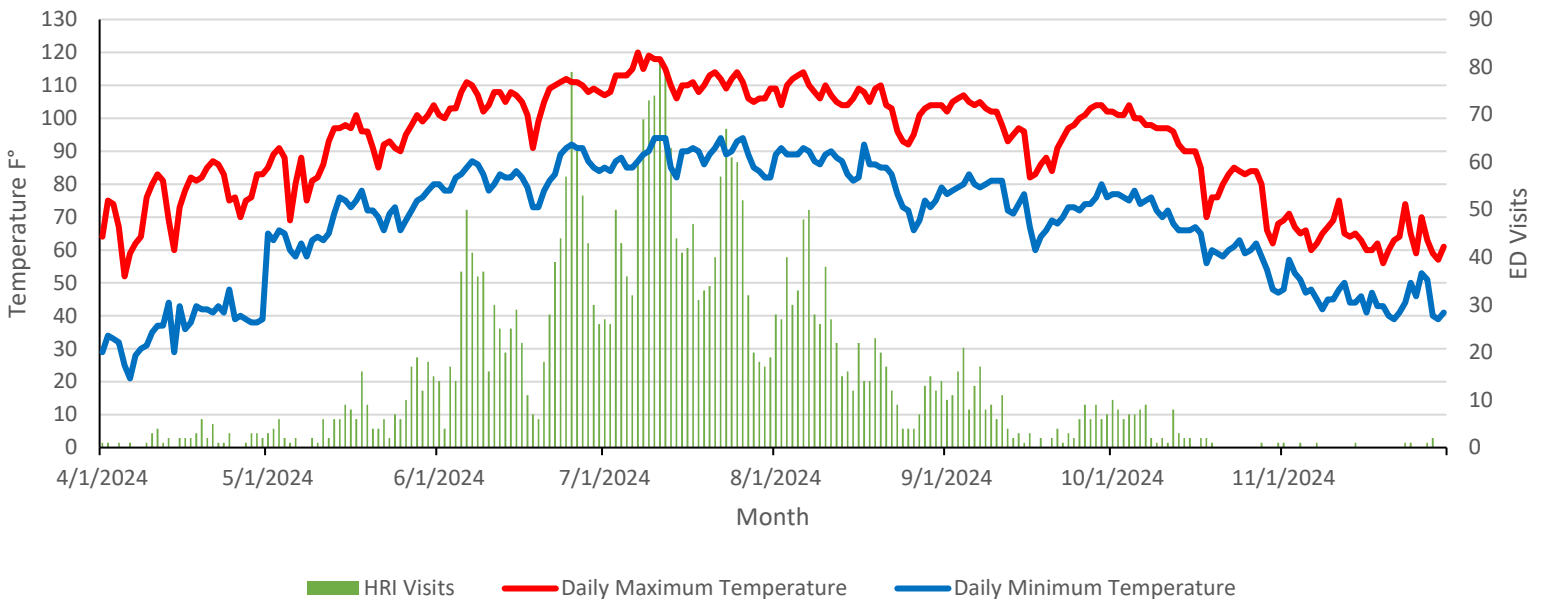


Figure 12. Heat-related illness ED visits by gender, 2024

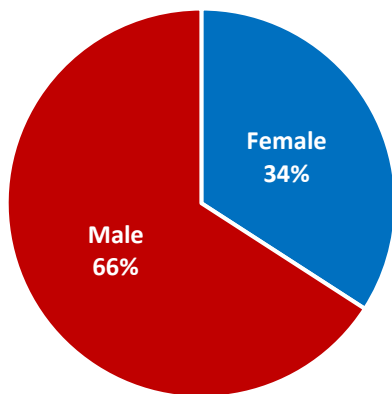
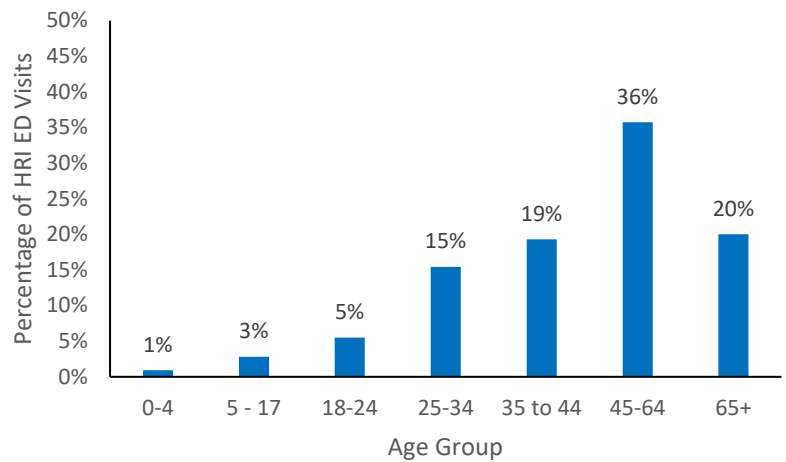


Figure 13. Heat-related illness ED visits by age group, 2024



Data Source: The Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Heat-related illness data was identified by querying the fields of CC and DD Category “Heat Related Illness v2”, Facility Type = “Emergency Care,” Has Been Emergency = “Yes”.

Discussion

In Clark County, NV, from 2020 to 2024, heat-related deaths have steadily increased despite community prevention efforts (Figure 2). The majority of these deaths, 90%, occur during the summer months, where temperatures frequently exceed 100°F. In 2024, the highest proportion of deaths were recorded in July, and at temperatures above 110 degrees consistent with previous years. July has the greatest number of days, 21, which reached 110 degrees or higher. Emergency department visits are also the highest during the same time period, with ED visits generally increasing and decreasing along with temperature increases and decreases (Figure 11). Heat-related deaths and ED visits are also both higher among males and individuals aged 45 – 64 years. Figure 5 highlights the influence substance use has on heat related mortality; over 50% of heat related deaths in 2024 also involved substance use, with 60% involving methamphetamine use alone. Figure 7 provides details on the location of death. Overall the majority of these deaths occur outdoors, with the proportion of outdoors deaths gradually decreasing from April through August. Individuals experiencing homelessness, a notably vulnerable population of concern due to lack of shelter or amenities, made up 34% of heat related deaths (Figure 8). This percentage could be higher, as 18% of decedents had unknown housing status. In addition to age, substances, location and housing, Figure 10 details the location of heat injury leading to death by ZIP code. ZIP codes with the highest number of heat-related injuries are concentrated in central to Las Vegas including areas such as downtown Las Vegas, neighborhoods in East Las Vegas and North Las Vegas, as well as commercial properties along Boulder Highway, including Boulder Station Hotel and Casino.

Conclusion

Monitoring heat-related mortality and ED visits offers valuable insight into the importance of preventative measures during the summer months and periods of high temperatures in Clark County, NV. Vulnerable populations including older adults, individuals using substances, those experiencing homelessness and visitors to Las Vegas who may be unfamiliar with the summer climate may experience the highest risk of heat illness, heat stroke and death. Community prevention efforts have notably increased in 2024 compared to 2023, as has the media coverage in terms of providing temperature warnings and news broadcasts in order to educate residents and visitors during times of excessive heat. By identifying the highest risk factors, along with the location of greatest occurrence, further preventative measures, such as cooling stations, can be focused on these individuals and areas.

Recommendations

Notable findings from this report include the association between heat related deaths and substance use, as well as ZIP codes with the highest deaths rates. With 56% of heat related deaths associated with substance use, greater focus should be placed on educating the community on the effects of substances and high temperatures. In general, the negative effects of substance use whether it be alcohol, methamphetamine, or a combination of drugs, are exacerbated when mixed with high environmental temperatures, especially as body temperature regulation is impacted.

ZIP code location can assist the emergency response team with informative decision making and how they approach areas of high morbidity and mortality. Recommendations include piloting additional cooling centers, enhancing public health outreach to high risk locations, Desert Research Institute (DRI) heat lab work group meetings, extreme heat seminar meetings, and using the Medical Reserve Core (MRC), Community Emergency Response Team (CERT) and other volunteer groups to staff cooling or mobile centers from June through August. Additional ideas include coordinating with law enforcement, the fire department, and emergency medical services to identify and assist vulnerable individuals during summer months. Providing bus routes or shuttles in high risk areas could reduce walking and improve access to cooling stations. This report strongly supports further efforts to reduce heat related illness and mortality, and serves as a valuable resource for the community.

Data Sources:

Mortality and Demographics: Nevada Electronic Death Registry System (EDRS) provided by the Nevada Department of Public and Behavioral Health Office of Analytics.

Population: State Demographer Vintage 2020, 2021 and 2023 estimates, population with group quarters

Age-adjusted mortality rates are calculated per 100,000 population and include: Clark County residents, homeless individuals identified as living within Clark County or homeless individuals with an unknown or missing FIPS code.

Centers for Disease Control and Prevention (CDC). About Extreme Heat. https://www.cdc.gov/disasters/extremeheat/heat_guide.html. July 26th 2023.

Max/Min Temperature: National Weather Service. Past weather reported by Las Vegas WFO, NV.

Heat Associated Deaths: defined as those having an ICD-10 code of 'T67', 'X30', or identified as a heat associated death by the coroner or medical examiner in EDRS.

"Heat Caused" Deaths: Deaths in which a form of heat (ie. exposure, hyperthermia) is listed in Part I of the Cause of Death in the death certificate; either the immediate cause or part of the chain of events leading to immediate cause of death.

"Heat Related" Deaths: Deaths in which a form of heat (ie. exposure, hyperthermia) is listed in "Other Significant Conditions" or Part II of the death certificate but not listed in Part I.

Drug/Substance Use: defined as those having an ICD-10 code associated with the named drug or substance or if the substance is listed in Part I or Part II of the Cause of Death for those pending ICD-10 assignment.

Methamphetamine was identified using ICD-10 T43.6 and 'Methamphetamine' listed in Part I or Part II of the Cause of Death.

Homelessness: Data is provided by Clark County Office of the Coroner/Medical Examiner (CCCOME). The events not determined as homeless by the coroners office, but had an unknown home address in EDRS, were labeled as "unknown".

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