Suicide Risk Detection and Management in Clinical Settings

Implementation challenges and lessons learned

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Learning Objectives

Participants will be able to:

- Identify tools for detecting suicide risk and prioritizing evaluations in acute care settings

- Give examples of best practices to intervene on suicide risk in acute care patients

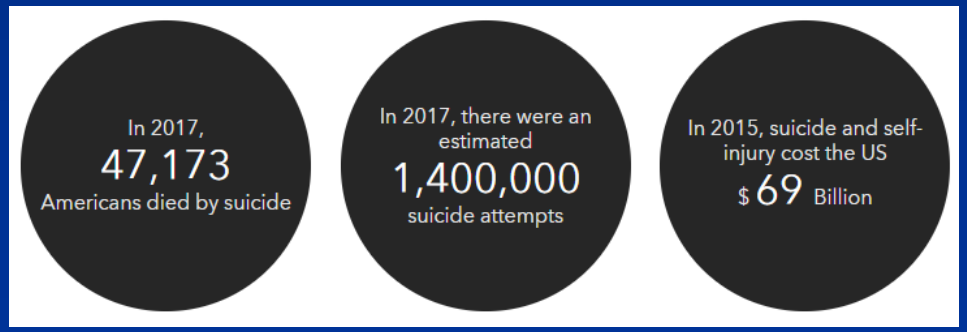
- Describe implementation challenges and solutions

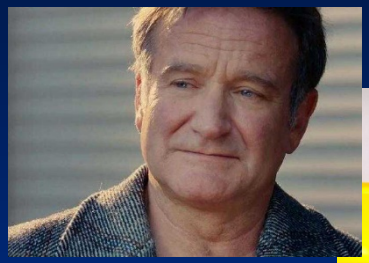
Outline

- Current state of suicide/suicide prevention
- Best practices in suicide prevention in acute care
  - Zero Suicide model
  - Screening tools
  - Brief interventions
- Implementation across a large health care system

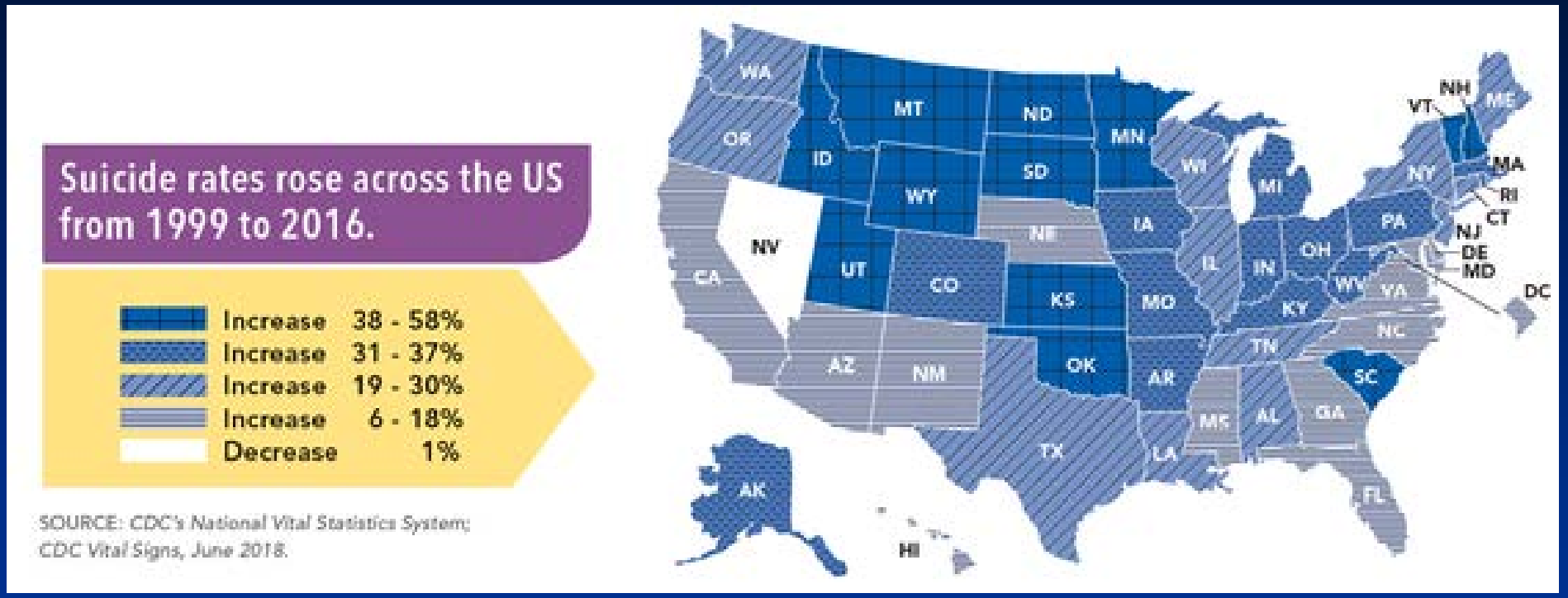
Suicide: Facts and Figures

- **10th** leading cause of death in the US
- **2nd** leading cause of death in teens and young adults



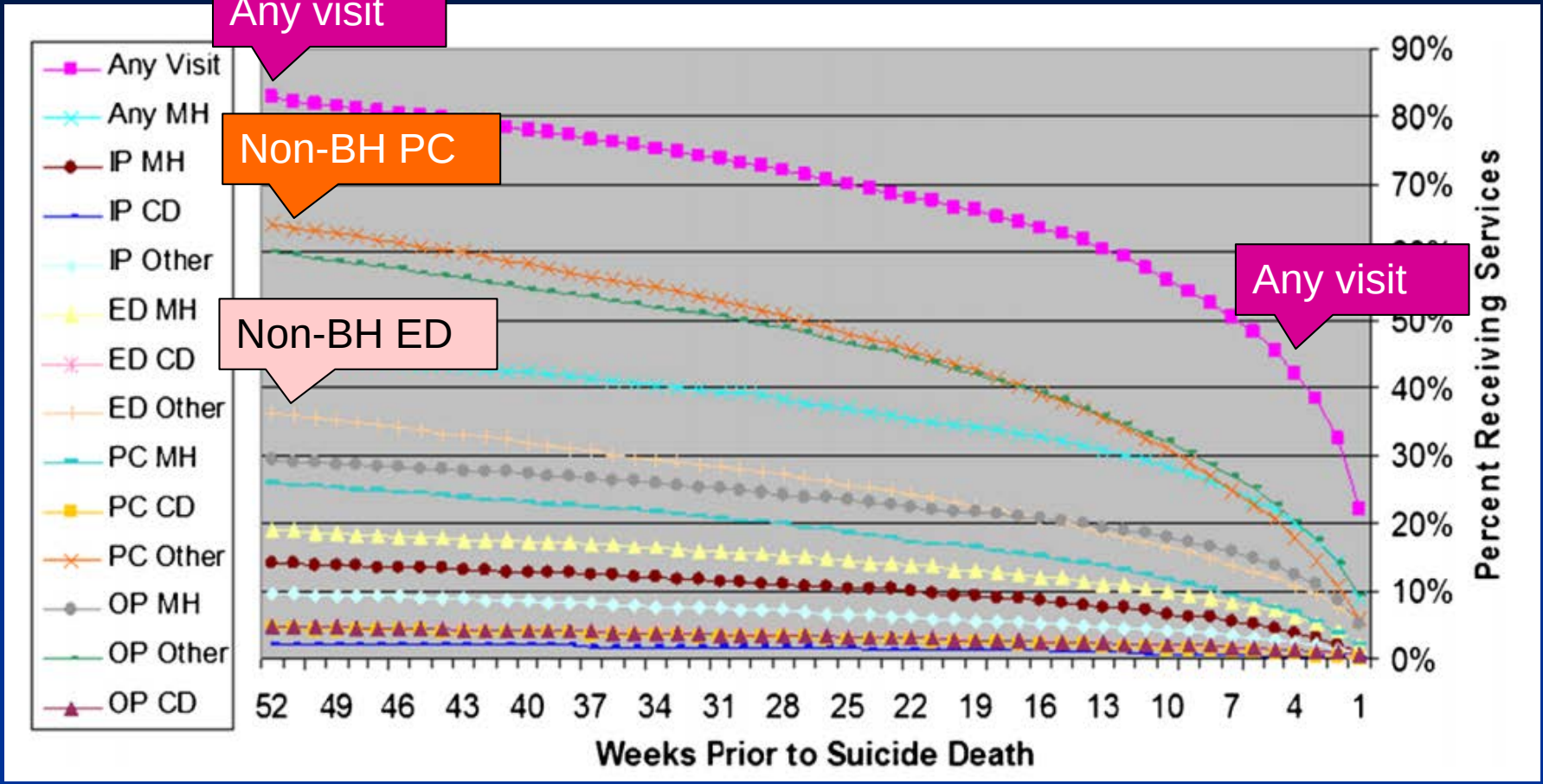


Suicide rates are increasing in the U.S.



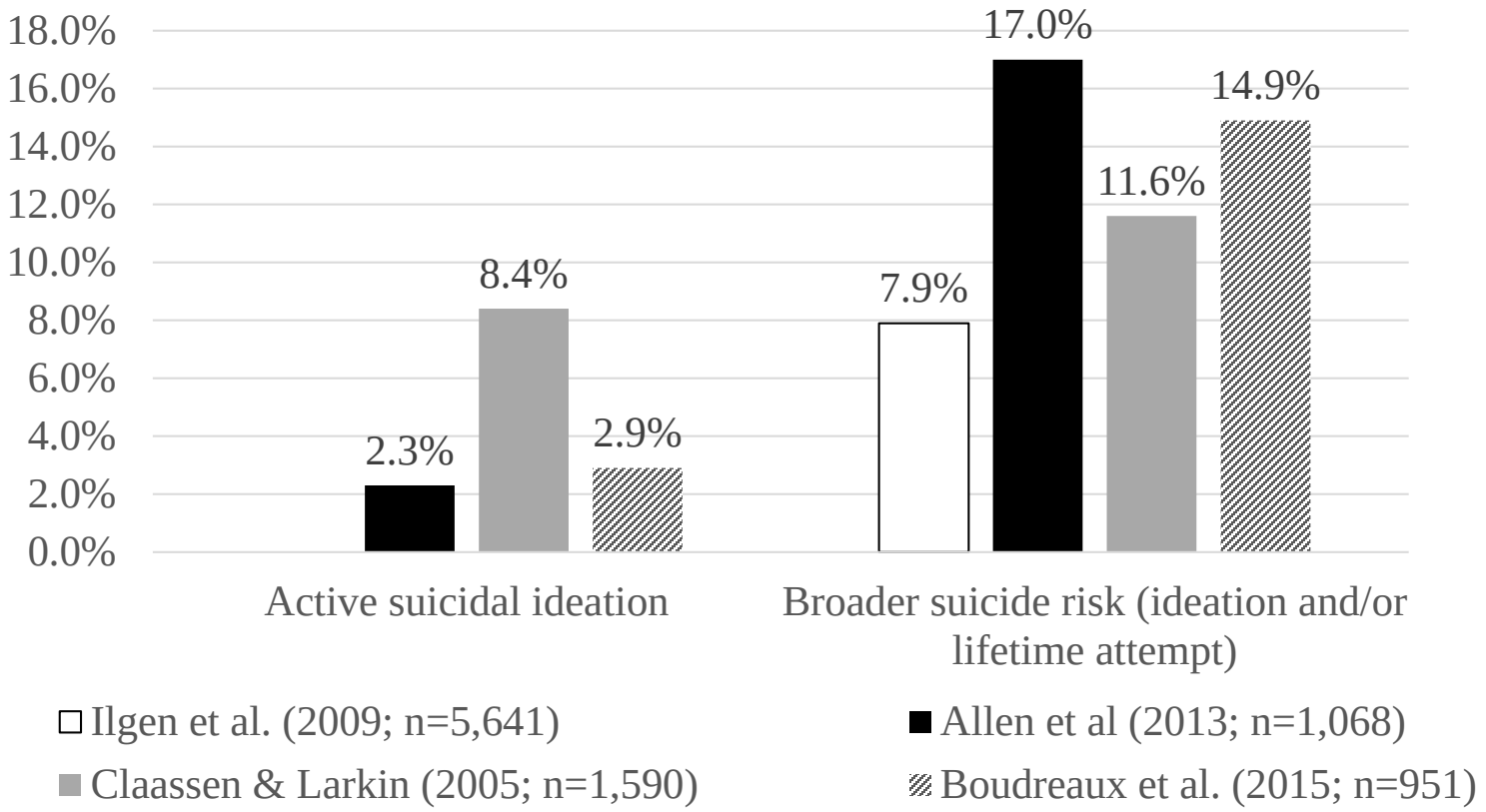
Health care use is frequent in suicide decedents

- Study of 5,894 suicides in the Mental Health Research Network (11 health systems serving over 11 million individuals across 11 states)



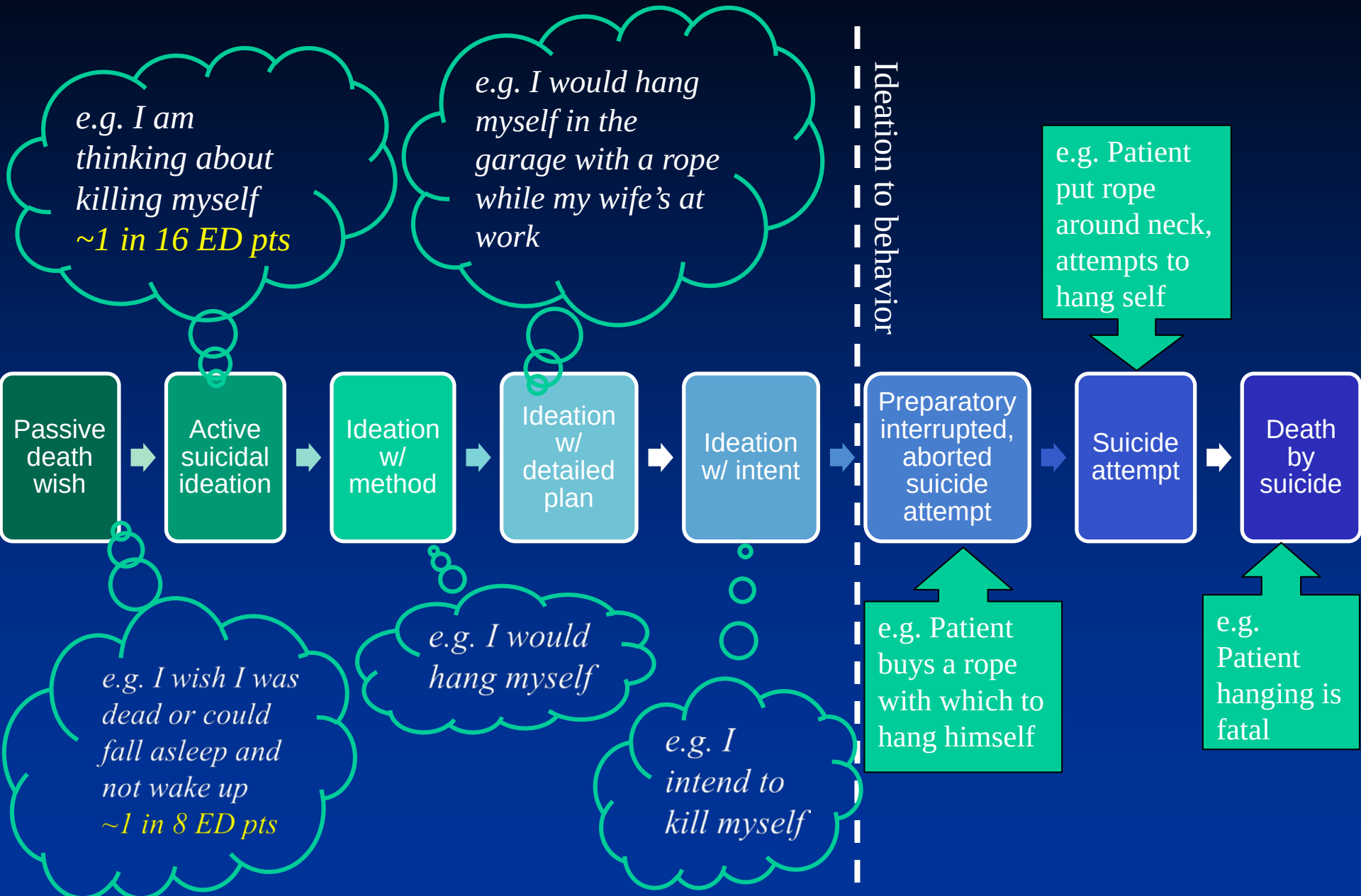
(Ahmedani et al., 2014)

Many emergency department patients have hidden suicide risk

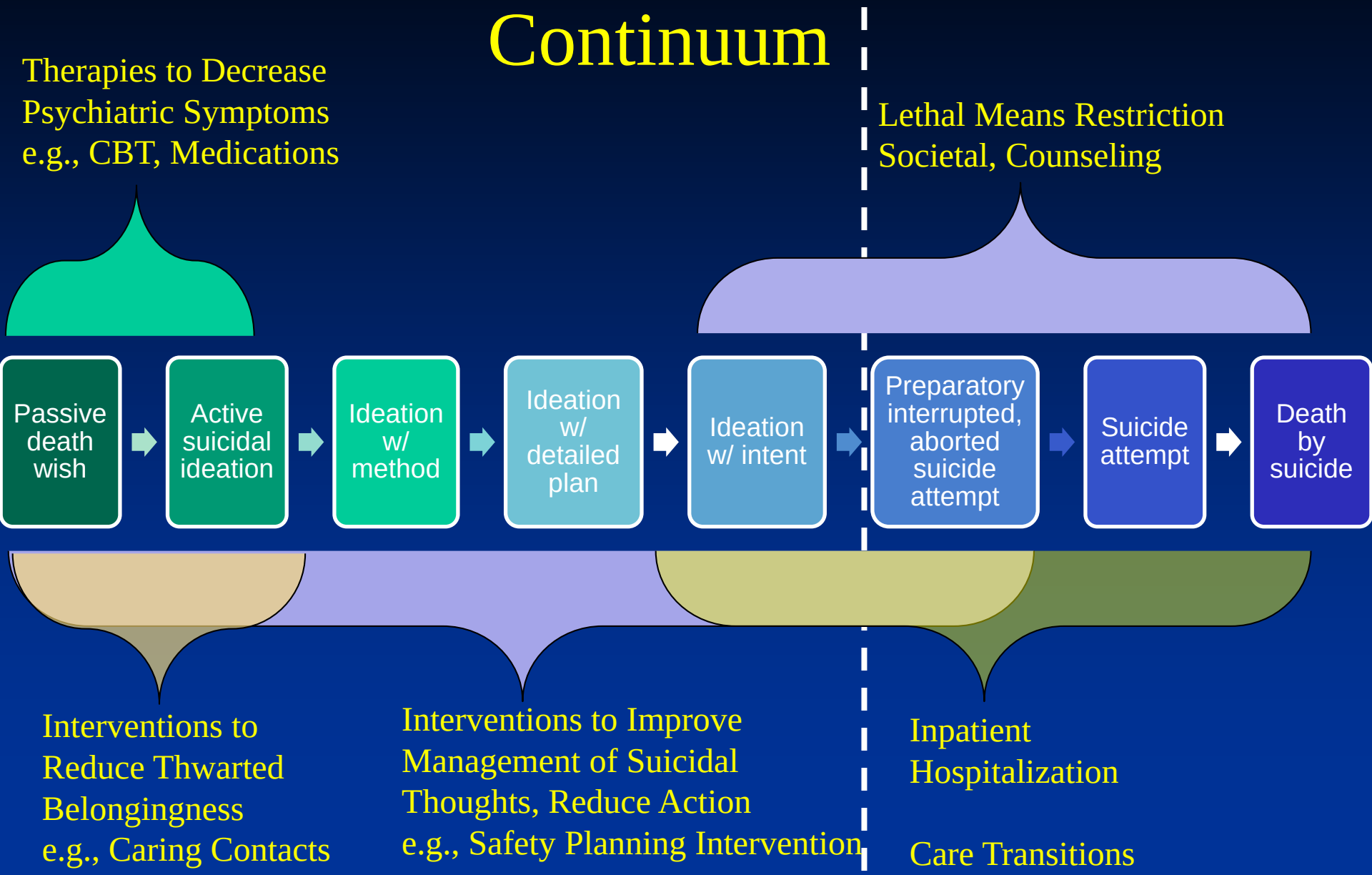


- Most of these patients are not identified and, even when identified not treated with best practices

Suicide Risk: A Continuum



Interventions to Address the Continuum



Outline

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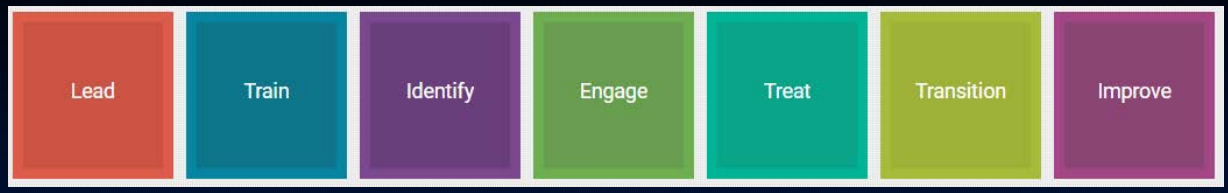
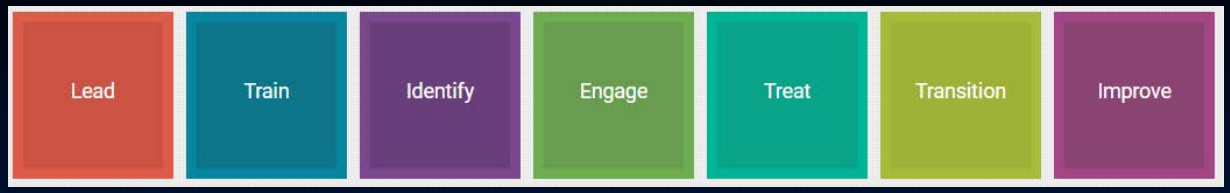
Zero Suicide



- A priority of the National Action Alliance for Suicide Prevention and a goal of the National Strategy for Suicide Prevention
  - **Lead** system-wide culture change committed to reducing suicides
  - **Train** a competent, confident, and caring workforce
  - **Identify** patients with suicide risk via comprehensive screenings

Zero Suicide



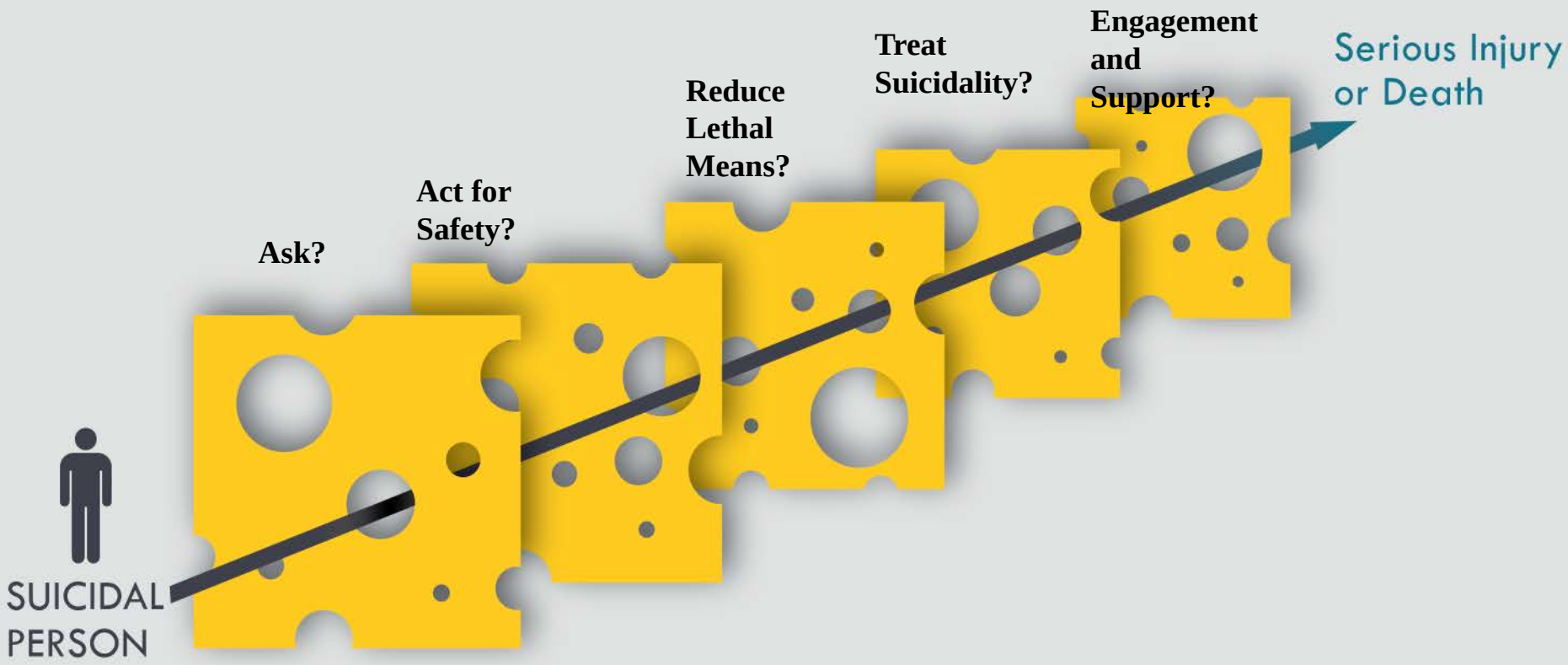
- A priority of the National Action Alliance for Suicide Prevention and a goal of the National Strategy for Suicide Prevention
  - **Engage** all individuals at-risk of suicide
  - **Treat** using evidence-based treatments
  - **Transition** individuals through care with warm hand-offs and supportive contacts
  - **Improve** policies and procedures through CQI

“It is critically important to design for zero even when it may not be theoretically possible…It’s about purposefully aiming for a higher level of performance.”

Thomas Priselac
President and CEO of Cedars-Sinai Medical Center

EDC (2015)

WITHOUT IMPROVED SUICIDE CARE, PEOPLE SLIP THROUGH GAPS



Adapted from James Reason's "Swiss Cheese" Model Of Accidents

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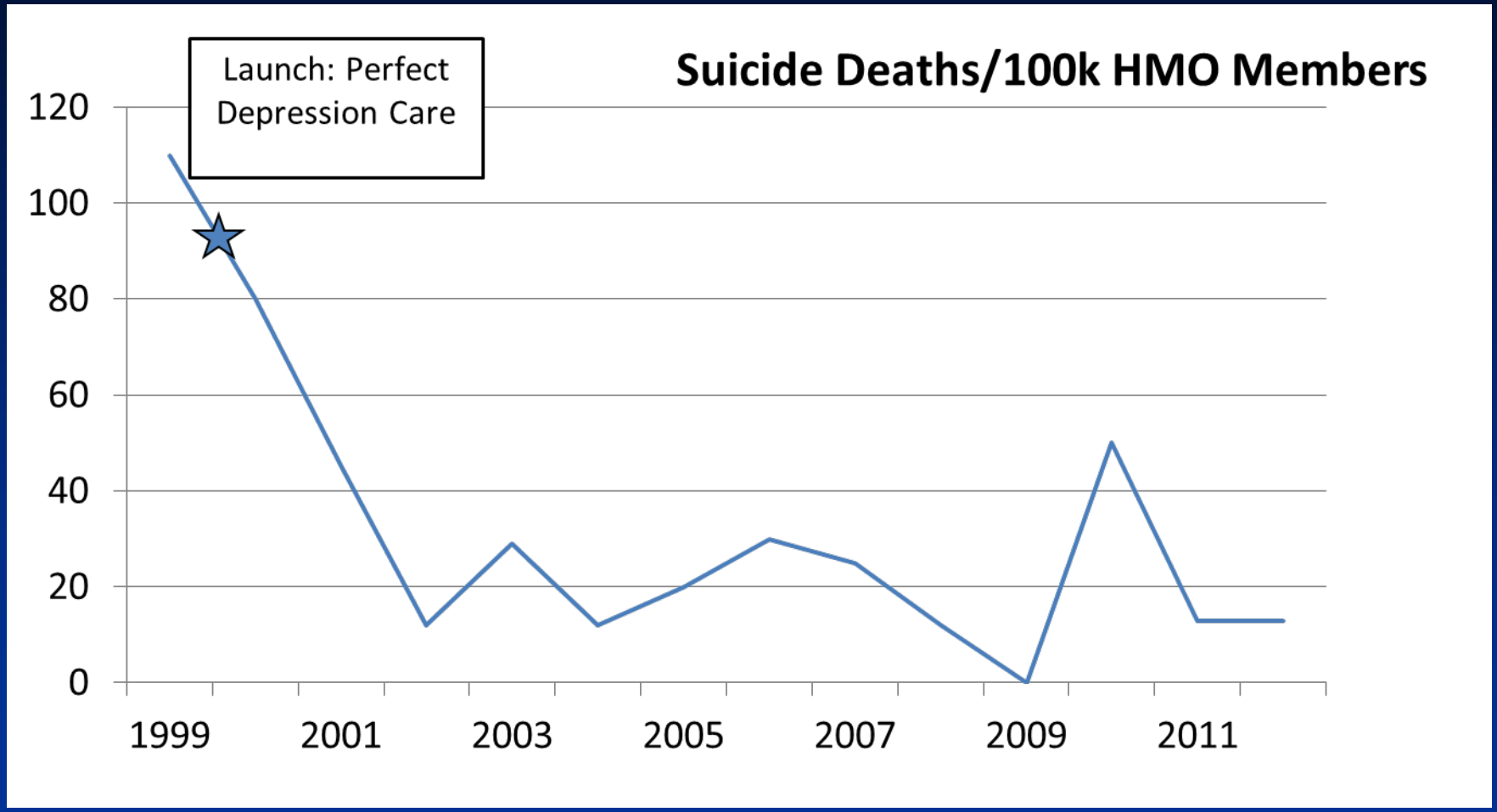
A Systematic Approach to Health Care Quality Improvement: Henry Ford Health System



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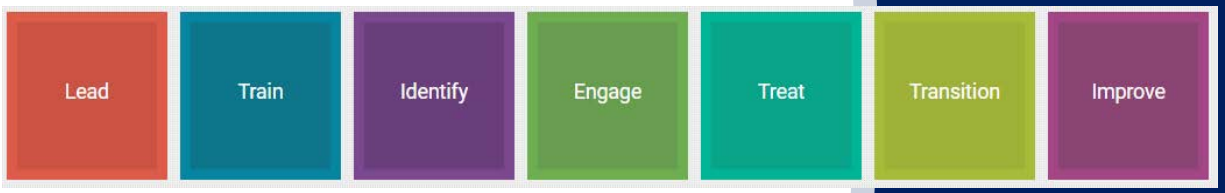
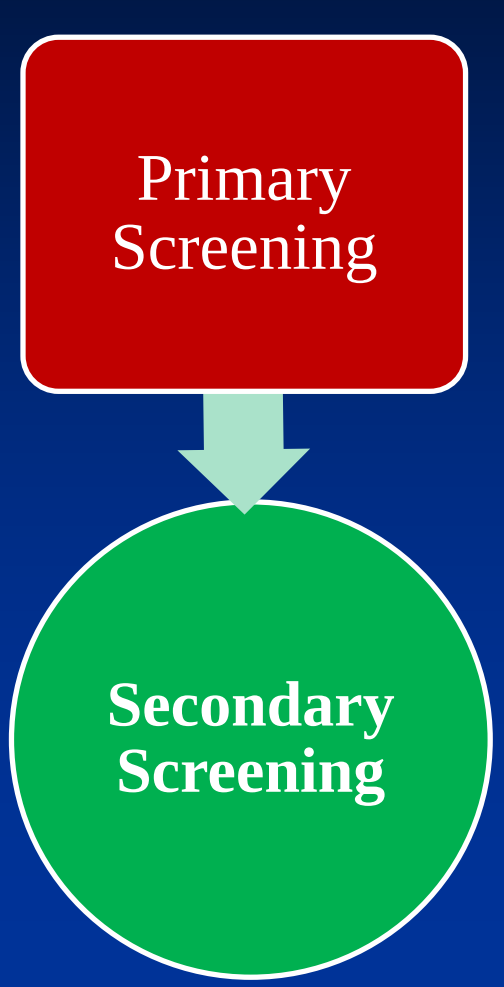


IDENTIFY

“Identify”
Universal Screening to Detect and Stratify



- Detects if non-negligible risk exists using specific criteria
- Stratifies risk to drive clinical action and risk mitigation

"Identify"
The Patient Safety Screener (PSS-3)

Introductory script: "Now I'm going to ask you some questions that we ask everyone treated here, no matter what problem they are here for. It is part of the hospital's policy and it helps us to make sure we are not missing anything important."

Over the past 2 weeks,

1. …have you felt down, depressed, or hopeless?
   ☐ Yes ☐ No ☐ Patient unable to complete ☐ Patient refused

1. From PHQ-2

2. …have you had thoughts of killing yourself?
   ☐ Yes ☐ No ☐ Patient unable to complete ☐ Patient refused
   If patient responds yes, ascertain whether they are currently suicidal

2. Adapted from CSSRS

In your lifetime,

3. … have you ever attempted to kill yourself?
   ☐ Yes ☐ No ☐ Patient unable to complete ☐ Patient refused
   When did this happen?
   - ☐ Within the past 24 hours (including today)
   - ☐ Within the last month (but not today)
   - ☐ Between 1 and 6 months ago
   - ☐ More than 6 months ago
   - ☐ Patient unable to complete
   - ☐ Patient refused

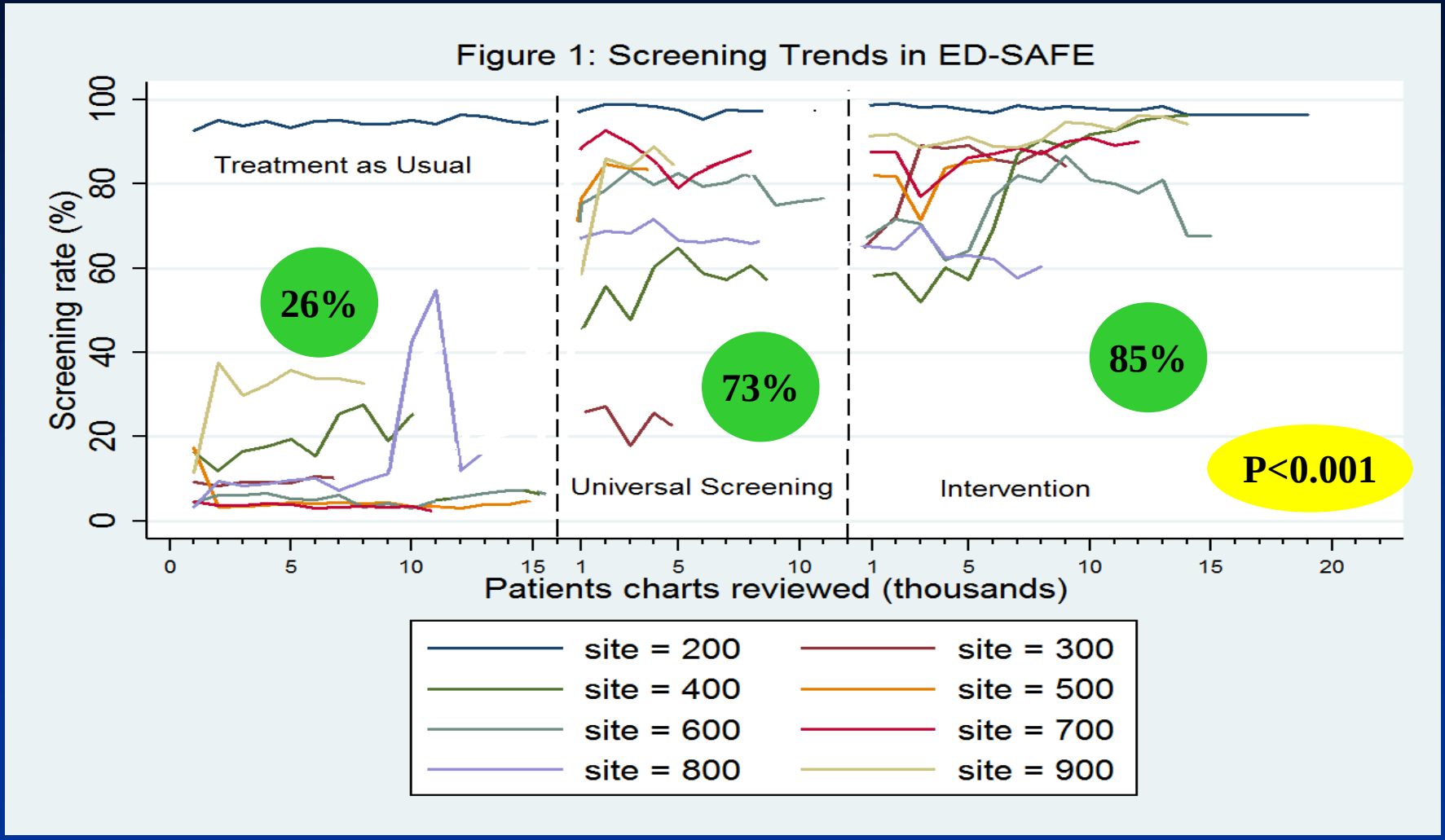
3. Adapted from CSSRS

(Boudreaux et al., 2015)

“Identify”
The Patient Safety Screener (PSS-3)

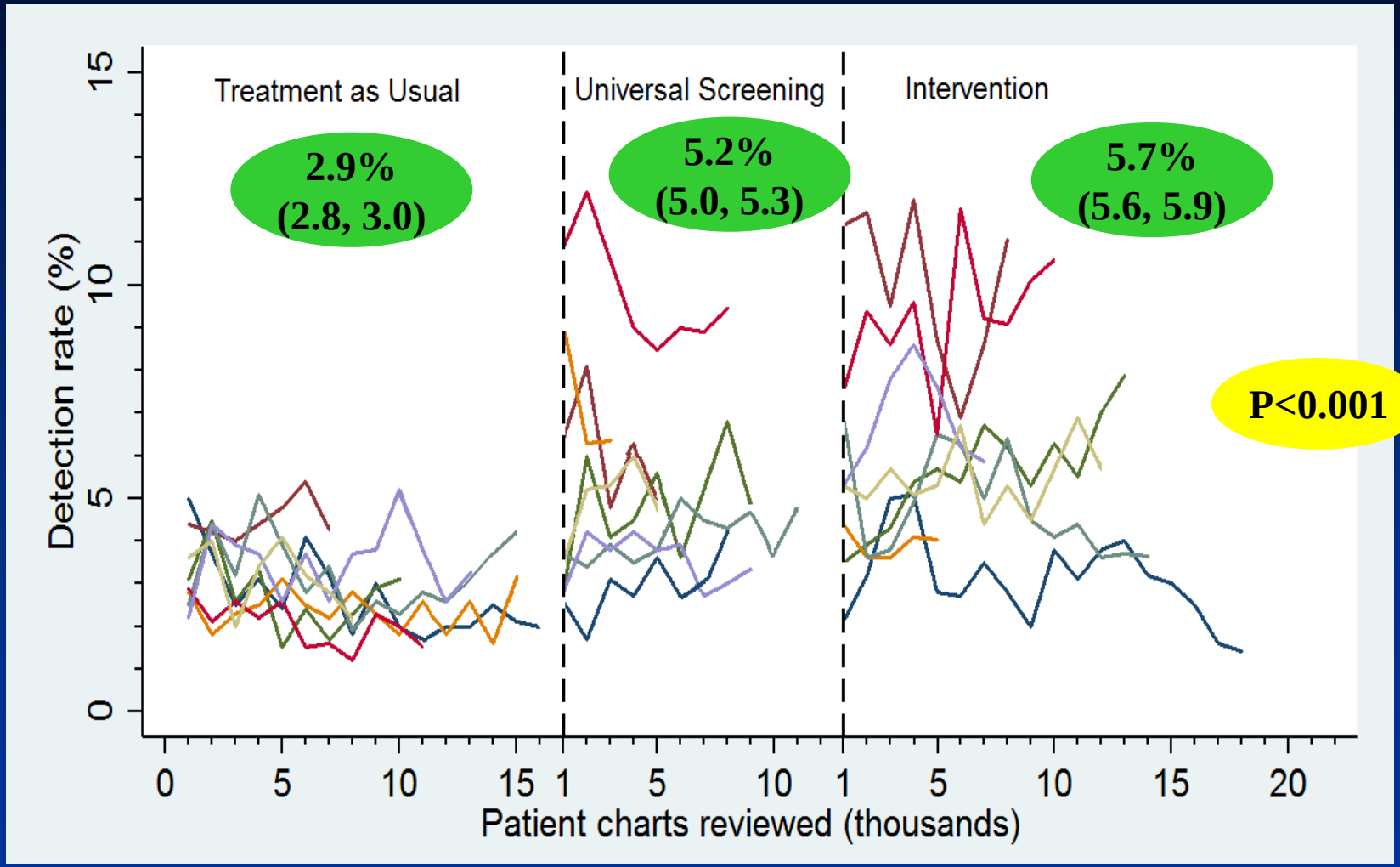
- Validation study (Boudreaux et al., 2015)
- Administered the tool to general adult ED medical and psychiatric presentations
- Compared to a reference standard, Beck Scale for Suicide Ideation (BSSI; Beck & Steer, 1991)
- Concurrent validity with BSSI:
  - Overall positive screening (PSS: positive on ideation and/or attempt; BSSI: ideation 4 or 5 or attempt)
    - Kappa =0.95 (95% CI: 0.91-0.99)

"Identify"
Emergency Department Safety Assessment and Followup Evaluation (ED-SAFE) 1 : Implementing Universal Screening



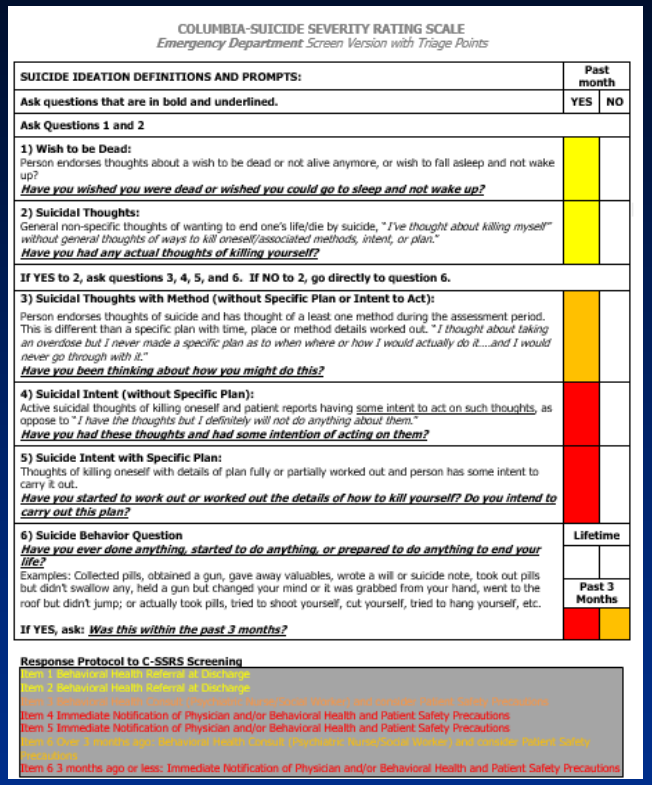
Boudreaux et al. 2016

“Identify”
ED-SAFE 1: Detecting Suicide Risk



Boudreaux et al. 2016

“Identify”: Other tools



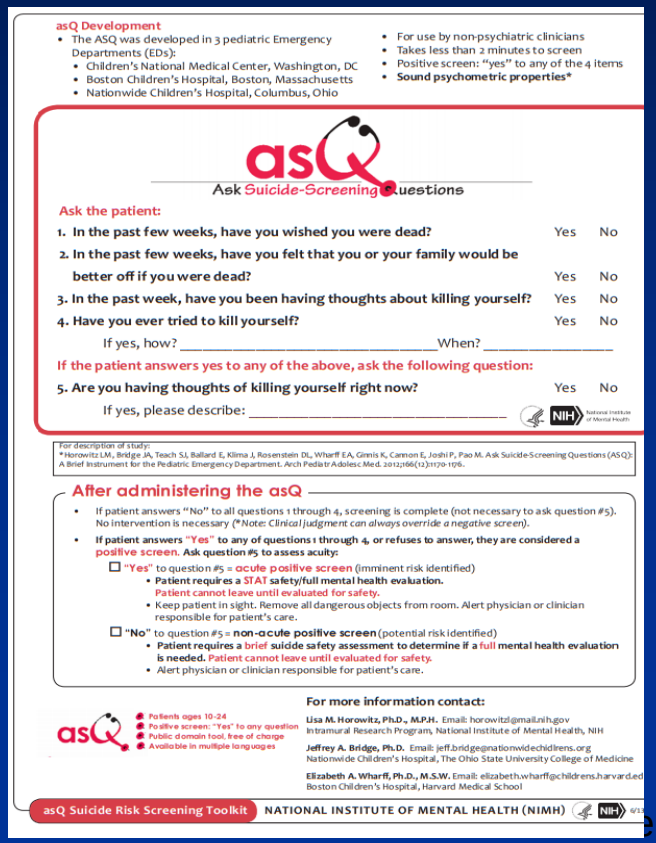
COLUMBIA-SUICIDE SEVERITY RATING SCALE
Emergency Department Screen Version with Triage Points

SUICIDE IDEATION DEFINITIONS AND PROMPTS:	Past month YES	NO
Ask questions that are in bold and underlined.		
Ask Questions 1 and 2		
1) Wish to be Dead: Person endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and not wake up? ***Have you wished you were dead or wished you could go to sleep and not wake up?***		
2) Suicidal Thoughts: General non-specific thoughts of wanting to end one's life/die by suicide, "*I've thought about killing myself*" without general thoughts of ways to kill oneself/associated methods, intent, or plan." ***Have you had any actual thoughts of killing yourself?***		
If YES to 2, ask questions 3, 4, 5, and 6. If NO to 2, go directly to question 6.		
3) Suicidal Thoughts with Method (without Specific Plan or Intent to Act): Person endorses thoughts of suicide and has thought of a least one method during the assessment period. This is different than a specific plan with time, place or method details worked out. "*I thought about taking an overdose but I never made a specific plan as to when where or how I would actually do it….and I would never go through with it.*" ***Have you been thinking about how you might do this?***		
4) Suicidal Intent (without Specific Plan): Active suicidal thoughts of killing oneself and patient reports having some intent to act on such thoughts, as oppose to "*I have the thoughts but I definitely will not do anything about them.*" ***Have you had these thoughts and had some intention of acting on them?***		
5) Suicide Intent with Specific Plan: Thoughts of killing oneself with details of plan fully or partially worked out and person has some intent to carry it out. ***Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?***		
6) Suicide Behavior Question ***Have you ever done anything, started to do anything, or prepared to do anything to end your life?*** Examples: Collected pills, obtained a gun, gave away valuables, wrote a will or suicide note, took out pills but didn't swallow any, held a gun but changed your mind or it was grabbed from your hand, went to the roof but didn't jump; or actually took pills, tried to shoot yourself, cut yourself, tried to hang yourself, etc.	Lifetime	
If YES, ask: *Was this within the past 3 months?*	Past 3 Months	

Response Protocol to C-SSRS Screening
Item 1 Behavioral Health Referral at Discharge
Item 2 Behavioral Health Referral at Discharge
Item 3 Immediate Notification of Physician and/or Behavioral Health and Patient Safety Precautions
Item 4 Immediate Notification of Physician and/or Behavioral Health and Patient Safety Precautions
Item 5 Immediate Notification of Physician and/or Behavioral Health and Patient Safety Precautions
Item 6 3 months ago or less: Immediate Notification of Physician and/or Behavioral Health and Patient Safety Precautions

Columbia Suicide Severity Rating Scale (CSSRS) - Triage version

- Includes ideation severity and attempt only



asQ Development
- The ASQ was developed in 3 pediatric Emergency Departments (EDs):
  - Children's National Medical Center, Washington, DC
  - Boston Children's Hospital, Boston, Massachusetts
  - Nationwide Children's Hospital, Columbus, Ohio
- For use by non-psychiatric clinicians
- Takes less than 2 minutes to screen
- Positive screen: "yes" to any of the 4 items
- **Sound psychometric properties***

asQ Ask Suicide-Screening Questions

Ask the patient:

1. In the past few weeks, have you wished you were dead?	Yes	No
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?	Yes	No
3. In the past week, have you been having thoughts about killing yourself?	Yes	No
4. Have you ever tried to kill yourself?	Yes	No

If yes, how? _____ When? _____

If the patient answers yes to any of the above, ask the following question:

5. Are you having thoughts of killing yourself right now?	Yes	No

If yes, please describe: _____

NIH National Institute of Mental Health

For description of study:
*Horowitz LM, Bridge JA, Teach SJ, Ballard E, Klima J, Rosenstein DL, Wharff EA, Ginnis K, Cannon E, Joshi P, Pao M. Ask Suicide-Screening Questions (ASQ): A Brief Instrument for the Pediatric Emergency Department. Arch Pediatr Adolesc Med. 2012;166(12):1170-1176.

After administering the asQ
- If patient answers "No" to all questions 1 through 4, screening is complete (not necessary to ask question #5). No intervention is necessary (*Note: *Clinical judgment can always override a negative screen*).
- **If patient answers "Yes" to any of questions 1 through 4, or refuses to answer, they are considered a positive screen. Ask question #5 to assess acuity:**
  - ☐ "Yes" to question #5 = **acute positive screen** (imminent risk identified)
    - **Patient requires a STAT safety/full mental health evaluation.** Patient cannot leave until evaluated for safety.
    - Keep patient in sight. Remove all dangerous objects from room. Alert physician or clinician responsible for patient's care.
  - ☐ "No" to question #5 = **non-acute positive screen** (potential risk identified)
    - **Patient requires a brief suicide safety assessment to determine if a full mental health evaluation is needed.** Patient cannot leave until evaluated for safety.
    - Alert physician or clinician responsible for patient's care.

asQ
- Patients ages 10-24
- Positive screen: "Yes" to any question
- Public domain tool, free of charge
- Available in multiple languages

For more information contact:

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Intramural Research Program, National Institute of Mental Health, NIH

Jeffrey A. Bridge, Ph.D. Email: jeff.bridge@nationwidechildrens.org
Nationwide Children's Hospital, The Ohio State University College of Medicine

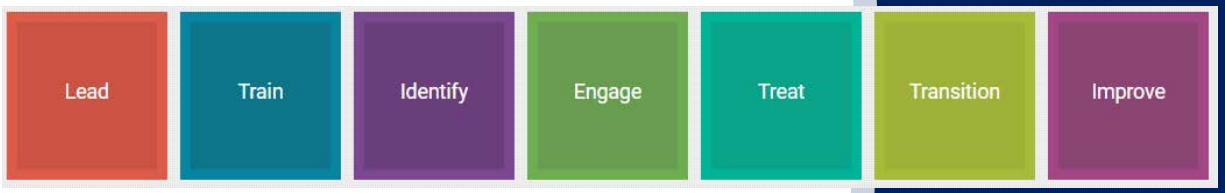
Elizabeth A. Wharff, Ph.D., M.S.W. Email: elizabeth.wharff@childrens.harvard.edu
Boston Children's Hospital, Harvard Medical School

asQ Suicide Risk Screening Toolkit | NATIONAL INSTITUTE OF MENTAL HEALTH (NIMH) | NIH

Ask Suicide Screening Question (ASQ)

For patients ages 10-24

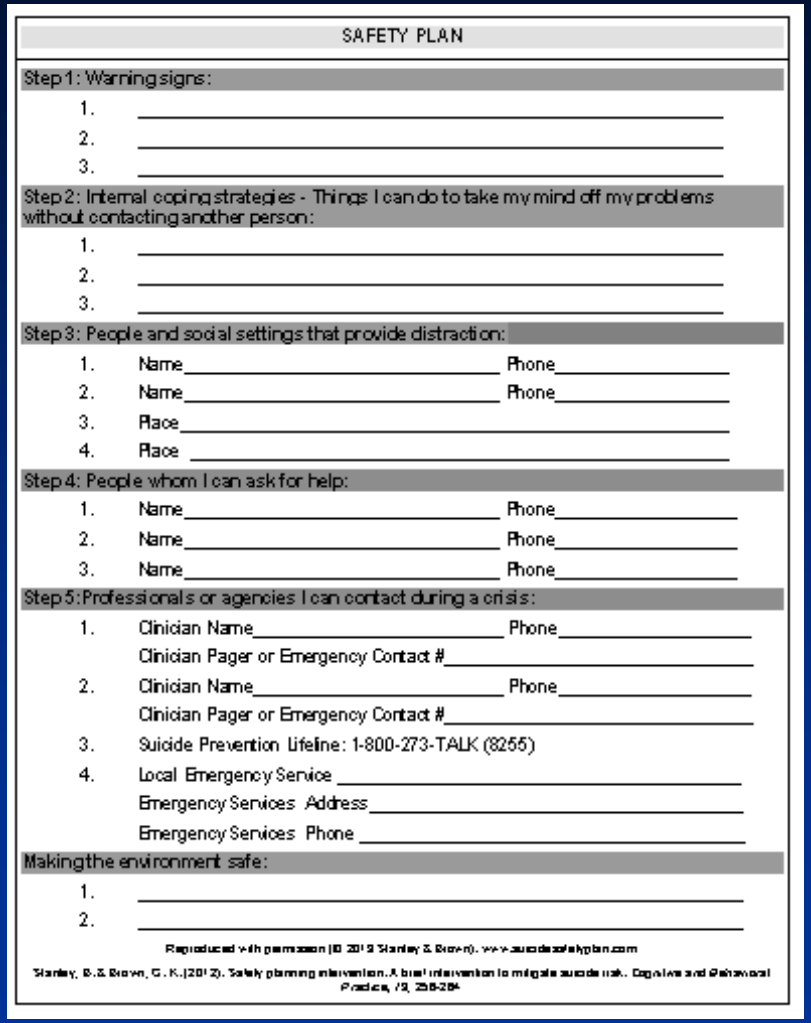
Positive screen: “Yes” to any question



ENGAGE

“Engage”
Safety Planning Intervention

1. Recognizing warning signs
2. Employing internal coping strategies
3. Socializing with others
4. Contacting family members or friends in a crisis
5. Contacting mental health professionals or agencies
6. Reducing the potential for use of lethal means



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:

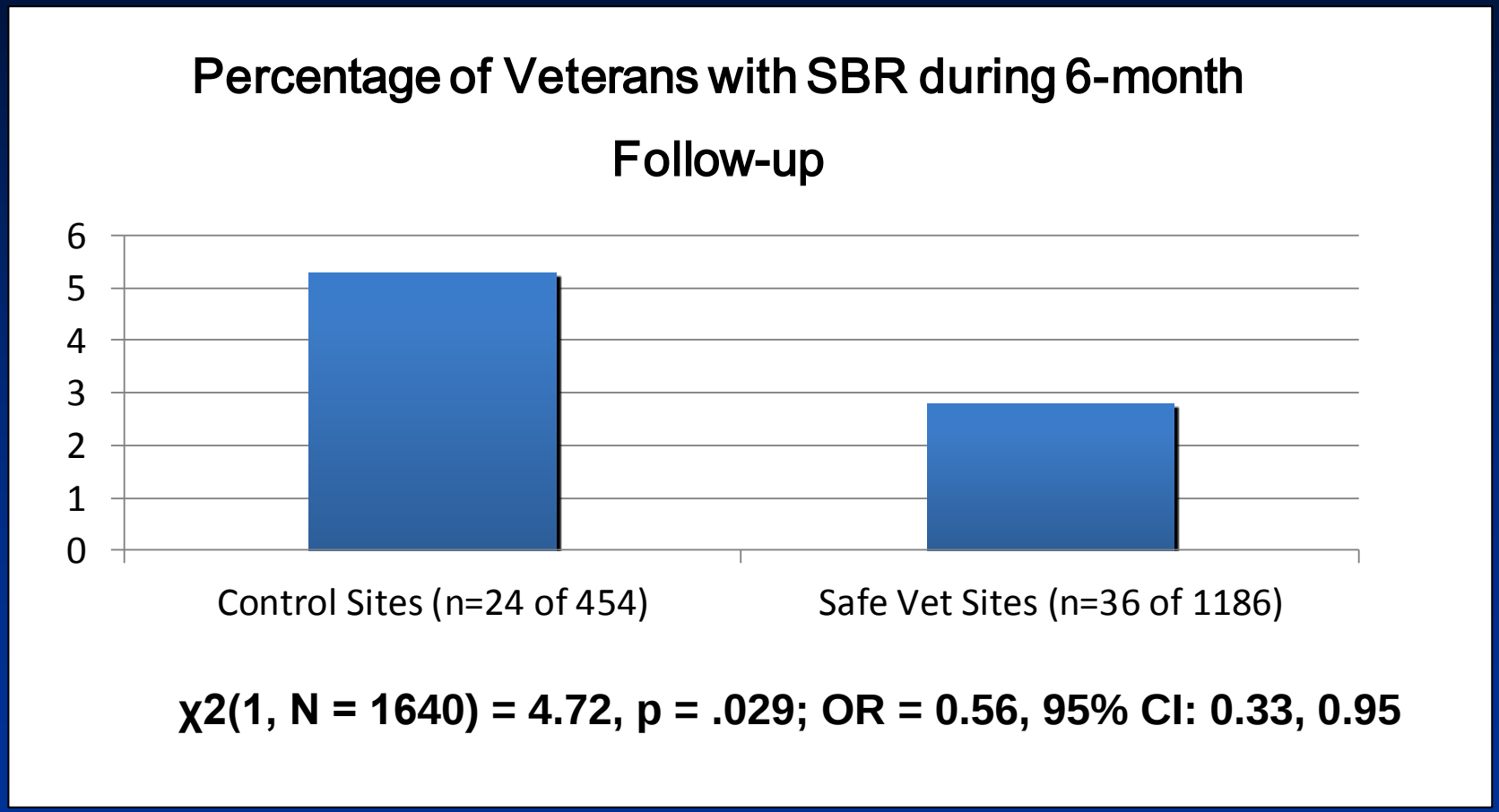
1. _____
2. _____

Reproduced with permission (© 2012 Stanley & Brown). www.suicidesafetyplan.com

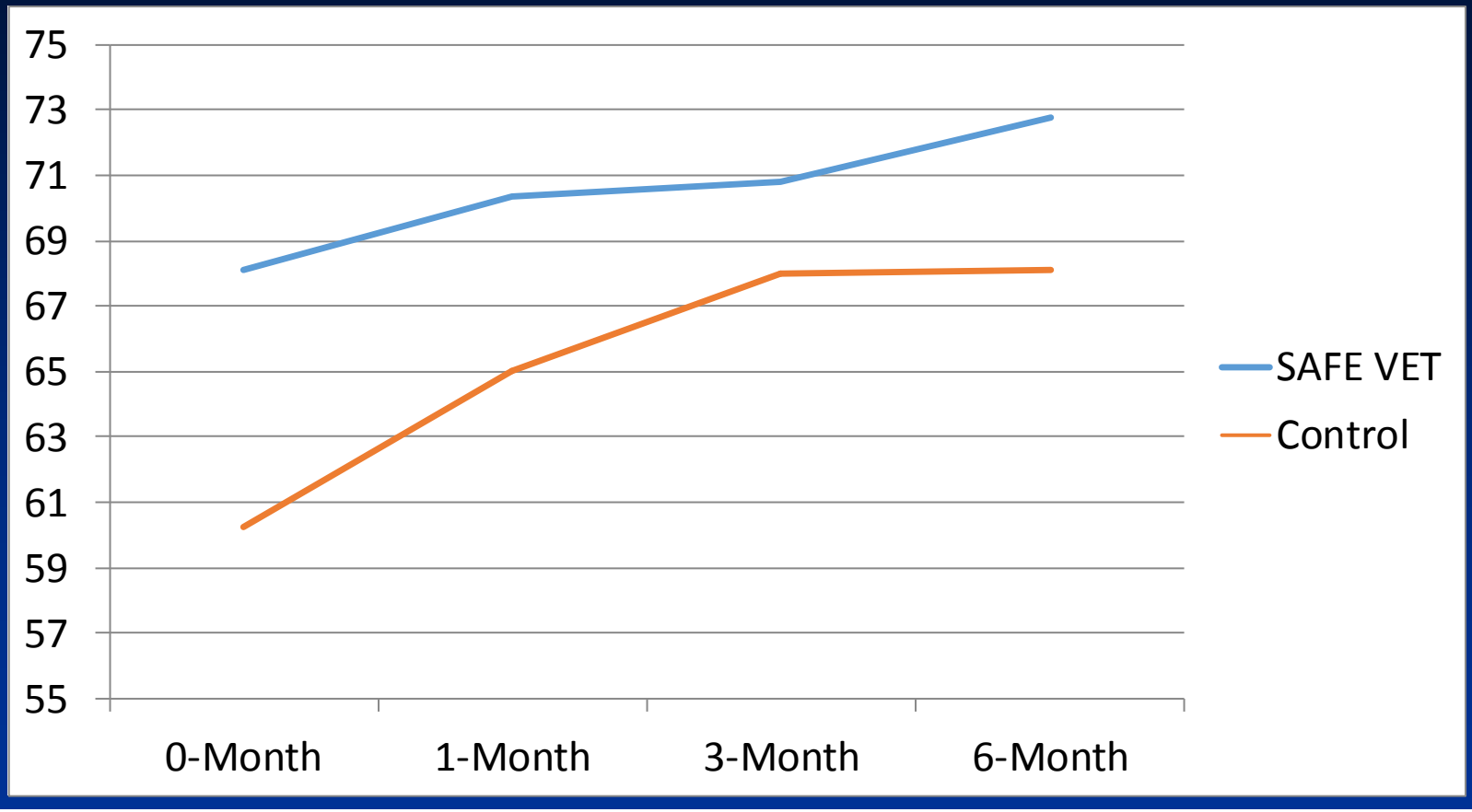
Stanley, B. & Brown, G. K. (2012). Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive and Behavioral Practice, 19*, 256-264.

Stanley & Brown (2015)

Safety Planning Intervention (SPI) is associated with a decrease in suicide behavior report (SBR)



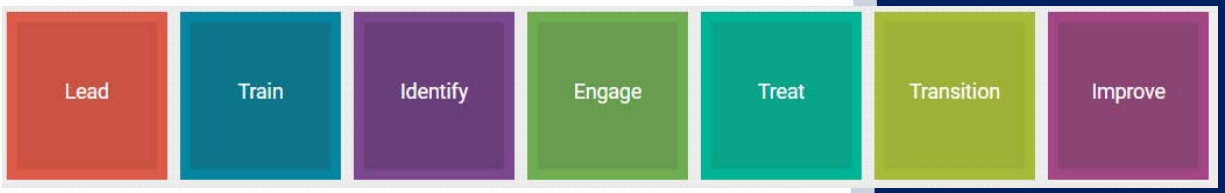
SPI is associated with improved suicide-related coping



Mixed effect regression: Main effect z = 2.95, 95% CI: 1.67, 8.23, p = 0.003
Group by time interaction z = -2.16, 95% CI: -1.32, -0.66, p= .03

"Engage"
Counseling on Access to Lethal Means

- Those dying by suicide were more likely to live in homes with guns (Brent et al., 1999)
- Higher risk of suicide in states with higher firearm prevalence (Miller et al., 2007)
- Removing access to lethal means can prevent a lethal suicide attempt or prevent the suicide attempt entirely (Sarchiapone et al., 2011)
- Counseling on access to lethal means (CALM)
  - Online training: https://www.sprc.org/resources-programs/calm-counseling-access-lethal-means

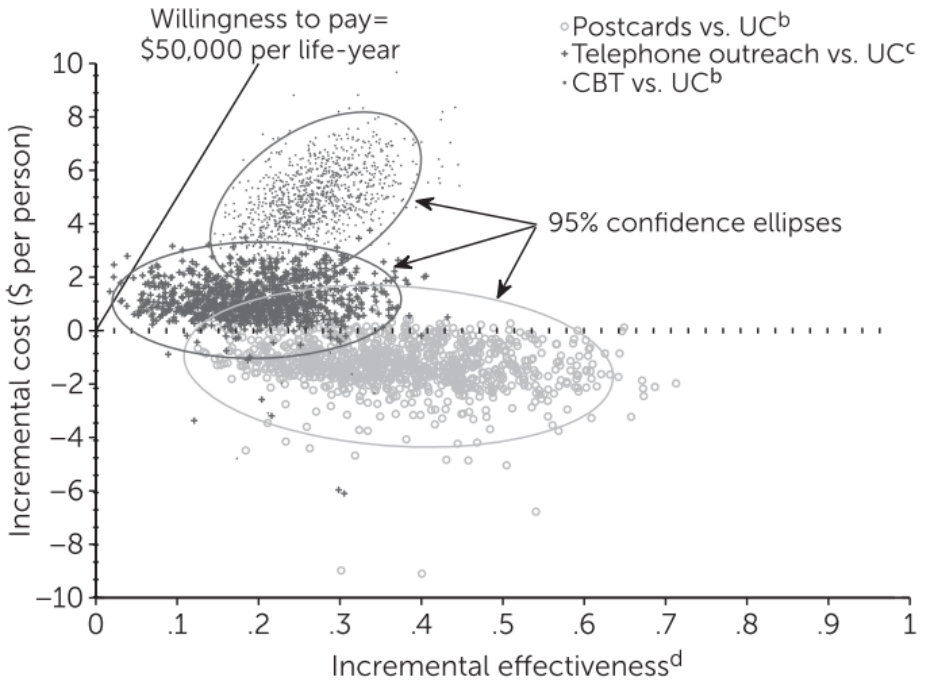


TREAT

TRANSITION

"Treat"/"Transition"
Cost-effectiveness of interventions in ED

FIGURE 1. Incremental costs and outcomes of the three interventions to reduce suicide risk among hospital emergency department patients, compared with usual care (UC)[a]



[a] Based on Monte Carlo simulation that accounted for uncertainty across the model inputs

[b] Compared with usual care, postcards and cognitive-behavioral therapy (CBT) improved outcomes with incremental cost-effectiveness (ICE) below $50,000 per life-year with certainty (100% likelihood).

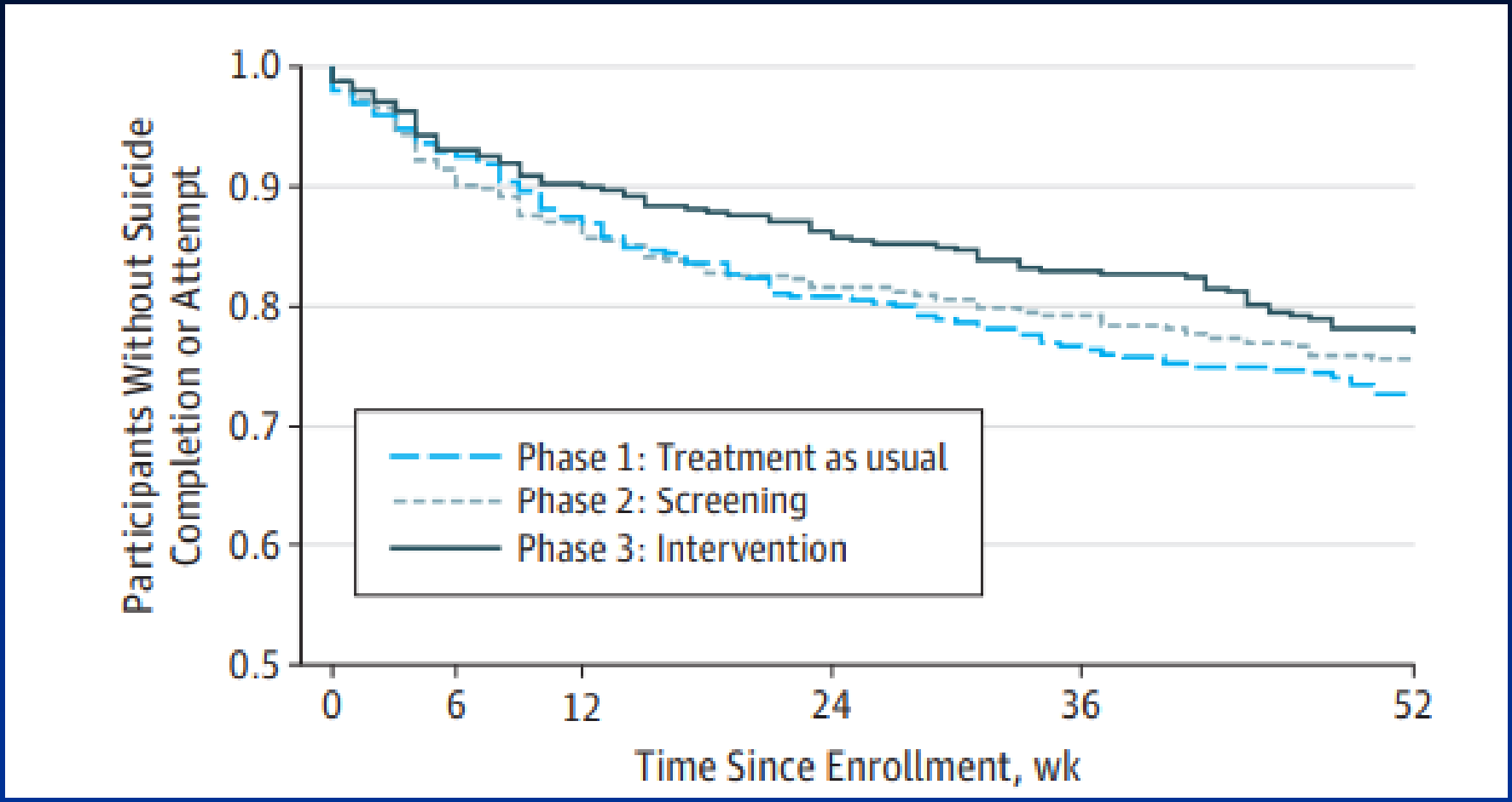
[c] Compared with usual care, telephone outreach improved outcomes with ICE below $50,000 per life-year with 99.5% likelihood.

[d] Saved life-years per emergency department visitor $\times 10^{-3}$

- Modeled costs and outcomes based on existing studies
- Caring contact postcards improved outcomes *and* reduced costs, compared with usual care
- Telephone outreach and CBT improved outcomes at an incremental cost below a WTP of $50,000 per life-year

Denchev et al., 2018

“Transition”
ED-SAFE 1: Counseling calls (CLASP-ED)



Miller et al. 2017

Outline

- Current state of suicide/suicide prevention
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  - Zero Suicide model
  - Screening tools
  - Brief interventions
- Implementation across a large health care system: The System of Safety study

System of Safety

Title: *A System of Safety (SOS): Preventing Suicide through Healthcare System Transformation*

- PIs: Edwin D. Boudreaux, Catarina I. Kiefe, University of Massachusetts Medical School Worcester, MA

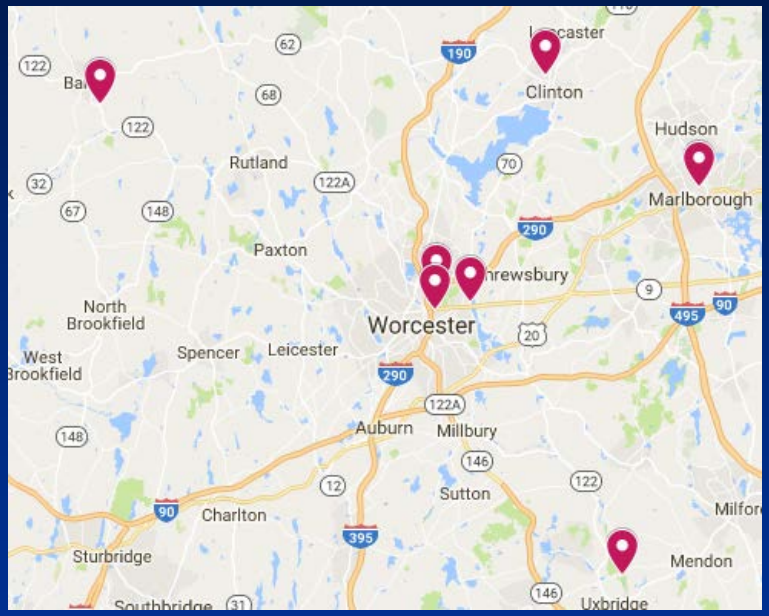
- Funded by: National Institute of Mental Health (1R01MH112138-01)

- Aim: To implement Zero Suicide's Seven Essential Elements of Care across settings through continuous performance improvement hub-and-spoke model and a stepped wedge design

System of Safety: Setting and Context

UMass Memorial Health Care System

- Phase 1: Six EDs at four sites
- Phase 2: Inpatient med/surg and BH at five hospitals
- Phase 3: Primary care and specialty outpatient

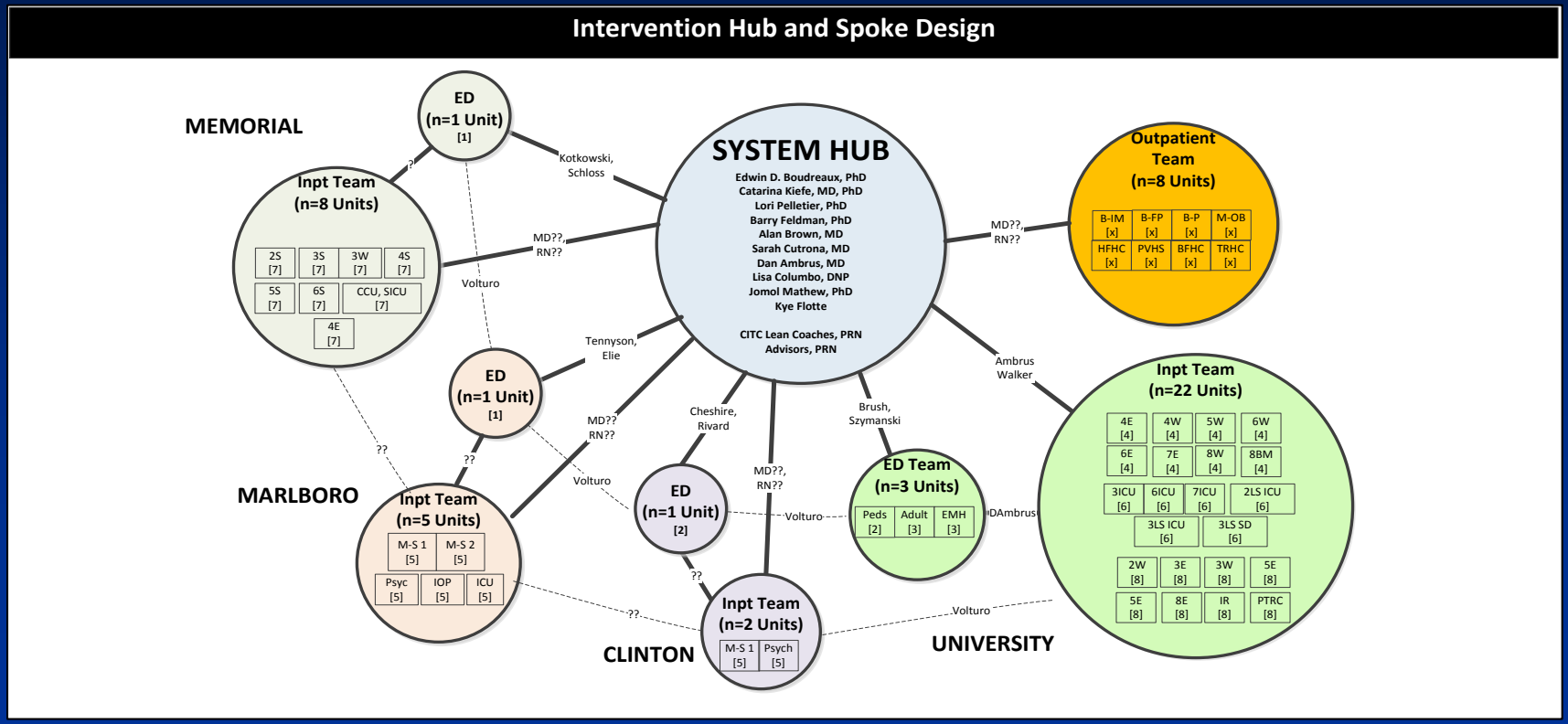


Main types of providers/stakeholders

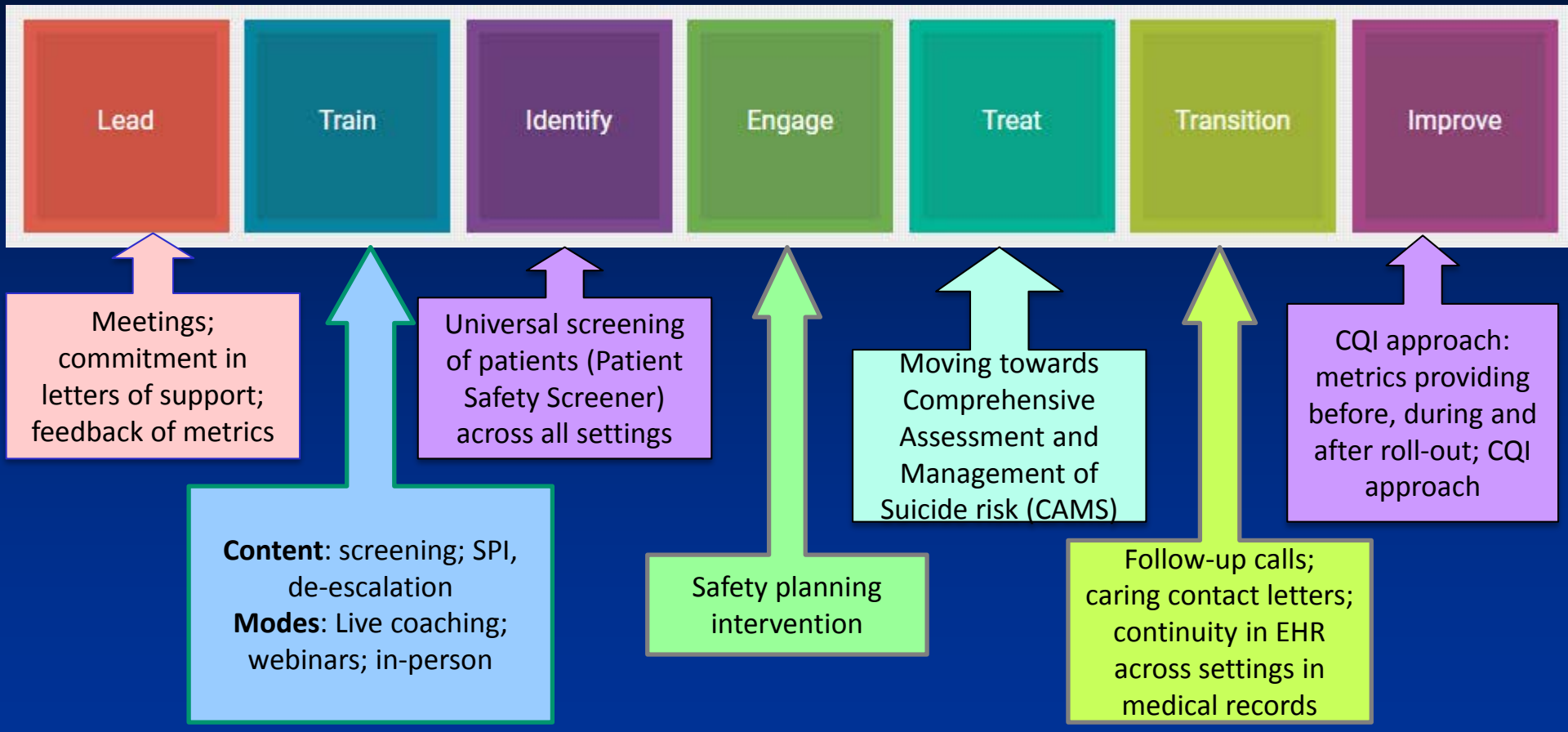
- RNs, MDs, Patient care associates, Mental Health Clinicians

SOS: Lean Hub and Spoke

- Central Lean Hub works with spokes to train, implement, monitor, and improve performance

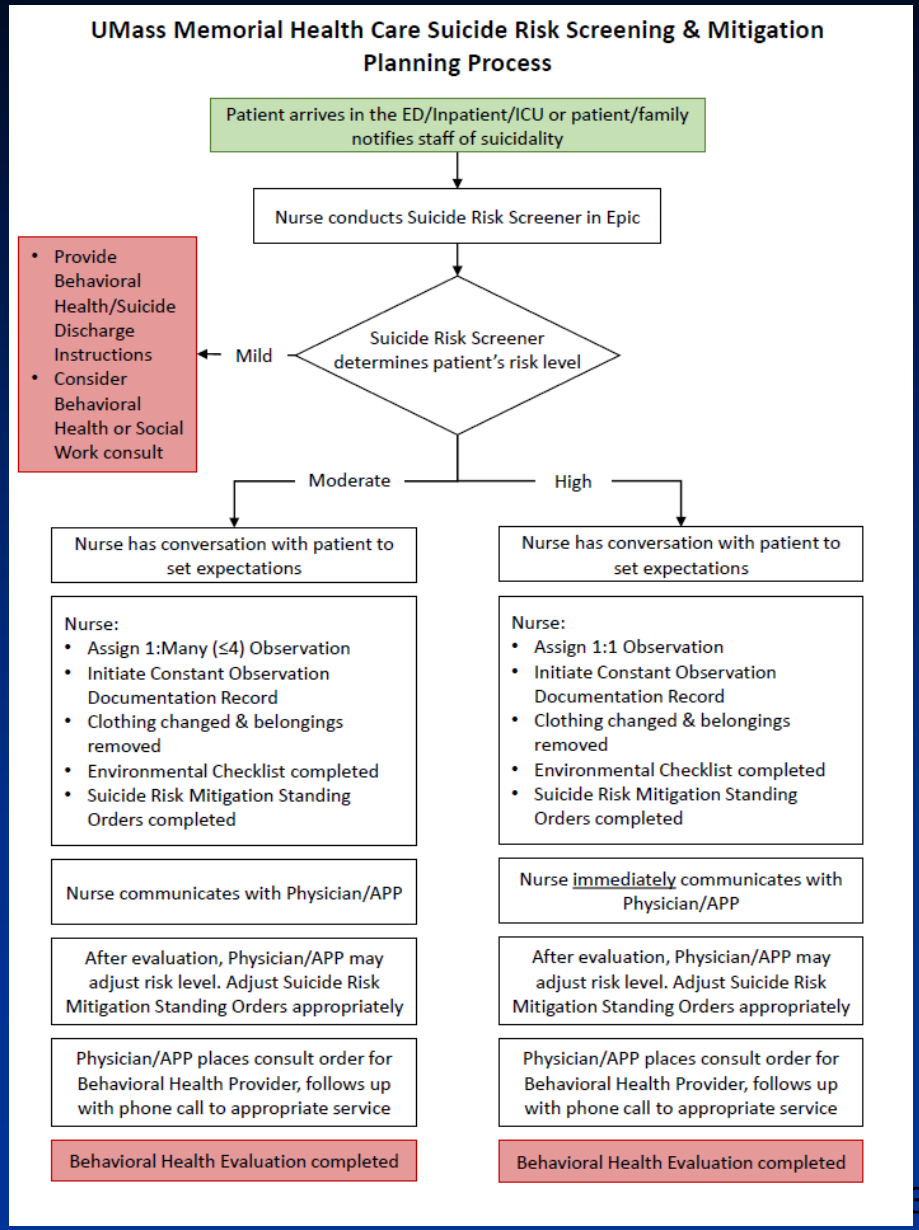


Zero Suicide components in System of Safety



UMMHC workflow

1. Universal primary screening using PSS-3 by nurse
2. If +, stratification using the ED-SAFE Secondary Screener (ESS)
   - Mild, moderate, high
3. Safety precautions
4. Review by physician
5. Behavioral health evaluation
   - Safety planning where available
6. Referral resources



Implementation strategies had to be wide-ranging

- ✓ Screening tools, safety plan and alerts built in EHR
- ✓ Online modules rolled out to RNs, MDs, and PCAs
- ✓ In-person training (to varying degrees)
- ✓ System-wide policy approved
- ✓ Reporting and auditing to identify shortfalls
- ✓ CQI approach and post go-live unit calls

Next steps: Extend to behavioral health and primary care

Lessons learned

- It takes time to find the right task for the right role
  - RNs fit well with screening but not brief intervention

- Screening was difficult, but less difficult than implementing intervention and transition

- Carrot vs Stick – likely never would have had significant transformation without the stick (i.e., Joint Commission)

Lessons learned (contd.)

- Stepped wedge design impeded progress and ultimately fell pretty to the “real world” organization of healthcare

- Barriers varied by setting: Med/surg inpatient vs ED

- Fidelity to protocols required multimodal training, ongoing monitoring and buy-in from leadership and front-line
  - Big difference between adoption and true implementation!
  - Training of working professionals in a way that is effective for behavior change is nearly impossible
    - Especially physicians

High Yield Resources

- Consensus guide for ED-based suicide prevention
  - https://www.sprc.org/edguide
- Implementing universal screening
  - https://www.sprc.org/micro-learnings/patientsafetyscreener
- One-hour webinar on Counseling on Access to Lethal Means:
  - https://www.sprc.org/resources-programs/calm-counseling-access-lethal-means
- Suicide Assessment Five-step Evaluation and Triage (SAFE-T)
  - https://store.samhsa.gov/product/Suicide-Assessment-Five-Step-Evaluation-and-Triage-SAFE-T-/SMA09-4432

Thank you

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