Scaling Beyond Early Adopters
A Systematic Review and Key Informant Perspectives

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What strategies are available to scale up and spread clinical and administrative practices across large healthcare systems such as the VHA, with a focus on “hard-to-engage” sites?
Objective

Diffusion of Innovations curve*

Phases of scale-up from IHI*

QUERI pipeline*

Go to full-scale

“National roll-out” effort

Early Majority
Late Majority

Innovators
Early Adopters
Late Adopters

2.5%
13.5%
34%
34%
16%

Best practice/new idea → Set up → Develop the scalable unit

Test scale-up

Pilot project → Small clinical trials

“Regional roll-out” projects
Citations screened

- PubMed, WorldCat, Web of Science, Business Source Complete, and ROCS searched using key terms relating to scale, spread, and learning health systems
- Searched for VA projects in QUERI and ART
- References from expert recommendations and any relevant citations from screened publications also included

Included Publications

- Independent duplicate review/abstraction

Subgroups of Included Publications

- 7 discuss strategies for HTE
- 11 describe HTE
- 34 general strategies
Key informant interviews

QUERI Project Leads

• 8 interviewees
• Large-scale spread projects or evaluations of national policy/program spread

SAIL Improvers

• 16 interviewees, 7 sites

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What does large magnitude scale-up and spread look like?

- Diffusion of Innovations curve*
- Phases of scale-up from IHI*
- QUERI pipeline*

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- Best practice/new idea $\rightarrow$ Set up $\rightarrow$ Develop the scalable unit
- Test scale-up
- Go to full-scale
- "Regional roll-out" projects
- "National roll-out" effort

*VA U.S. Department of Veterans Affairs, Health Services Research & Development Service
Breaking down the process

- Innovators
  - Test & Pilot
- Early Adopters
  - Test of Spread Strategies
- Early Majority
  - Mass Broadcast
- Late Majority
- Late Adopters
  - Re-personalize
Macro models

52 included publications

Embedd within a system
- Activities align with system priorities
- Shared infrastructure in spread sites
- Clear boundaries for spread

Collaborative or exchange
- Bidirectional exchange of information/ideas
- Topically related efforts
- Typically opt-in participation

Initiative-specific
- Unidirectional “push” to spread sites
- Focused to one initiative/practice
- Resources often external

- eg, Universal decolonization toolkit in 95 US hospitals

- eg, Geisinger Learning Health System

10

14

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14
The 5 Ws

Why?

What?

Who?

Why?

Where?

When?
Preconditions to consider

**Who?**
- Does the local team have...
  - Authority to make necessary changes?
  - Communication with and support of leadership?
  - Communication and collaboration with relevant frontline employees?
  - Necessary resources?

**Why?**
- Has the site...
  - Worked to understand relevant metrics?
  - Done a “deep dive” to connect metrics to local experiences?
  - Established local priorities?
VA preconditions & existing networks

- **Deep Dive**: to understand local needs
- **Develop**: homegrown solutions
- **Detect**: available assistance

“we have the ability to reach out and get some great best practices from the other sites”
“Many sites are difficult. I don’t think that makes them bad sites”

“I give you a whole bunch of N-of-1s, but there’s a lot of experience there”
Common challenges & potential benefits

**Common Challenges**
- Low Bandwidth
- Local Innovations
- Competing Priorities

**Potential Benefits**
- Healthy Skepticism
- Taking the Long View
- Needs Alignment
Strategies for hard-to-engage sites

**Common Challenges**
- Low Bandwidth
  - Strategies Used: External facilitation, Web of support
- Local Innovations
  - Strategies Used: Peer to peer communication, Kick the tires
- Competing Priorities
  - Strategies Used: Tackling upstream issues, Visibility with multi-level leadership

**Potential Benefits**
- Active Resistors
  - Strategies Used: Hard core/soft periphery
- Taking the Long View
  - Strategies Used: Engagement → Adoption
- Needs Alignment
  - Strategies Used: Framing the pitch

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"they kind of stole from each other, which was great"

"we’ll go fight the battles for you"

"It’s not one size fits all. They have room to adapt"
Limitations

- Evolving terminology → no reliable, standardized terms for identifying relevant literature
- Details not described for large magnitude scale initiatives, especially related to hard-to-engage sites
- Likely publication bias

VA interviewees only

Also...

- Assume that a given initiative was broadly desirable or necessary (not always the case)
- Jingle jangle fallacy: scale up, scale out, spread
Research gaps and recommendations for future research

• Detailed descriptions of the full spread phase:
  • Testing different strategies for large magnitude spread
  • Strategies for reaching hard-to-engage sites in particular
  • Better documentation of tailoring/adaptations in later stages of spread efforts

• Relationship between macro models and strategies

• Defining overlap between low performing, late adopting and/or hard-to-engage sites
Recommendations for spread planning

• What are the salient local factors?
• Are there existing networks that could be leveraged?
• Have you considered the various models infrastructure could take and how these may impact the effort?
• Using the knowledge of local sites that has been gathered, identify potential challenges or characteristics of these sites that might make them hard-to-engage and tailor strategies appropriately.
Conclusions

• Large magnitude scale/spread efforts may follow predictable process, but more research is needed about later stages
• Hard-to-engage are highly variable, require tailored strategies
• More personalized and intensive approaches can help engage sites
• Need more documentation and research with large scale scale up and spread, especially with hard-to-engage sites
Poll question

Have you interacted with the Diffusion of Excellence? Including Shark Tank, Grand Rounds, etc.

- I’ve participated
- I plan on it
- I’ve heard of it
- I’m excited to be hearing about this for the first time
Report informed the QUERI Implementation Roadmap (Kilbourne et al, Med Care in press)
## QUERI Implementation Roadmap

### Pre-implementation
- **Identify a problem and solution**
  - Identify high-priority need and goals
  - Agree on evidence-based practices (EBP) and settings
  - Clarify EBP core elements, adaptation options (consumer, provider input)

### Implementation
- **Implement an intervention**
  - Select implementation strategies
  - Tailor strategies to local settings
  - Disseminate implementation plan and support tools

### Sustainability
- **Sustain an intervention**
  - Develop business plan to continue EBP
  - Monitor for changes in EBP, whether different EBP is needed
  - Weigh costs of maintaining EBP

### What is being implemented?
- **Engage stakeholders**
  - Cultivate leadership/stakeholder support
  - Assess capacity, including barriers and solutions to EBP delivery
  - Package EBP with delivery adaptations

### Who and what settings are involved?
- **Activate implementation teams**
  - Convey top-down practice support “push” to local sites from leadership
  - Empower bottom-up “pull” to enhance stakeholder buy-in at local level
  - Create stakeholder feedback channels

### How is it being measured?
- **Develop measures and data**
  - Design evaluation to match goals
  - Identify measures of success and data sources
  - Establish baseline performance

- **Monitor implementation progress**
  - Report progress to stakeholders
  - Make data accessible to stakeholders
  - Adjust plan based on feedback

- **Ongoing Evaluation and Reflection**
  - Consumer outcomes
  - Delivery of EBP (fidelity vs. adaptation)
  - Provider and system costs
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Our Team

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Thank you!

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Full-length report and cyberseminar available on ESP website: http://www.hsrdd.research.va.gov/publications/esp/

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