NATIONAL ACTION ALLIANCE FOR SUICIDE PREVENTION'S RESEARCH PRIORITIZATION TASK FORCE: NATIONAL SUICIDE RESEARCH AGENDA UPDATE

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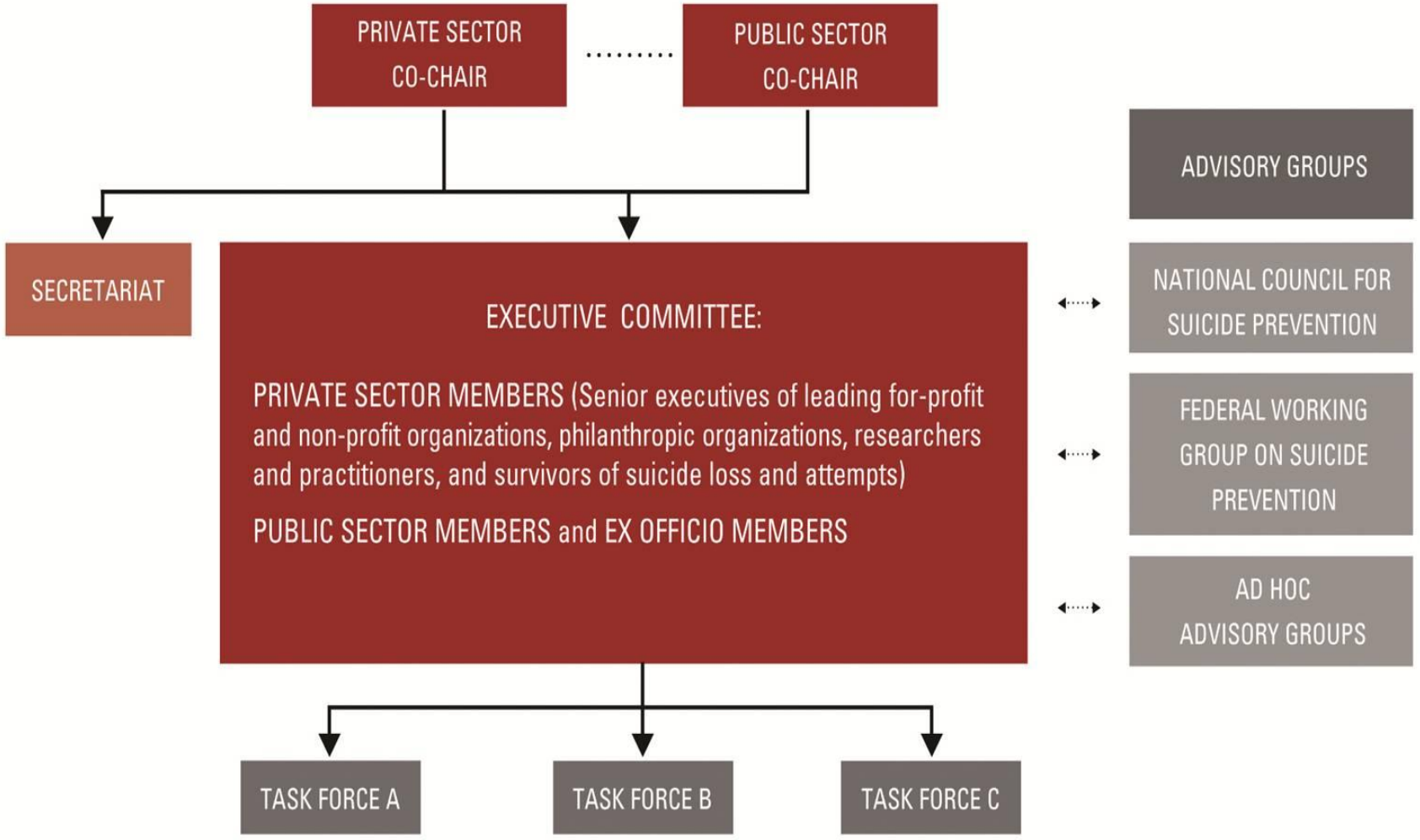
Action Alliance for Suicide Prevention



Research Prioritization Task Force Members

PHILLIP SATOW—CO-LEAD PRIVATE SECTOR; EXCOM REPRESENTATIVE FROM NATIONAL COUNCIL ON SUICIDE PREVENTION; CO-FOUNDER AND BOARD PRESIDENT, JED FOUNDATION

THOMAS INSEL—CO-LEAD PUBLIC SECTOR; DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH

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ROBERT GEBBIA, Executive Director, American Foundation for Suicide Prevention

MICHAEL HOGAN, Commissioner, New York State Office of Mental Health

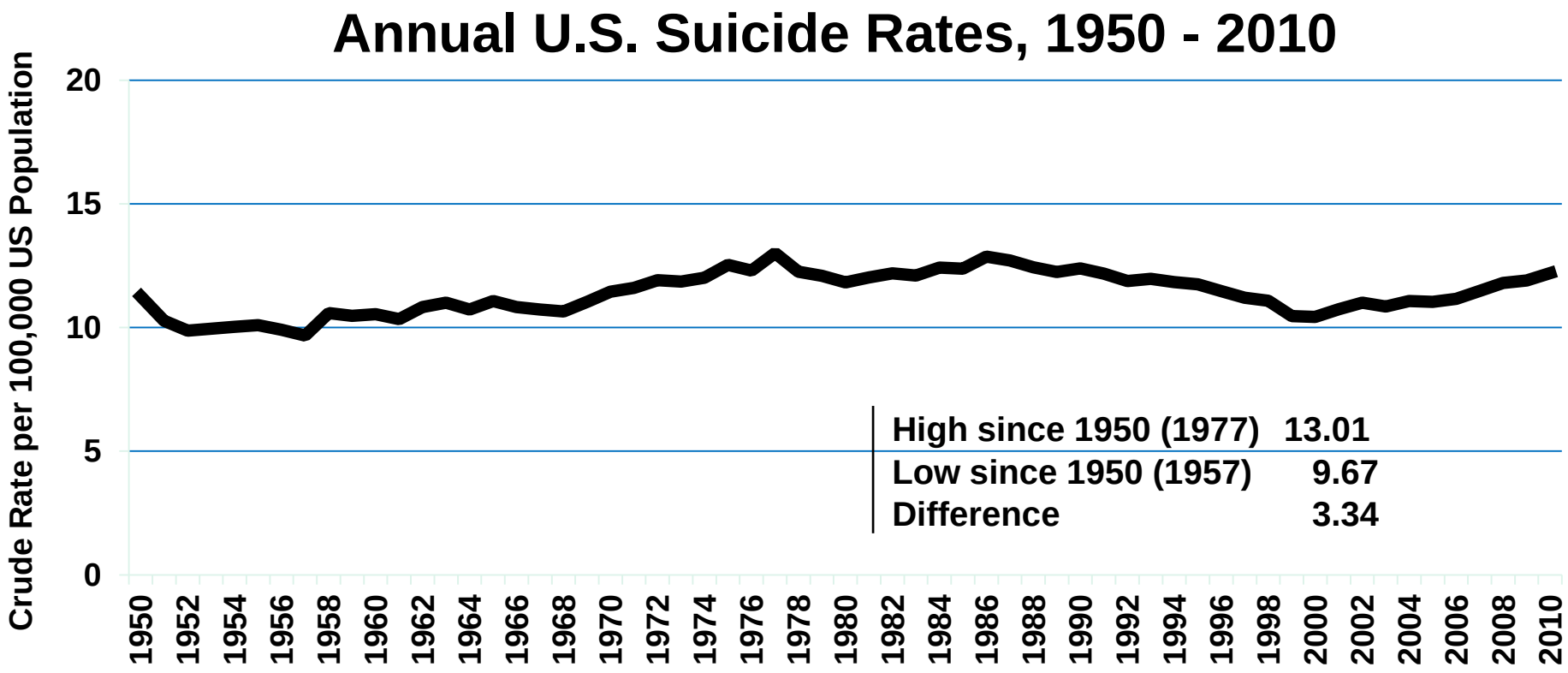
DANIEL J. REIDENBERG, Executive Director, Suicide Awareness Voices of Education AND MANAGING DIRECTOR OF THE NATIONAL COUNCIL FOR SUICIDE PREVENTION

Over 20 NIMH & NIDA staff and contractors help support the research task force, and serve as liaisons with other task forces

WHY DO WE NEED A RESEARCH PRIORITIZATION AGENDA FOR SUICIDE?

Cindy Claassen, PhD

"A More Difficult Public Health Problem"



Unprecedented Advancement in the Diagnosis & Treatment of Mental Illness; Relatively Intractable Suicide Rates

Sources: ***Rates:*** *(1950-1980) US Census Bureau, Statistical Abstracts of the United States, US Census Bureau: Washington, D.C.; (1981-2007) CDC. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online].*

Why do we need an agenda?

Suicide Research Publication Impact over Time

Compared to other lines of mental health research, suicide publications as a whole demonstrate relatively less sustained value over time.

	30-year Ave. H-Index
Suicide	89.3
Depression	148.5
Bipolar Disorder	94.7
Schizophrenia	143.5
Hypertension	135.8

Source: ISI Web of Knowledge Citation Report; extracted 04.15.10

Why do we need an agenda?

Content Indicators by the Numbers

	Cardiovascular Disease	Cancer	Depression	Suicide
Year of first major pub	1905	1912	1917	1897
Year of first Nobel Prize	1936	1926	N / A	N / A
Year of first public health messaging	1960s-1970s	1970s	1990s	2000s
How predictive-- symptom / risk factor measurement	90%+	5 of 100+ cancers have NCI endorsed screening tests	See below	Suicide cannot be predicted at individual person level
Outcomes Mortality, Morbidity Trends	50.4% drop in deaths since 1981	8.2% drop in deaths since 1976	While there is considerable variation, rates of MDD appear to be increasing worldwide	Essentially stable rates since 1950s

Refs (Partial) Dustan HP, Roccella EJ, Garrison HH. (1996) Controlling Hypertension: A Research Success Story. Arch Intern Med 156:1926 – 1935; Greenwald P, Dunn BK. (2009) Landmarks in the History of CA Epidemiology Cancer Research 69:2151 – 62; Klerman GL, Weissman MM. Increasing rates of depression. JAMA 1989;261(15): 2229-35; Mathers, C. and Loncar, D. (2006). "Projections of Global Mortality and Burden of Disease from 2002 to 2030." PLoS Medicine, available online at www.plosmedicine.org **3(11): e442.**.

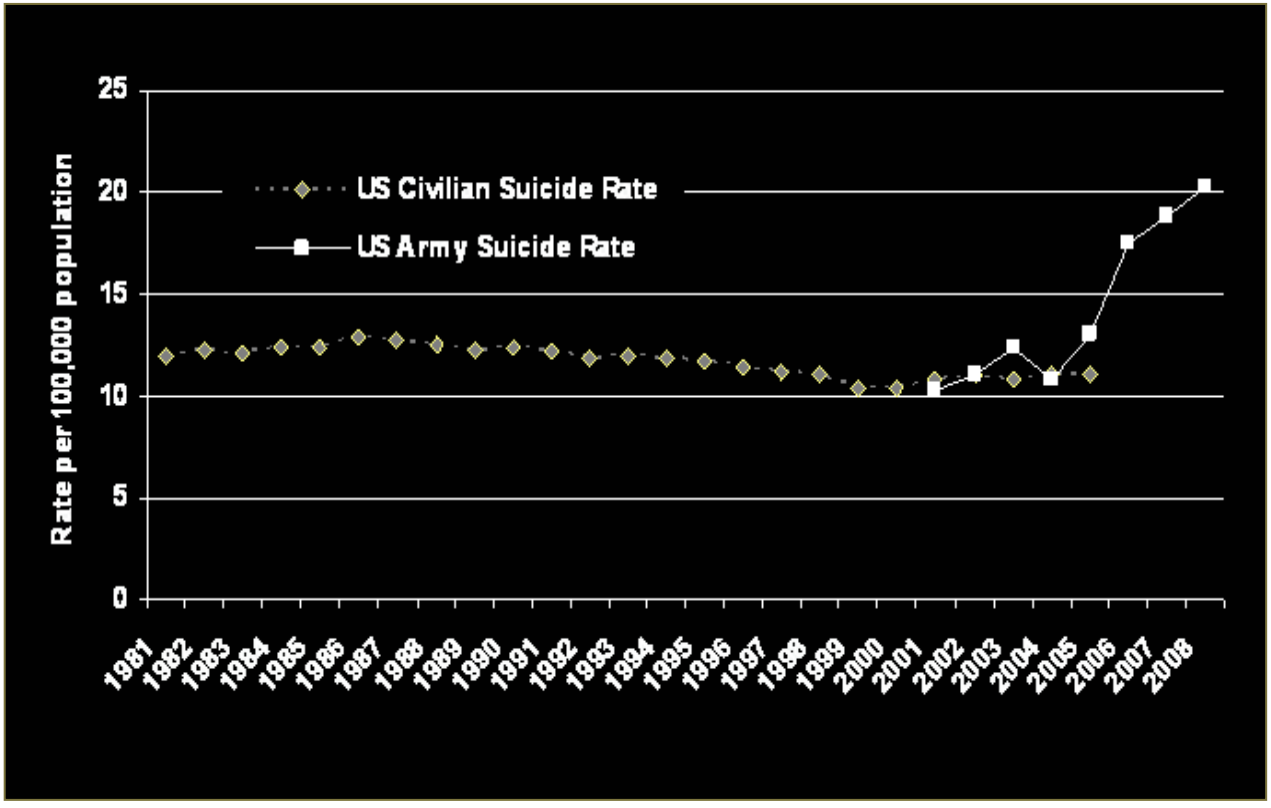
BERMAN 2006 DUBLIN AWARD AAS KEYNOTE

Critical Review of Progress on Recommendations from Suicide Prevention in the 70's (1973), CSSP/NIMH

1965 NIH-developed Center for Studies of Suicide Prevention appointed a Task Force charged with establishing directions and priorities for the field of suicide prevention for the decade ahead." Dublin address critiqued progress on recommendations from the six working committees of this Task Force.

Working Committee Recommendation:	Berman progress score as of 2006
Classification and Nomenclature (Aaron Beck, Chair)	"D"
Death & Self-Destructive Behavior (Avery Weisman, Chair)	"D"
Research (Norman Faberow, Chair)	"C+/B"
Treatment (Jan Fawcett, Chair)	"C"
Delivery of Suicide Prevention & Crisis Services (Richard McGee, Chair)	"B"
Education and Training (Ron Maris, Chair)	"C"

WHY LOOK AT PROGRESS IN SUICIDE RESEARCH?



Suicide Rates from Army ASER Reports

WASHINGTON (CNN) -- One week after the U.S. Army announced record suicide rates among its soldiers last year, the service is worried about a spike in possible suicides in the new year. The Army said 24 soldiers are believed to have committed suicide in January alone -- six times as many as killed themselves in January 2008, according to statistics released Thursday. If those prove true, more soldiers will have killed themselves than died in combat last month. "This is terrifying," one official said. "We do not know what is going on."

http://www.cnn.com/2009/US/02/05/army.suicides /accessed 4.27.09

WHAT DOES A RESEARCH PRIORITIZATION AGENDA LOOK LIKE?

http://actionallianceforsuicideprevention.org

National Action Alliance Research Prioritization Task Force

PHIL SATOW—CO-LEAD PRIVATE SECTOR;
EXCOM REPRESENTATIVE FROM NAT'L COUNCIL;
CO-FOUNDER & BOARD PRESIDENT, JED FOUNDATION

THOMAS INSEL—CO-LEAD PUBLIC SECTOR;
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ALAN BERMAN	EXECUTIVE DIRECTOR, AMERICAN ASSOCIATION OF SUICIDOLOGY
MARY DURHAM	VICE-PRESIDENT, THE CENTER FOR HEALTH RESEARCH, KAISER PERMANENTE
SAUL FELDMAN	CHAIRMAN EMERITUS, UNITED BEHAVIORAL HEALTH
THOMAS FRIEDEN	DIRECTOR, U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION
ROBERT GEBBIA	EXECUTIVE DIRECTOR, AMERICAN FOUNDATION FOR SUICIDE PREVENTION
MICHAEL HOGAN	COMMISSIONER, NEW YORK STATE OFFICE OF MENTAL HEALTH
DAVID GROSSMAN	MEDICAL DIRECTOR, PREVENTIVE CARE, GRP HEALTH RESEARCH INSTITUTE
DANIEL REIDENBERG	EXECUTIVE DIRECTOR, SUICIDE AWARENESS VOICES OF EDUCATION & MANAGING DIRECTOR OF THE NAT'L COUNCIL FOR SUICIDE PREVENTION

Research Prioritization Task Force Support Team (Partial List)

NATIONAL INSTITUTE OF MENTAL HEALTH

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Child & Adolescent Treatment & Preventive Intervention Branch

BEVERLY PRINGLE, Program Chief, Child & Adolescent Mental Health Services Research;
Services Research and Clinical Epidemiology Branch

ROBERT K. HEINSSEN, Director, Division of Services and Intervention Research

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NATIONAL INSTITUTES OF HEALTH LIBRARY

REX ROBISON, Informationist/ Biomedical Librarian

UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER

CYNTHIA (CINDY) CLAASSEN, Associate Professor, Department of Psychiatry

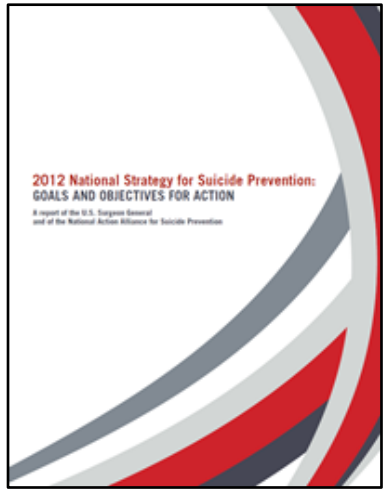
Two National Strategies (2001; 2012) have called for a National Research Agenda

National Strategy for Suicide Prevention
A collaborative effort of SAMHSA, CDC, NIH & HSRA

Objective 10.1: By 2002, develop a national suicide research agenda with input from survivors, practitioners, researchers, and advocates

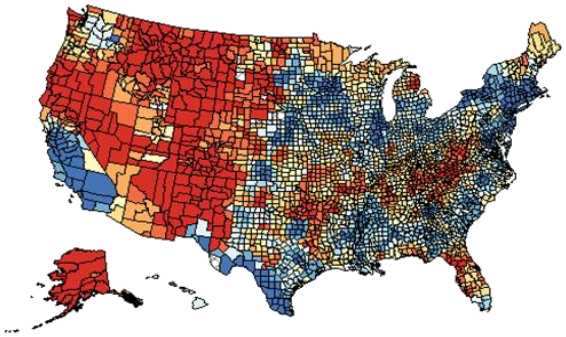
2012 National Strategy for Suicide Prevention

Goal 12.1 Develop a national suicide prevention research agenda with comprehensive input from multiple stakeholders



Some Approaches to Developing Strategic Research Agendas

- **Grand Challenge**: conceptual or methodological "barriers in research pathways (Varmus 2003). Looks to investigators to organize and solve.
- **Capacity Building**: Multiple research domains grown; research goals known and resources available to support systematic research pathways (NLM 2010).
- **Knowledge-to-Action Networks:** Links researchers with front-line field workers where applied research is most needed (Matson, 2008)



Key Concepts in a Research Agenda Designed to Reduce Suicide Burden

1. Develop a list of high-priority goals which – if met – could substantially reduce suicide burden
2. Define and articulate viable research pathways through which these goals can be realized
    a. Identify and sequence the studies required to reach each goal
    b. Address the most critical methodological and conceptual barriers to achieving these goals
3. Prioritize the research needed across goals and pathways
4. Disseminate the final agenda & cultivate the funding streams necessary to accomplish the research agenda

WHAT WAS THE RESEARCH TASK FORCE PROCESS FOR DEVELOPING A RESEARCH PRIORITIZATION AGENDA?

Research Task Force Overarching Goal

Overall U.S. rates of suicide deaths have not decreased appreciably in 50 years. Each year, over 678,000 individuals report that they received medical attention for a suicide attempt; each year, more than 30,000 individuals die by suicide.

RFT Goal: To develop an agenda for research that has the *potential* to reduce morbidity (attempts) and mortality (deaths) each, by at least 20% in 5 years, and 40% or greater in 10 years, if implemented successfully.

RESEARCH PRIORITIZATION TASK FORCE (RTF)

CORE VALUES & OPERATING PRINCIPLES:

CORE VALUES: Through this research agenda development process, the Task Force seeks to produce a final agenda in which the very best science is represented as the highest priority. The Task Force seeks to do this by using procedures that promote inclusiveness, innovation and accountability.

THE GENERAL PRINCIPLES guiding the process are:

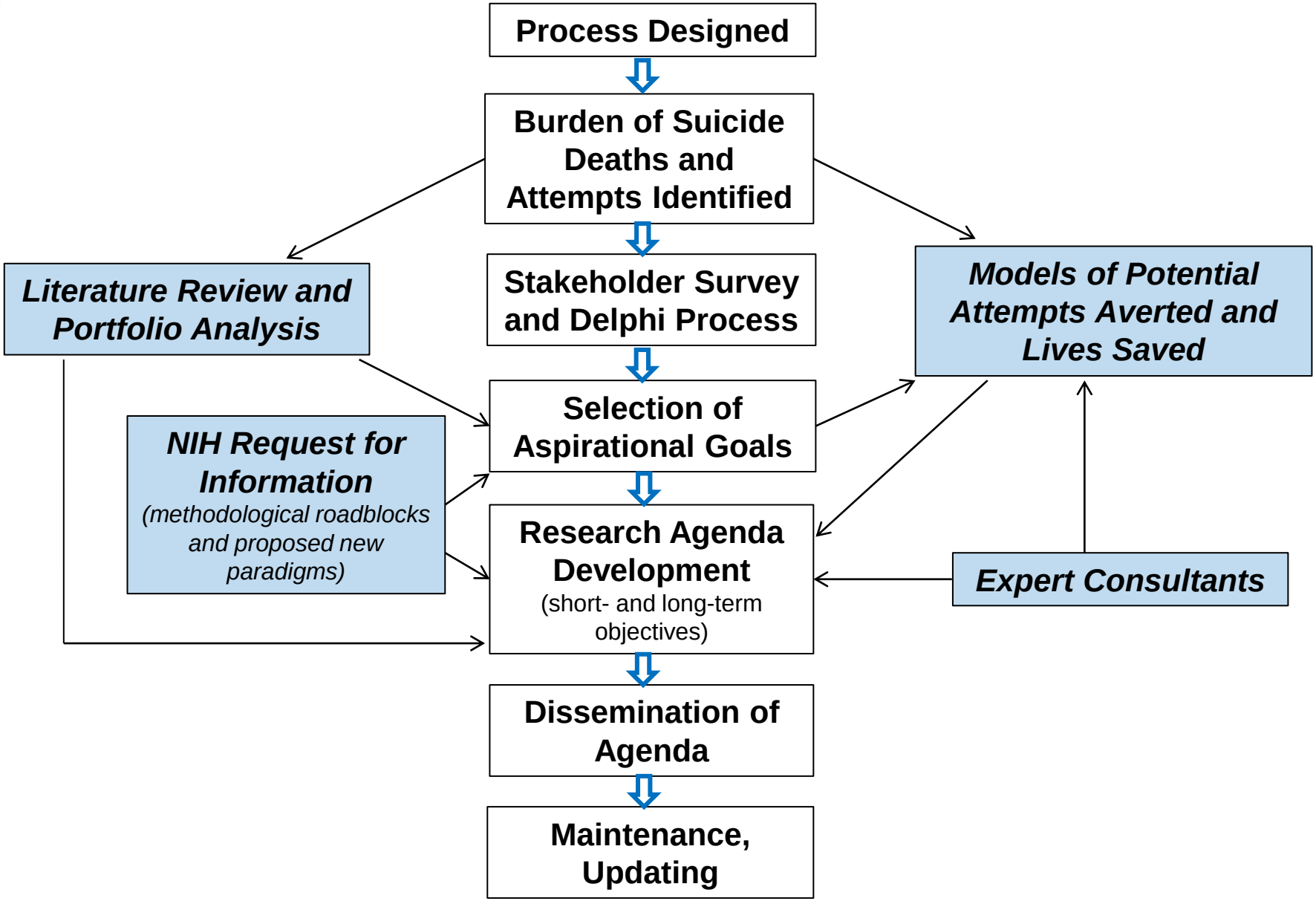
- **Timeliness:** We will take relatively prompt steps to meet established timelines.
- **Accuracy:** We will proceed in a way that minimizes the possibility of bias, inconsistencies or errors once the process has been completed.
- **Balanced Input:** We will design an input system with optimal variation in the choice of stakeholder groups surveyed.

RESEARCH PRIORITIZATION TASK FORCE (RTF)

CORE VALUES & OPERATING PRINCIPLES (CONTINUED):

- **Adequate Sampling:** We will provide for an adequate sampling approach for stakeholder groups.
- **Critical Review:** We will give due consideration to what suicide research already has been completed and identify the important gaps that currently exist.
- **Structured Decision-Making:** We will develop plans for prioritization of research topics.
- **Transparency and Public Access:** We will build transparency into the process by ensuring public access to agendas and minutes and a way for unsolicited input to be received and considered.
- **Adequate Dissemination**: We will implement a plan for dissemination of information on the agenda development process and on the final agenda.
- **Behavior Change:** We will encourage both United States funding agencies and suicide prevention scientists to consider and respond to key ideas in the final agenda and to adjust their priorities accordingly.
- **Long-term Maintenance:** We will create protocols to ensure that the agenda becomes a "living document."

Research Task Force Agenda Development Process



PROJECTED TIMELINE FOR AGENDA DEVELOPMENT

Feb 2012	Stakeholder analyses and brief summary completed
	Aspirational goals prioritized
	RFI issued
Mar 2012	Portfolio analyses web platform built; portfolio data collected
	Qualitative analyses of stakeholder survey
	Literature review begins
April 2012	Burden maps / populations and surveillance resources refined
May 2012	Experts invited to consultation/writing tasks
	RFI input reviewed and summarized
June 2012	Initiate portfolio analyses &targeted literature review
July 2012	Drafts of logic models and format of agenda developed;
	materials assembled for experts
Sept 2012	Models of interventions developed
Oct 2012	Experts initial in person meeting
	Experts multiple webinars to review logic models, evidence, identify gaps, draft short and long-term research objectives
Mar 2013	Experts final meeting to review draft agenda
Summer 2013	Research Prioritization Agenda draft completed for public comment

Stakeholder Survey

Stakeholder Survey process

1. Idea Generating Round
2. Initial Ranking & Rating Round
3. Discussion Round
4. Final Ranking & Rating Round

TIER	GOALS
1	AG6 - Prevent Reattempts
1	AG9 - Continuity of Care
1	AG7 - Provider Training
1	AG8 - Affordable Care
2	AG4 - Ideator Treatment
2	AG1 - Risk and Protective
2	AG10 - Reduce Stigma
2	AG11 - Community-Level Interventions
2	AG3 - Predict Imminent Risk
>2	AG5 - Improved Biological Treatments
>2	AG12 - Access to Lethal Means
>2	AG2 - Assess Lifetime Risk

6 Key Questions & 12 Aspirational Goals

Question 1: Why Do People Become Suicidal?

Aspirational Goal 1: Know what leads to, or protects against, suicidal behavior, and learn how to change those things to prevent suicide.

Question 2: How Can We More Optimally Detect/Predict Risk?

Aspirational Goal 2: Determine the degree of suicide risk (e.g., imminent, near-term, long-term) among individuals in diverse populations and in diverse settings through feasible and effective screening and assessment approaches.

Aspirational Goal 3: Assess who is at risk for attempting suicide in the immediate future.

Question 3: What Interventions Prevent Individuals From Engaging in Suicidal Behavior?

Aspirational Goal 4: Ensure that people who are thinking about suicide but have not yet attempted, receive interventions to prevent suicidal behavior.

Aspirational Goal 5: Find new biology treatments and better ways to use existing treatments to prevent suicidal behavior.

Aspirational Goal 6: Ensure that people who have attempted suicide can get effective interventions to prevent further attempts.

6 Key Qs and 12 AGs (continued)

Question 4: What Services Are Most Effective for Treating the Suicidal Person and Preventing Suicidal Behavior?

- **Aspirational Goal 7:** Ensure that health care providers and others in the community are well trained in how to find and treat those at risk.
- **Aspirational Goal 8:** Ensure that people at risk for suicidal behavior can access affordable care that works, no matter where they are.
- **Aspirational Goal 9:** Ensure that people getting care for suicidal thoughts and behaviors are followed throughout their treatment so they don't fall through the cracks.
- **Aspirational Goal 10:** Increase help-seeking and referrals for at-risk individuals by decreasing stigma.

Question 5: What Other Types of Preventive Interventions (Outside Health Care Settings) Reduce Suicide Risk?

- **Aspirational Goal 11:** Prevent the emergence of suicidal behavior by developing and delivering the most effective prevention programs to build resilience and reduce risk in broad-based populations.
- **Aspirational Goal 12:** Reduce access to lethal means that people use to attempt suicide.

Question 6: What Existing Infrastructure Can Be Better Utilized, and What New Infrastructure Needs Must Be Met In Order to Further Reduce Suicidal Behavior in the United States?

What the Agenda Goals ARE & What they ARE NOT

They ARE:

- **Broadly representative of the perspectives of a large cohort of individuals with a significant investment in suicide prevention**
- **Geared to save the MOST LIVES and prevent the MOST ATTEMPTS as quickly as possible**
- **Supportive of "Boots-on-the-Ground" research efforts**

They ARE NOT:

- **Based solely on the assumptions and conclusions of suicide prevention researchers over the past several decades**
- **Uniformly supportive of systematic, programmatic development within a variety of lines of suicide prevention research**
- **Permanent – they are designed to be modified / revised / replaced as time and evidence suggests is necessary**

CHARTING THE RESEARCH PATHWAY FOR EACH ASPIRATIONAL GOAL

General Research Pathway Model

❶ Scientific process: Consistent pipeline of Researchers and funding

❷ Promising Approaches → ❸ Find high value targets →

❹ Breakthroughs in: Conceptual / methodological precision New constructs

→ ❺ Design & test practical interventions

❻ Deploy → ❼ Adoption of evidence-based practices → ❽ Reduced suicide attempts & deaths

WHERE ARE WE HEADED? CHRONICLING PROGRESS IN SUICIDE RESEARCH

U.S. Department of Health & Human Services

IACC INTERAGENCY AUTISM COORDINATING COMMITTEE

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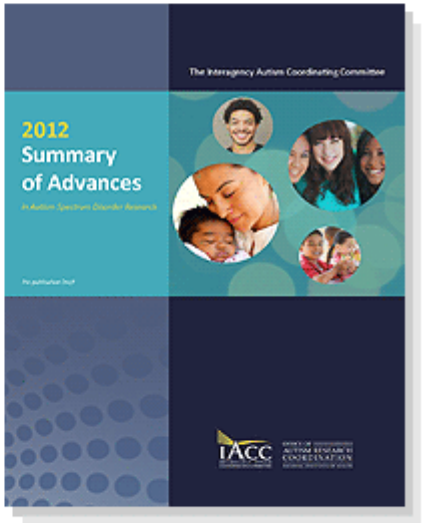
- About IACC
- About OARC
- IACC Call for Nominations
- Meetings & Events
- Subcommittees
- Strategic Plan
- Requests for Public Comment
- Portfolio Analysis
- Portfolio Analysis Web Tool
- Publications Analysis
- Summary of Advances
- News
- IACC Publications
- Non-IACC Reports

Summary of Advances in Autism Spectrum Disorder Research: Calendar Year 2012

- Introduction
- Articles Selected for the Summary of Advances
  - Question 1: When Should I Be Concerned?
  - Question 2: How Can I Understand What Is Happening?
  - Question 3: What Caused This To Happen and Can This Be Prevented?
  - Question 4: Which Treatments and Interventions will Help?
  - Question 5: Where Can I Turn for Services?
  - Question 6: What Does the Future Hold, Particularly for Adults?
  - Question 7: What Other Infrastructure and Surveillance Needs Must Be Met?
- Citation List – Articles Selected for the 2012 Summary of Advances
- Full Listing of Nominated Articles
- About the IACC
- IACC Member Roster
- Office of Autism Research Coordination (OARC) Staff List

Printer Friendly Version

New!



(PDF – 1 MB)

Introduction

Related Links

http://iacc.hhs.gov/summary-advances/2012/index.shtml

WHAT IS THE POTENTIAL IMPACT THE RESEARCH PRIORITIZATION AGENDA CAN HAVE ON SUICIDE ATTEMPTS AND SUICIDE DEATHS?

Jane Pearson, PhD

Organization of Prioritized Research Agenda

For Each Key Question 1-5

Description of the relevant Aspirational Goal

What do we know?

What do we need?

What is the suicide burden related to this (these) Aspirational Goal(s)?

What approaches could used to reduce suicide burden?

What is the potential benefit of approaches/interventions?

- **Example of intervention models**
- **Gaps in burden information and intervention models**

What are the proposed research pathways?

What are the research opportunities?

SHORT-TERM OBJECTIVES **LONG-TERM OBJECTIVES**

How do we use research to lower suicide rates?

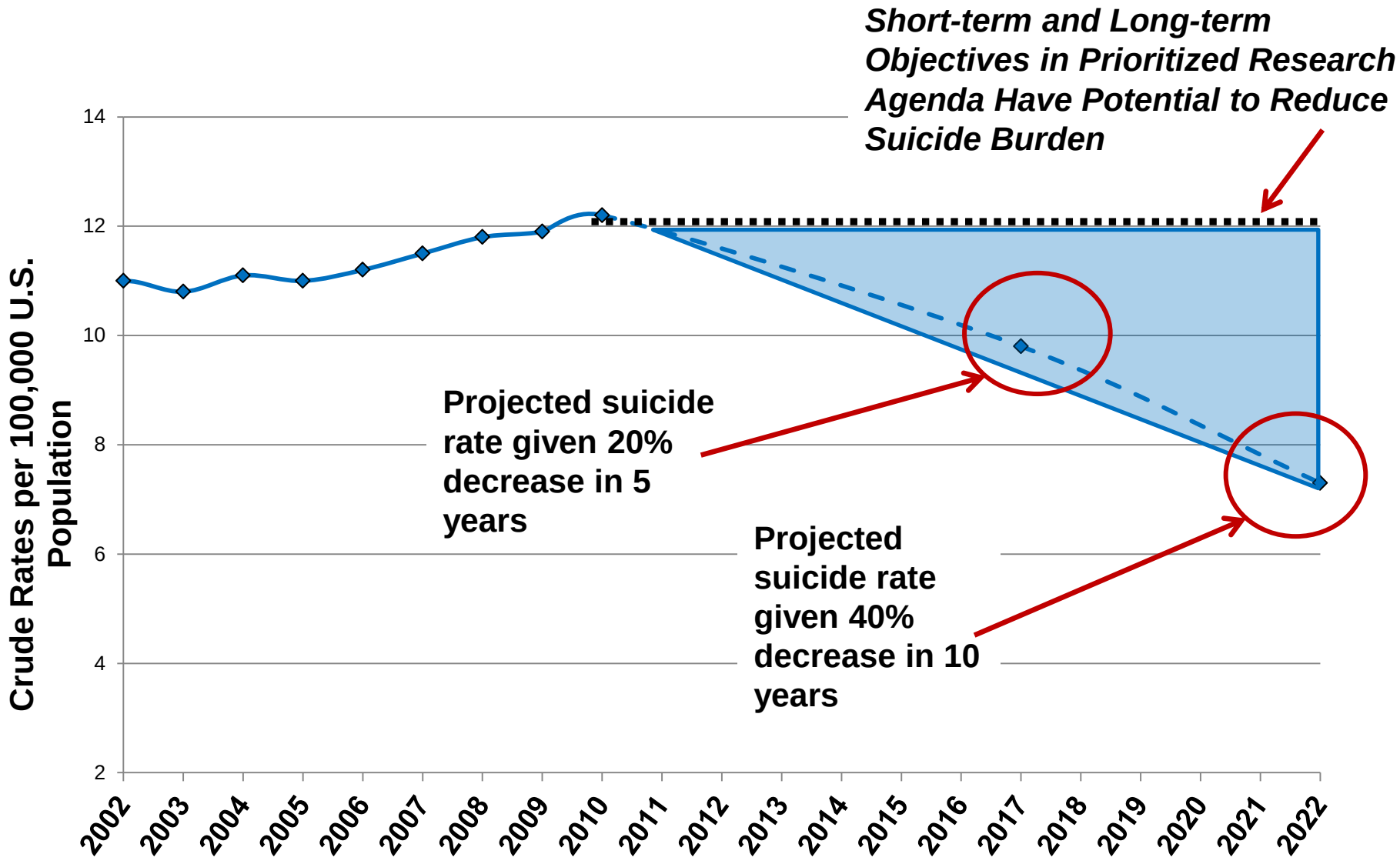
Step 1: **Identify a "Burden Map" that provides systematic information on the largest high-risk subgroups**

Step 2: **Identify those "Boundaried" settings in which these large, high-risk subgroups can be accessed**

Step 3: **Estimate the effects of wider deployment of existing or hypothetical evidence-based interventions in reducing suicide within boundaried settings on these high-risk groups**

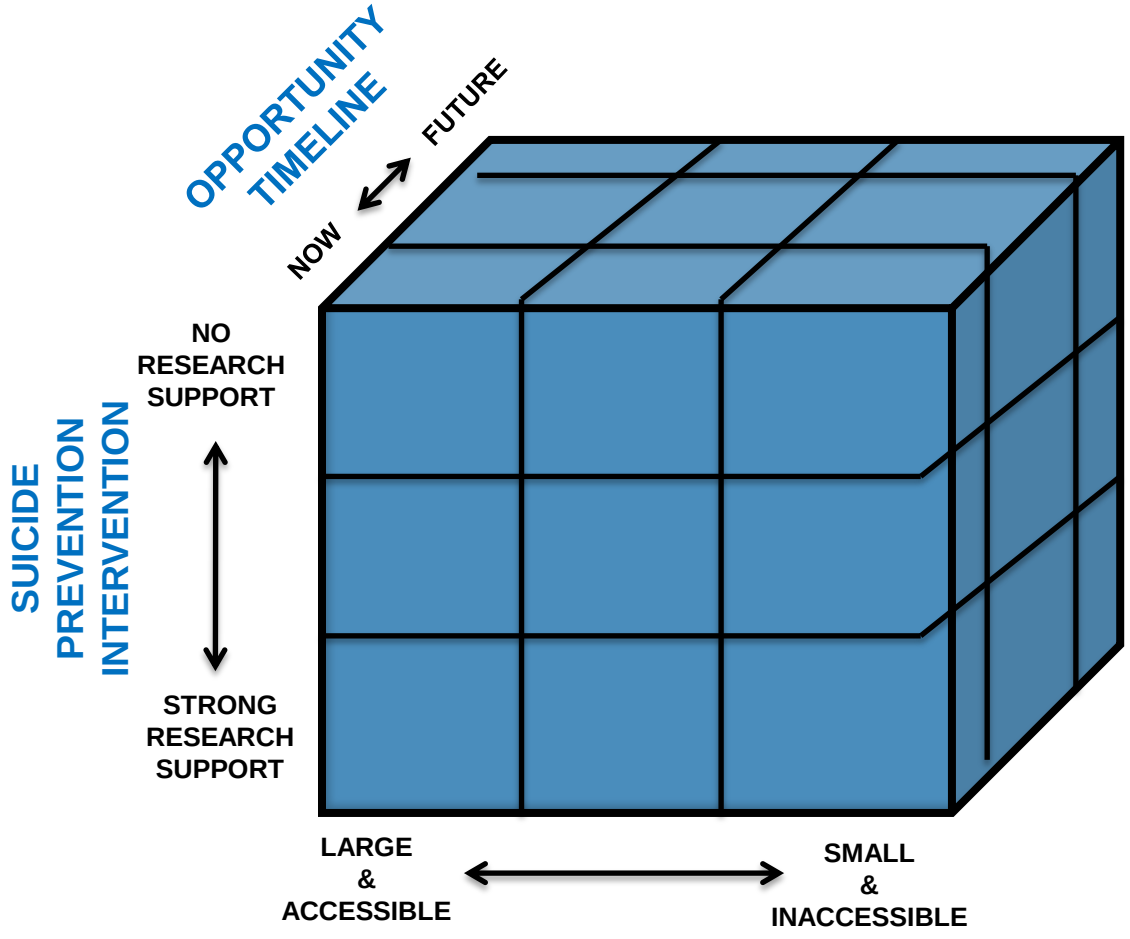
Step 4: **Create a timeline projecting the most likely period of time needed to achieve large-scale deployment of the interventions modeled in Step 3**

Annual U.S. Suicide Rates, 2002-2010; Projected Benefits of Applied Prioritized Research Agenda



Source: 2002-2010 Rates: *CDC. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online].*

Public Health Approach

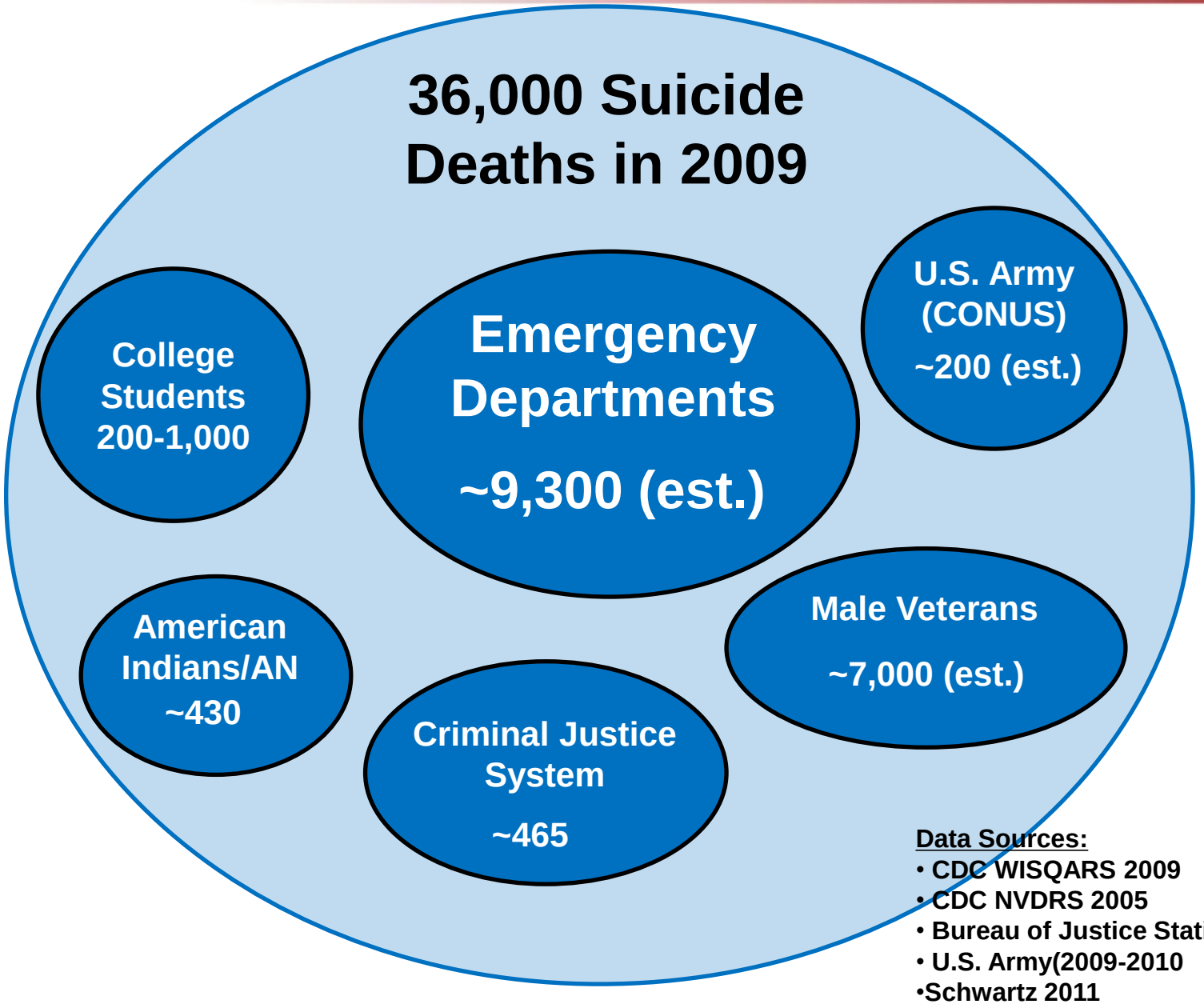


Research Task Force

National Action Alliance for Suicide Prevention

Pringle, Colpe, Heinssen, Schoenbaum, Sherrill, Claassen, & Pearson. (2013). A strategic approach for prioritizing research and action to prevent suicide. Psychiatric Services.

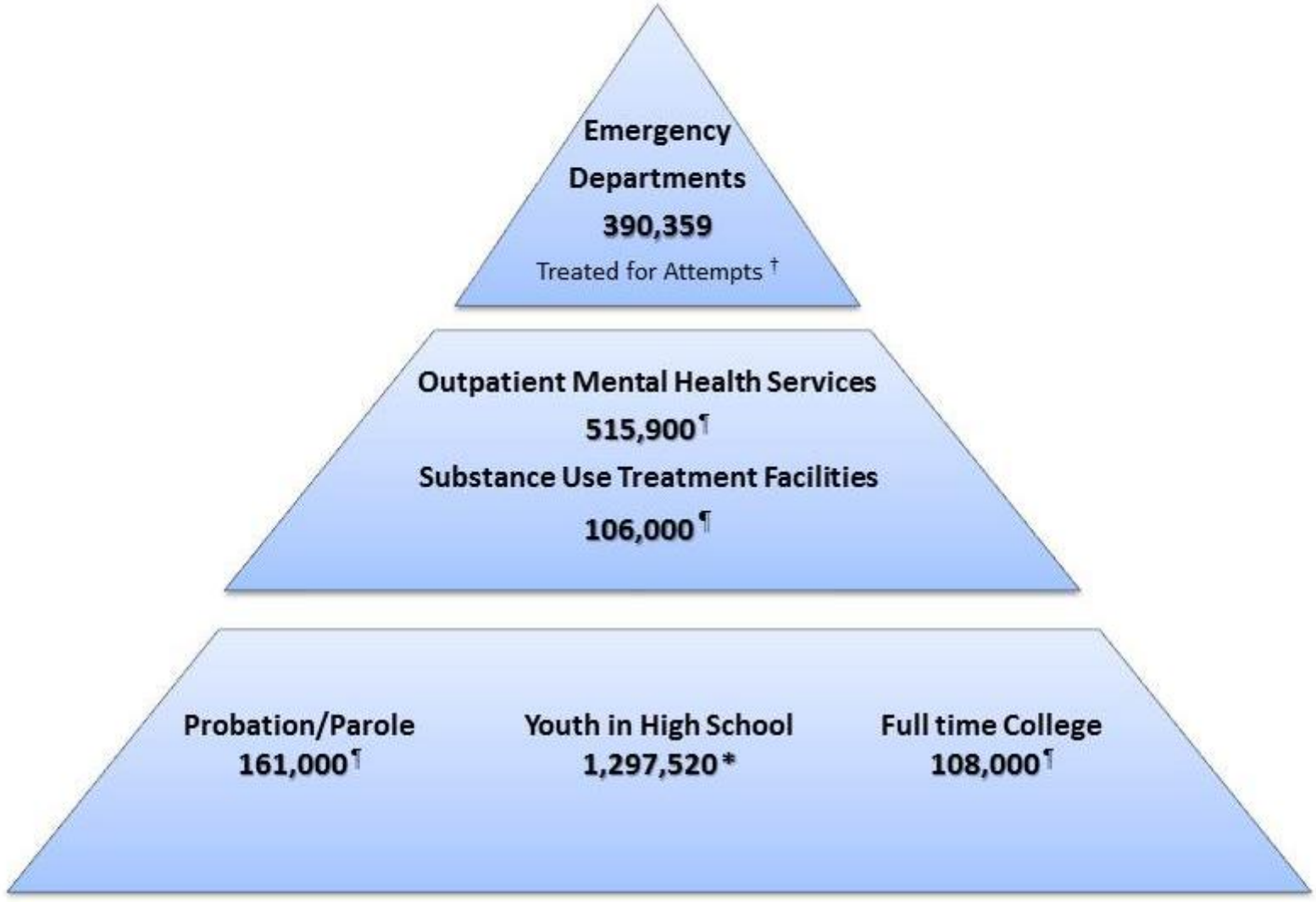
Develop a Burden Map of Suicide Decedent Subgroups in the United States



Data Sources:

- CDC WISQARS 2009
- CDC NVDRS 2005
- Bureau of Justice Statistics 2008-2009
- U.S. Army(2009-2010
- Schwartz 2011

Past Year Suicide Attempts in "Boundaried" Settings



†Source: CDC's National Electronic Surveillance System, 2010
¶Source: SAMHSA's National Survey on Drug Use and Health, 2008–2009
*Source: CDCs Youth Risk Behavior Surveillance System, 2011 (Attempters treated by Doctor or Nurse)

Step 3: Estimate the effects of interventions

Q: How many suicide deaths/attempts could be averted:

by fully implementing

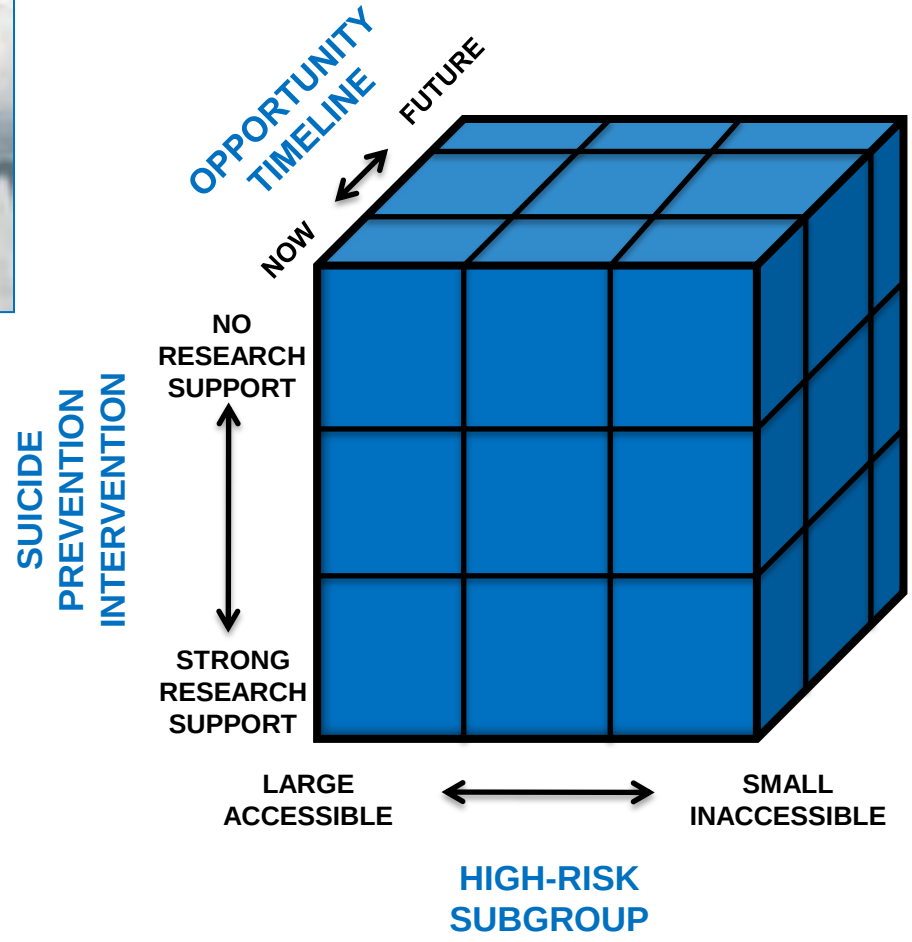
_____ intervention

with _____ subgroup

in _____ setting?

Step 4: Timeline for implementation & research

Medication to treat underlying psychiatric disorder in primary care



Wasserman, Rihmer, Rejescu et al., 2012

Purpose of Modeling Estimates

- Understand potential outcomes that could accrue if optimally implemented effective interventions
- Provide a general idea of the magnitude of outcomes
- Highlight areas where more data is needed
- Spark further modeling over longer period with more rigorous methods

Lynch, F. 2013. Kaiser Permanente Center for Health Research

Advantages of Models

- Synthesize data from multiple sources and studies
- Makes assumptions explicit
- Clearly defines alternatives, events, and outcomes
- Formal method to combine evidence
- Identify gaps in knowledge
- Helps to guide decisions when full information isn't available

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Disadvantages of Models

- Limited by data currently available
- Potential for manipulation of results
- Needs to follow systematic review of alternatives
- More sophisticated models may be difficult to communicate succinctly
- Strength of evidence weaker than in more highly controlled research

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Example 1: Psychotherapeutic Intervention in Persons Coming to ER with Suicide Attempt

Question:

If we provide evidence-based psychotherapeutic intervention for prevention of suicide reattempt initiated in emergency room settings, how many suicide attempts and suicide deaths could we avert in 1 year? In 5 years?

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Parameter	Values Used in Model	Source
POPULATIONS	Defines populations that might benefit from the intervention being evaluated	
Adults (ages 18-64) with Past Year Suicide, and an **ED visit linked** to Suicide Attempt	390,359	NEISS 2010
RATES OF KEY EVENTS		
Proportion who attempt Suicide and Survive in Year following Attempt	15% in first year following attempt, cumulative risk at end of five years is 25%	Owens, Horrocks & House 2002
Proportion who Die of Suicide Attempt in Year following Attempt	2% in first year following attempt, cumulative risk at end of 5 years is 3%	Owens, Horrocks & House 2002
Other Causes Death Rate	Rate varies by age, average rate is 0.0073	CDC Website Kochanek KD, et al 2011. NOTE: persons who attempt suicide may be much more likely to die of other causes such as accidents (Bergen et al. 2012)
INTERVENTION RELATED PARAMETERS		
Efficacy of Intervention (Relative Risk)	RR=0.68 (95% CI – 0.56-0.83)	AHRQ – EPC Task Force report 2012 O'Connor EO, et al. (in press 8/2012)
Decay rate of Intervention Effectiveness	100% in Year 1, decays to zero effect by 5 years	ACE Suicide Review
Hospital and ER based Clinicians are able to refer directly to PST	No delay in linking patients to services	ACE Suicide Review
No Dose Effect of Intervention	Anyone receiving any intervention benefits at indicated efficacy	ACE Suicide Review
Uptake of Intervention	Main Analysis 100%, Sub Analysis 80% Uptake refers to the number of people who are likely to accept the intervention. Intentionally optimistic since task is to provide estimates of number of suicide attempts and suicide deaths that could be averted with optimal dissemination of EBT.	Jane Pearson notes

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Potential Outcomes for *Psychotherapeutic Interventions in ER Setting*—Adults 18-64 with Suicide Attempt——an ED Visit

Problem Solving Therapy for Prevention of Repeat Suicide Attempts 100% Uptake RR=0.68 (95% CI – 0.56-0.83)					
	Estimated Suicide Attempts and Suicide Deaths Averted	***Actual Suicide Attempts seen in ER***	***Estimated % of Total Attempts Averted***	***Actual Suicide Deaths Ages 18-64***	***Estimated % of Total Suicide Deaths Averted***
	Estimated Number	**NEISS 2010**		**WISQARS 2010**	
Non-fatal Suicide Attempts Averted in 1 year	**18,737**	390,359	**5%**		
Non-fatal Suicide Attempts Averted in 5 years	**109,306**	1,951,795	**6%**		
Suicide Deaths Averted in 1 Year	**2498**			31,354	**8%**
Suicide Deaths Averted in 5 years	**13,928**			156,770	**9%**
Problem Solving Therapy for Prevention of Repeat Suicide Attempts 80% Uptake RR=0.68 (95% CI – 0.56-0.83)					
	Estimated Suicide Attempts and Suicide Deaths Averted	***Suicide Attempts seen in ER***	***Estimated % of Total Attempts Averted***	***All Suicide Deaths Ages 18-64***	***Estimated % of Total Suicide Deaths Averted***
	Estimated Number	**NEISS 2010**		**WISQARS 2010**	
Non-fatal Suicide Attempts Averted in 1 year	14,990	390,359	4%		
Non-fatal Suicide Attempts Averted in 5 years	84,447	1,951,795	4%		
Suicide Deaths Averted in 1 Year	1999			31,354	6%
Suicide Deaths Averted in 5 years	11,146			156,770	7%

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Example 2: Early Intervention in School Settings —Good Behavior Games for First Graders

Question:

If we provide an evidence-based early prevention program that mitigated risks associated with suicide in schools to first grade children, how many suicide attempts and suicide deaths could we avert in 15 years?

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Parameter	Values Used in Model	Source
POPULATIONS	Defines populations that might benefit from the intervention being evaluated	
School Age Children in first grade (ages 6)	3,750,000 million first grade children (25% of kids receive GBG intervention)	US Department of Education – Number of First Graders
INTERVENTION RELATED PARAMETERS		
Relative Risk for SUICIDE ATTEMPT	RR=0.50 (95% CI - 0.3-0.9)	Wilcox et al. 2008 (page 11); Kellam et al. 2011
Relative Risk for SUICIDE DEATH	Assume 10% decrease in suicide death rate	Literature does not provide estimate of impact on suicide deaths **ACTUAL RATE IS UNKNOWN**
RATES OF KEY EVENTS		
Rate of reported suicide attempt with medical care	Varies by age group, Average rate 2.1%	YRBSS 2009 for ages 14-18 NSDUH for ages 19-22
Rate of Suicide death from ages 13-22 (up to 15 years post intervention)	Varies by age group Average rate across 13-22 age range 7.9/100,000	WISQARS actual number of suicide deaths ages 13-22
NO suicide attempts or deaths prior to age 13		WISQARS notes that prior to age 13 estimates are unstable so assume no deaths or attempts prior to this age
Proportion who attempt Suicide and Survive in Year following Attempt	15% in first year following attempt, cumulative risk at end of five years is 25%	Owens, Horrocks & House 2002
Proportion who Die of Suicide Attempt in Year following Attempt	2% in first year following attempt, cumulative risk at end of 5 years is 3%	Owens, Horrocks & House 2002
Other Causes Death Rate	0.0006	CDC Website; Kochanek KD, et al 2011. Adults with suicide attempt may have increased risk of other causes of death (Bergen et al. 2012), uncertain if pertains to children.
No Dose Effect of Intervention	Anyone receiving any intervention benefits at indicated efficacy	ACE Suicide Review
Uptake of Intervention	25% receive full intervention as delivered in Wilcox et al. 2008	

Potential Population Health Outcomes for *Early Childhood Intervention*—Good Behavior Game for Children in First Grade

Good Behavior Game Provided to 15 Cohorts of First Graders ***25% of First Grade Children Receive the Intervention*** RR=0.50 (95% CI – 0.3-0.9) for Suicide Attempt					
	Estimated Suicide Attempts and Suicide Deaths Averted	***Expected Suicide Attempts Requiring Medical Care Ages 13-22***	***Estimated % of Total Attempts Averted***	***Expected Suicide Deaths Ages 13-22***	***Estimated % of Total Suicide Deaths Averted***
	Estimated Number	**YRBS 2010/ NSDUH 2010**		**WISQARS 2010**	
Non-fatal Suicide Attempts **Averted** in 15 years following Intervention	**542,096**	4,345,125	**12%**		
Suicide Deaths **Averted** in 15 years following Intervention	**687**			14,425	**4.8%**

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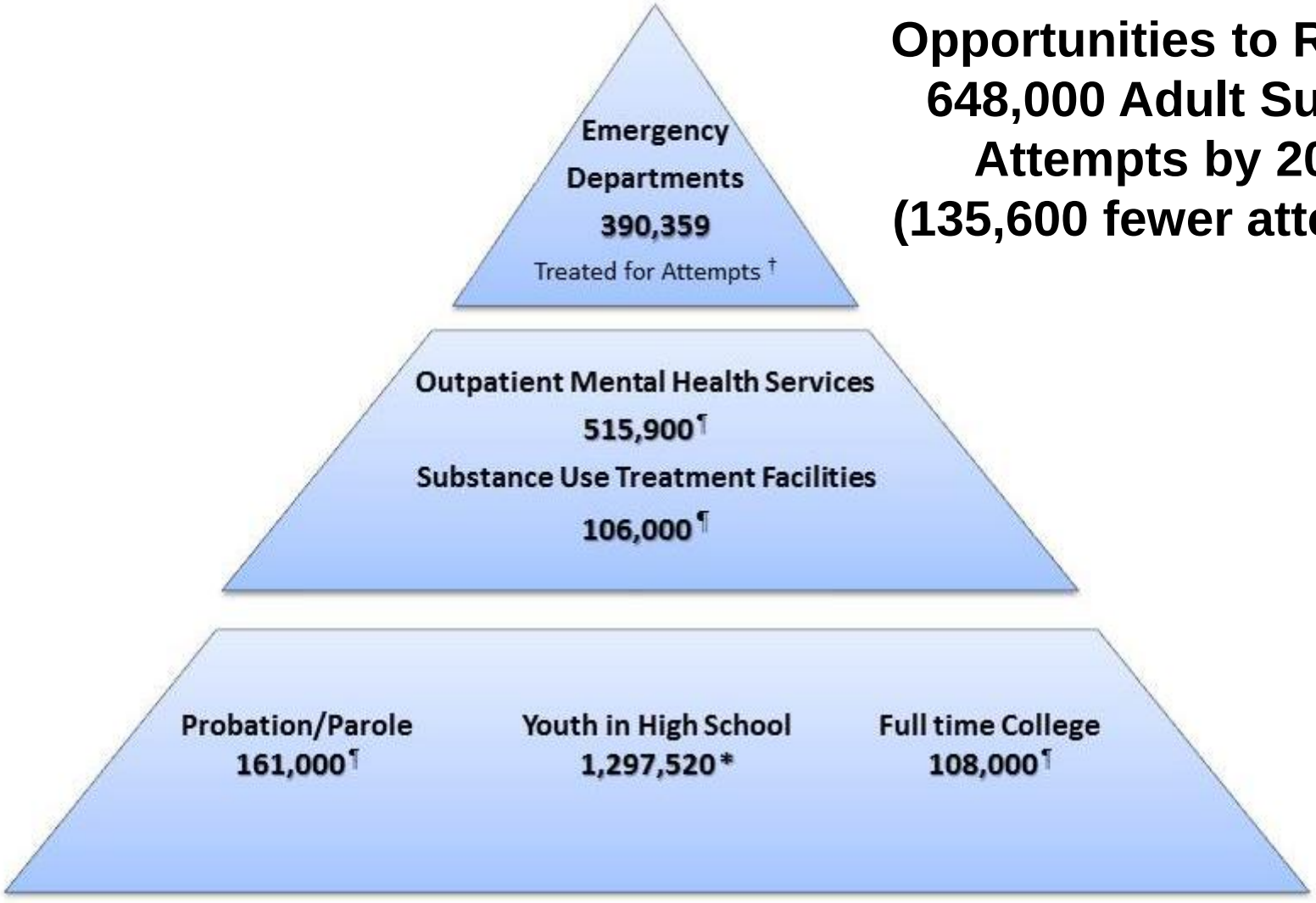
Past Year Suicide Attempts in Boundaried Settings



Opportunities to Reduce 648,000 Adult Suicide Attempts by 20% (135,600 fewer attempts)

†Source: CDC's National Electronic Surveillance System, 2010
¶Source: SAMHSA's National Survey on Drug Use and Health, 2008–2009
*Source: CDCs Youth Risk Behavior Surveillance System, 2011 (Attempters treated by Doctor or Nurse)

Reaching the 20% Reduction Goal

For adult suicide deaths in one year (7,471 fewer suicide deaths):

How many suicide deaths would be averted if 25% of suicidal people who would otherwise have access to a firearm in their home, no longer had access (offsite storage, effective locking etc):

3,612 fewer suicide deaths

How many suicide deaths would be averted if 85% of all carbon monoxide poisoning in vehicle deaths were prevented (automatic shut-off valve):

600 fewer suicide deaths

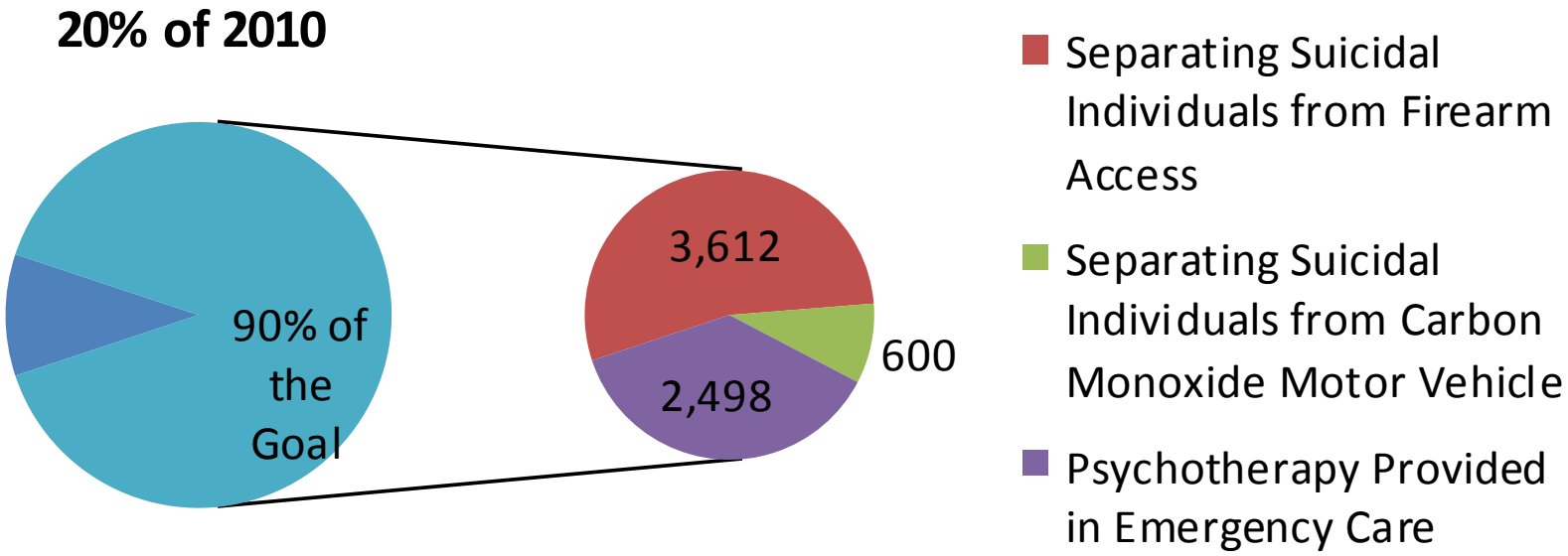
How many suicide deaths would be averted if all persons seen in emergency care for a suicide attempt received evidence-based psychotherapy?

2,498 fewer suicide deaths

TOTAL 6,710 adult suicide deaths averted in a year

Potential Approaches to Reducing the Burden of Suicide Deaths—Interventions Implemented within One Year

Suicide Deaths Prevented by Proposed Interventions



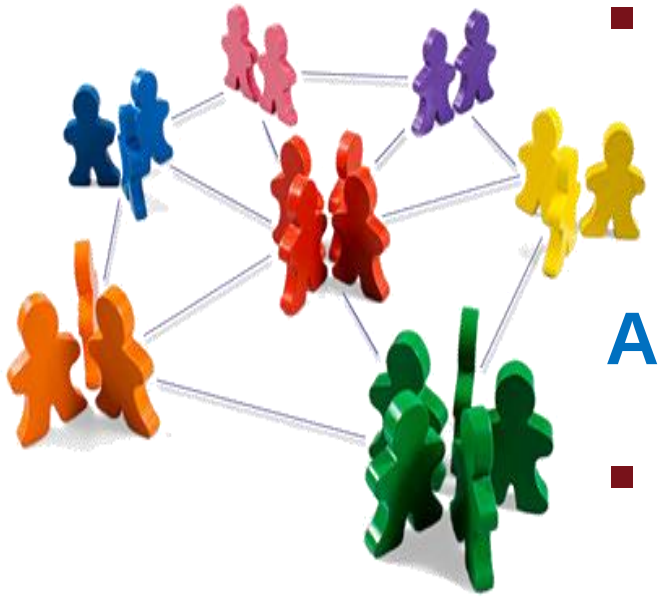
HOW WILL THE RESEARCH PRIORITIZATION AGENDA BE USED?

Utilizing the Research Prioritization Agenda

Funders

- Inform funding organizations; encourage coordination; Portfolio Analyses

Researchers

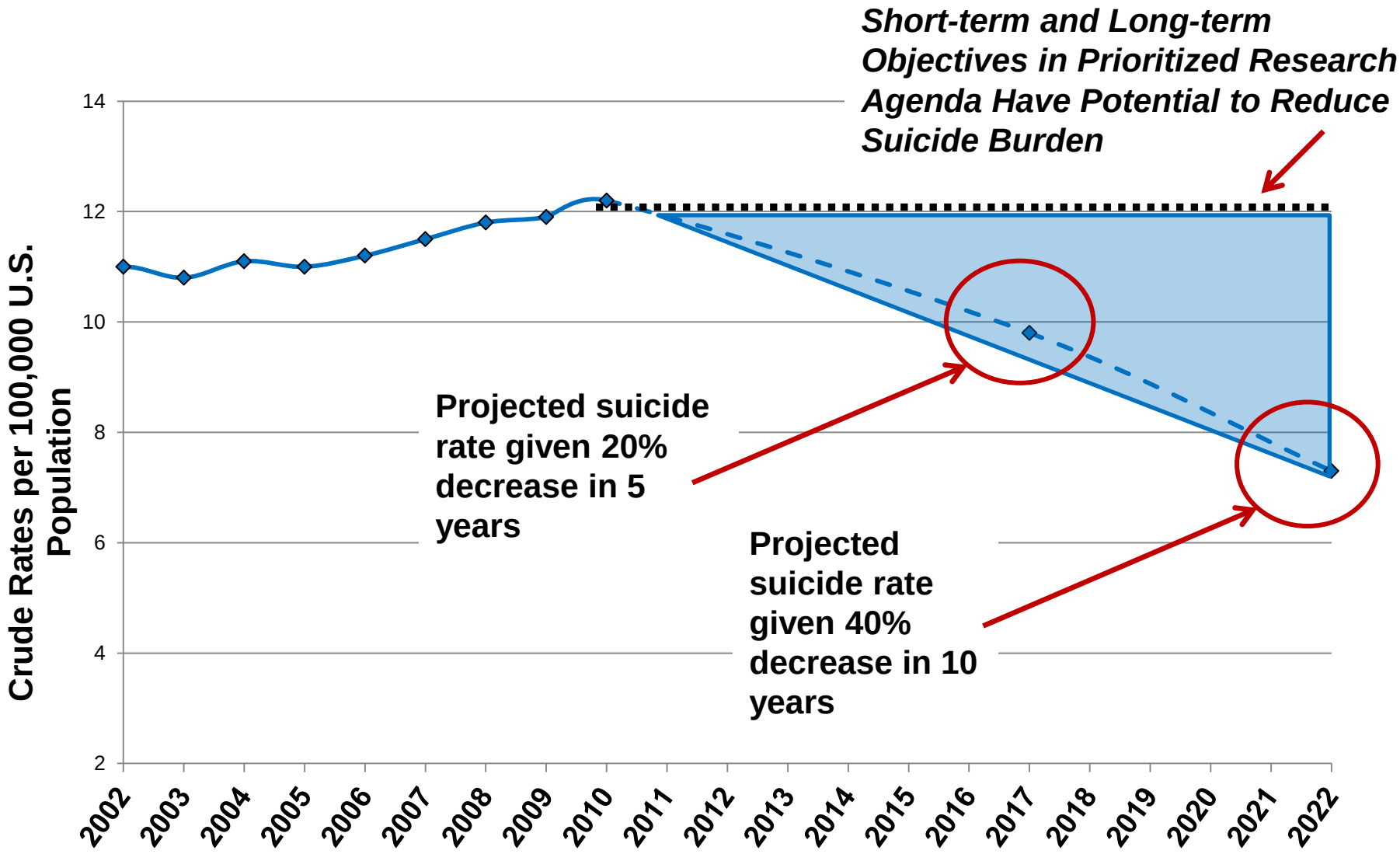


- Focus the field of suicide research- Meetings (e.g., common data elements) What's important?

Advocates

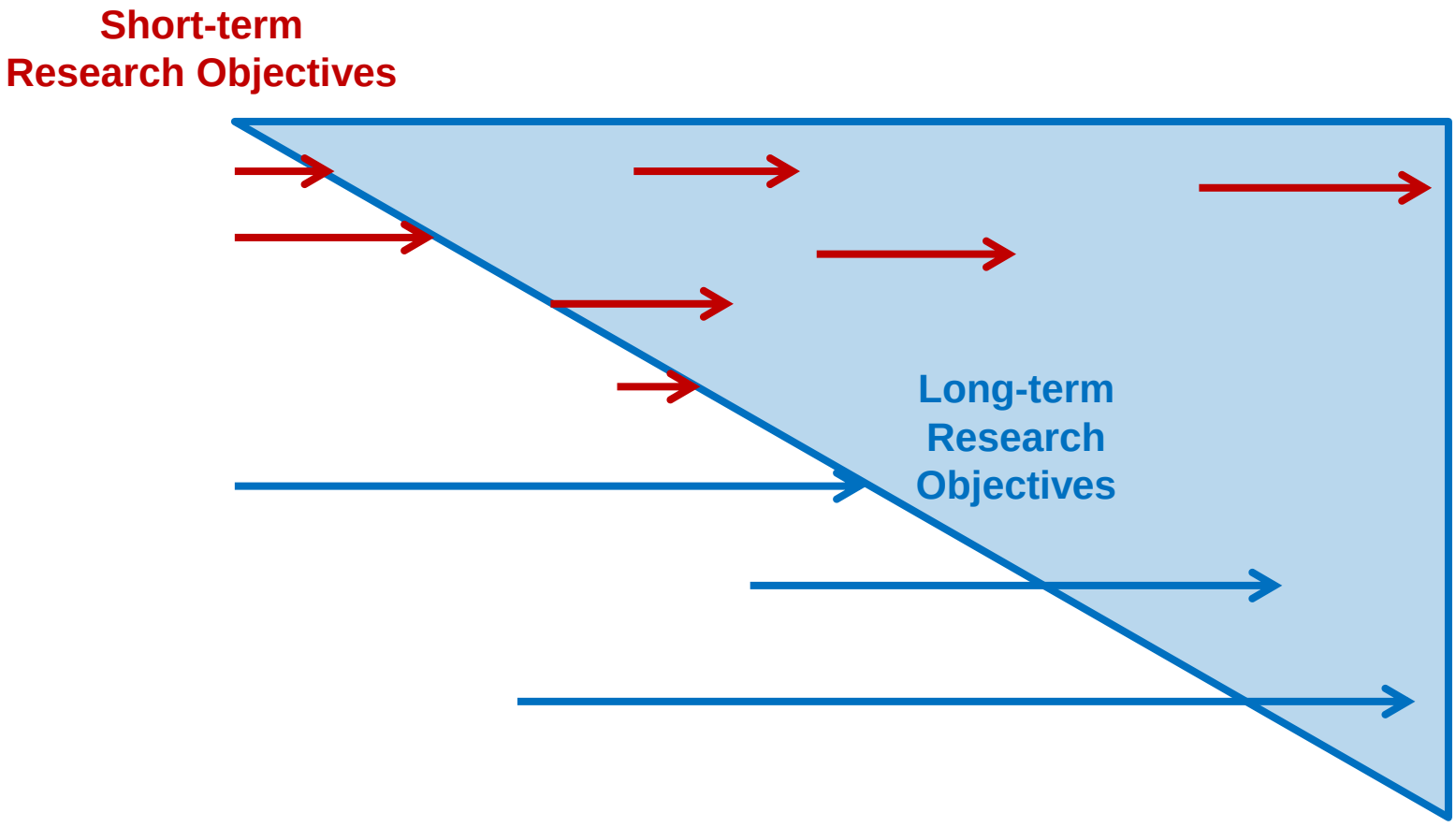
- Provide guidance- what's possible? What's important?

Annual U.S. Suicide Rates, 2002-2010; Projected Benefits of Applied Prioritized Research Agenda



Source: 2002-2010 Rates: *CDC. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online].*

Strategic Research Efforts Coordinate Short-term & Long-term Investments Across Funders to Reduce Suicide Rate



Questions? Suggestions? E-mail us: SuicideRTF@mail.nih.gov