American Indian and Alaska Native

SUICIDE RISK STRATEGIES

Indian Health Service Suicide Prevention Strategies Evaluation

CONTENTS:

EXECUTIVE SUMMARY

American Indian and Alaska Native (AI/AN) persons tend to suffer from mental health risks, resulting in high suicide rates when compared to other ethnicities. Indian Health Service (IHS) has a lead role in suicide prevention strategies among AI/AN persons. In support of the IHS Director's discretion to administer pilot projects this report examines the effects of three recent suicide prevention strategies. The Zero Suicide Initiative attempted to improve service protocols that lower the risk of suicides at five Tribal and three federal facilities. Due to limited reporting the results of protocol changes to screening, treatment, and referred services are unknown. The report examined four of the facilities' emergency departments and confirmed three increased their rates of suicide risk screening above 70%. A separate initiative concentrated on training emergency department staff at Whiteriver Indian Hospital on use of the Ask Suicide-Screening Questions (ASQ) and an improved digital record template. The facility reached 70% screening in two years. Phoenix Area led the third initiative that developed the first Emergency Department Suicide Screening Dashboard. This report recommends the formation of an IHS Suicide Risk Mitigation Program; the establishment of a national policy to adopt the ASQ suicide screening instrument; the development improved suicide prevention protocols; staff training; and advanced data management tools.

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SCOPE OF THE PROBLEM

Throughout the U.S. population, American Indian and Alaska Native (AI/AN) persons, as a whole, tend to suffer from a heightened state of mental health risk. The combination of widespread historical and recent traumas, prevalent substance misuse and violence, barriers in therapeutic communication and engagement systems,[1] and underdeveloped mental health service capacities have produced a dire path for AI/AN individuals who are struggling with overwhelming psychological burdens.

Suicide rates among AI/AN persons are historically higher than among other ancestries within the U.S. population, as reported in the National Vital Statistics System and Centers for Disease Control and Prevention reports. As of 2020, AI/AN persons have, comparatively, the highest suicide rate (23.9 per 100,000). The suicides among AI/AN females dropped slightly from 2019 to 2020, 12.1 to 11.7 per 100,000, respectively. However, among male AI/AN, the 2019 rate of 33.0 per 100,000 increased to 36.4 per 100,000 in 2020.[2] Updates to these data in 2021, demonstrated that the age-adjusted suicide rates among AI/AN persons increased 26.0% from 2018 to 2021, with the most notable increase in the 25 to 44 age range, who experienced a 33.7% increase in the same period. The next most deadly age group being youth, ages 10 to 24, with an increase of 16.7%.[3]

National surveillance systems tend to under sample AI/AN youth, and yet these data illustrate dire circumstances. For example, the 2021 Youth Risk Behavior Survey interviewed 145 AI/AN youth, less than 1% of the national AI/AN youth population. The data indicated that 27.0% of AI/AN female youth and 17.1% AI/AN male youth made plans to die by suicide in 2021. The female rate is the highest prevalence among their peers.[4] The prevalence of attempted suicides by AI/AN youth were much higher than their peers, for both females (19.4%) and males (13.0%). Meanwhile, the recent pandemic illustrates a possible exacerbation of suicide risk among AI/AN youth.[5]

An analysis of data from the 2015 to 2020 National Violent Death Reporting System reports the immediate circumstances of suicide deaths. Among AI/AN suicides, the preceding characteristics included 55% who were experiencing problems or losses of relationships (an important consideration for populations in small or remote communities), 26% who were in arguments before the event, and 11% who were involved in a criminal legal problem. The death records included 31% who were currently using alcohol and 27% who were currently using illicit drugs.

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[1] A target mission goal within the Federal Communications Commission, see https://www.fcc.gov/ace.

[2] US Department of Health and Human Services, Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report, 71(8), February 25, 2022. Changes in Suicide Rates – United States, 2019 and 2020.

[3] US Department of Health and Human Services, Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report, 72(6), February 10, 2023. Notes From the Field: Recent Changes in Suicide Rates, by Race and Ethnicity and Age Group — United States, 2021.

[4] US Department of Health and Human Services, Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report, 72(1), April 28, 2023. Youth Risk Behavior Surveillance — United States, Supplement: Suicidal Thoughts and Behaviors among High School Students — Youth Risk Behavior Survey, United States, 2021.

[5] Ali MM, West, KD, Dubenitz J, End of Horn P, Paschane D, Lieff S. Racial/Ethnic Differences in Suicidal Behavior among Medicaid Covered Children During the COVID-19 Pandemic. JAMA Pediatrics, E1-E2, 2023.

The prevalence of all these characteristics were significantly higher among AI/AN suicides, as compared to non-AI/AN suicides, statistically.[6] The analysis also reported that AI/AN decedents were more likely to have lost a friend or family member by suicide, 4.1% compared to 2.4% among non-AI/AN. While the proportions of co-occurring suicides are low, and though there is no consistent surveillance of such events,[7] these data point to the importance of understanding cluster suicides in Indian Country and beyond.

SUICIDE PREVENTION STRATEGIES

The Mental Health branch of the IHS Division of Behavioral Health (DBH) leads some of the key national suicide prevention strategies in Indian Country including direct healthcare services,[8] interagency coordination on national policies, grant-funded community suicide prevention capacity projects and critical response teams, and pilot service improvement projects.

As a responsive, integrated set of strategies, DBH and IHS facilities strengthen capacity among Tribal communities to provide treatment and services by (a) developing community-based and cultural-based interventions; (b) improving local service protocols, referral systems, and access to integrated service; (c) learning and adopting best and promising therapeutic practices; and (d) strengthening data capture and service collaboration between AI/AN communities and the local, regional, and national networks.[9] Finally, through support to IHS facilities,[10] DBH encourages the integration of behavioral and physical health service designs within local continuum of services.

In fiscal year 2023, IHS provided $127,000,000 in funding to support mental health programs including suicide prevention and care services with the majority distributed directly via compacts and contracts for Tribes to administer and deliver their own mental health programs. Through Congressional authorization, IHS also administers suicide prevention, intervention and postvention grant programs. Depending on local, regional, and national requirements in Indian Country, IHS establishes projects largely through grant-based Tribal capacity-building partnerships. Importantly, Congress also provides the IHS Director the discretion to administer pilot projects or new initiatives within select long-term grant programs as needed. This authority enables DBH to also fund pilot projects among federal service units or regional service areas where federal operations intersect with AI/AN communities and Tribal partners. This latter process differs from grant programs and is known as *federal awards*, which provides IHS a

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[6] US Department of Health and Human Services, Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report, 71(37). September 16, 2022. Suicides Among American Indian or Alaska Native Persons — National Violent Death Reporting System, United States, 2015–2020.

[7] US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Suicide Clusters within American Indian and Alaska Native Communities: A Review of the Literature and Recommendations, 2017. HHS Publication No. SMA17-5050.

[8] IHS facilities provide direct patient services to AI/AN persons who are enrolled with a Federally-recognized Tribe or AI/AN group under Federal supervision, or who are members of a population referred to as a Direct Service Tribe (see https://www.ihs.gov/odsct/dst/), providing primary care services, with many also providing internal medicine, pediatrics, women's health, behavioral health, dental services, optometry services, and emergency services.

[9] https://www.ihs.gov/suicideprevention/about/

[10] https://www.ihs.gov/mentalhealth/bh2i/ IHS-Behavioral Health Integration Initiative (BH2I)

unique opportunity to explore the short-term to mid-term requirements for building strategic community and network improvements in service coordination, protocol updates, performance analyses, patient contact methods, digital tools, and local referral systems between federal and tribal programs.

Since fiscal year 2015, Congressional authorization for suicide prevention among AI/AN persons enabled DBH to operate a variety of key projects. Over six years, DBH supported a cohort of 174 Tribal partners that built community-based prevention and intervention capacity, known as the Substance Abuse and Suicide Prevention (SASP) program, previously titled as the Methamphetamine and Suicide Prevention Initiative-Generation Indigenous (Gen-I) Initiative Support.[11] DBH is actively building a dataset to perform trend analyses of the non-digital records from the previous SASP cohort. In fiscal year 2022, DBH awarded 36 grants to Tribal partners through the more narrowly scoped Suicide Prevention, Intervention, and Postvention (SPIP) program, which will operate for five years.[12] DBH has built a contemporary digital data collection platform that will improve collecting the SPIP cohort data, inform national programming through data-driven decisions, and collect possible suicide-related data from projects that are part of other DBH programs.[13] DBH will analyze and report available SASP and SPIP data in fiscal year 2024.

The initial finding from the SPIP program is that the most successful site for sustaining the volume of youth encounters is a SPIP project operated by the Reno-Sparks Indian Colony (RSIC) of Nevada. Although RSIC youth membership is very small (estimated as 142, 18% of 790), they fostered 2,607 youth encounters over the year, 42% of all youth encounters for this cohort. The RSIC services are robust in their scope, well known among the region's Tribal communities, and open to all AI/AN persons. The success of RSIC provides for an opportunity to examine the array of risk burdens that may go unexamined in Indian Country. The Reno-Sparks location is the regional hub to 26 surrounding rural Tribes and Tribes in neighboring states. It is also the westbound transportation hub for national trucking of goods, from Canada and Mexico ports. The combination of undetected movements of AI/AN youth in the region, the potential mobility of illegal activity and exposure to youth perpetrators, and the cross-sector information requirements (e.g., justice, education, health) poses an advanced risk mitigation requirement that may require revised IHS programming.

In response to regional network requirements for suicide risk mitigation, across service domains, DBH is working with 10 IHS Service Areas to establish federal-based Crisis Response Teams (CRTs). The CRTs will take a lead in recognizing, organizing, and managing local and regional networks of services to respond to suicide risk and events. In addition, IHS offers Community Crisis Response Guidelines[14] to help Tribal communities establish improved protocols, procedures, and other methods based on individual client-levels of need.

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[11] https://www.federalregister.gov/documents/2016/12/07/2016-29262/division-of-behavioral-health-office-of-clinical-and-preventive-services-methamphetamine-and-suicide

[12] https://www.federalregister.gov/documents/2021/11/04/2021-24022/substance-abuse-and-suicide-prevention-program-suicide-prevention-intervention-and-postvention

[13] https://db.aastec.net/ndcsp/index.html

[14] AI/AN Community Crisis Response Guidelines | Suicide Prevention and Care (ihs.gov)

Select IHS Suicide Prevention Initiatives

Zero Suicide Initiative Grant Program

In fiscal year 2017, DBH established the ZSI program to "develop a comprehensive model of culturally-informed suicide care within a system of care framework."[15] The ZSI approach emphasizes a seven-element system change, simplified as train, engage, treat, transition, and improve, as developed by the Clinical Care and Intervention Task Force.[16]

DBH awarded eight sites[17] to deliver high-quality services to patients and additional training to staff, to "improve the system of care for those at risk for suicide by implementing a comprehensive, culturally informed, multi-setting approach to suicide prevention in Indian health systems."[18] DBH refers to the eight sites as ZSI Cohort One, which operated from fiscal years 2017 to 2021, in six IHS Service Areas (Albuquerque, Bemidji, Billings, Navajo, Oklahoma City, and Phoenix). ZSI Cohort One included five Tribal partners and three federal facilities.

The Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act)[19] instructs IHS in guiding principles that establish an evaluation plan for programs and initiatives that support policymaking. Therefore, in the terms and agreements established in the ZSI grant notice of award, grant-based partners are required to report project activities in Annual Progress Reports.

In context of this reporting effort, ZSI Cohort One experienced significant data inconsistencies, as only eight (25%) of the expected thirty-two data collections were completed with the minimal data for analysis (see Appendix 1). The data reporting was inconsistent across reporting periods for both measures of outputs and outcomes. Some differences indicate the possibility of inconsistent patient service protocols, especially after the completion of suicide risk screening. Other differences demonstrate an inconsistency in definitions of suicide risk, given the notable changes in the prevalence of risk in each year.

There was also an indication that the ZSI sites documented patient services and data differently. For instance, sites determined acuity of risk based on clinical assessment and protocols specific to their local facility and documented services including safety plans and counseling according to varying protocols. Furthermore, the data weakness illustrates a challenge that is common in Indian Country, as there is no established single source for Tribes or IHS to acquire advanced field-tested protocols and associated protocol-enabling tools to support operations, improve data collection, and patient service coordination.

Through Tribal Consultation, IHS is aware that many Tribal communities experience administrative reporting burdens that often result in data inconsistencies due to challenges in adopting accurate, continuous data collection protocols. Of the data that ZSI sites reported, there appears to be differences in reporting methodologies.

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[15] https://www.govinfo.gov/content/pkg/FR-2017-08-21/pdf/2017-17599.pdf
[16] https://zerosuicide.edc.org/
[17] https://www.ihs.gov/sites/zerosuicide/themes/responsive2017/display_objects/documents/zsiawards.pdf
[18] https://www.govinfo.gov/content/pkg/FR-2017-08-21/pdf/2017-17599.pdf
[19] https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf

Notwithstanding the data collection challenges, ZSI Cohort One demonstrated an increased effort to improve screening for suicide risk. Sites identified a broad range of patients at high-risk for suicide, ranged from 2% (Gallup) to 100% (Fort Defiance), suggesting problems in data records. Furthermore, throughout the project period, fidelity to key ZSI elements of suicide risk mitigation protocols did not appear to be adopted consistently during the grant-funded period, thus limiting data collection, analysis, and interpretation. An important function of the ZSI design is the 24-hour follow-up contact after discharge for those who the sites defined as high-risk for suicide. Among the eight complete reports, only three from two sites reported patient contacts within 24 hours, which ranged from 35% (Chinle) to 93% (Fort Defiance).

Although data reporting among all sites remained inconsistent in fiscal years 2019 through 2021, between these years, six sites indicated at least one reporting period (one-year) as providing referrals for patients defined as high-risk for suicide to their local Emergency Departments (EDs). Four of the six sites reported referring 100% of high-risk patients for suicide to the local ED. The referrals to EDs is an important observation, as these are likely to be IHS facilities, unless there is another non-IHS ED nearby. Likewise, the three Federal facilities made referrals to psychiatric services, which are likely to be referrals to Tribally-operated facilities.

Of the eight ZSI sites, four had accurate ED suicide screening data available as digital records within the IHS National Data Warehouse. Upon further review of the IHS patient record data for these four sites during the ZSI Cohort One project period, three of them made notable improvements in their suicide screening, as illustrated in Figure 1 (*Patient Visit Screening for Suicide Risk at Emergency Departments with ZSI Projects*).
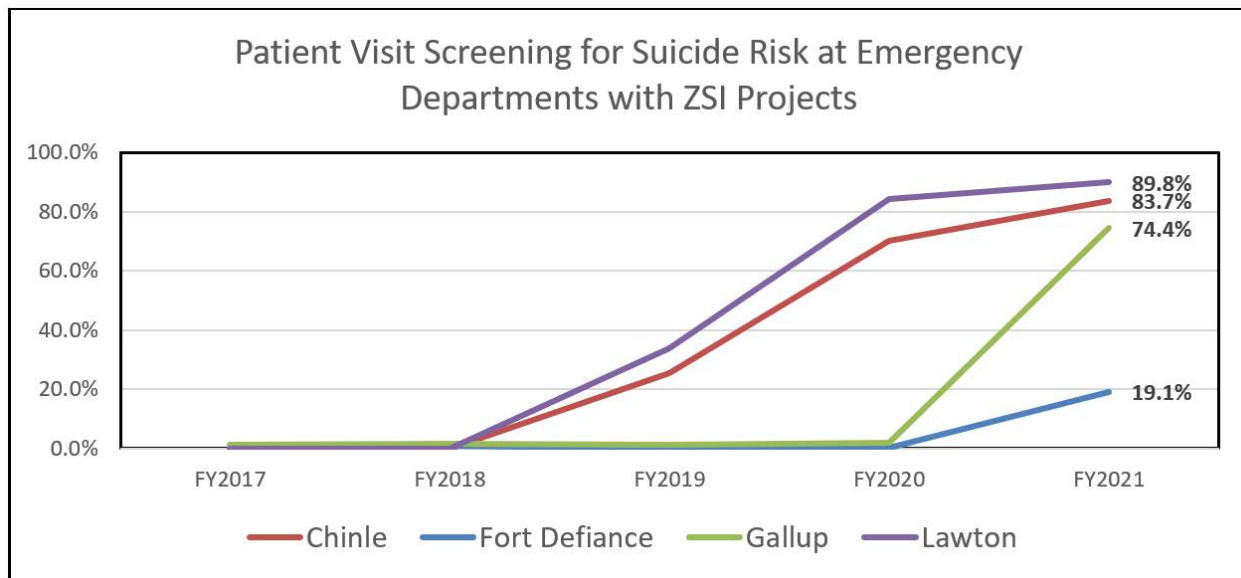

Figure 1. Patient Visit Screening for Suicide Risk at Emergency Departments with ZSI Projects. With improvements starting in fiscal year (FY) 2018, Lawton Indian Hospital Emergency Department (ED) and Chinle Comprehensive Healthcare Facility ED reached 89.8% and 83.7% suicide screening by FY2021, respectively. Gallup Indian Medical Center ED reached 74.4% suicide screening, starting in FY2020 and by FY2021. Fort Defiance Indian Hospital demonstrated a small increase of 19.1% in suicide screening FY2021.

Although it is notable that the ZSI Cohort One sites performed inconsistently in data collection,[20] it is possible that all patients were served well, and that the core problem is a matter of data collection methods and tools, not the service of delivery.

Federal Facility Pilot Project

In fiscal year 2020, two years after the start of the ZSI initiative, the IHS Phoenix Service Area agreed to participate in a protocol and monitoring quality improvement pilot project. In this pilot, ED staff at the Whiteriver Indian Hospital, a rural, federally-operated hospital that serves over 17,000 AI/AN patients as a 40-bed facility each year, received concentrated training in the administration of a suicide screening instrument, the Ask Suicide Questions (ASQ), by the National Institutes of Mental Health (NIMH)[21] (see Appendix 2 for a description of the ASQ instrument and protocols). The training addressed clinical pathways within the ED setting, use of the ASQ instrument, service protocols, and use of a new data entry template within patient electronic health records. The ASQ can be administered by healthcare professionals in an estimated time of less than 30 seconds. The training effects of the IHS-NIMH pilot project are notable and shall be published in the near future. Interestingly, the Whiteriver Indian Hospital works in conjunction with the Whiteriver Tribally-operated Behavioral Health Services, also a ZSI Cohort One site.

After the fiscal year 2020 concentrated training on the ASQ instrument, suicide screening among all ages increased at Whiteriver Indian Hospital to 55%, and then reached 69% in FY2021 (see Figure 2, *Patient Visit Screening for Suicide Risk at an IHS (Federal facility) Emergency Department receiving Protocol Training*). The suicide screening of youth, ages 11 to 24, followed the same pattern as the patient population as a whole, an increase to 54% and then 67%, respectively. As a point of comparison, Figure 1 illustrates that two of the ZSI Cohort One ED sites reached suicide screenings of 90% (Lawton Indian Hospital) and 84% (Chinle Comprehensive Healthcare Facility) by fiscal year 2021, without additional training or a change in the instrument type.

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[20] In the future, all ZSI projects will require routine monitoring of the project methodology to determine the causes of inconsistent data and verify patient services completed.

[21] Based on a 2019-2021 interagency agreement between IHS and NIMH (NIH-NIMH-MOU-2019-EOP34).

Patient Visit Screening for Suicide Risk at an IHS (Federal Facility) Emergency Department receiving Protocol Training
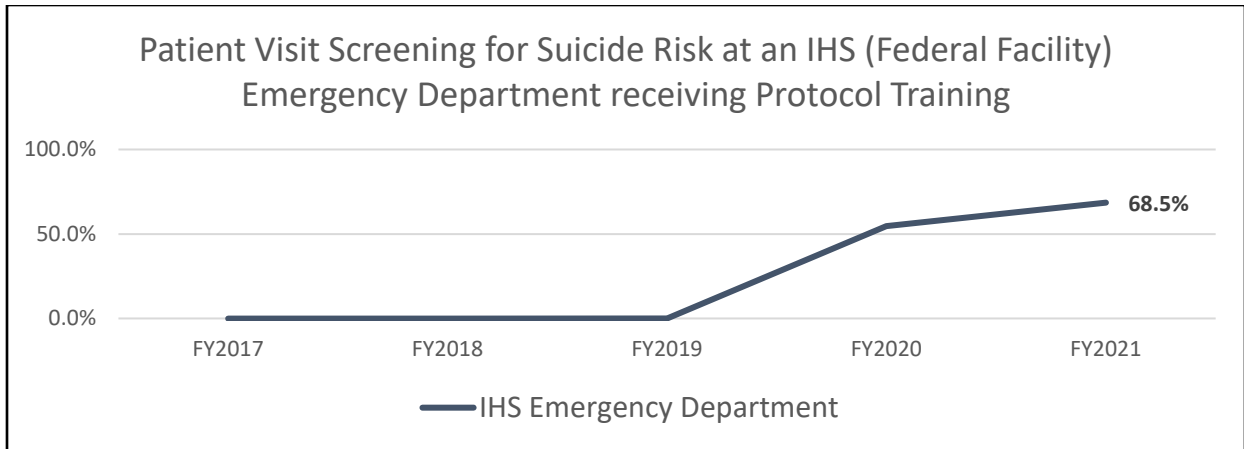
68.5%

IHS Emergency Department

Figure 2. Patient Visit Screening for Suicide Risk at an IHS (Federal facility) Emergency Departments receiving Protocol Training. The Whiteriver Indian Hospital received protocol training in fiscal year (FY) 2020, and reached 69% suicide screening by FY2021.

Protocol and Monitoring Improvements

IHS suicide prevention strategy includes monitoring and review of suicide risk screening activities and reporting metrics, in particular outputs and outcomes that support IHS Quality Assurance Performance Improvement (QAPI) indicators, and when possible, required Government Performance and Results Act (GPRA) measures. [22] Historically, the IHS clinical GPRA measures for mental health have reported on depression, not suicide.[23] In 2003, IHS instituted the Suicide Report Form (SRF), a tool within the IHS's healthcare management software, designed to capture suicides, suicide attempts, and suicidal ideation in a standardized system across IHS Areas. However, an internal evaluation of the SRF process identified significant data quality issues, which are of interest to IHS for improving reporting and suicide surveillance efforts through improved data interoperability between regional and national partners.[24]

In fiscal year 2020, IHS initiated a suicide surveillance data protocol focused on suicide screenings in IHS Emergency Departments. This identified global measure is available for extraction from the Electronic Health Records (EHR) system in a standardized and systematic approach. IHS designed this capability to improve patient care through better use of available data tracking, universal screenings, and improved documentation of integrated care. The IHS's ability to extract national patient encounter data, which is either stored in the IHS National Data Warehouse or through direct, periodic data extraction by IHS facilities, allows for enhanced tracking of universal screenings and documentation of the clinical pathways at the local facility. As this initiative expands, IHS can better analyze and understand the service challenges, identify patient risk factors, and better target the use of limited resources.[25]

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[22] Performance Framework | Performance.gov
[23] https://www.ihs.gov/quality/government-performance-and-results-act-gpra/
[24] Unpublished. Swedo, E. (2017) *Indian Health Services Suicide Reporting Form Surveillance System Evaluation,*
[25] https://www.ihs.gov/sites/budgetformulation/themes/responsive2017/display_objects/documents/FY_2022.pdf

In the context of the emerging suicide surveillance data analyses, the ZSI projects and the ASQ-based training at the IHS-NIMH-trained ED, the Phoenix Service Area deployed an expert team to develop the first IHS Emergency Department Suicide Screening (EDSS) Dashboard. This electronic dashboard (e-dashboard) demonstrates an opportunity for IHS to extract data directly from facility electronic health records and post them in an aggregation that is monthly and visible as a trend over time. The EDSS represents a unified patient-data stream that will assist facilities in their local efforts to meet IHS suicide prevention goals using standard healthcare quality improvement methods.
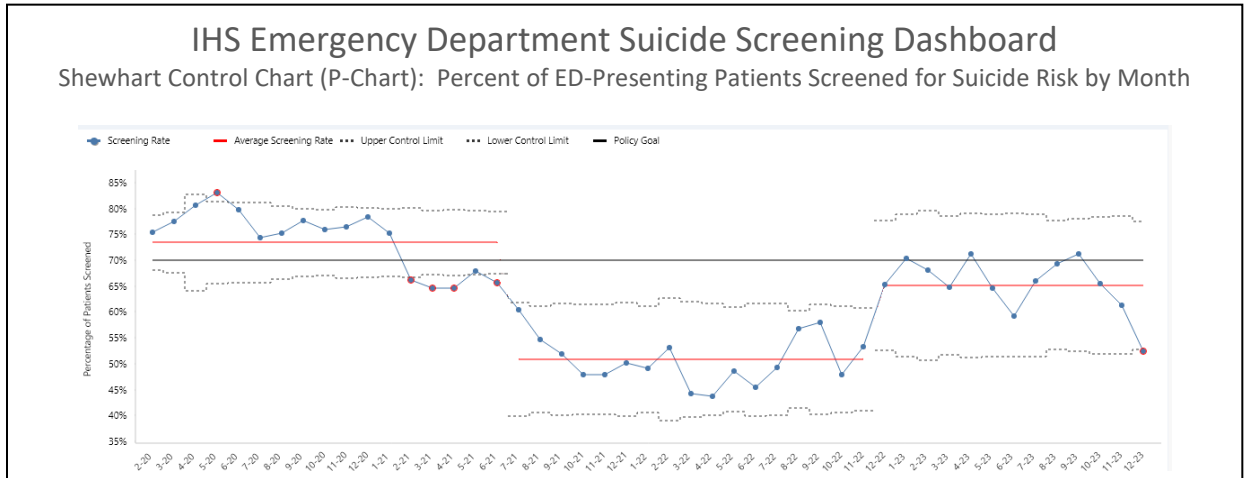

Figure 3. IHS Emergency Department Suicide Screening Dashboard.

Using a subset of data from Figure 2, the EDSS as shown in Figure 3 (*IHS Emergency Department Suicide Screening Dashboard)* is an example of suicide screening data presented as a Shewhart control chart, where the time-series leverages statistical methods to graphically convey important details for achieving quality improvement, based on an "efficient trial-and-learning methodology" framework.[26] As the EDSS is adopted by individual sites, using the control chart methods, local management can learn about variations in actions, annotate changes and contextual factors, and test changes that can improve service impacts. For example, Figure 3 illustrates several meaningful elements that puts the suicide screening data into a helpful context. The time-series data identifies the IHS adopted goal of achieving 70% screening for suicide risk in all EDs[27] as a benchmark (black line), shows accumulative monthly percent of screening as observation points, identifies the average monthly screening for three separate periods (red lines), and provides the lower and higher limits for expected screening rate based on the counts of observations in the same period (dotted lines). The presentation of these data in Figure 3 helps the site specify changes that they experienced and can form to impact suicide screening efforts.

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[26] Deming, W.E., *Out of the Crisis*. MIT Press, 1986.
[27] IHS Leadership Briefing, November 9, 2018.

DISCUSSION

As a model for all IHS, the EDSS dashboard demonstrates contemporary monitoring methods, which will support how IHS facilities can manage quality improvement and resource allocations in response to risk mitigation requirements. IHS will continue to test other digital methods and tools that will help it surveil suicide ideation, plans, attempts (self-directed violence), deaths, and service entity responses in Indian Country, and make such data readily available to Tribes and Tribal organizations.

The ZSI Cohort One data, from both Tribal and Federal sites, demonstrated that in order to improve team-based coordination and responses to suicide risk, hospital staff require significant technical assistance that includes training to build consistent protocols and data collection within their routine operations and practices. Preliminary trends presented in this evaluation demonstrate the importance of facility leaders sustaining protocol compliance. More so, teams can benefit from improvements in processes and analytic tools that reinforce records of protocol details, with automatic confirmations of completed and timely actions, and digital guardrails to ensure fidelity to the protocols when adjustments are required to accommodate patient and the patient's family requirements, geographic context, and the organizational capacity design.

Finally, with the start of the IHS technology modernization initiative that will accommodate the dynamics of healthcare advancements affecting data opportunities and digital tool innovations, suicide prevention interventions should work toward producing relevant and timely service signals. Foundationally, these signals would pull from clients' self-services and co-managed services as these correspond to changing needs, course of risk and risk mitigation, and integration with referrals and local continuums of services. The sense of social isolation and loss of psychological coherence are driving factors in suicide risk, which can be addressed, partially, through digital tools that reinforce client therapeutic engagement (CTE). As much as possible, IHS should work with Tribes to field test and verify the suitability of CTE tools, as means of preventing risk and sustaining the benefits of referrals and aftercare services.

NEXT STEPS

IHS headquarters and Navajo Service Area formed a team to improve methods of collecting and using suicide data to improve services. The team is validating data on suicide attempts and completions by forming digital data connections to digital health records at respective facility management reporting systems. After verifying the ideal service workflows and data requirements the team will refine protocols and training suitable to accommodate facilities and their staff. The project will help produce national guidelines for improving suicide prevention services.

The second strategic action is to establish a national policy to use the ASQ suicide screening instrument. The ASQ is a rapid, non-clinical screen staff can use to identify the potential risk of suicide by a patient. The ASQ does not replace clinical instruments that assess a more comprehensive view of risk such as indicators of general depression or psychological distress.

With the national adoption of the ASQ, IHS can improve and monitor patients' clinical needs, support treatment referrals, and coordinate wrap-around services.

The third strategic action is to coordinate the national usage of the IHS Emergency Department Suicide Screening Dashboard, as demonstrated by the Phoenix Area. The dashboard is a well-tested tool and offers an opportunity to analyze the rates of screenings at emergency facilities and better coordinate improvements and changes in the workforce. By adopting the dashboard, IHS can improve its national, regional, and local reporting of suicide screening. The dashboard enables IHS to identify facilities who require technical support or staff training. The national dashboard system will allow the improvement the data analyses of services that support suicide risk mitigation, such as treatment referral outcomes.

RECOMMENDATIONS

Based on the findings of this report, the main recommendation is to form an *Advanced Risk Mitigation* program. The program can lead in the areas of: risk monitoring, data analyses, operational evaluations, protocol refinement, and training to mitigate the risk of patients' psychological distress and the common precursors to suicide. The program would act as a national, regional, and local resource for piloting and coordination service improvements for all IHS facilities and Tribal facilities that choose to participate.

A core function of the recommended program is to test and validate the protocols, tools, and trainings that can make measurable improvements in various facilitates and contexts. The program will support the following:

1. Identify where risk burdens exceed the service capacities.
2. Coordinate urgent support.
3. Improve the service protocols in facilities
4. Streamline networks to support service needs.
5. Validate risk screening instruments.
6. Improve the quality and delivery of training to address high-risk mitigation.

The program would make policy recommendations to the IHS leadership, and operational recommendations to local leaders.

At the local level, the program would promote the enhancement of community reinforcement approaches,[28] as these are potential risk-mitigation resources to patients. Given the potential emergency conditions found among youth in the Northern Nevada region, the Reno Sparks Indian Colony may be a priority community for the program. Another priority may be the complex process of mitigating risk among recently discharged military service members who are integrating back into their Tribal communities. A 2023 study demonstrated a heightened risk of

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[28] Developed by Nate Azrin in the 1970s, updated analyses of the methods are useful resources: Meyers RJ, Roozen, HG, Smith JE. The community reinforcement approach: An update of the evidence. Alcohol Research and Health, 33(4), 380-8, 2011.

psychological distress among AI/AN persons who are in service,[29] which corresponds with the rise in suicide rates among AI/AN Veterans.[30]

Addressing priority risk mitigation requires cross-domain and cross-sector cooperation. The cross-domain functions include self-care, education, employability, spiritual health, community attachment, and legal compliance. Correspondingly, the cross-sector domains include digital services, schools, employers, churches, civic organizations, and the justice system. The program will require robust interagency agreements to help assure federal agencies can operate across domains and sectors without creating bureaucratic barriers for communities.

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[29] Beymer M, Apostolou A, Smith C, Paschane DM, Gomez SAQ, James TD, Bell AMM, Santo TJ, Quartana, PJ. Mental Health Outcomes among American Indian and Alaska Native U.S. Army Soldiers: A Serial Cross-Sectional Analysis. Military Medicine, USAD049, 2023.

[30] Mohatt NV, Hoffmire CA, Schneider AL, Goss CW, Shore JH, Spark TL, Kaufman CE. Suicide among American Indian and Alaska Native Veterans who use Veterans Health Administration care: 2004-2018. Medical Care, 60(4), 275–8, 2022.

Appendix 1: Summary of ZSI Cohort One Data Reporting

The following are the patient data reported by fiscal year (FY) for each of the eight ZSI sites. If sites reported the full data needed for minimal data elements, the item has the label of "*based on full data*."

Albuquerque Service Area / Pueblo of Acoma of New Mexico (Tribal):
1. In FY2018, reported that 10 patients received a safety plan. No other patient data was provided.
2. In FY2019, provided a safety plan to 0% (0) and counseling to 100% (12) of the 12 patients who screened positive for suicide risk. Referred 3 patients to the Emergency Department, but did not provide a total count of patients defined as high-risk for suicide. No other patient data was provided.
3. No patient data was provided in FY2020 or FY2021.

Bemidji Service Area / Menominee Indian Tribe of Wisconsin (Tribal):
1. No patient data was provided in FY2018.
2. In FY2019, provided a safety plan and counseling to 77% (48) of the 62 patients who were defined as high-risk for suicide. The count of those who screened positive for suicide risk was not reported. No other patient data was provided.
3. No patient data was provided in FY2020 or FY2021.

Billings Service Area / Rocky Boy Health Board of Montana (Tribal):
1. No patient data was provided in FY2018.
2. In FY2019, reported 75 patients who screened positive for suicide risk. No other patient data was provided.
3. *Based on full data*, in FY2020, reported 1,506 patients who screened positive for suicide risk. Of the 87 patients defined as high-risk for suicide (6% of screened positive), provided a safety plan to 0% (0), counseling to 100% (87), referred 100% (87) for psychiatric treatment and the Emergency Department, and contacted 0% (0) within 24 hours of discharge.
4. No patient data was provided in FY2021.

Navajo Service Area / Chinle Comprehensive Healthcare Facility of Arizona (Federal):
1. No patient data was provided in FY2018 or FY2019.
2. *Based on full data*, in FY2020, provided a safety plan and counseling to 100% (225) of the 225 patients who screened positive for suicide risk. Of the 103 patients defined as high-risk for suicide (46% of screened positive), provided 100% (103) with referrals for psychiatric treatment and the Emergency Department, and 35% (36) were contacted within 24 hours of discharge.
3. *Based on full data*, in FY2021, provided 69% (179) with a safety plan and 100% (259) with counseling to the 259 patients who screened positive for suicide risk. Of the 106 patients defined as high-risk for suicide (41% of screened positive), provided 88% (93) with referrals for psychiatric treatment, 100% (106) with referrals to the Emergency Department, and 42% (44) were contacted within 24 hours of discharge.

Navajo Service Area / Fort Defiance Indian Hospital of Arizona (Tribal):
1. No patient data was provided in FY2018.

1. In FY2019, provided a safety plan and counseling to 63% (129) of the 295 patients who screened positive for suicide risk. No other patient data was provided.
2. No patient data was provided in FY2020.
3. *Based on full data*, in FY2021, provided a safety plan to 0% (0) and counseling to 19% (79) of the 423 patients who screened positive for suicide risk. Of the 423 patients, also defined as high-risk for suicide (100% of screened positive), referred 39% (164) for psychiatric treatment, referred 100% (423) to the Emergency Department, and contacted 93% (392) within 24 hours of discharge.

Navajo Service Area / Gallup Indian Medical Center of New Mexico (Federal):
1. In FY2018, provided a safety plan to 11% (47) of the 411 patients who screened positive for suicide risk. No other patient data was provided.
2. No patient data was provided in FY2019.
3. *Based on full data*, in FY2020, provided a safety plan and counseling to 4% (300) of the 8,215 patients who screened positive for suicide risk. Of the 166 patients defined as high-risk for suicide (2% of screened positive), referred 99% (164) for psychiatric treatment, referred 100% (166) to the Emergency Department, and contacted 0% (0) within 24 hours of discharge.
4. No patient data was provided in FY2021.

Oklahoma City Service Area / Lawton Indian Hospital of Oklahoma (Federal):
1. No patient data was provided in FY2018.
2. *Based on full data*, in FY2019, the identified 175 patients who screened positive for suicide risk. Of the 46 patients defined as high-risk for suicide (26% of screened positive), provided a safety plan and counseling to 63% (29), referred 30% (14) for psychiatric treatment, 52% (24) to the Emergency Department, and contacted 0% (0) within 24 hours of discharge.
3. *Based on full data*, in FY2020, identified 214 patients who screened positive for suicide risk. Of the 53 patients defined as high-risk for suicide (25% of screened positive), provided 51% (27) with a safety plan and counseling, referred 53% (28) for psychiatric treatment and the Emergency Department, and contacted 0% (0) within 24 hours of discharge.
4. *Based on full data*, in FY2021, identified 177 patients who screened positive for suicide risk. Of the 57 patients defined as high-risk for suicide (32% of screened positive), provided 46% (26) with a safety plan and counseling, referred 39% (22) for psychiatric treatment and 53% (30) to the Emergency Department, and contacted 0% (0) within 24 hours of discharge.

Phoenix Service Area / Whiteriver Apache Behavioral Health Services of Arizona (Tribal):
1. In FY2018, provided counseling to 59% (127) of the 232 patients who received safety plans. The count of those who screened positive for suicide risk or defined as high-risk for suicide was not reported. No other patient data was provided.
2. In FY2019, provided referrals for psychiatric treatment to 92% (281) of the 305 patients who were defined as high-risk for suicide. The count of those who screened positive for suicide risk was not reported. No other patient data was provided.
3. No patient data was provided in FY2020 or FY2021.

Appendix 2: ASQ Screening Instrument and Protocol

Starting in 2008, an intramural research program at the NIMH developed and validated the ASQ[31], a concise and rapid screener. The ASQ includes five items and is integrated into a three-tiered implementation pathway consisting of screening, assessment, and disposition.[32] The administration of the ASQ is quick, typically twenty to sixty seconds. The workflow includes four key screening items, an acuity item if necessary, and subsequent actions by the administrator and medical staff, based on the ASQ results. The ASQ is considered an evidence-based, validated screening tool by the Joint Commission (national accreditor), and is highlighted in the Blueprint for Youth Suicide Prevention created by the American Academy of Pediatrics and the American Foundation for Suicide Prevention. With the support of the Joint Commission, the ASQ can be the standard by which all IHS sites determine their compliance to National Patient Safety Goals (NSPG 15.01.01).

The following describes the ASQ items and workflow.

> First ask question 1: "*In the past few weeks, have you wished you were dead?*" Responses limited to Yes or No. Regardless of response move to Question 2.
>
> Second, ask question 2: "*In the past few weeks, have you felt that you or your family would be better off if you were dead?*" Responses limited to Yes or No. Regardless of response move to Question 3.
>
> Third, ask question 3: "*In the past week, have you been having thoughts about killing yourself?*" Responses limited to Yes or No. Regardless of response move to Question 4.
>
> Fourth, ask question 4: "*Have you ever tried to kill yourself?*" Responses recorded as Yes or No, but if the response is yes, then the follow up questions include "*How?*" and "*When?*"

Next, the administrator scores the patient's ASQ as either "negative," "non-acute positive," or "acute positive."

If the patient answered "No" to all of the four questions, the screening is complete. Based only on the information through the ASQ, the administrator ends the screening and records the results as a ***negative*** (or normal) screen in the patient's health record. However, clinical judgment can override a negative screen results, thus training staff in the practice of suicide risk screening is a major interest of the SRSP.

Alternatively, if the patient answered "Yes" to any of the four questions, the results indicate a positive screen, which the administrator records in the patient's health record after determining the acuity of risk.

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[31] See NIMH webpage for the ASQ details: NIMH » Ask Suicide-Screening Questions (ASQ) Toolkit (nih.gov)
[32] Brahmbhatt, K (2018). 71.1 A Clinical Pathway: Identification, Assessment, and Management in Suicide Risk Screening. Journal of the American Academy of Child and Adolescent Psychiatry, 57, S103–S103.

Only those who screen positive receive administration of the fifth ASQ question: *"Are you having thoughts of killing yourself right now?"* Responses recorded as Yes or No, but if the response is yes, the follow-up question is "Please describe."

If the patient answers "No" to the acuity of risk question 5, then the results indicate a ***non-acute positive*** screen, where there is potential risk in the patient, but it is not acute. The administrator will record the non-acute positive screen status of the patient in the patient's health record and arrange for follow-on tasks.

If the patient answers "Yes" to the acuity of risk question 5, then the results indicate an ***acute positive*** screen, where the patient is in imminent risk and requires appropriate interventions. The administrator will record the acute positive screen in the patient's health record and arrange for urgent tasks.

Protocol Actions after ASQ Screening

For those patients who are determined to be non-acute positive, the follow-on tasks include:
1. Administrating a brief suicide safety assessment of the patient to determine if a full mental health evaluation will be required.
2. Arrange for the patient to stay with the emergency department until evaluated for safety. If the patient refuses the Brief Suicide Safety Assessment, they are instructed to sign out with an "Against Medical Advice" discharge.
3. Alert the physician or clinician responsible for the patient's care

For those patients who are determined to be acute positive, the urgent tasks include:
1. Immediate safety evaluation.
2. Full mental health evaluation.
3. Arrange for one on one observer of the patient.
4. Ensure safety precautions are in place (e.g., make room as safe as possible).
5. Alert the physician or clinician responsible for the patient's care.

For patients that are determined to be non-acute or acute positive, the follow-on tasks include:
1. Develop a safety plan with the patient.
2. Implement intensive follow-up upon missed or cancelled appointments.
3. Engage in lethal means safety counseling.
4. Implement intensive analytically-supported case management.
5. Initiate follow up with patients within 24 hours of transition of care.

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