

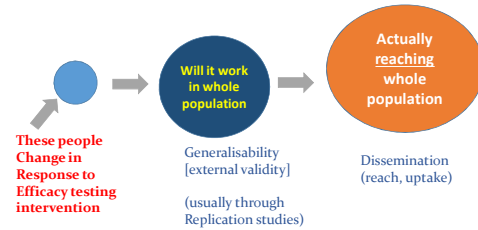
## Principles of implementation science Scaling up “101”

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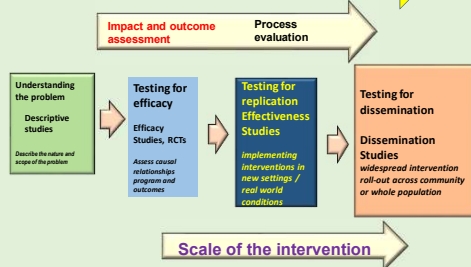
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### Rationale for scale up



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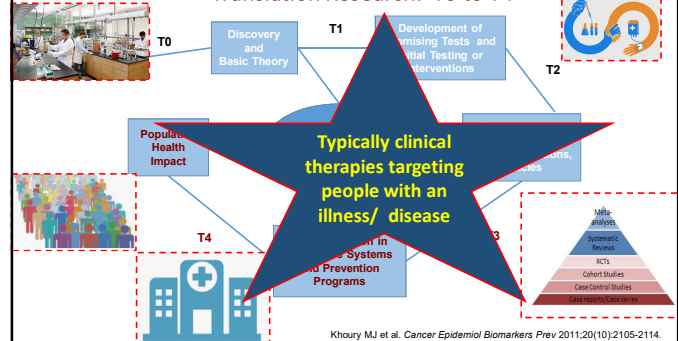
### LEVELS OF PUBLIC HEALTH PROGRAM [TRANSLATION]



Ref: Bauman and Nutbeam ; Evaluation in a Nutshell, 2013, McGraw-Hill  
Milat AJ et al, Public health research outputs from efficacy to dissemination: *BMC Public Health*, 2011 11:934.

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### Translation Research: T0 to T4



Khoury MJ et al. *Cancer Epidemiol Biomarkers Prev* 2011;20(10):2105-2114.

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### Health services ‘scaling up’ (WHO Expandnet, 2009)

Practical guidance for scaling up health service innovations [in LMICs]

Figure 2. Environmental influences on scaling up




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### Why scale up ?

- scale up essential to population outcomes happening !
- Policy makers report few effective public health programs are suitable for population-level implementation
- Transferring a program from controlled settings into practical implementation usually involves ‘scaling up’
- While ‘scale’ seems an obvious concept, it hasn’t been widely discussed in the public health literature

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### Scaling up defined



- deliberate efforts
- to increase the impact of successfully tested health interventions
- to benefit more people
- and to foster policy and program development (long lasting)

(WHO, 2010)

### Scalability

*'Ability of a health intervention shown to be efficacious on a small scale and/or under controlled conditions*

*to be expanded under real world conditions to reach a greater proportion of the eligible population, while retaining effectiveness.'*

(Milat, Bauman, Redman 2012)

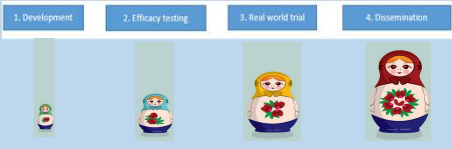
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### Context is critical to scale up



- context for scale up is often political
- complex influences
- lag between evidence and implementation !
- resources (human, financial) may not be available when the interventions is proposed at scale
- Policy makers and practitioners often have to implement different interventions with few resources

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### Stages of scaling up: Evidence through evaluation



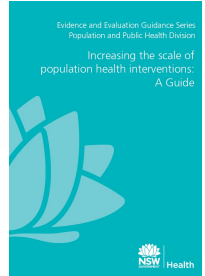
Bauman A, Nutbeam D. Evaluation in a nutshell: a practical guide to the evaluation of health promotion programs. McGraw Hill, 2013.

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### Scaling up Guide

Evidence and Evaluation Guidance Series  
Population and Public Health Division  
Increasing the scale of population health interventions: A Guide




<http://www.health.nsw.gov.au/research/Documents/scalability-guide.pdf>

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### Scaling up process



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### How to assess for scalability?

Question remains:

- How are scalability decisions made?
- Who makes these decisions?
- What factors are taken (should be) into consideration when making these decisions?

**RESEARCH** [Open Access](#)

The concept of scalability: increasing the scale and potential adoption of health promotion interventions into policy and practice

ANDREW JOHN WHITTY<sup>1</sup>, JENNY KING<sup>2</sup>, ADRIAN E. BAUMAN<sup>3</sup> and SALLY REDMAN<sup>4</sup>

<sup>1</sup>New South Wales, <sup>2</sup>Queensland, <sup>3</sup>University of Sydney, <sup>4</sup>University of Sydney

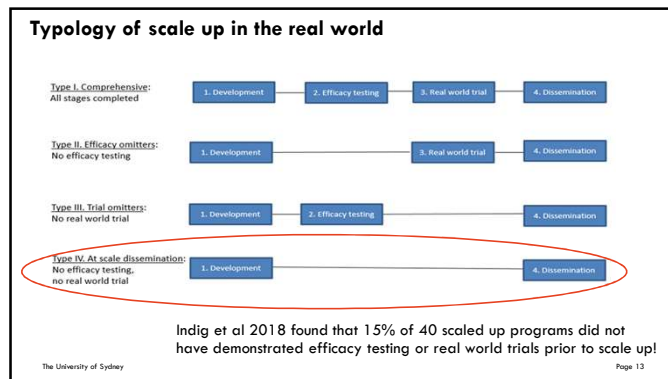
Increasing the scale and adoption of population health interventions: experiences and perspectives of policy makers, practitioners, and researchers

Andrew J. Whitty<sup>1</sup>, Jenny King<sup>2</sup>, Adrian E. Bauman<sup>3</sup>, Sally Redman<sup>4</sup>

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### Intervention Scalability Assessment Tool

**What is it?**

A tool for policy makers, practitioners and program managers to assist them to determine the scalability of discrete health program or intervention

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- Final thoughts on implementation science 101
  - *research designs*
  - *theories and models*
  - *pragmatic approaches*

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### Design Options in Implementation Science

- Pragmatic trials
- Natural Experiments
- Stepped Wedge designs
- Hybrid effectiveness-implementation designs
- Designs that include measures of reach, cost-effectiveness, feasibility, sustainability
- Mixed methods designs

Are your studies measuring reach ?

Or testing different processes of optimal implementation ?

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### Models for Implementation Science – dissemination and implementation (D&I)

- What can models, theories and frameworks do?
  - Ensures inclusion of essential D&I strategies
  - Enhance the interpretability of study findings
  - Provide systematic structure for the development, management, and evaluation of interventions/D&I efforts
- Plethora ? Excess ? ... of existing models for D&I
  - 61 identified by Tabak et al in a review
  - Additional models with practitioner/clinician focus

Tabak RG et al. *Am J Prev Med*. 2012; 43: 337-350;

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### D&I Models used in USA grant (NIH)

Model	Frequency (%)
Rogers' Diffusion of Innovations + RE-AIM	1 (2%)
Nonspecific reference	2 (4%)
Rogers' DOI alone or in combination with other	5 (11%)
RE-AIM alone or in combination	7 (15%)
Specific theory/framework:	9 (20%)
- Cooperation Extension System	
- Community Readiness Model	
- Quality Assurance Model (2)	
- Self-regulation Theory of Health Behavior	
- Collaborative Depression Core Model	
- Cognitive Behavioral Theory	
- Advanced Recovery Theory	
- Program Change Model	
No theory/framework	22 (48%)

Tinkler et al. Dissemination and Implementation Research Funded by the US NIH, 2005-2012. *Nursing Res and Practice*. 2013

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Pragmatic approaches to scale up evaluation

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Did this make any sense ? It's a complex area



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