

Articulating Implementation Mechanisms to Optimize for Impact, Efficiency, and Equity

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The fundamentals

Key terms and definitions



Implementation outcomes



Determinants of practice



Implementation strategies



Mechanisms

Implementation outcomes

The effects of deliberate and purposive actions to implement new treatments, practices, and services.



Implementation outcomes

- Acceptability
- Adoption
- Appropriateness
- Costs
- Feasibility
- Fidelity
- Penetration
- Sustainability



Service outcomes

- Efficiency
- Safety
- Effectiveness
- Equity
- Patient-centeredness
- Timeliness



Client outcomes

- Satisfaction
- Function
- Symptomatology

Proctor et al., 2011

Determinants of practice

Factors that obstruct or enable changes in targeted professional behaviors or healthcare delivery processes.



601

determinants
spanning multiple
domains



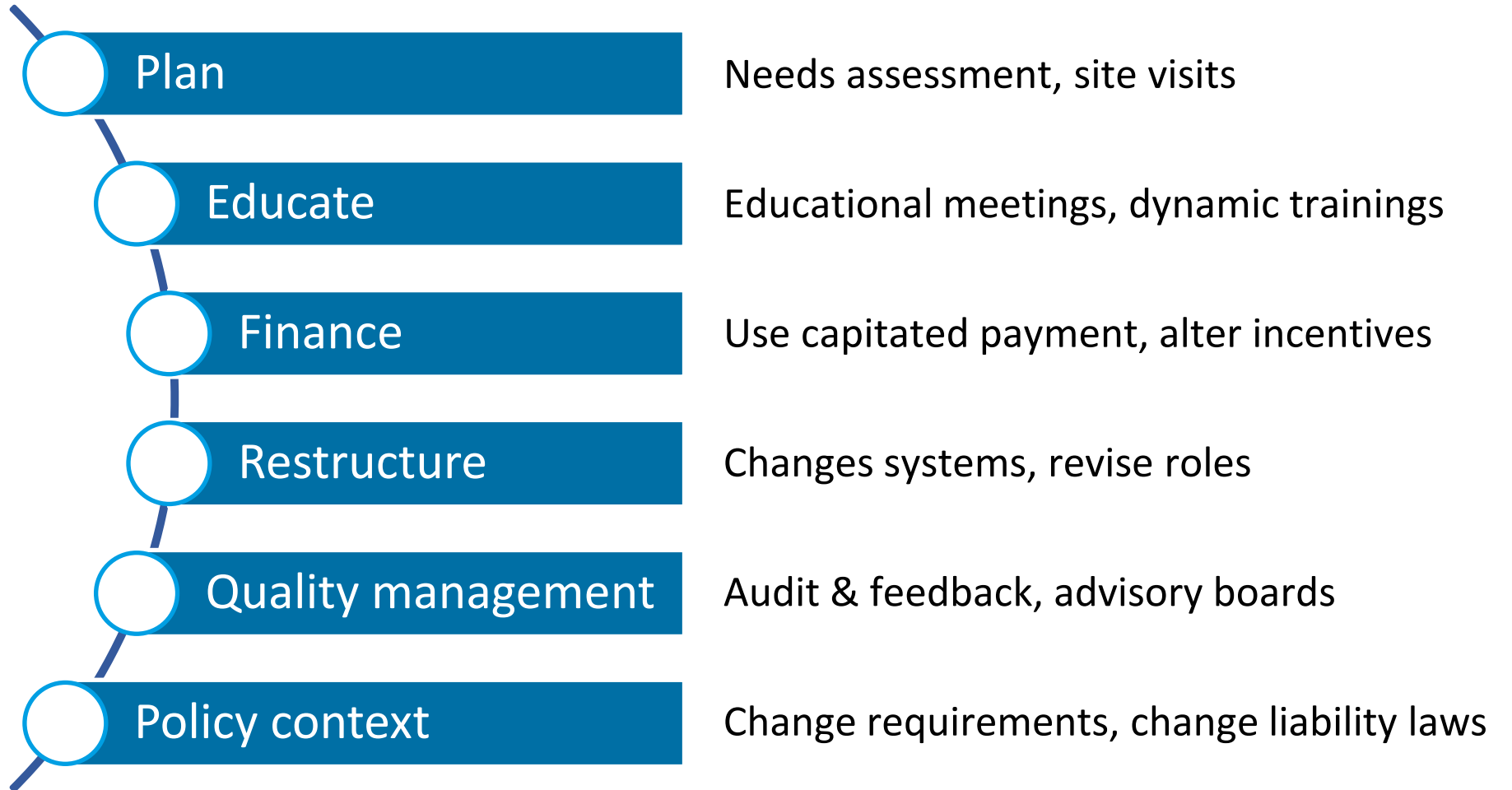
Implementation strategies

Methods or techniques used to enhance the adoption, implementation, and sustainability of clinical program or practice.



73

discrete
strategies



Decision making not driven by evidence, theory, or “best practices.”

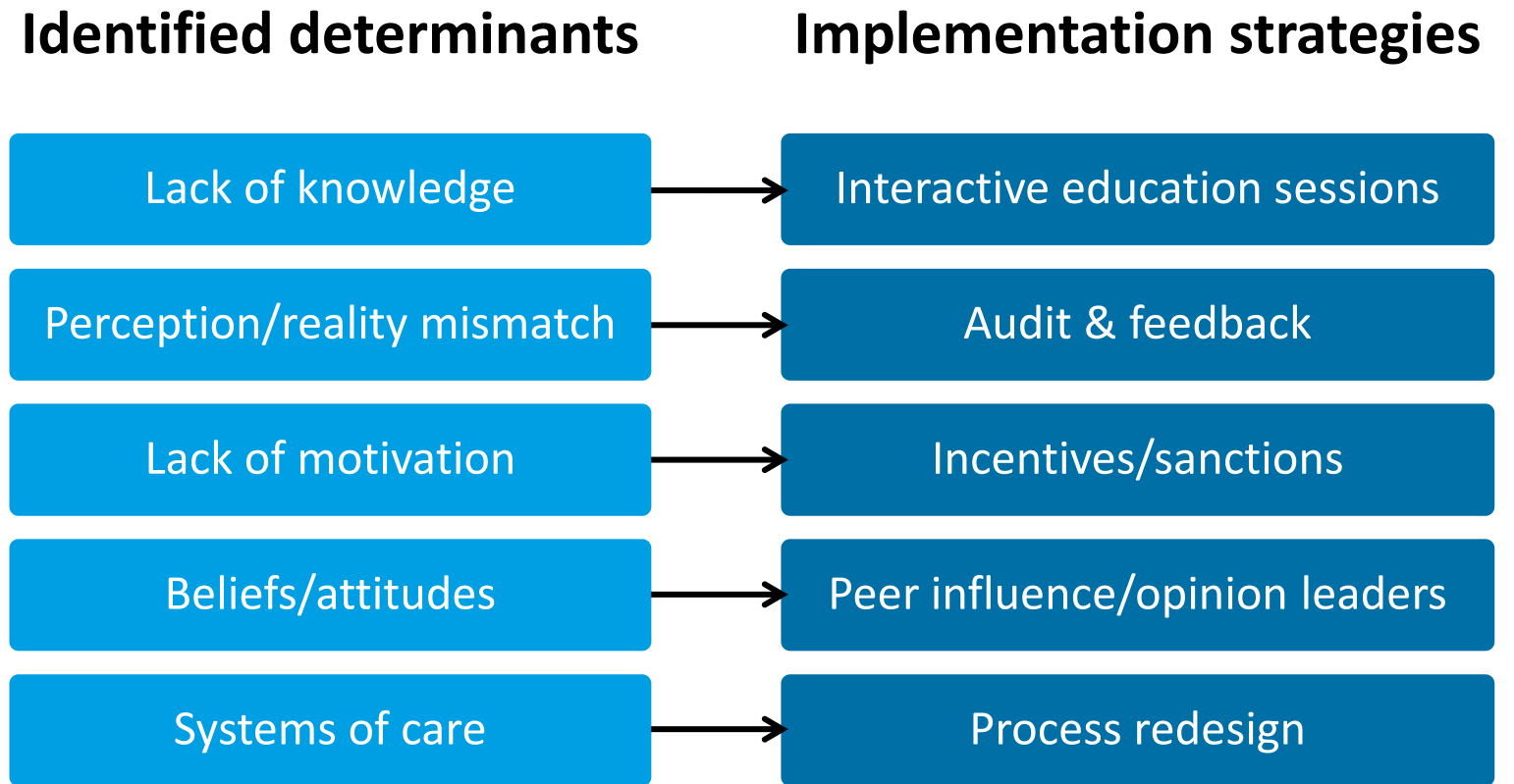
Strategies not used with frequency, intensity, and fidelity required.

“...results suggest a mismatch between identified barriers and the quality improvement interventions selected for use.”

Powell et al. (2013); Powell (2014); Powell & Proctor (2016); Bosch et al. (2007)



Examples: Matching strategies to determinants



Bosch et al., 2007

Selecting strategies

Unfortunately, we far too often...

“Train and pray” (Grimshaw, et al. 2004)

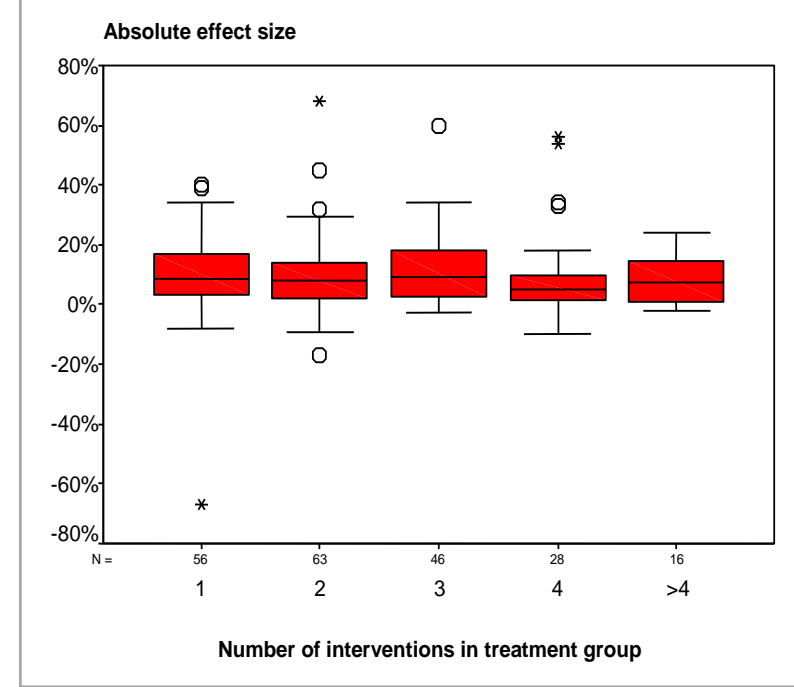
“Kitchen sink” (Henggeler, et al. 2002)

“One size fits all” (Squires, et al. 2004)

“ISLAGIATT” (Martin Eccles)

Era of "Train and Pray" for Workers Must End U.S. workers must be armed with the right skills for the jobs we have. How to get started. 


BY DREW GREENBLATT, PRESIDENT, MARLIN STEEL @STEELWIRE




It Seemed Like A Good Idea....
At The Time.

Why do implementation mechanisms matter?

 2/3 of implementation efforts fail

 Nearly half don't affect outcomes

 Higher cost & complexity

 Contribute to inequities



Mechanisms

The reasons why change occurred or how change came about.



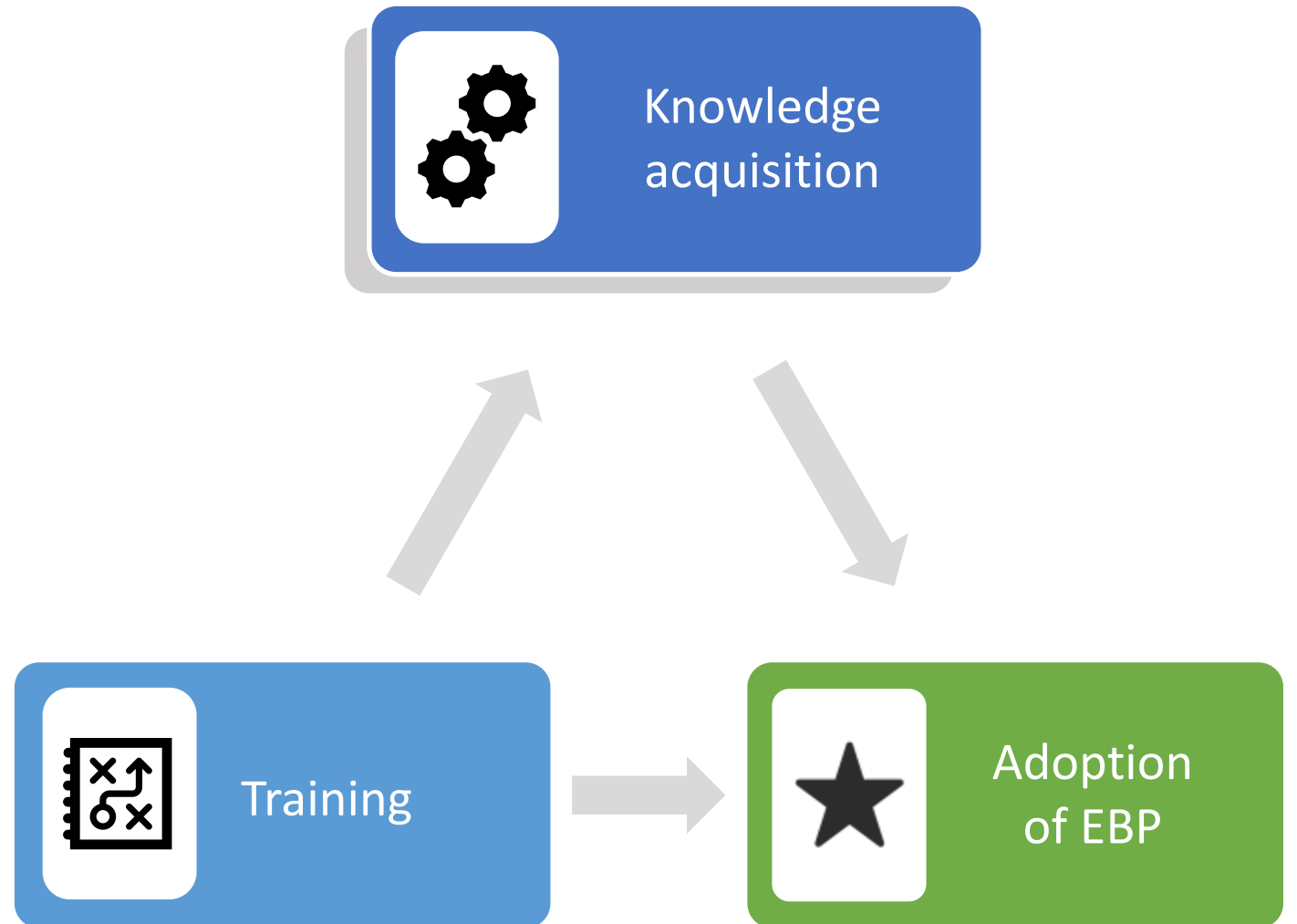
Example 1

Determinants: Knowledge,
attitudes

What is a promising strategy?



Example 1



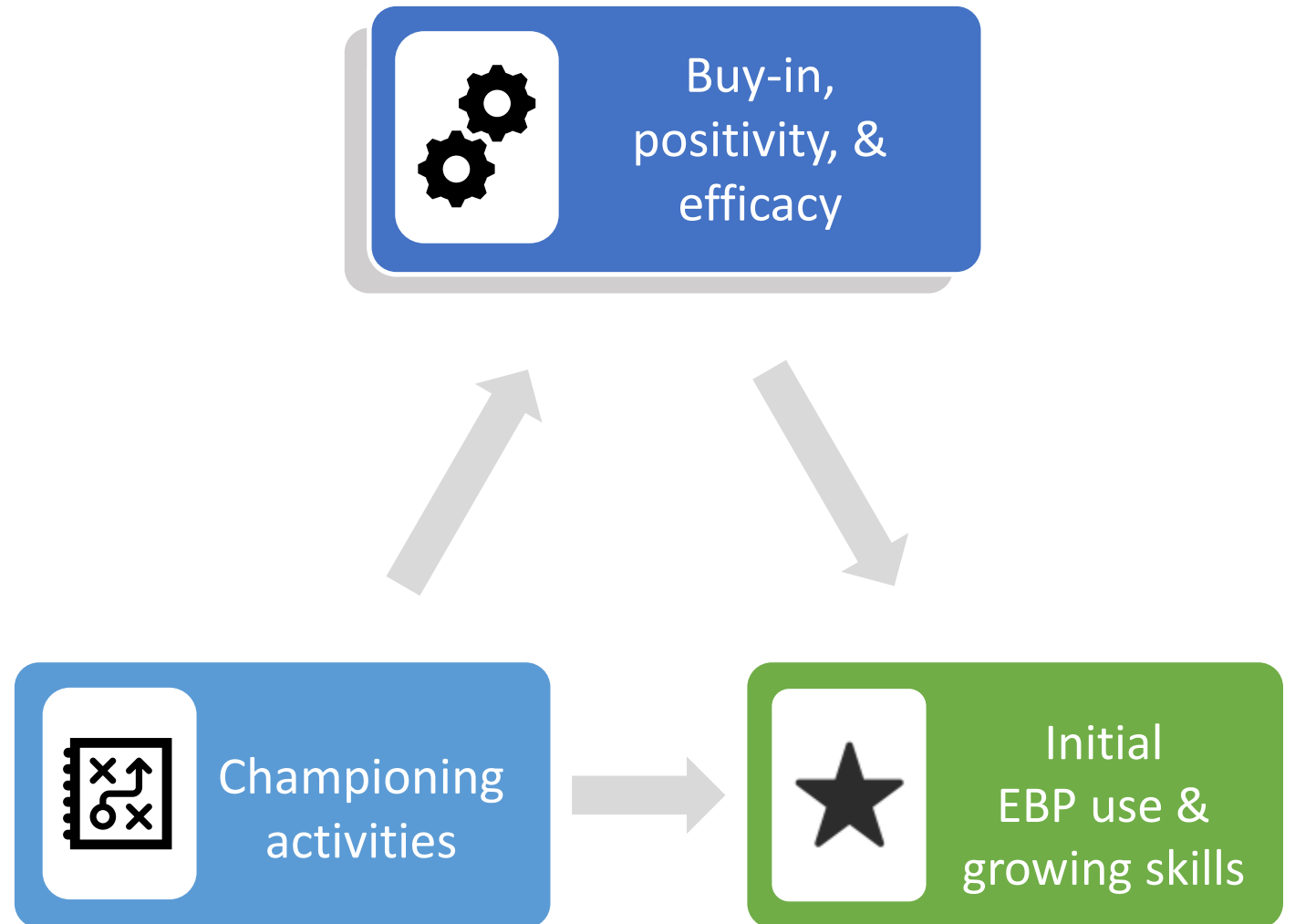
Example 2

Determinants: organizational inertia, indifference, resistance

What is a promising strategy?



Example 2



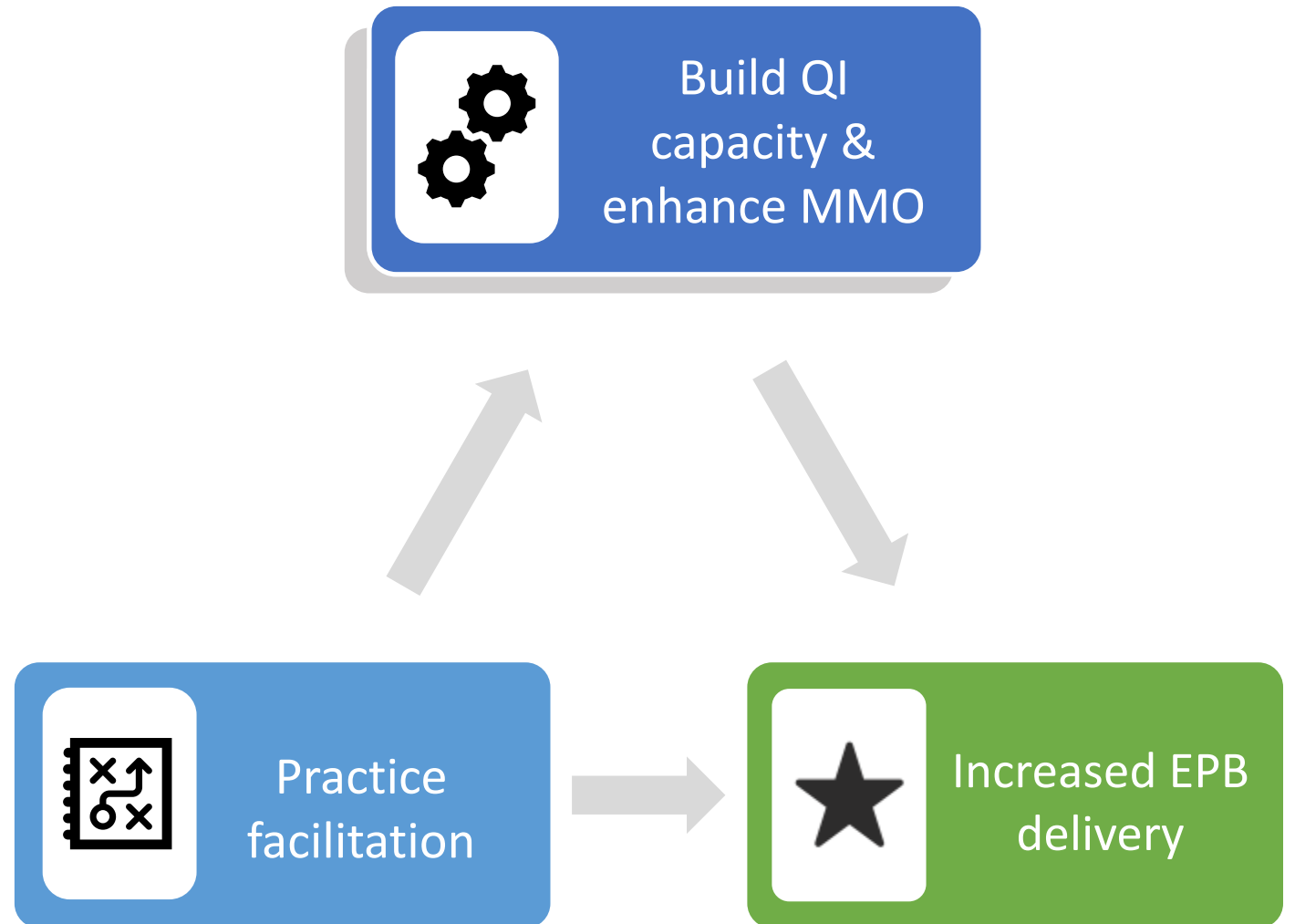
Example 3

Determinants: Low practice change capability

What is a promising strategy?



Example 3



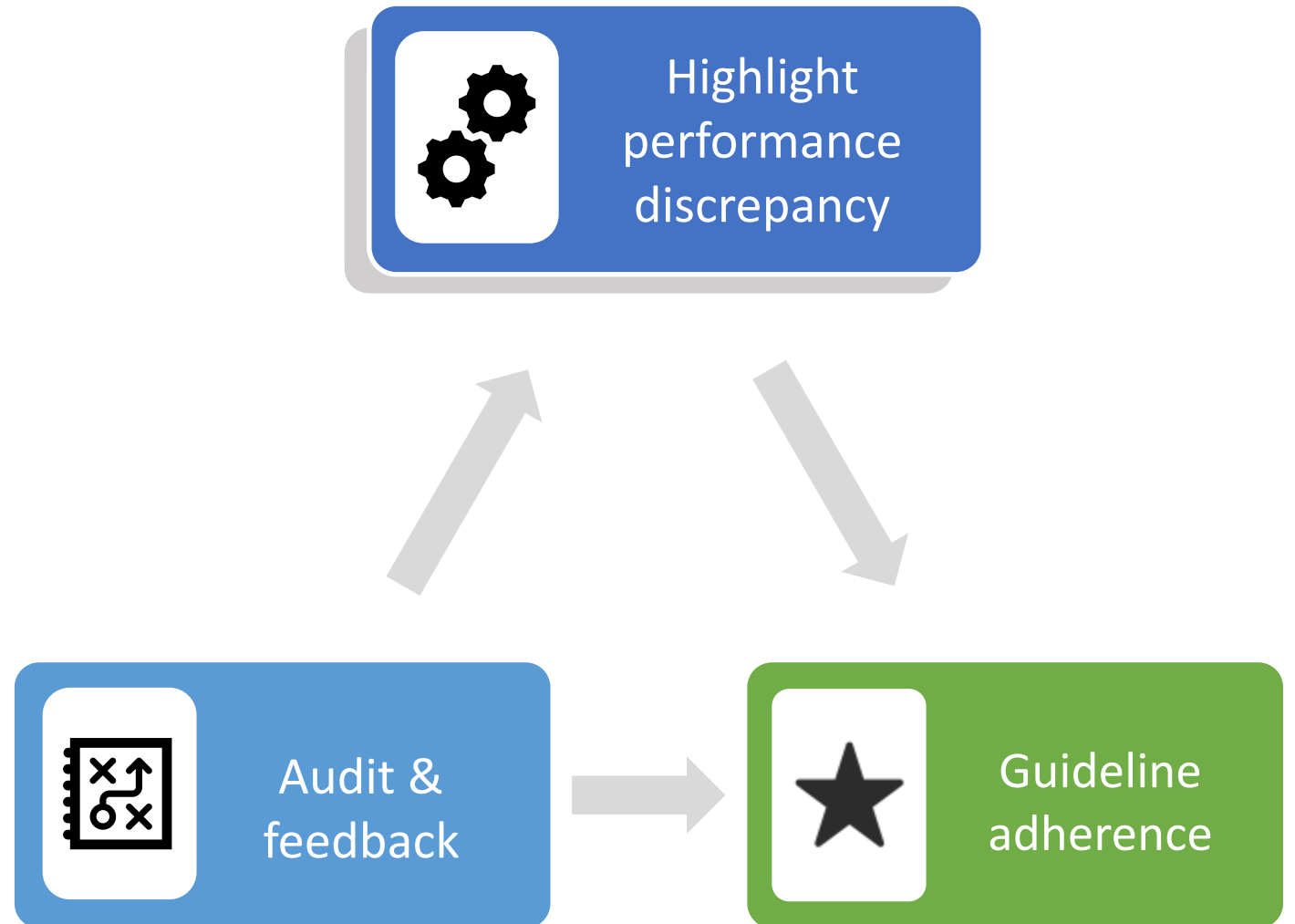
Example 4

Determinants: Unknown or inaccurate perception of performance

What is a promising strategy?



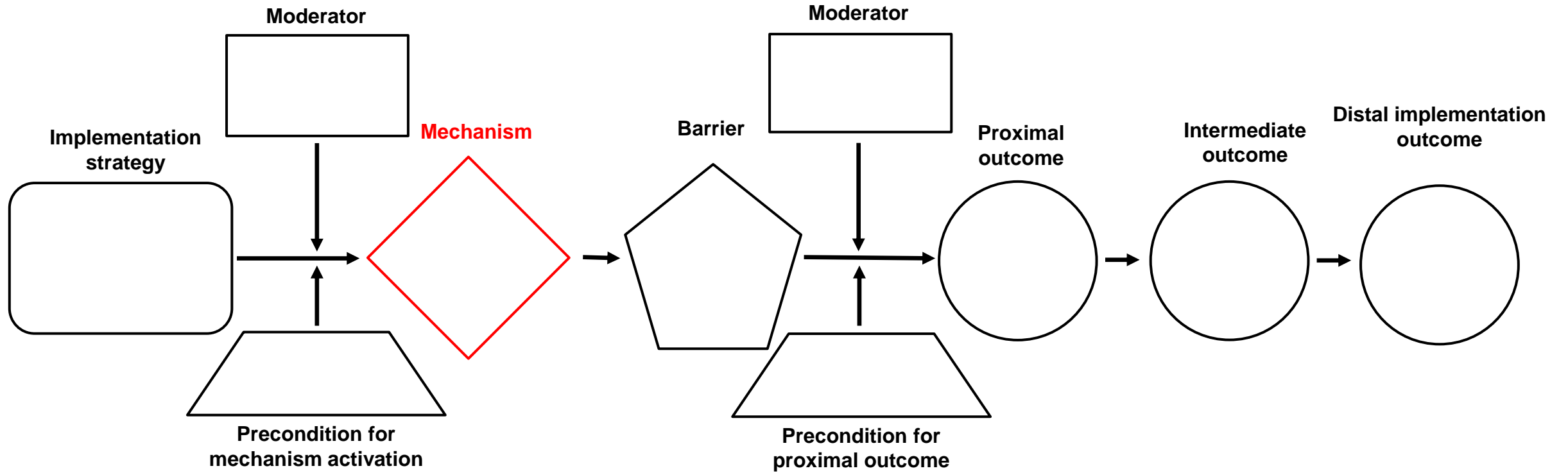
Example 4





From Classification to Causality: Advancing Understanding of Mechanisms of Change in Implementation Science

Cara C. Lewis^{1,2,3†}, Predrag Klasnja^{1†}, Byron J. Powell⁴, Aaron R. Lyon³, Leah Tuzzio¹, Salene Jones⁵, Callie Walsh-Bailey¹ and Bryan Weiner⁶*



Precondition for mechanism activation

A factor that is necessary for the mechanism to be activated and subsequent causal events to occur.



Moderator

A factor believed to strengthen or weaken the relationship between the strategy and mechanism.

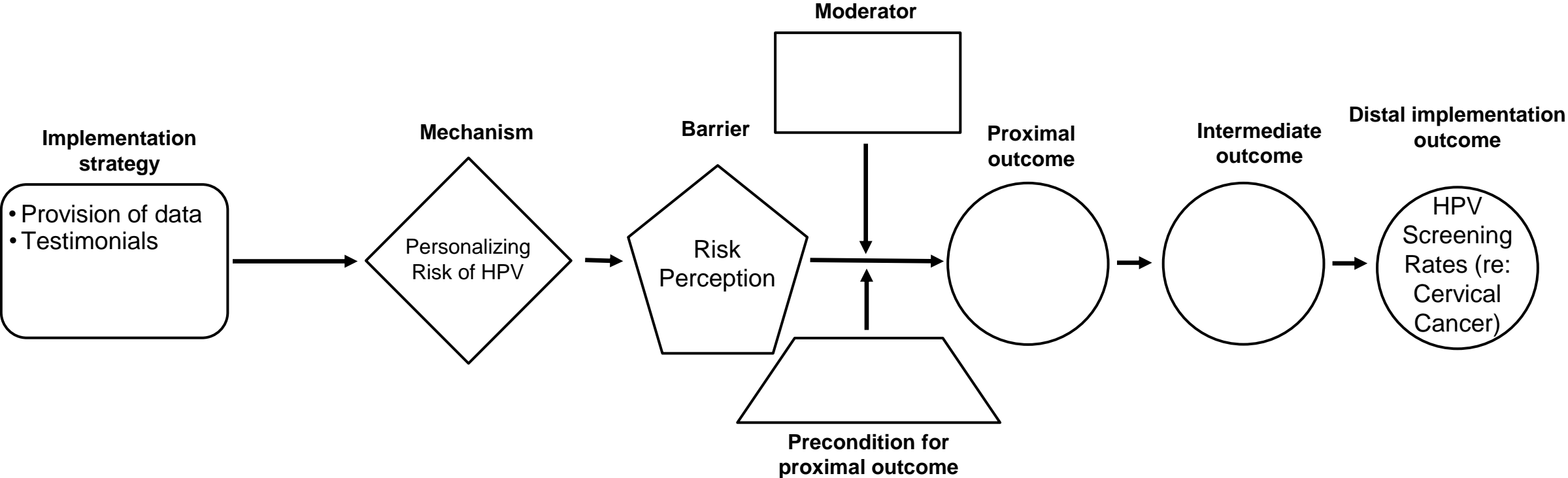


How can mechanisms help **practical** implementation?

Select

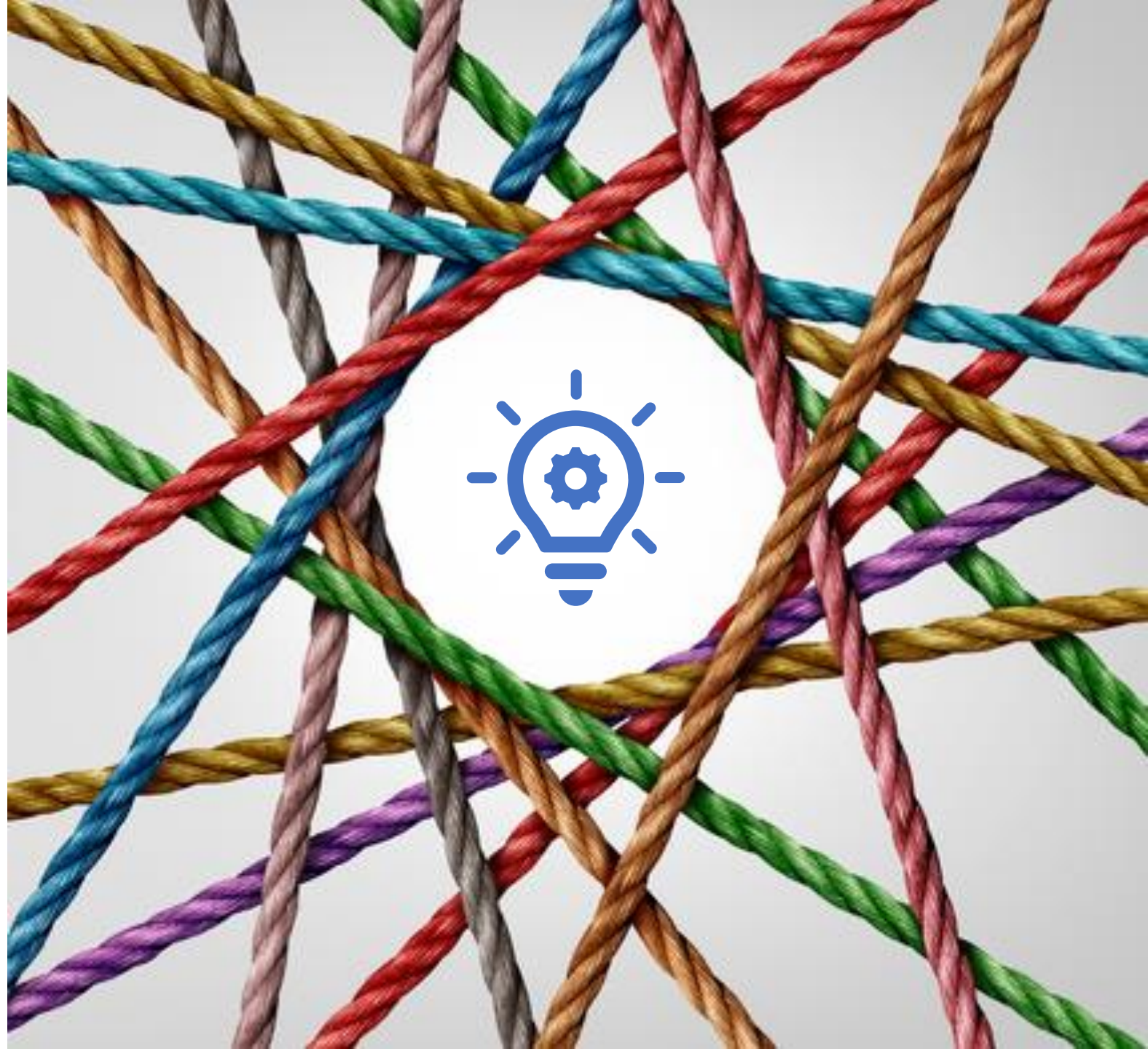


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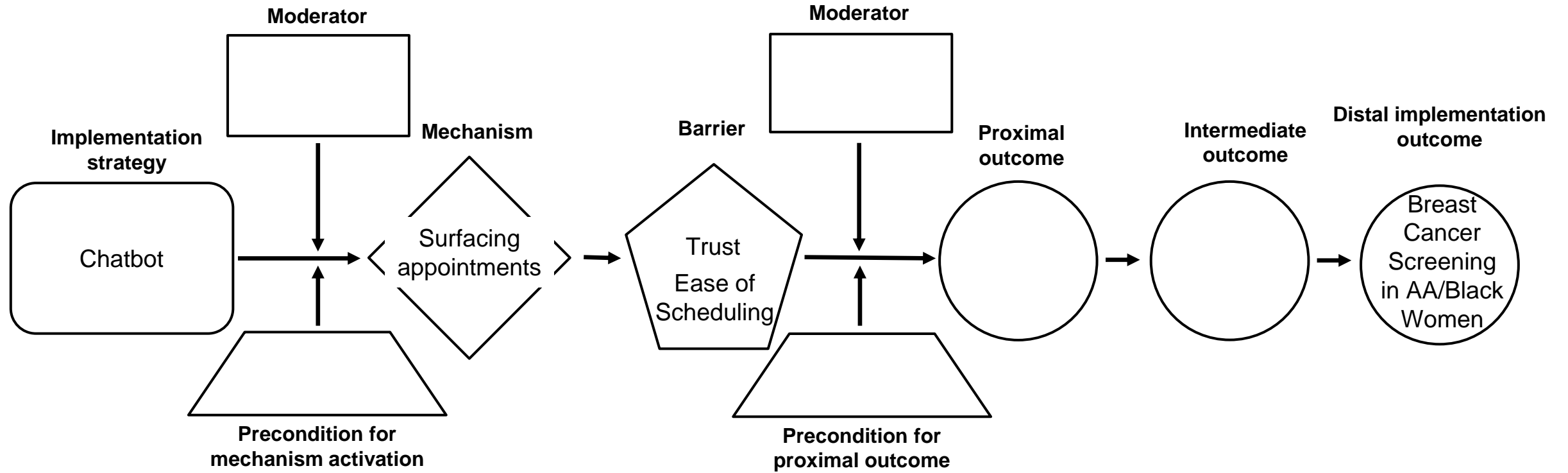


How can mechanisms help **practical** implementation?

Select
Match



Match

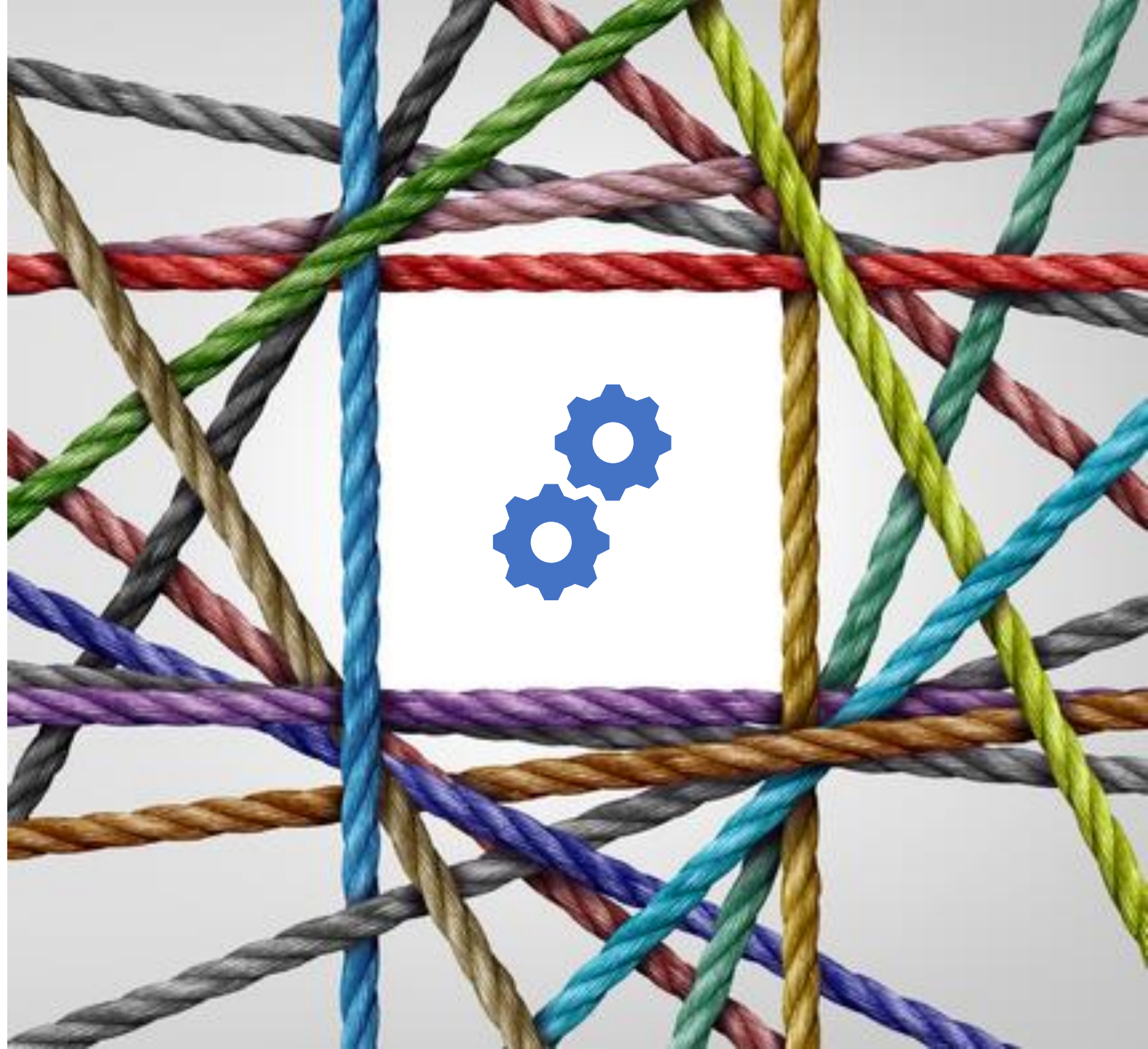


How can mechanisms help **practical** implementation?

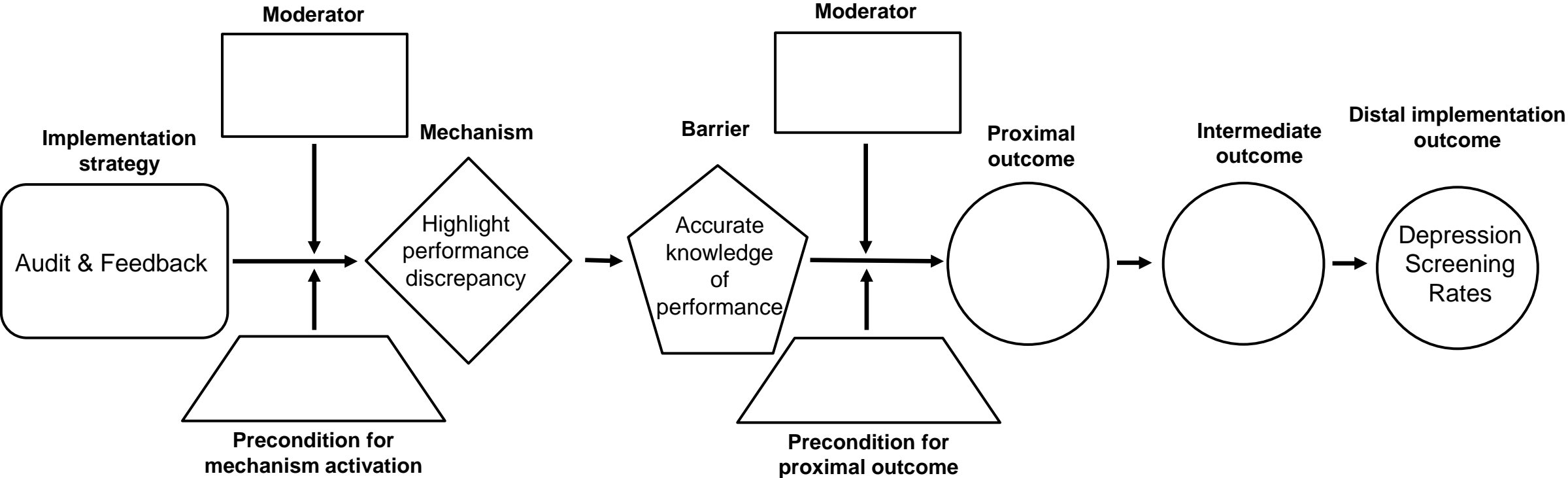
Select

Match

Tailor



Tailor



- Electronic Health Record with analyst team
- No Electronic Health Record

How can mechanisms help **practical** implementation?

Select

Match

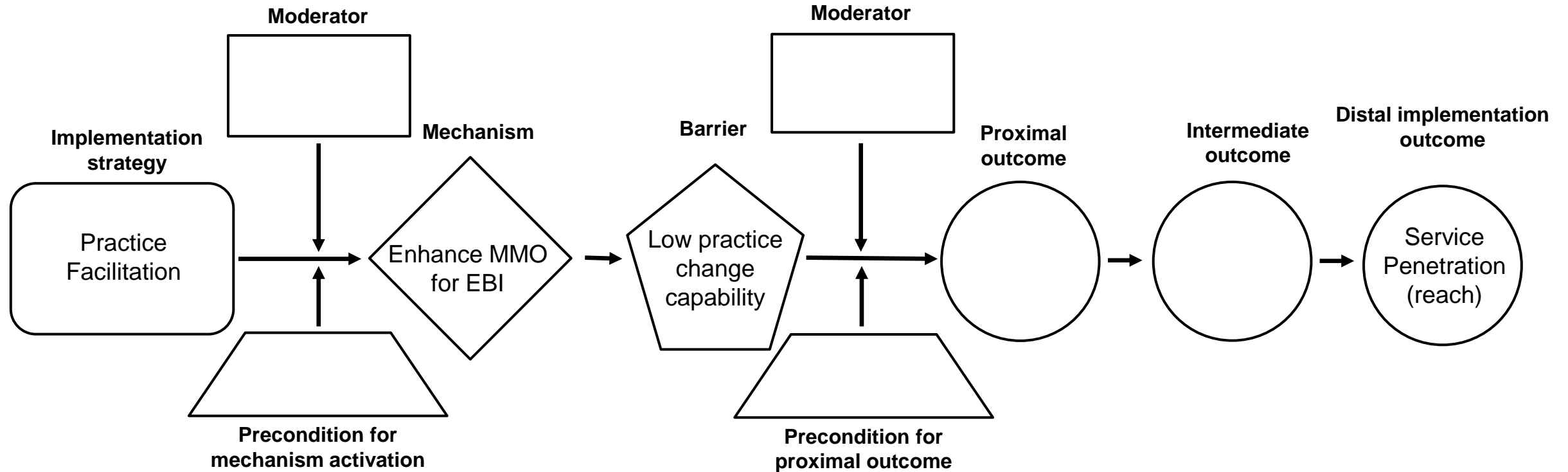
Tailor

Optimize



Optimize

- MMO=means, motives, and opportunities

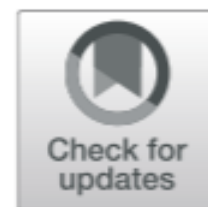


- Common facilitation activities: assess performance/barriers/readiness, develop plan, redesign workflow, train in QI methods, support PDSA cycles, cultivate champions, revise professional roles (team-based care), implement HIT tools, provide interactive technical assistance

SYSTEMATIC REVIEW

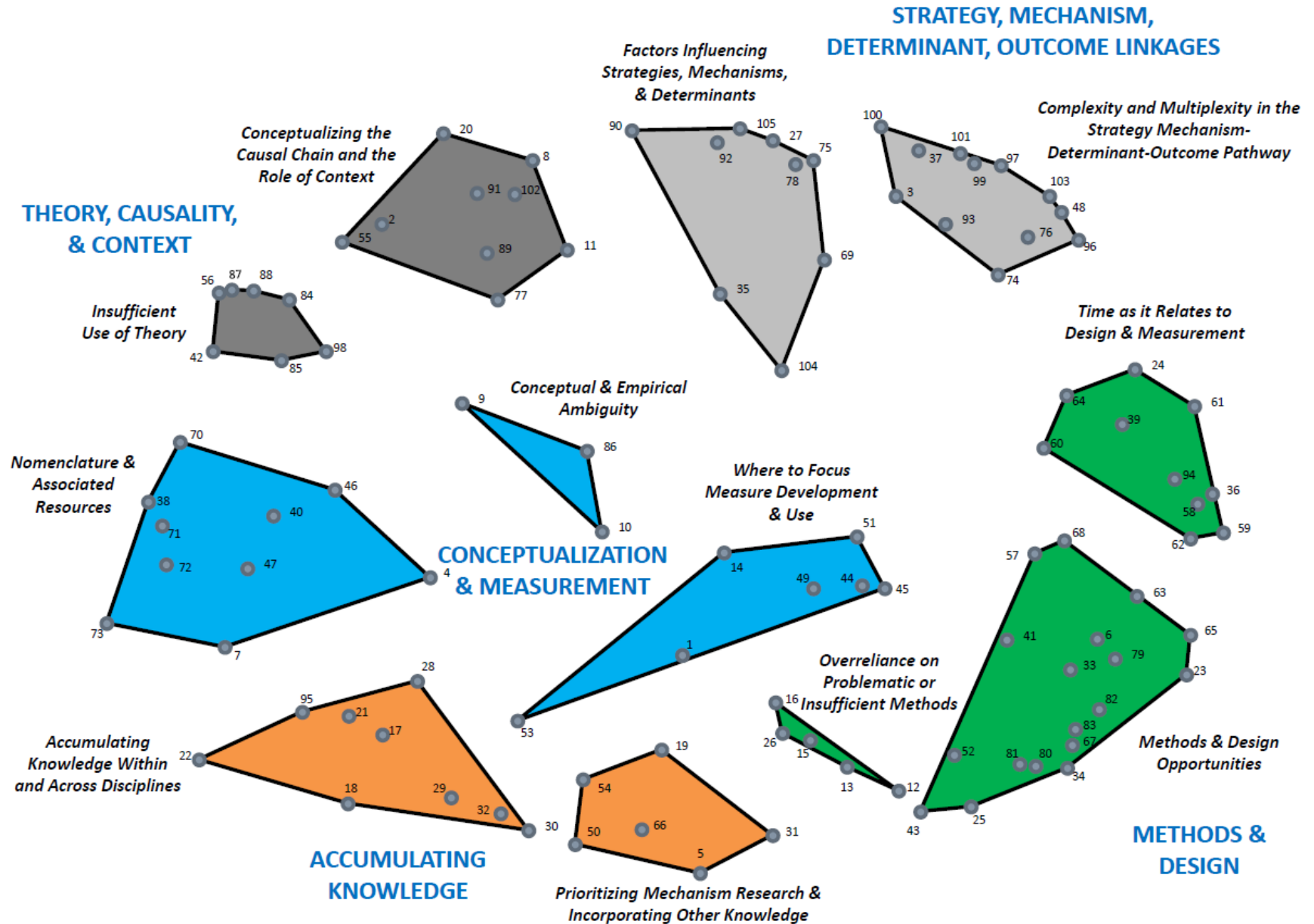
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A systematic review of empirical studies examining mechanisms of implementation in health



Cara C. Lewis^{1,2,3*}, Meredith R. Boyd⁴, Callie Walsh-Bailey^{1,5}, Aaron R. Lyon³, Rinad Beidas⁶, Brian Mittman⁷, Gregory A. Aarons⁸, Bryan J. Weiner⁹ and David A. Chambers¹⁰

Results from R13 concept mapping



Thank you!

ACKNOWLEDGEMENTS: R01CA262325, P50CA244432, P50MH126219

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