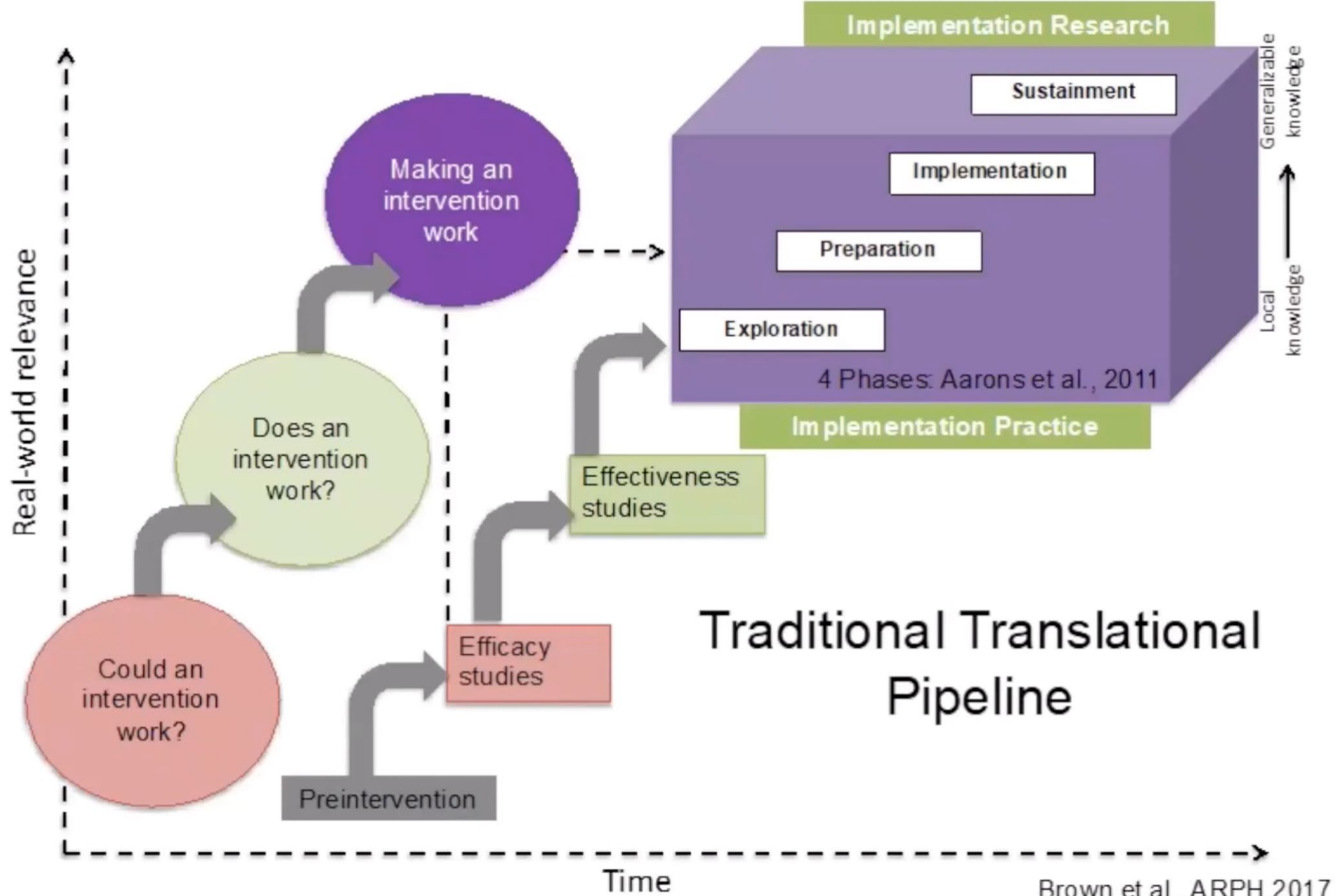


**Determinants of Adoption and Maintenance of a Clinical
Decision Support (CDS) Tool for
EMBED (EMergency department-initiated Buprenorphine
for opioid use Disorder)**

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Effectiveness

vs.

Implementation

System to Support Adoption and Delivery w Fidelity

Intervention

Evaluate Health Outcomes



System to Support Adoption and Delivery with Fidelity

Intervention

Evaluate Quality, Quantity, Speed of Delivery

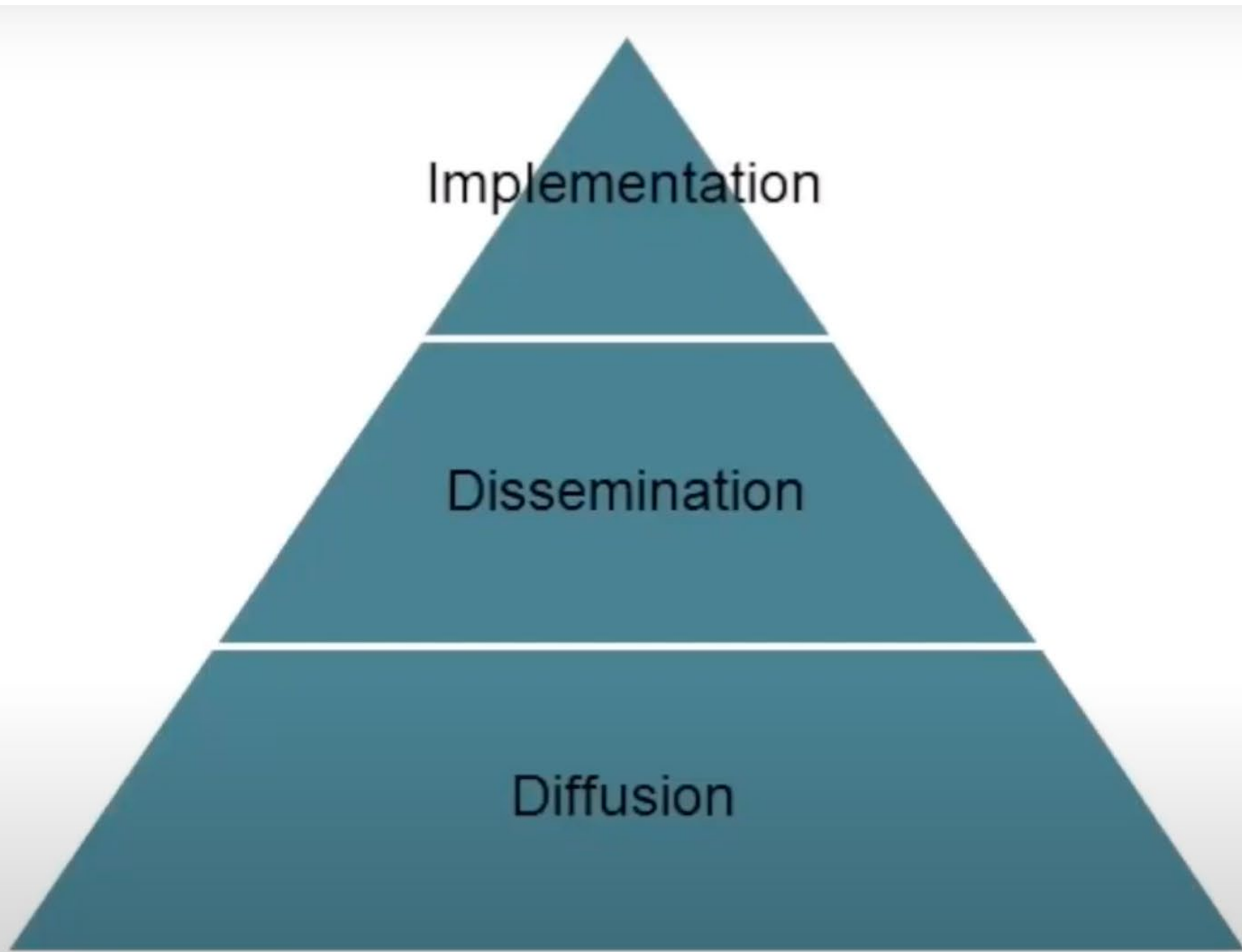


“Research to inform how to make the right thing to do the easy thing to do.”

—Carolyn Clancy,
Agency for Healthcare Research and Quality

Evidence → practice

- Implementation: Use of established strategies to adopt and integrate evidence-based health interventions into clinical and community settings to improve patient outcomes and benefit population health
 - Support and measure uptake, identify barriers, technical assistance
- Dissemination: Targeted distribution of information and intervention materials to a specific audience. To understand how to best spread and sustain knowledge and the associated evidence-based intervention
 - Does not occur spontaneously, passive=ineffective, improved by stakeholder involvement
 - Understand target audience, package intervention, create appropriate use channels tailored to audience



“Make it happen”

“Help it happen”

“Let it happen”

Aims

- 1. Utilize the **Practical, Robust Implementation and Sustainability (PRISM)** Framework to **identify the determinants of adoption, implementation, and maintenance of the EMBED clinical decision support tool.**
- 2. Develop an implementation guide to accompany CDS tool based on the identified determinates
- 3. Disseminate package nationally

Goals of aim 1

- Understand what it takes to successfully implement and maintain a CDS tool to support buprenorphine initiation in the ED
- What other components are needed to complement the CDS tool to support buprenorphine initiation in the ED
- Combine these findings with existing literature and professional experience to develop an implementation guide to accompany the CDS tool

Significance

- Further understanding of CDS as an implementation strategy to improve access to OUD for ED patients.
- Use established approaches to generate much needed, generalizable knowledge about improving the delivery of evidence-based interventions through modifications to existing EHR workflows.
- Providing data about an emerging, scalable implementation strategy to improve the initiation of and evidence-based intervention: buprenorphine initiation for OUD.

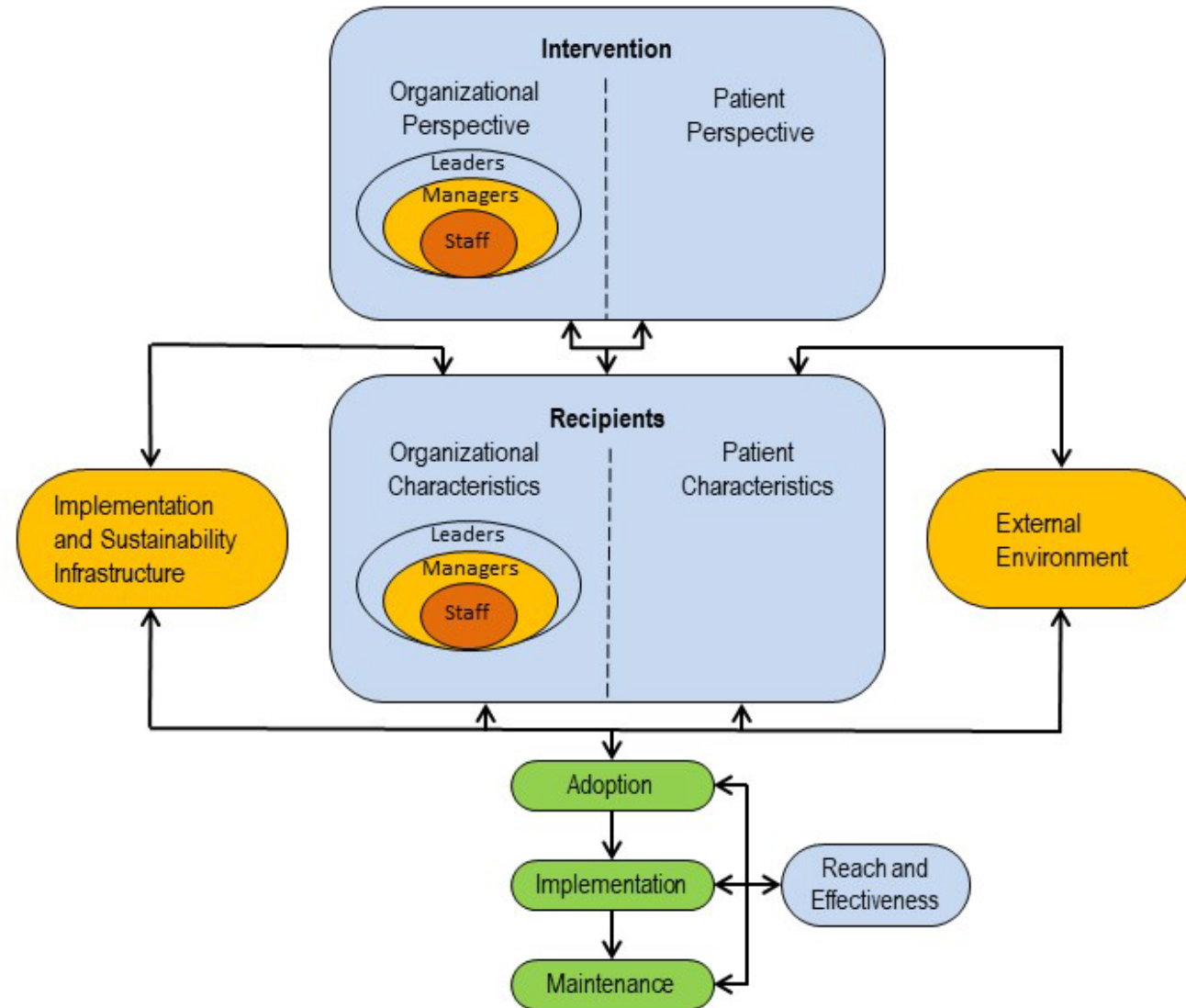
Conceptual model/framework:

- Successful implementation and sustainability of evidence-based interventions is predicated on the fit with the target audience and setting
- EDs: unique external (policies, resources and incentives) and internal (local organizational readiness, infrastructures and work-flows) contextual factors that influence implementation
- Building CDS which aligns with the human, technical and organizational goals requires a framework that can address context and interactions between external environments, recipients, and infrastructure.
- PRISM will be used to modify preferred CDS approaches and guide adaptations of non-core elements to improve fit, document adaptations and build a dissemination plan for EMBED

PRISM

Main outcomes of interest (at clinician level):

- Adoption
- Implementation
- Maintenance



Barriers to ED-initiated buprenorphine

- **Patient**

- Social factors
- Interest/motivation in treatment
- Preference for other treatment

- **Clinician/prescriber**

- Lack of training and experience
- Comfort with counseling and ordering
- Competing demands/Time
- Stigma
- Scope creep/not my job

- **ED/Organizational**

- Available resources: Social worker/care coordinator
- Standard of care/protocols
- Access to consultations

- **Health Care System**

- Access to ongoing care

- **Societal**

- X waiver
- Regulatory concerns

Facilitators to ED-initiated buprenorphine

- Clinician/prescriber

- Perception/belief that it is within scope
- Moral imperative
- Positive experience/feedback
- Knowledge
- EHR support

- Health Care System

- Warm hand-off to ongoing care

- ED/Organizational

- Training mandates/incentives
- Cultural norms
- Local protocols
- Peer champion/support

- Societal

- Remove barriers for X waiver
- Support from national organizations

PRISM Domains

PRISM domain	Constructs to assess
Intervention (organizational perspective)	Strength of evidence, ability of the intervention to address barriers of frontline staff, complexity, trialability, observability
Implementation and Sustainability Infrastructure	Dedicated team to support buprenorphine initiation, adopter training and support
Recipients (organizational characteristics)	Data and decision support as a part of existing culture, clinical leadership/clinician champion
Recipients (patient characteristics)	Demographics, prevalence of OUD among patients, patient knowledge and interest in buprenorphine
External environment	Availability of community resources, external incentives and reimbursement, regulatory oversight

Sampling

- Population: Emergency medicine clinicians who have at least some experience initiating buprenorphine and are from the intervention sites (have interacted with EMBED CDS tools)
 - Purposive sampling across 8 ED (at least 4 community EDs)
 - Interviews with 4-6 clinicians per site
- Recruitment: Email invite, site champions
- Interviews: Semi-structured via zoom with 2 team members. Recorded, deidentified and HIPAA compliant transcription
- Team: project manager, a qualitatively trained research associate, qualitative methodologist, researcher with content expertise, and dissemination and implementation scientist

Qualitative methods/analysis

- Transcripts coded using secure qualitative data analysis software (Atlas.ti) by two members of the study team
- Thematic analysis will be performed on all transcripts, utilizing a mixed inductive and deductive approach based in PRISM.
- After developing an initial codebook, coders meet to discuss disagreements in code generation, application, and interpretation.
 - Subsequent versions of the codebook will be further refined, with all documents being subsequently double coded by both coders.
 - Coders will meet to routinely discuss emergent themes, inductive phenomena, and other relevant features that emerged organically from the text
- Inform needs for implementation guide and routes of dissemination

Current status

- IRB approved
- Interview guide done
- Pilot interviews underway
- Review of guide and pilot interviews next week
- Invites for additional interviews go out in 2 weeks

Questions

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