

10th Annual Conference on the Science of Dissemination and Implementation in Health

Co-hosted by the National Institutes of Health
and AcademyHealth

A Decade of Effectiveness-Implementation Hybrid Trial Roll-out and Evaluation Targeting Sustainable Behavioral Interventions in Acute Care Settings

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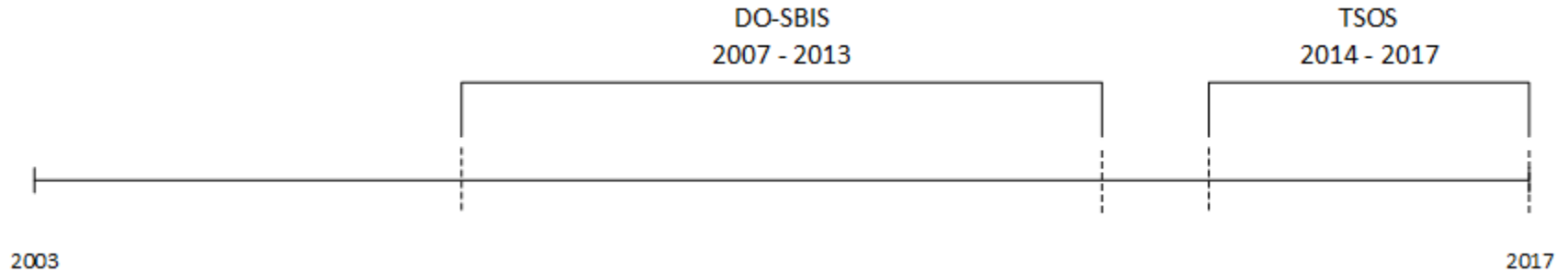
National Institutes of Health



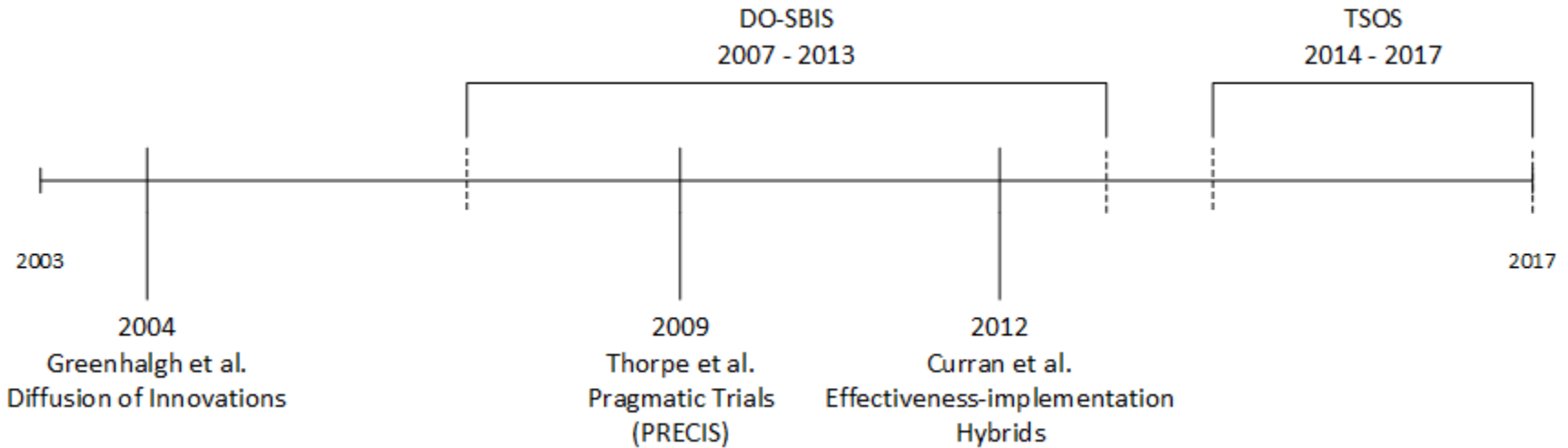
Overview: A Decade of Effectiveness-Implementation Hybrid Pragmatic Trials

- DO-SBIS Effectiveness-Implementation hybrid trial (2007-2013)
- Evaluation of DO-SBIS trial implementation using Rapid Assessment Procedure – Informed Clinical Ethnography (RAPICE) embedded with a second national effectiveness-implementation hybrid trial TSOS (2014-2017)

A Decade of Effectiveness-Implementation Hybrid Pragmatic Trials in US Acute Care Settings



A Decade of Effectiveness-Implementation Hybrid Pragmatic Trials in US Acute Care Settings



Greenhalgh et al 2004, Milbank Quarterly: “Make It Happen” Research to Regulatory Policy

Innovation in Service Organizations

593

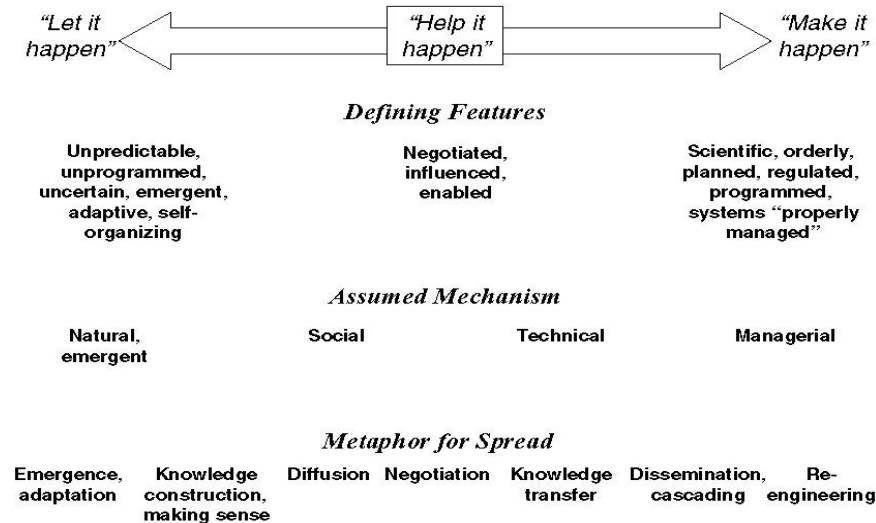
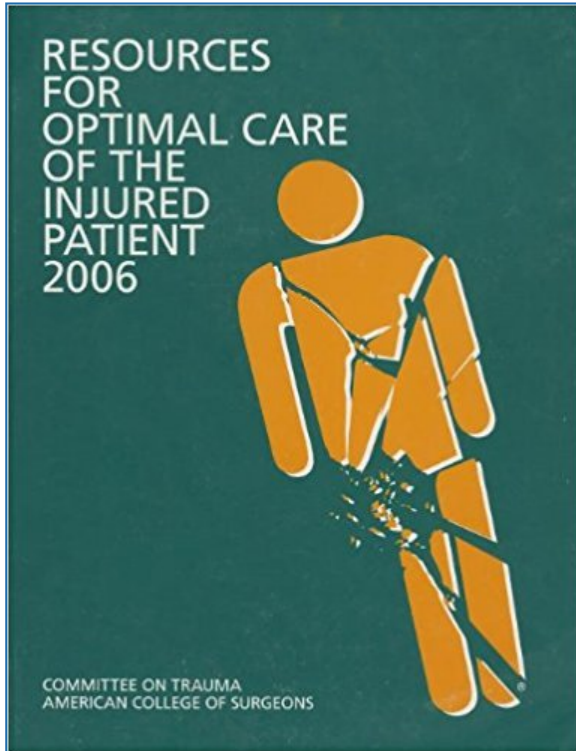


FIGURE 2. Different Conceptual and Theoretical Bases for the Spread of Innovation in Service Organizations



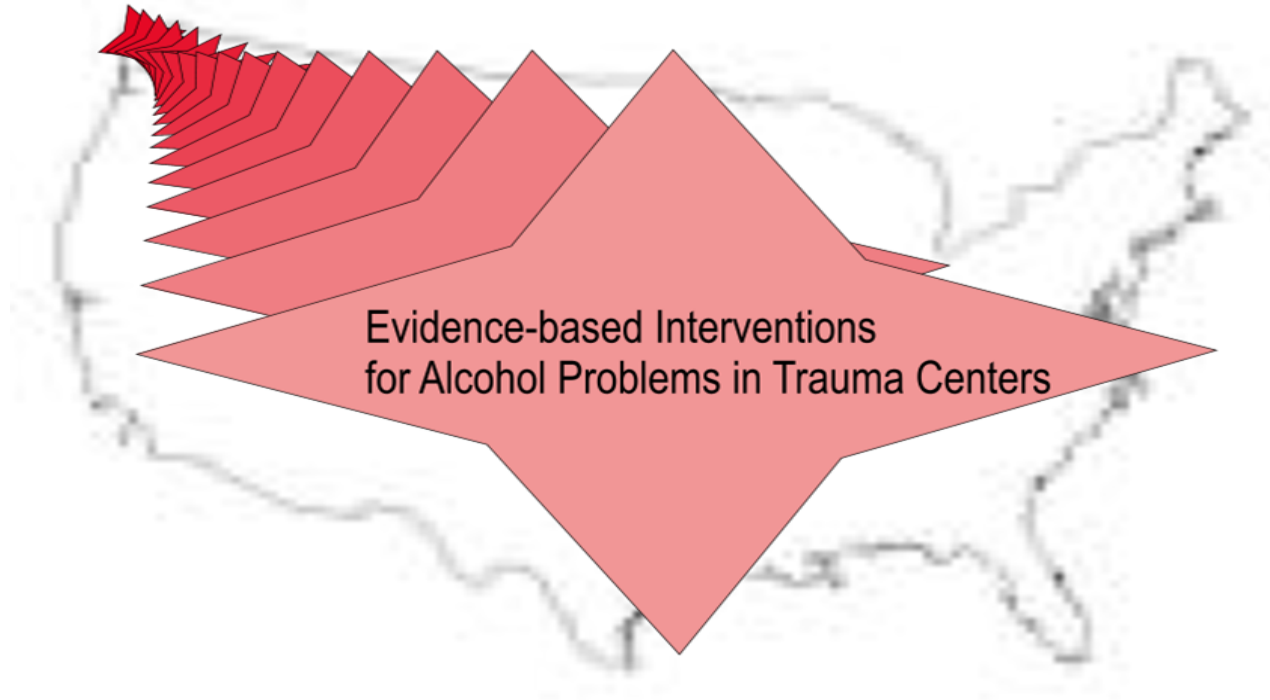
American College of Surgeons Policy

Alcohol

Level I & II trauma centers must screen for alcohol

In addition, level I centers must have the capability to provide an intervention for patients identified as problem drinkers

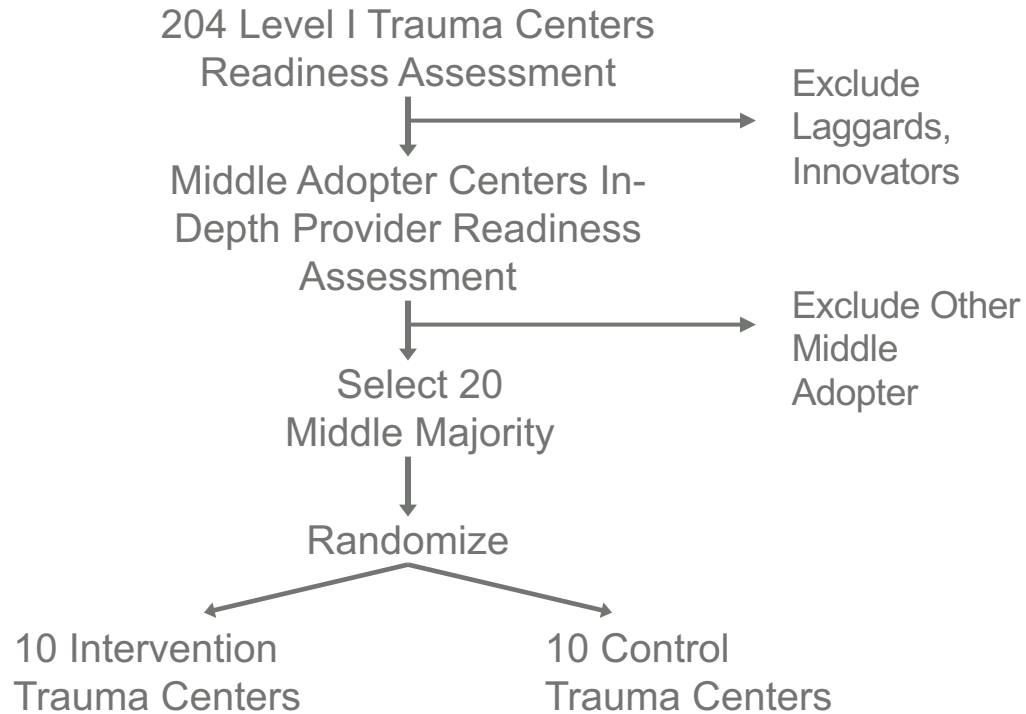
Disseminating Organizational Screening & Brief Interventions (DO-SBIS)



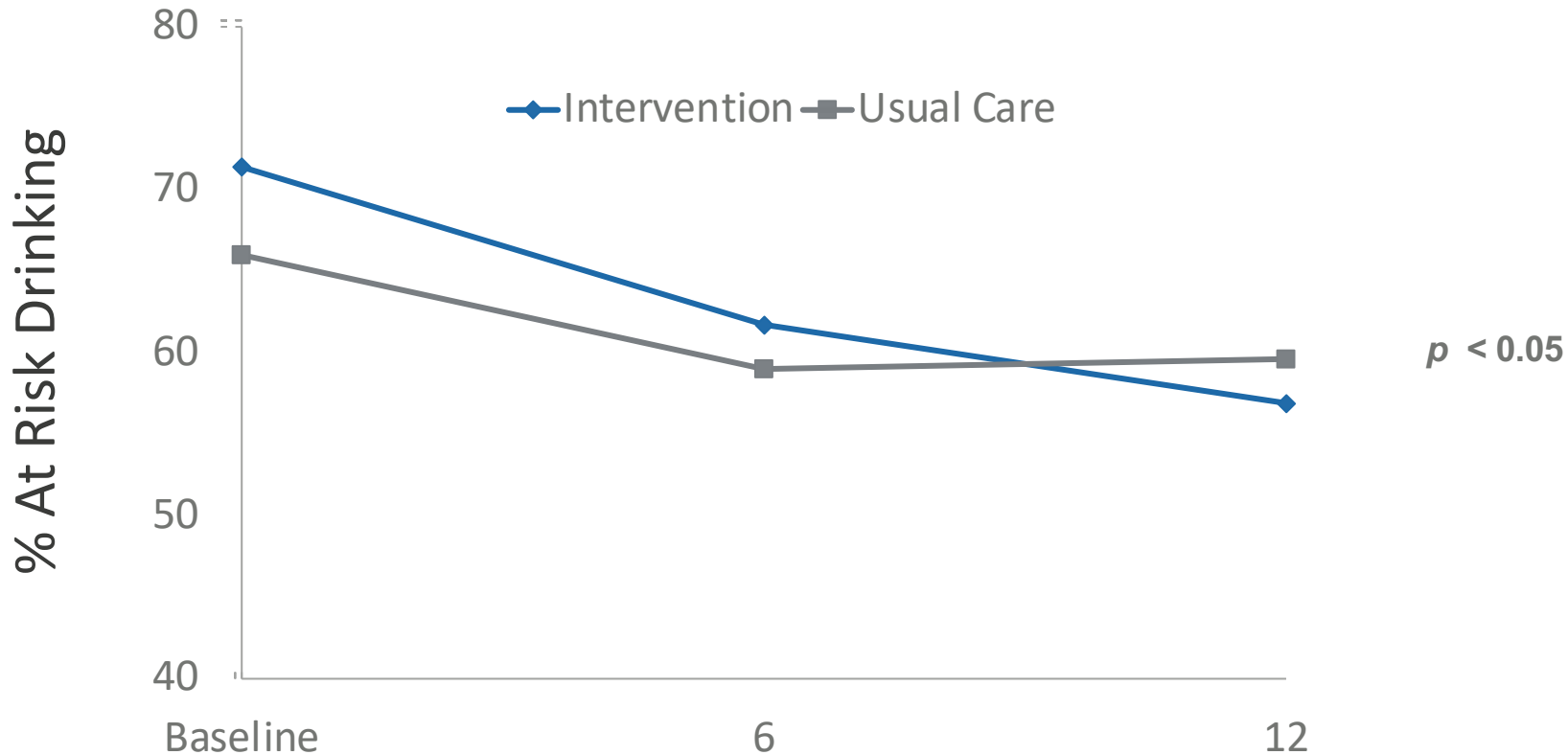
DO-SBIS Effectiveness Implementation Hybrid: 20 US Trauma Center Sites, 878 Patients

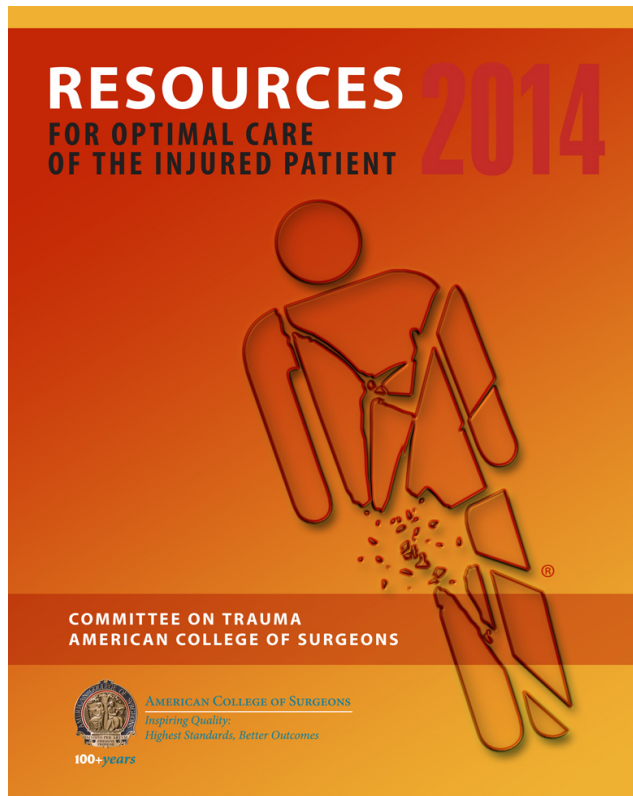
- Effectiveness aim: Reduce patient alcohol consumption
- Implementation aim: Influence US trauma center requirements for sustainable alcohol screening and brief intervention

DO-SBIS Multisite RCT: Design



DO-SBIS Alcohol Consumption Results: All Patients (N = 878)





American College of Surgeons Policy Summit

Alcohol Universal Screening & Intervention at Level I & II trauma centers

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Evaluation of DO-SBIS using Rapid Assessment Procedure - Informed Clinical Ethnography (RAPICE)

- Palinkas & Zatzick Poster Presentation (Tuesday AM)

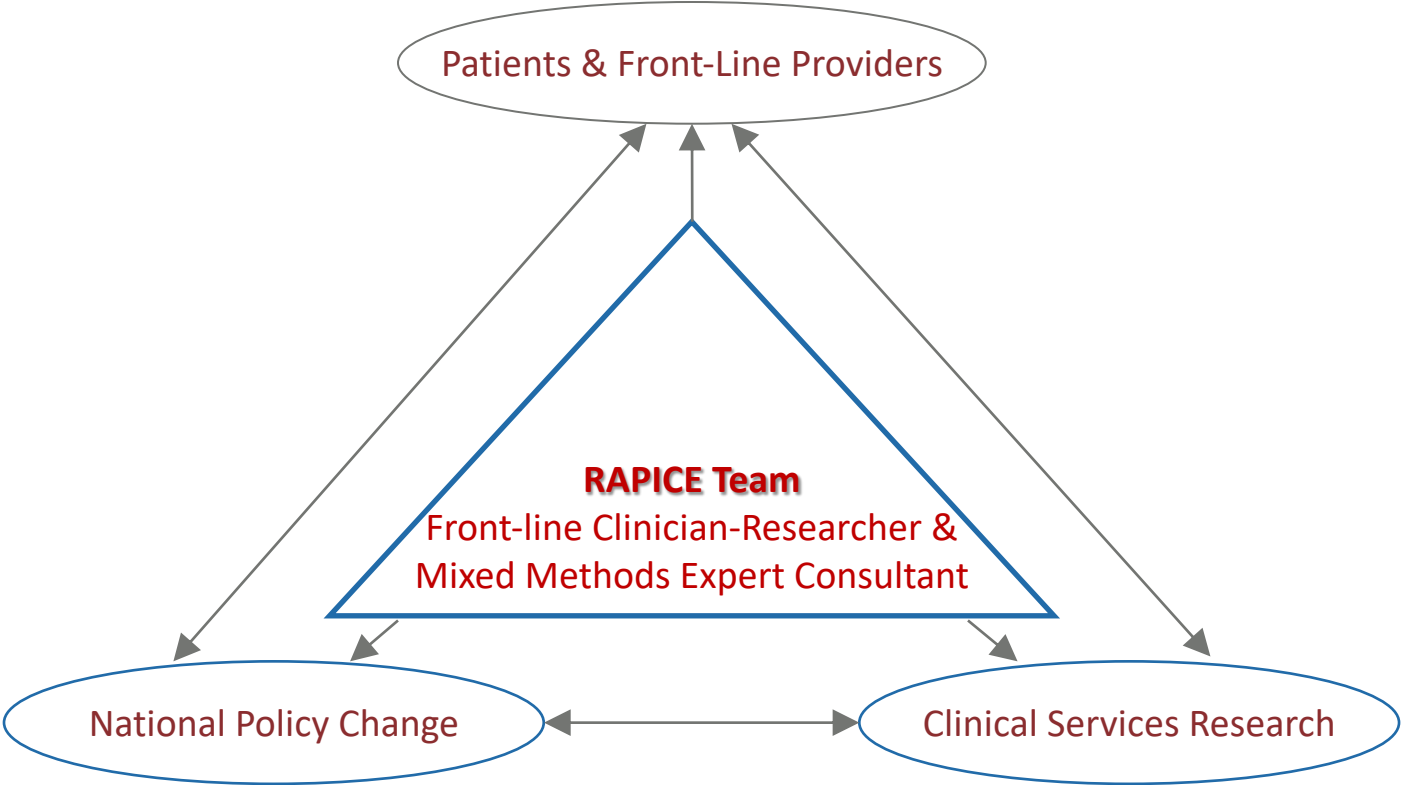
RAPICE Method: Rapid Assessment Procedures (Palinkas et al 2004)

- Interdisciplinary team
- Multiple data sources (e.g., key informant interviews, field jottings)
- Iterative data collection and analyses
- Rapid project roll-out and completion

RAPICE Method: Clinical Ethnography (Zatzick et al 2011)

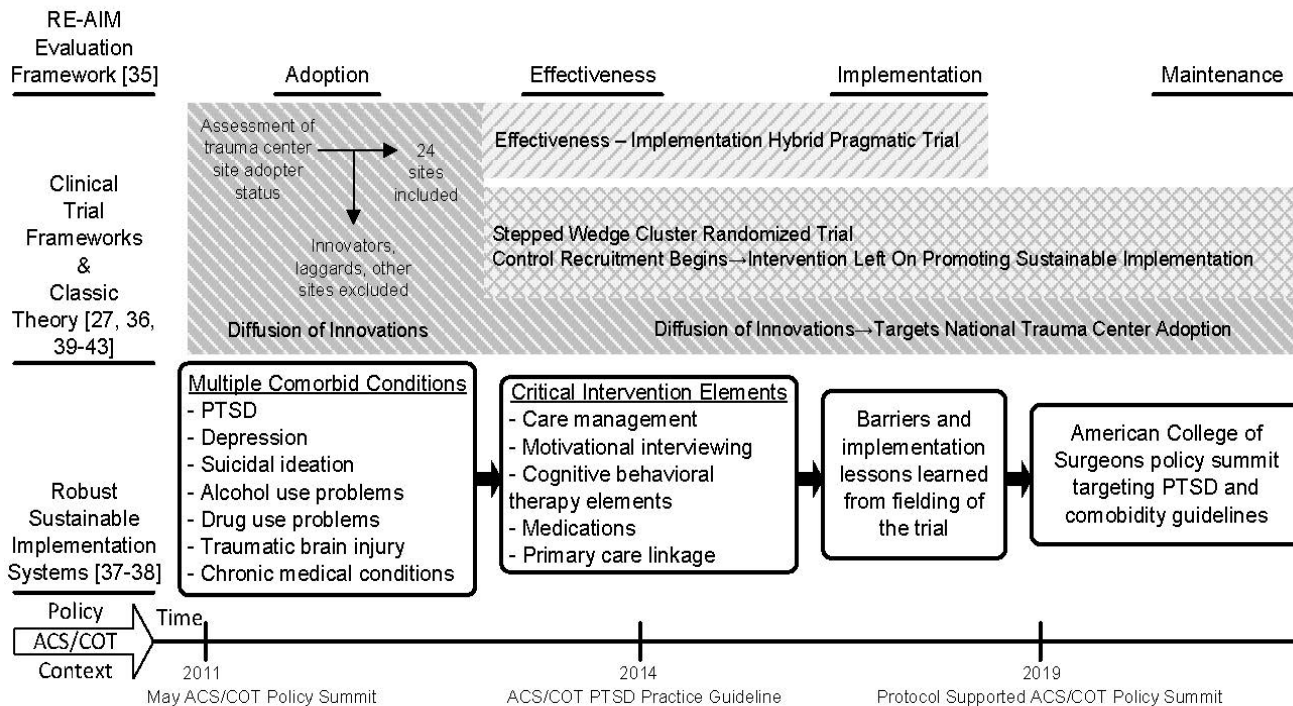
- Clinical research team spends hundreds of hours immersed in the acute care clinical context
- Front-line clinician-researcher conducts participant observation
- Field data regularly reviewed with mixed method expert consultant
- Method aims to simultaneously understand implementation processes while minimizing costs per subject randomized

Embedded RAPICE Team



RAPICE Team is Embedded Within a Second US National Acute Care Effectiveness-Implementation Hybrid Pragmatic Trial: TSOS

(Zatzick et al., *Implementation Science* April 2016)



RAPICE Data Collection & Analyses

- Semi-structured key informant interviews
- Field notes and jottings
- Emphasis on expedient data analyses that rely on formal coding and team discussions
- Triangulation with national surveys of alcohol screening and brief intervention uptake

National Alcohol Screening & Brief Intervention Surveys

- Two National Level I Trauma Center Surveys
 - 2006-2007 Before requirement, 73% response (148/204)
 - 2011-2012 After requirement, 78% response (172/221)
- 79% of Level I sites screening before requirement, 92% after ($P < 0.001$)
- 41% of Level I sites intervening before requirement, 64% after ($P < 0.001$)

RAPICE Summary Matrix: National Trauma Center Policy and Site Level Implementation

Implementation Issue	Alcohol Screening and Intervention Mandate	PTSD Screening and Intervention/Referral Practice Guideline	Patient centered Care Informational Section Addition to Guideline	No mandate or guideline
Centers familiar with topic of screening and intervention (e.g., alcohol, PTSD)	Mandate enforces familiarity with issue	Guideline suggests familiarity with issue	Informational section introduces/disseminates patient-centered care	Familiarity optional
Centers required to implement procedure	Mandate requires; verification site visit confirms	Guideline only suggests appropriate practice, no implementation required	Informational section only introduces idea; no implementation required	No requirements
Adequate staffing and resources allocated	Not addressed; mandate does allow on-site providers to lobby institution for additional staffing and resources	Not addressed; Practice guideline does allow on-site providers to lobby institution for additional staffing and resources	Not addressed; Informational section does allow on-site providers to lobby institution for additional staffing and resources	No requirement
High quality procedures implemented	Not addressed unless specifically required by mandate; on-site provides may be aware of issues related to inconsistent quality	Not addressed; on-site provides may be aware of issues related to quality	Not addressed; on-site provides may be aware of issues related to quality	No requirements
Fidelity assessments Effectiveness	Not addressed	Not addressed	Not addressed	Not addressed
	Not addressed	Not addressed	Not addressed	Not addressed
Reach	Implied that screening should be available for all patients; unclear whether verification site visits check on this or if this data is available within trauma registries	Not addressed	Not addressed	Not addressed
Likely adopter groups	Early, Middle & Late Adopters Required	Early Adopters Likely to uptake	Early Adopters could explore uptake	No adoption likely

Summary

- A decade of effectiveness-implementation hybrid pragmatic trials successfully targeting national trauma center policy
- Effectiveness-implementation hybrid approach associated with sustained alcohol screening and intervention
- RAPICE method feasibly embedded within hybrid trials
- RAPICE method calls attention to variability in the quality of alcohol screening and intervention procedures delivered
- RAPICE simultaneously optimizes understanding of implementation process while addressing pragmatic trial standard of minimizing cost per subject randomized