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# **Advancing Cancer Care Delivery Through Implementation Science**



***BE BOUNDLESS***

Presentation from HICOR Value in Cancer Care Summit 2018 - Please cite author when referencing content

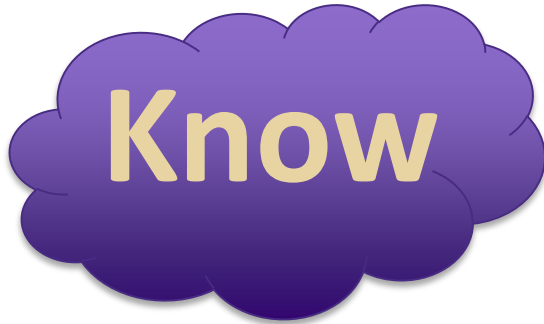


# IMPLEMENTATION SCIENCE

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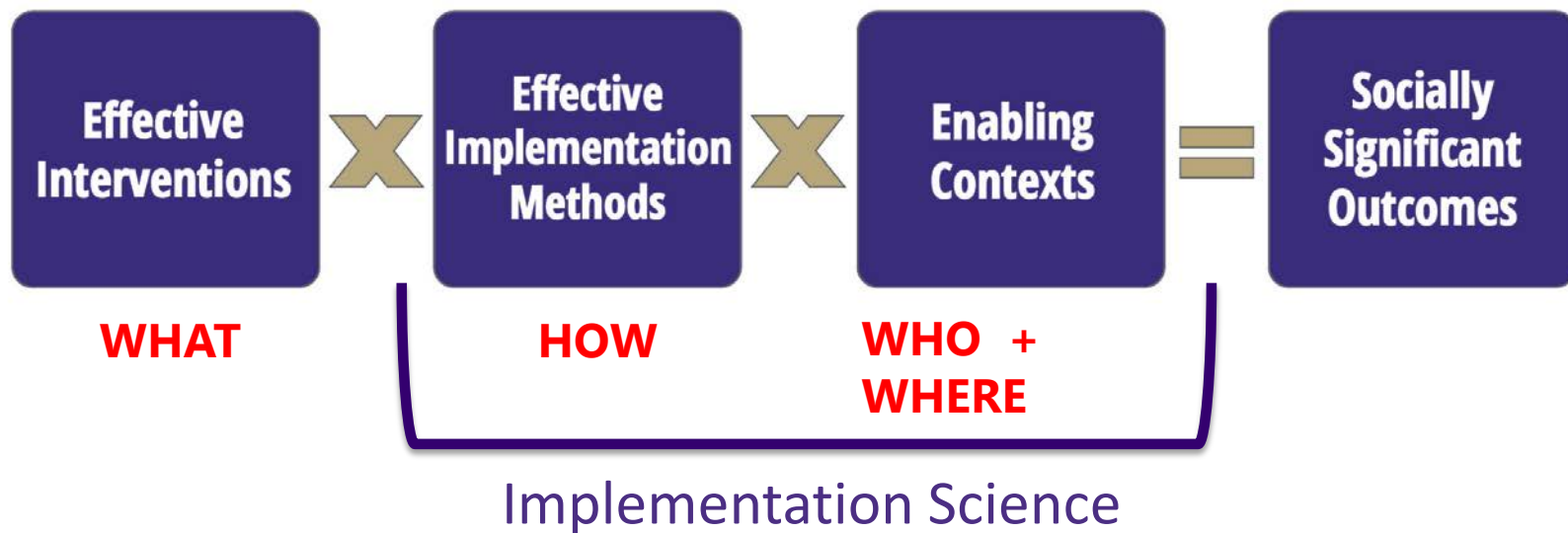
The scientific study of methods to promote the **adoption** and **integration** of research findings and evidence-based interventions into healthcare practice and policy.

- National Institute of Health



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# REQUIREMENTS FOR SUCCESS



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# FOUR KEY IMPLEMENTATION SCIENCE QUESTIONS

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- > What are the most effective techniques to improve the distribution and receipt of evidence?
- > What are the most effective techniques to incorporate new discoveries and evidence-based practices into clinical care delivery?
- > How do contextual factors influence implementation success or failure (and how can these contextual factors be modified to increase chances of success)?
- > What are the most effective techniques to de-implement practices that are no longer effective or were never effective in the first place?

# DISTINGUISHING IMPLEMENTATION SCIENCE

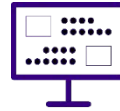
Study Feature	Study Type	
	Clinical research	Implementation research
Aim: Evaluate a/an ...	clinical intervention	implementation strategy
Typical intervention	drug, procedure, therapy	clinician, organizational practice change
Typical outcomes	symptoms, health outcomes, patient behavior	adoption, adherence, fidelity
Typical unit of analysis, randomization	patient	clinician, team, facility

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# SOME TERMINOLOGY

Implementation strategies: Actions to enhance adoption, implementation, and sustainability of EBIs.

EBIs: programs, practices, principles, procedures, products, pills, and policies that improve health behaviors, health outcomes, or health-related environments



**PROGRAMS**



**PRODUCTS**



**PRACTICES**



**PILLS**



**PRINCIPLES**



**POLICIES**



**PROCEDURES**

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# EXAMPLES OF STRATEGIES

- Contracting
- Public reporting
- Payment changes
- Decentralization

- Quality improvement
- Service changes
- Staffing changes
- Role revisions

- Education
- Reminders
- Audit and feedback
- Decision support



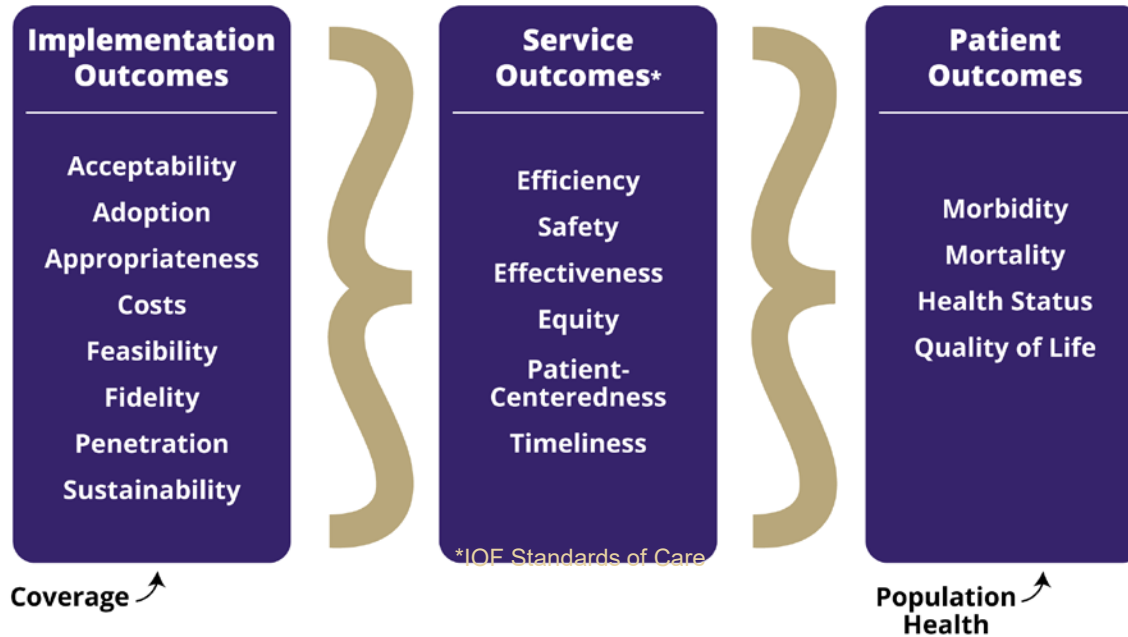
- Community mobilization
- Norm changes (stigma)
- Demand creation
- Service coordination

- Shared decision making
- Risk communication
- Partner notification
- Social support

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# IMPLEMENTATION OUTCOMES

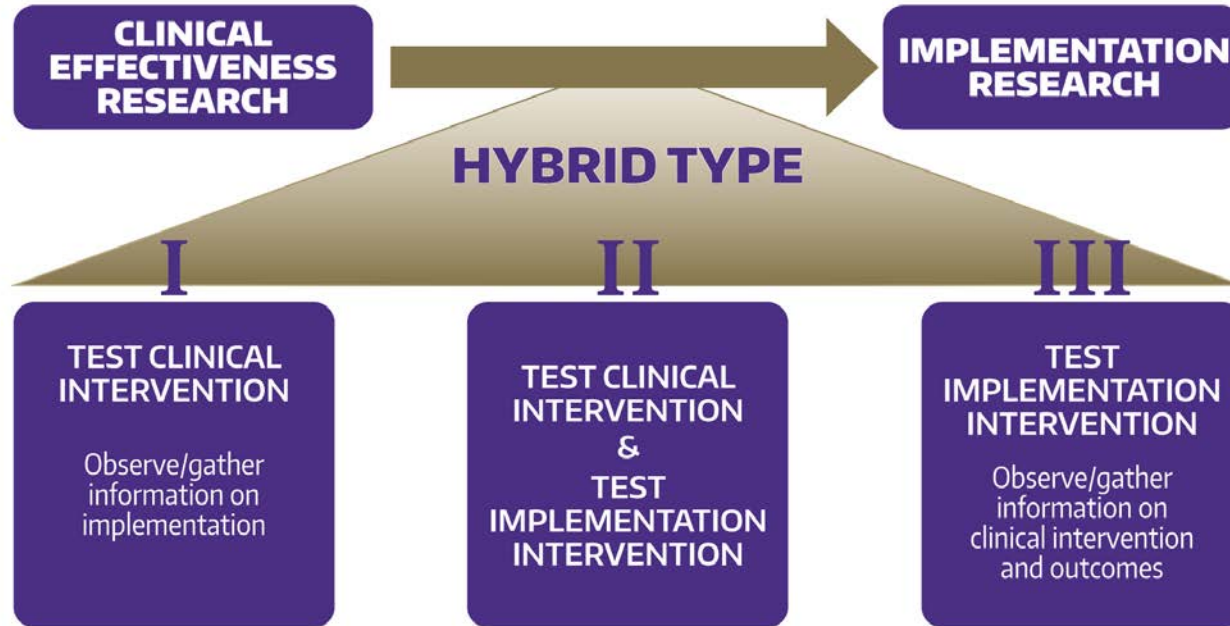
Adapted from  
Proctor et al.,  
2011



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# HYBRID DESIGNS



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# IMPLEMENTATION SCIENCE EXAMPLES

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- > Implementing decision aids and shared decision making to guide low-risk prostate cancer treatment
- > Implementing the CMMI Oncology Care Model
- > Implementing radiology communication-based tools to promote guideline-concordant imaging practices in breast cancer surveillance
- > Implementing a pharmacist-led strategy to promote de-prescribing of potentially inappropriate medications

# EXAMPLE: PRO-SUPPORT

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**Objective**: Improve symptom control and reduce disparities in symptom burden during treatment for cancer through the deployment of:

- > An integrated symptom monitoring,
- > Self-care education
- > Evidence-informed clinical decision support (CDS) system for symptom management

# EXAMPLE: PRO-SUPPORT

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Aim 1: compare clinician adherence to symptom management guidelines for lung, GI, GU, breast, and gynecological cancers

Aim 2: examine multilevel factors associated with adoption and implementation of integrated symptom monitoring, self-care education, and CDS for symptom management

Aim 3: determine differences in symptom severity, pain treatment, supportive care referrals, health-related quality of life (between intervention and control group)

# IMPLEMENTATION OUTCOMES

Construct	Measures
Adoption	% providers accessing symptom assessment reports % patients completing symptom assessment reports
Fidelity	% symptoms assessed % symptoms assessed prior to clinical encounter % symptom assessment reports delivered JIT to clinicians
Acceptability	Acceptability of Interventions Measure Communication Subscale, Primary Care Assessment Survey
Sustainability	Staffing, technical, and organizational resources required for sustained use
Scalability	Differential reach, effectiveness, and adoption across practices, providers, and patients Workforce, technical, and organizational resources required for implementation Intervention delivery (acceptability, fidelity) Contextual factors

# MULTI-LEVEL CONSTRUCTS

Level	Construct
Intervention	Evidence Strength & Quality
	Relative advantage
	Complexity
Provider	Social/professional role
	Burnout
Team	Team psychological safety
Practice	Organizational readiness
	Organizational priority
	Practice Disruption
	Practice Demographics

# WRAP-UP: KEY IMPLEMENTATION SCIENCE QUESTIONS

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2. What are the most effective techniques to incorporate new discoveries and evidence-based practices into clinical care delivery?
3. How do contextual factors influence implementation success or failure (and how can these contextual factors be modified to increase chances of success)?
4. What are the most effective techniques to de-implement practices that are no longer effective or were never effective in the first place?