

Indian Health Service – Navajo Area Self-harm/Suicide Surveillance Report January 2023 to December 2023

Background:

Self-harm behaviors and suicide remain a pressing challenge and concern in American Indian communities. Demographically, American Indians rank the highest with regards to suicide rates (CDC, 2021). Individual level risk factors include: psychiatric disorders, substance use disorders, depression, and anxiety disorders (Favril, 2023). In response to the pressing challenge faced by this population, Indian Health Service, Navajo Area Office (NAIHS) conducted surveillance on self-harm and suicide at NAIHS sites located on or near the Navajo Nation to elucidate more information on the topic to inform suicide prevention efforts.

Methods:

The Indian Health Service, Navajo Area Office – Public Health Division collects data from the following NAIHS sites reporting on self-harm and suicide: Chinle Comprehensive Health Care Facility (including Pinon Health Center and Tsaile Health Center), Crownpoint Health Care Facility, Four Corners Regional Health Center, Gallup Indian Medical Center and Kayenta Health Center. The time period for data collection and reporting was January 2023 through December 2023. Any NAIHS site that is not listed did not submit or report data for this report.

The patient population represented in this report were identified based on entering services at one of the participating sites, and presenting with self-harm or suicidal behaviors. Sites collecting and reporting data manually maintained line lists, documenting information on a number of variables. These variables included: date of visit, gender, age, means, lethality, disposition, community, and department where services were entered. Data collected for the following variables was free text: means, lethality and disposition. These fields were coded and categorized for analysis purposes, and definitions were developed. Definitions were derived and informed by the public health literature on suicide surveillance. Once data was categorized and aggregated, it was analyzed for this report.

Results:

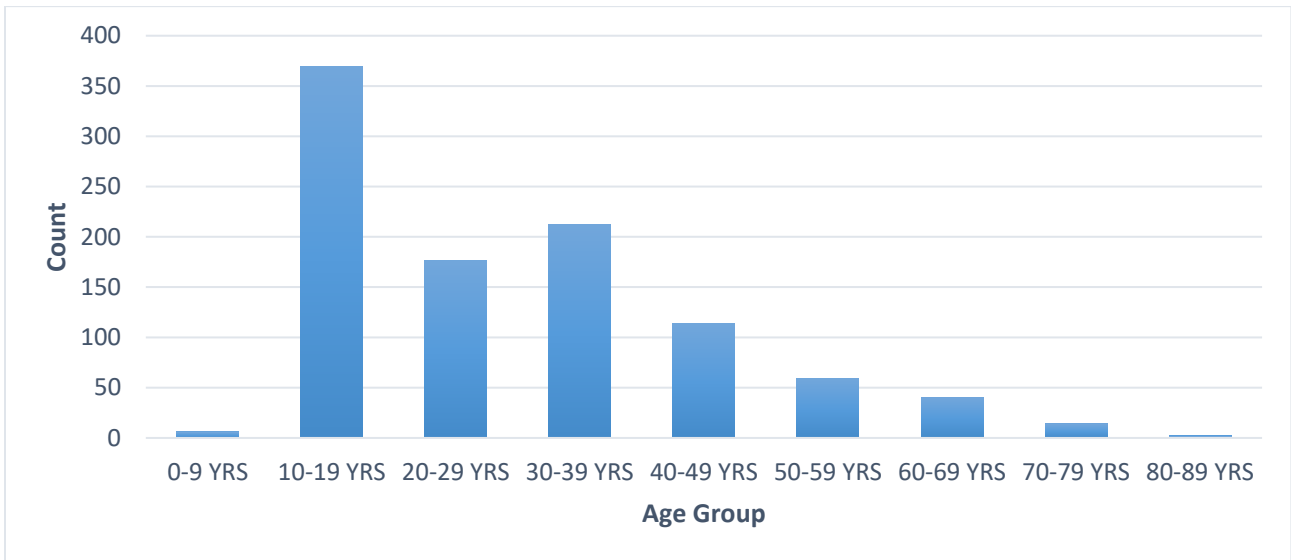
A total of 994 cases of self-harm and suicide were reported between the months of January 2023 through December of 2023, across NAIHS reporting sites. The age range of individuals represented in the data is 9 to 82 years of age. Whereas, the average age is 29 years. **Table 1** illustrates this data by quarter.

Table 1. Reported cases of self-harm or suicide by quarter – NAIHS reporting sites, January 2023 to December 2023 (n=994)

Quarter	Chinle*	Crownpoint	Gallup	Kayenta	Four Corners
1	94	16	135	49	22
2	97	22	109	34	16
3	91	23	66	26	
4	64	21	67	42	

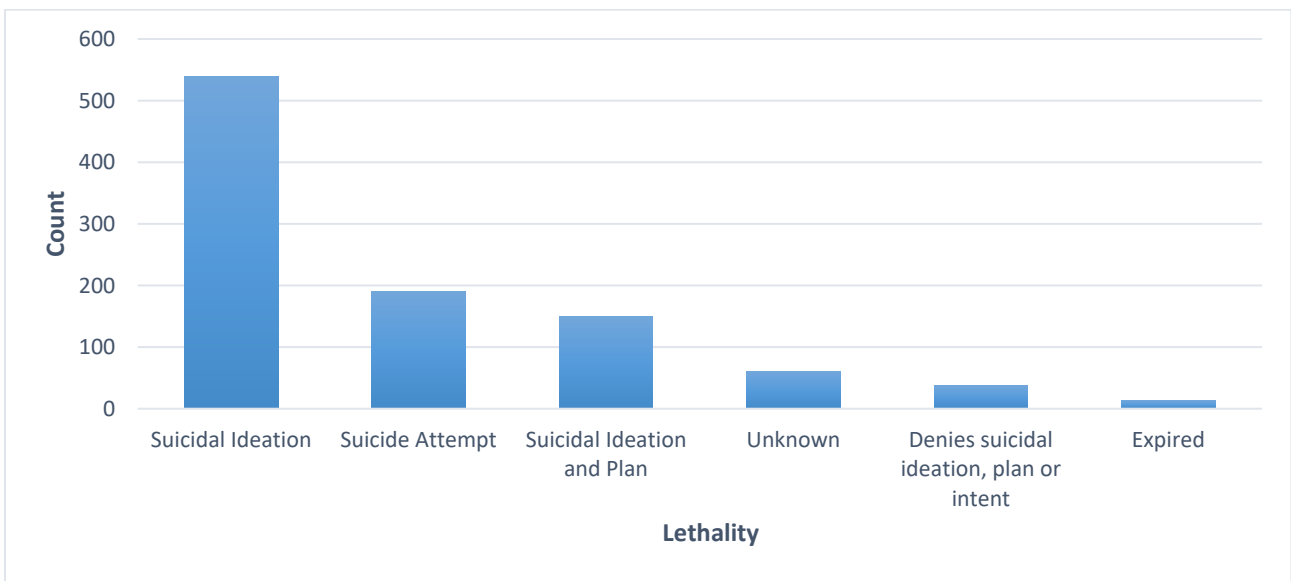
Note: Blanks denote no data received from site for those respective quarters. *Chinle includes Tsaile Health Center and Pinon Health Center data.

Graph 1. Reported cases of self-harm or suicide by age group – NAIHS reporting sites, January 2023 to December 2023 (n=992)



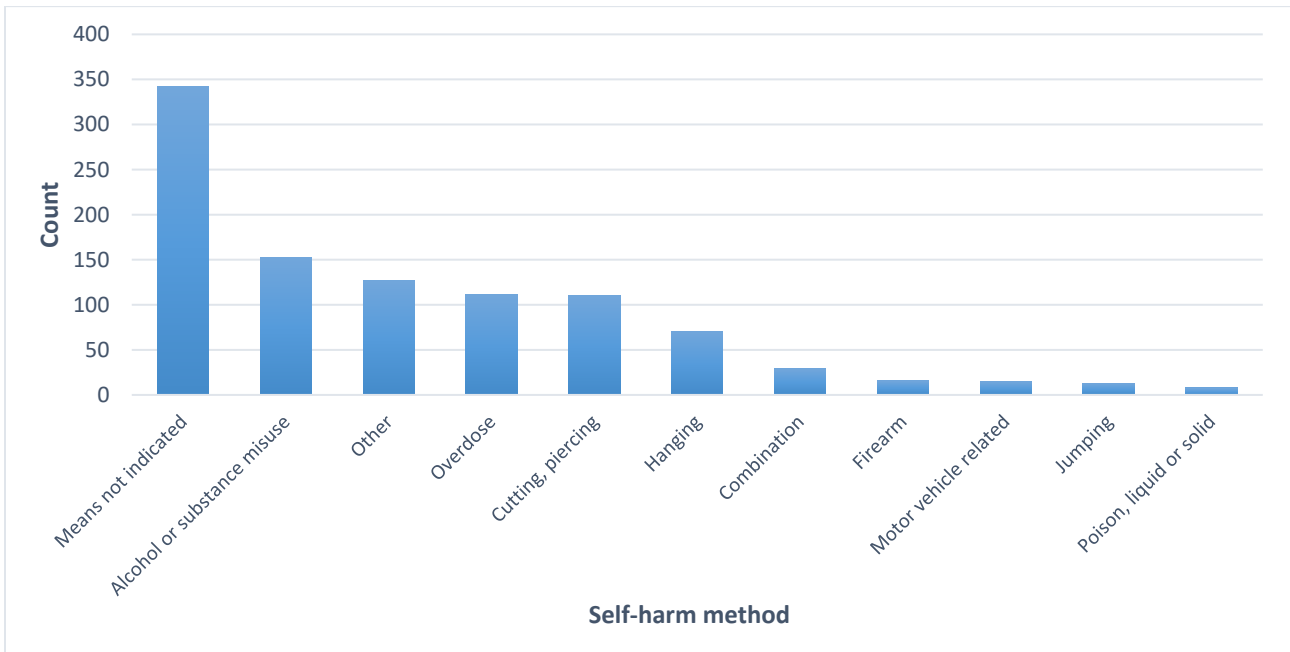
Graph 1 illustrates reported cases of self-harm and suicide by age group. Among all age groups, individuals in the 10-19 YRS age bucket represent the age group with the most reported cases of self-harm and suicide, followed by 30-39 YRS and 20-29 YRS age groups.

Graph 2. Reported cases of self-harm or suicide by lethality – NAIHS reporting sites, January 2023 to December 2023 (n=994)



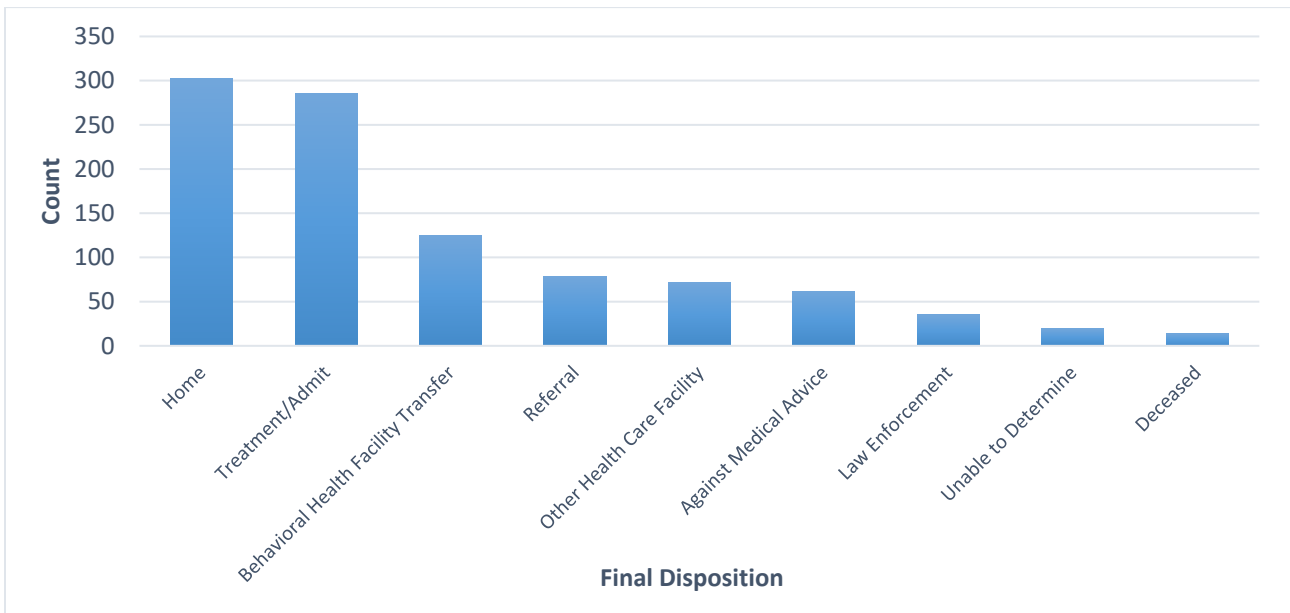
Graph 2 illustrates reported cases of self-harm or suicide by lethality. Of all categories of lethality, most cases of self-harm or suicide were categorized as suicidal ideation, followed by suicide attempt, and then suicidal ideation and plan.

Graph 3. Reported cases of self-harm or suicide by self-harm method – NAIHS reporting sites, January 2023 to December 2023 (n=994)



Graph 3 illustrates reported cases of self-harm or suicide by self-harm method. Of all categories of self-harm methods, most cases of self-harm or suicide were categorized as means not indicated, alcohol or substance misuse, other, and overdose. Data for this variable was derived from a free-text field. Thus, it required coding and categorization prior to analysis. Data definitions for self-harm methods can be found in **Table 1** of the **Appendix**.

Graph 4. Reported cases of self-harm or suicide by final disposition – NAIHS reporting sites, January 2023 to December 2023 (n=994)



Graph 4 illustrates reported cases of self-harm or suicide by final disposition. Of all final disposition options,

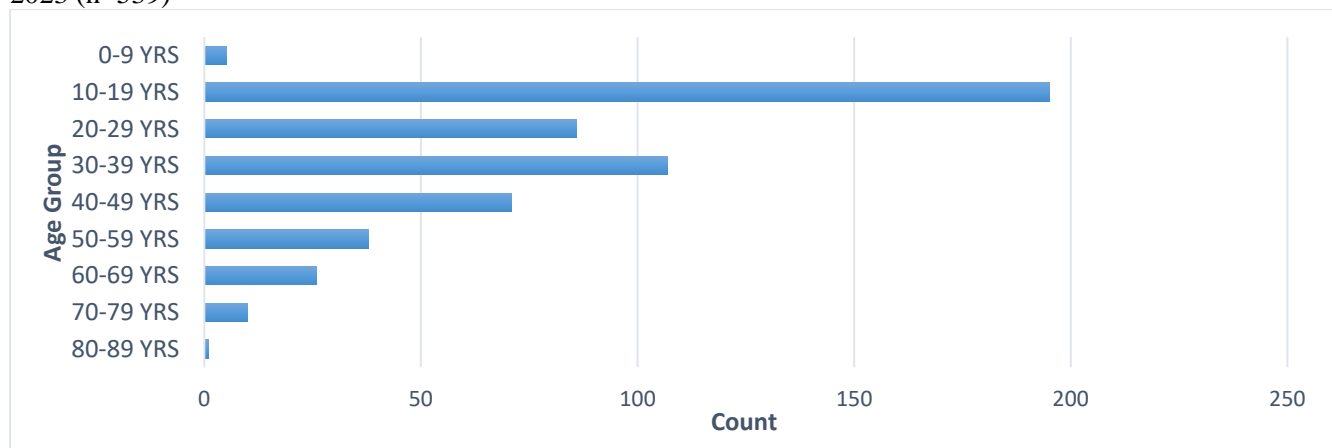
most cases of self-harm or suicide were discharged home, followed by admitted for treatment at the healthcare facility, transferred to a behavioral health facility, or received a referral for follow-up. Of note were cases discharged against medical advice, which consisted of 6.2% of overall cases.

Table 2. Reported cases of self-harm or suicide by self-harm method and lethality – NAIHS reporting sites, January 2023 to December 2023 (n=994)

		Lethality					Denies suicidal ideation, plan or intent (n=38)
		Suicide Attempt (n=191)	Expired (n=14)	Suicidal ideation and plan (n=150)	Suicidal Ideation (n=540)	Unknown (n=61)	
Self-harm method	Alcohol or substance misuse	7		7	122	17	
	Combination	6		12	8	3	
	Cutting, piercing	40	1	33	34	2	
	Firearm	3	3	7	3		
	Hanging	35	9	17	9		
	Jumping			10	3		
	Means not indicated	11		31	258	5	37
	Motor vehicle related	2		11	2		
	Other	8		12	83	23	1
	Overdose	75	1	9	16	10	
	Poison, liquid or solid	4		1	2	1	

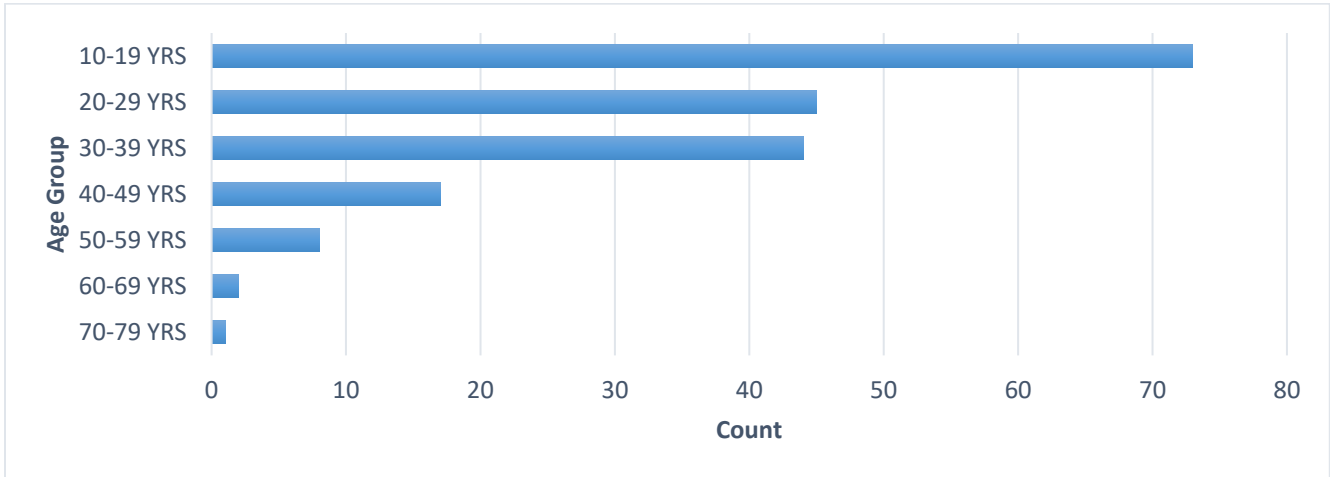
Table 2 illustrates self-harm method and lethality among reported cases of self-harm or suicide. Among individuals reporting a suicide attempt, the three leading self-harm methods are overdose, cutting/piercing, and hanging. Among individuals reporting suicidal ideation and plan, the three leading self-harm methods are cutting/piercing, means not indicated and hanging. Among individuals reporting suicidal ideation, the three leading self-harm methods are means not indicated, alcohol or substance misuse and other. Lastly, among the 14 individuals that expired or completed suicide, the self-harm methods indicated were: hanging, firearm, cutting/piercing and overdose, respectively. For self-harm method definitions, please refer to **Table 1** in the **Appendix**.

Graph 5. Reported cases of suicidal ideation by age group – NAIHS reporting sites, January 2023 to December 2023 (n=539)



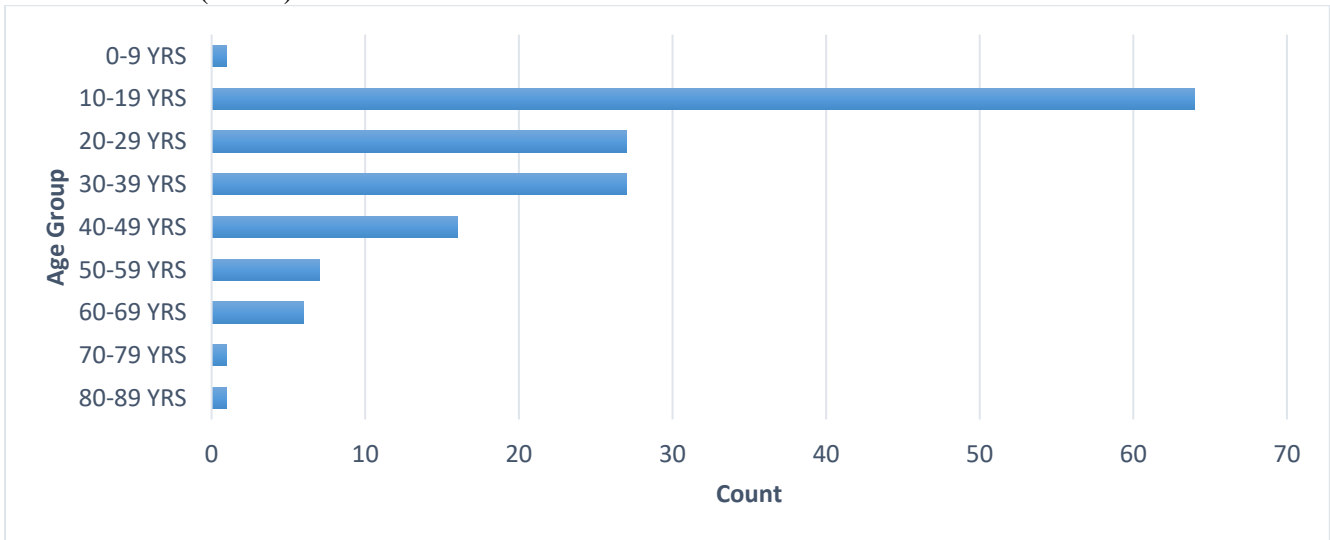
Graph 5 focuses on reported cases of suicidal ideation by age group. Suicidal ideation was the most reported type of suicidal thought or behavior. By age group, the 10-19 YRS age group lead all age groups with the most reports of suicidal ideation. Followed by age groups 30-39 YRS and 20-29 YRS.

Graph 6. Reported cases of suicide attempt by age group – NAIHS reporting sites, January 2023 to December 2023 (n=190)



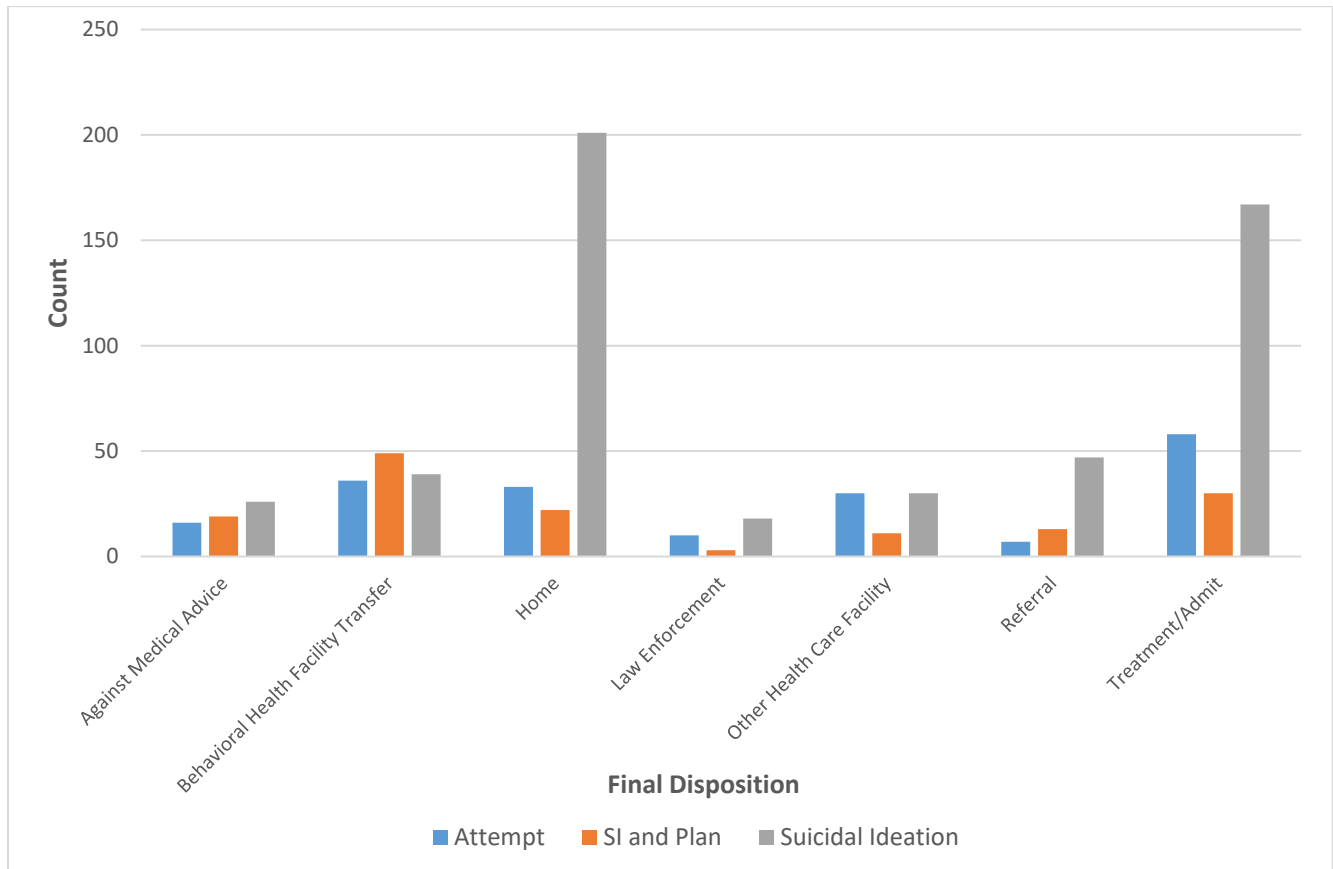
Graph 6 focuses on reported cases of suicide attempt by age group. Suicide attempt was the second most reported type of suicidal thought or behavior. By age group, the 10-19 YRS age group lead all age groups with the most reports of suicide attempt. Followed by age groups 20-29 YRS and 30-39 YRS.

Graph 7. Reported cases of suicidal ideation and plan by age group – NAIHS reporting sites, January 2023 to December 2023 (n=150)



Graph 7 focuses on reported cases of suicidal ideation with a plan by age group. Suicidal ideation with a plan was the third most reported type of suicidal thought or behavior. By age group, the 10-19 YRS age group lead all age groups with the most reports of suicidal ideation with a plan. Followed by age groups 20-29 YRS and 30-39 YRS.

Graph 8. Reported cases of self-harm or suicide by final disposition and lethality – NAIHS reporting sites, January 2023 to December 2023 (n=865)



Graph 8 illustrates final disposition by suicide attempt, suicidal ideation with a plan, and suicidal ideation among reported cases of self-harm and suicide. Among individuals with a final disposition of Treatment/Admit, most presented with suicidal ideation, followed by suicide attempt, and then suicidal ideation with plan. Among individuals with a final disposition of Home, most presented with suicidal ideation, followed by suicide attempt, and then suicidal ideation with plan. Among individuals with a final disposition of Behavioral Health Facility Transfer, most presented with suicidal ideation with plan, followed by suicidal ideation, and then suicide attempt. Of note, based on this data, individuals with a final disposition of Against Medical Advice represented 7% of the total among those with a lethality of suicide attempt, suicidal ideation with plan, and suicidal ideation.

Data Considerations/Limitations:

Some limitations to consider with regards to the data presented in this report. First, data utilized in this report does not fully illustrate the true burden of self-harm and suicide on the Navajo Nation. This report provides a glimpse of what burden may look like, as it uses data from sites agreeing to document and collect this data. These health care facilities represent a fraction of the total number of health care facilities located on the Navajo Nation. Second, data collected for this report is documented manually. Thus, it is possible that not all cases of self-harm or suicide or suicide completion at reporting sites were captured, as such underreporting is possible.

References:

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Appendix:

Table 1. Self-harm method definitions.

Self-harm method	Definition
Means not indicated	No means listed or indicated.
Cutting, piercing	Self-harm by sharp object or blunt object.
Overdose	Reported overdose. Or report of a drug or drugs taken in excessive amounts.
Hanging	Hanging, strangulation or suffocation.
Alcohol or substance misuse	Use of alcohol, illegal drugs, or over-the-counter or prescription medications in a way that can be harmful.
Other	Burning; Other specified; Intentional self-harm.
Combination	Combination of 2 or more lethal means of self-harm.
Motor vehicle related	Car crash; Motor vehicle accident.
Jumping	Jumping from a height; Jumping in front of a moving object.
Firearm	Handgun; Rifle, shotgun and larger firearm; Other and unspecified firearm discharge.
Poison, liquid or solid	Unspecified chemicals and noxious substances (corrosive aromatics, acids and caustic alkalis; glues and adhesives; metals including fumes and vapors; paints and dyes; plant foods and fertilizers; poisonous foodstuffs and poisonous plants; soaps and detergents.

Table 2. Lethality (or the inherent danger and potential for death associated with the suicidal act) definitions.

Lethality	Definition
Suicidal ideation	Seriously considered attempting suicide.
Suicide attempt	Any intentional injury with a non-fatal outcome for which there is either explicit or implicit evidence of suicidal intent.
Suicidal ideation and plan	Seriously considered attempting suicide and made a suicide plan.
Denies suicidal ideation, plan or intent	Denies suicidal ideation, plan or intent.
Expired	A fatal outcome from self-directed injurious behavior. Completed suicide.
Unknown	Non-specific details listed or category left blank.

Table 3. Final disposition (i.e. Destination of the patient after hospital discharge.) definitions

Final Disposition	Definition
Home	Home
Behavioral Health Facility Transfer	Transfer to a behavioral health inpatient facility.
Referral	Discharged home with a follow-up appointment or referral to behavioral or mental health services.
Treatment/Admission	Patient was admitted, inpatient, to the hospital for treatment.
Other Health Care Facility	Transfer to another health care facility with higher levels of specialty care.
Against Medical Advice	Patient chooses to leave the hospital before the treating physician recommends discharge.

Law Enforcement	Discharged to Navajo Nation Police Department, corrections, detention or jail.
Unable to Determine	Non-specific details provided or category left blank.
Deceased	Deceased