

Evaluating Implementation Process and Outcomes

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VA



U.S. Department
of Veterans Affairs



VA Quality Enhancement Research Initiative
EVIDENCE INTO PRACTICE

EPIC QUERI

VA Evidence, Policy, and Implementation Center

Disclosures

The views expressed in this presentation are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

OUR VISION: A Role for Everyone in Implementation Science

Let's Take a Poll!

How much implementation science knowledge do you have?

- **None**—I'm just learning about it now for the first time
- **A little**—I've heard about it before, but have never had any instruction or training
- **A moderate amount**—I've read about it, and know some concepts, but I've never applied it to my work
- **A great deal**—I have used implementation science in at least one project

Using Implementation Science to Move Innovations into Practice in VA Health Care Settings

- Implementation Science: What Is It and Why Should I Care?
 - Dr. A. Rani Elwy, June 3
- Using Implementation Strategies and Fostering Buy-In
 - Dr. Alison Hamilton, June 10
- Evaluating Implementation Process and Outcomes
 - Dr. Allen Gifford, June 17
- Planning for Sustainment
 - Dr. Sara Landes, June 24

Using Implementation Science to Move Innovations into Practice in VA Health Care Settings

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Poll Number 2

Please tell us what your role is in the VA:

- Doctor or clinician
- Clinical leader
- Clinical staff
- VHA employee, not clinical
- VBA employee
- Researcher
- Other

What Will You Get From This Course?

You are going to have a roadmap of how to implement any innovation in your workplace!

No matter where you sit, SOMETHING needs improving. If you could, what would you improve, and what would you need to do to improve it, and how will you know you've improved it?

Co-Morbid Depression and Diabetes in Rural Settings

Remember Rose?

She's a nurse working with **Veterans who have both depression and diabetes.**

She wants to offer **a coaching program in primary care to help these Veterans.**

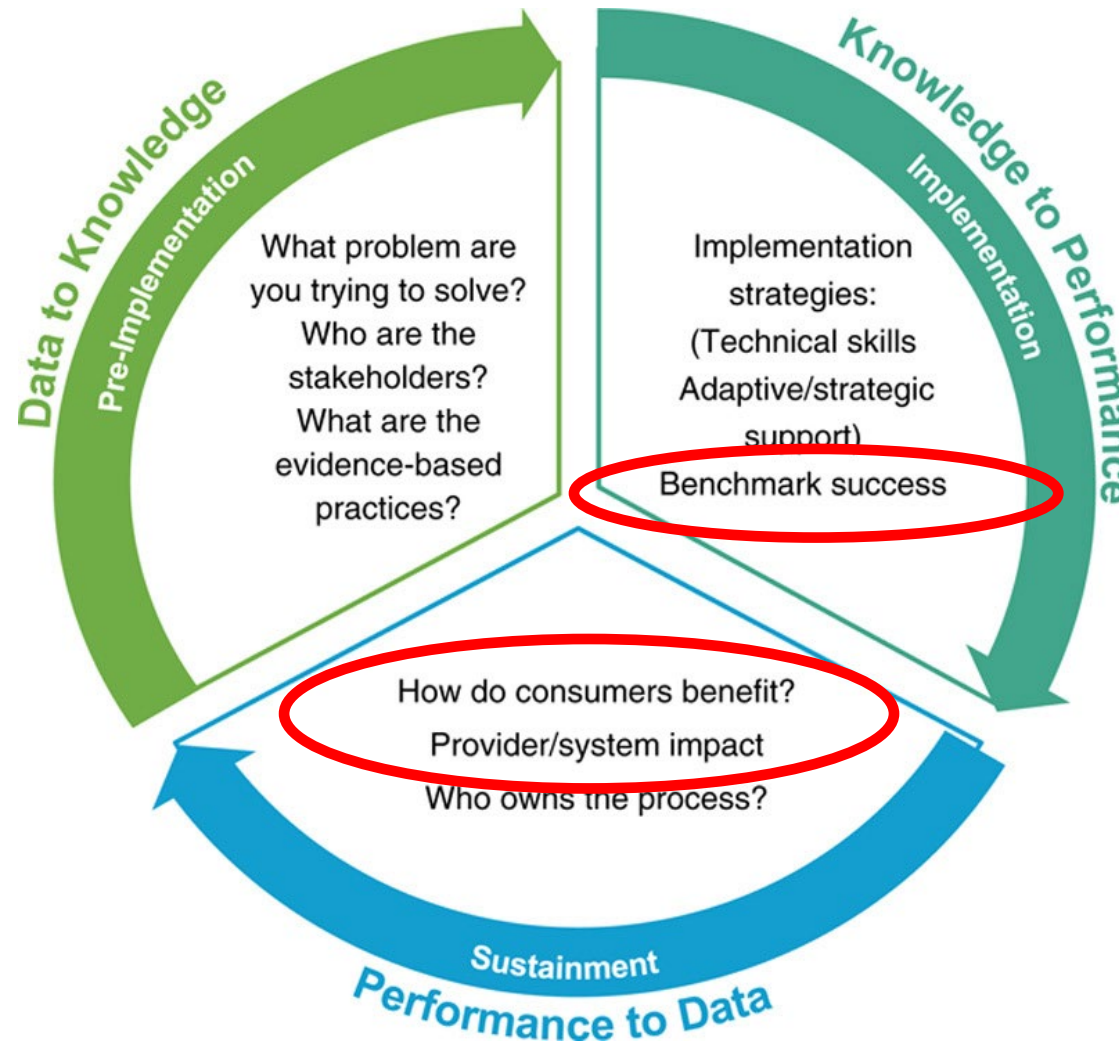


(based on [Cully et al, 2014](#))

Rose has come a long way! We now know:

- What practice/intervention she is going to use
- How theory can help her think about successful implementation
- How health equity might be an important factor
- She will get buy-in from stakeholders (or interested parties)
- What implementation strategies she will use

QUERI Implementation Roadmap



VA Quality Enhancement Research Initiative

EVIDENCE INTO PRACTICE

Kilbourne AM et al, Quality Enhancement Research Initiative Implementation Roadmap, Medical Care: October 2019 - Volume 57 - Issue - p S286-S293 doi: 10.1097/MLR.0000000000001144

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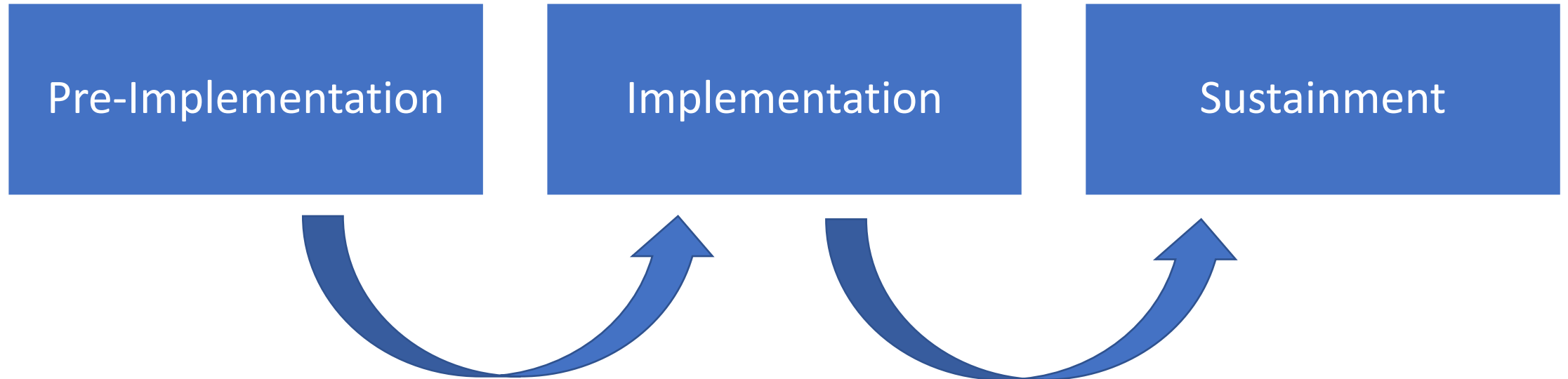


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OK, so what's next for Rose?

“If you can’t measure it you
can’t improve it.”
— **Peter Drucker**

The Implementation Roadmap



- To sustain her program, Rose needs to show impact.

Rose needs implementation outcomes!

When defining implementation science, some very non-scientific language can be helpful...

- The intervention/practice/innovation is **THE THING**
- *Effectiveness* research looks at whether **THE THING** works
- *Implementation* research looks at how best to help people/places **DO THE THING**
- Implementation strategies are the stuff we do to try to help people/places **DO THE THING**
- Main implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**

[Curran, G.M. Implementation science made too simple: a teaching tool. *Implement Sci Commun* 1, 27 \(2020\)](#)

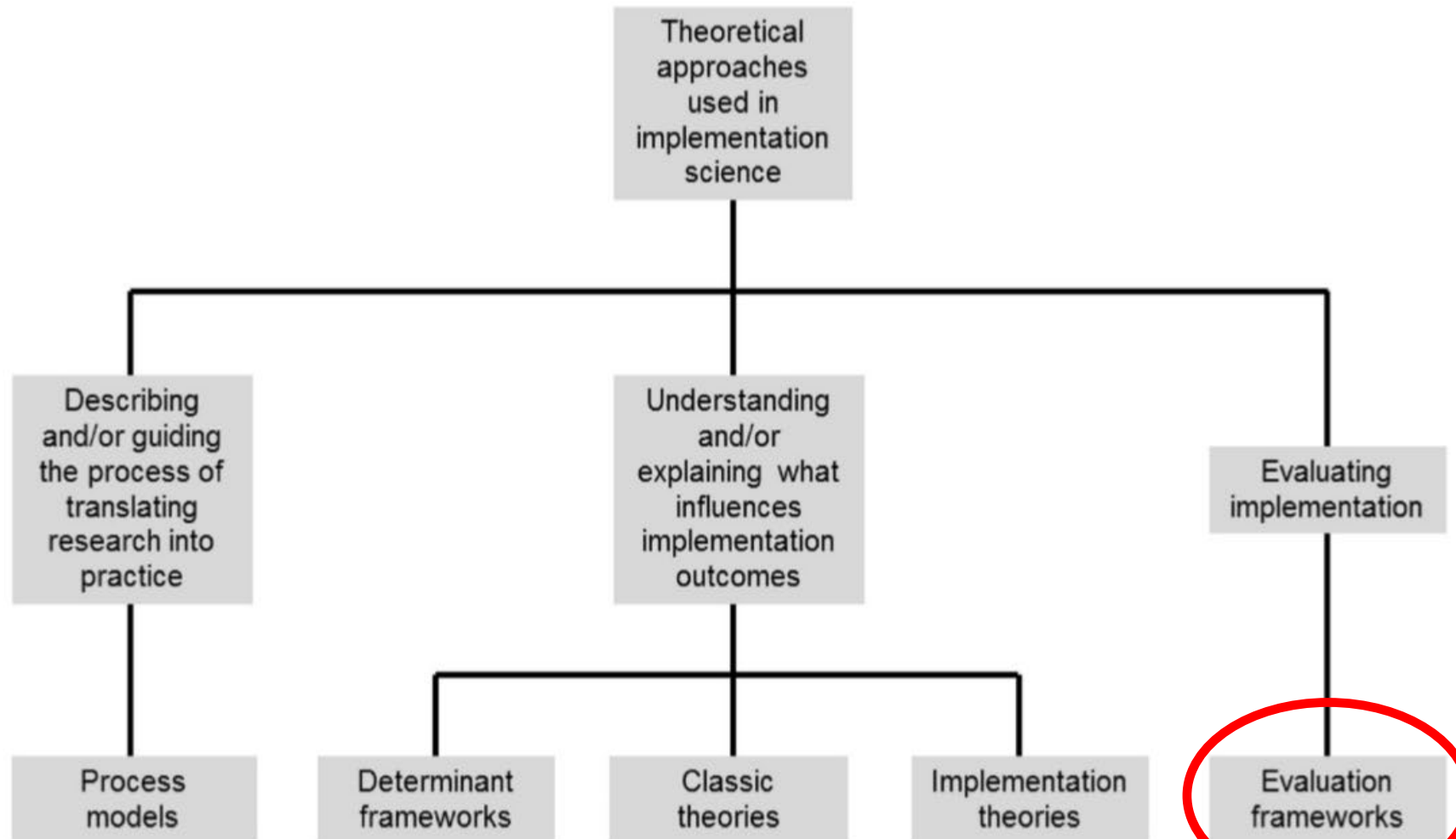


Figure 1 Three aims of the use of theoretical approaches in implementation science and the five categories of theories, models and frameworks.

[Nilsen, P. *Implementation Science* \(2015\) 10:53](#)

“Nothing is more practical
than a good theory.”
— **Kurt Lewin**

Evaluation Types – What are the Central Questions?

Program Stage	Before Program Begins	New Program	Established Program	Mature Program
Evaluation Type	Needs Assessment	Process/ Implementation Evaluation	Outcome Evaluation	Impact Evaluation
Questions	What is the need? What can be done to address the need?	Is the program operating as planned?	Is the program achieving its objectives?	What predicted and unpredicted impacts has the program had?
	<i>How can we reduce re-admissions for behavioral concerns?</i>	<i>How often did team members visit the Community Facility?</i>	<i>What is the re-admission rate for residents discharged to the community?</i>	<i>Were other facilities more likely to accept residents with behavioral concerns?</i>

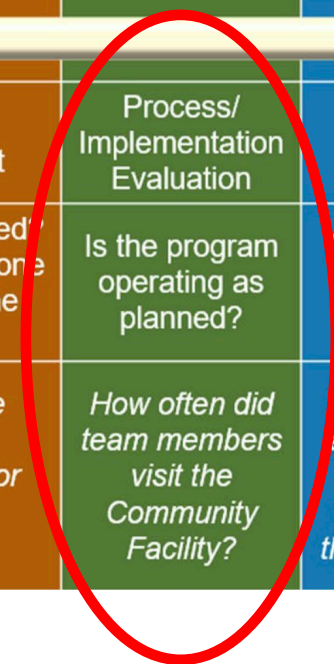
Evaluation Types – What are the Central Questions?

Process evaluation

- *Were the components implemented as intended?*
- *Was the population reached?*
- *What challenges and barriers were encountered?*



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Evaluation Types – What are the Central Questions?

Outcome evaluation

- *Did the expected changes in outcomes occur?*
- *Were program goals met?*
- *Can these changes in outcomes be attributed to the program?*



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Implementation Outcomes: There are different types!

Acceptability

- Satisfaction
- Comfort
- Credibility

Adoption

- Uptake
- Utilization

Appropriateness

- Perceived fit
- Relevance
- Suitability

Feasibility

- Actual fit
- Practicability

Fidelity

- Delivered as intended
- Quality of program delivery

Cost

- Marginal Cost
- Cost-effectiveness
- Cost-benefit

Penetration

- Spread
- Institutionalization

Sustainability

- Maintenance
- Continuation
- Integration

Outcomes Data

Quantitative Methods

- Collect clinical data (medical records, clinical dashboards, logs)
- Access hospital or systemwide databases
- Questionnaires, with closed-ended survey questions
- Observe, and count

Qualitative Methods

- Open-ended interviews, focus groups
- Open-ended questionnaires
- Access written clinic notes, or documents (clinical policies, agreements)
- Observe, and take notes on the observations

Choosing a Methodological Approach

Characteristic	Quantitative Methods	Qualitative Methods
Data description	Quantitative data is data that can be counted, measured, or otherwise expressed in numbers	Qualitative data is descriptive, concerning observable phenomena from the informants' perspectives
Data collection methods	Commonly collected through closed-ended surveys or questionnaires, pre-tests and post-tests, observation, or by gathering clinical numeric data	Commonly collected from focus groups, open-ended interviews, questionnaire responses, first-hand observation notes, documents, or artifacts
Analysis	Analysis involves the use of statistical methods to describe, summarize, and compare data; statistical analyses can range from basic descriptive statistics to complex inferential analyses	Analysis involves identification of themes, coding, clustering similar data, and/or reducing data to meaningful and important patterns
Central evaluation questions	Focuses on "what" and "how many"	Focuses on "why" and "how"
Data presentation	Tells a story with numbers (numerical)	Tells a story with words (narrative)
Best application	Used to test hypotheses, assess cause and effect, and make predictions	Used to develop hypotheses, elicit "insider" or stakeholder perspectives, and/or understand and interpret behavior

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**Let's brainstorm:
What outcomes should Rose measure?**

Some things to consider

- Collecting data yourself requires a great deal of effort – does the data already exist?
 - Clinical data warehouses require expertise and administrative approvals.
- Writing questions for questionnaires is tricky! Avoid it.
 - **Use questions that are already out there in the literature.**
- Mixed methods (both quantitative and qualitative) may permit a better assessment of the program than would be possible with a single approach.

Some things to consider

- Where are the established questionnaires for measuring impact outcomes?
 - A good place to start is the WashU Dissemination & Implementation site: *Identifying Research Outcomes* (and other Toolkits):
<<https://implementationresearch.wustl.edu/support-your-research/toolkits/>>
- Collecting data requires resources. You likely won't be able to evaluate all aspects of what you want to know.
 - **Be creative.** What questions can you address, with what you have? There is benefit to incrementally evaluating your program.
- Keep it simple! It's easy to get too ambitious – more than you can do, and more than your respondents will put up with. A short set of questions may be all you need.

Resources for Evaluation and Outcomes Measurement



VIReC – VA Information Resource Center
<<https://www.virec.research.va.gov/Index.asp>>



University of Washington – What Is Implementation Science?
<<https://impsciuw.org/implementation-science/learn/implementation-science-overview/>>



Washington University “Identifying Research Outcomes” and other Toolkits:
<<https://implementationresearch.wustl.edu/support-your-research/toolkits/>>



QUERI - Quality Enhancement Research Initiative – Implementation and Evaluation Resources
<https://www.queri.research.va.gov/implementation_eval.cfm>

Your Implementation Roadmap—Complete it During Each Session!

Pre-Implementation

- Problem to solve
- Stakeholders to engage
- Best practices to use

Implementation

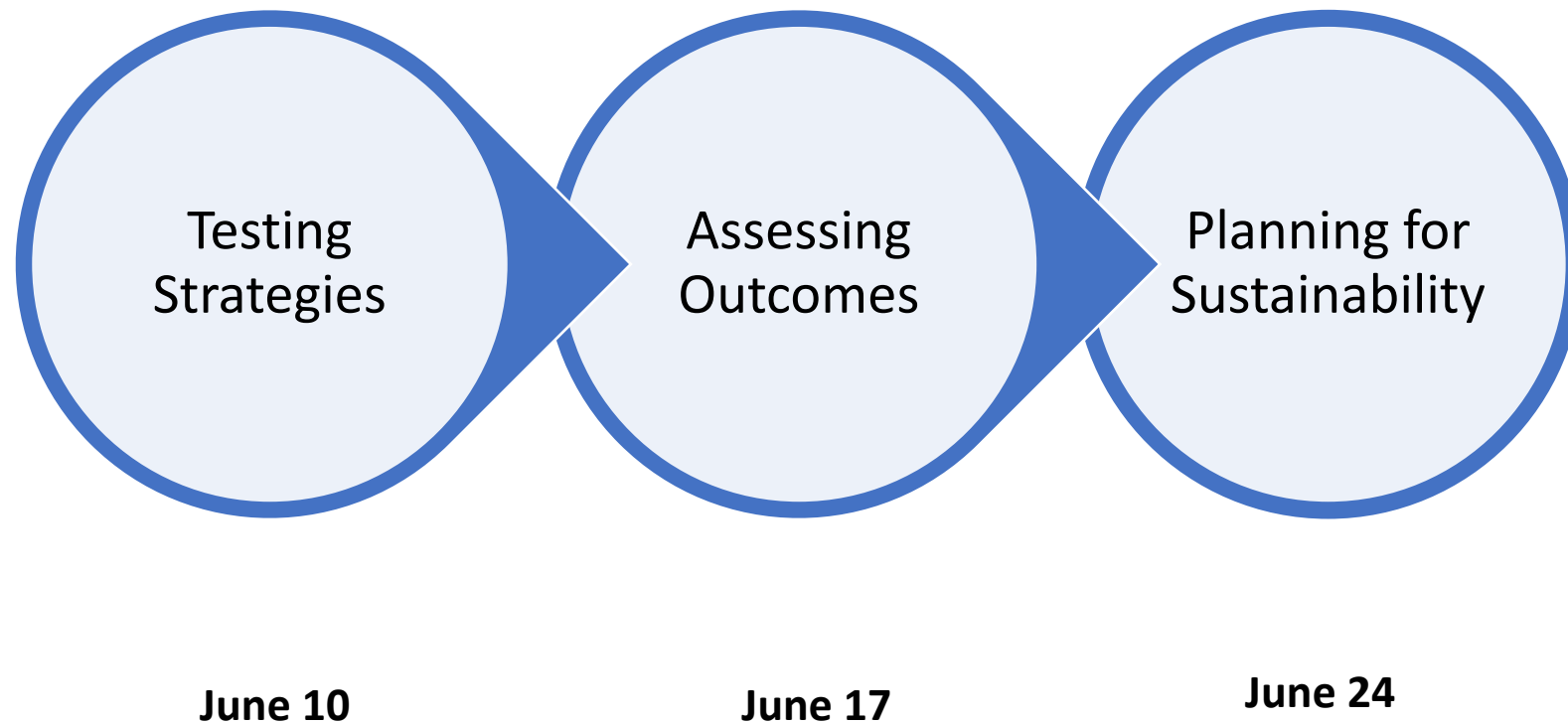
- Implementation strategies to overcome challenges to uptake
- Outcomes to assess
- Adaptations to make

Sustainment

- Ownership of the process
- Benefits to Veterans
- Tracking progress
- Impacts on Veterans, clinicians, system

Next steps for Rose and for us: How do we plan for sustainment?

What We Aim to Achieve in Implementation Science



Thank you and Questions

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