

Key Pathways to Accelerating Sustainable Quality Care of Severe Wasting at Scale

A systems perspective to the sustainable delivery of care: Moving from an intervention towards a systems approach

Scaling up Care for Children with Severe Wasting in South Asia

Kathmandu, 16–18 May 2017

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Challenges for scaling up care of severe wasting

High burden, high caseload, low coverage, etc.

→ Unmet need, limited resources, weak health system



How to improve sustainable quality care at scale?

→ Different pathways to explore simultaneously

→ One pathway: Apply a systems approach to understand the complexity of the health system

Outline of the presentation

Moving from an intervention approach towards a systems approach:

- The **complex health system**
- A **systems approach**—what, why and how
- Lessons from studying ‘integration’ of severe wasting care with a systems lens: **Nepal case study**
- Lessons for designing ‘integrated care at scale’ with a systems approach

Spotlight on understanding the health system

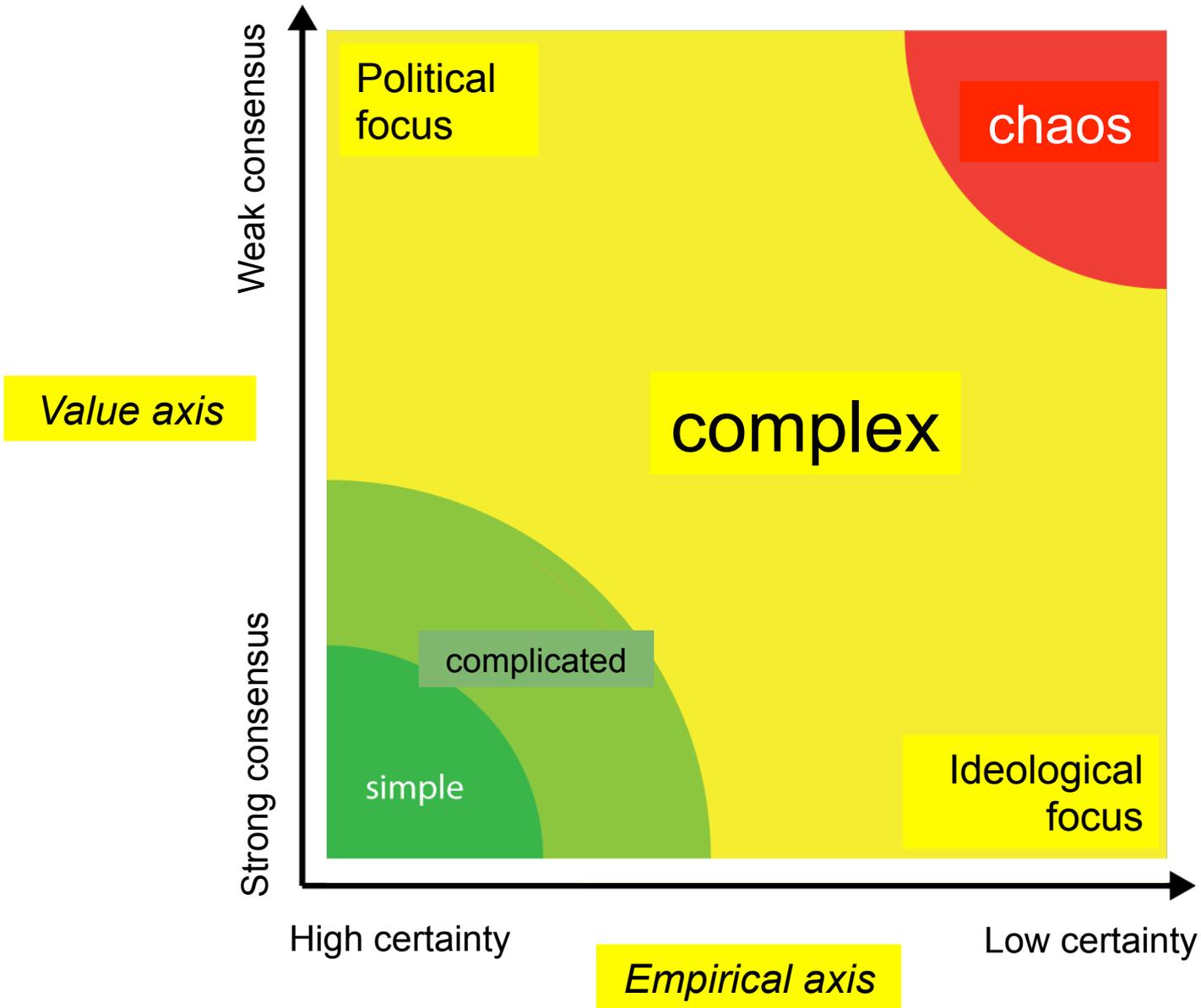
... to improve integration, scale-up and sustainability of severe wasting care

by taking into consideration what exists in a given context:

Structures, institutions and capacities; gaps and missed opportunities; enabling and hindering factors; large variety of health actors; different delivery platforms; different levels of the health system; values, norms and behaviours; multiple sectors; public and private sectors, etc.

Complexity and the health system

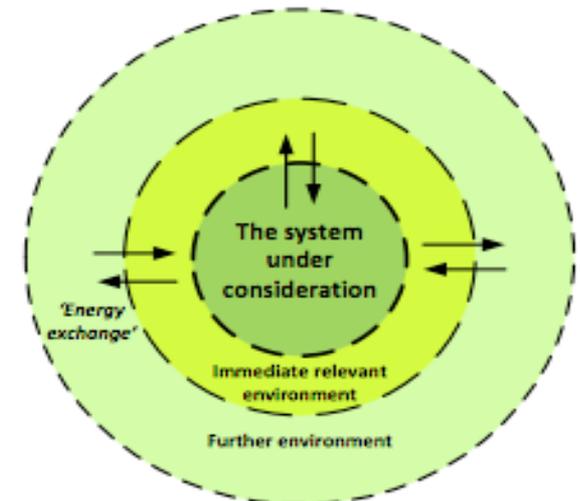
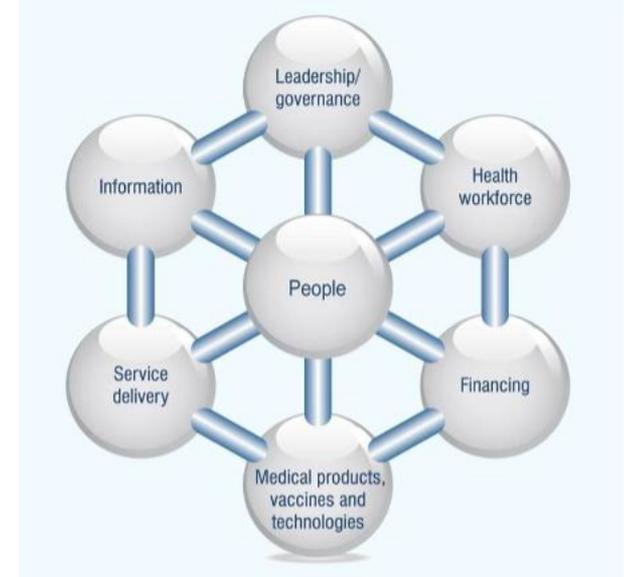
Simple – Complicated – Complex – Chaos



A health system is a 'complex adaptive system'

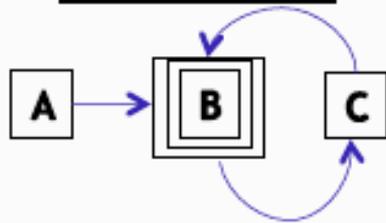
Diversity, connectedness, interdependence, learning

- Elements in the system interact, adapt, learn from experience, self-organise and behave unpredictably
- Health actors interact with system functions and induce change (not always predictably)
- The environment influences and is influenced by the system (dynamic equilibrium) (the context matters)
- Cause-effect relationships are **non-linear**

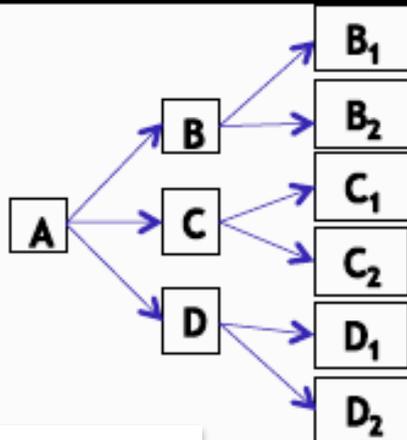


Non-linear cause-effect relationships in complex systems

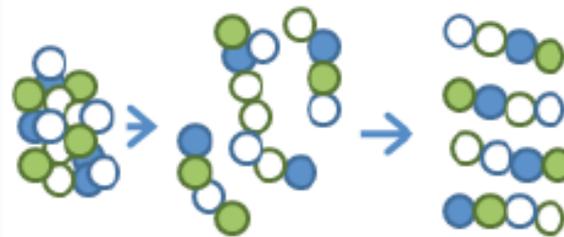
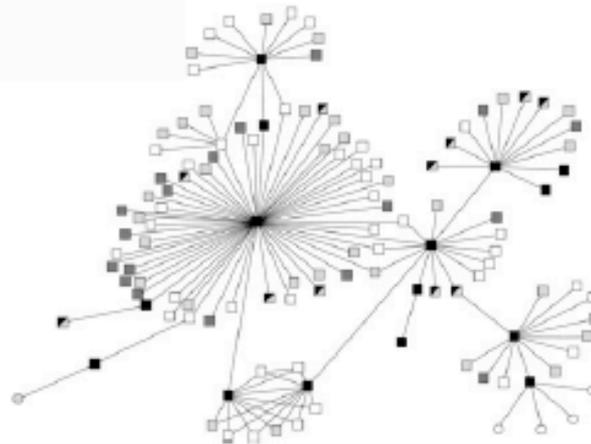
Feedback



Path dependence

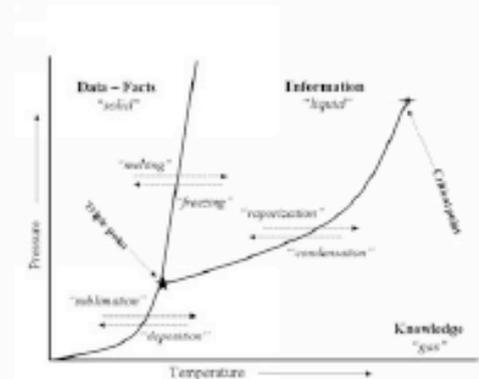
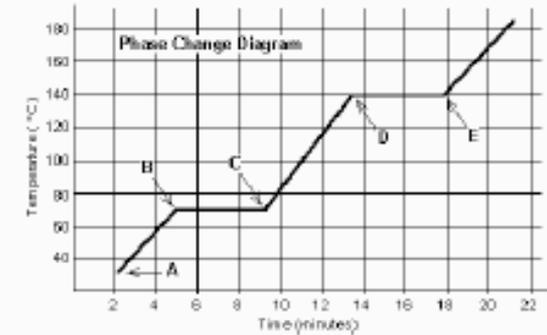


Scale-free networks



Emergent behaviour

Phase transitions



Different types of knowledge

Primary healthcare, multisectoral nutrition interventions

Obstetric surgery

Unpredictable
behaviour of health actors and contexts
Complex

Predictable, tacit
Complicated

Unpredictable
Chaotic

Predictable, formalised, standardised
Simple

Emergency response to an earthquake, flooding

Treatment guidelines (EBM)

Applying systems thinking

- Looks **beyond simple cause and effect** (opens the black box of how and why an intervention produces an outcome)
- Looks at the **system as a whole** rather than the pieces (system-wide effect)
- Considers the **dynamics of the health system**: Interactions, unintended consequences, circular cause and effect relations (feedback loops), time delays, adaptive learning
 - **Improve sustainable changes**

Why apply systems thinking?

- **Predict better:** Learn to work with uncertainties, anticipate unintended consequences (deal with doubt, reflect, allow trial and error)
 - **Gain insights** into the dynamics of a system and drivers of human behaviour (accumulate knowledge from different perspectives)
 - Understand how to **manage and maintain structural changes**
 - **Learn together** by doing, systematic learning from experience (accept that there is no magic bullet or blueprint)
- *Continuously learn and adapt actions to what has been learned*
- *Create leadership skills for **adaptive management***

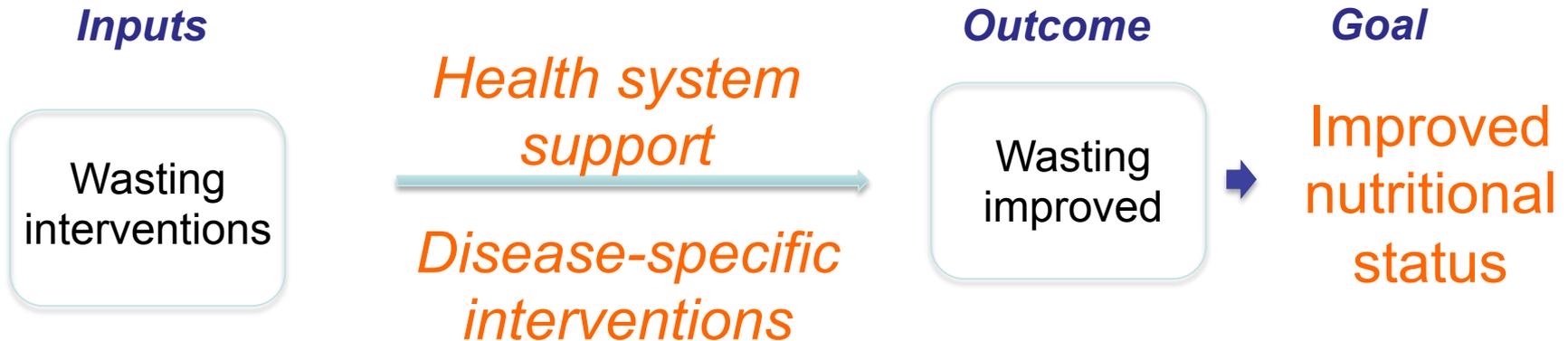
Example of a systems perspective (A)

Health system support

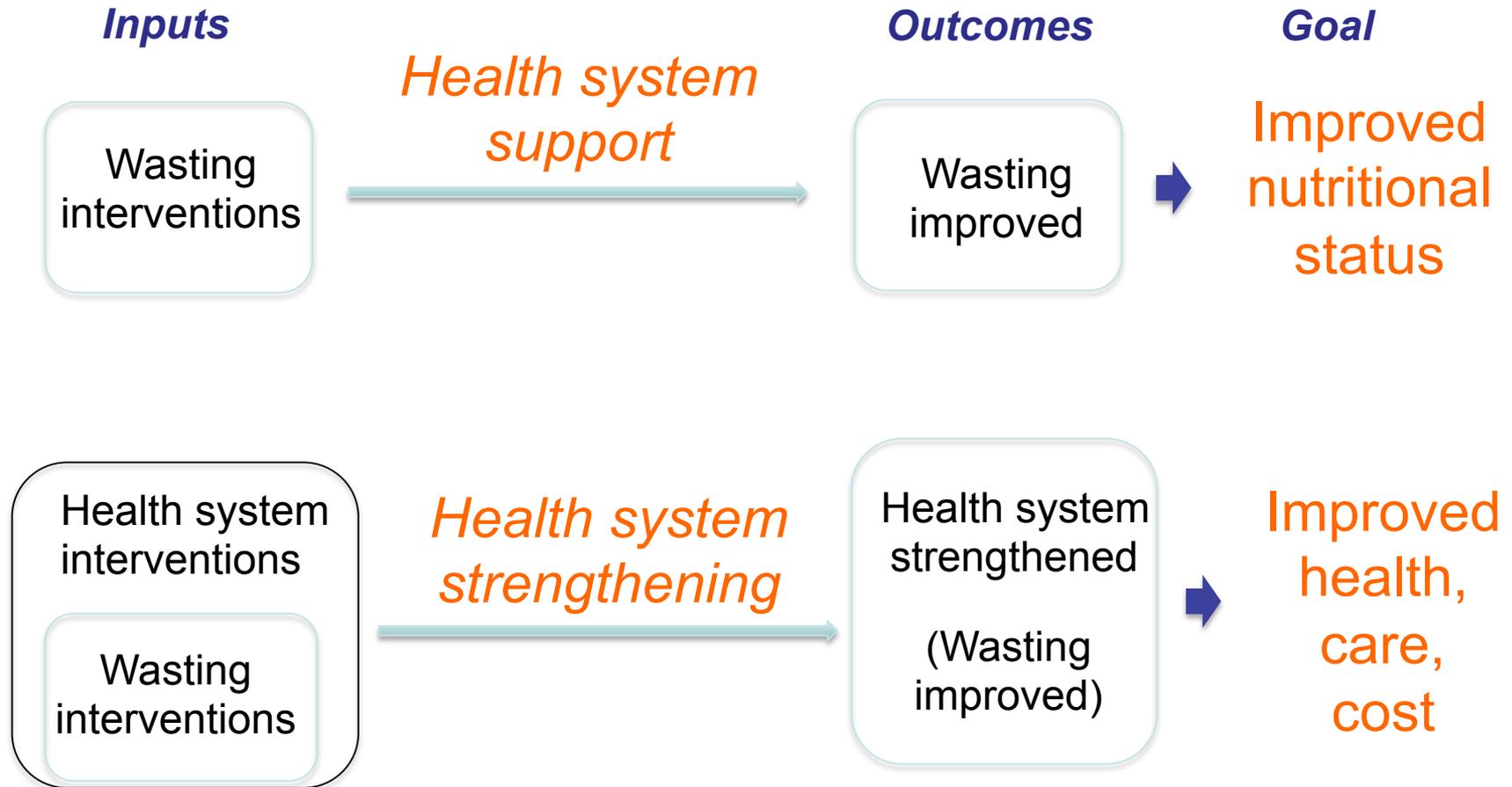
versus

Health systems strengthening

Health system support vs. health system strengthening (1)



Health system support vs. health system strengthening (2)



How to apply systems thinking

A range of methods and tools help **understand the system dynamics** of an intervention (system-wide effects and interactions).

Commonly used tools that **describe the system**:

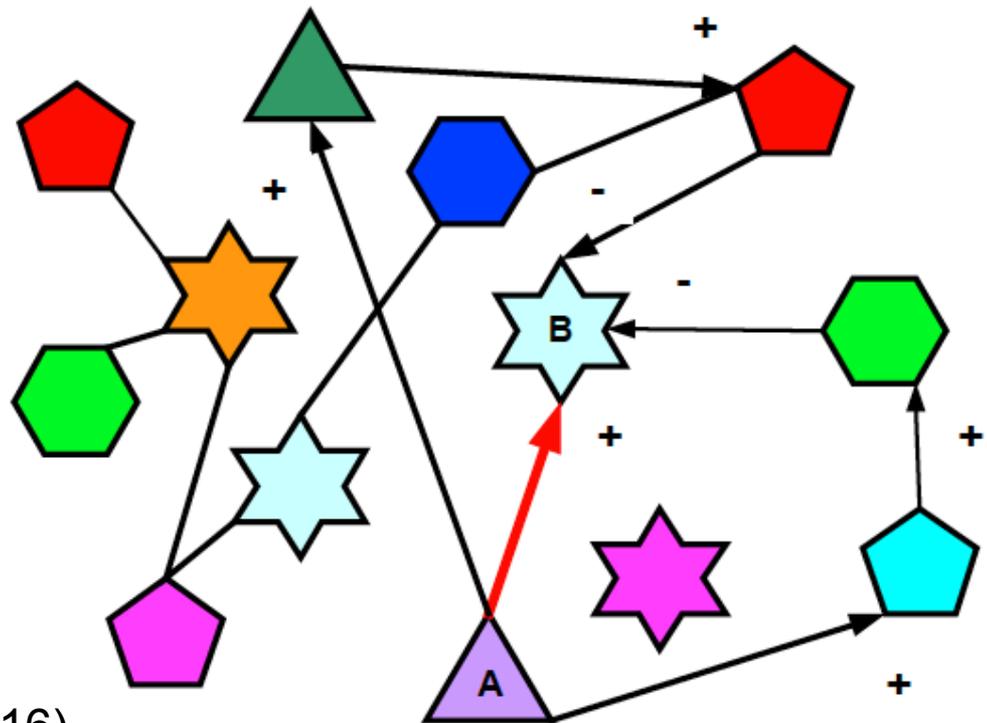
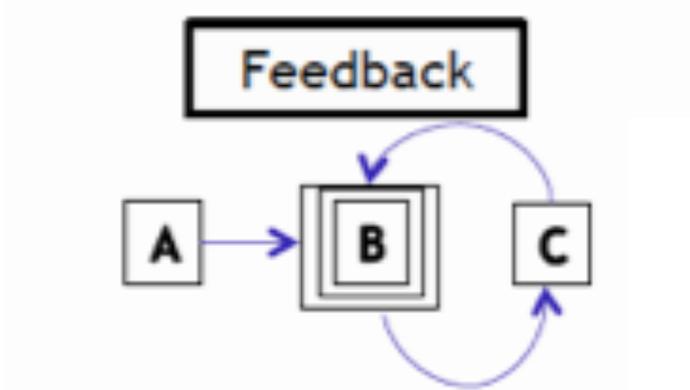
5 Whys, SWOT analysis, mind mapping, fishbone diagram, stakeholder mapping, action mapping, TOC

Advanced tools that **uncover system dynamics**:

Rich pictures, iceberg analysis, behaviour-over-time graph, causal loop diagram, stock-and-flow diagram, agent-based modelling (computer simulations)

(Peters et al., 2010)

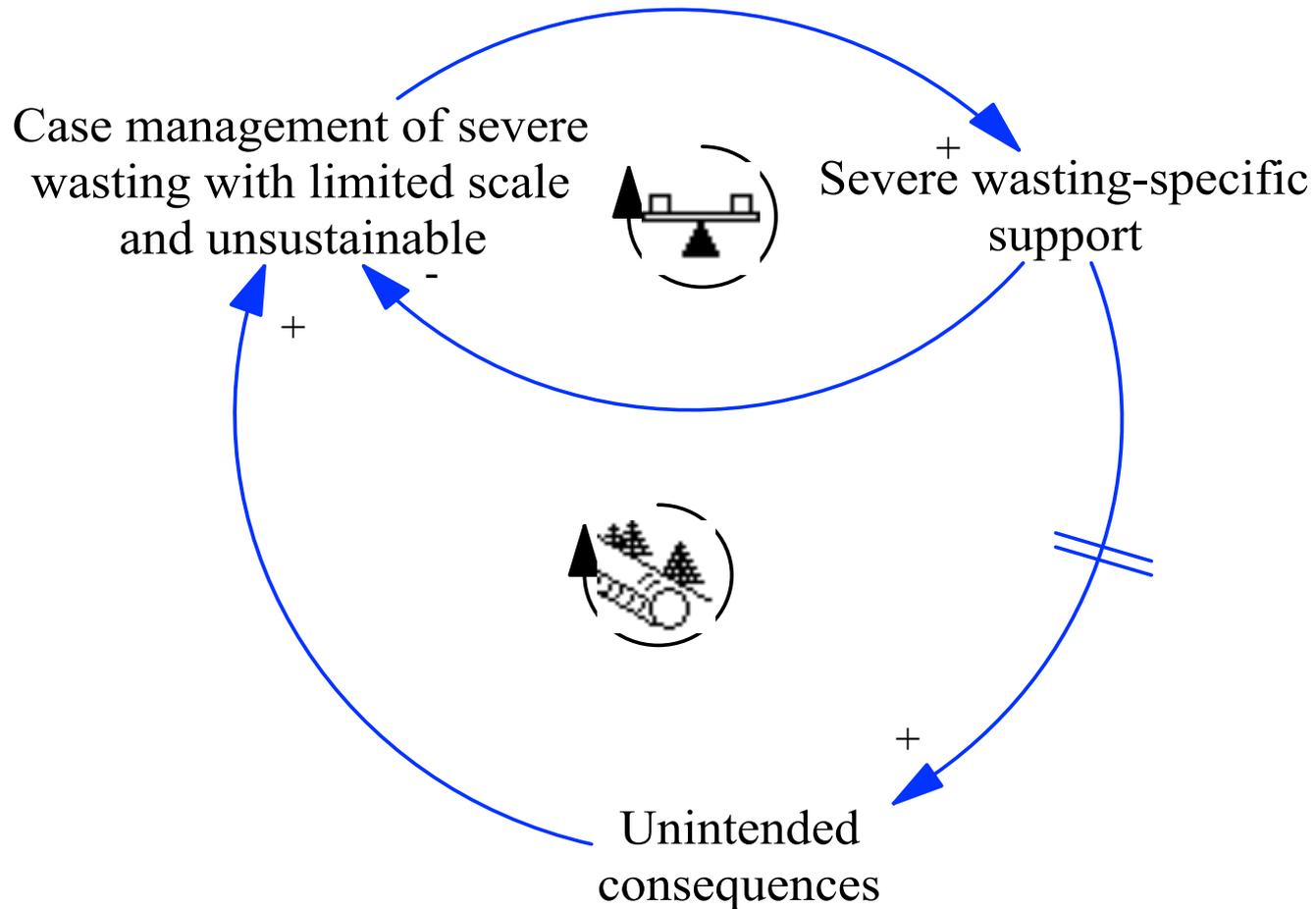
Example: Study feedback



(Bossyns et al., 2016)

Example: Tool to study feedback

Causal loop diagram



Applying a systems approach to understand integration of severe wasting care into the national health system

Case studies in Burkina Faso and Nepal:

- Aim
- Methods
- Results
- Learning

Nepal case study: Steps of the inquiry

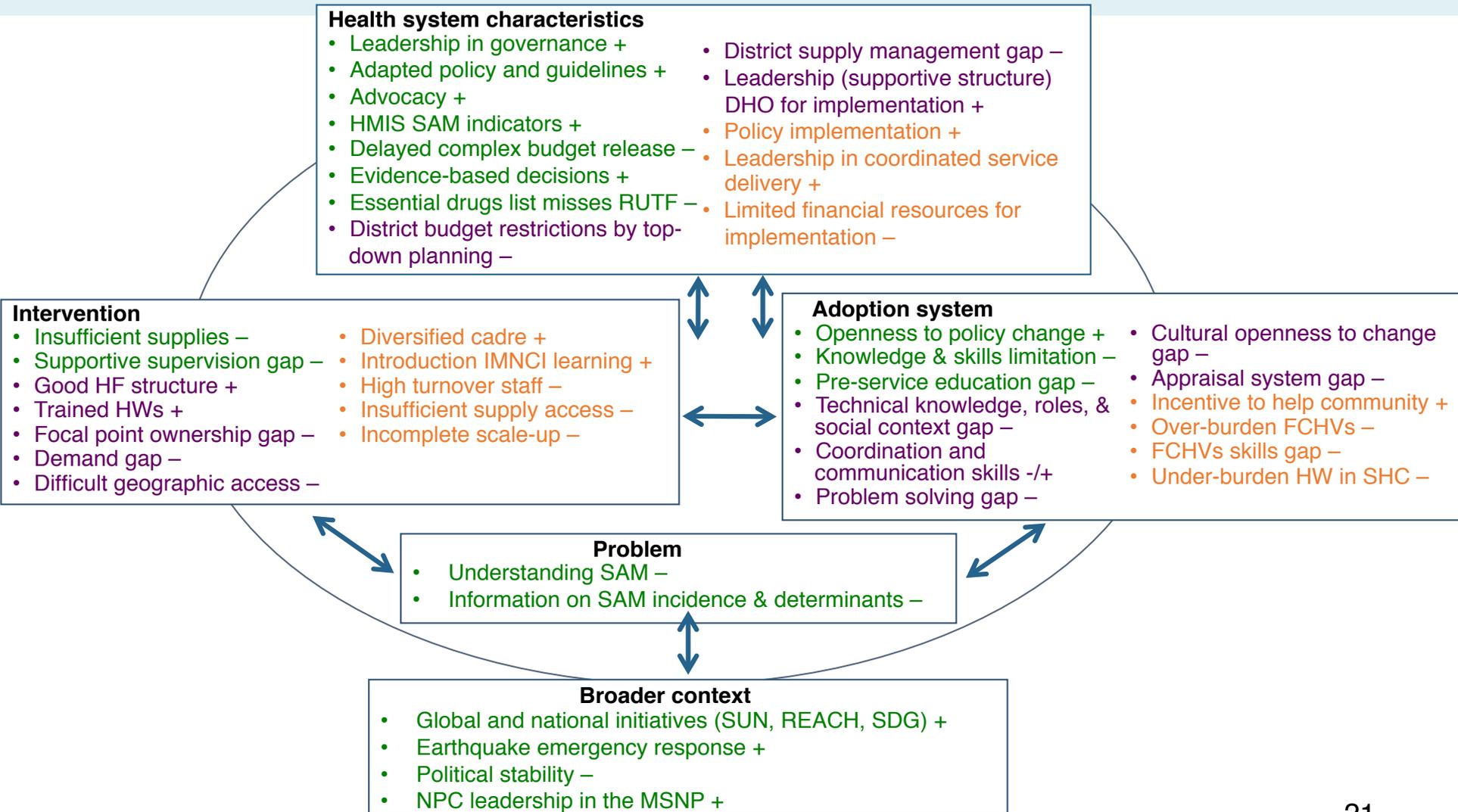
- Strategy
- Policy analysis
- Stakeholders analysis
- Health system capacity or readiness
- Dimensions of integration
- Extent of integration
- Factors influencing the integration process
- System dynamics of integration
- Scenario testing

Nepal: Extent of integration

District level: Extent of integration of SAM into routine managerial and organisational activities			
Routine managerial and organisational activities	Extent of Integration		
	National level	Bardiya District	Kapilvasta District
Managerial leadership			
Translating policies and strategic plans into action plans	Full	Full	Full
Annual review and reflection	NA	Full	Partial
Resource mapping	NA	Partial	NA
Regulating adherence to guidelines	Full	Full	NA
Coordinating technical and financial partners	Full	Partial	Full
Promoting social participation (planning, implementing and monitoring)	Full	Full	Full
Planning for contingencies (e.g., buffer stocks)	Full	/	/
Financing			
Allocating and managing the health budget	Partial	Partial	Partial
Mobilising additional resources	Partial	/	/
Information			
Managing the HMIS (monitoring, recording, reporting)	Full	Full	Full
Sharing information for use and feedback to stakeholders (including local government and communities)	No	Full	NA
Managing, overseeing, participating in population surveys (e.g., surveys and assessments)	Partial	Full	Full
Workforce			
Managing adequate skilled professionals and promoting equitable distribution of health workers	Partial	Full	NA
Training health workers in clinical care and health facility management	Partial	Partial	Partial
Conducting supportive supervision	Partial	Full	Full
Providing training materials and/or job aids	Partial	Full	NA
Providing job descriptions and appraisal system	No	Full	NA
Creating career development opportunities to reduce attrition and improve motivation	Partial	/	/
Supplies			
Infrastructure	NA	NA	Full
Supply chain management:	Partial	Partial	Partial
Use and expiry	NA	Full	NA
Storage and stock	NA	Full	NA
Quality control	NA	Full	NA
Transportation to health facilities	NA	Full	NA
Managing buffer stocks for contingencies	Partial	/	/
Service delivery			
Providing operational support to facility-based services	Full	Full	NA
Organising health outreach and campaigns	Full	Full	NA
Organising community-based primary care activities	Partial	Partial	NA
Organising referral systems	/	NA	NA
Ensuring quality	/	Full	Full
Social mobilisation			
Awareness raising	/	Full	NA
Mass media	/	Full	NA
Community meetings	/	Full	NA
FCHV mobilisation	/	Full	NA
Mother group meetings	/	Full	NA

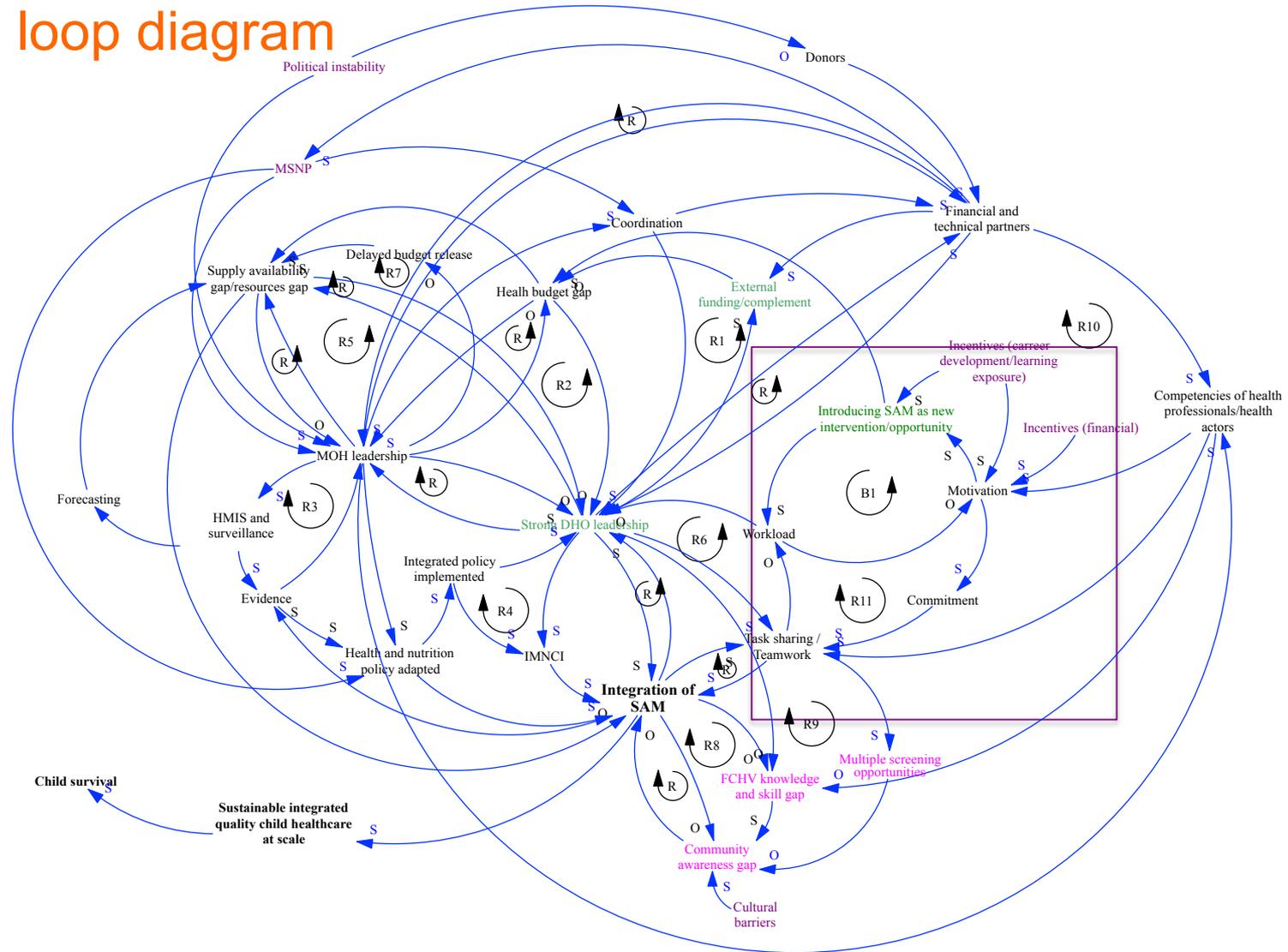
/ = not considered; NA = Not available.

Nepal: Factors influencing integration

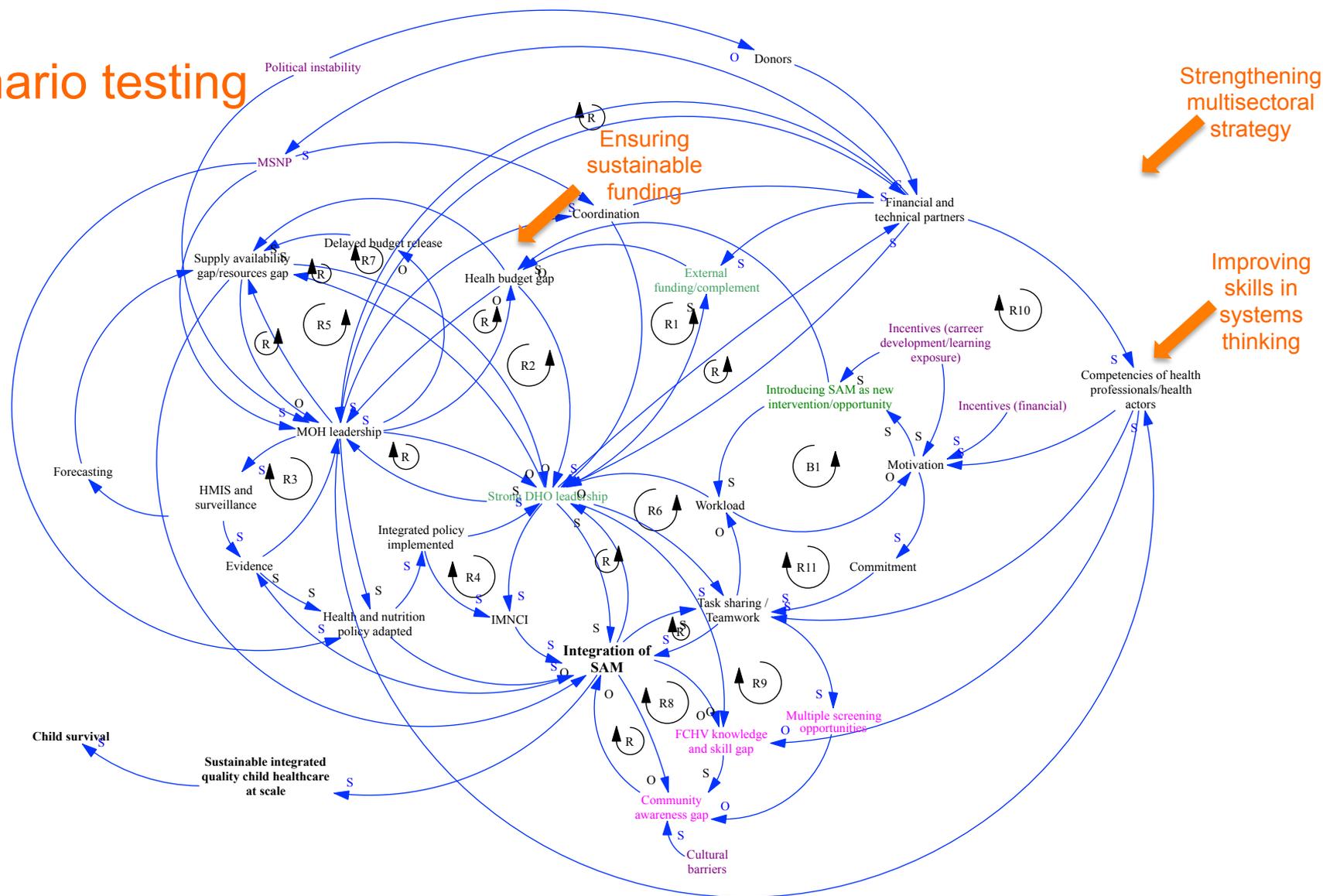


Nepal: System dynamics

Causal loop diagram



Scenario testing



Scenarios Nepal:

- Improved competencies of female volunteers
- **Discontinued financial support**
- **Strengthened multisectoral strategy**
- Increased scale

Key interventions:

- Strengthen leadership for decision-making by improving competencies in systems approach

Nepal: Lessons

Lessons on the integration of severe wasting care, e.g.:

- Health and nutrition programmes were vertically managed but this did not block integration
- Comprehensive child healthcare was the **intuitive** aim – IMCI
- Weak competencies and partnerships – **missed opportunities**
- Financial **unsustainability** was not being addressed

Lessons on the integration inquiry method

- Participatory approaches harvested perceptions and **increased insights**
- Step-wise ‘**learning together by doing**’ explored SW integration and complexity
- Both the outcome and the process of building the causal loop analysis were instructive and eye-opening

Nepal: Summary of recommendations

- *Include integration in scale up strategies informed by local capacities and needs*
- *Strengthen the understanding of integration and learn together to identify and use opportunities for continuous improvements*
- *Strengthen leadership at all levels to learn a systems approach and foster adaptive management*

Lessons for scale-up of sustainable SW interventions

Intervention approach

- Issues remain with scale-up and sustainability—because of financial, technical and institutional capacity constraints
- Is this because we are missing many opportunities?
- Is this because the broader health system in which we work did not (yet) make the needed structural changes to absorb nutrition interventions?

Opportunities of a systems approach

- Identifies **opportunities for synergies, but also foresees or detects unintended consequences** (=foster structural, sustainable changes)
- **Strengthens leadership capacities** to embrace complexity and allows continuously learning and adapting (= bottom-up leadership)
- **Enables learning together** to foresee and adapt to changes (= adaptive management)

Take home message ... of a systems approach

Understanding the local health system will inform decisions/actions that address identified bottlenecks and will foster the integration and scale-up of severe wasting care bottom-up (→plan for incremental structural changes with a long term systems perspective)

Strengthening the position of severe wasting care in primary healthcare by an informed strategy for achieving **comprehensive, integrated child-centred healthcare** (→plan for comprehensive child healthcare with a systems perspective)