

Scale-up outcomes and operationalization

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BYU



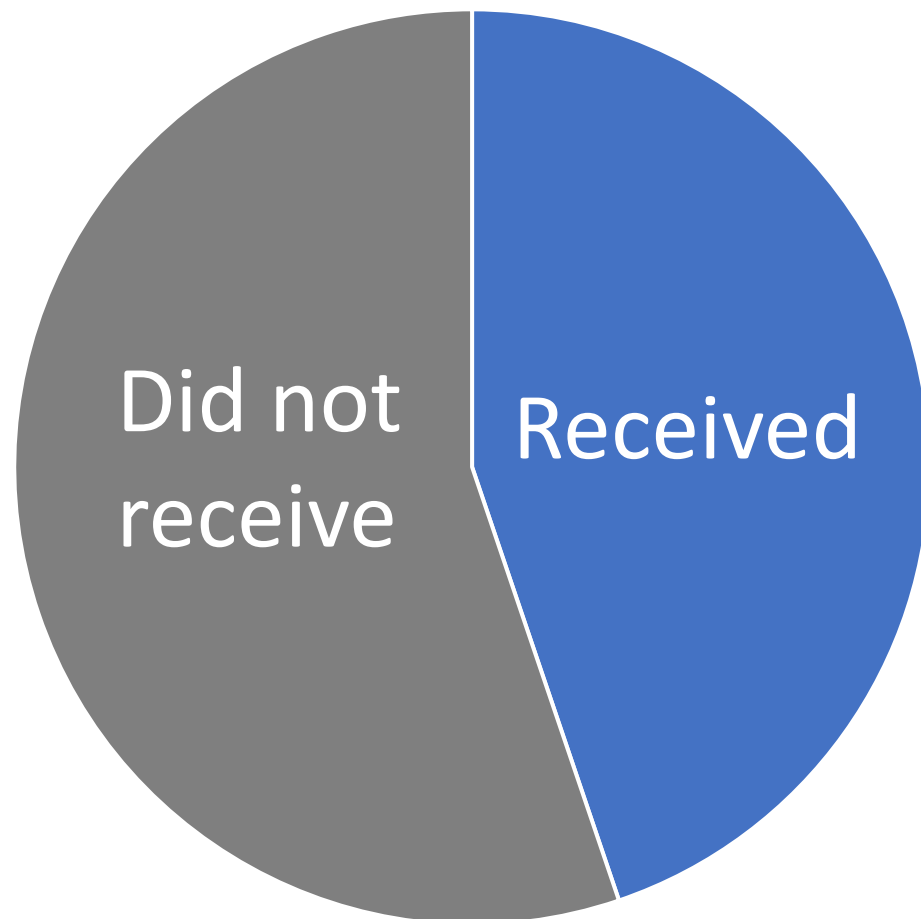
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UNLV

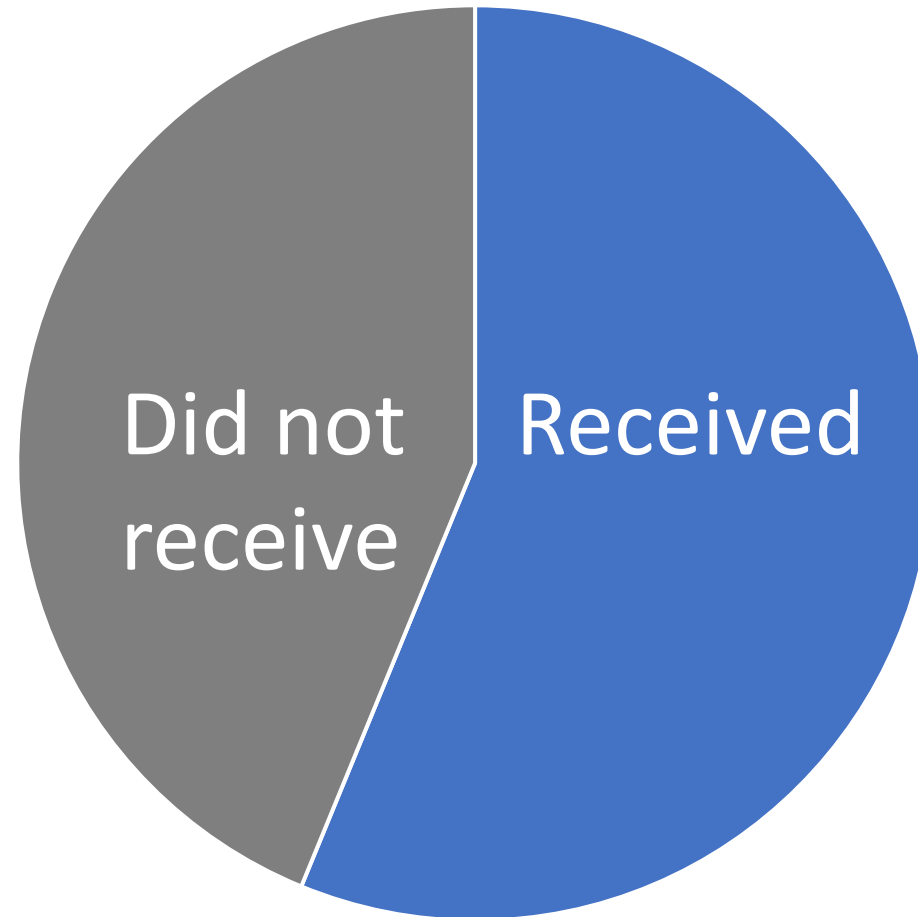
Scale-up is important

51.5 million
adults

Few get help

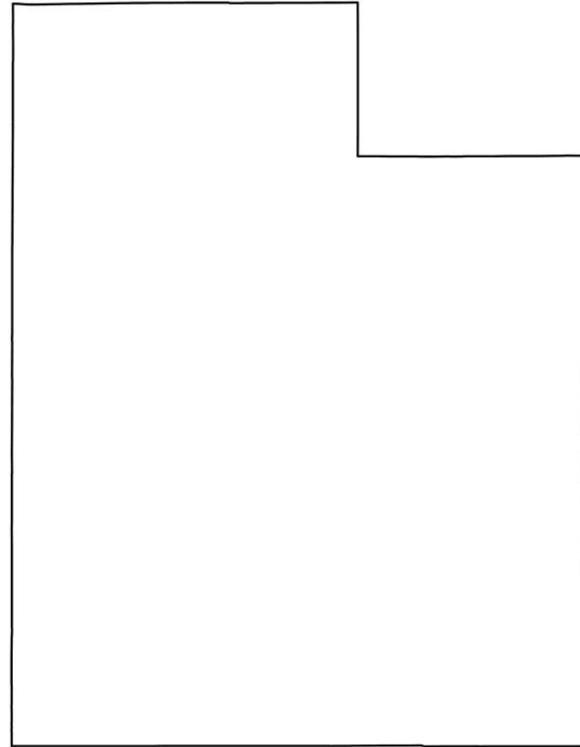


Even among those who said they needed it

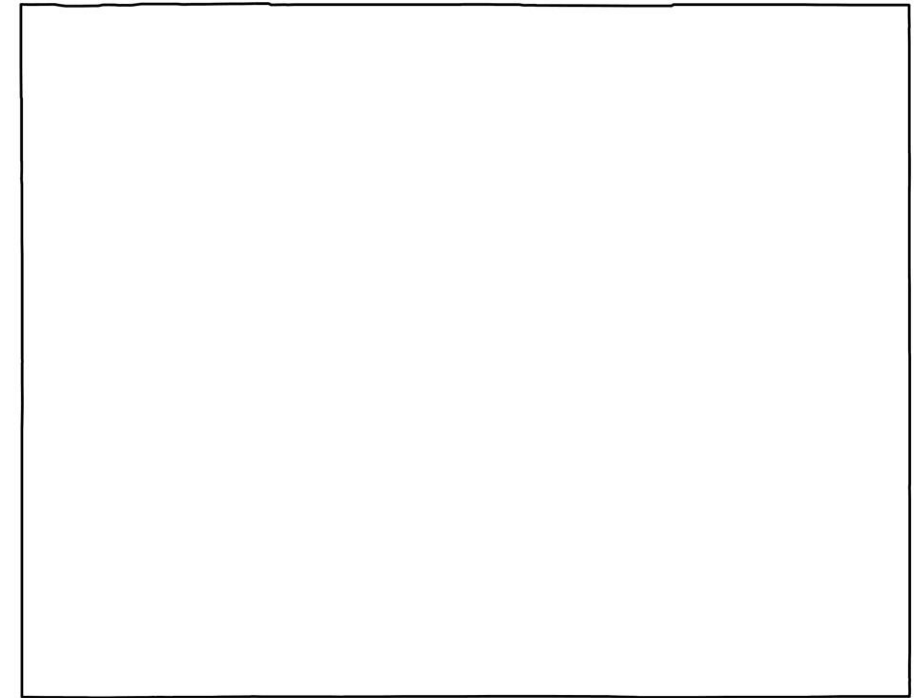




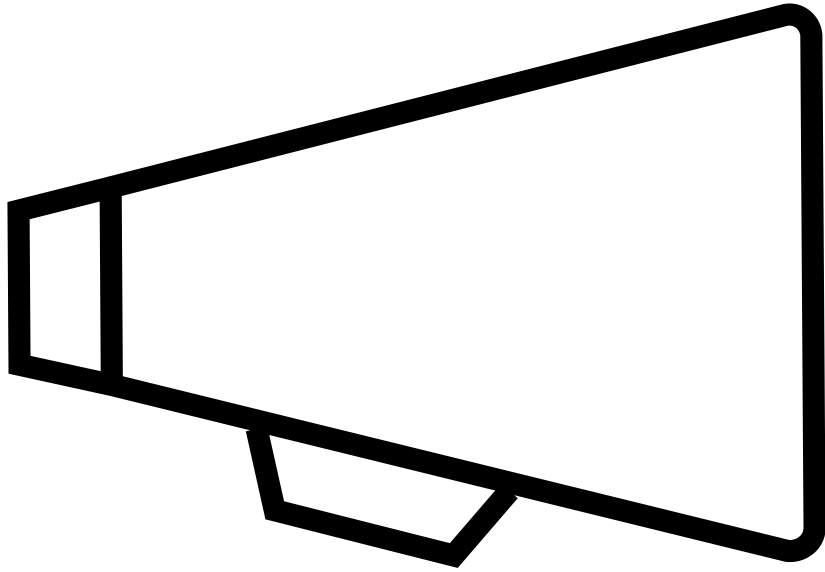
Idaho



Utah



Wyoming



Calls for scaling-up

Collins et al., 2011; Lancet Global Mental Health Group, 2007; Singla et al., 2018

Implementation and scale-up

Availability

Health equity

Scale-up

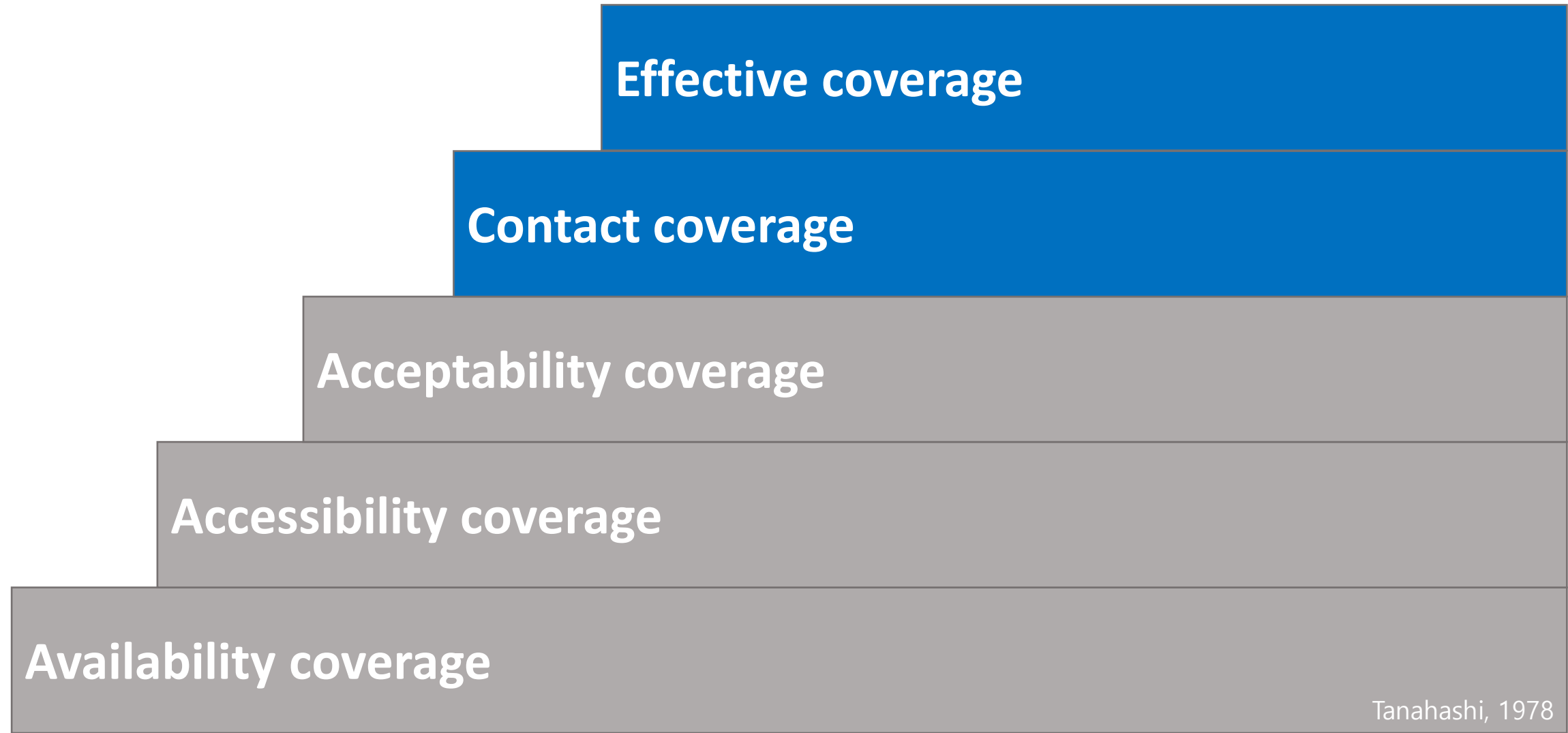
Operationalizing scale-up

What is scale-up?

“... Deliberate efforts to increase the impact of innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and program development on a lasting basis.”

“...more quality benefits to more people over a wider geographical area more quickly, more equitably, and more lastingly”

How do you capture population-level impact?



Operationalizing scale-up outcomes

Contact coverage = proportion of target population served

Effective coverage = proportion of the target population who improve

Equity = demographics/other indicators of population served and improved compared to target population

How do you calculate contact coverage?

Calculation

People who used the service

Total population in need of service

Data

Program

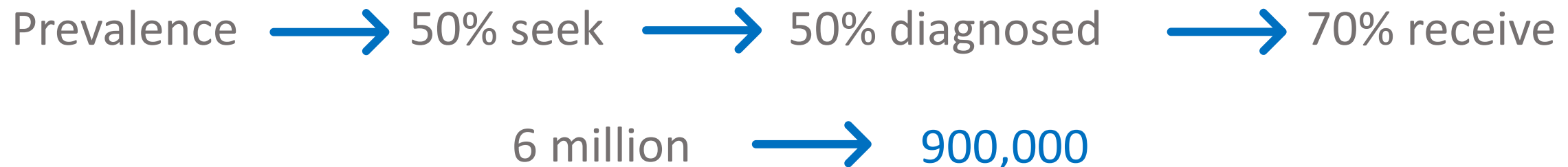
Survey

Claims

Registries

Survey

Literature



How do you calculate contact coverage?

Step	Description				
1	Initial denominator (youth population)	35,247			
2	Medi-Cal eligible	35,247	x	45.3%	= 15,967
3	Any mental disorder prevalence	15,967	x	32.8%	= 5,237
4	Non-serious disorders	5,237	x	92%	= 4,818
5	Likely to seek services	4,818	x	50.6%	= 2,438
	Specified denominator	2,438			

How do you calculate effective coverage?

Calculation

People who received benefit

Total population in need of service

Data

Clinical outcome

+

Program

Survey

Claims

Registries

Survey

Literature

How do you calculate equity?

Calculation

Data

Clinical outcome
+

People who received benefit

Program

Claims

Survey

Total population in need of service

Survey

Registries

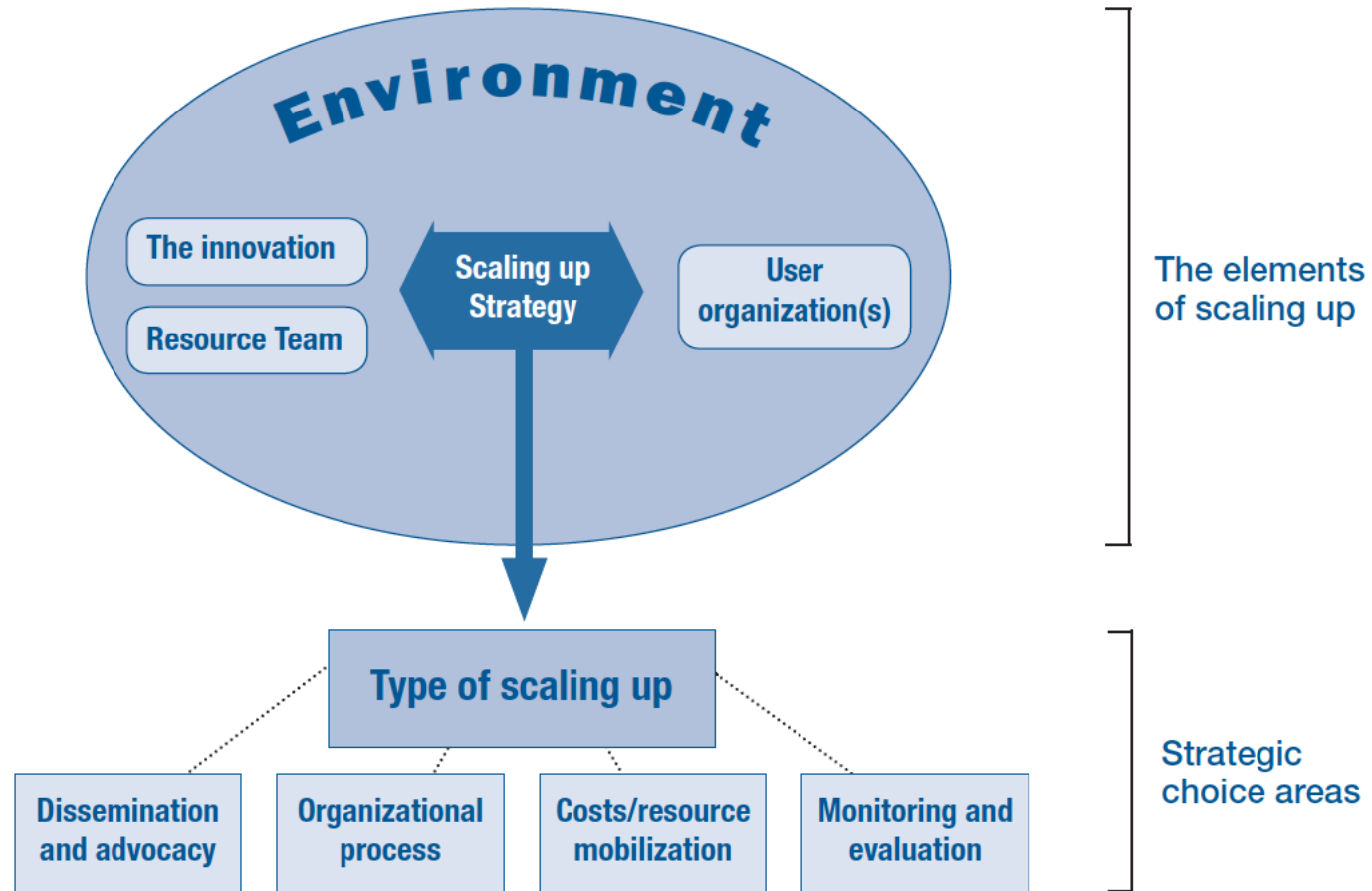
Literature

Analyze coverage rates by different groups

Unit of analysis

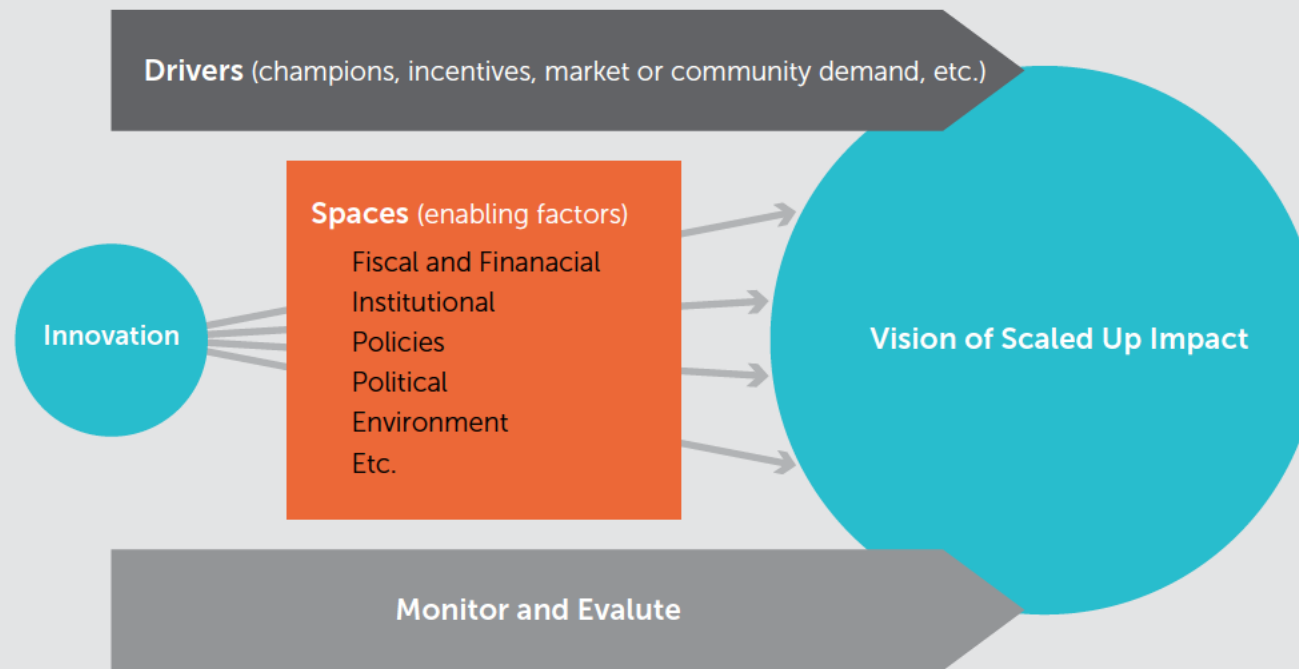
Scalable unit = the smallest representative facsimile of the system targeted for full-scale implementation

What drives scale-up?



What drives scale-up?

Figure 2: Key components of a systematic scaling up pathway



Source: Linn

What drives scale-up?

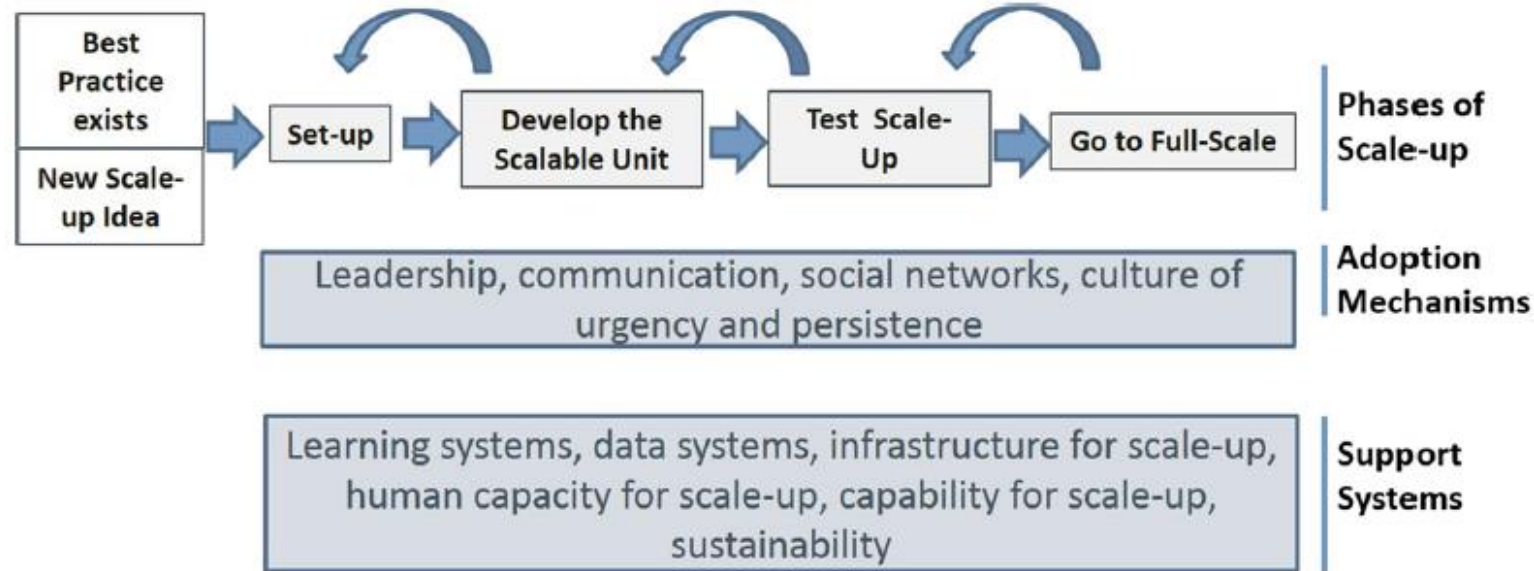
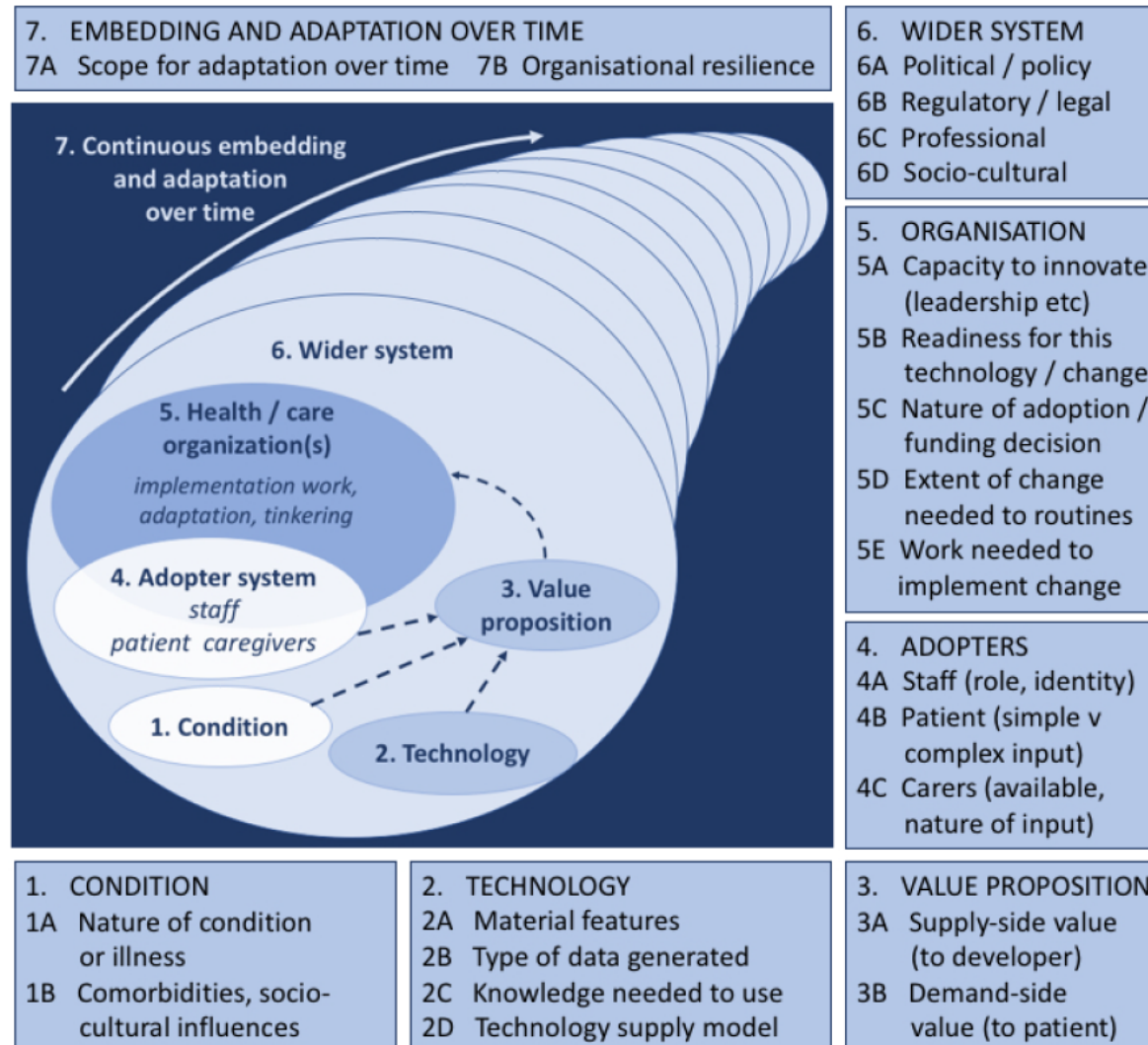
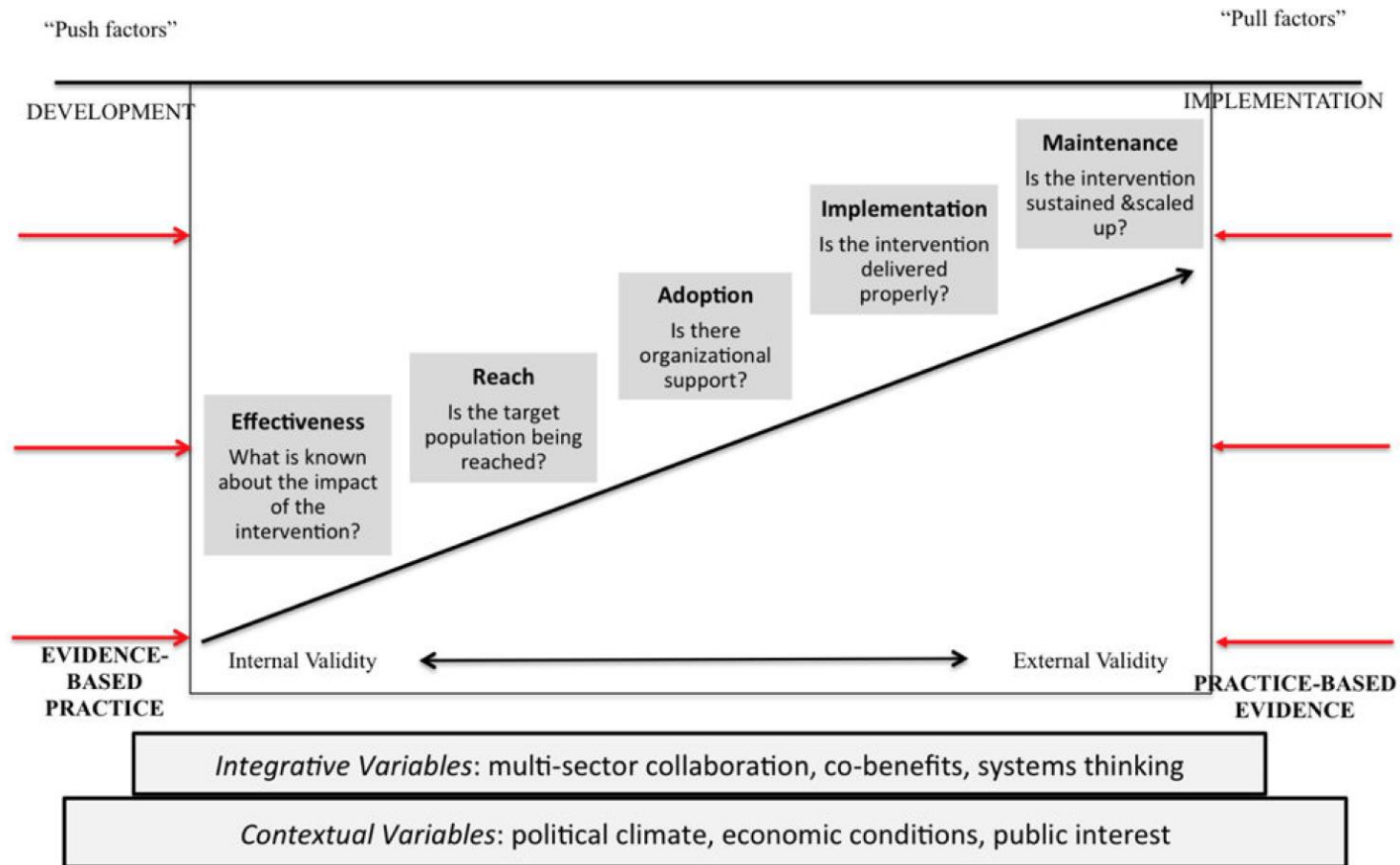


Fig. 3 IHI Framework for Going to Full Scale. The IHI Framework for Going to Full Scale addresses the phases of going to full scale and the adoption mechanisms and support systems needed to achieve large-scale programming. The elements of the framework include the phases of going to full scale (i.e., *Set-up*, *Develop the Scalable Unit*, *Test of Scale-up*, and *Go to Full Scale*); adoption mechanisms (i.e., leadership engagement, communication methods, leveraging social networks, and building a culture of urgency and persistence); and support systems needed to achieve large-scale programming (i.e., a learning system that connects adopters and experts, a data system to support measurement for improvement, infrastructure such as IT, equipment, etc.), building capability through training and support, and building reliable process that support sustainability

What drives scale-up?

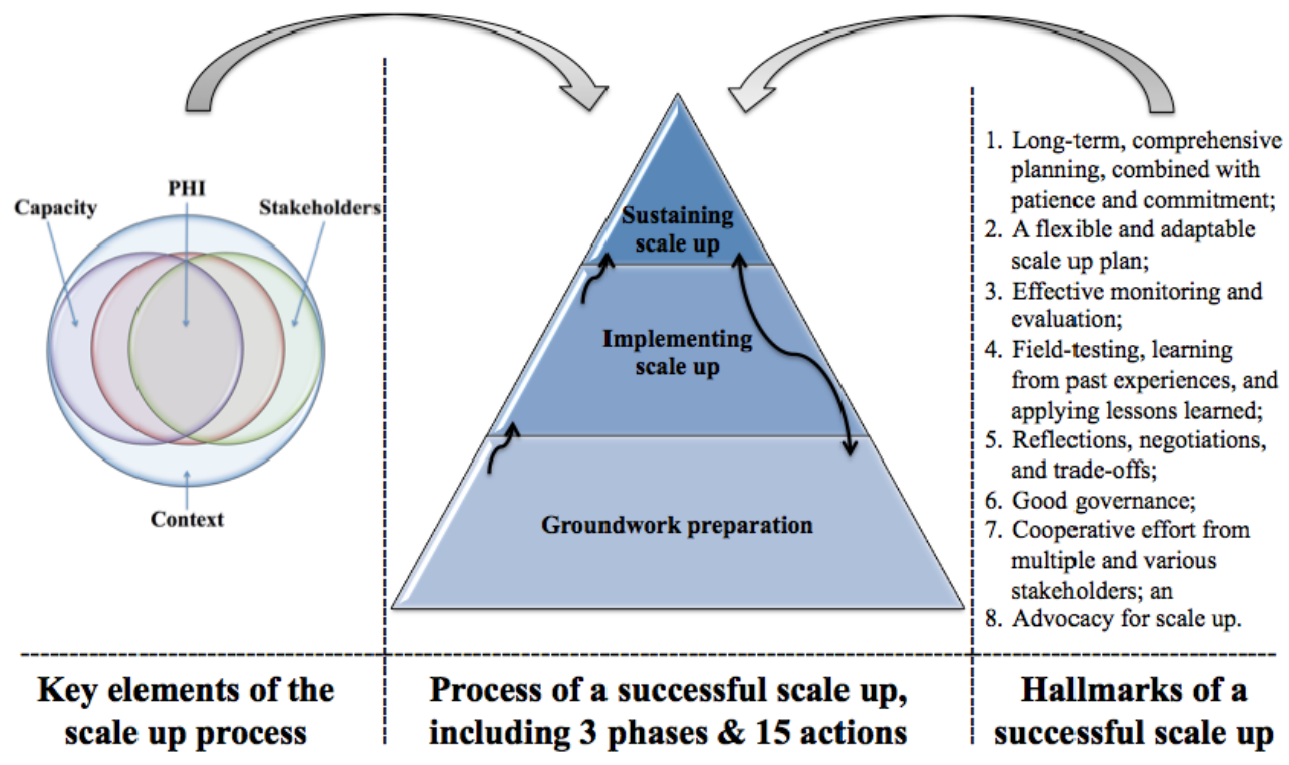


What drives scale-up?

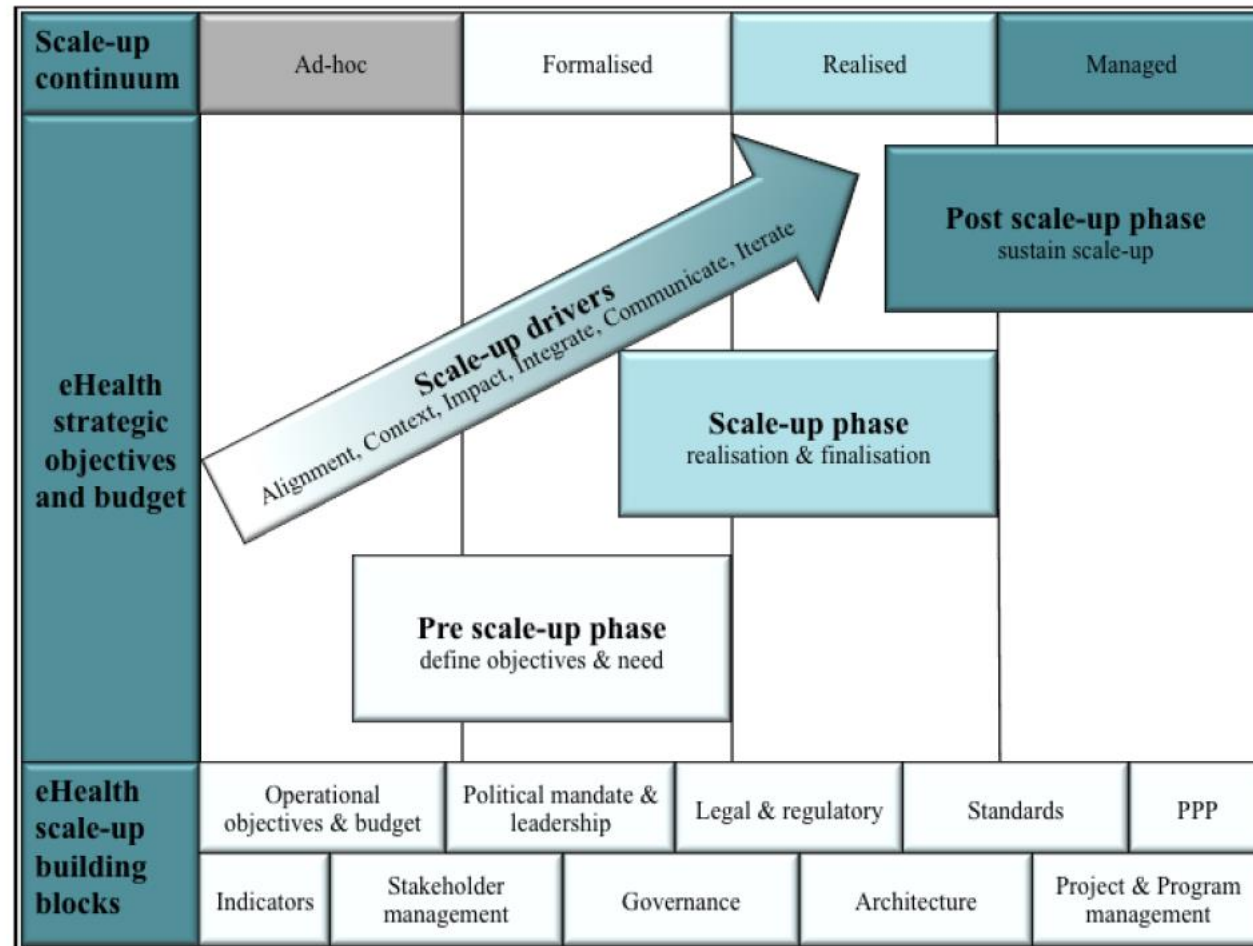


What drives scale-up?

Figure 5.1: Process of successfully scaling up a population health intervention (PHI)



What drives scale-up?



What drives scale-up?

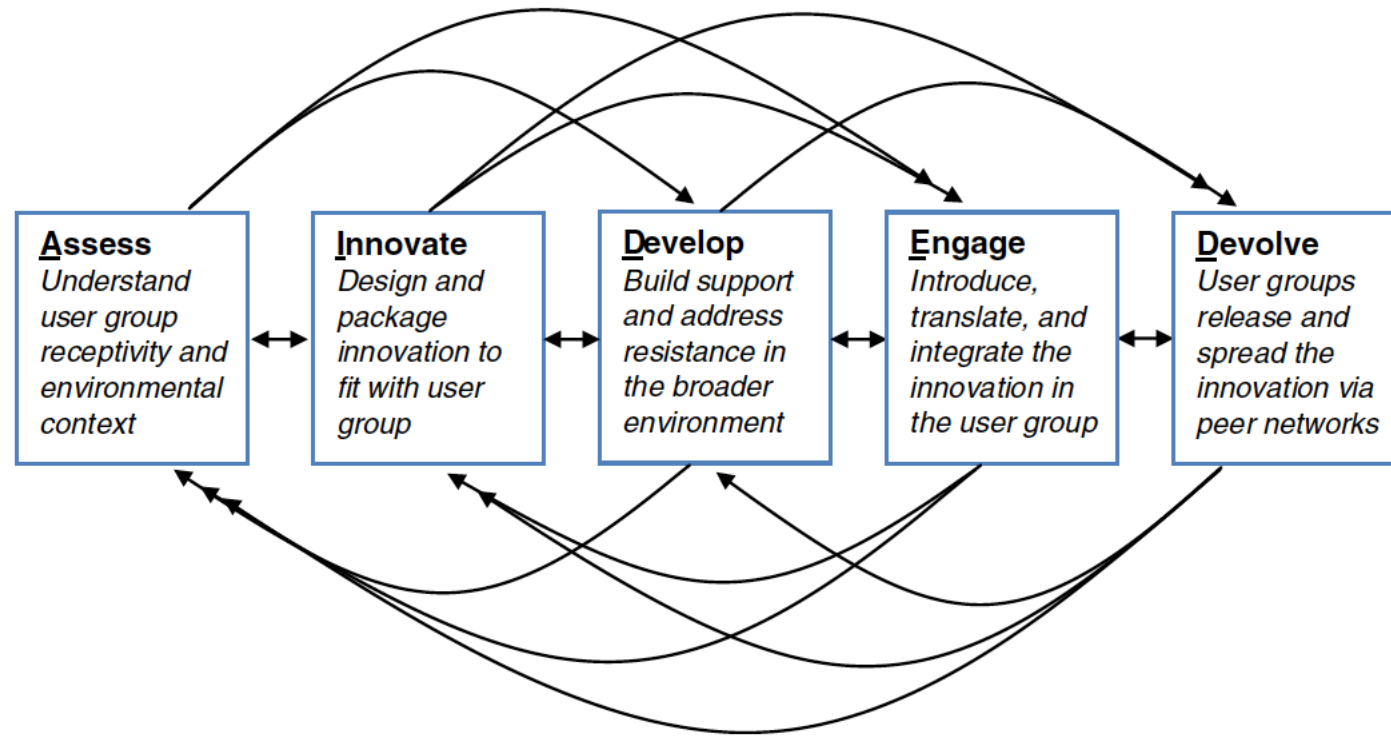
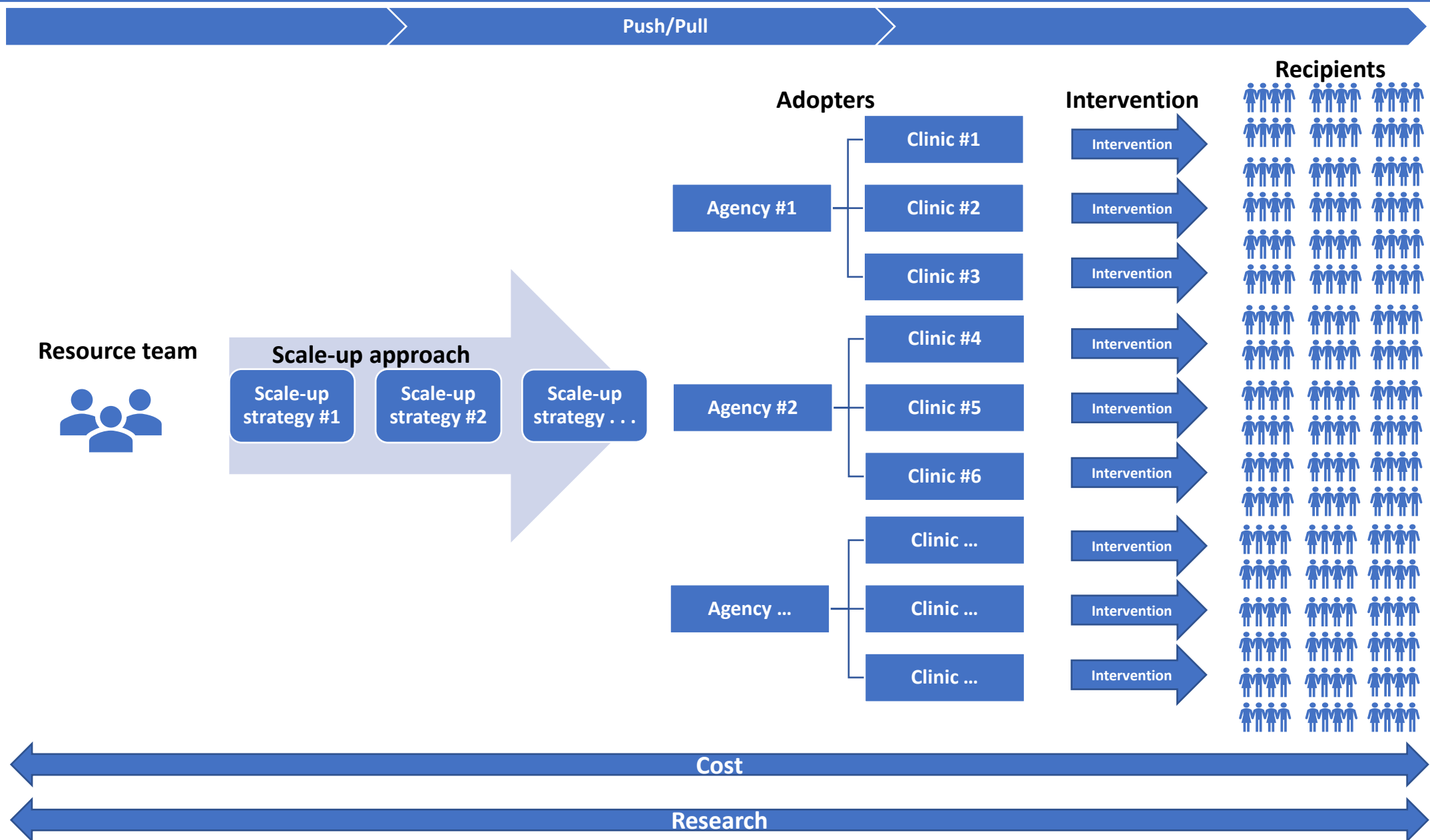


Figure 1 Schematic of the AIDED model for scaling up family health innovations. Legend: The figure presents the five non-linear, interrelated actions of the AIDED model: 1) assess the landscape, 2) innovate to fit user receptivity, 3) develop support, 4) engage user groups, and 5) devolve efforts for spreading innovation. The model suggests that successful scale up occurs within a complex adaptive system, characterized by interdependent parts, multiple feedback loops, and several potential paths to achieve intended outcomes. Source: Bradley et al. [9]. Copyright is held by the authors under the Creative Commons License and permission is granted for reproduction in this manuscript.

Sociopolitical context

Sociopolitical context

Sociopolitical context



What else should we be measuring?

Effective Coverage = Intervention + Resource team + Adopters + Recipients + Cost + Research
Sociopolitical context + Scale-up approach + Scale-up strategies + Push/pull

Viewing scale-up from a systems
perspective

Scale-up as a complex adaptive system

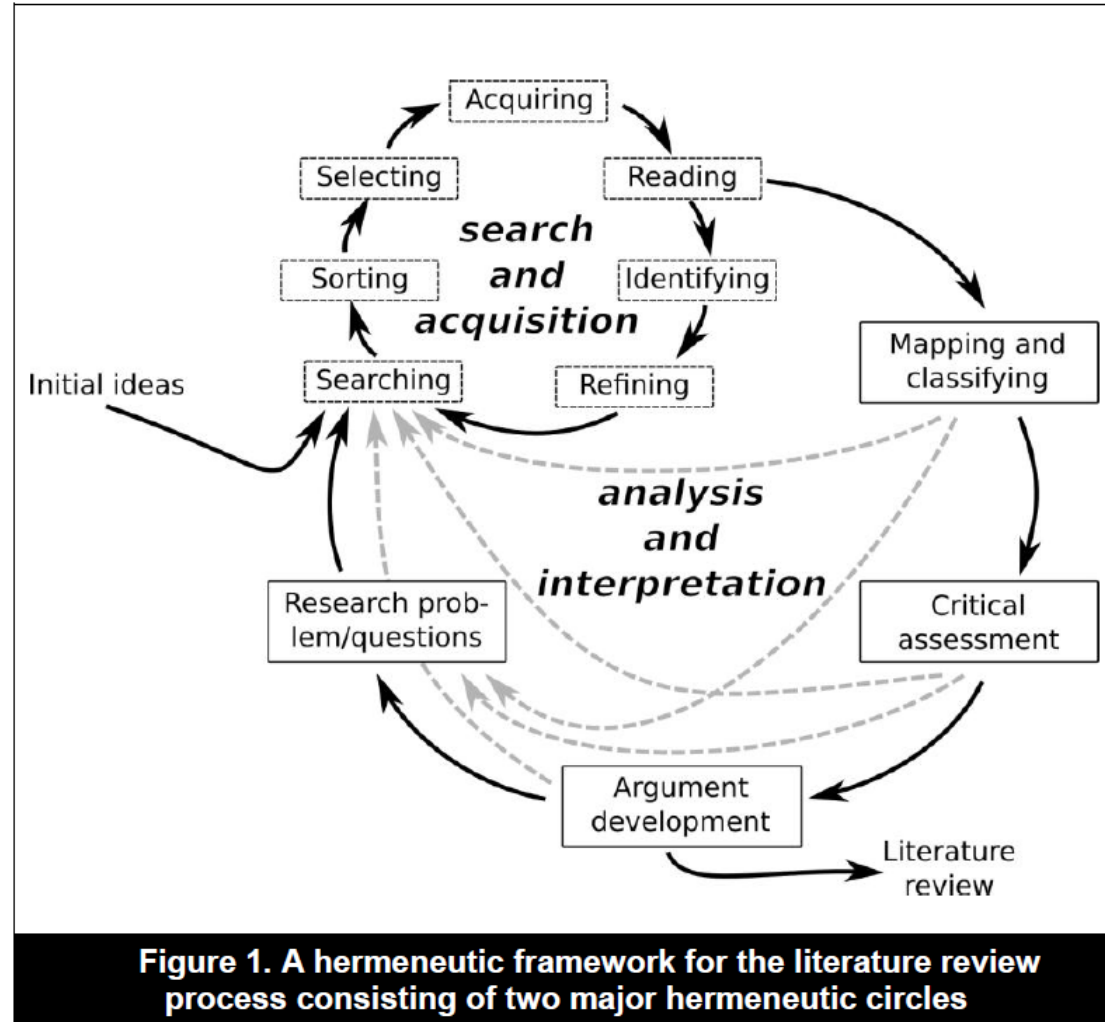
Characteristics of a CAS

- Components
- Inputs/outputs
- Behavior informed by rules
- Interaction among components
- Influenced by environment
- Adaptive, changes over time
- Self-organizing
- Produce patterns

Aim: Create a feedback-based scale-up framework using system science

Bringing together the constructs

Hermeneutic approach



Bringing together the constructs

Searching and sorting

Medline, CINAHL, PsycINFO, Embase, Web of Science, Google Scholar

Scale-up + framework + review

Bringing together the constructs

Selecting and acquiring

One reviewed, a second reviewed exclusions

Resolved discrepancies

Bringing together the constructs

Reading and mapping

Looking for constructs and their relationships

Pulled out the key constructs from frameworks

Thematic analysis on constructs

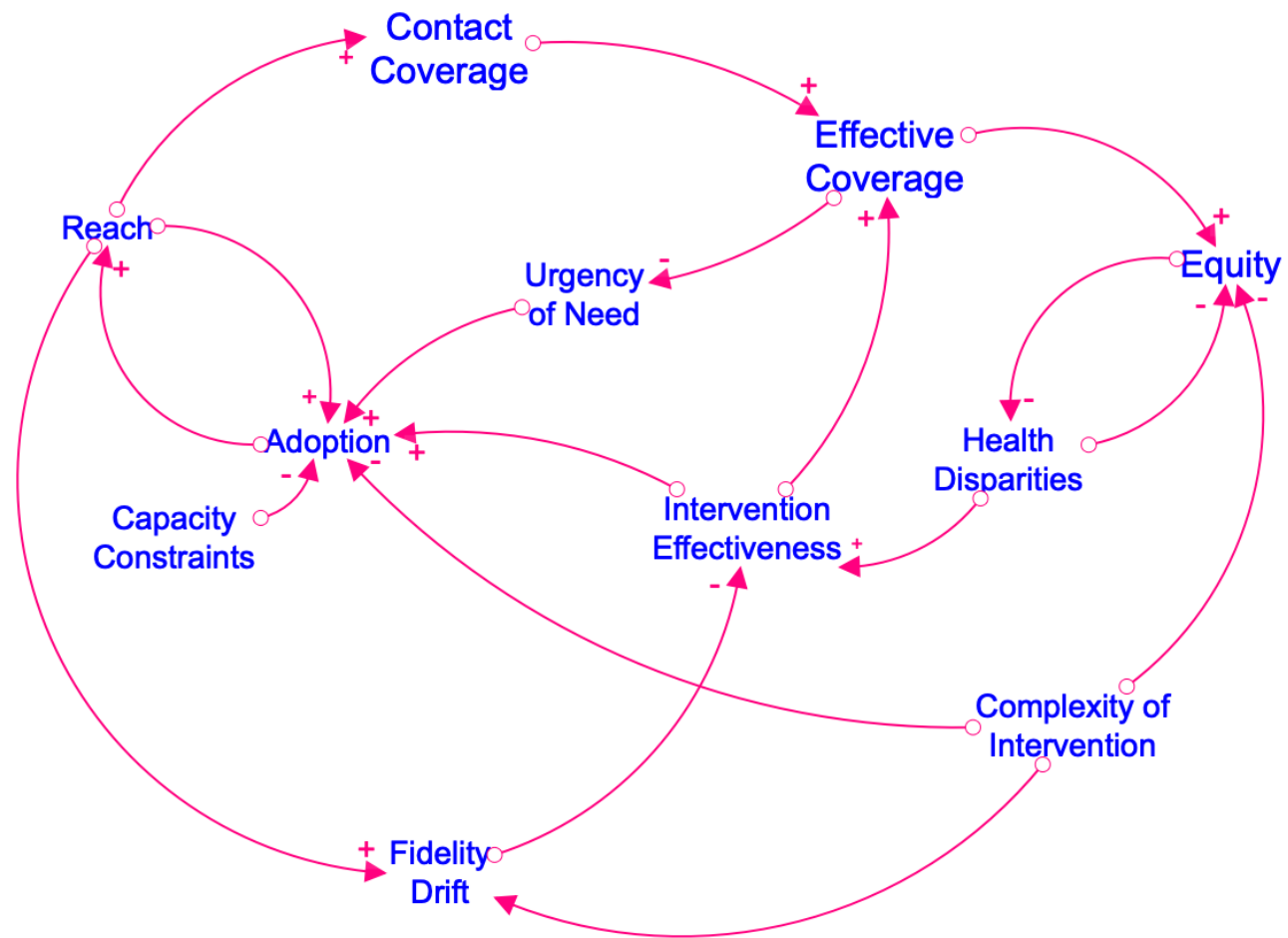
Building the CLD

Build initial model

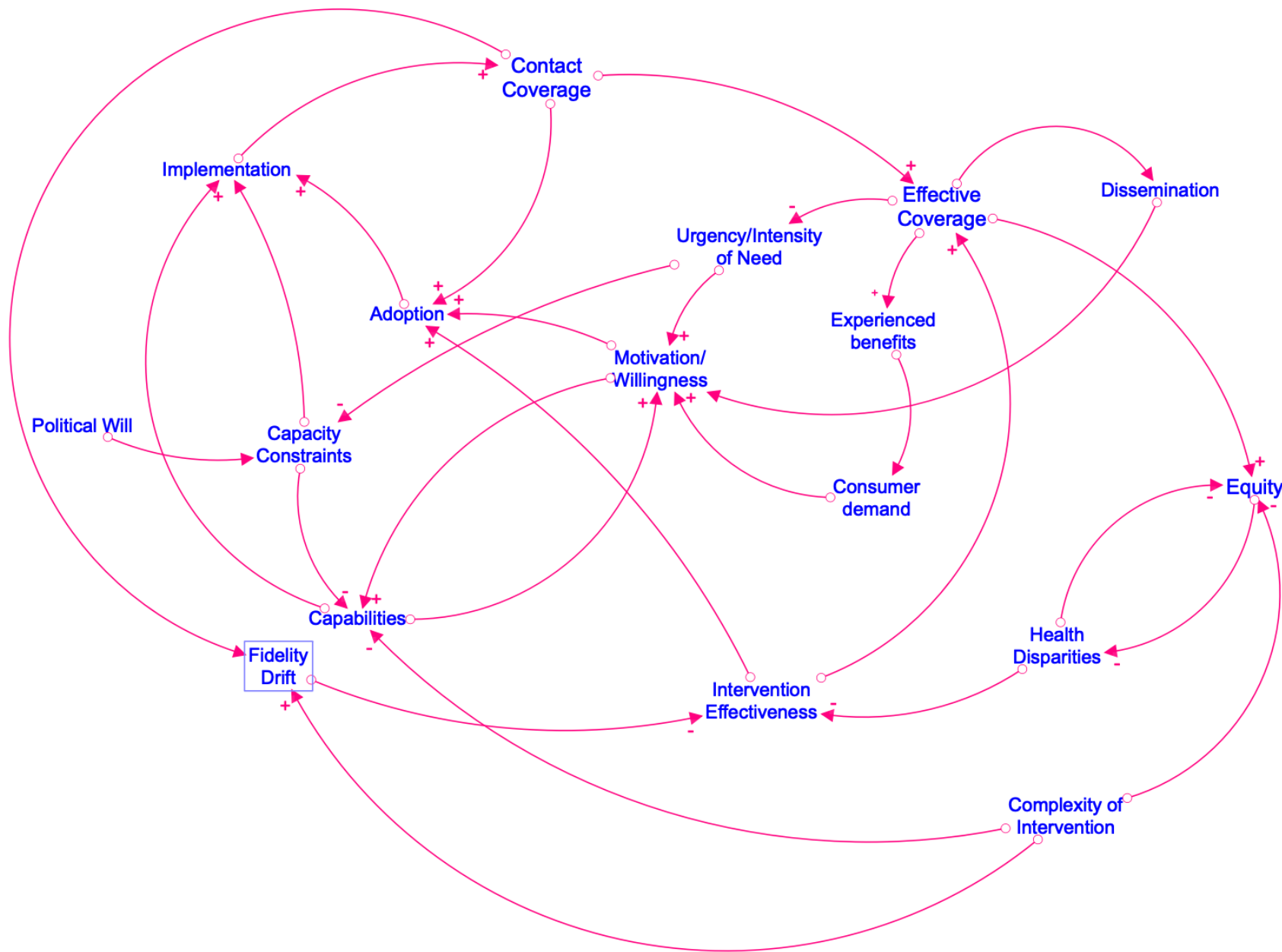
Incorporate non-repetitive constructs

Iterate

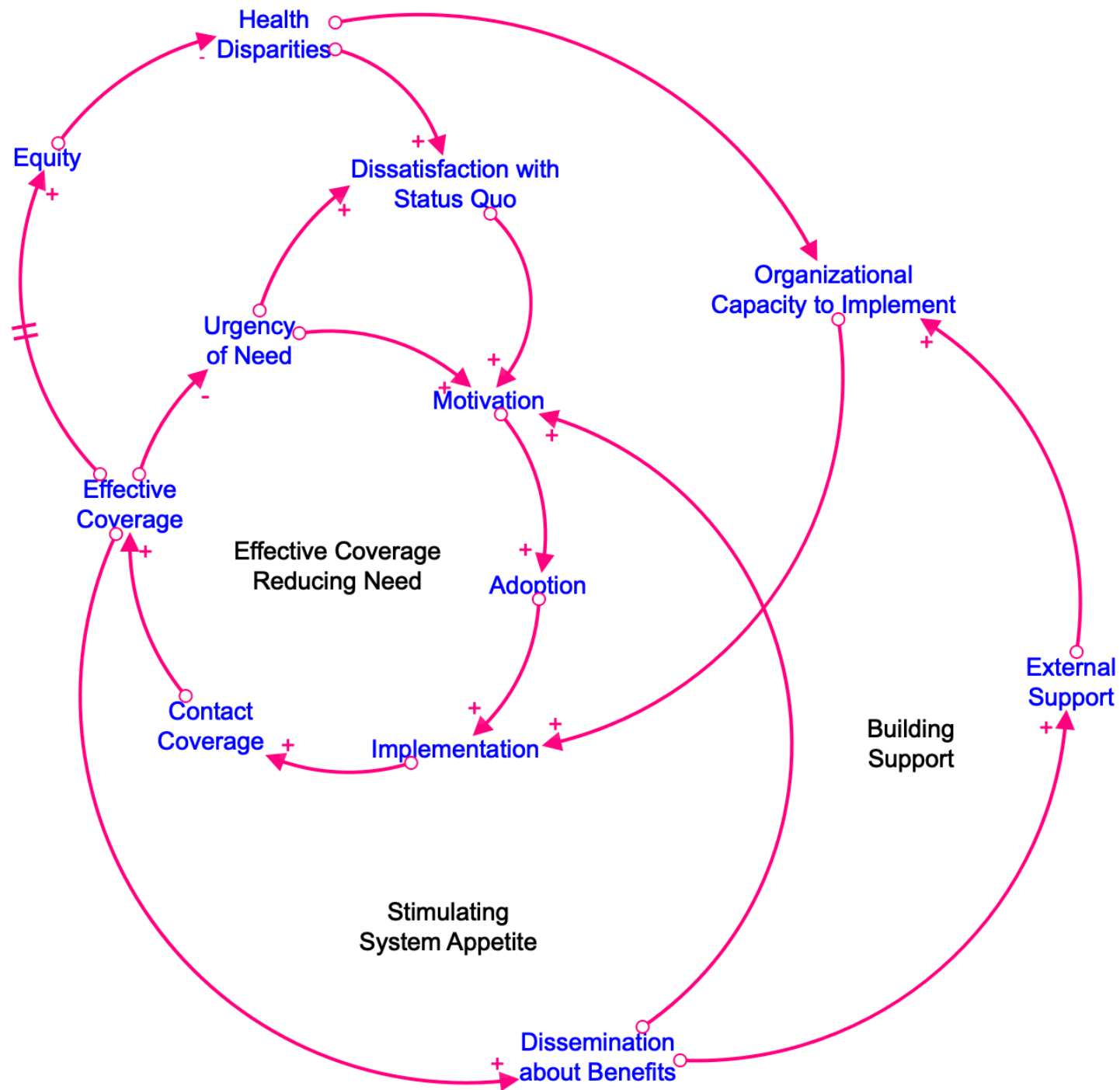
Balance parsimony and completeness

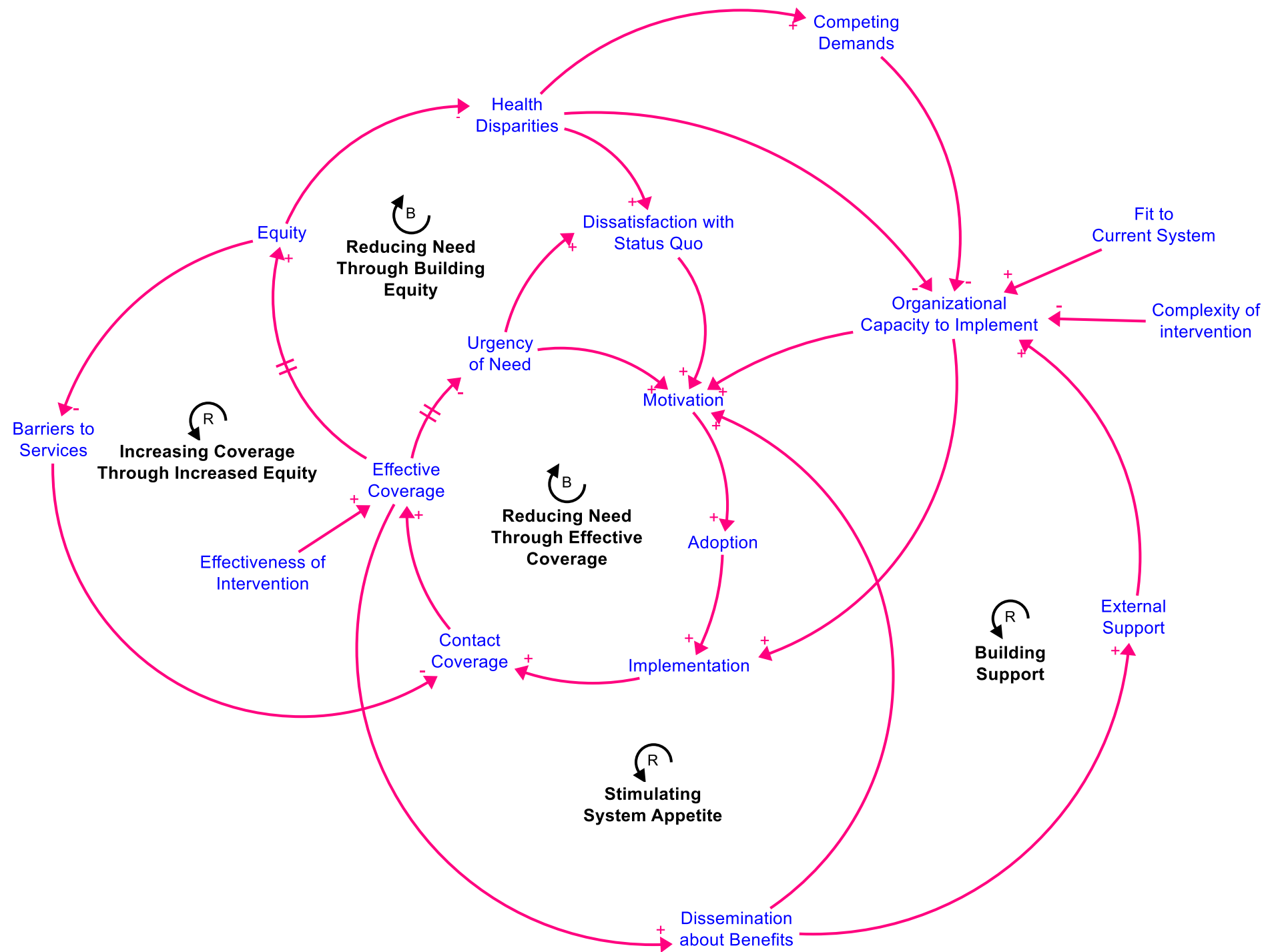


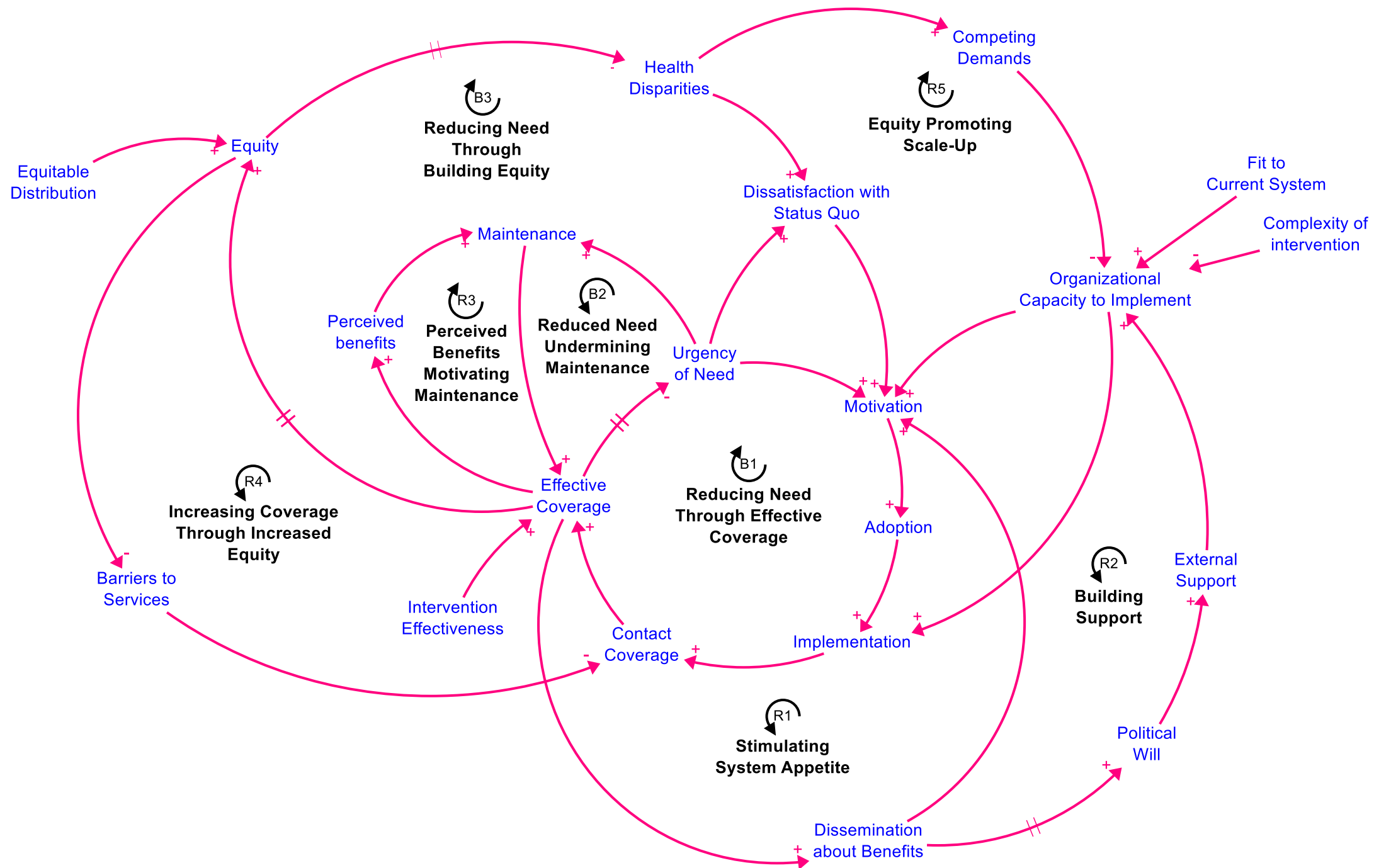
Political Will
Implementation
Maintenance

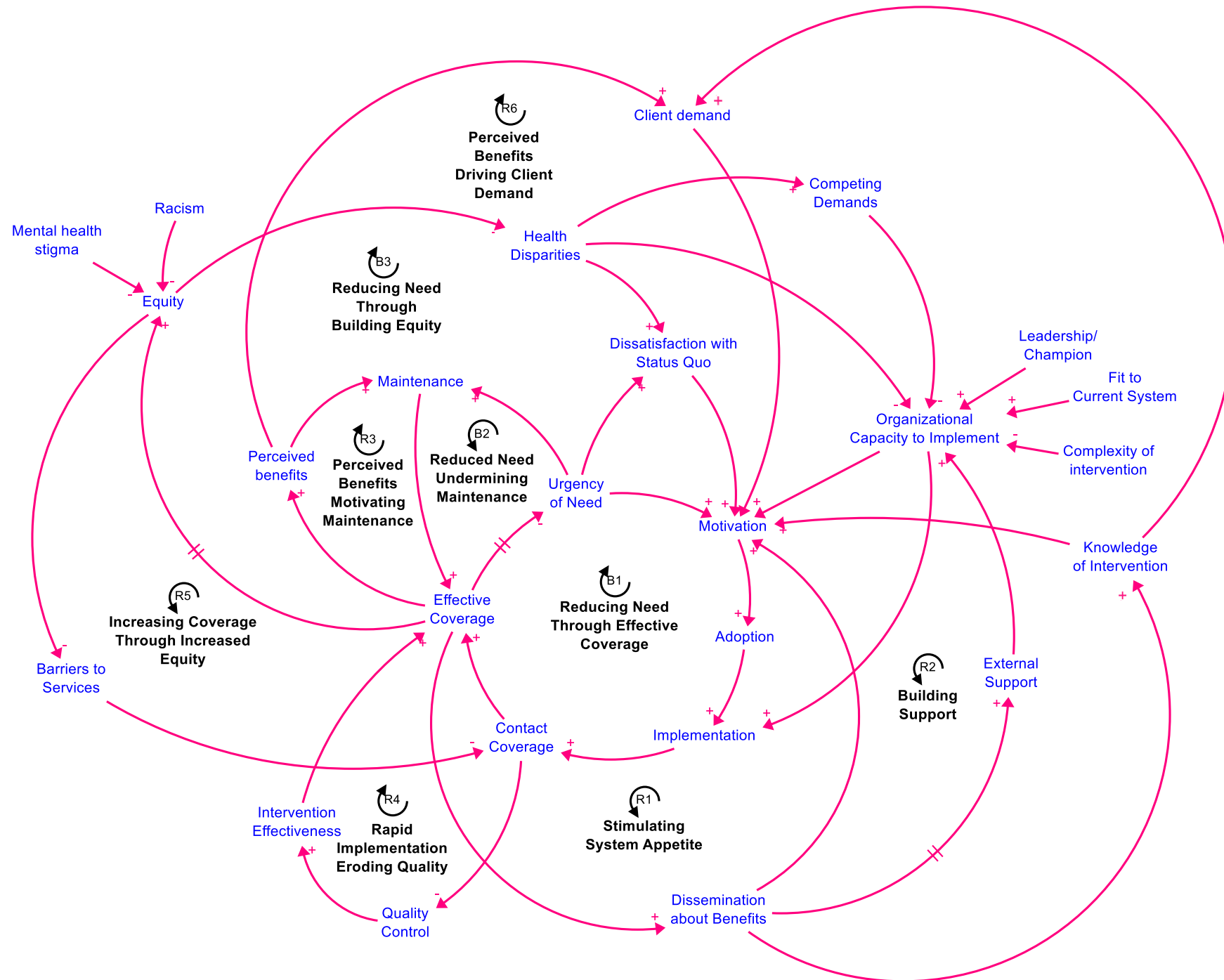


Maintenance
 Stimulating System's Appetite
 Client-Level Factors
 leadership
 money
 research/evaluation
 Consumer need
 Provider need
 Collaboration
 Readiness
 External Support

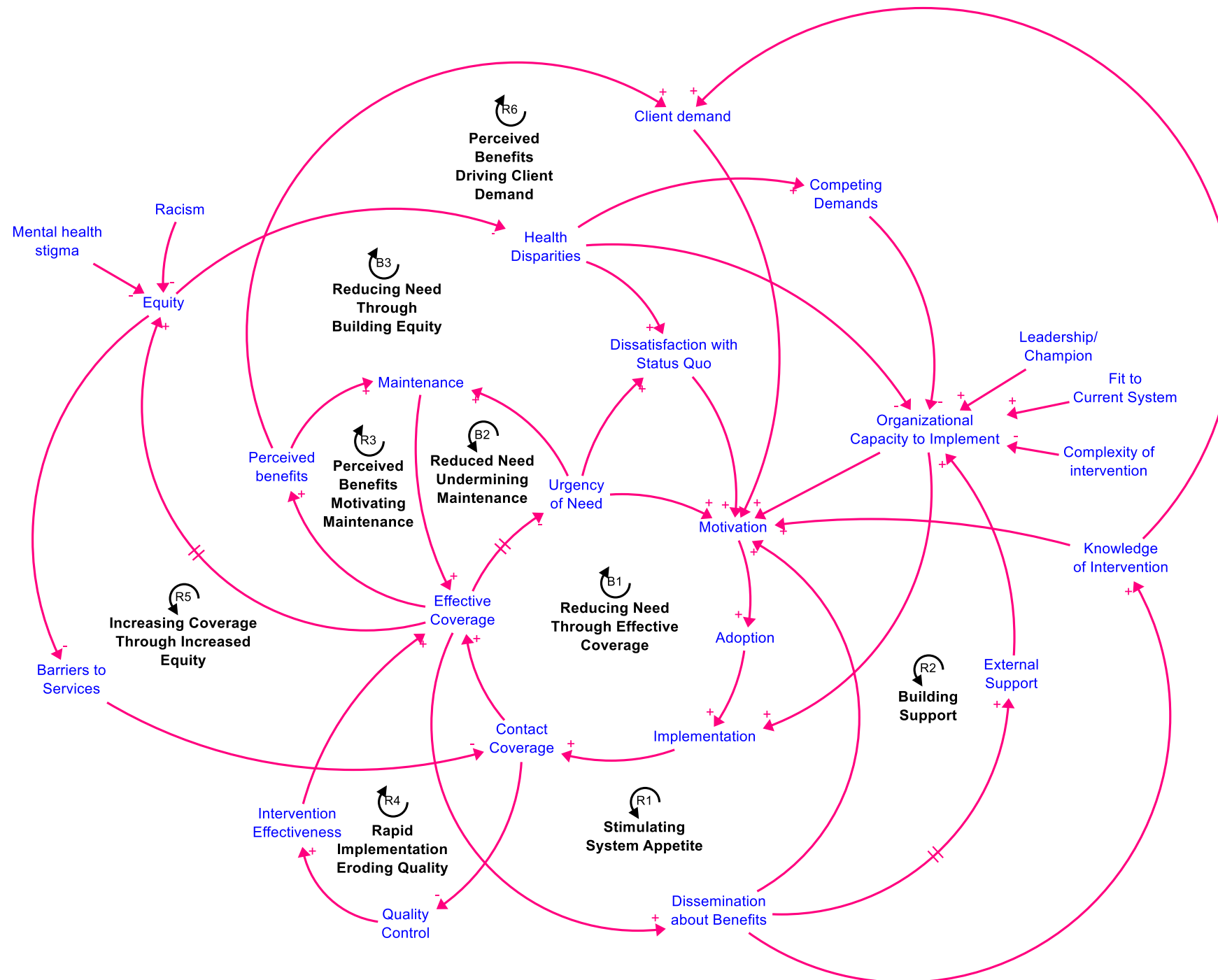


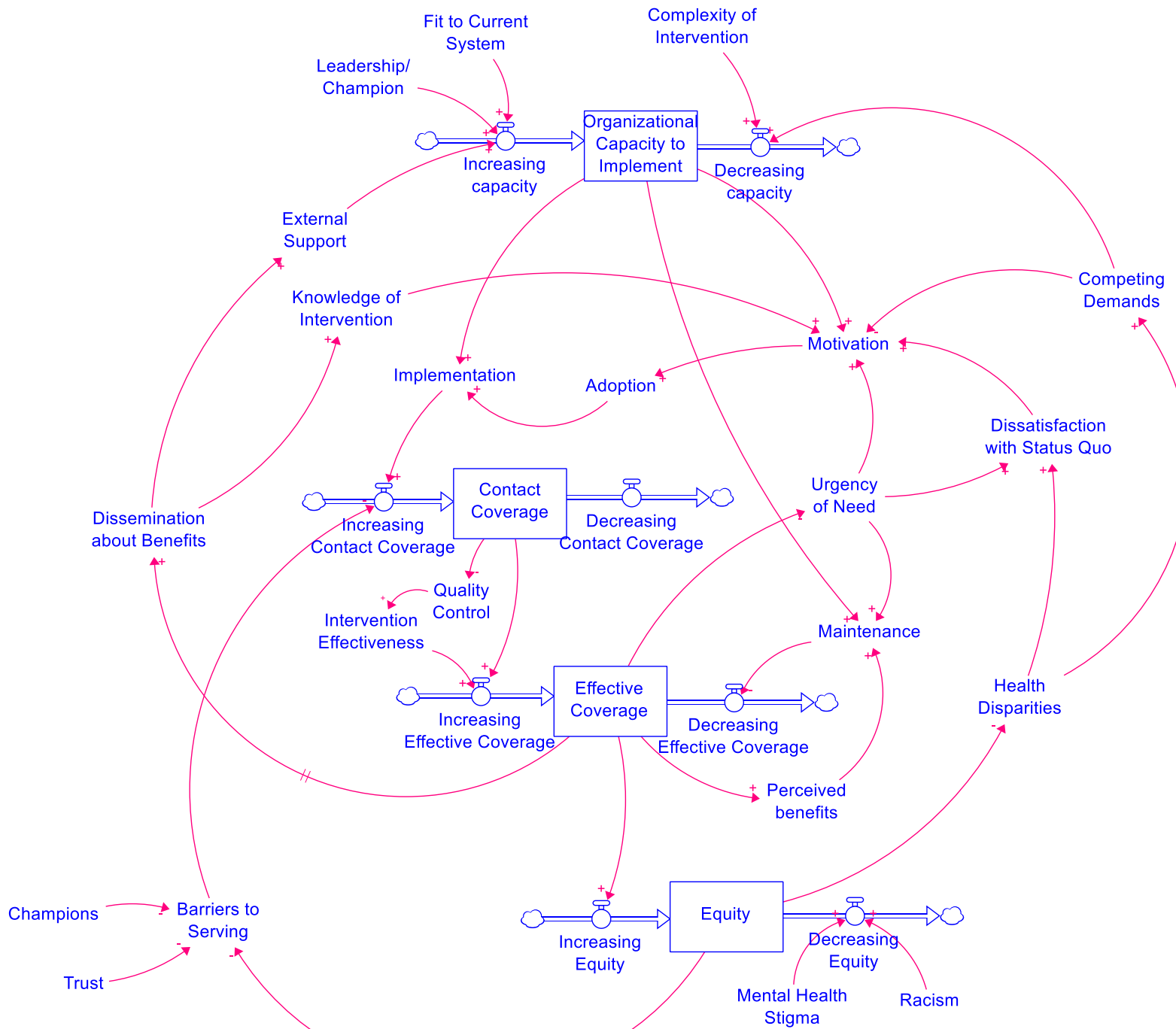






Results





Reflection discussion/exercise

Discussion questions

- What is an intervention you are interested in scaling-up?
- Who is the target population for the intervention?
- What does at-full-scale look like for the intervention?
- What data source(s) are available about the target population?
- What data sources are available about the utilization of the intervention? Of clinical improvement? Characteristics of recipients?
- What is the scalable unit for the intervention?

Thank you!

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