Scale-up and Spread

Brian S. Mittman, PhD
Senior Scientist, Health Services Research & Implementation Science
Kaiser Permanente Southern Calif Dept of Research and Evaluation
Senior Scientist, VA Center for Implementation Practice and Research Support, US Dept of Veterans Affairs
Researchers who live in glass houses shouldn’t throw stones
Phases of research and implementation

- Basic Science
  - Clinical Efficacy Research
  - Clinical Effectiveness Research
  - Implementation Research
  - Sustainment
  - Scale-up/Spread
  - Improved Health Processes, Outcomes

TIDIRH
“Translational roadblocks”

- Basic Science
- Clinical Efficacy Research
- Clinical Effectiveness Research
- Implementation Research
- Sustainment
- Scale-up/Spread

Improved Health Processes, Outcomes
Societal benefits of NIH-funded research

• What proportion of NIH-funded clinical studies showing high levels of effectiveness (leading to FDA approval) have led to sustained practice change at scale (i.e., large-scale implementation)?

  a) 70%
  b) 17%
  c) 7%
  d) .7%
Societal benefits of NIH-funded research

- What proportion of NIH-funded behavioral/social science studies (health promotion/prevention innovations; health services, care delivery, health system interventions) showing high levels of effectiveness have produced sustained practice change at scale (i.e., large-scale implementation)?
  a) 70%
  b) 17%
  c) 7%
  d) .7%

- Studies funded by DOE, DOJ, DOL, USAID?
Factors influencing implementation

What factors influence adoption, sustainment and spread of clinical research findings during efficacy studies, effectiveness studies, and post-marketing studies/periods?
Factors influencing implementation

What factors influence adoption, sustainment and spread of clinical research findings during efficacy studies, effectiveness studies, and post-marketing studies/periods?

- Study nurses (adherence support)
- Study measurement (Hawthorne effect)
- Clinician and patient expectations (belief, hope)
- Grant funding (incentives, staff, training, supv)
- Seeding trial momentum
- Industry activities (detailing, DTC marketing)
Factors influencing implementation

What factors influence adoption, sustainment and spread of behavioral research findings during efficacy studies?

- Study nurses (adherence support)
- Study measurement (Hawthorne effect)
- Clinician and patient expectations (belief, hope)
- Grant funding (incentives, staff, training, supv)
- Seeding trial momentum
- Industry activities (detailing, DTC marketing)
Factors influencing implementation

What factors influence adoption, sustainment and spread of behavioral research findings during effectiveness studies?

- Study nurses (adherence support)
- Study measurement (Hawthorne effect)
- Clinician and patient expectations (belief, hope)
- Grant funding (incentives, staff, training, superv)
- Seeding trial momentum
- Industry activities (detailing, DTC marketing)
Factors influencing implementation

What factors influence adoption, sustainment and spread of behavioral research findings following completion of research?

• Study nurses (adherence support)
• Study measurement (Hawthorne effect)
• Clinician and patient expectations (belief, hope)
• Grant funding (incentives, staff, training, supv)
• Seeding trial momentum
• Industry activities (detailing, DTC marketing)
Some definitions

- **Diffusion:** unplanned, uncontrolled, passive flow of information and innovations

- **Dissemination:** intentional, active communication and distribution of information regarding innovations to increase awareness (and, we hope, adoption), often targeting and tailoring the communication to specific audiences

- **Implementation:** actions to supplement information dissemination in order to overcome practice change barriers and achieve adoption and use of innovations

- **Scale-up, spread:** deliberate efforts to expand adoption of innovations (a) successfully tested in pilot or experimental projects and (b) implemented locally to more settings
Factors influencing implementation during research

• Exceptional (non-routine, unsustainable, non-scalable) resources and support from project team:
  – site-level individualized technical assistance
  – funding for new staff, services
  – staff recruitment, hiring, training, supervision, support
  – Hawthorne effect (enhanced attention from monitoring, evaluation, external/internal interest)

• These factors provide considerable **push** for implementation
Challenges to planned scale-up and spread

*Lack of exceptional resources coupled with:*

1. Features of innovations
2. Features of target adopters
3. Features of the environment
4. Features of innovation champions
5. Features of scale-up/spread strategies

_________________


Challenges and strategies: push vs. pull

Lack of exceptional resources coupled with:

1. Features of innovations
2. Features of target adopters
3. Features of the environment
4. Features of innovation champions
5. Features of scale-up/spread strategies

Requirements for practice change

1. Valid, legitimate, accepted evidence
2. Clinician/staff knowledge, skill
3. Supportive professional norms
4. External expectations, monitoring, pressure/incentives
5. Patient acceptance
6. Evidence of quality gaps
7. Etiology of practices, quality gaps
8. Feasible methods/systems
Understanding scale-up and spread

• (How) did the innovation champions create, enhance or leverage demand and supportive environmental conditions – across multiple stakeholders?
• (How) did they communicate to achieve desired understanding and beliefs regarding the innovation?
• (How) did they provide technical assistance? Did they provide self-serve tools, guidance?
• (How) did they address heterogeneity of target adopters?
Pipeline phases and sub-phases

Clinical Research
(Clinical, behavioral, services)

Efficacy Studies → Effectiveness Studies → Implementation Research

Phase 1: Pilot Projects
Phase 2: Efficacy Trials
Phase 3: Effectiveness Trials
Phase 4: “Post-Marketing”

Improved Health Processes, Outcomes