SPOT: Pragmatic trial of population-based outreach to prevent suicide attempt

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Back to January 2012…..

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Opportunities: Convergence of priorities

- Steady increase in US suicide mortality rates since late 1990s
- Surgeon General's Call to Action to Prevent Suicide published in 1999
- NIMH Strategic Plan identified suicide prevention as one of 3 top priorities
- Health systems identified suicide prevention as top quality improvement priority
- National Action Alliance for Suicide Prevention developed Zero Suicide strategy to identify and address suicide risk in healthcare

Opportunities: Clinical and epidemiologic evidence

- >70% of suicide attempts and suicide deaths preceded by outpatient healthcare contact in prior year
- Simple self-report questionnaires can accurately identify outpatients at increased risk (4% risk of self-harm event over following year)
- Low-intensity caring contacts may reduce risk in people who decline outpatient care
- Specific psychotherapies (CBT/DBT) can reduce risk following suicide attempt or acute care episode – and skills training may be the key active ingredient
- Outreach and care navigation interventions (telephone and EHR online messaging) improved outcomes in a range of anxiety and mood disorders
- Henry Ford Perfect Depression Care program reported to significantly reduce suicide rates in mental health specialty patients

Constraints: Available technology

- Browser-based rather than app-based (iPhone was 4 years old!)
- EHR messaging capability limited to plain text
- Interactive educational modules via somewhat clunky external site

Constraints: Affordability

- Absolute risk reduction from 4% to 3% = NNT of 100
- Direct healthcare cost of ED or IP care for self-harm + $9000
- Break-even point for healthcare cost = $90 per person

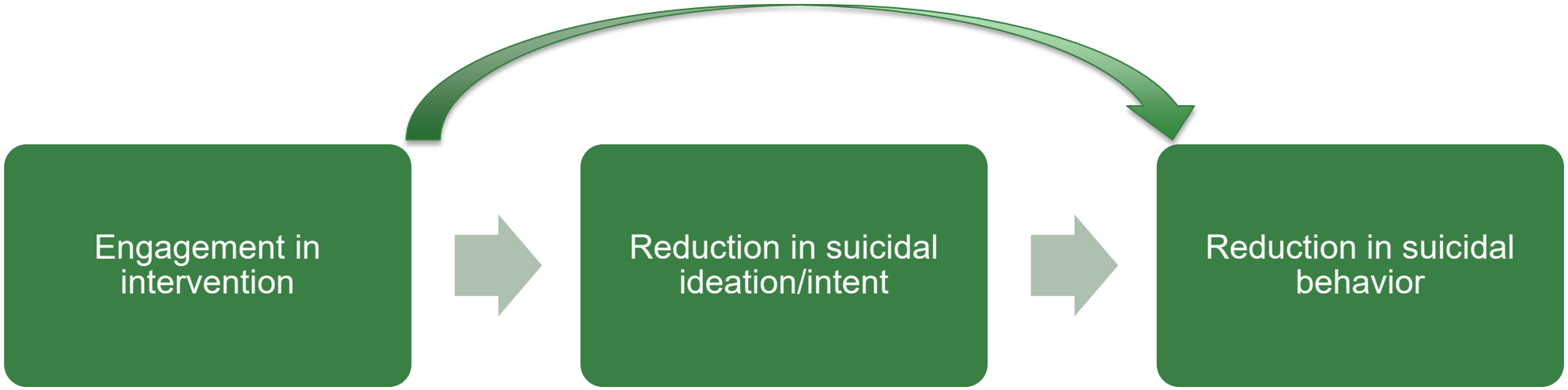
Room to experiment

- Health systems implementing routine screening using PHQ-9 (Good!)
- Also implementing systematic process for risk assessment and safety planning (Good – but that space is taken)
- Health systems not ready to implement systematic outreach, care navigation, and low intensity skills training interventions (This is our space)

Unknowns

- Acceptability of outreach from a “stranger” care manager
- Engagement in online interventions supported only by asynchronous messaging
- Effectiveness of DBT skills training in people not seeking treatment
- Impact of traditional (and non-specific) mental health treatment on risk of self-harm

We made a significant leap



But that's what the RFA asked for: "bold, innovative, and often risky approaches to address problems that may seem intractable"

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Where we settled:

- Population – People reporting frequent thoughts of suicide or self-harm during an outpatient visit, regardless of engagement/interest in treatment.
- Intervention – Two low-intensity outreach interventions (one focused on DBT skills, the other on care navigation) delivered primarily by asynchronous online messaging, lasting up to 12 months
- Comparison – Usual care (no intervention and no contact)
- Outcome – Injury or poisoning coded as self-harm (including some coded as undetermined intent)
- Time – 180 days following random assignment