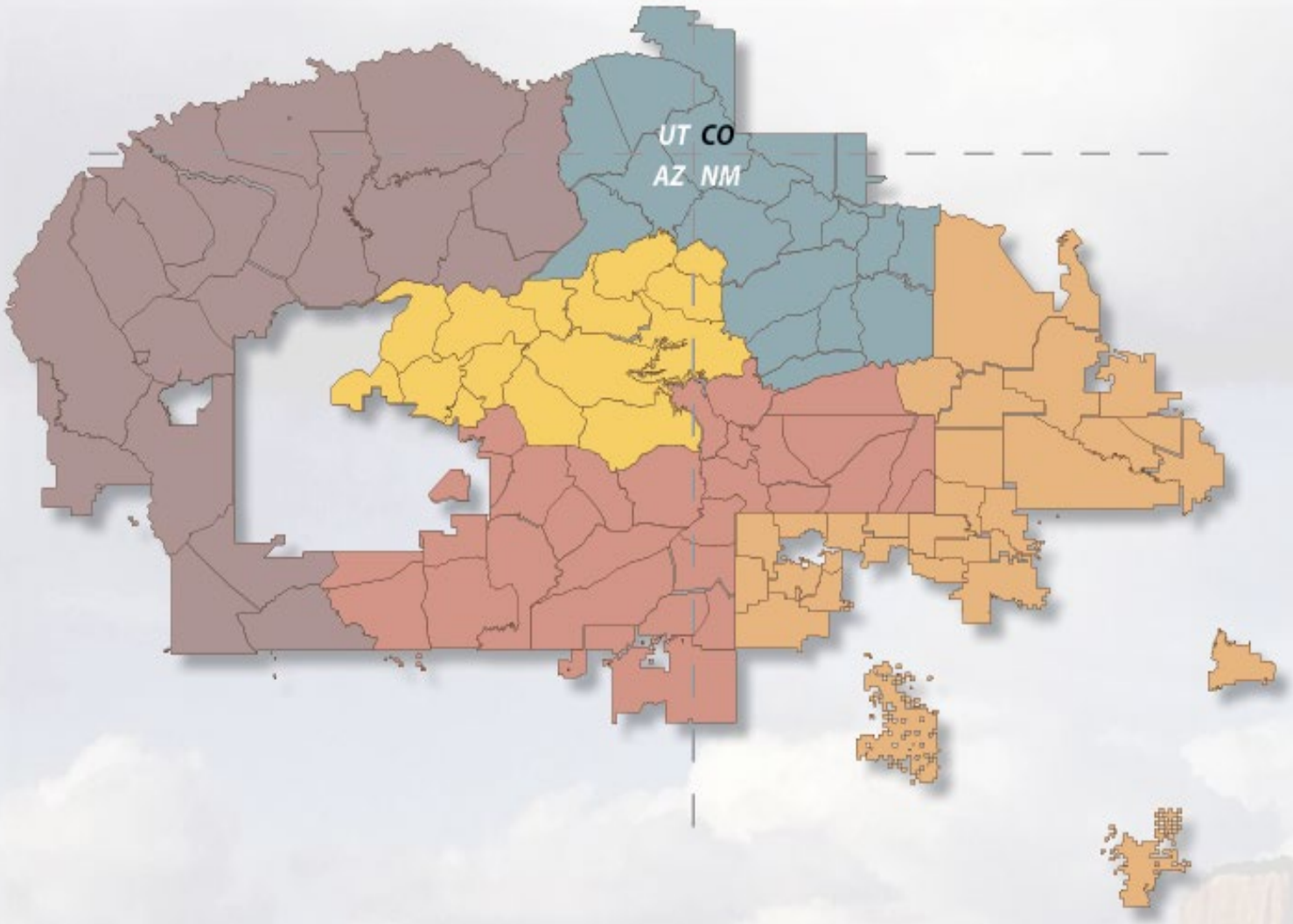
Navajo Epidemiology Center
Diné Action Plan Data Workgroup
Combating Modern Day Naayéé (Monsters) with Data
January 16, 2026



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Combating Modern Day *Naayéé* (Monsters) with Data

ACKNOWLEDGEMENTS – This report would not be possible without funding and partnership from:

- Navajo Nation Diné Action Plan Leadership & Colleagues – *partnership*
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- New Mexico Department of Health, Bureau of Vital Records & Health Statistics – *partnership*

BACKGROUND

"The Diné Action Plan (DAP) is a multi-disciplinary collaboration intended to combat modern day Naayéé (*monsters - violence, suicide, substance use, and missing and murdered Diné relatives*) affecting the Diné by using Diné teachings and planning model. Together, the DAP will serve as the foundational document in developing planning documents providing for coordination in addressing issues. The DAP will also serve as an informational and data resource outlining the ongoing public safety issues affecting the Navajo Nation which can be used as a reference document for future grant applications." (Legislation #CS-51-21. Begay, et al. Diné Action Plan. The Diné Action Plan – Navajo Nation. Accessed 5/15/25).

The DAP intends to combat the four modern day Naayéé faced by Diné. The Navajo Epidemiology Center (NEC) is working with partners to collect and analyze data to help combat the Naayéé. Currently, the NEC has data to combat three Naayéé and is still working with partners to better combat missing and murdered Diné relatives (MMDR) with data.

METHODS

Health care facilities operating on the Navajo Nation including Indian Health Service (IHS), 638, and private clinics submit clinical data to the IHS National Data Warehouse (NDW). IHS then makes this data available to Tribal Epidemiology Centers via the Epi Data Mart (EDM). Health care facilities send their data to the NDW on a regular basis (monthly).

This report contains diagnosis data from the EDM if the patient was treated between January 1, 2024 – December 31, 2024, as well as comparison data from January 1, 2020 – December 31, 2023. Cases are included only if they are Native American, Navajo, and have a community residence on the Navajo Nation, including the 3 Navajo satellite communities (Alamo, Ramah, and To'Hajiilee), or within a border town including Aztec (NM), Blanding (UT), Bloomfield (NM), Bluff (UT), Cuba (NM), Farmington (NM), Flagstaff (AZ), Upper Fruitland (NM), Gallup (NM), Grants (NM), Holbrook (AZ), Joseph City (AZ), Kirtland (NM), Monticello (UT), Page (AZ), Waterflow (NM), and Winslow (AZ). Crude rates are reported for single year charts and tables, while age adjusted rates are utilized when comparing data by gender or across time.

The mortality data shared with the NEC by the New Mexico Department of Health, Bureau of Vital Records & Health Statistics are also included in this report. Data are organized into two distinct surveillance periods: January 1, 2018 – December 31, 2020, and January 1, 2021 – December 31, 2024. The two surveillance periods are created to increase the likelihood of having stable rates for rare causes of death and were divided to have the clearest distinction between the first year of the COVID-19 pandemic and subsequent years. The causes of death are processed in accordance with the *International Classification of Diseases, 10th Revision (ICD-10)*.

The health conditions are organized according to the ICD-10 standards, and according to the National Center of Health Statistics (NCHS) guidelines for 113 selected causes of death (http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf).

The U.S. Census data from 2010 and 2020 provide population data for each Navajo chapter community and border town. The author estimated the 2024 Navajo Nation population by calculating the population change between 2010 and 2020 and applying a constant rate of change for each year from 2011-2024. The combined Navajo and border town populations are then used as the denominator to calculate the rates. The rates are age adjusted to the 2000 U.S. population.

RESULTS

Chart 1. Substance Use Crude Rates, Emergency Department Visits, 2024

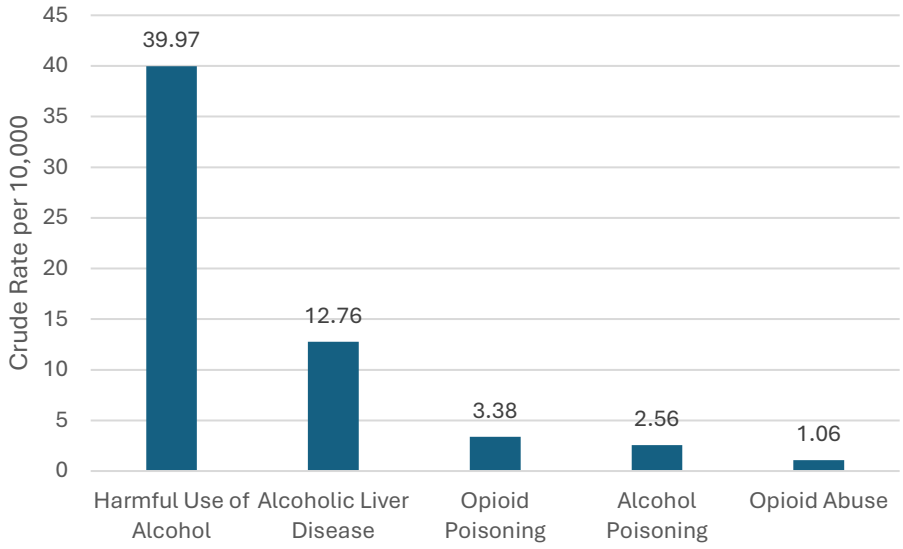

Chart 1 illustrates the burden of alcohol use among Diné. While opioid abuse is a public health concern, the data does not show this to be as large a burden as alcohol. Now is a good time to plan prevention programs to ensure that opioid abuse does not become a new monster. This data is very similar to what was presented in May of 2025.

Chart 2. Substance Use Crude Rates, Hospitalization, 2024

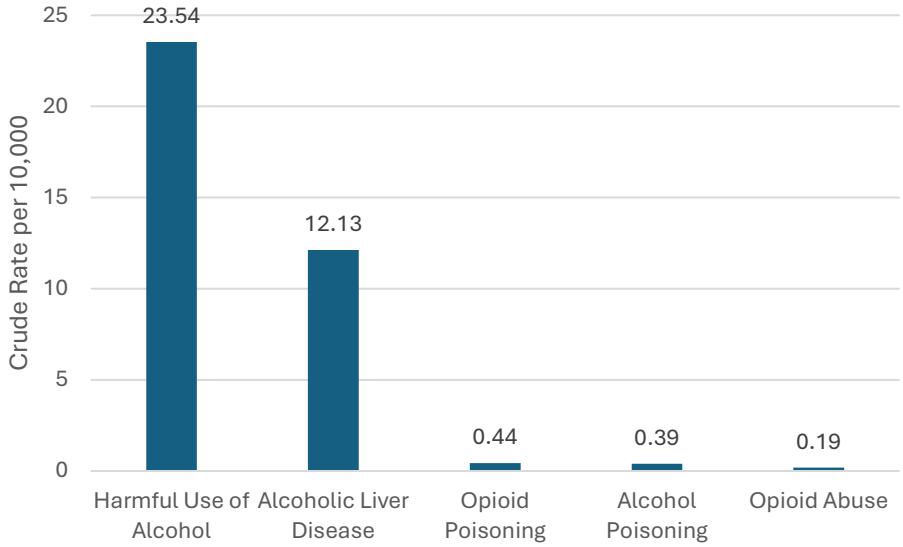

Chart 2 illustrates the burden of alcohol abuse hospitalization among Diné. Hospitalization due to opioid abuse remains low. However, if an individual passes away from acute opioid poisoning, the EDM data would not capture this event.

Table 1. Substance Use Trends (Age-adjusted rates per 10,000 persons), 2020-2024

Emergency Department Rates						
	2020	2021	2022	2023	2024	Trend
Harmful Use of Alcohol	5.37	26.91	27.53	33.72	44.28	↑
Opioid Abuse				0.72	1.17	↔
Alcoholic Liver Disease	21.93	28.96	20.81	13.18	14.09	↓
Opioid Poisoning	2.46	2.33	2.56	3.37	3.61	↑
Alcohol Poisoning	2.88	4.47	3.78	3.29	2.71	↔
Hospitalization Rates						
	2020	2021	2022	2023	2024	Trend
Harmful Use of Alcohol	0.94	6	11.37	21.59	25.93	↑
Opioid Abuse				0	0.19	NA
Alcoholic Liver Disease	20	29.08	22.92	17.53	13.47	↓
Opioid Poisoning	0.58	0.73	0.8	0.53	0.45	↔
Alcohol Poisoning	1.12	1.55	1.66	1.15	0.43	↔

*NA – not available

Table 1 indicates harmful use of alcohol has increased since 2020, but the more chronic issue of Alcoholic Liver Disease has decreased since 2020. There are not enough cases of chronic opioid abuse reported yet to establish trends, but there has been a slight increase in acute opioid poisoning since 2020.

Chart 3. Violence Crude Rates, Emergency Department Visits, 2024

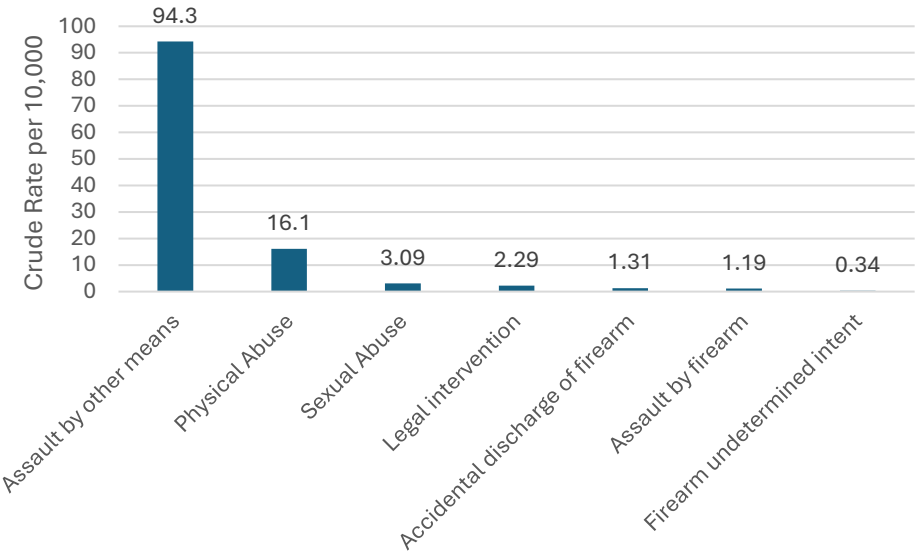

Chart 3 illustrates the magnitude of the types of assaults among Diné. Firearms do not seem to play a major role in most non-fatal assaults. Assault by other means include sharp objects, blunt objects, or the use of one's body to inflict injury.

Chart 4. Violence Crude Rates, Hospitalization, 2024

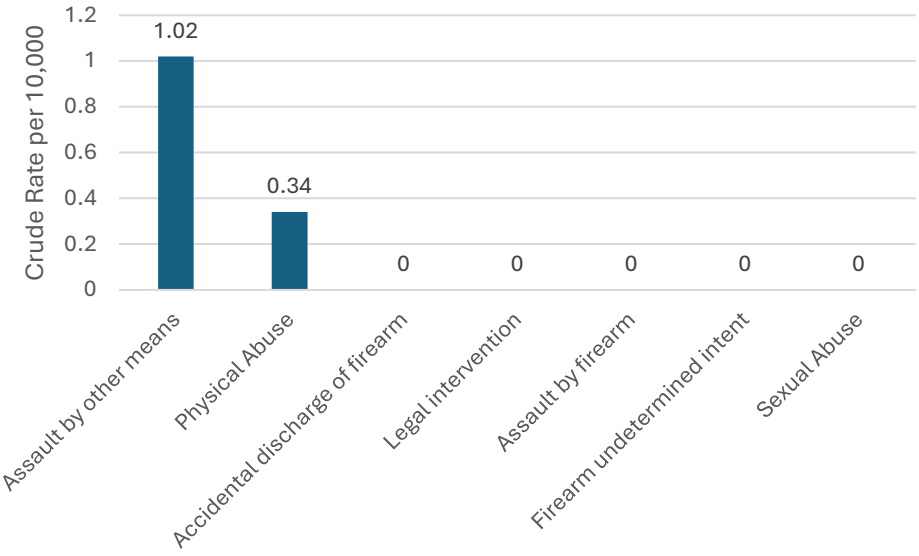

Chart 4 illustrates "Assault by other means" is most likely to lead to hospitalization. The crude rates for assault, hospitalization (Chart 4) is much lower than the crude rate for ED visits (Chart 3). Most violent conditions have too few data to be reported which is indicated with an NA (not available).

Table 2. Violence Trends (Age-adjusted rate per 10,000 persons), 2020-2024

Emergency Department Rates						
	2020	2021	2022	2023	2024	Trend
Accidental discharge of firearm	2.54	2.63	2.57	2.43	1.43	↔
Assault by firearm	1.65	1.53	1.85	1.14	1.19	↔
Firearm undetermined intent	0.45	0.42	0.36	0.25	0.38	↔
Assault by other means	155.2	130.9	125.1	106.7	99.43	↓
Legal intervention	3.17	4.88	3.41	3.68	2.29	↔
Physical Abuse	10.62	9.69	12.02	10.93	16.68	↑
Sexual Abuse	2.49	2.82	4.21	3	3.1	↔
Hospitalization Rates						
	2020	2021	2022	2023	2024	Trend
Accidental discharge of firearm	NA	NA	NA	NA	0	NA
Assault by firearm	NA	NA	0.21	NA	NA	NA
Firearm undetermined intent	0	NA	NA	0	NA	NA
Assault by other means	3.02	4.26	3.03	2.15	1.11	↓
Legal intervention	0	NA	0	0	0	↔
Physical Abuse	NA	0.29	0.55	0.73	0.36	↔
Sexual Abuse	0	NA	NA	0.24	NA	NA

*NA – not available

Table 2 indicates that while Assault is a major concern there has been some progress in lowering its impact since 2020. However, there has been an increase in ED visits due to Physical Abuse.

Chart 5. Suicide Crude Rates, Emergency Department & Hospitalization Rates, 2024

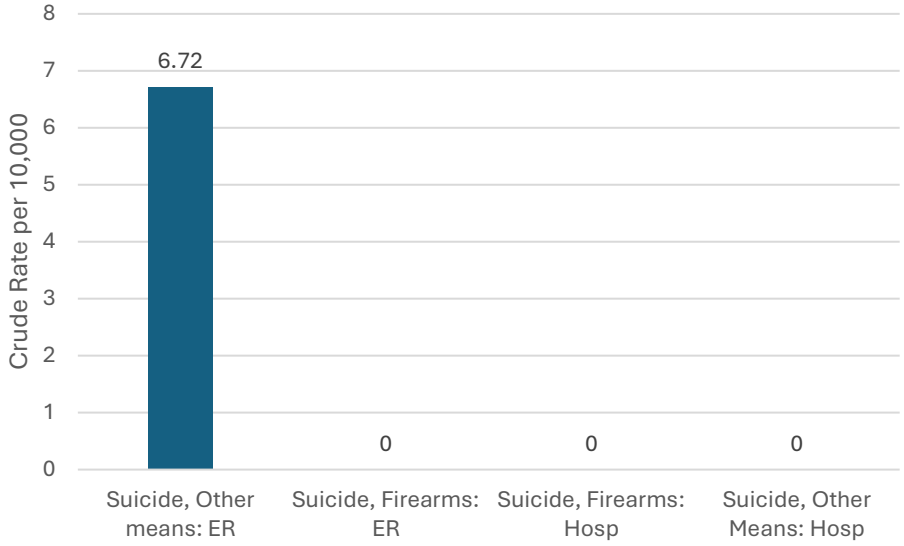

Chart 5 illustrates that the treatment rate for suicide attempt by Firearm are very low. Most who attempt suicide use other means, such as drug use, sharp objects, or strangulation. The use of Firearm is more likely to result in fatality, and individuals using this method may not end up at the hospital for data capture.

Table 3. Suicide Trends (Age-adjusted rate per 10,000 persons)

	2020	2021	2022	2023	2024	Trends
Suicide, Firearms: ED	0.31	0.51	NA	NA	NA	NA
Suicide, Other means: ED	11.53	8.92	7.85	7.11	6.54	↓
Suicide, Firearms: Hospitalization	0	0	0	0	NA	NA
Suicide, Other Means: Hospitalization	0.39	0.55	0.25	0.25	0	↓

Table 3 indicates there has been some progress in reducing treatment rates for suicide attempts. This improvement can only be described for attempts that did not use a firearm. There is still insufficient data to make any statements on suicide by firearm attempts.

Table 7. Gender Differences where Diné males have higher rates than Diné females, 2024

Emergency Department Visits	
Health Condition	**Male: Female Ratio**
Harmful Use of Alcohol	2.72
Alcoholic Liver Disease	2.04
Alcohol Poisoning	5.71
Legal Intervention	4.05
Hospitalization	
Health Condition	**Male: Female Ratio**
Harmful Use of Alcohol	3.22
Assault by Other Means	3.59

Table 7 indicates a pattern of Alcohol being a greater burden among Diné males than Diné females.

Table 8. Gender Differences where Diné females have higher rates than Diné males, 2024

Emergency Department Visits	
Health Condition	**Female: Male Ratio**
Sexual Abuse	20.41
Hospitalization	
Health Condition	**Female: Male Ratio**
None	

Table 8 indicates that Sexual Abuse impacts the Diné female population more than the Diné male population, and that there are no health conditions under consideration within this report in which Diné females have a significantly higher hospitalization rate than Diné males.

Table 9. Largest changes across time for Emergency Department and Hospitalization Rates, 2020-2024

Increasing Rates		
Health Condition	**Percent Change**	**Absolute Change**
Harmful Use of Alcohol: Emergency Department	65%	17.37/10,000
Harmful Use of Alcohol: Hospitalization	77%	19.93/10,000
Decreasing Rates		
Health Condition	**Percent Change**	**Absolute Change**
Alcoholic Liver Disease: Hospitalizations	-54%	-15.61/10,000
Assault by Other Means	-74%	-3.15/10,000

Table 9 indicates Treatment for Alcoholic Liver Disease has decreased for both ED and Hospitalizations. This is of note since as can be seen in the Mortality section of this report, Chronic Liver Disease & Cirrhosis mortality has been increasing. This could indicate that Diné are not being seen by doctors to treat their chronic health issues and unfortunately, is leading to increased mortality. Another possibility is that Chronic Liver Disease & Cirrhosis mortality may be peaking and that mortality will decrease due to fewer non-fatal cases being diagnosed and treated.

Table 10. Percent of deaths attributable to violence and substance abuse

Cause	**2018-2020 Surveillance Period**	**2021-2024 Surveillance Period**
Alcoholic Liver Disease	6.3%	7.1%
Alcohol Abuse	3.6%	4.3%
Suicide	3.3%	2.6%
Alcohol Poisoning	2.6%	1.8%
Assault	1.8%	2.0%
Opioid Poisoning	0.4%	0.5%

Table 10 indicates Alcoholic Liver Disease, Alcohol Abuse, and Alcohol Poisoning combined account for 13.2% of all deaths. For context, in the 2021-2024 surveillance period, COVID-19 accounted for 10% of all deaths. Alcohol related deaths on the Navajo Nation each year exceed the deaths caused by a once in a lifetime pandemic.

Chart 6. Age-Adjusted Mortality Rates for Naayéé Related Causes

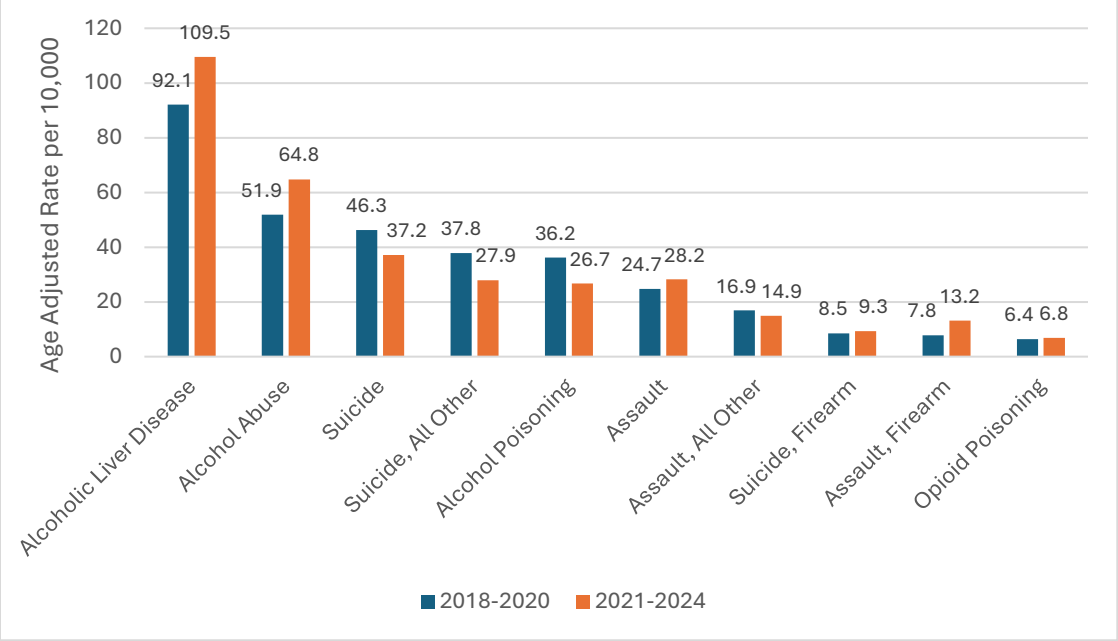

Chart 6 illustrates that while most suicide attempts treated in a health care system do not involve firearms, they do contribute significantly to suicide completions (approximately 1 in 4 suicides). Firearms also play a much larger role in Assault mortality than in assault ED and hospitalizations (almost by one half).

DATA LIMITATIONS & CONSIDERATIONS

The results and interpretation of the EDM data is dependent upon accurate and complete classification of health conditions. Some injuries may not be classified completely to paint the full picture. For example, some injuries could be the result of assault or suicide attempt but coded as an unintentional injury. This could potentially cause the under reporting of some health conditions. Also, some tribal programs (i.e., police, EMS, criminal investigation) may be capturing higher quality data and we are cultivating those partnerships to share the information currently.

DEFINITIONS

Mortality: Refers to the state of being mortal (destined to die). In medicine, a term also used for death rate, or the number of deaths in a certain group of people in a certain period of time. Mortality may be reported for people who have a certain disease, live in one area of the country, or who are of a certain gender, age, or ethnic group per National Cancer Institute.

Crude Incidence Rate: Refers to the ratio between the number of health events and the total population during a specified period.

Age-adjusted Incidence Rate: This is a method for adjusting rates to account for potential differences between the age composition in different populations or across different time periods. For example, if one population is older than another, we would expect them to have higher incidence rates of chronic diseases.