GACD Implementation Science e-Hub

ADVANCED PROGRAMME

GLOBAL ALLIANCE FOR CHRONIC DISEASES
AN ALLIANCE OF HEALTH RESEARCH FUNDERS

MODULE 1 | LECTURE 1A

Implementation science and interventions at scale – what's the connection?

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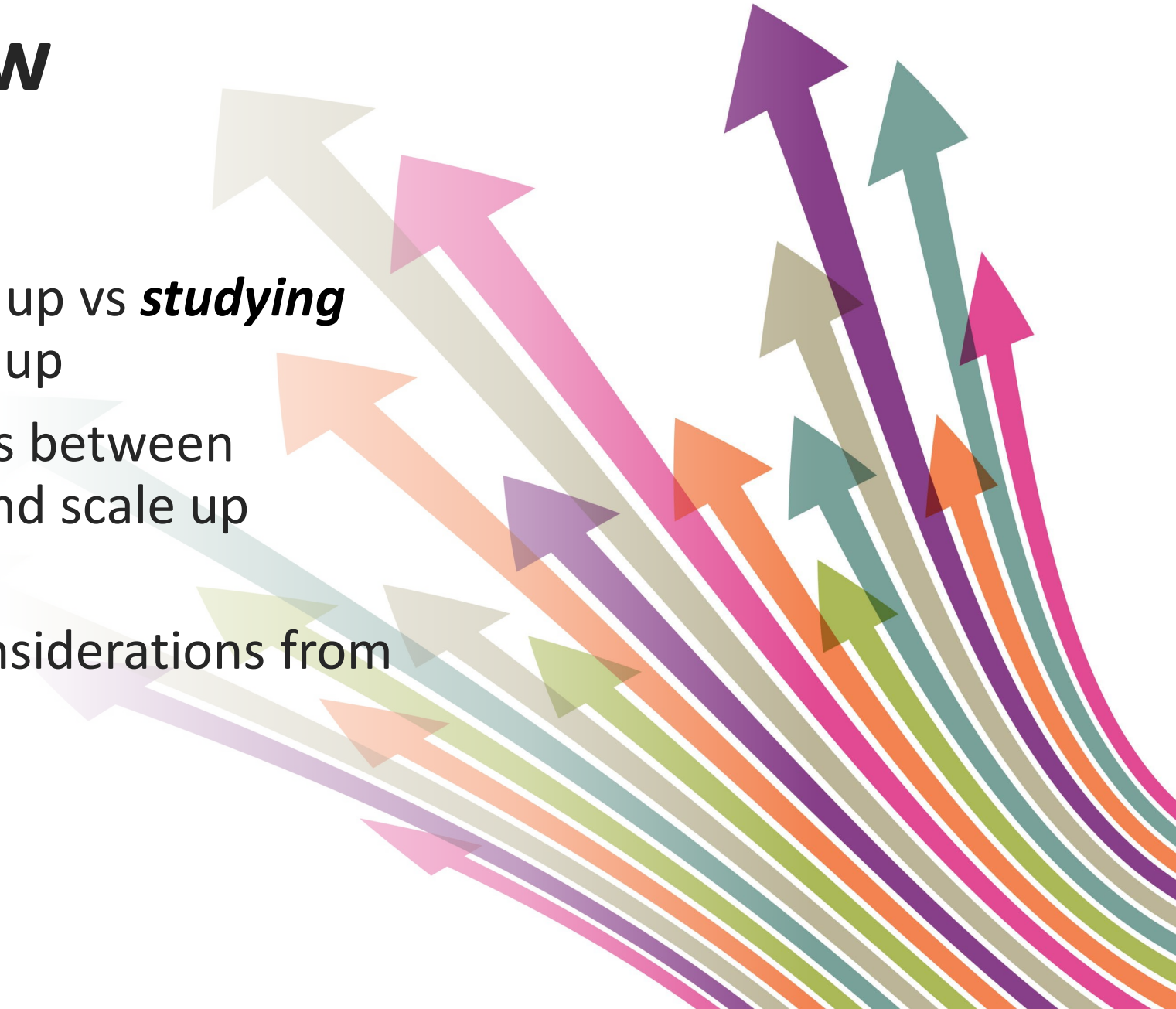
Lecture overview

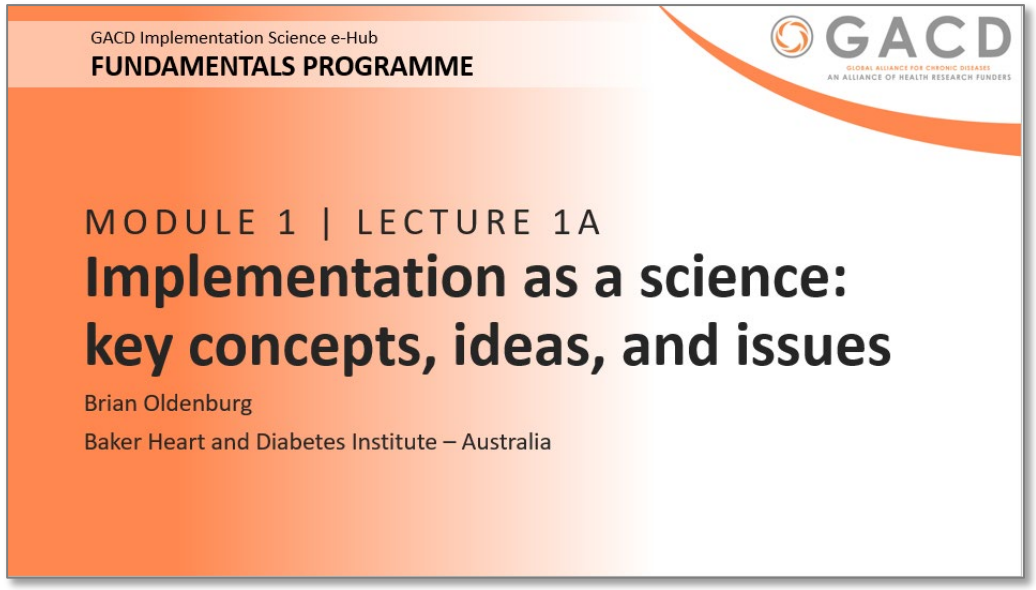
- Implementation and scale up vs ***studying*** implementation and scale up
- Similarities and differences between implementation science and scale up science
- Relevant concepts and considerations from implementation science
- Further considerations



Implementation vs *studying* implementation

- Implementation refers to the act of putting a plan or idea into effect.
- Implementation science is the study of methods and strategies to promote the uptake of evidence-based interventions into routine practice.
  - **Focus:** Implementation focuses on the act of putting something into practice, while implementation science focuses on the study of how to do it effectively.
  - **Scope:** Implementation is a specific action, while implementation science is a broader field of study.
- In essence, implementation is the "what" and implementation science is the "how."

For more on implementation as a science, see **Lecture 1A** in our **Fundamentals Programme**



Defining scale up with language from implementation science

"**Deliberate efforts** to increase the impact of **successfully tested** health **innovations** so as to benefit more people and to foster policy and programme development on a **lasting basis**."

Defining scale up with language from implementation science

Guided process (in most instances)

With GACD projects, investigators are trying to influence positively the process of scaling up interventions

Backed up by locally generated evidence

This might be small scale in nature, where a larger intervention from another context has been piloted in a new context

"**Deliberate efforts** to increase the impact of **successfully tested** health **innovations** so as to benefit more people and to foster policy and programme development on a **lasting basis**."

New, or perceived to be new, service components, practices, or products; often a set of interventions (= a "scalable unit")

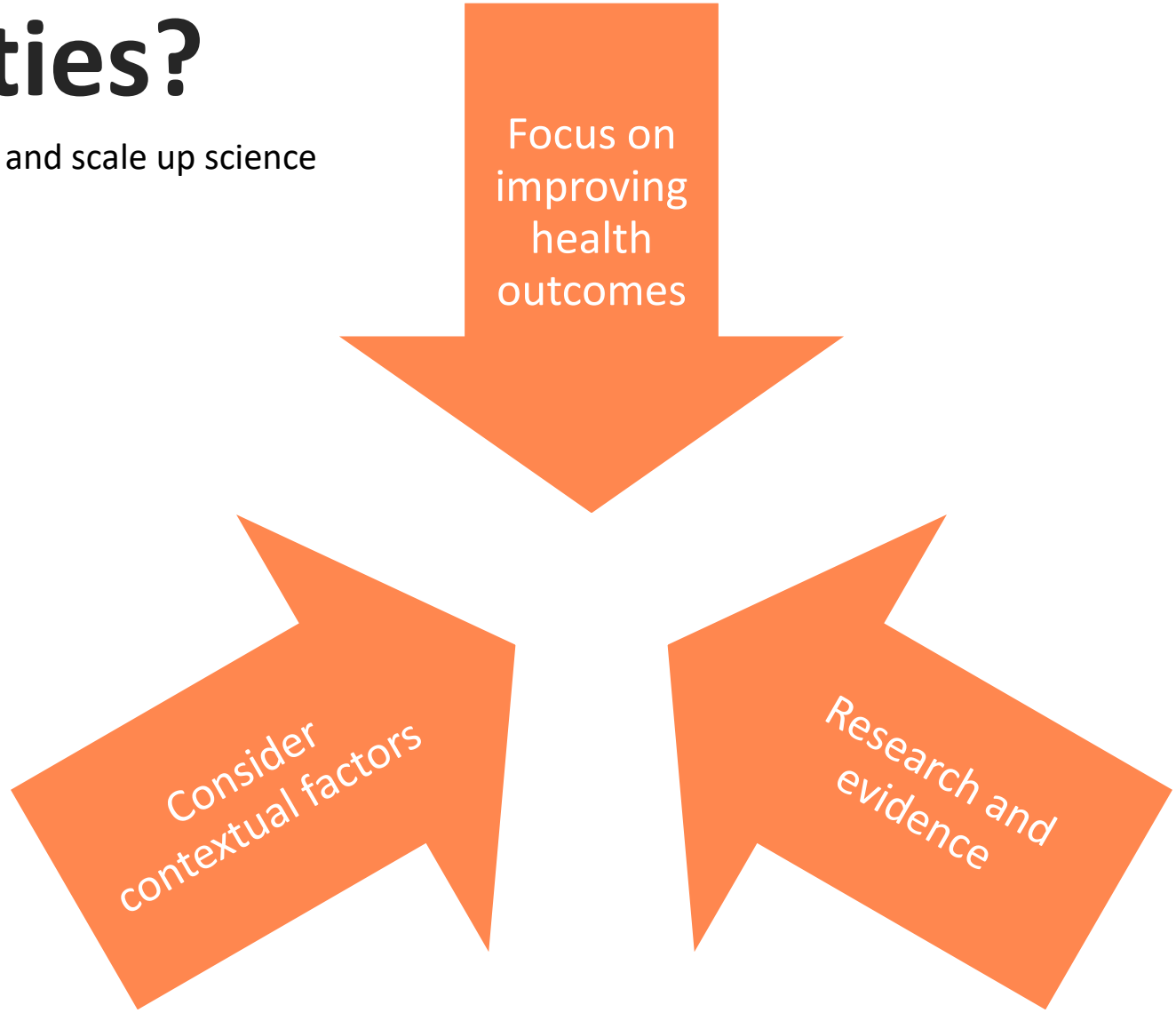
Requires institutional buy-in for capacity strengthening and sustainability

Scale up vs *studying* scale up

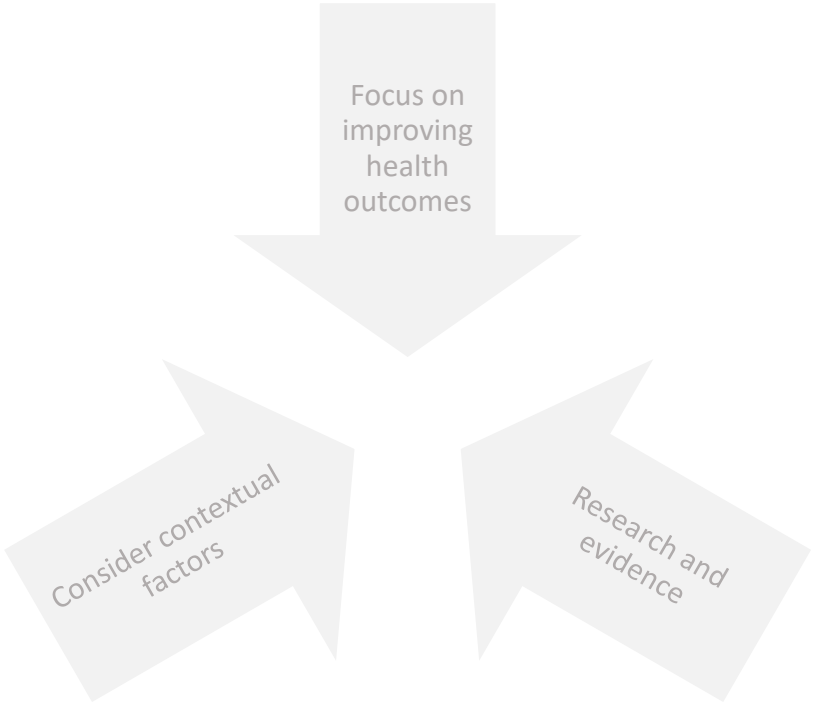
	Scale up	Scale up science
What	The process of expanding a successful programme or intervention to a larger scale, reaching more people or covering a wider geographic area	The study of the methods and strategies to effectively expand successful programmes or interventions to a larger scale
Focus	The actual act of increasing the size or reach of a programme	Understanding the factors that influence successful scale up and developing effective strategies to overcome challenges
Scope	A specific action	A broader field of study
Goal	Increase reach and impact of a programme	Improve overall effectiveness of scale up efforts
Analogy Imagine you have a successful recipe for a small batch of cookies (the intervention)	Baking a larger batch of cookies using the same recipe	Studying the best methods for increasing the batch size while maintaining the same quality and taste of the cookies, such as using larger baking sheets or adjusting baking times

Similarities?

Implementation science and scale up science



Pause for thought…

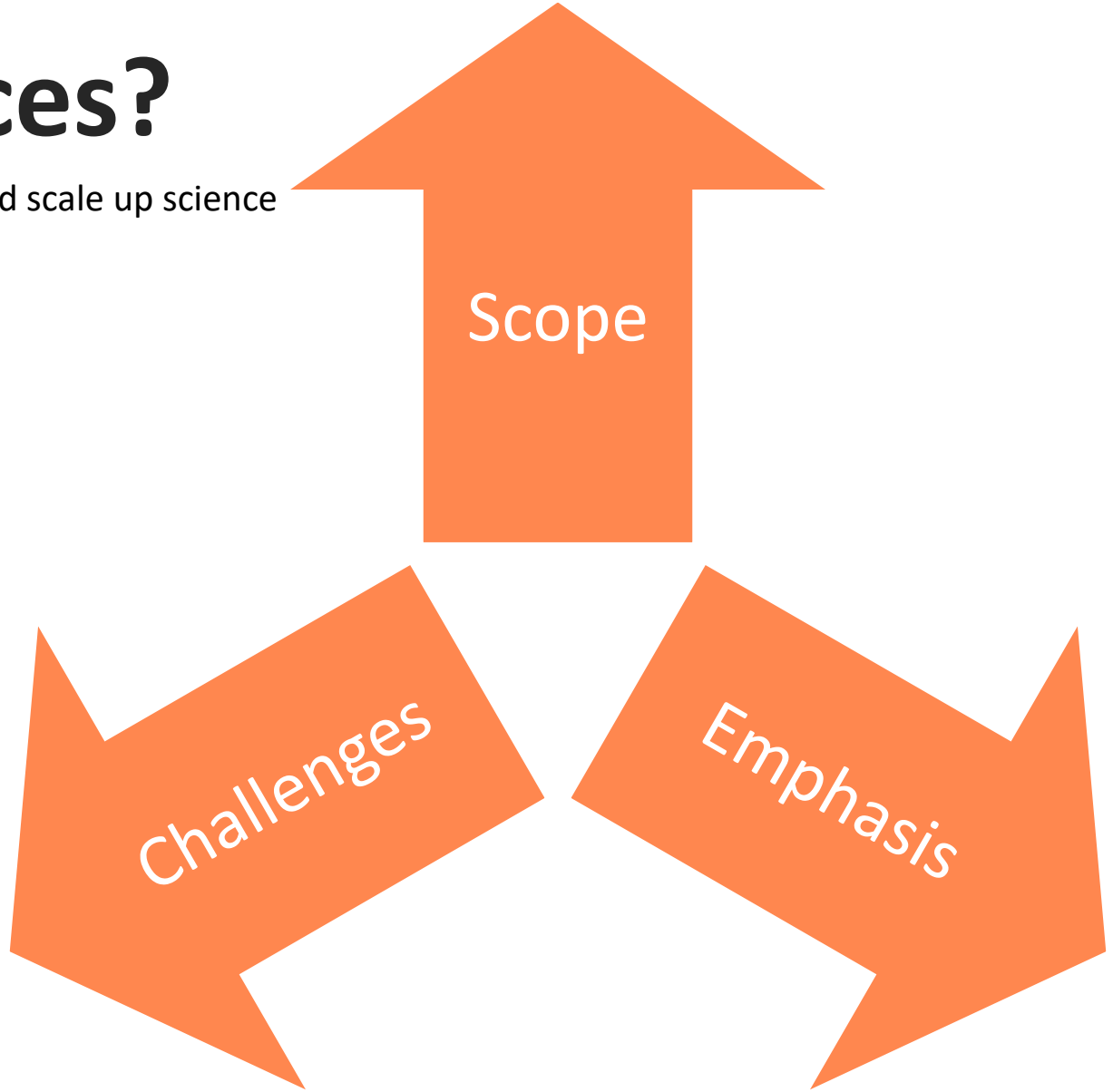


What other similarities are there?

Are the similarities consistent across all populations, conditions, and contexts?

Differences?

Implementation science and scale up science



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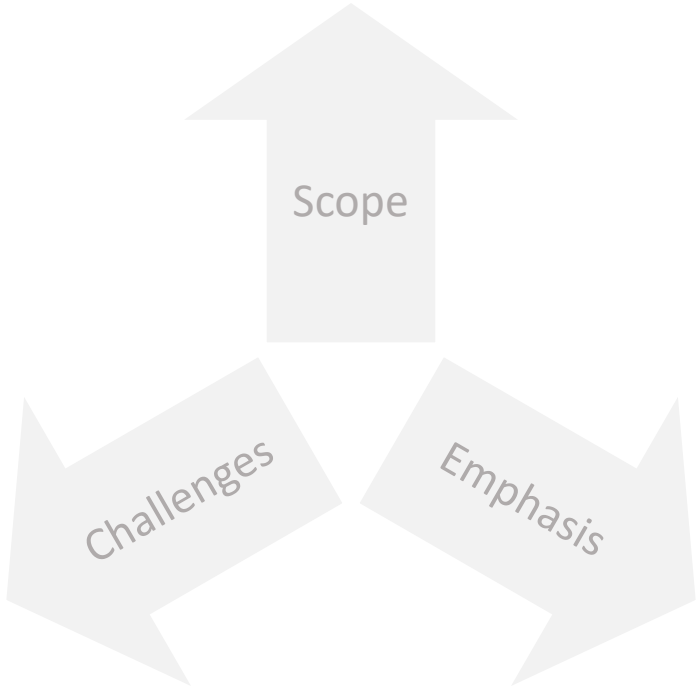


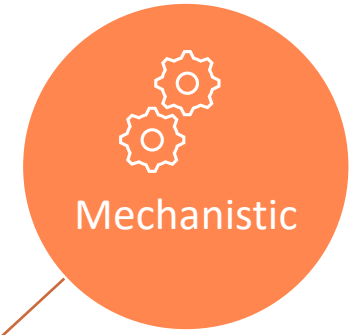
What other differences are there?

Are the differences ontological, epistemological, theoretical, methodological…or something else?

Spreading and scaling up innovation and improvement

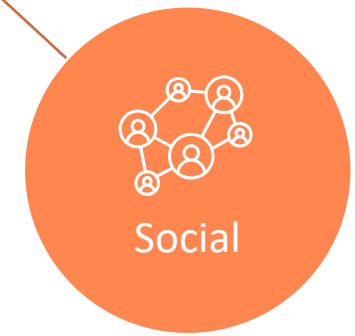
Spread (replicating an intervention) and **scale-up** (building infrastructure to support full scale implementation) are **difficult**

Disseminating innovation across the healthcare system is potentially achievable through different logics



- **Implementation science** takes a structured and phased approach to developing, replicating, and evaluating an intervention in multiple sites

- **Complexity science** encourages a flexible and adaptive approach to change in a dynamic, self organising system



- **Social science approaches** consider why people act in the way they do, especially the organisational and wider social forces that shape and constrain people's actions

These approaches may be **used in combination to tackle the challenges** of spread and scale-up

Greenhalgh and Papoutsi (2019) BMJ 365:l2068

Relevant concepts and considerations from implementation science (1)

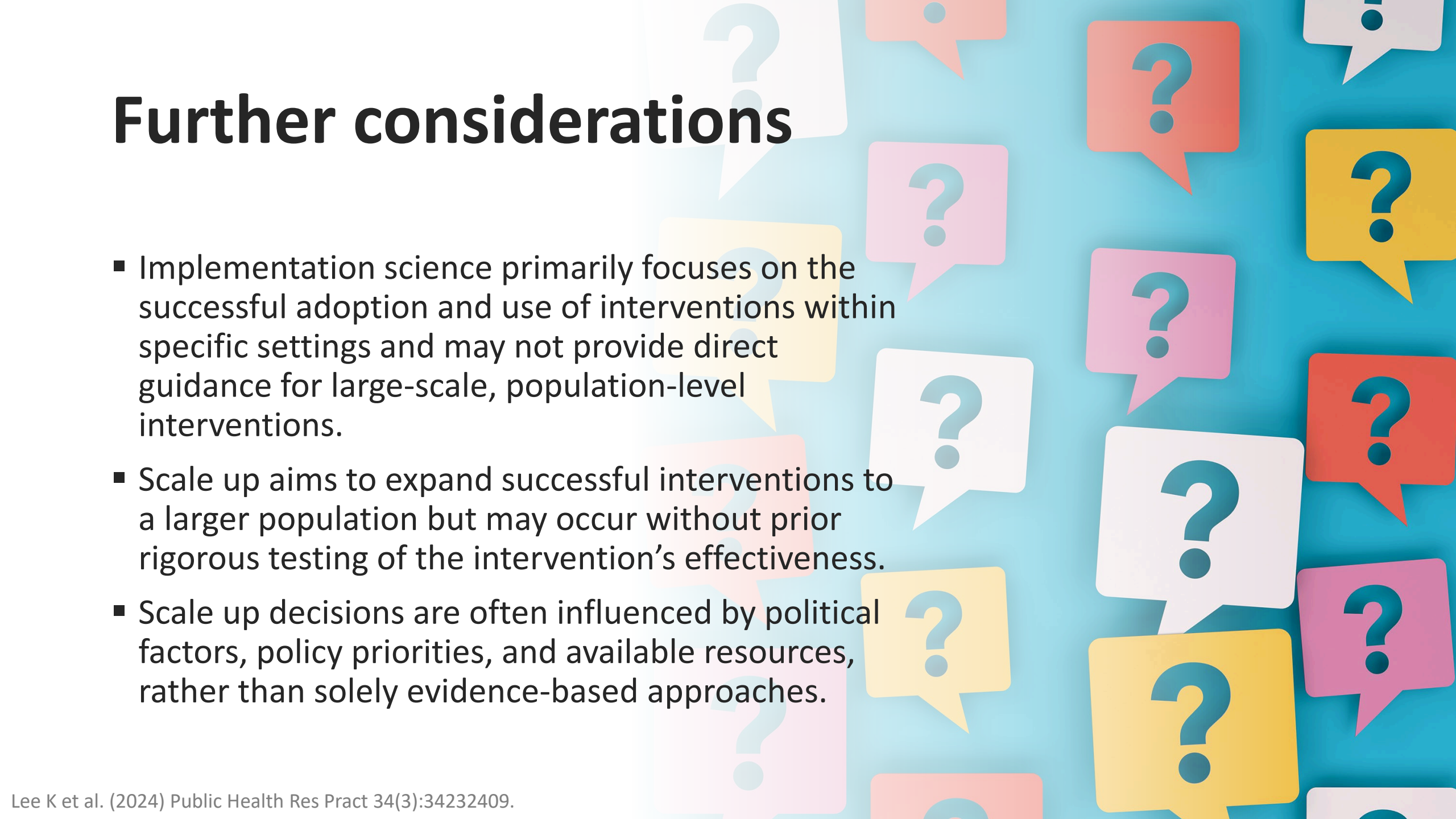
- **Theoretical grounding:** Select and apply relevant theories, models, and frameworks to underpin the research.
- **Context:** Assess and address the unique contextual factors that may influence the success of scale up in different settings.
- **Stakeholders:** Critical role of engaging key stakeholders throughout the planning and implementation process.
- **Fidelity:** Maintaining the integrity of the intervention during scale up, while also allowing for necessary adaptations.
- **Sustainability:** Strategies for ensuring the long-term sustainability of scaled up interventions, including financial, human, and organisational resources.
- **Evaluation:** Robust evaluation plans to monitor progress, assess impact, and identify areas for improvement during scale up.

Relevant concepts and considerations from implementation science (2)

- **Theoretical grounding:** Select and apply relevant theories, models, and frameworks to underpin the research. → Lectures 2A and 2B
- **Context:** Assess and address the unique contextual factors that may influence the success of scale up in different settings. → Lectures 2C and 2D
- **Stakeholders:** Critical role of engaging key stakeholders throughout the planning and implementation process. → Module 3
- **Fidelity:** Maintaining the integrity of the intervention during scale up, while also allowing for necessary adaptations. → Lecture 4C
- **Sustainability:** Strategies for ensuring the long-term sustainability of scaled up interventions, including financial, human, and organisational resources. → Lecture 5D
- **Evaluation:** Robust evaluation plans to monitor progress, assess impact, and identify areas for improvement during scale up. → Module 5

Further considerations

- Implementation science primarily focuses on the successful adoption and use of interventions within specific settings and may not provide direct guidance for large-scale, population-level interventions.
- Scale up aims to expand successful interventions to a larger population but may occur without prior rigorous testing of the intervention's effectiveness.
- Scale up decisions are often influenced by political factors, policy priorities, and available resources, rather than solely evidence-based approaches.

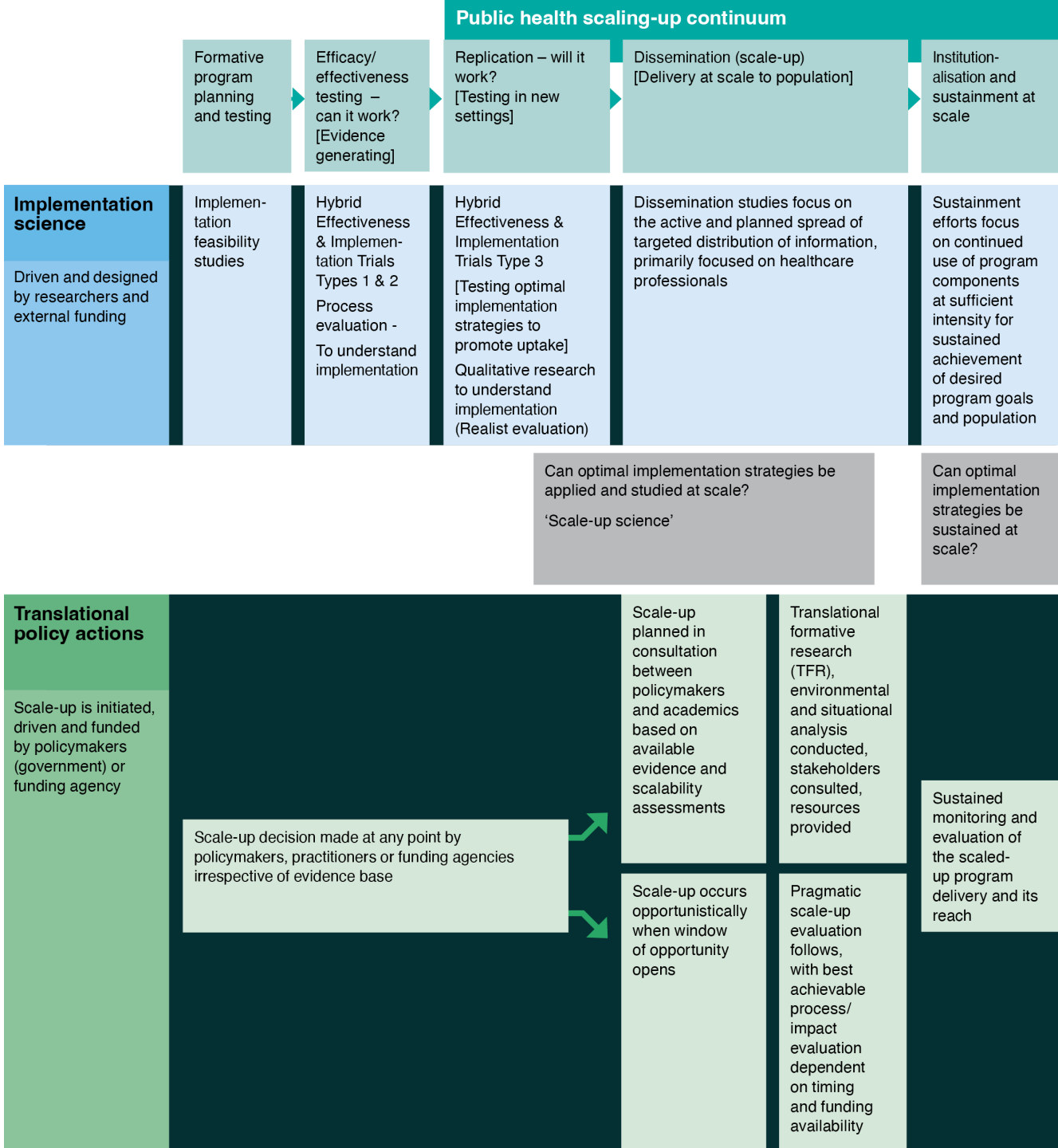


Lee K et al. (2024) Public Health Res Pract 34(3):34232409.

Further considerations *continued*

Implementation science methods are not always suitable for the rapid scale up required in some situations, such as during public health emergencies.

Figure: Stages of scale up and implementation – where they fit in public health program evaluation (Lee K et al. 2024)



Key messages

1	Scale up science is the study of the methods and strategies to effectively expand successful programmes or interventions to a larger scale
2	There is a blurred boundary between implementation science and scale up science
3	There is a need for further research within implementation science to address the challenges of rapid scale up and develop more flexible approaches that can accommodate the realities of real-world situations

Reference list

- WHO, 2010. Nine steps for developing a scale up strategy. https://www.who.int/publications/i/item/9789241500319
- Greenhalgh T, Papoutsi C. Spreading and scaling up innovation and improvement. BMJ. 2019 May 10;365:l2068. doi: 10.1136/bmj.l2068. PMID: 31076440; PMCID: PMC6519511.
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- Koorts H, Bauman A, Edwards N, Bellew W, Brown WJ, Duncan MJ, Lubans DR, Milat AJ, Morgan PJ, Nathan N, Searles A, Lee K, Plotnikoff RC. Tensions and Paradoxes of Scaling Up: A Critical Reflection on Physical Activity Promotion. Int J Environ Res Public Health. 2022 Nov 1;19(21):14284.