

Advances in Youth Suicide Research and Prevention



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Presentation Objectives



1. Understand trends in youth suicide focusing on recent CSPP research with vulnerable populations.
2. Describe the rationale and benefits of suicide screening and universal suicide prevention approaches in schools.
3. Identify ways that the CSPP is expanding suicide prevention efforts in hospital and community settings to address critical gaps.



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June, 2018

10-year-old's suicide highlights need for mental health services
By Stephanie Warranelli / Akron Beacon Journal / Gettysburg Media Ohio
Posted: June 20, 2018 at 4:21 PM

Medical Examiner Says Kate Spade's Death Was a Suicide
By Benjamin Mueller
June 7, 2018
The New York City medical examiner's office said Thursday that the death of fashion designer Kate Spade was a suicide.

Anthony Bourdain, celebrity chef and CNN host, dead in apparent suicide at 61
By CBSN
March 16, 2018
Anthony Bourdain, the celebrity chef and CNN host, died in an apparent suicide on Thursday in Bangkok, Thailand.

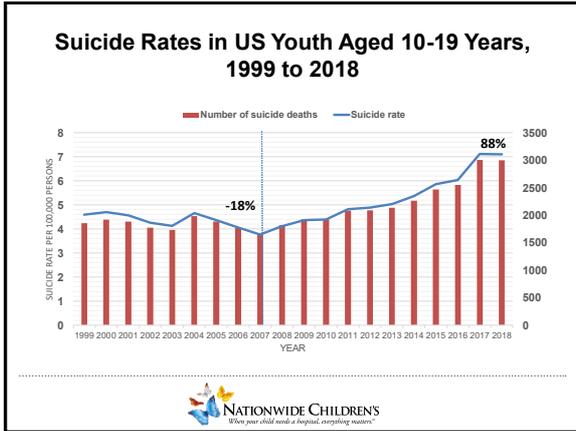
CDC Vital Signs: Suicide rates rose across the US from 1999 to 2016.

Increase	28 - 50%
Increase	21 - 27%
Increase	19 - 20%
Increase	6 - 18%
Decrease	1%

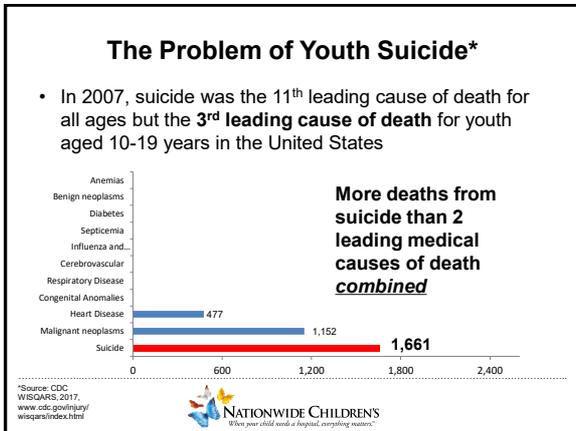
SOURCE: CDC's National Vital Statistics System
CDC Vital Signs, June 2018



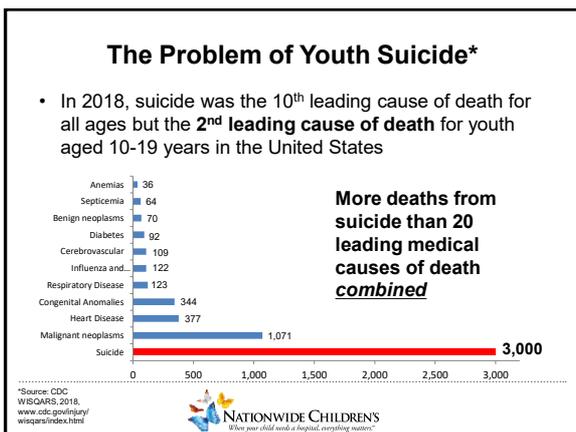
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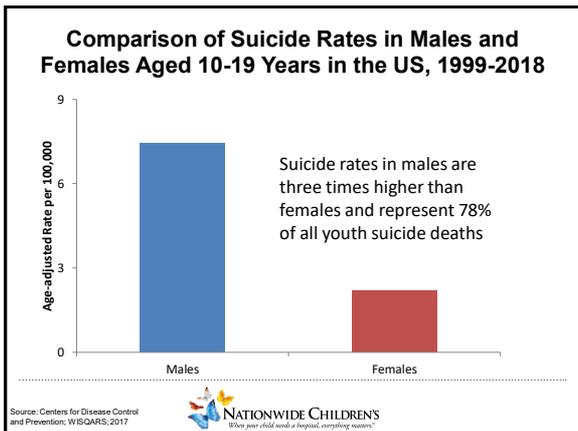
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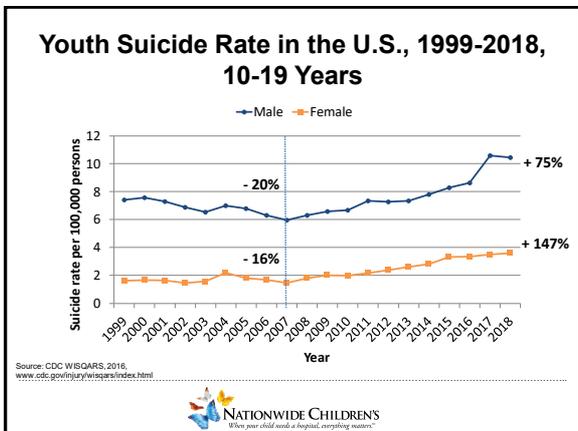
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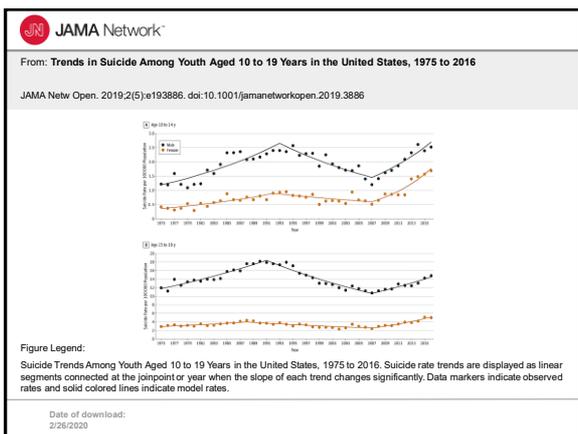
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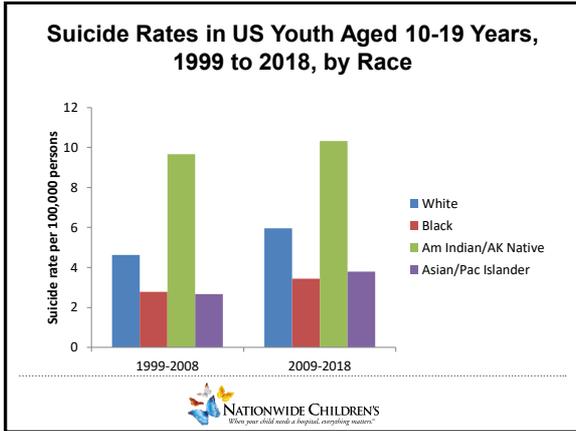
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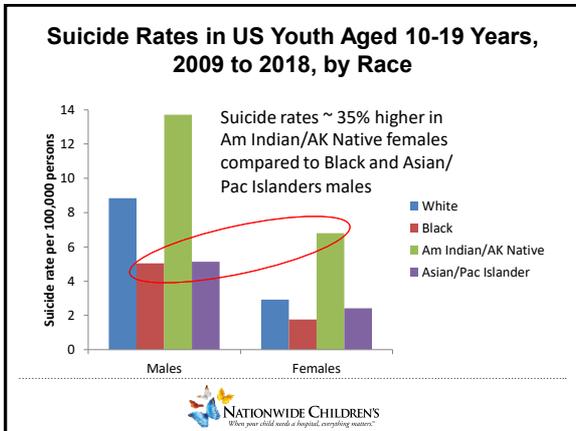
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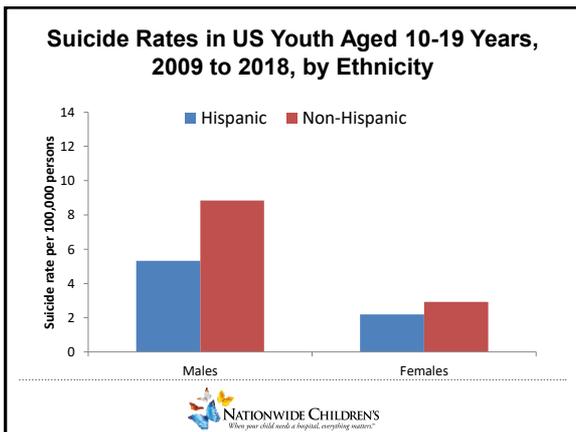
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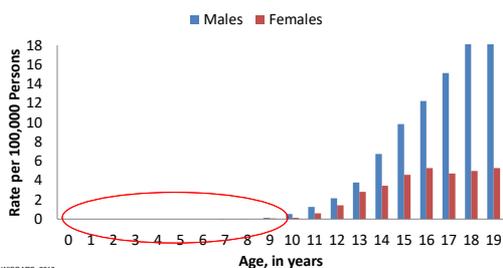


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Suicide in Pre-Teens

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Suicide Rates by Age and Sex in US Youths, 2014-2018

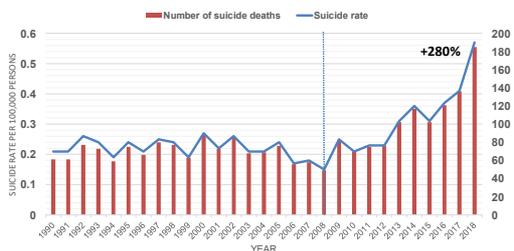


©CDC WISQARS, 2018



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Suicide Rates in US Youth Aged 5-12 Years, 1990 to 2018



Data from CDC WISQARS



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10 Leading Causes of Death, US: Focus on Youth

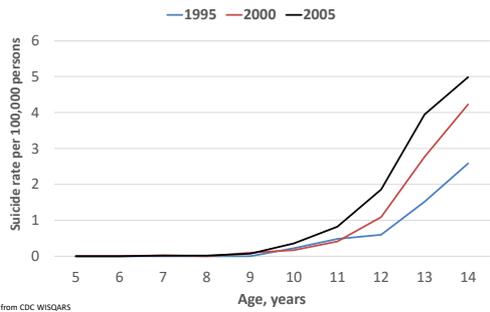
Ages 5 – 12 years			13- 17-Year-Olds	
	2008	2013	2018	2018
1	Unintentional Injury	Unintentional Injury	Unintentional Injury	Unintentional Injury
2	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms	Suicide (1649 deaths)
3	Congenital Anomalies	Congenital Anomalies	Congenital Anomalies	Homicide
4	Homicide	Homicide	Homicide	Malignant Neoplasms
5	Heart Disease	Chronic Low Respiratory Disease	Suicide (185 deaths)	Heart Disease
6	Chronic Low Respiratory Disease	Heart Disease	Heart Disease	Congenital Anomalies
7	Benign Neoplasms	Suicide (102 deaths)	Chronic Low Respiratory Disease	Chronic Low Respiratory Disease
8	Cardiovascular	Influenza & Pneumonia	Influenza & Pneumonia	Benign Neoplasms
9	Influenza & Pneumonia	Cardiovascular	Cardiovascular	Cardiovascular
10	Suicide (49 deaths)	Benign Neoplasms	Sepsicemia	Influenza & Pneumonia

CDC WISQARS
accessed 2020



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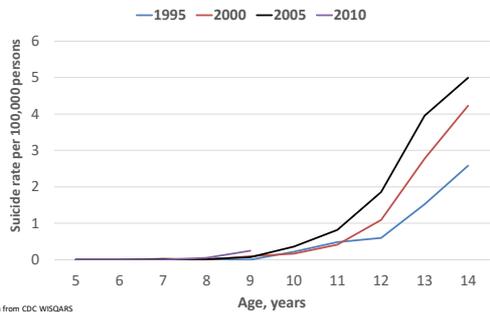
Age-Specific Suicide Rates in the US, 2000-2019, by Birth Cohort: 1995, 2000, 2005



Data from CDC WISQARS

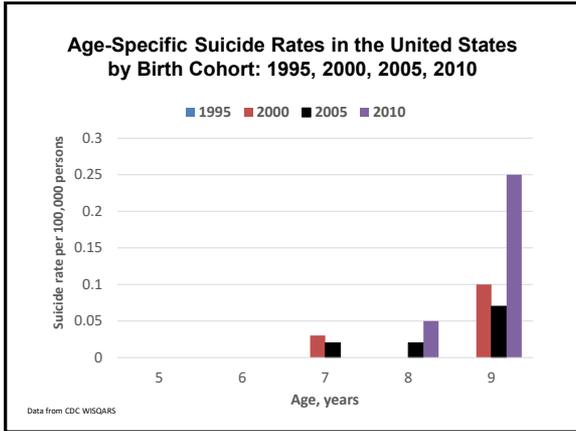
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Age-Specific Suicide Rates in the United States by Birth Cohort: 1995, 2000, 2005, 2010

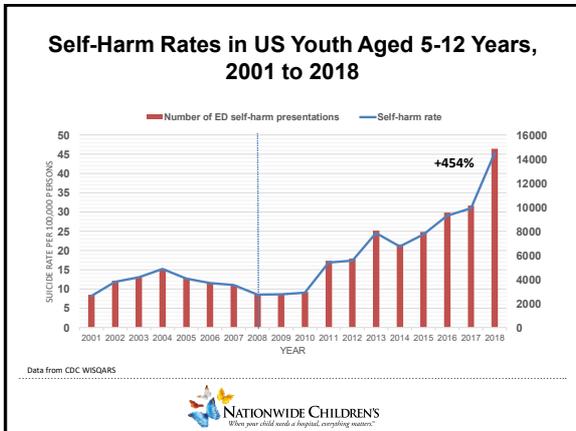


Data from CDC WISQARS

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Psychological Autopsy Studies

	Shafii et al. (1988)	Shaffer et al. (1996)	Brent et al. (1999)
No. of decedents	21	120	140
Age range	11 - 19	<20	13-19
Sex (M/F)	19/2 90% / 10%	95/25 79% / 21%	119/21 85% / 15%
Race/Ethnicity W/B/O/H	19/1/0/1 90% / 5% / 0% / 5%	84/13/5/18 70% / 11% / 4% / 15%	134/5/1/0 96% / 4% / <1%/0
Years	1980 to 1983	1984 to 1986	1984 to 1994
Location	Jefferson County, KY	Greater New York (NY)	Western PA
Participation rate	85%	71%	72%

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Participation rate	85%	71%	
No. of Preteens	Not reported	4	



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Utility of an Up-to-date Case-Control Psychological Autopsy Study

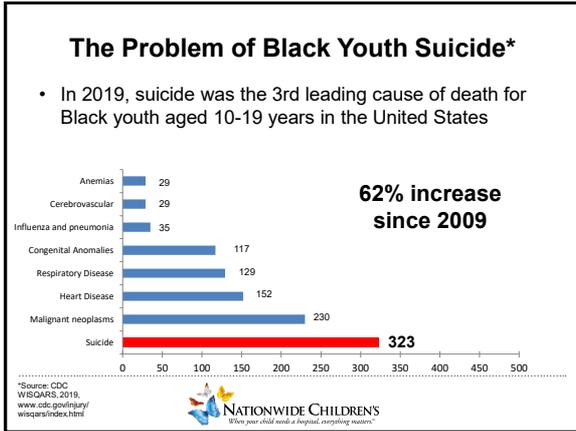
- Understand overall suicide risk and protective factors across child-adolescent development but also:
- **Subgroups!**
 - Age, race, ethnicity, SGM status, indigeneity, urban-rural status, intersectionality of risks...
- Psychopathology, lethal means, SDH, FH, parental SA, discrimination, qualitative, service use, connectedness, sleep, texts, social media



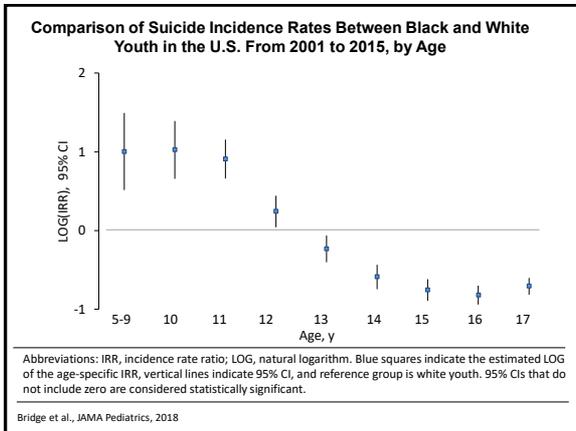
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Suicide in Black Youth

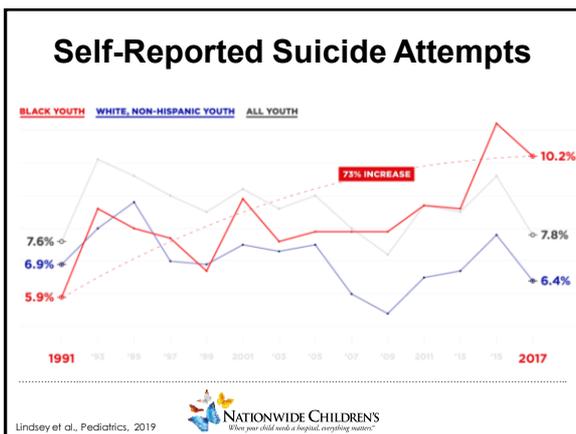
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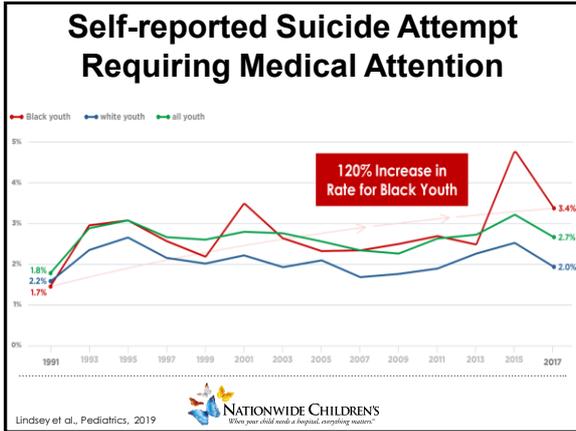
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Promising Avenues for Black Youth Suicide Prevention

- Engage community organizations
- Faith-based
 - Helping Alleviate Valley Experiences Now (HAVEN) Molock et al., 2008
- School-based
 - Adapted-Coping with Stress Course (A-CWS) Robinson et al., 2021
- Gatekeeper Trainings
 - After-school programs, barber and beauty shops, Columbus Urban League

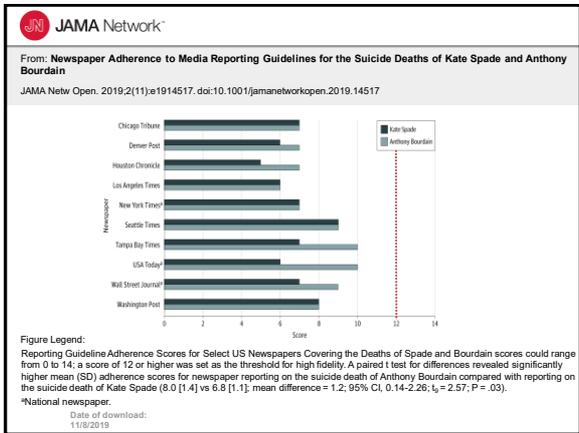
Where your child needs a hospital, everything matters.

Sheffall & Miller, JAMA Pediatrics Viewpoint, 2021

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Recent CSPR Research Highlights

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Award

- **Sigma Delta Chi** award from the Society of Professional Journalists in the Research about Journalism category
- The SDX awards rank among the highest awards given on behalf of journalism: Peabody, Pulitzer, etc.

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Journal of the American Academy of Child & Adolescent Psychiatry
Available online 9 September 2021
<https://doi.org/10.1016/j.jaac.2021.08.021> (Set rights and content)

New research

Black Youth Suicide: Investigation of Current Trends and Precipitating Circumstances
Author links open overlay panel

[Arielle H. Sheftall PhD^{ab}](#) [FatimaVakil BS^a](#) [Donna A. Ruch PhD^a](#) [Rhonda C. Boyd Ph D^{cd}](#) [Michael A. Lindsey PhD^{ef}](#) [Jeffrey A. Bridge PhD^{ab}](#)
<https://doi.org/10.1016/j.jaac.2021.08.021> (Set rights and content)

Objective
Suicide among Black youth is a significant public health concern, yet research investigating the epidemiology of suicide in this population is limited. This study examines current trends and precipitating circumstances of suicide by sex and age group in Black youths 5 to 17 years of age, using 2 national databases.

Conclusion
Increases in Black youth suicide call for the prioritization of research aimed at identifying specific risk and protective factors as well as developmental mechanisms associated with Black youth suicidal behavior. To implement effective suicide prevention programming, understanding targets for intervention is necessary.

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JAMA Network Open
Original Investigation
Psychiatry
July 27, 2021

Characteristics and Precipitating Circumstances of Suicide Among Children Aged 5 to 11 Years in the United States, 2013-2017

[Donna A. Ruch, PhD¹](#); [Kendra M. Heck, MPH¹](#); [Arielle H. Sheftall, PhD^{1,2}](#); et al [Cynthia A. Fontanella, PhD³](#); [Jack Stevens, PhD^{1,2}](#); [Motoo Zhu, PhD^{1,2}](#); [Lisa M. Horowitz, PhD⁴](#); [John V. Campo, MD⁵](#); [Jeffrey A. Bridge, PhD^{1,2}](#)
JAMA Netw Open. 2021;4(7):e2115683. doi:10.1001/jamanetworkopen.2021.15683

Key Points:
Question What characteristics and precipitating circumstances are associated with childhood suicide?
Findings In this multistate population-based qualitative study, childhood suicide was associated with multiple risk factors including mental health, prior suicidal behavior, trauma, and family or peer relation issues, with most suicides occurring by hanging or suffocation in the decedent's bedroom. Firearms were the second most prevalent suicide method, and among cases with detailed information, all children obtained guns stored unsafely in the home.
Meaning The findings underscore the importance of early suicide prevention efforts that include improvements in suicide risk assessment, family relations, and lethal means restriction, particularly safe firearm storage.

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COVID-19 and Suicidal Behavior

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**CSPR Prevention:
Translating
Research into
Community Action**



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Behavioral Health Strategic Plan

-  Expanding clinical access to pediatric mental health care
-  Developing targeted prevention efforts
-  Leading a coordinated, collaborative system
-  Researching the causes and treatment of behavioral health conditions

- **Center for Suicide Prevention and Research**
 - Signs of Suicide Curriculum
 - Zero Suicide / Caring Contacts
 - Postvention
 - Media Reporting Guidelines
 - Franklin Co. Suicide Prevention Coalition
- **PAX Good Behavior Game**
- **Preschool Consultation**

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NCH Investment in Suicide Prevention

- Consistent with our values & mission
- Reduced risk of suicide clusters and contagion
- Reduced individual, family and community suffering
- Decreased costs
 - For every 1,000 children, 5 fewer suicide attempts
 - For every \$1 spent, estimated \$4.50 ROI
- Reduction in ED visits

Garrasa et al., 2016; Walrath et al., 2015

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Prevention Mission

- Consultation about prevention, assessment, intervention & postvention
- Provide gatekeeper trainings and education to adults who support youth
- Reduce stigma and build MH awareness
- Identify natural supports & coping strategies
- *“We engage each community member to understand their role in preventing suicide”*



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Suicide Prevention in Schools



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Why Suicide Prevention in Schools?

- Universal prevention
 - Almost all children go to school
 - All students benefit and play a role in prevention
 - Depression/suicidal thinking impacts academics
- Staff can identify deviations from “typical behavior”
- Trusted adults make talking about depression or suicide less scary
- Modify culture and enhance “connectedness”



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Core Best Practice Elements

- Gatekeeper training
- Student education and peer support
- Suicide and depression screening



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Signs of Suicide (SOS)

- Only universal school-based suicide prevention program showing a reduction in suicide attempts
- In 3 separate RCTs, SOS has shown a 40%-64% reduction in self-reported suicide attempts
- Improved awareness & confidence of school staff
- Students show improved knowledge of depression, warning signs of suicide, & how to respond to peers

- **A**cknowledge
- **C**are - show that you care
- **T**ell a trusted adult



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How CSPR Stages SOS Training

- **Step 1:** Meet with school staff to plan logistics (60 min)
- **Step 2:** Provide training to all school staff (60-90 min)
- **Step 3:** Host parent educational evening (60 min)
- **Step 4:** School staff trained to present SOS (90 min)
- **Step 5:** School staff who collect screening data and follow up with students receive training (90 min)
- **Step 6:** Deliver the SOS curriculum over 2 consecutive days to a specified grade or set of classes
- **Step 7:** All students screened & assessed if indicated
- **Step 8:** Review disposition with school and parent
- **Step 9:** Debrief with staff and plan for next SOS rollout



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ACT

Acknowledge
your friend
has a
problem and
it's serious

- How do we acknowledge?
- Why are people afraid to acknowledge?
- How do we ask a friend about suicide?

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ACT

Care -
let your
friend know
you are
concerned
and want to
help

- How can we show we care?
- How can we say we care?



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ACT

Tell a
Trusted
Adult

- How do we Tell?
- Who do we Tell?
- Why are people afraid to Tell?



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Universal Screening for Suicide

- Brief tool to identify individuals with elevated risk
- Reduces chances that **at-risk youth** go untreated
- Provides **common language** about suicide
- Part of a **standardized, evidence-based** approach to behavioral healthcare
- Information provides **guidance** in developing action plan
- Allows for **data collection to monitor trends**



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Universal Screening for Suicide

- Asking about suicide saves lives
- Asking directly is one of the most helpful things you can do
- Screening all students who are part of SOS allows for early identification
- Clear follow-up processes are needed:
 - Triage
 - Risk assessment
 - Safety planning
 - Disposition



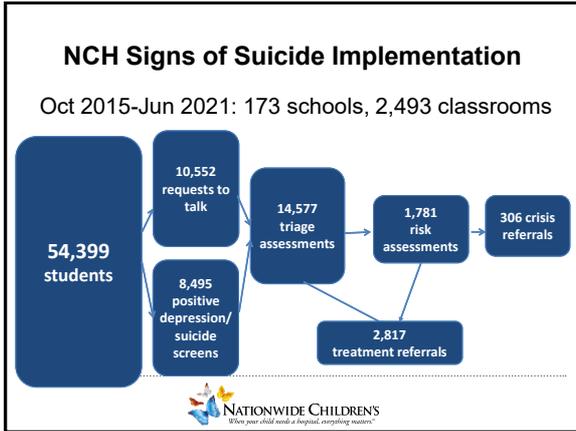
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Collaborate, Document, Communicate

- Use tools to help document steps taken and recommendations
 - Screener for suicide risk (BSAD, ASQ)
 - C-SSRS or other assessment for suicide risk
 - Safety Plan (Brown & Stanley model)
- Make team decisions; consult regularly
- Set clear expectations with school in advance
- Prompt disclosure of a suicide threat to a parent is best practice and legally advisable



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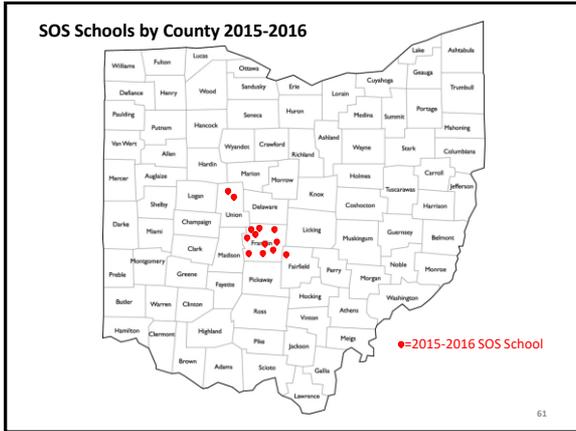
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- ### Lessons Learned
- Staff and administrator buy-in is imperative
 - “Fidelity with flexibility” approach is ideal
 - Don’t rush implementation – manage scale
 - Pivoting to virtual training during pandemic
 - Every rollout is a chance to improve through feedback, debriefing, and processing challenges
- When your child needs a hospital, everything matters.

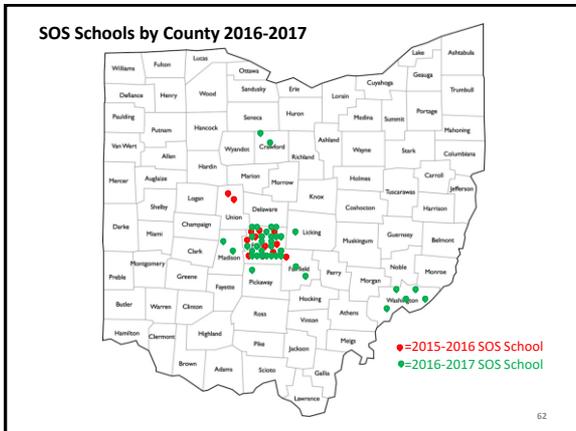
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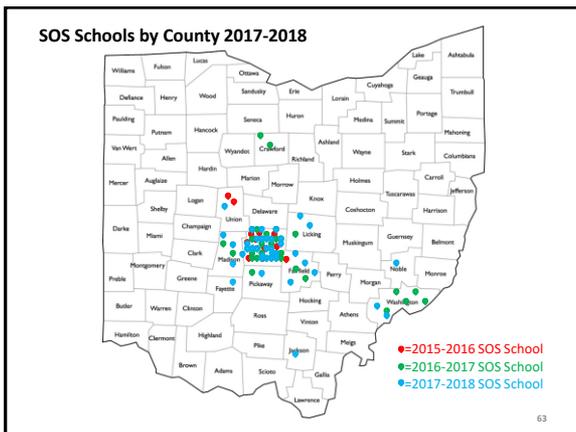
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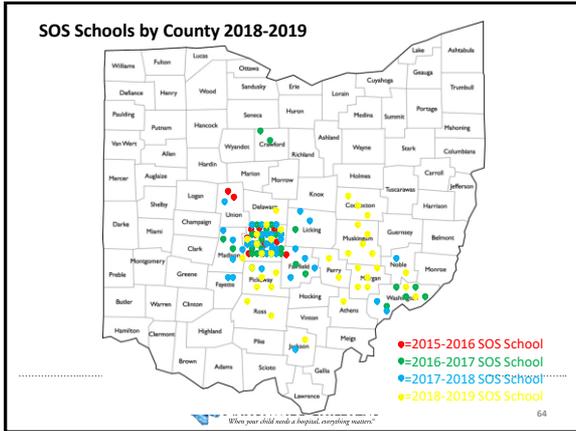
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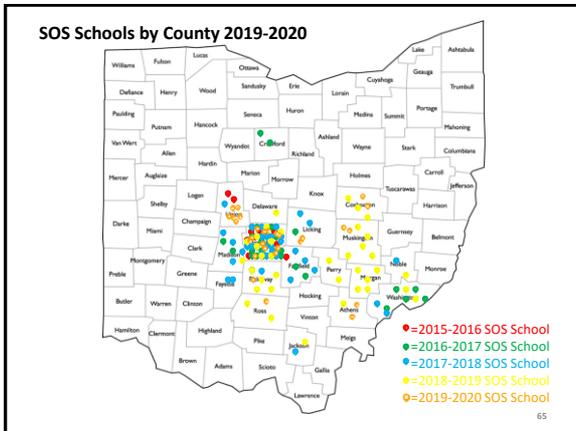
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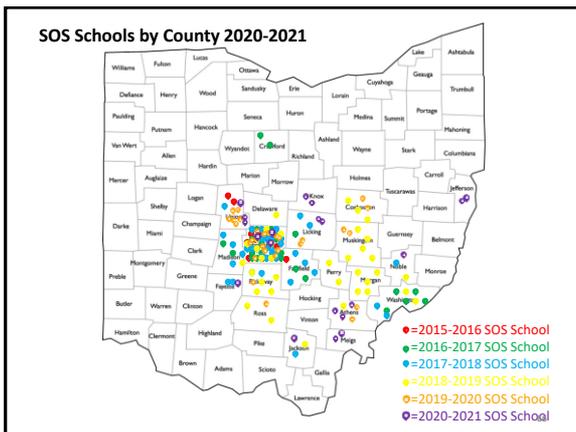
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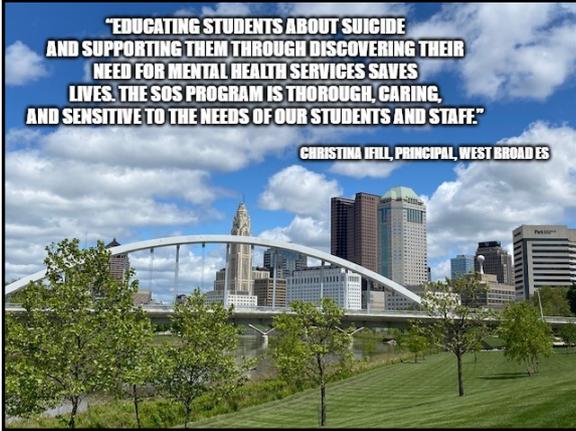
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Expansion Efforts and Sustainability

- Support access by partnering with local mental health agencies and county boards from day one
- Offer virtual training of school social workers and counselors on risk assessments & safety planning
- Enhance suicide prevention & postvention policies
- Use technology to provide real time, personalized consultation & establishing learning collaboratives

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Suicide Prevention (SOS) ECHO

- Ongoing consultation and case-based learning
- Hub and spokes model
- Technical support
- Learning collaborative focused on skill acquisition and sustainability



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Boys and Girls Club Suicide Prevention Initiative



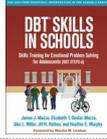
- Collaboration between NCH, the Boys & Girls Clubs of America, & the American Association of Suicidology
- Suicide prevention model for out-of-school space with a focus on youth needs, club resources, and scalability
- Drawn from current evidence and programs (SOS and DBT STEPS-A) to create pilot curriculum for Ohio clubs
- Train adults to identify and respond to warning signs
- Train club youth to cope effectively with emotional distress and to support peers in need



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Upstream Skills Model

- Based on a program called DBT STEPS A: Skills Training for Emotional Problem Solving in Adolescence (Mazza et al., 2016)
- Teaches youth learn basic social and emotional life skills
- Helps individuals manage intense distress shown to reduce suicidal behavior and self-injury
- Program can be administered by non-clinicians
- Program helps youth to:
 - Increase mindfulness
 - Identify distress and stay safe in a crisis
 - Regulate intense emotions
 - Strengthen relationships and communicate needs



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BGCA Youth Suicide Prevention

- All BGCA staff and administrators learn:
 - basic statistics and trends in youth suicide
 - risk factors and warning signs for suicide
 - protective factors and how to enhance emotional safety for youth
 - to set appropriate boundaries when supporting youth
 - to increase comfort asking direct questions about mental health and suicide
 - the steps to help a youth access support, manage distress, and increase safety during a crisis



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Facilitator Training

- Support club trainers to implement the program:
 - Organizing prevention programming at specific clubs
 - Increase comfort discussing youth suicide using established safe messaging guidelines
 - Deliver program modules: fidelity with flexibility
 - Build skills to recognize warning signs of suicide in youth
 - Learn how to respond when concerned or during a crisis
 - Link youth to resources following engagement



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Program Modules

- Youth training will occur over 2-5 weeks for 60 min/day (equivalent to 10 sessions)
 - 40 minutes of activities and content
 - Additional 20 minutes for skills practice and debriefing
- Core elements include:
 - Module 1: **Suicide Prevention and Awareness**
 - Module 2: **Core Mindfulness**
 - Module 3: **Emotion Regulation**
 - Module 4 : **Interpersonal Effectiveness**
 - Module 5: **Managing Crisis / Coping Plans**



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Younger Children and Suicidality

Even children under 12 year of age plan, attempt and complete suicide

- 2nd leading cause of death for 12 year-olds
- 8th leading cause of death for children under 12
- In 9 and 10 year olds, a recent study showed rates of suicidal ideation were 6% and attempts 1%

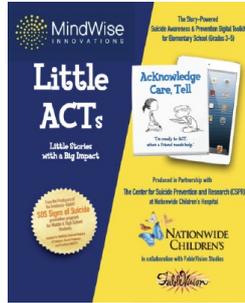
Sources: Deville, et al, 2020; CDC, 2018; Tishler, Reiss, & Rhodes, 2007; Natl Vital Stat Rep, 2006



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Little ACTs

- Upstream suicide prevention is urgently needed
- Youth need support before experiencing a crisis
- Skills can be taught in elementary school (Gr 3-5)
- Curriculum must account for developmental differences
- Learning will occur through storytelling, animation, games and interactive lessons



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Little ACTs

- Phase 1
 - Define & Design
- Phase 2
 - Refine & Prototype Testing
- Phase 3
 - Pilot & Evaluate
- Phase 4
 - Rollout & Scale



ACT® Response Framework
 Acknowledge signs of depression or suicide.
 Care: Show the person you care.
 Tell a trusted adult.



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Enhance SOS Acceptability and Effectiveness for Black Youth

- Dr. Arielle Sheftall (PI) has submitted a grant to address a critical prevention gap
- Universal programs such as SOS need to be evaluated specifically for Black youth
 - Identify barriers posed by existing approaches
 - Learn from Black youth & staff directly through surveys, focus groups and stakeholder meetings
 - Evaluate effectiveness of adapted SOS program



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Caring Contacts



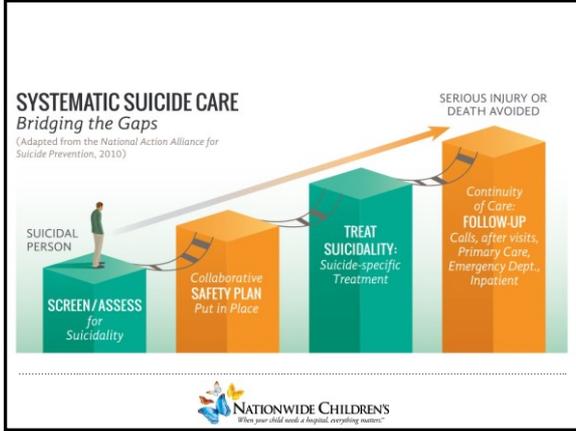
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Expanding Caring Contacts

- As part of the overall Zero Suicide initiative *Caring Contacts* bridges the gap in care after a suicidal patient has been discharged from acute BH services.
- Funding for the Caring Contacts program is provided by the Ohio Suicide Prevention Foundation and OhioMHAS with a goal of expanding to additional Ohio hospitals.
- This standard of care draws from suicide prevention research to achieve the best possible outcome for each patient.



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What is a Caring Contact?

- A simple low effort, non-demand intervention consisting of contacting a patient via phone calls, text messages, postcards, or letters.
- Inspired by war letters that Dr. Jerome Motto received while he was serving in the U.S. Army.
- A validating message that enhances a patient's sense of connection to others.
- A reminder to someone transitioning from acute care that others care about them and there is always support.
- Recommended reading:
<https://highline.huffingtonpost.com/articles/en/how-to-help-someone-who-is-suicidal/> (Jason Cherkis, Huffpost, 11/15/18)

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Caring Contacts Inclusion Criteria

- Youth >12 years old presenting to NCH acute care with suicidal ideation or behavior (i.e., positive ASQ and/or C-SSRS).
- Youth receive one-way validating non-demand text messages to support them post-discharge.
- Texts sent 1, 8, 15, 22, 29, 60, 90, and 120 days post-discharge (shifting to 12 months Oct 2021).
- Teens can opt out by replying "STOP" to our texts.

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Anatomy of a Caring Contact

Encouraging quote + image:

- Validating
- Low effort
- Promotes hope

Reminder of tx team connection

Reminder of one-way communication

Call-out of youth safety plan

Makes crisis resources readily available

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Caring Contacts Examples

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Key Challenges

- Text automation vendor & onboarding
 - Patient information/HIPPA
 - Contract agreement (IS, BH, and Legal)
- Parental consent
 - Legal department involvement + buy in
 - Separate consent v. updating general hospital consent
- Work Flow
 - Initiated enrollment and delivery process manually
 - Work Flow integration (i.e. during admission v. discharge)
 - Focus groups and PDSAs
 - BHP transition and remote access during pandemic
- Compliance
 - Tracking and reporting success + data for QI

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Patient Feedback

- Preliminary opt-out & survey data shows most patients:
 - 2-3% youth opt out rate
 - Felt texts generated **hope** (65% felt moderately to very hopeful)
 - Felt texts made them feel **supported** (66% felt moderately to very hopeful)
 - Felt like messages would **help others** struggling (92% felt other youth would be helped by these messages)
 - Would like to keep receiving text messages if offered (84% would like to receive future texts)



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What's around the corner?

- CSPR and BH Training and Education partnership to expand suicide care best practices in Ohio
- Youth focused suicide prevention app with broad representation of lived experience and opportunities for advocacy ("Be Present Ohio")
- Expansion of prevention/research collaborations
- Increased messaging to community partners



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Questions & Comments

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