Implementation Science

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UNIVERSITY OF
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Implementation science

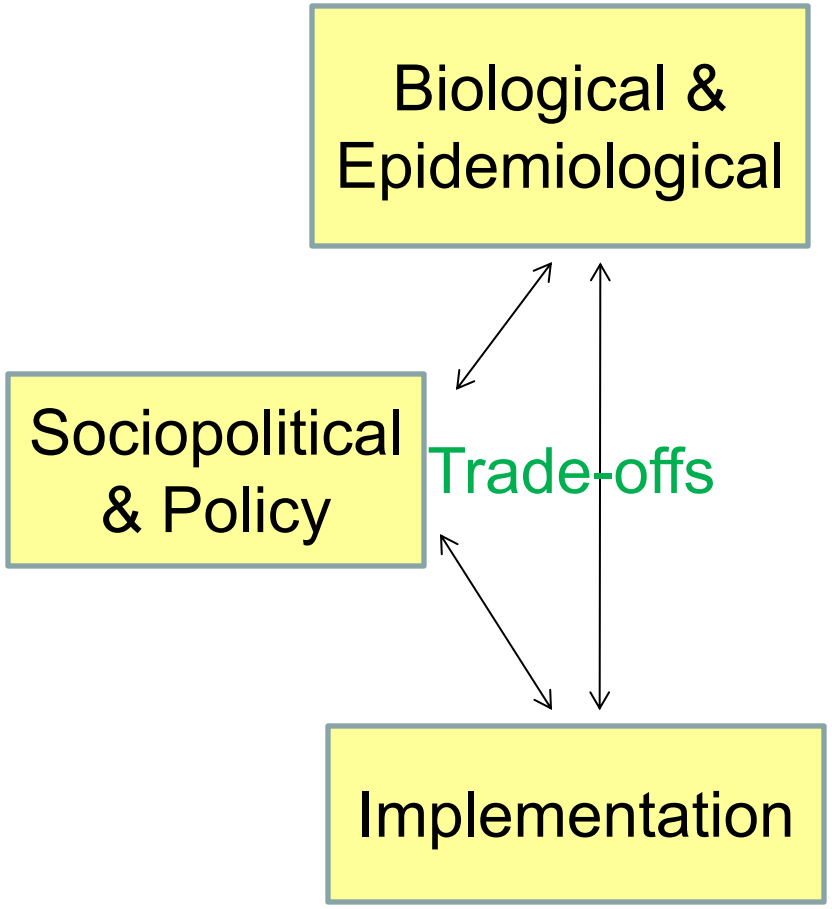
1. Why is there a need, and what is the need, to know more about implementation in agriculture, nutrition, and health?
2. What are big questions about implementation that implementation science should address going forward?
3. What do we need to do to build the science of implementation, and expand its practice?

Why implementation science?

- Lancet Child Survival Series (2003) identified 35 proven preventative and curative maternal and child health and nutrition interventions but high coverage needed
- Review for WHO of evidence on delivery strategies (i.e., how) and delivery points (where)
  - More evidence for some community and facility points than for others or other delivery points
  - Only 25 of 35 interventions had at least three studies with evidence for at least one delivery strategy
  - Not clear how much evidence is enough for given intervention and delivery strategy combination
  - Delivery strategies most able to reduce user constraints have greatest documentation of success

Frongillo et al. (2007)

Domains for strategic actions for improvement



Menon et al. (2011)

Mainstreaming Nutrition Initiative, World Bank, 2006-2010

Why implementation science?

- Specific interventions can be effective at low cost in relatively controlled environments, in short-term studies, or on small scales, but what about at large scale?
- Need to build strong and responsive systems that promote health and wellbeing through sustainable strategies that work on a large scale in real world
  - Malnutrition and poor health in all forms
  - Multiple systems: agriculture, food, education, health, etc.
- Effective implementation of proven interventions for
  - Sustainable Development Goals
  - National commitments for universal health coverage

Theobald et al., (2018); Ruel et al. (2018); Tumilowitz et al. (2018)

What is the need?

- Refocus on implementation of interventions, rather than intervention impacts of implementation
- More study of implementation as main outcome: feasibility, adoption, acceptance, quality, equity, efficiency, scale, and sustainability etc.
- Consider different phases of implementation, not just implementation nested within process or long-term impact evaluations
- Determine what affects implementation quality across multiple domains, and how to improve it

Rawat (2019)

Examples of big questions (1)

- How can programming be integrated into and strengthened in existing systems and platforms at national and sub-national levels?
- How can data and implementation learning be used to improve quality and coverage of services?
- What conditions, strategies, and methods are needed to enable country-level scale-up of effective interventions?

Bose, Escobar, Frongillo (2019)

Examples of big questions (2)

- How does one motivate individuals to adopt and sustain behavior change?
- How can the capacity, capabilities, motivation, and performance of frontline workers be improved?
- How can programs be sustained at community, program, and institutional levels?
- How can what is learned in one country be used to improve in other countries in the same region?

Bose, Escobar, Frongillo (2019)

Building implementation science

- Shift perception of IS by stakeholders, including academic institutions, journals, donors, implementing organizations, to build its credibility, acceptance, and importance
- Build capacity to conduct implementation science
- Expand methodological toolbox used
- Develop training (including short courses and webinars)
- Develop and socialize a research agenda focused on knowledge gaps in implementation
- Institutionalize IS as core component of implementation process among implementing organizations
- Expand channels of dissemination
- Expand funding opportunities

Rawat (2019)

National Institutes of Health

- Use of strategies to adopt and integrate evidence-based health interventions into clinical and community settings
- Understand behavior of practitioners and support staff, organizations, consumers and family members, and policymakers in context
- Develop knowledge about "how" interventions are integrated within practice settings and populations
- Test models, theories, and conceptual frameworks of implementation process that move away from exclusively "top-down" to emphasis on resources of local care settings and needs of multiple stakeholders, engaging stakeholders and end users

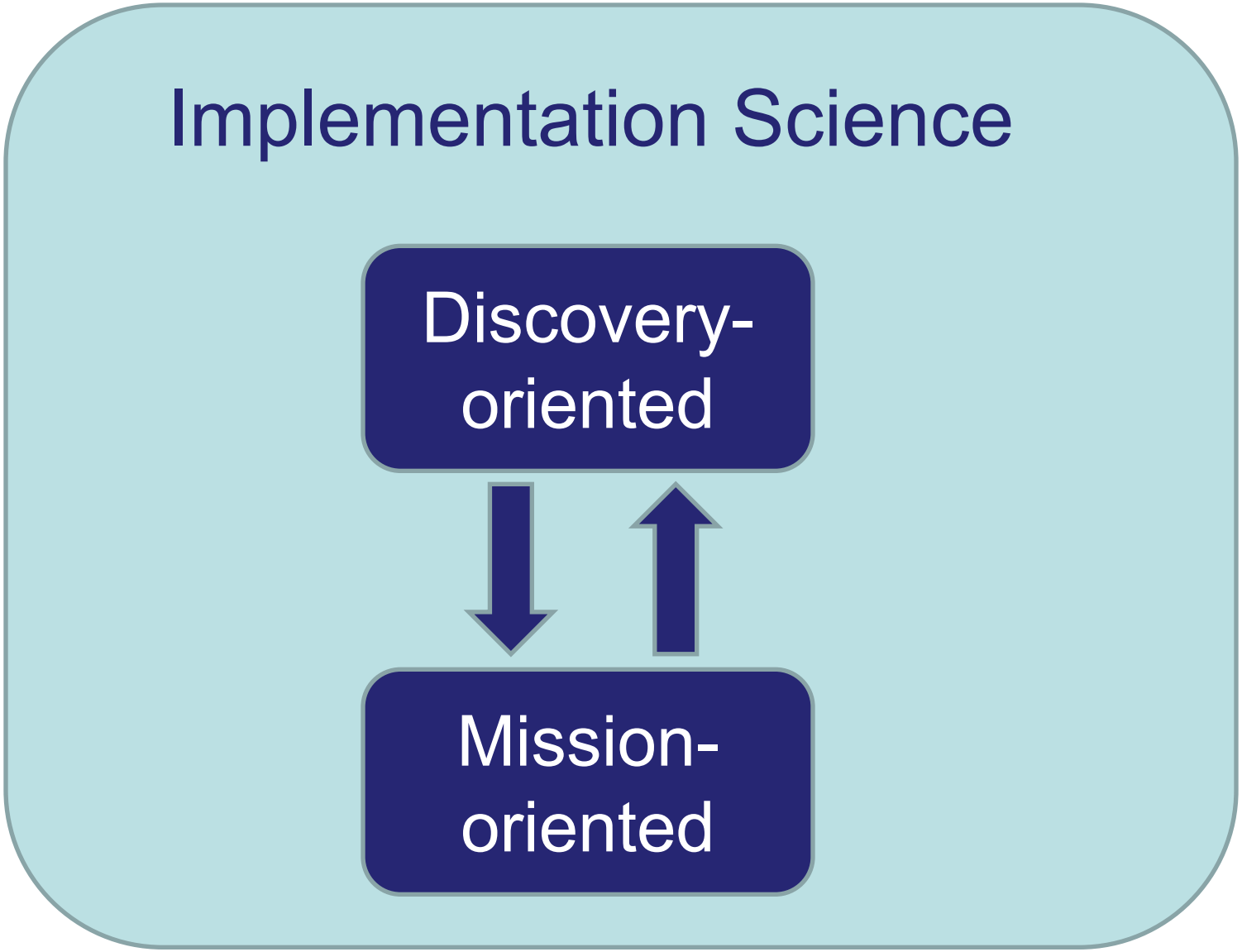
https://grants.nih.gov/grants/guide/pa-files/PAR-19-274.html

https://ncats.nih.gov/translation/spectrum#clinical-research

Models for achieving large scale

- Biomedical translational model typically takes 15 to 20 years to get knowledge out in communities
- *Alive & Thrive* and *EsIAN* initiatives demonstrate alternative model for behavioral interventions:
  - Bring together bright, committed, and talented people outside of and within countries
  - Make difference at large scale in relatively short period of time
  - Have intention, commitment, and planning to do so from outset
- Requires implementation science

Frongillo (in press)



- Both orientations needed, not mutually exclusive
- Use-inspired science

Outline of learning lab (1)

1. Introduction and technical overview (40)
2. Reactions, Q&A (10)
3. Small-group discussions (30)
   - Generate 3-5 examples of implementation-related challenges you have encountered and identify related learning needs (what it is you would need to know to address these challenges)
4. Share out from small groups and recap (10)

Outline of workshop (2)

1. Case studies (40)
   - Rasmi Avula, IFPRI
   - Kenda Cunningham, HKI
2. Reactions, Q&A (10)
3. Small-group discussions of two questions (30)
   - How do we gain the knowledge to be able to improve implementation of actions?
   - How should researchers and practitioners engage in the shared space that implementation science provides?
4. Share out from small groups and recap (10)