

# The pragmatic measurement of sustainment

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# Acknowledgement of Country

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**I would like to acknowledge the Whadjuk Nyoongar people as the traditional owners of the land on which Curtin Bentley campus sits. I acknowledge their continuing connection to land, sea and community and pay my respects to them, their culture, to their elders, past, present and future.**

# Policy-makers and providers demand ‘useful’ results

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**Reliable and  
valid**



**Feasible**



**Pragmatic**



**Acceptable  
and  
appropriate**



A photograph of a large group of people, mostly men in business suits, seated around a large, dark wooden conference table in a formal meeting room. The room has large windows with light-colored curtains. The image is semi-transparent, with text overlaid. 

**Stakeholders expect impact**

**#ImpSci**

# In the next 30 minutes ...

1

Narrative review of  
pragmatic measures  
of sustainment

2

Provider REport of  
Sustainment Scale  
(PRESS)

3

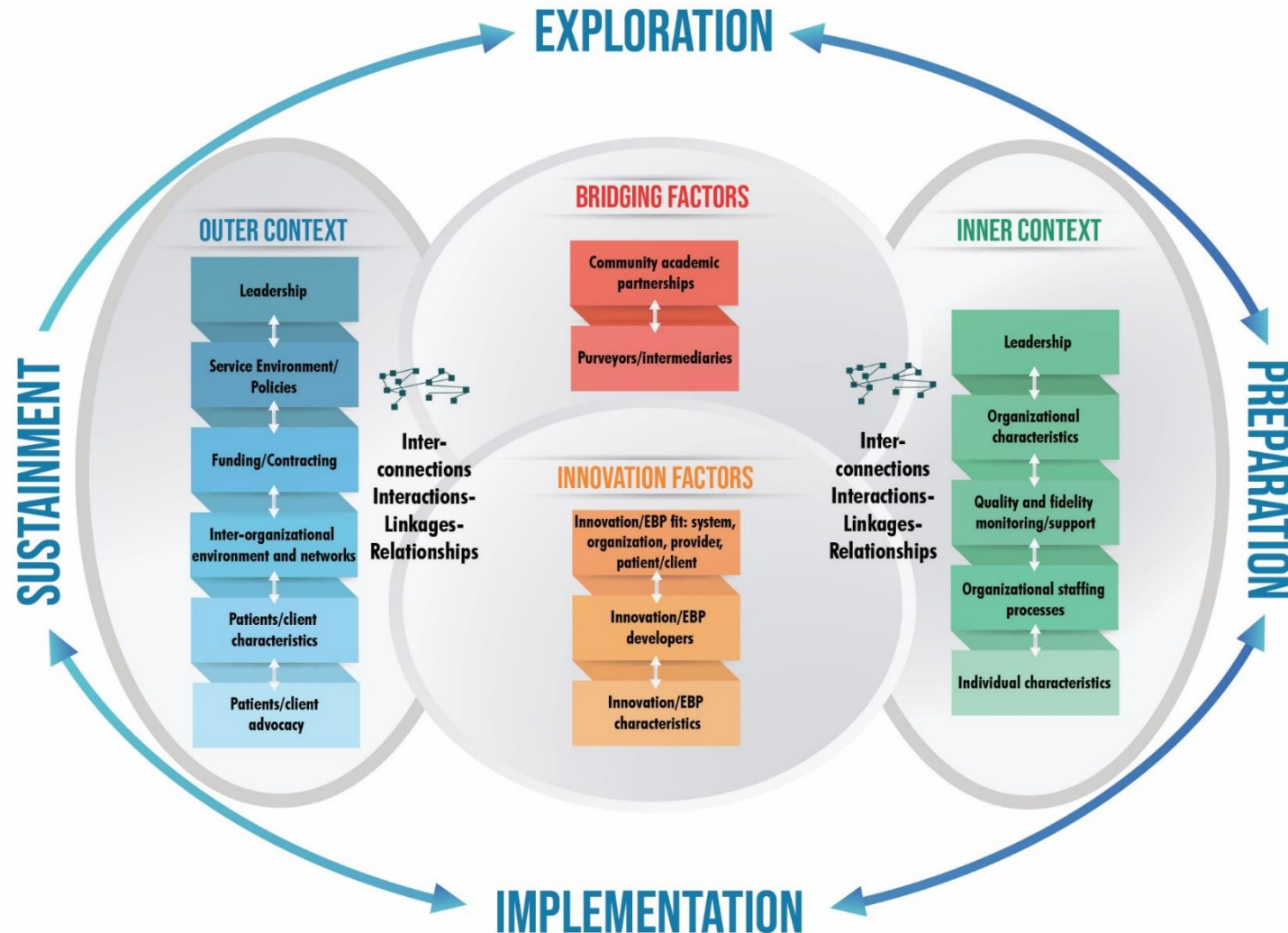
Incorporating  
measures into your  
projects

A woman with long dark hair is sitting at a desk, looking thoughtfully at the camera with her hand resting on her chin. The desk is cluttered with various papers and documents. In the background, there is a large window with a grid pattern, and some framed certificates or diplomas are visible on the wall to the right.

# 1

Narrative review of  
pragmatic measures  
of sustainment

# Exploration, Preparation, Implementation, Sustainment (EPIS) framework



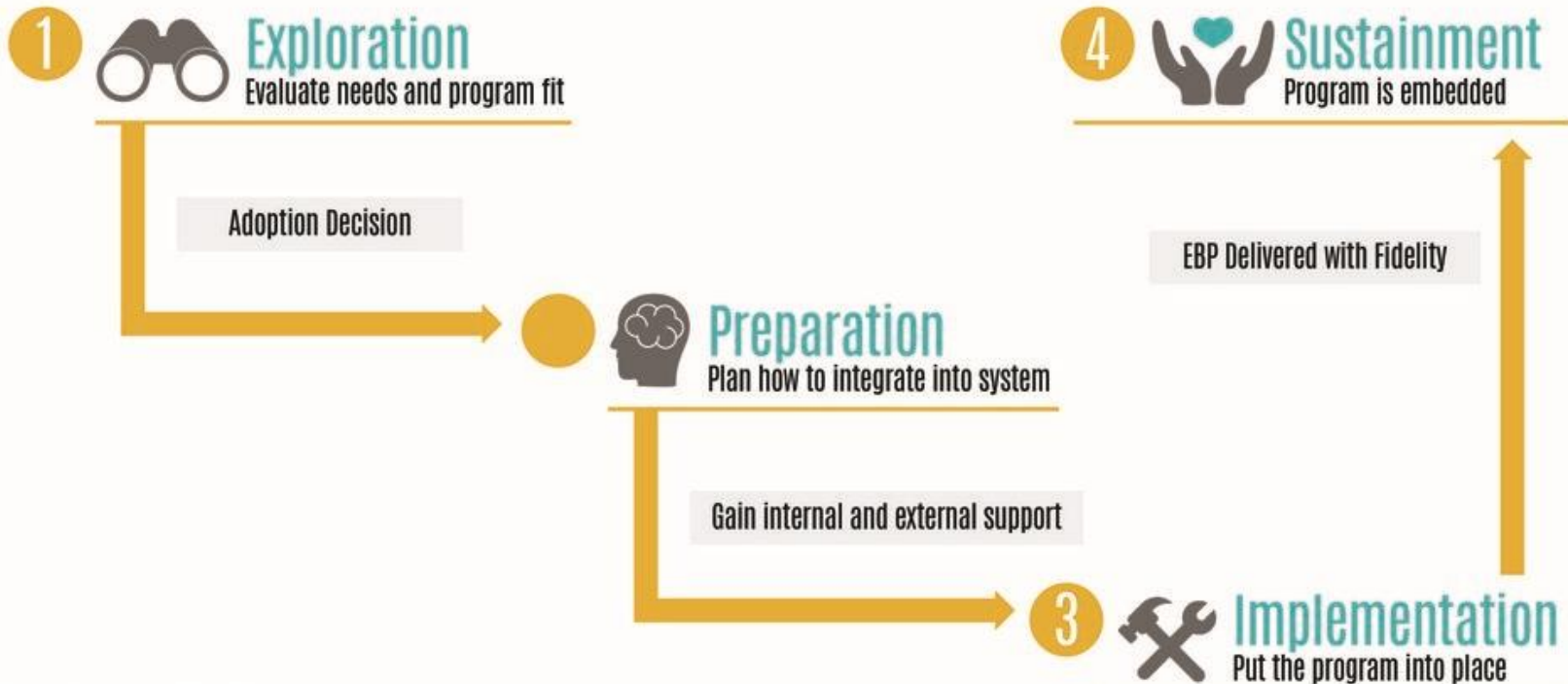
Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(1), 4-23

Moullin, J.C., Dickson, K.S., Stadnick, N.A., Rabin, B., & Aarons, G.A. (2019). Systematic Review of the Exploration, Preparation, Implementation, Sustainment, (EPIS) Framework. *Implementation Science*, 14(1).



# Phases of implementation

## EPIS Exploration, preparation, implementation and sustainment





# EPIS Systematic Review

**Table 3** EPIS stage used in included projects and articles

	Projects explicit	Projects implicit	Articles explicit	Articles implicit
Exploration	14	4	14	5
Preparation	17	5	18	9
Implementation	38	4	49	9
Sustainment	18	5	23	6

**Note:** Phases are not mutually exclusive. A specific project or article may have focused on multiple phases

# Studying Sustainment

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- Less studied than other phases
  - Time-limited nature or parameters of research grant funding cycles
  - Methodological difficulties
  - Measurement issues
  - Conceptual issues

# Terminology, definitions and frameworks

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**– Sustain – Sustainability – Sustainment – Continue/Continuation – Maintain/Maintenance – Long term – Follow-up – Adhere – Penetration – Maintenance – nice saturation – institutionalization – routinization – institutionalization – normalization – integration – community ownership –**

Moore et al.

“after a defined period of time, a program, clinical intervention, and/or implementation strategies continue to be delivered and/or individual behavior change (i.e., clinician, patient) is maintained; the program and individual behavior change may evolve or adapt while continuing to produce benefits for individuals/systems.”

Shelton et al.

“the continued use of program components at sufficient intensity for the sustained achievement of desirable program goals and population outcomes.”



# Terminology

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Sustainability = Determinant

Sustainment = Outcome indicating that the intervention was continued over time.

- 1) *the input(s) (e.g., intervention, program, implementation strategy) continue to be delivered, through*
- 2) *routinization and institutionalization of the input(s), while adapting and evolving, and there being*
- 3) *ongoing capacity across levels (e.g., organizational, community and systems change) to support the delivery, so that*
- 4) *the outputs on the part of the health provider and/or health consumer (e.g., individual behavioral change, clinical benefits, value, impact) are maintained.*

# Narrative Review of Sustainment Measures

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- **Search strategy:**

- Society of Implementation Research Collaboration (SIRC) instrument review project (IRP)
- Dissemination and Implementation Grid-Enabled Measures database initiative (GEM-D&I)
- Snowballing strategy for reference sections of literature and reviews and definitions of sustainability and sustainment
- No time frame

- **Excluded scales:**

- Specific for a study/intervention
- Qualitative guides
- Measured likelihood for sustainment/sustainability/intentions/capability
- Unpublished or items not available for review
- Quality of delivery
- Did not measure constructs of sustainment definitions

# Narrative Review of Sustainment Measures

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Measure
RE-AIM Framework Dimension Items Checklist - Maintenance Measure
Level of Institutionalization Scale (LoIn)
Evidence-based Practice (EBP) Sustaining Telephone Survey
The Team Check-Up Tool (TCT)
Stages of Implementation Completion (SIC)
NHS Sustainability Model and Guide
A framework and a measurement instrument for sustainability of work practices in long-term care
Normalization Process Theory-based Measurement (NoMAD)
Program Sustainability Assessment Tool (PSAT)
Clinical Sustainability Assessment Tool (CSAT)
Program Sustainability Index (PSI)



# Narrative Review of Sustainment Measures

	The input(s) continue to be delivered	Routinization and institutionalization of the inputs, while adapting and evolving, and the outputs on the part of the health provider and/or health consumer are maintained.					Ongoing capacity across levels to support the delivery of the inputs.						
							Outer Context			Inner Context			
	Ongoing use/provision	Adaptation & improvement	Monitoring	Reflection & team involvement	Routinization	Institutionalization	External support & communication	Partnership	Financial resources & funding	Leadership Support & organizational climate	Organizational capacity	Training	Staff support, behaviour & attitudes
Level of institutionalization Scale (LoIn)	X	X	X	X		X			X		X		X
NHS Sustainability Model	X	X	X	X	X	X	X			X	X	X	X
Measure of Sustainability of work practices	X	X	X	X	X	X					X	X	
NoMAD	X	X		X	X	X				X	X	X	X
Program Sustainability Assessment Tool	X	X	X		X		X	X	X	X	X		
Program Sustainability Index (PSI)	X	X	X	X	X		X	X	X	X	X	X	X

## 2

### Provider REport of Sustainment Scale (PRESS)

# Provider REport of Sustainment Scale (PRESS)

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The aim of this study was to develop a very brief, pragmatic, valid, and reliable measure of an EBP's sustainment from the perspective of service providers targeting the inner context organizational and provider levels

## Methods:

- DeVellis steps for scale development
- Glasgow and Riley's recommendations for pragmatic measures
- Rasch measurement theory for reliability and validity testing



# Provider REport of Sustainment Scale (PRESS)

- Four components to our definition of sustainment

- 1) ***the input(s) (e.g., intervention, program, implementation strategy) continue to be delivered, through***
- 2) *routinization and institutionalization of the input(s), while adapting and evolving, and there being*
- 3) *ongoing capacity across levels (e.g., organizational, community and systems change) to support the delivery, so that*
- 4) *the outputs on the part of the health provider and/or health consumer (e.g., individual behavioral change, clinical benefits, value, impact) are maintained.*

Items were administered to participants of four existing US National Institutes of Health (NIH) funded studies, involving four different EBPs and four different settings.

# Provider REport of Sustainment Scale (PRESS)

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The following questions ask about [EBP] in your [setting].

Please indicate the extent to which you agree with the following items:

- 1. Staff use [EBP] as much as possible when appropriate**
- 2. Staff continue to use [EBP] throughout changing circumstances**
- 3. [EBP] is a routine part of our practice**

Anchors:      0 = not at all, 1 = to a slight extent, 2 = to a moderate extent,  
                  3 = to a great extent, and 4 = to a very great extent

# Provider REport of Sustainment Scale (PRESS)

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- Adaptable for Individual level measurement for behavioral change interventions or where team level aggregation is not appropriate
  1. I use [EBP] as much as possible when appropriate
  2. I continue to use [EBP] throughout changing circumstances
  3. The [EBP] is a routine part of my [practice/life]
- Potentially adaptable for implementation strategies/program  
[EBP → EB implementation strategy]
- Suggest to be used in combination with:
  - A qualitative or quantitative measure of other constructs of sustainment (both inner and outer context) specific for context (e.g., capacity or funding stability)
  - A qualitative or quantitative measure of sustained fidelity and EBP outcomes (e.g., patient and/or provider benefits) that is specific for the EBP

# References and Resources

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- Narrative Review of Sustainment Measures  
<https://doi.org/10.1186/s43058-020-00068-8>
- Provider Reported Sustainment Scale (PRESS)  
<https://doi.org/10.1186/s13012-021-01152-w>
- EPIS Framework  
[www.episframework.com](http://www.episframework.com)
- Dissemination and Implementation Grid-Enabled Measures database initiative (GEM-D&I)  
<https://www.gem-beta.org/public/wsoverview.aspx?cat=8&aid=0&wid=11>
- Society for Implementation Research Collaboration (SIRC) Instrument Project  
<http://www.societyforimplementationresearchcollaboration.org/sirc-projects/sirc-instrument-project/>



# Thank you

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# 3

Incorporating  
measures into  
your projects

# Case Study

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*The U.S. Preventive Services Task Force recommends screening for depression in adolescents aged 12-18 years. A large pediatric health system launched a depression screening campaign 1 year ago. How could sustainment of adolescent depression screening be measured?*

Consider these questions:

1. What aspects of sustainment matter most to the stakeholders or constituents?
  - Are the continued benefits/effects of depression screening most important?
  - Is continued provider use of depression screening most important?
2. Does the project/study design afford opportunities for follow-up assessments?
3. What resources are available to examine sustainment?

*Please take a few minutes to consider these questions (individually or in a breakout) and we'll discuss reflections in the larger group.*

# Sustainment Measures

Measure
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Program Sustainability Index (PSI)
Sustainment Measurement System Scale (SMSS)
Provider REport of Sustainment Scale (PRESS)



# Thank you

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