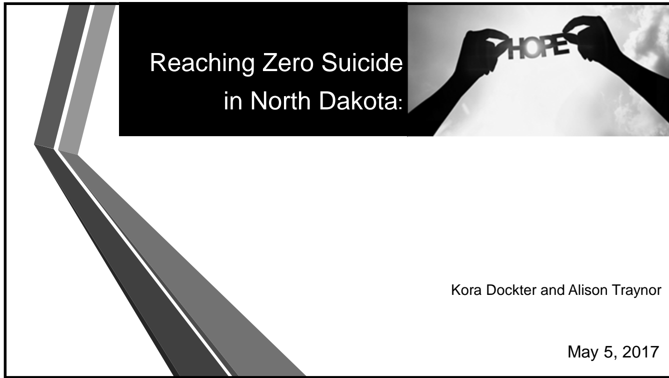
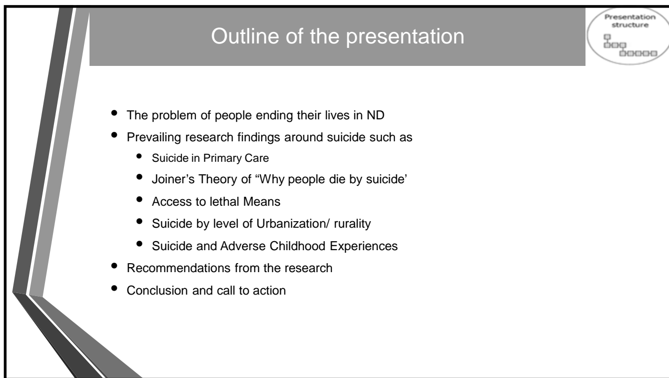
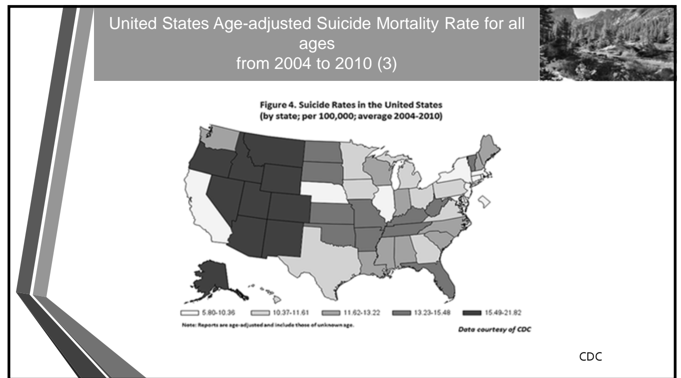
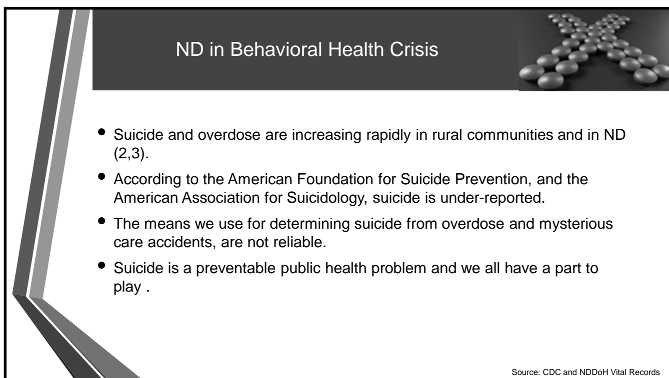
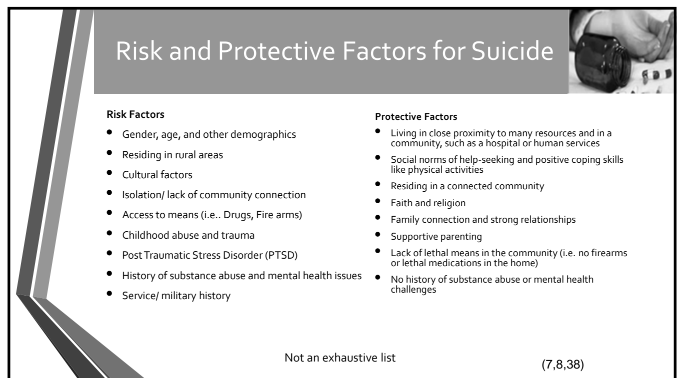


A review of the most important research in to how and why people are killing themselves and what we can do to stop suicide in North Dakota.

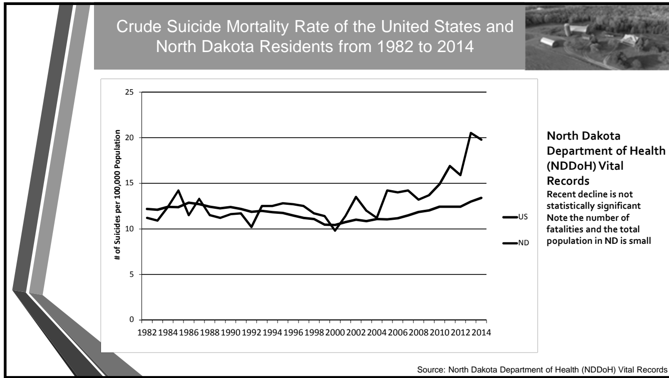








Crude Suicide Mortality Rate of the United States and North Dakota Residents from 1982 to 2014



North Dakota Department of Health (NDDoH) Vital Records

Recent decline is not statistically significant Note the number of fatalities and the total population in ND is small

Source: North Dakota Department of Health (NDDoH) Vital Records

Suicide Associated with Help-Seeking in Health Care

- 45% of individuals who die by suicide have visited their primary care physician within a month of their death; (31)
  - This was even more prevalent than decedents visiting a behavioral health or mental health specialist
- 67% of those who attempt suicide receive medical attention as a result of an attempt. Given these statistics, primary care has enormous potential to prevent suicides and connect people to needed specialty care (31)
- Psychiatric patients are at highest risk of suicide within the 24 hours immediately following discharge from an inpatient setting.
- At-risk patients are more likely to present at the emergency departments

Emergency Departments and Primary Care sites are the most important locations to implement evidence-based suicide prevention for youth and adults.

Jerry Reed, PhD, MSW, Director, Suicide Prevention Resource Center. **Primary Care: A Crucial Setting for Suicide Prevention (31)**

Leading Research in Suicide

- Thomas Joiner's reviewed suicide cases across the United States – using retrospective, case reviews. Works sited here was the result of a research review of all prevailing work on suicide until this point
  - Suicide rates decrease in times of national crisis
  - Increase when a city's sports team dashes expectations
  - Suicide is associated with impulsivity, yet very few die 'on a whim.' Suicide is more associated with anorexia than with bulimia

Joiner, T. 2007 (15)

Joiner's Suicide Theory

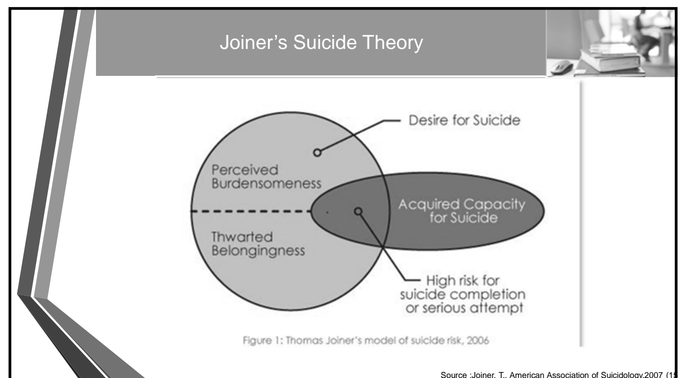


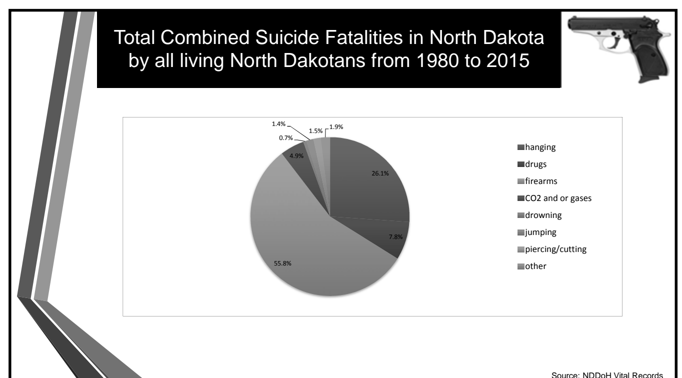
Figure 1: Thomas Joiner's model of suicide risk, 2006

Source :Joiner, T., American Association of Suicidology 2007 (1

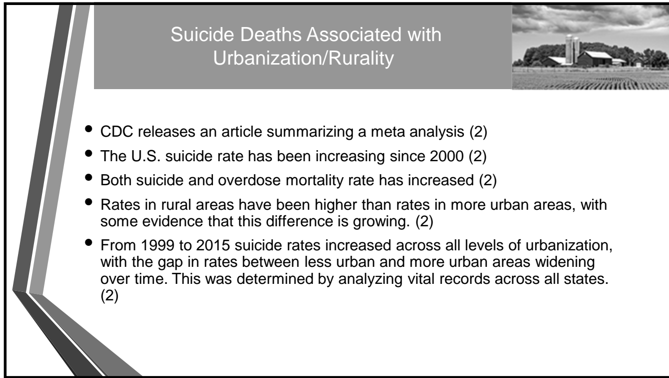
Suicide Associated with Access to Lethal Means

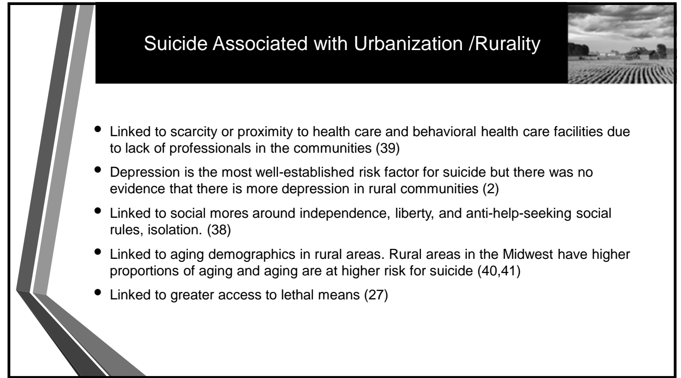
- Many suicides are impulsive (27,28)
- Lethal Means as a risk factor (16,28)
- 90 percent of those that survive a suicide attempt do not go one to die by suicide (28)
- 10 percent do go on to die by suicide (28)
- Bridge jumper phenomenon (28)
- Sri Lanka had staggering suicide rates with pesticides (20,21)
- Numbers cut in half when pesticides were made less accessible (20,21)
- Russia and train jumpers (27)
- Putting time and distance between people and highly lethal means like fire arms (27)

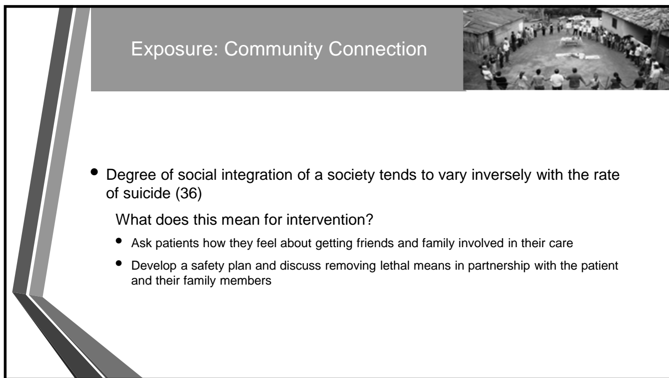
Total Combined Suicide Fatalities in North Dakota by all living North Dakotans from 1980 to 2015

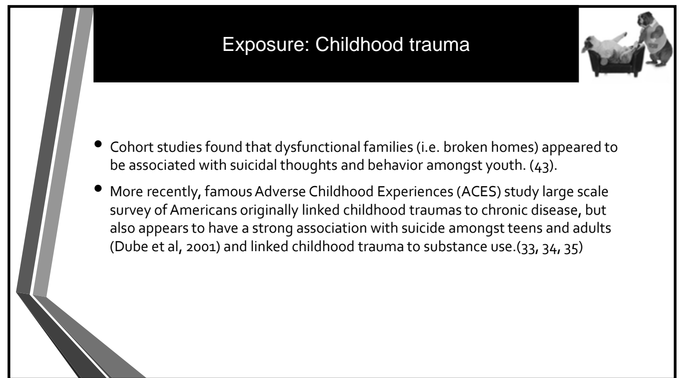


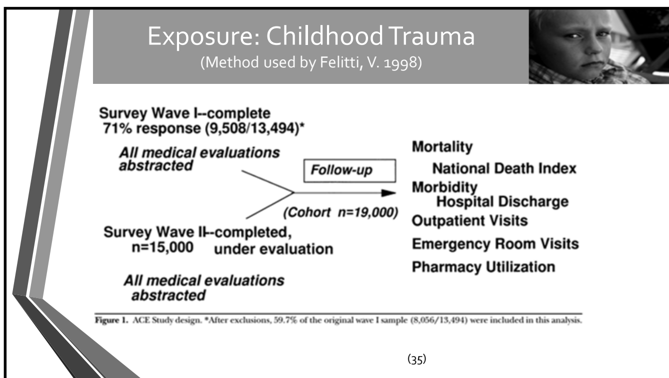
Source: NDDoH Vital Records

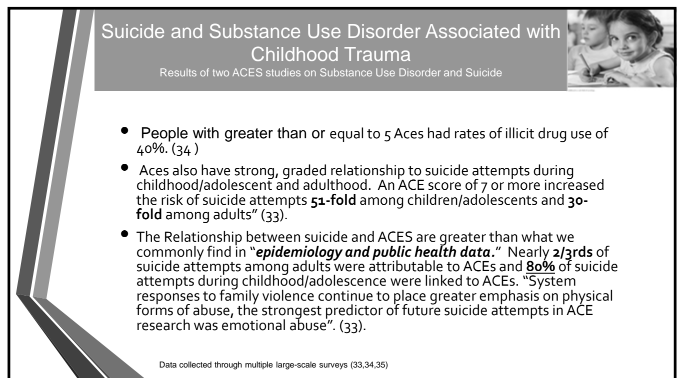

Suicide Deaths Associated with Urbanization/Rurality
CDC releases an article summarizing a meta analysis (2)
The U.S. suicide rate has been increasing since 2000 (2)
Both suicide and overdose mortality rate has increased (2)
Rates in rural areas have been higher than rates in more urban areas, with some evidence that this difference is growing. (2)
From 1999 to 2015 suicide rates increased across all levels of urbanization, with the gap in rates between less urban and more urban areas widening over time. This was determined by analyzing vital records across all states. (2)


Suicide Associated with Urbanization /Rurality
Linked to scarcity or proximity to health care and behavioral health care facilities due to lack of professionals in the communities (39)
Depression is the most well-established risk factor for suicide but there was no evidence that there is more depression in rural communities (2)
Linked to social mores around independence, liberty, and anti-help-seeking social rules, isolation. (38)
Linked to aging demographics in rural areas. Rural areas in the Midwest have higher proportions of aging and aging are at higher risk for suicide (40,41)
Linked to greater access to lethal means (27)


Exposure: Community Connection
Degree of social integration of a society tends to vary inversely with the rate of suicide (36)
What does this mean for intervention?
Ask patients how they feel about getting friends and family involved in their care
Develop a safety plan and discuss removing lethal means in partnership with the patient and their family members


Exposure: Childhood trauma
Cohort studies found that dysfunctional families (i.e. broken homes) appeared to be associated with suicidal thoughts and behavior amongst youth. (43).
More recently, famous Adverse Childhood Experiences (ACES) study large scale survey of Americans originally linked childhood traumas to chronic disease, but also appears to have a strong association with suicide amongst teens and adults (Dube et al, 2001) and linked childhood trauma to substance use.(33, 34, 35)


Exposure: Childhood Trauma
(Method used by Felitti, V. 1998)
Survey Wave I--complete
71% response (9,508/13,494)*
All medical evaluations abstracted
Follow-up
(Cohort n=19,000)
Survey Wave II--completed, n=15,000 under evaluation
All medical evaluations abstracted
Mortality
National Death Index
Morbidity
Hospital Discharge
Outpatient Visits
Emergency Room Visits
Pharmacy Utilization
Figure 1. ACE Study design. *After exclusions, 59.7% of the original wave I sample (8,056/13,494) were included in this analysis.
(35)


Suicide and Substance Use Disorder Associated with Childhood Trauma
Results of two ACES studies on Substance Use Disorder and Suicide
People with greater than or equal to 5 Aces had rates of illicit drug use of 40%. (34)
Aces also have strong, graded relationship to suicide attempts during childhood/adolescent and adulthood. An ACE score of 7 or more increased the risk of suicide attempts 51-fold among children/adolescents and 30-fold among adults" (33).
The Relationship between suicide and ACES are greater than what we commonly find in "epidemiology and public health data." Nearly 2/3rds of suicide attempts among adults were attributable to ACEs and 80% of suicide attempts during childhood/adolescence were linked to ACEs. "System responses to family violence continue to place greater emphasis on physical forms of abuse, the strongest predictor of future suicide attempts in ACE research was emotional abuse". (33).
Data collected through multiple large-scale surveys (33,34,35)

Theory to come out of ACE Studies

Death

Early Death

Disease, Disability, and Social Problems

Adoption of Health-risk Behaviors

Social, Emotional, & Cognitive Impairment

Adverse Childhood Experiences

Birth

ure 2. Potential influences throughout the lifespan of adverse childhood experiences.

(35)

Conclusions

- Everyone is at-risk of suicide. We need to be screening all adults and adolescents (watch the ages for which your respective screening tool is approved) in a competent way and follow up appropriately with them.
- How do we do this? Use Zero Suicide
- According to the Joint Commission's sentinel alerts, we must be using an evidence-based screener like the PHQ-9 and a further risk severity assessment tool, such as the Columbia-Suicide Risk Severity Scale.

Conclusions

- Provide evidence-based and trauma-informed brief interventions, such as
  - Form an agreement for a timely evidence-based assessment by a trained clinician to determine if hospitalization is needed for patients that screen in as being at-risk
  - Listen without judgment, tell them you care and that you want to help
  - Regardless of risk level, address all issues that are presented for substance-use, sleep disturbances, mood, and trauma. Connect patient to resources. If resources are unknown to you, call 211 for information on local resources.
  - MEANINGFUL USE ACTUALLY MEANS MEANINGFUL USE. Current federal policies may have lost site of this.
  - Tell them that they are not alone and that many people experience depression and suicidal thoughts, but they find help that really works for them and they get better.
  - family, friends, and informal supports to the table
  - Planning for safety and coping with the patient using an evidence-based safety plan
  - Counseling on Access to Lethal Means – work with friends and family to remove all fire arms, large ligatures, and medications from the home
  - Connect your patient with a trusted behavioral health professional and the National Suicide Prevention Lifeline, answered locally by Firstlink to provide on-going calls of support.
  - Connect victims of abuse or assault to a specialized trauma therapist that has a reputation of using only proven methods.

Conclusions: Next Steps

- Visit the Zero Suicide Toolkit. Look at the free materials and videos
- Form a Zero Suicide committee and participate in the North Dakota Suicide Prevention Coalition whenever possible to discuss upcoming resources and events, such as trainings
- Help us talk to agencies to embed Zero Suicide across healthcare systems
- Encourage healthcare systems to form their own implementation teams of administrators, quality assurance professionals, and champions
- Initiate the free organizational assessment within agencies for them to see where they are at in terms of evidence-based practices
- Attend the Zero Suicide Academy, tentatively set for next Spring
- Participate in monthly Community of Practice Webinars and Conference calls which will start upon funding of "Reaching Zero Suicide in North Dakota".
- Embed these policies and practices into electronic health records and all HR materials
- Form MOUs with providers and, most importantly, with FirstLink. They will provide free 24/7 individualized call support to patients.
- Continue assessment and quality improvement

Why are Healthcare Systems Across the U.S. Implementing Zero Suicide?

- HEDIS Measures
- Following Joint commission's recommendations
- State and federal funding opportunities
- Make money! Cornerstone and Henry Ford Center both:
  - increased income related to patient engagement
  - Decrease cost associated with insurance, in fact, Cornerstone's insurance agency ended up paying for their implementation for Zero Suicide
  - Decreased expenses associated with hospitalizing patients that really did not need to be hospitalized

THANK YOU FOR YOUR LİSTENİNG

DO YOU HAVE ANY QUESTİONS?

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Supplemental resources continued

Graphs and On-line Supplemental resources

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