

The Science of Scaling Up Evidence-Based Global Health Tools and Services: Literature Review & Key Informant Interviews

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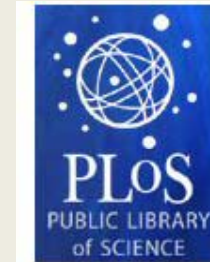
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From evidence to action

My Background

- » NHS hospital doctor, London
- » Medical journalist and journal editor
 - » *BMJ*
 - » *wjm—Western Journal of Medicine*
 - » *PLoS Medicine & PLoS Neglected Tropical Diseases*



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My Background (*cont'd*)

- » 2009 Kaiser Family Foundation Mini-Media Fellowship
 - » *Series of 4 articles on “scaling up” low cost, low-tech tools*



Telegraph (UK)
Oct 5 2009
“The Net Gains of Keeping Mosquitoes at Bay”

- » MPH at LSHTM (this study was my masters project)



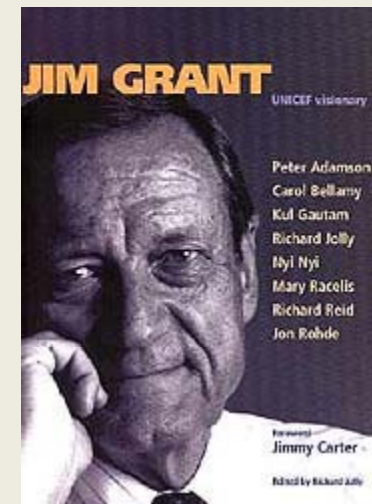
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Background to My Study

“Of the approximately 50 million people who were dying each year in the late 1980s, fully two thirds could have been saved through the application of knowledge”



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The MDGs: Why Are So Many Developing Countries Off Course?

- » *Interventions* that would help LMICs reach the health MDGs are well defined
 - » *Bellagio Child Survival Study: 23 proven interventions, if scaled up to 99% coverage, could cut child deaths by two thirds (Jones et al, 2003)*
- » Much less attention on how to *deliver* them to scale
 - » *“We do not know how best to scale up interventions effectively” (Whitworth et al, 2010)*



Insecticide-Treated Bed Nets

- » Reduce malaria cases by 50%, deaths by 30% (Lengeler, 2004)
- » Increasing the proportion of children who consistently sleep under an ITN at night = a persistent challenge
 - » *“considerable debate about how best to deliver nets” (Hanson et al, 2008)*
 - » *Reaching the poorest communities = a particularly stubborn problem*

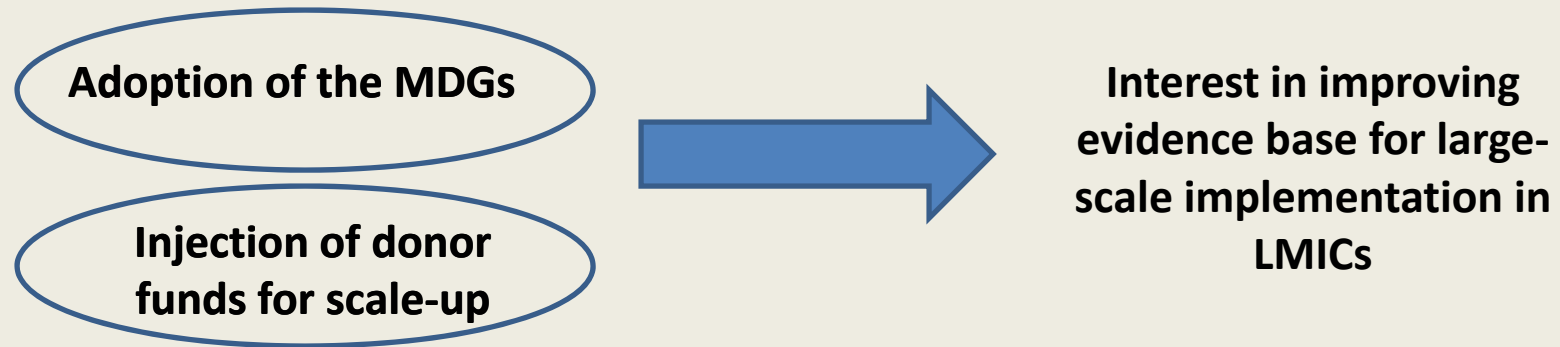


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A Surge of Interest in Implementation Science for LMICs



- » Interest from global health researchers
 - » *There is a “need for a quantitative, scientific framework to guide health-care scale-up in developing countries” (Madon et al, 2007)*
- » LMICs are starting to study scale-up
 - » *South Africa’s MRC is testing ways to implement kangaroo mother care (Bergh et al, 2008)*



An Emerging Science

- » Promising signs of an emerging “science of large-scale change in global health” (McCannon et al, 2007)
- » Few reviews exploring the state of this science or laying out an IR agenda; previous reviews:
 - » *Typologies of scale-up e.g. Taylor, 2001 (Blueprint, Explosion, Additive, Biological)*
 - » *“Checklists” (e.g. CGD, Millions Saved, 2004)*
- » My small study aimed to summarize the landscape



Aims of My Study

By triangulating themes emerging from a literature review with those emerging from key informant (KI) interviews, I aimed to summarize:

- » *Barriers to the adoption and spread of effective global health interventions*
- » *Factors facilitating successful scale up*
- » *Research questions to improve the knowledge base of implementation science*



Methods

Literature review (narrative)

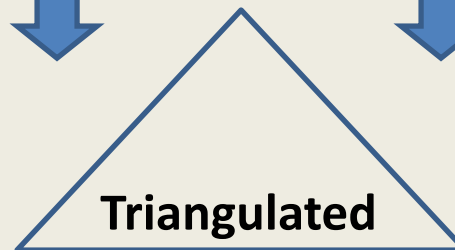


Emerging themes

Key informant interviews



Emerging themes



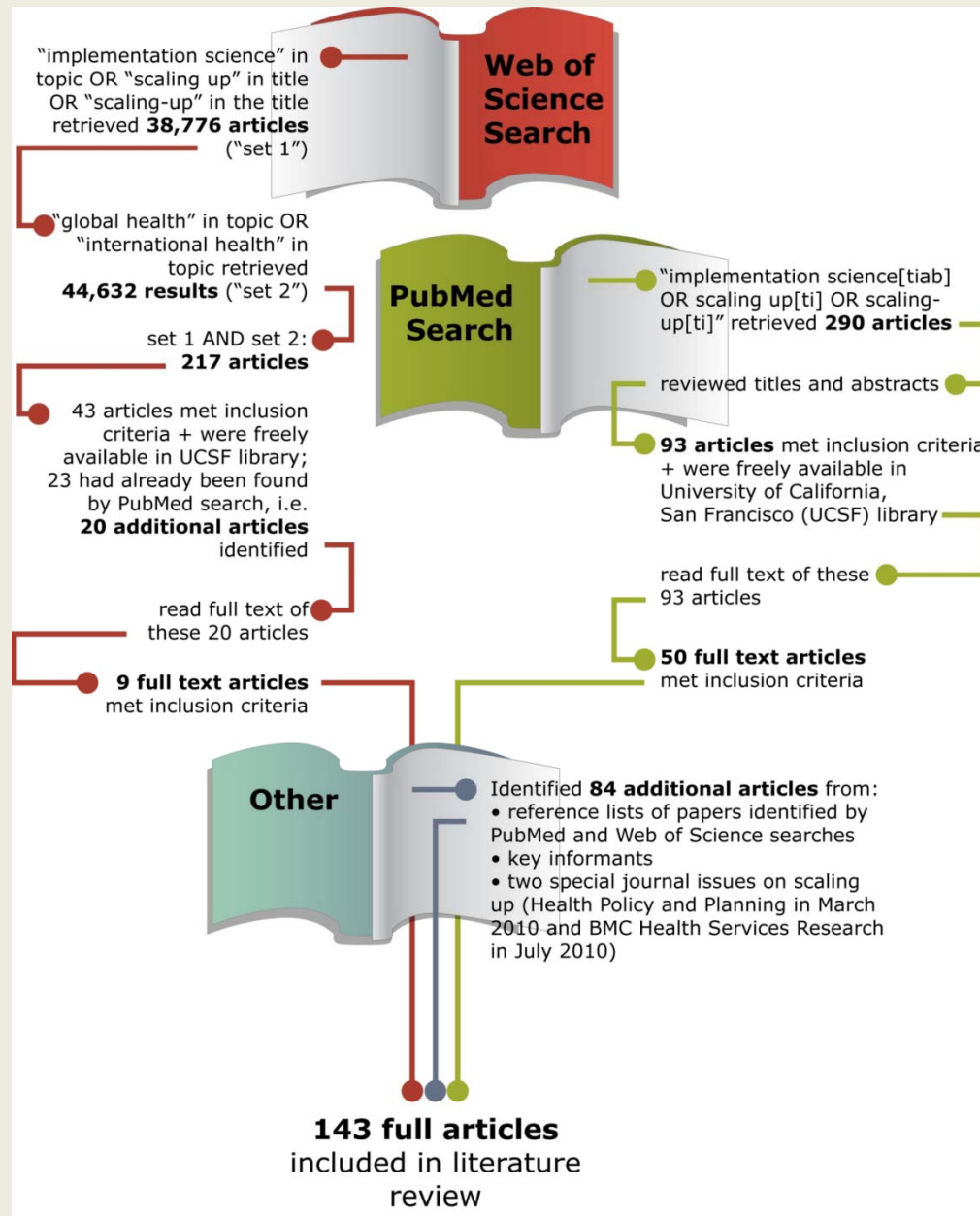
**Analytic Framework to Organize
Results Into 6 “Levels”**
[from Intervention to Context]



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Key Informant Interviews

- » 14 global health professionals with expertise in scaling up in LMICs
- » 4 have led major global health scale-up campaigns
- » Semi-structured questionnaire; aimed at eliciting:
 - » *interviewees' personal knowledge*
 - » *“real world” experience*
 - » *knowledge of the implementation science literature*
- » Interviews transcribed by hand → manually coded to look for emerging themes
- » Written informed consent to use anonymized quotes



Analytic Framework

- » To organize results, used a framework adapted from two typologies of scaling up:
 - » *Hanson and colleagues' "typology of constraints" (2003)*
 - » community & household, health services delivery, health sector policy, public policy, environmental
 - » *Simmons and Shiffman's typology of components affecting scale-up success (2007)*
 - » the innovation, the institutions scaling it up, the users, the implementation strategy, and the environment



**LEVEL V: SOCIO-POLITICAL,
FISCAL & CULTURAL CONTEXT**

**Level IV:
Attributes of the
"Adopting" Community**

**Level III:
Choice of Scale-up Approach
or Delivery Strategy**

**Level II:
Attributes of the
Implementers**

**Level I:
Attributes of
the Tool or
Service**

LEVEL VI: RESEARCH CONTEXT



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Organization of Results

1. Barriers to large-scale implementation
2. Predictors of successful scale-Up
3. Generating knowledge to overcome barriers and promote facilitating factors



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Level I: Attributes of the Tool or Service Being Scaled Up

Barriers	Facilitators	Research
<ul style="list-style-type: none">▪ Complexity and lack of consensus	<ul style="list-style-type: none">▪ Simplicity▪ Robust technical policies	<ul style="list-style-type: none">▪ How to simplify interventions?

“If the intervention is simple, agreed, and there are no dissenting views, scale-up is much more likely to happen”



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Level II: Attributes of the Implementers

Barriers	Facilitators	Research
<ul style="list-style-type: none">▪ Limited capacity (e.g. leadership)	<ul style="list-style-type: none">▪ Strong leadership, governance▪ Engaging local implementers▪ Using non-state actors	<ul style="list-style-type: none">▪ How to develop a robust workforce?▪ Incentives to change provider behavior?▪ How to use informal markets?▪ Can leadership be learned?

“They’re more nimble, there may be less corruption, they’re quicker off their feet, individuals [in NGOs] are more motivated. From 2005, there are compelling data to show non-governmental recipients did better.”



Level III: Choice of Scale-up Approach or Delivery Strategy

Barriers	Facilitators	Research
<ul style="list-style-type: none">▪ Operating with an “implicit theory of spread”▪ Poor application of diffusion techniques▪ Non-transferability from trial conditions	<ul style="list-style-type: none">▪ Applying diffusion/social network theories▪ Cascade/phased approaches▪ Tailoring scale-up to local situation▪ Integrated approaches▪ Rights-based approaches	<ul style="list-style-type: none">▪ How to integrate?▪ How to improve implementation fidelity & transferability?▪ How to understand the local context?

“We know that knowledge [alone] does not produce change. We need more than knowledge.”



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Level IV: Attributes of the “Adopting” Community

Barriers	Facilitators	Research
<ul style="list-style-type: none">▪ Individual, household poverty▪ Lack of “community readiness” or engagement▪ Socio-cultural features	<ul style="list-style-type: none">▪ Engaged community	<ul style="list-style-type: none">▪ Does “community readiness” predict success?▪ How to engage communities?▪ How can “demand side” barriers be overcome?

“We need to learn from users, not providers. We need to learn from people themselves. We need qualitative research to see how they can tell us the solutions, so we can work with them.”



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Level V: Socio-Political, Fiscal, and Cultural context

Barriers	Facilitators	Research
<ul style="list-style-type: none">▪ Financial constraints▪ Poor donor coordination▪ Lack of supportive national policy▪ Regulatory hurdles	<ul style="list-style-type: none">▪ Political will, national legislation▪ Financial resources▪ Country ownership	<ul style="list-style-type: none">▪ How to reach the poor?▪ How to improve governance of financing for scale-up?

“if the only people who can prescribe ARVs are doctors, that’s a big barrier in the system.”

“Uganda has not been successful in scale up of male circumcision, because there’s no national policy yet”



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Level VI: Research Context

Barriers	Facilitators	Research
<ul style="list-style-type: none">▪ Low profile, little research funding▪ Limited research capacity in LMICs▪ Lack of research on why scale-up fails▪ Lack of robust research methods, innovative designs	<ul style="list-style-type: none">▪ Incorporating research into implementation (“learning and doing”; Peters et al, 2009) <p>Peters DH et al (2009). From evidence to learning and action. In: <i>Improving health service delivery in developing countries</i>. Washington, DC: World Bank</p>	<ul style="list-style-type: none">▪ The best way to catalyze a global movement to support implementation research?

“Many researchers don’t see this kind of research as exciting”

“Using data and experimenting underlies a lot of successful scale-up approaches”



Six Conclusions

1. Scale-up more likely if intervention is simple/technically sound, plus widespread consensus about its value

Future research: simplifying tools and services targeted for scale up

2. “Leaders and systems” (especially workforce) influence scale-up

Future research: identifying and fostering “implementation leaders”; how to train and incentivize a cadre of “scale-up workers”

3. Engagement matters

Future research: what makes a community “ready” or “activated” for scale-up? How to reach & engage the poorest communities?



Six Conclusions (*cont'd*)

4. No single or straightforward delivery strategy offers a formula for success (social networks, cascade + phased approaches, decentralization, integration)

Future research: which strategy is best suited to each specific problem?

5. Scaling up is *not* an isolated process

Future research: understanding the social, cultural, political context

6. IR plays crucial role in translating proven interventions into public health gains

Future research: what makes a community “ready” or “activated” for scale-up? How to reach & engage the poorest communities?



Strengths & Weaknesses of the Study

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">▪ To best of my knowledge, 1st study to triangulate lit review + KI interviews▪ KIs' views on operational successes and failures added “pragmatic” dimension	<ul style="list-style-type: none">▪ Narrative review (not systematic)▪ Missing papers▪ Only 14 interviews▪ My analytical framework could have influenced the identification of themes



Policy Implications

» Study suggests a series of “next steps” in translating knowledge into large-scale change, e.g. finding ways to

» *simplify interventions*

» *train future “scale-up leaders”*

» *build an implementation workforce*

» *reach and engage recipient communities (especially poorest)*

» *match best delivery strategy to specific health problem*

» These are difficult challenges, but the **stakes are high**

» Without concerted action:

“the unconscionable gap between knowledge and its implementation will persist” (Sanders & Haines, 2006)



Thank You

- » Lorna Guinness (LSHTM): my project supervisor
- » Marcus Banks (UCSF), Hannah Wood (LSHTM): librarians
- » Interviewees

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