# A Public Health Approach to Mental Health Promotion and Suicide Prevention

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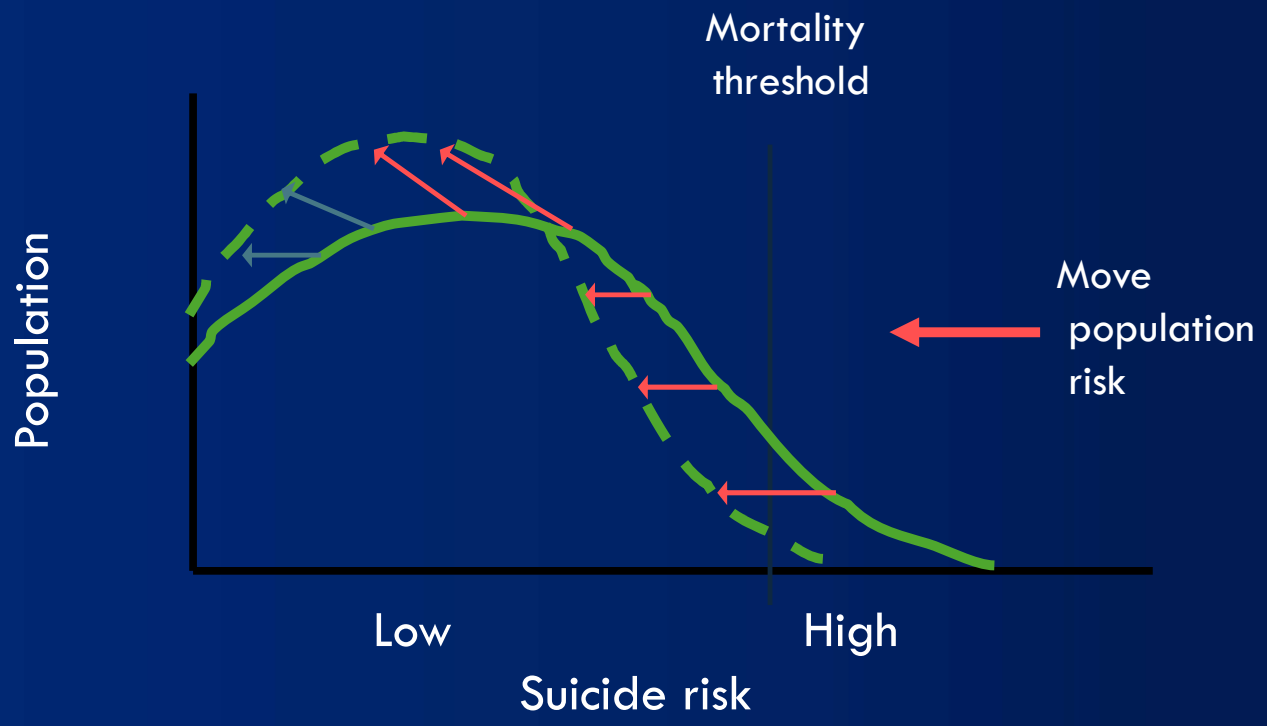
**Disclosures:**
Research funding: NIMH, PCORI

National Board of AFSP

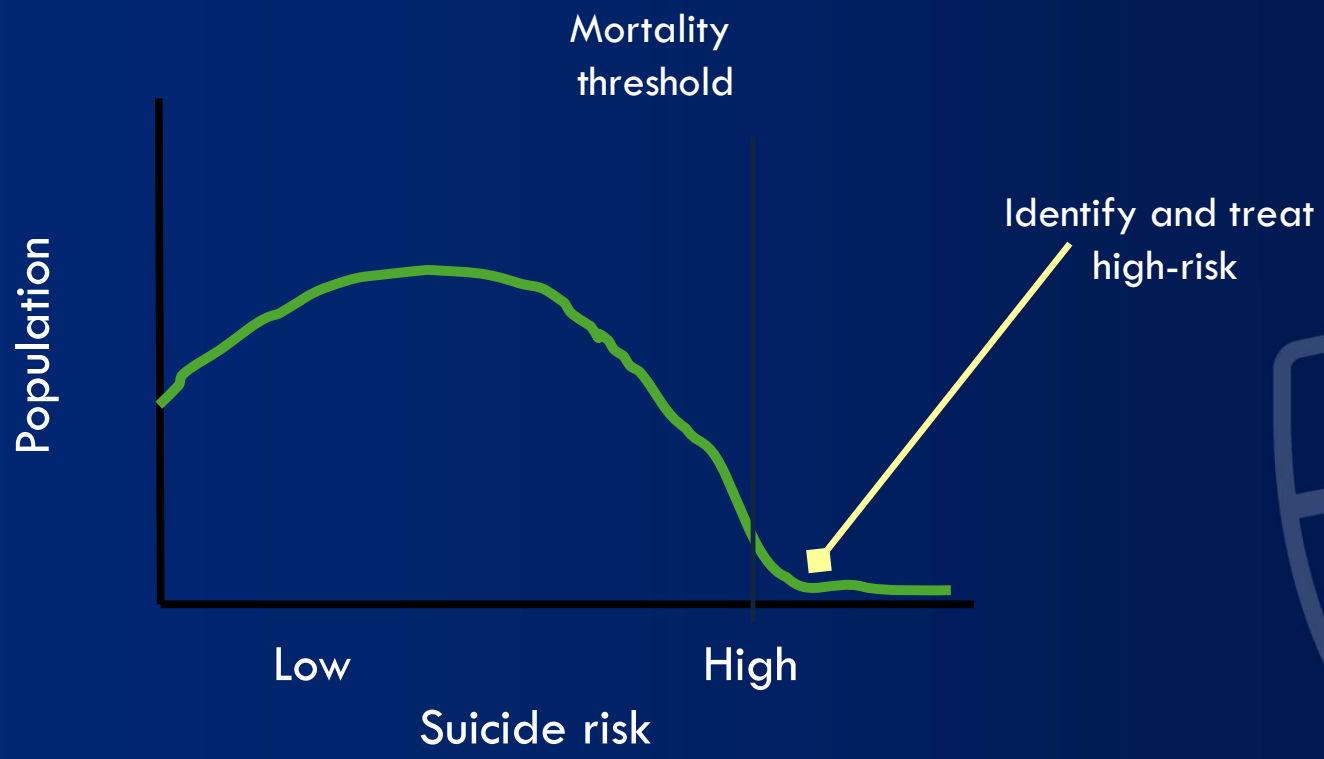
# Population-based Approach



# Universal suicide prevention interventions: ranked by likely effect on suicide attempts and suicide deaths

| Rank | Intervention | Effect on suicide attempts | Effect on suicide deaths | Notes |
|---|---|---|---|---|
| 1 | **Restricting access to lethal means** | Moderate | Large | Strongest population-level strategy for reducing suicide deaths |
| 2 | **Structural/social policies**: housing supports, eviction prevention, income supports, unemployment insurance, paid leave, anti-poverty programs | Small to moderate | Small to moderate | Effects are indirect and context-dependent |
| 3 | **School-based universal CBT / coping-skills / SEL programs** | Small | Small or unclear | More consistent for distress and ideation than hard outcomes |
| 4 | **Universal school mental health promotion / connectedness programs** | Small | Small or unclear | May improve protective factors |
| 5 | **Anti-bullying programs** | Small | Small or unclear | Indirect pathway through reduced victimization |
| 6 | **Universal school screening + referral** | Small to moderate | Small | Works best when follow-up and care access are strong |
| 7 | **Gatekeeper training for school staff** | Small or unclear | Small or unclear | Improves recognition/referral more than outcomes |
| 8 | **Awareness-only / psychoeducation-only programs** | Minimal or none | Minimal or none | Improves knowledge more than behavior |

# High-risk Approach



# Selective suicide prevention interventions: ranked by likely effect on attempts and deaths

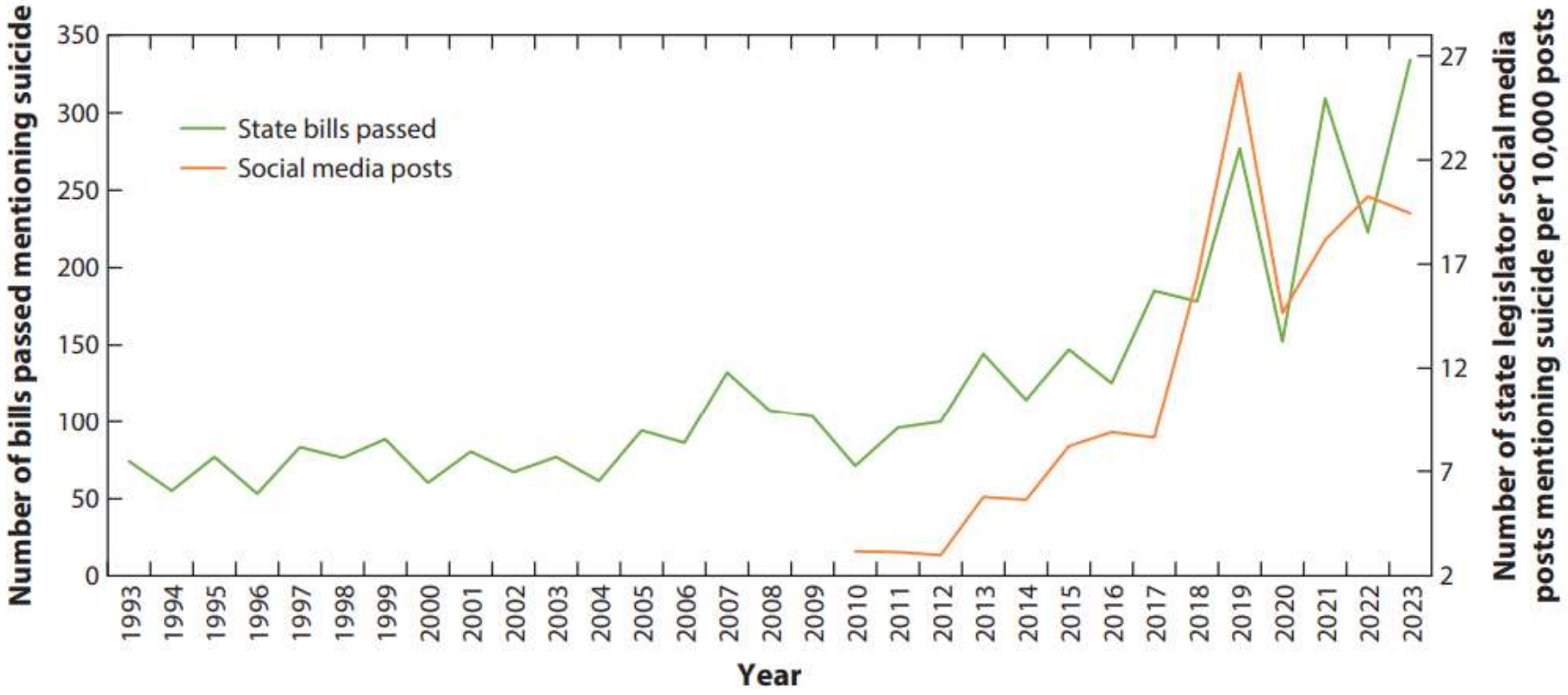
| Rank | Intervention | Effect on suicide attempts | Effect on suicide deaths | Notes |
|---|---|---|---|---|
| 1 | **Targeted treatment of underlying disorders**: depression, bipolar disorder, psychosis, substance use | Moderate | Small to moderate | Helps reduce major drivers of risk |
| 2 | **Targeted CBT-based interventions for at-risk groups** | Small to moderate | Small | Better effects when focused on higher-risk groups |
| 3 | **Targeted family-based / parent-involved interventions** | Small to moderate | Small | Especially relevant for adolescents |
| 4 | **Targeted anti-bullying / peer-victimization interventions** | Small | Small or unclear | Stronger for bullying outcomes than suicide outcomes |
| 5 | **Trauma-focused interventions for exposed youth** | Small | Small or unclear | Often improves PTSD/depression |
| 6 | **Supportive housing / housing for high-risk unhoused people** | Small to moderate | Small to moderate | Promising, but suicide-specific evidence is less direct |
| 7 | **Income/support programs for high-risk families** | Small | Small | Likely protective indirectly |
| 8 | **Selective screening + referral in high-risk groups** | Small to moderate | Small | Best when care access is immediate |

# Indicated suicide prevention interventions: ranked by likely effect on attempts and deaths

| Rank | Intervention | Effect on attempts | Effect on suicide deaths | Notes |
|---|---|---|---|---|
| 1 | **Follow-up / caring contacts after attempt, ED visit, or discharge** | Moderate | Small to moderate | One of the strongest supported approaches for repeat suicidal behavior |
| 2 | **Safety planning / crisis response planning + follow-up** | Moderate | Small | Strong for attempts and care linkage |
| 3 | **Dialectical Behavior Therapy** | Moderate to large | Small | Especially effective for repeated self-harm and emotion dysregulation |
| 4 | **CBT-informed therapy for suicidal patients** | Moderate | Small | Good evidence for reducing repeat attempts |
| 5 | **Intensive post-discharge transition support** | Moderate | Small to moderate | Important during the high-risk post-discharge period |
| 6 | **Crisis hotlines / text lines** | Small or unclear | Small or unclear | Helpful for acute distress; hard to prove on hard outcomes |
| 7 | **Inpatient/post-attempt follow-up planning** | Small to moderate | Small | Works best as part of a broader care pathway |
| 8 | **Medication/clinical management of acute psychiatric illness** | Variable | Variable | Essential clinically, but suicide-specific effect sizes are harder to estimate |

# Policy Landscape and Evidence Mapping

# Policymakers Are Concerned about Suicide

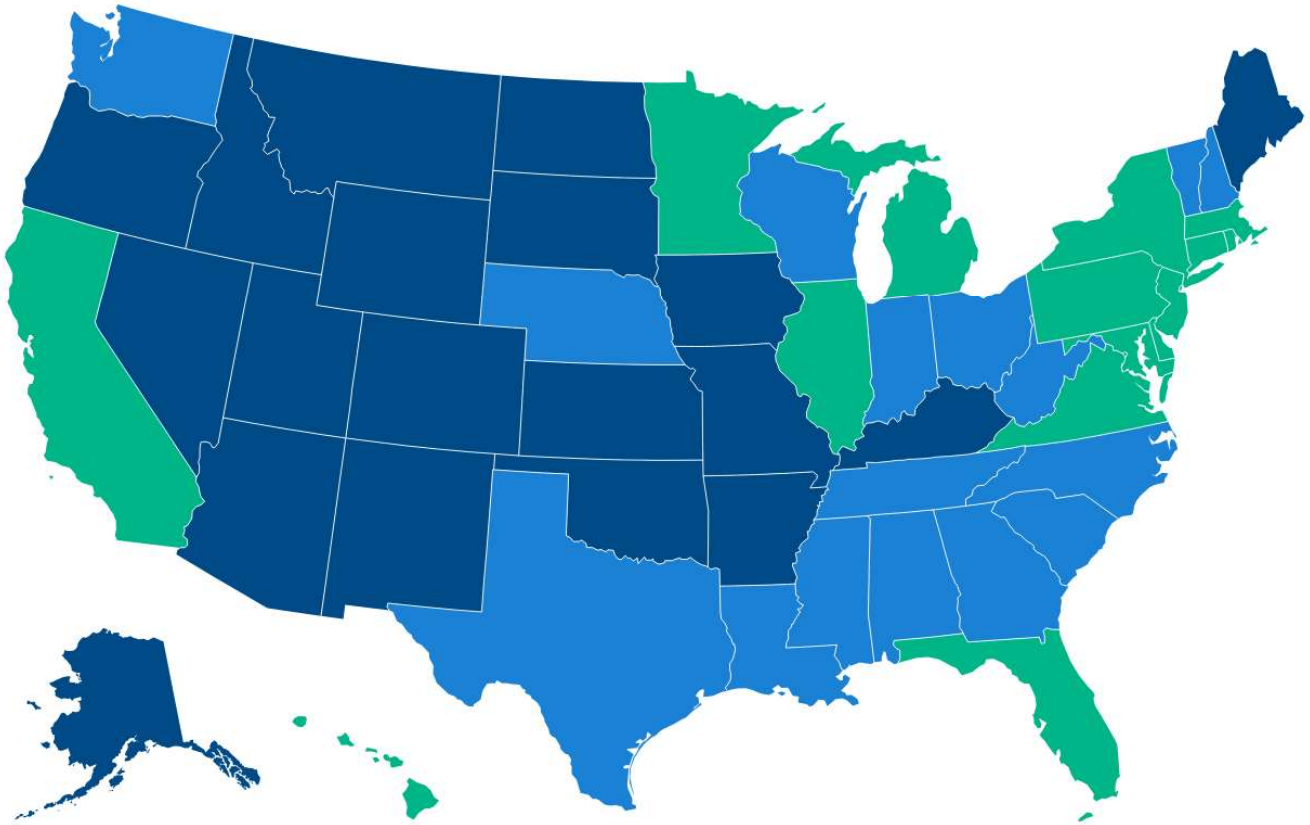



Purtle J, Mauri AI, Lindsey MA, Keyes KM. Evidence for Public Policies to Prevent Suicide Death in the United States. *Annual Review of Public Health*. 2025 Jan 7;46.

## Suicide death rates range widely across states

Suicide death rate per 100,000, 2024

5.7 to 13.9 (16 states, including D.C.) 14.1 to 16.9 (16 states) 17.0 to 29.7 (19 states)



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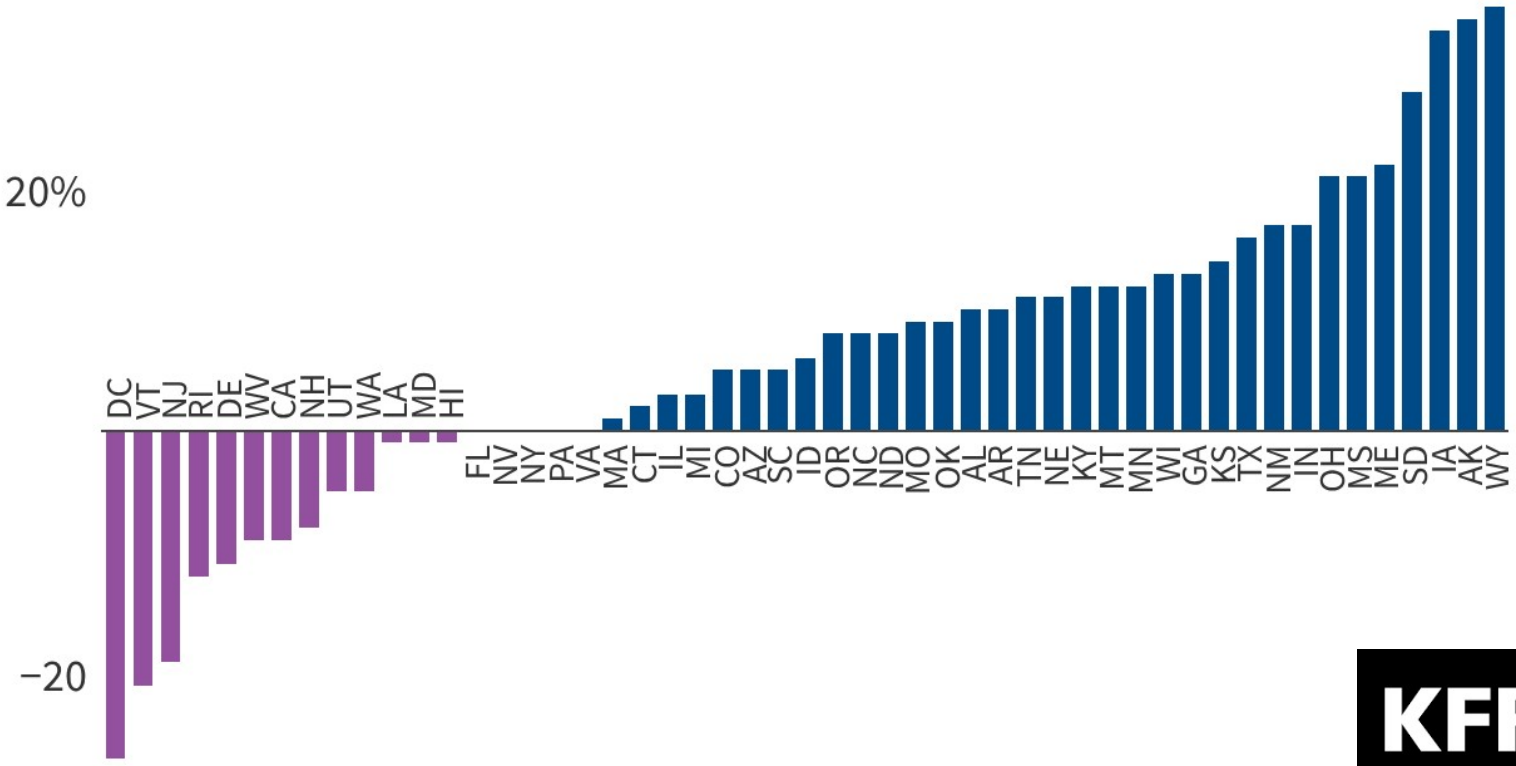
## About Four in Ten States Had Stable or Lower Suicide Death Rates Than A Decade Ago, While Other States Increased

Percent change in suicide death rate by state, 2014 v 2024

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# Psychological Autopsy


- A **psychological autopsy** establishes a **pathway** to an intended death
- **In-depth** evaluation of a **specific case** by a trained **clinical investigation** team
- **Full review** of the decedent's case
  - **Medical and other records** (Schools, DOJ, VA, homeless services, etc.)
  - **Social Media** (public facing, private when available)
  - **Extended Interviews** with family, collateral informants

**Distal**

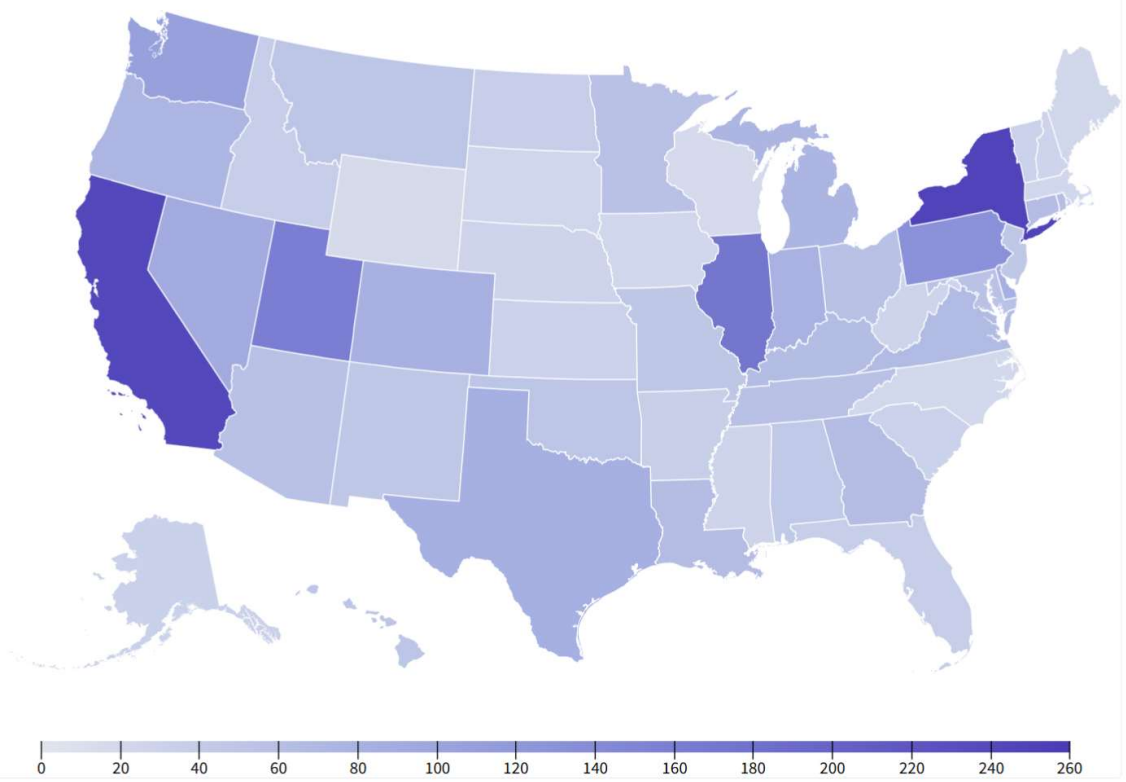
- Character/ Personality
- Developmental History
- Psychiatric History
- Emotional Life and Coping Style

**Proximal**

- Last Days and hours
- State of Mind
- Intentionality
- Access to Lethal Means

Paul Nestadt, MD

# Suicide Prevention Policy Hub




Xinzi (Krystal) Wang

Joseph Olasupo, MHS

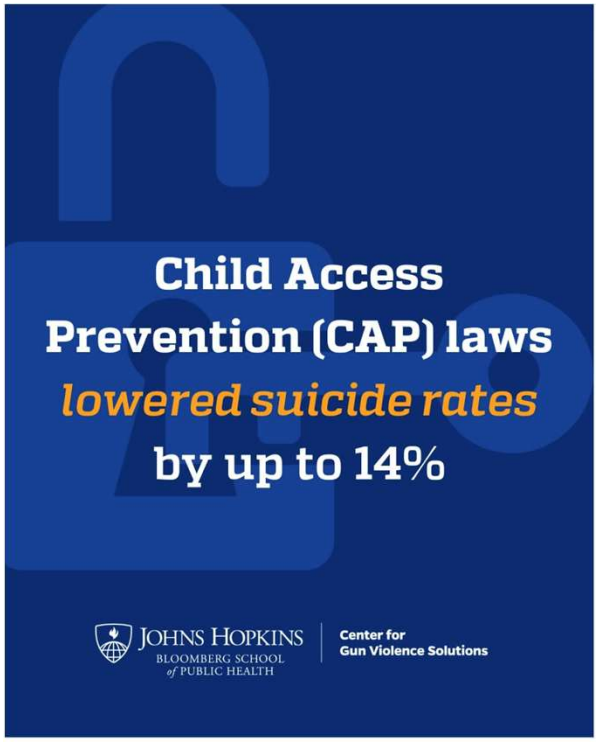
Dakota Jablon, MHS

# National evaluation of Child Access Prevention (CAP) laws (Athey et al., 2025, JAACAP)

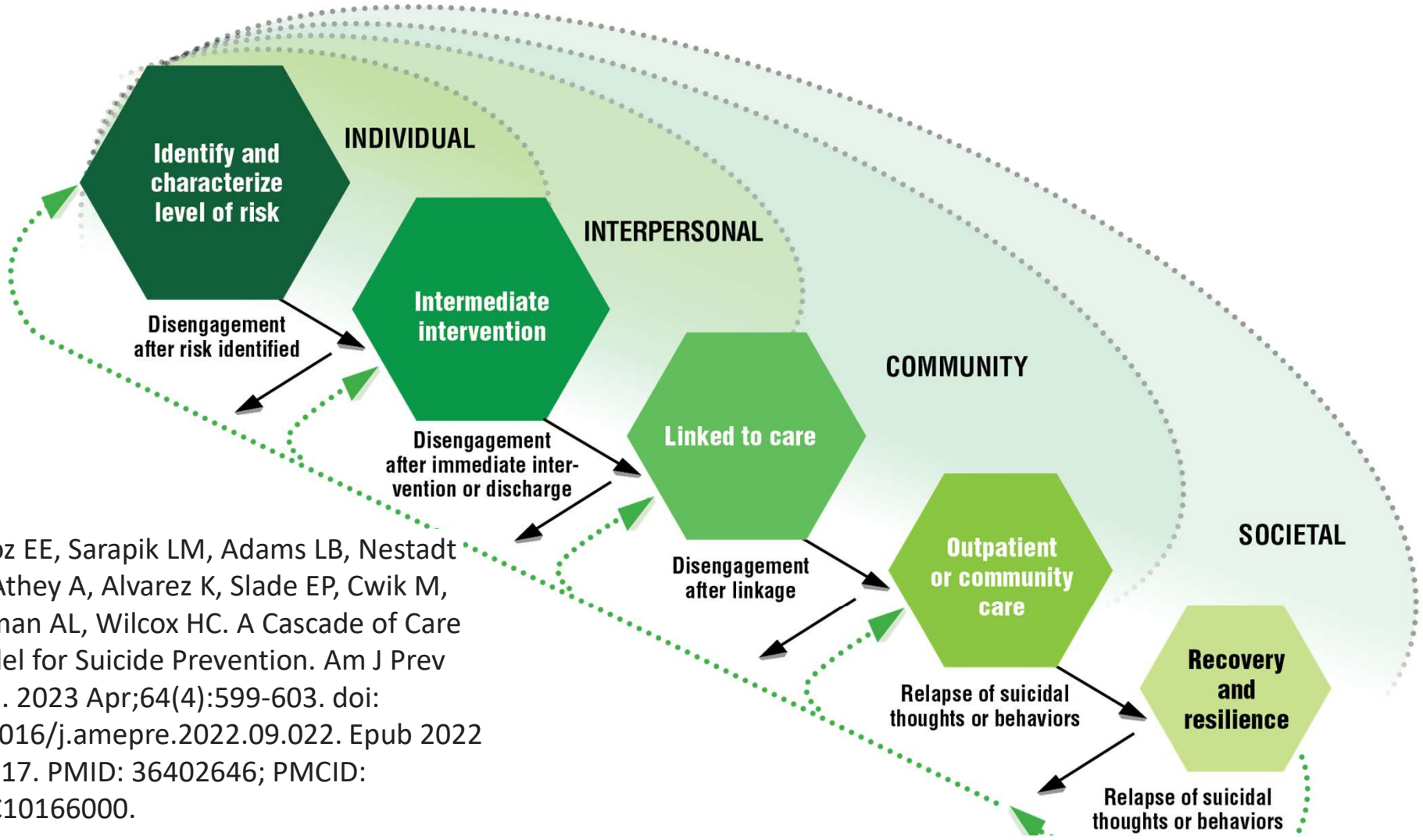
- Evaluated the impact of child access prevention (CAP) laws on rates of youth firearm suicide mortality using data from 1990-2020 by state.
- Firearms are used in nearly half of all youth suicides, the data shows that requiring guns to be stored unloaded and locked makes a difference.
- States with Child Access Prevention (CAP) laws reduce youth gun suicide rates by up to 14%.

- JAACAP Editors' Best of 2025
- Featured in JAACAP Journal Club

Alison Athey, PhD



# Suicide Risk Screening and Chain of Care Linked Interventions




Haroz EE, Sarapik LM, Adams LB, Nestadt PS, Athey A, Alvarez K, Slade EP, Cwik M, Berman AL, Wilcox HC. A Cascade of Care Model for Suicide Prevention. Am J Prev Med. 2023 Apr;64(4):599-603. doi: 10.1016/j.amepre.2022.09.022. Epub 2022 Nov 17. PMID: 36402646; PMCID: PMC10166000.

# Universal suicide risk screening in Primary Care: Conflicting guidance

- **Not recommended** by the US Preventive Services Task Force (USPSTF)
- **Recommended** in Bright Futures Preventive Care guidelines for 12 and up
- American Academy of Pediatrics and AFSP created the Blueprint for Youth Suicide Prevention **recommending** screening, brief safety assessment, and safety plan

USPSTF recommends routine universal screening in primary care for major depressive disorder (MDD) in those aged 12 + years with the PHQ

# Universal suicide risk screening in Emergency Depts: Potential for Impact

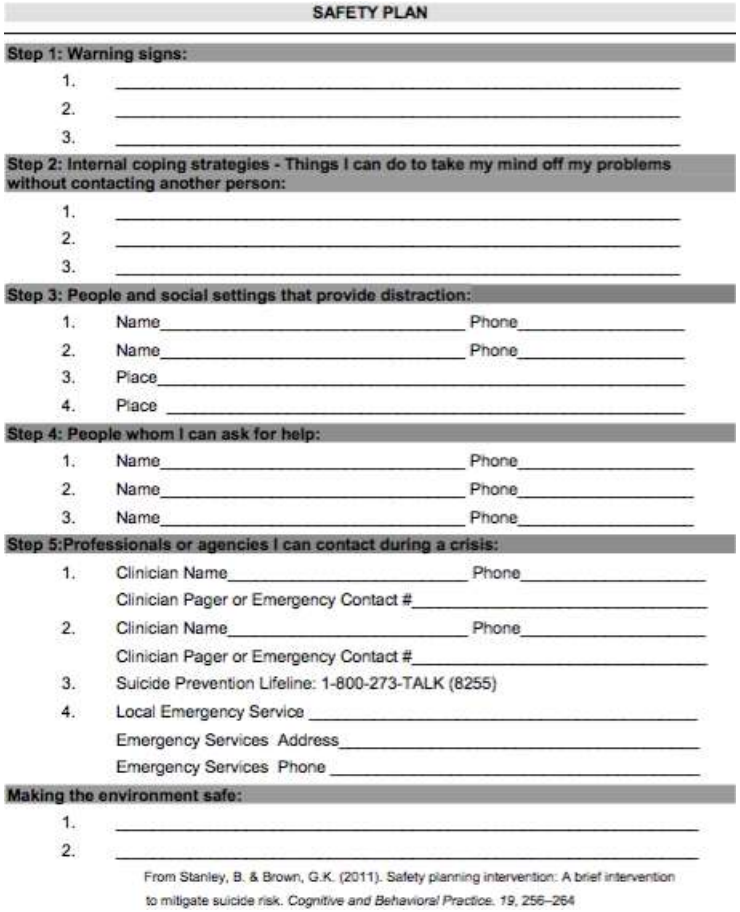
- Universal suicide risk screening in the emergency department doubles detection of patients at potential future risk for suicidal behaviors (Ballard et al, 2017; DeVylder et al., 2019; Boudreaux et al., 2016).

- 1229 of >15,000 patients were 'uniquely identified' (i.e, did not come to ED with chief complaint of suicide but screened positive), of which a higher proportion were black boys (DeVylder et al., 2019).

- Universal screening + intervention prevents future suicidal behaviors (Boudreaux et al 2016; Miller et al 2017).

# Safety Planning Intervention (SPI)

- SPI is a ***brief clinical intervention*** that lasts ~45 minutes and is used to:
  - *Reduce imminent risk*
  - *Increase suicide-related coping skills*
  - *Enhance help seeking and treatment engagement*
- SPI results in a ***prioritized written list*** of warning signs, coping strategies and resources to use during a suicidal crisis
- SPI is **NOT**:
  - *A generic "crisis" plan*
  - *A substitute for ongoing treatment*
  - *For individuals at imminent risk*
  - *A "no-suicide contract"*



**SAFETY PLAN**

**Step 1: Warning signs:**

1. _____
2. _____
3. _____

**Step 2: Internal coping strategies - Things I can do to take my mind off my problems without contacting another person:**

1. _____
2. _____
3. _____

**Step 3: People and social settings that provide distraction:**

1. Name_____ Phone_____
2. Name_____ Phone_____
3. Place_____
4. Place _____

**Step 4: People whom I can ask for help:**

1. Name_____ Phone_____
2. Name_____ Phone_____
3. Name_____ Phone_____

**Step 5:Professionals or agencies I can contact during a crisis:**

1. Clinician Name_____ Phone_____
   Clinician Pager or Emergency Contact #_____
2. Clinician Name_____ Phone_____
   Clinician Pager or Emergency Contact #_____
3. Suicide Prevention Lifeline: 1-800-273-TALK (8255)
4. Local Emergency Service _____
   Emergency Services Address_____
   Emergency Services Phone _____

**Making the environment safe:**

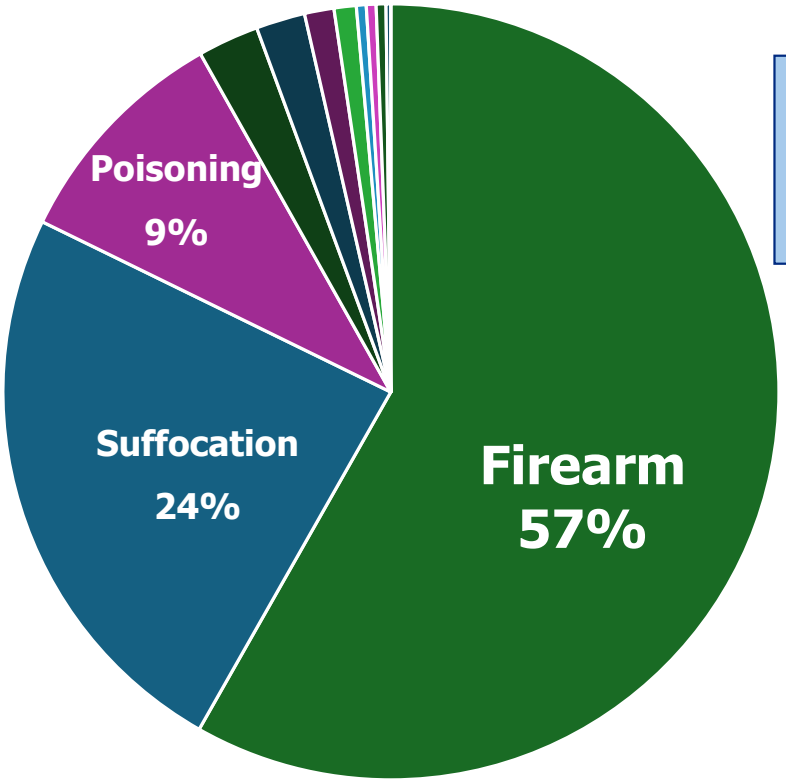
1. _____
2. _____

From Stanley, B. & Brown, G.K. (2011). Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive and Behavioral Practice. 19*, 256–264

# Suicide Methods in The United States-- 2024

5-6% of suicide *attempts* use guns.

Those become half of all suicide *deaths*.

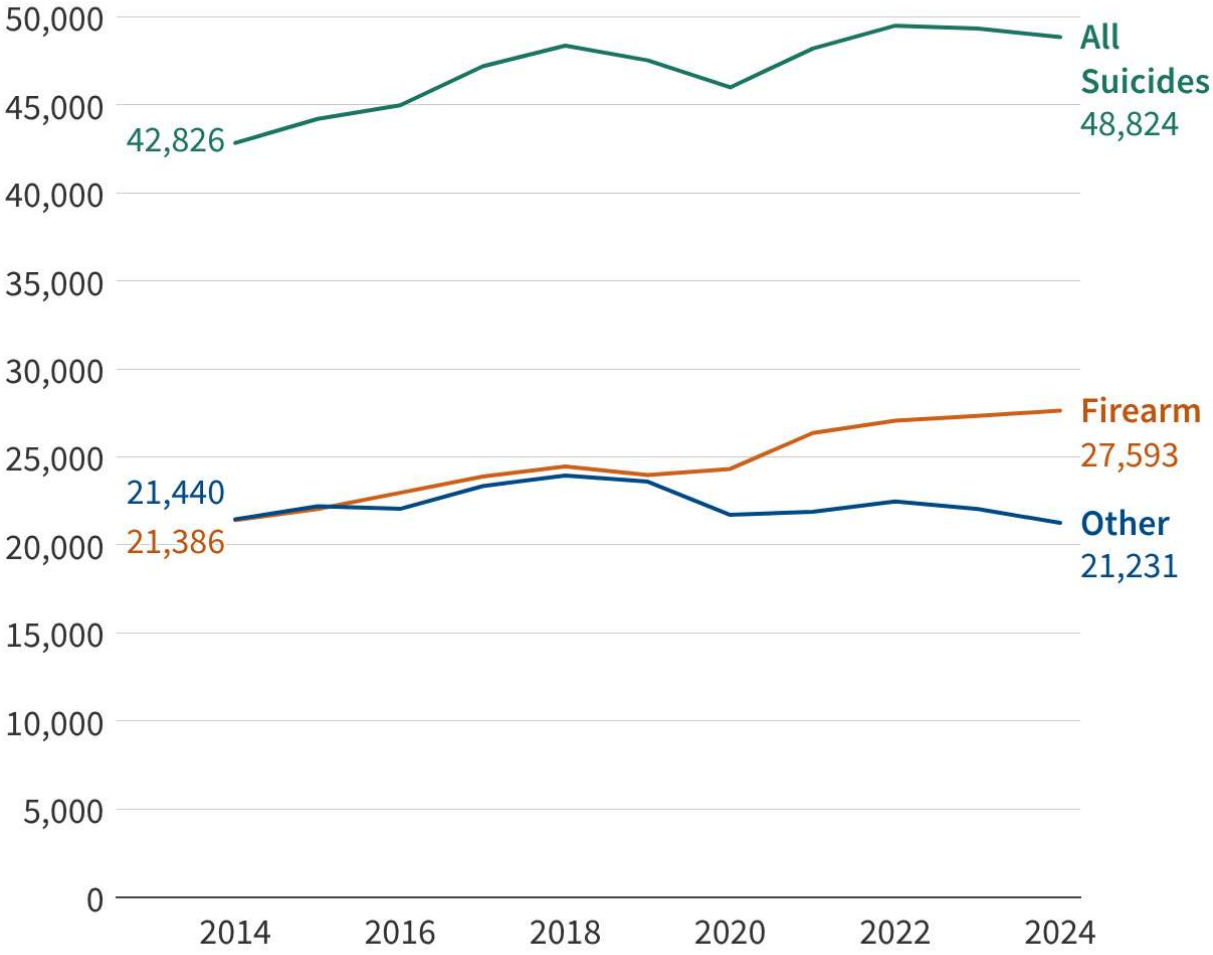



Among **Veterans,** firearms are used in 74% of suicide deaths

The **majority** of gun deaths in the US are suicides

## Firearm Suicides Reached Their Highest Level in 2024, While Suicides of Other Means Decreased

Number of Deaths Due to Suicide by method, 2014 to 2024

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# Interpersonal Psychotherapy for Adolescence – Suicide Crisis Intervention

**Session 1**- re-evaluate depressive symptoms, suicidal risk, and safety plan. Evaluate feelings contributing to suicidal thoughts and behaviors

- Some youth who will experience suicidal thoughts in the absence of depression tend to have difficulties regulating their emotions as well as impulsivity

**Session 2**- define the therapeutic focus referred to as an interpersonal problem area – a modifiable target to create change for the adolescent to improve

**Sessions 3-4**- focus on learning and practicing skills to address the chosen problem area, and which aim to prevent immediate suicide and reduce depressive symptoms

- These skills include emotional skills (emotional awareness, emotional expression, and emotional regulation) and interpersonal skills (direct communication, adaptive listening, compromise, assertiveness, problem solving)

**Session 5**- summarize progress made, the skills learned and how the adolescent will use their skills in the future. We will give specific recommendations for the future

# Digital/AI identification and intervention

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THE HILL

SIGN UP NEWSLETTERS

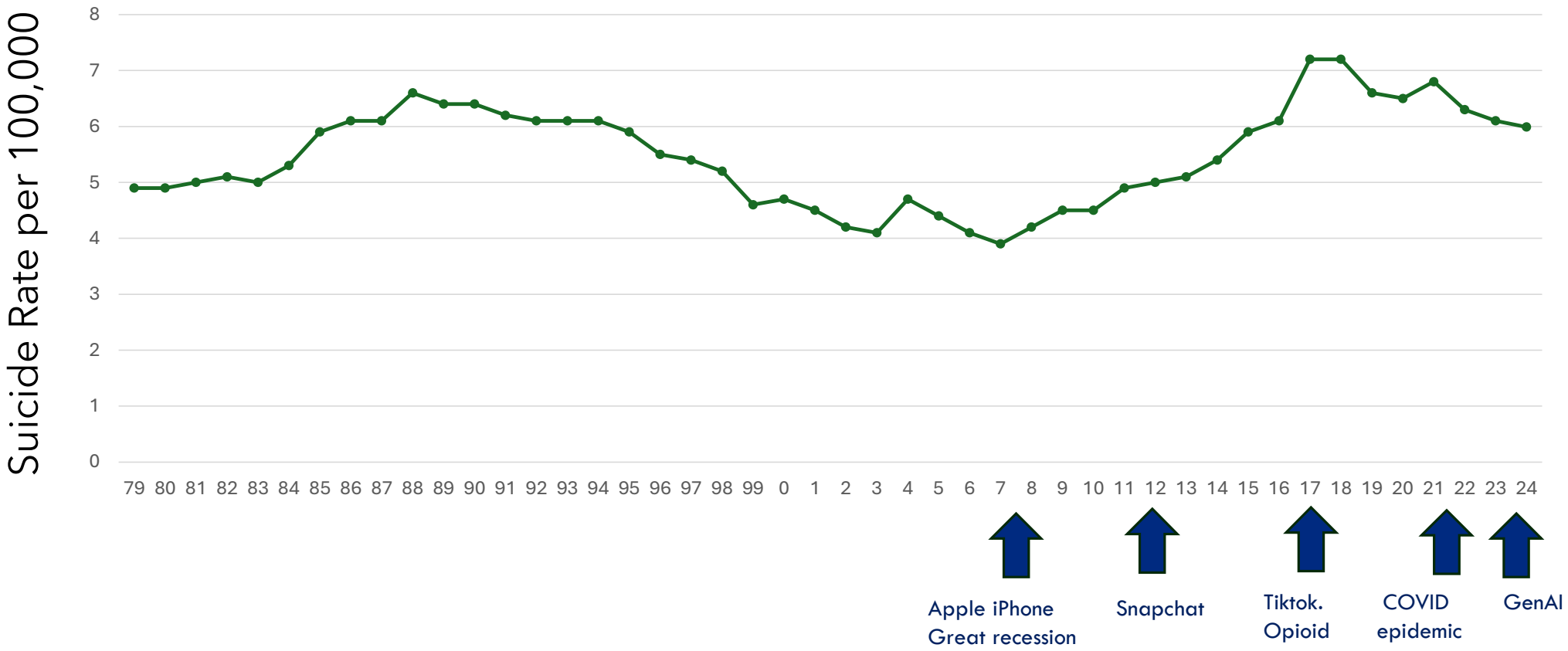
OPINION > OPINIONS - TECHNOLOGY

THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

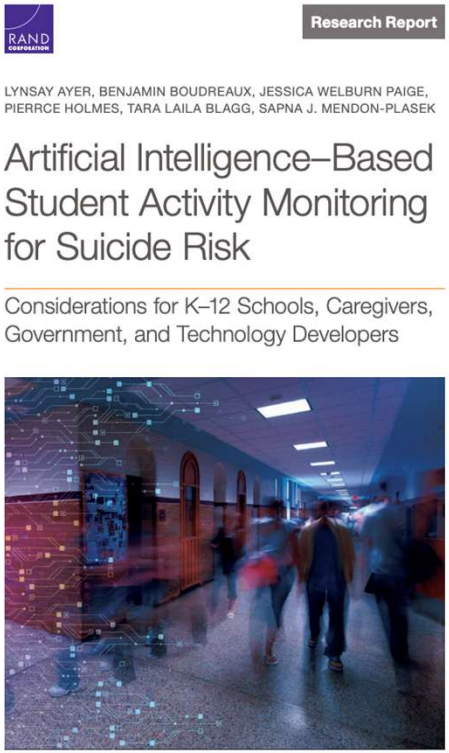
**How to partner AI with human compassion in suicide prevention**

BY HOLLY C. WILCOX AND PAUL S. NESTADT, OPINION CONTRIBUTORS - 12/12/25 11:00 AM ET

# United States crude suicide rates, ages 10-19, 1979-2024



# AI School-based Monitoring in the Spotlight for Privacy Concerns and Lack of Research on Safety but Show Promise




# GoGuardian Beacon

GoGuardian Beacon identifies online activity on school-issued accounts that indicates suicide risk, self harm or possible harm to others

- Real-time alerts that notify designated responders in the school or district
- Schools develop response protocol for during and after school hours
- Optional 24/7/365 service

GoGuardian Beacon®

**The student safety solution for K-12**

Identify students who are at risk of suicide or possible harm to others through threats, violence, and bullying.[1]

Get more info | Watch the demo

# Outreach to youth in crisis on social media

YouthLine's Safe Social Spaces (SSS) crisis specialists identify and intervene with adolescents in crisis on social media.

Crisis center–academic research partnership established to scale SSS to serve more youths by introducing AI and computational science approaches.

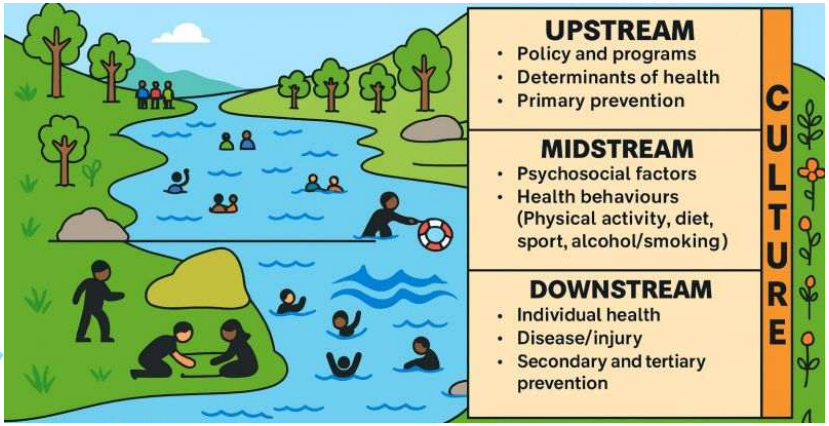
Crisis specialists contacted >5000 youths from 2019 to 2025. Fifty-six percent of youths responded to outreach by SSS.

Leets et al., 2025, AJPH

# Upstream suicide prevention


**Upstream & Downstream Focus on Illness**


**The River Analogy**

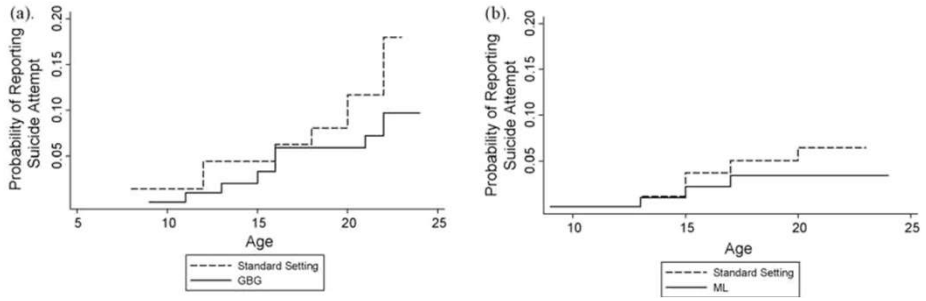


# Programs targeting aggression, impulsivity, behavior problems in youth reduce suicidal behaviors

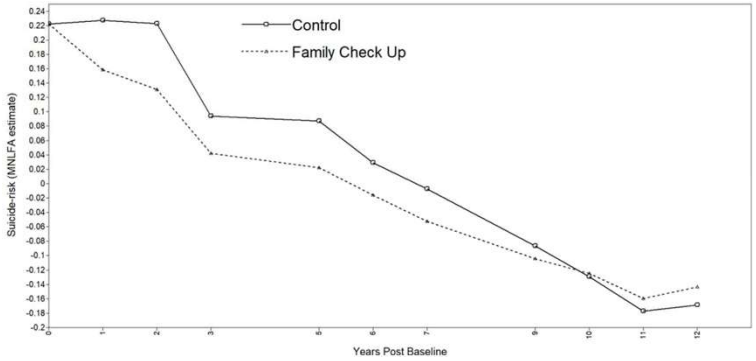
- **Seattle Social Development Project** (SSDP; Hawkins et al., 2005)
- **Good Behavior Game** (GBG; Wilcox et al., 2008)
- **Family Check Up** (Connell et al., 2016)
- **Fast Track** (Godwin et al., 2020)

# Programs targeting aggression, impulsivity, behavior problems reduce suicidal behaviors

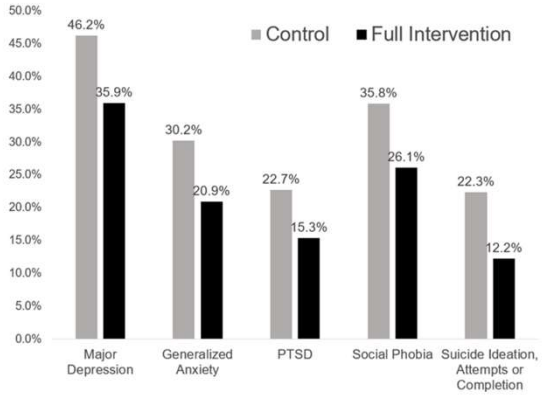
**Good Behavior Game** (GBG; Wilcox et al., 2008)




**Family Check Up** (FCU; Connell et al., 2024)

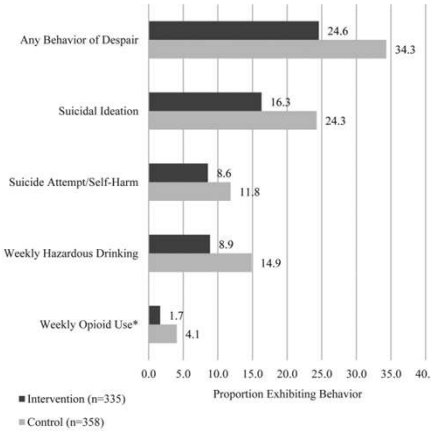



**Seattle Social Development Project** (SSDP; Hill et al. 2025)




Prevalences by intervention: ever diagnosis for depression, generalized anxiety, PTSD, social phobia, and ever suicide ideation, attempts, or completion, ages 21–39

**Fast Track** (Godwin et al., 2020)



# Washington State University Institute for Public Policy Benefit-Cost Results

| Program name | Date of last literature review | Total benefits | Taxpayer benefits | Non taxpayer benefits | costs | Benefits minus costs | Benefits to costs ratio | Chance benefits will exceed costs |
|---|---|---|---|---|---|---|---|---|
| Nurse Family Partnership | Mar. 2018 | $21,379 | $5,398 | $15,981 | ($14,459) | **$6,920** | $1.48 | **65%** |
| PROSPER | Feb. 2020 | $370 | $175 | $195 | ($416) | **$46** | $0.89 | **43%** |
| Good Behavior Game | Mar. 2018 | $11,983 | $3,335 | $8,648 | ($186) | **$11,797** | $64.36 | **76%** |
| Seattle Social Dev P | Mar. 2019 | $10,580 | $3,026 | $7,554 | ($4,601) | **$5,978** | $2.30 | **56%** |
| Coping Power | Feb. 2019 | $1,111 | $551 | $560 | ($862) | $249 | $1.29 | **56%** |
| Family Check-Up | Feb. 2019 | $12,080 | $3,764 | $8,316 | ($53) | **$12,027** | $226.44 | **72%** |
| Familias Unidas | Feb. 2019 | $7,595 | $2,611 | $4,984 | ($1,826) | **$5,769** | $4.16 | **69%** |
| Communities That Care | Jan. 2019 | $4,117 | $1,269 | $2,848 | ($723) | **$3,394** | $5.69 | **87%** |
| Strengthening Families for Parents and Youth 10-14 | Aug. 2018 | $4,021 | $1,237 | $2,784 | ($677) | **$3,344** | $5.94 | **60%** |

# Collaborative to Understand Impacts of Early Preventive Interventions on Suicide and Overdose Mortality Using Data Harmonization Methodology

| Study number | Prevention Approach | Age-span (years) | Sample Size | Level of Randomization | Number of Waves | Region | Female | White | Black | Hispanic | Multi-racial / Other |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Raising Healthy Children | 5-27 | 1,848 | Classroom / School | 10-21 | Northwest | 48% | 59% | 12% | 7% | 14% |
| 2 | Communities That Care | 10-28 | 4,407 | Community | 10 | NE, MW, MT, NW | 48% | 61% | 3% | 20% | / |
| 3 | Family Check-Up (Multicomponent) | 2-28 | 2,322 | Individual | 7-10 | SE, Mid-Atlantic, NW | 49.50% | 46.50% | 24.20% | 11.80% | 17.40% |
| 4 | Strengthening Families/Guiding Good Choices | 11-25 | 11,516 | Community / School | 8-11 | Midwest, Mid-Atlantic | 51.00% | 91.80% | / | / | / |
| 5 | Good Behavior Game | 6-42 | 9,561 | School | 1-20 | Mid-Atlantic | 48.30% | 15.50% | 82.50% | 4.00% | / |
| 6 | Familias Unidas | 12-16 | 1,432 | School / Clinic | 3-4 | Southeast | 50.00% | / | / | 100.00% | / |
| 7 | LIFT | / | 671 | School | / | / | 51.00% | 90% | 1.00% | 4.00% | / |
| 8 | Coping Power | 8-18 | 3,194 | Indiv / Class / School | 3-8 | Mid-Atlantic, South | 34.52% | 18.80% | 77.03% | 1.16% | 3.65% |
| 9 | Nurse Family Partnership | 0-30 | 3,103 | Indiv / Class / School / Comm | 3-9 | Mid-Atlantic, S, NE, SC, MT | 51% | 42% | 41% | 16% | <1% |
| 10 | The Fourth R (Grade 7) | 12-17 | 2,865 | School | 4 | South Central | 50% | 8% | 24% | 35% | 33% |
| 11 | Kids in Transition to School (KITS) | 4-11 | 192 | Individual | 7 | Northwest | 51% | 53% | 1% | 31% | 19% |
| 12 | Keeping Foster/Kinship Parents Trained (KEEP) | 4-19 | 959 | Individual | 3-4 | Southwest | 54% | 21% | 21% | 37% | 23% |
| 13 | Middle School Success (MSS) | 10-18 | 273 | Individual | 3-7 | NW, SW | 69% | 38% | 16% | 27% | 28% |
| 14 | Treatment Foster Care Oregon (TFCO) | 12-21 | 166 | Individual | 5 | Northwest | 100% | 68% | 2% | 11% | 19% |
| Pooled Sample | Universal / Selective / Indicated | 0-42 | 42,509 | Indiv/Class/Sch/Comm/Clinic | 1-20 | United States | 46% | 35% | 52% | 13% | 11% |

Monica Guerrero Vazquez, MPH

Taylor Ryan, MA

Ryan Connor

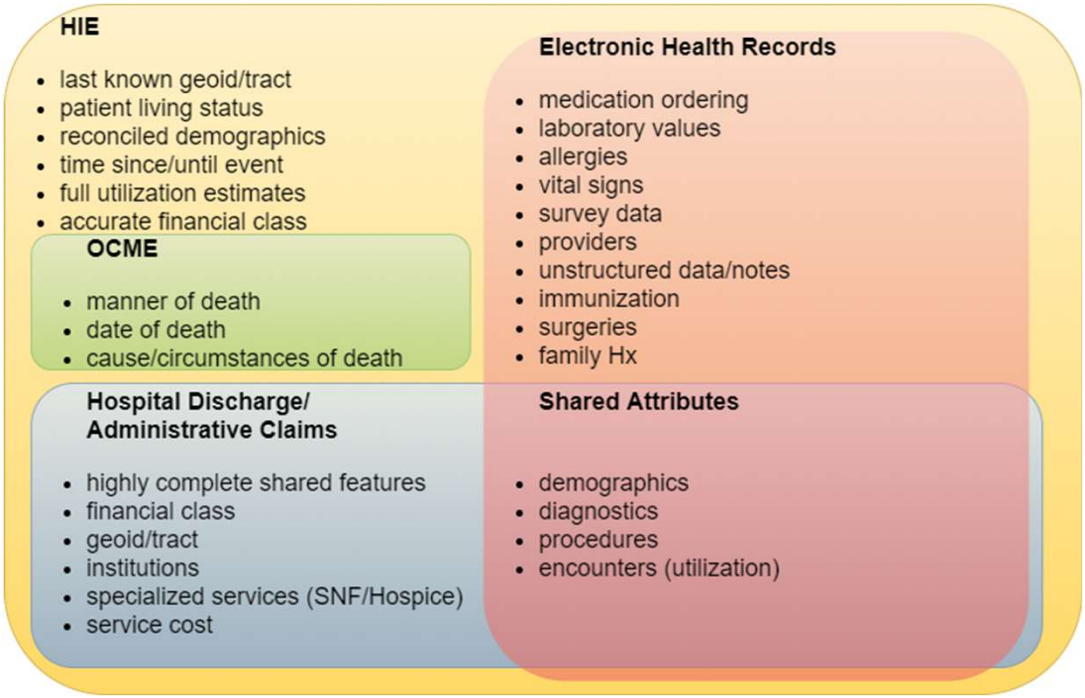
# YAM YOUTH AWARE OF MENTAL HEALTH

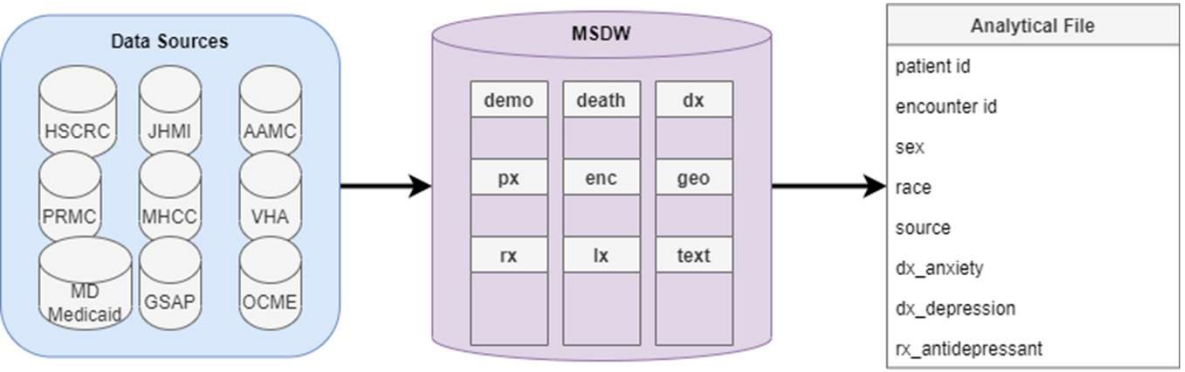
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|---|---|---|---|---|
| EXPANDING MENTAL HEALTH KNOWLEDGE | DILEMMA EXCERCISE: DECISION MAKING | ROLE PLAY: STRESS & CRISIS | ROLE PLAY: DEPRESSION & SUICIDAL THOUGHTS | HELPING A FRIEND & RESOURCES |
| Breaking down the stigma: mental health literacy discussion. | Identifying feelings and discussing decisions. Topics include substance abuse, peer pressure, school stress, etc. | Youth identify stressful situations to act out. Could include peer pressure, school stress, drug use, family life, etc. | Youth recognize signs of depression and suicide. Practice getting help from an adult through role-play. | Sum up material and check for understanding. Discuss local, state and national resources. Encourage getting help if needed. |

- Aligned to Heath Education Framework
- Universal (all students) or targeted (at-risk groups) 7-12th grade

# Data Linkage

# Maryland Suicide Data Warehouse




Hadi Kharrazi, MD, PhD

coursera

# Responsible Reporting on Suicide for Journalists

Aneri Pattani, MPH


www.coursera.org/learn/responsible-reporting-on-suicide-for-journalists

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**Center for Suicide Prevention**

# THANK YOU

**Contact:** hwilcox1@jhmi.edu

https://publichealth.jhu.edu/center-for-suicide-prevention

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# Thank you!

**Contact:**

hwilcox1@jhmi.edu

**Website:**

https://publichealth.jhu.edu/center-for-suicide-prevention

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