

# Realist Evaluation Approaches: The PARES Project

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# What is Realist Evaluation?

Realist evaluation was developed by Pawson and Tilley in the 1990s, originally in the field of criminology, to address the question, 'what works for whom in what circumstances and how?' in criminal justice interventions.

Philosophical basis = realism (there is a "real world" that is observable and measurable, but is interpreted through human experiences and perspectives, influenced by culture, history etc.)

RE assumes a programme/intervention is based on a Theory of Change (i.e. what leads to change) that can answer:

**'what works for whom, in what contexts, and how'.**

# Key concepts in Realist Evaluation

Pawson & Tilly distinguished particular categories necessary to consider:

- **Context:** in which the programme/intervention operates (which may trigger particular mechanisms and will affect outcomes)
- **Mechanisms:** related to **reasoning** (e.g. values, beliefs, attitudes or the logic that people involved in the programme apply to a particular situation) and/or **resources** (e.g. information, skills, material resources, support)
- **Outcomes:** programme results that are the product of how contexts and mechanisms interact.
- **Configurations:** an understanding of how and why particular contexts & mechanisms interact to produce particular outcomes.

# RE applied to health-related research

Recent: last 5-10 years

Further development of application of methods and approaches:  
RAMESES I and II projects

Particularly useful for assessing complex interventions in the health sector which try to address a social challenge

Useful for understanding whether a programme works differently for different people and/or in different contexts

Requires speaking to a range of different stakeholders to gather diverse perspectives on *how* and *why* programmes work or not, using a range of methods.

Realist reviews are systematic, theory-driven interpretative techniques, which were developed to help make sense of heterogeneous evidence about complex interventions applied in diverse contexts in a way that informs policy.

Realist reviews seek to unpack the relationships between context, mechanism and outcomes (CMOs), i.e. how particular contexts have triggered (or interfered with) mechanisms (underlying entities, processes or structures) to generate the observed outcomes:

- Expressed as: **“In X context, Y mechanism generates Z outcome”**

Systematic set of steps is detailed in RAMESES Guidance

# Realist Review Process

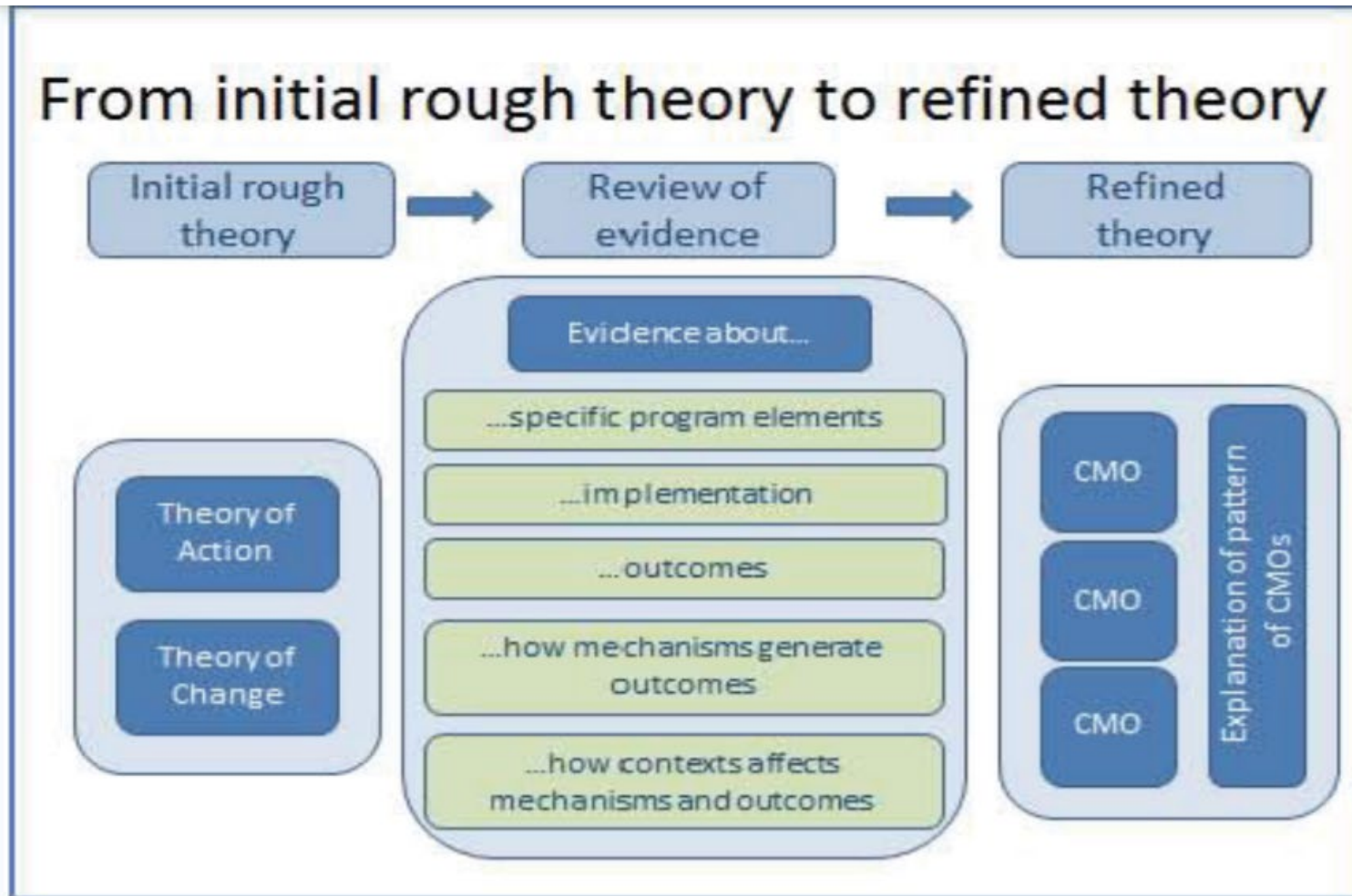


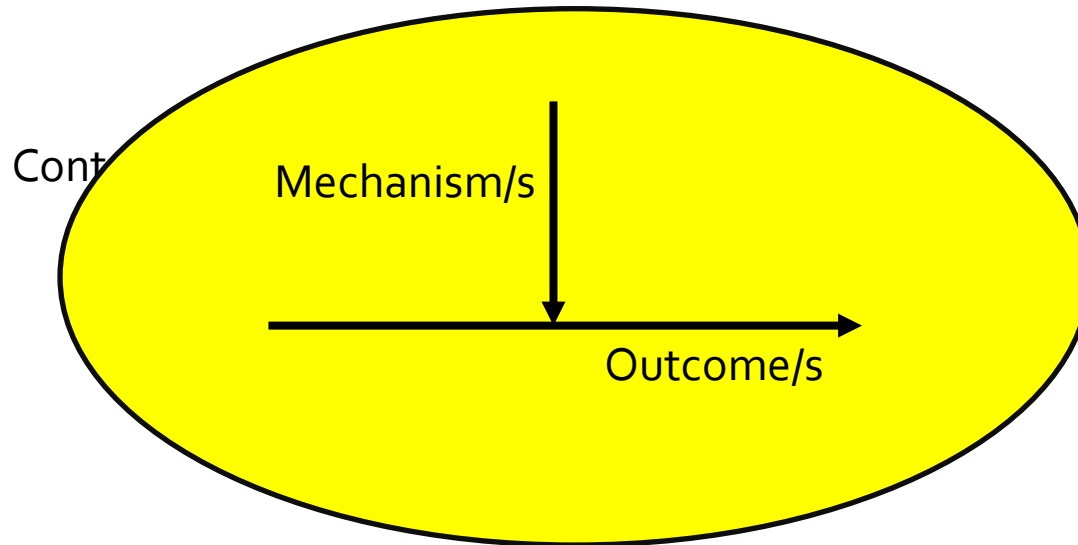
Figure 5: The process and sources of evidence used to refine theory

# RAMESES II: Standards & Methods for Realist Evaluation (1)

- Stated purpose clearly explains how findings are intended to be used & why RE is appropriate
- Evaluation questions are as clear and simple as possible (lay language)
- Evaluation strategy enables the researcher to understand how and why contexts & mechanisms interact to produce outcomes
- Use wide range of primary and secondary data to develop theory (CMOCs) and clearly describe development and refinement processes
- Final CMOCs should clearly describe how and why different mechanisms are triggered (or not) in different contexts to generate different outcomes
- Implications of final CMOCs for a range of contexts are comprehensively described

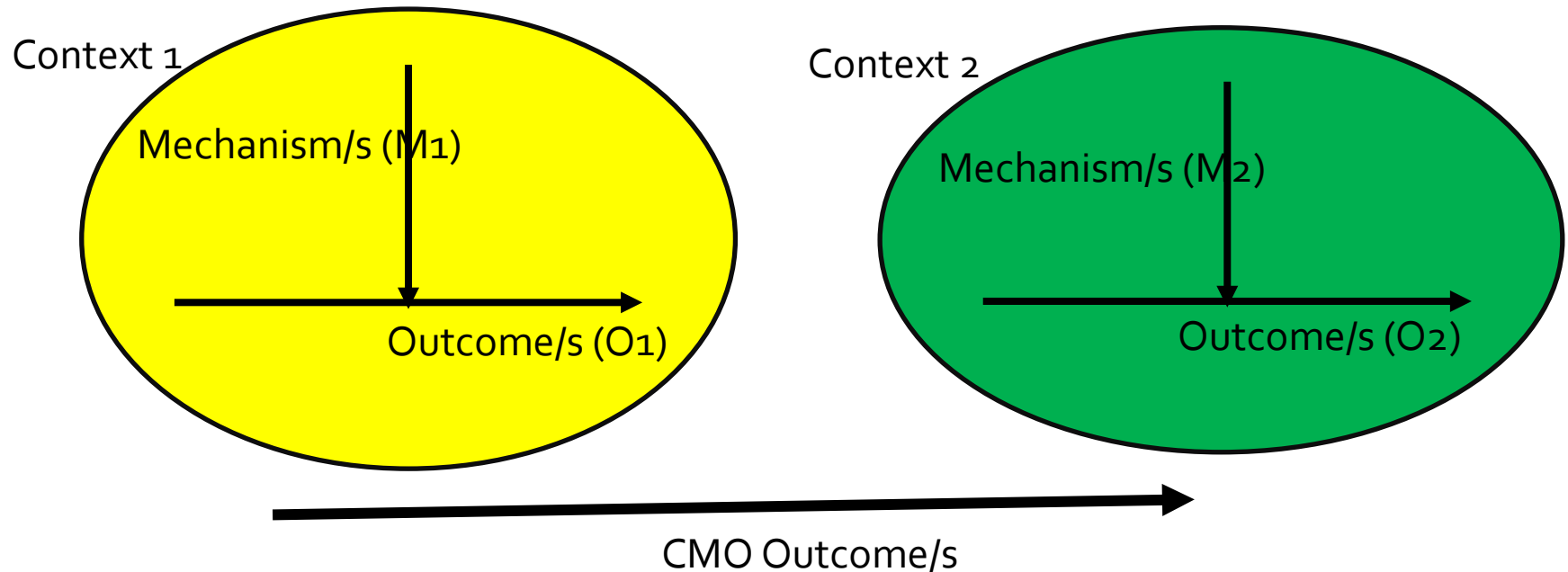
- Methods include use of relevant existing data and range of primary data collection methods, appropriate to RE
- Sampling is rigorous & provides sufficiently large and diverse sample of relevant respondents to give evidence across different contexts/sub-groups etc. (incl marginalized/ hard to reach groups)
- Data analysis is iterative over the course of the evaluation, integrating a range of data sources, with early analysis phases being used to refine later evaluation phases
- Analysis clearly links data, programme theory and other relevant existing theory.

# Realism and the production of outcomes



- Problems arise where mechanisms at work in contexts generate unwanted or harmful outcomes
- Analyses of problems identifies how harmful outcomes are generated
- Problem-solving involves working out how mechanisms generating harmful outcomes can be altered so that they no longer do
- Interventions may backfire or fail when:
  - there is unintended activation of mechanisms generating adverse outcomes
  - if interventions do not change mechanisms that reduce targeted harms
  - Uncontrolled or uncontrollable events disrupt ordinarily operating mechanisms and thereby the outcomes they generate

# Realism and the production of changed outcomes (CMOCs)



- Interventions can trigger changed patterns of mechanisms generating changed, positive outcomes
- Overarching CMO Outcomes comprises  $O_2$  minus  $O_1$ , produced by changing  $M_1$  to  $M_2$  as a consequence of interventions
- Social interventions mostly activate mechanisms relating to reasoning and/or resources, (although physical and biological mechanisms may also come to be activated)

# Citizen involvement in pandemic Ebola response: realist interpretation of Ebola Gbalo study

**Context 1:** affected communities responded to this new disease with little information; delayed national/ international response to Ebola ignores local efforts

**Mechanism/s (M1):** communities learn through experience/ observation; nat/int responders establish parallel decision-making structures and promote incorrect information (symptoms) and unacceptable processes (care; burial)

**Outcome/s (O1):** breakdown of trust; hiding of sick; continued spread of disease

**Context 2:** how communities and external responders eventually worked together

**Mechanism/s (M2):** recognition by ext responders of need to change approach; dedicated, trusted local responders act as interlocutors; mutual learning and more localized decision making (Chieftain bylaws; local burial teams)

**Outcome/s (O2):** trust built; collaboration ensured; care and burial procedures changed (mutually accepted); cases fall

**CMO Outcome/s:** Ebola-ending CMOC emerged based on trust, collaboration with local leaders & mutually agreed compromise in some biomed procedures (e.g. home care)

# Issues in applying the realist approach

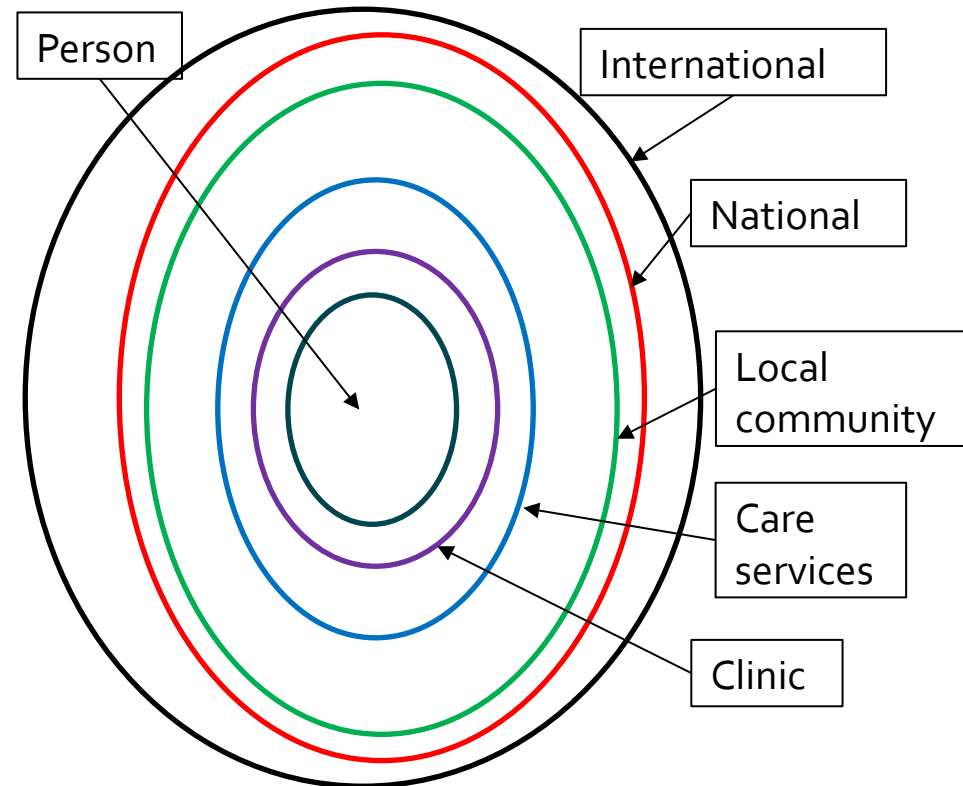
Complexity: balance with pragmatism  
Fluid relationships between C, M and O  
Going beyond C M O tables

Level of abstraction

- Too high: inapplicable in practice
- Mid-level:  
applicable/transferable across  
recognizable range
- Too low: irrelevant beyond  
specific time and place

Creation & Testing (some selected)  
CMOC theory using quantitative and  
qualitative methods

Nested and interacting contexts



**KEY FOCUS:** on configuration: **What works for whom in what circumstances and how/why .... (including winners and losers...)**

# PARES objectives



**AIM:** to develop and strengthen the evidence base for how to improve effective community-led responses to public-health crises.

**Premise:** *Where communities and formal health systems structures are able to connect rapidly to mutually shape disaster-response actions, public health outcomes will be improved and resilient response-systems will be built.*

## Objectives:

- 1) Synthesise evidence** on how communities, local health systems and other formal and informal entities have responded to health crises, and with what effect.
  - 2) Develop effective approaches** for public health crisis-response at grassroots.
  - 3) Evaluate prototypes** for effective community-led responses to PH crises.
  - 4) Formulate guidance** and create dialogue with stakeholders on how to strengthen local resilience for effective responses to public health crises.
  - 5) Strengthen and consolidate sustainable capacities** for research and management of crisis-response (within and beyond the research team) to strengthen policy and practice in crisis-response.
- **GOAL:** to improve crisis response for the long-term

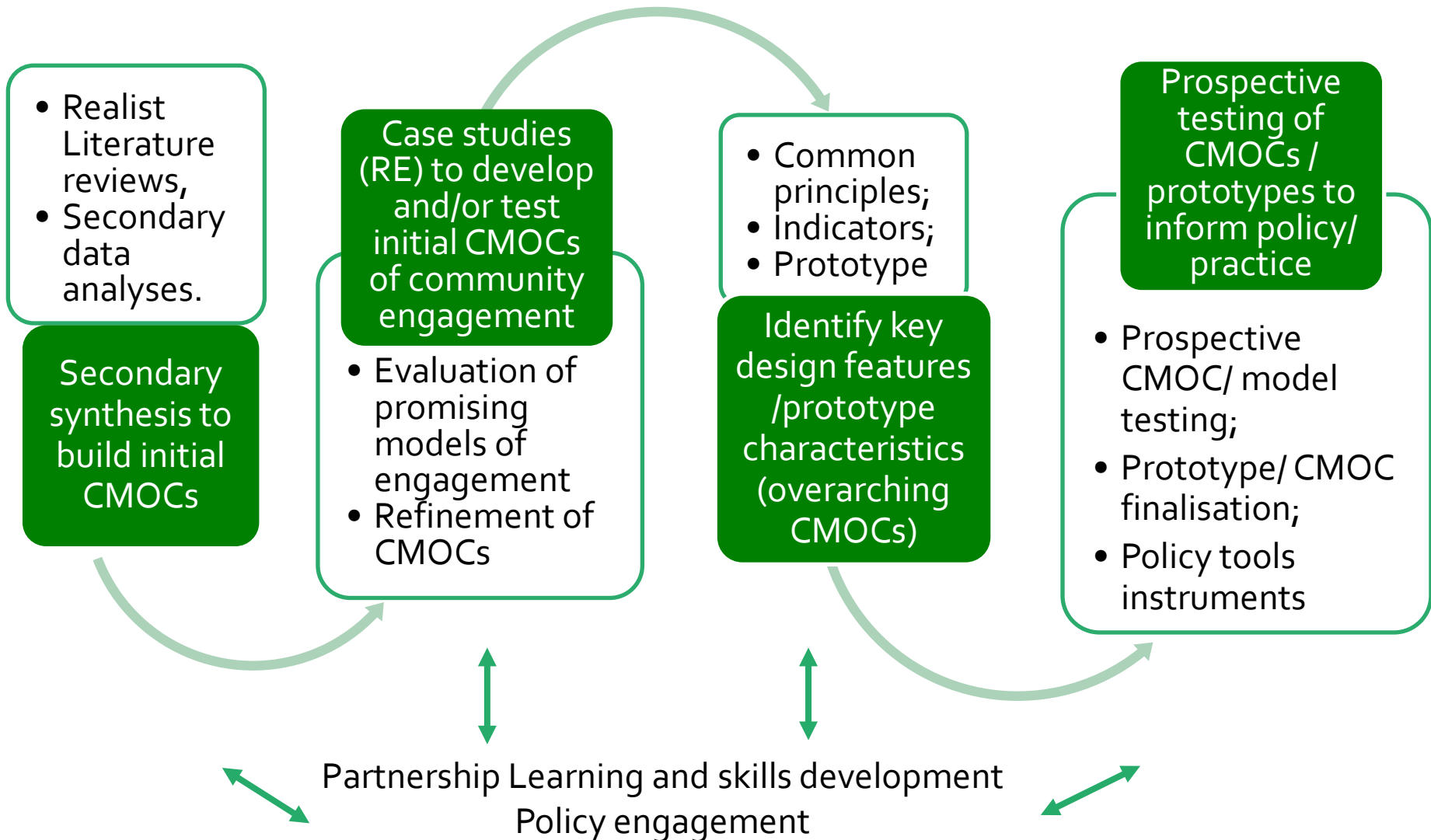


“the most effective crisis responses are those where robust mechanisms and processes are in place to enable health systems actors and communities to co-produce and co-deliver their response”

## Key Questions:

- What are “robust mechanisms and processes” for co-production/ co-delivery of crisis response?
- Which mechanisms and processes work (and how are they triggered) in which particular contexts and with what outcomes?
  - Can an overarching programme theory be developed?
- Can generalisable mechanisms or approaches be discerned across our multiple case-studies & datasets?  
(mid-level abstraction)

# Work packages and RE pathway for PARES



PARES: Makerere team –  
developing initial CMOCs for  
community resilience to Cholera

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# Samples (snips) from data extraction



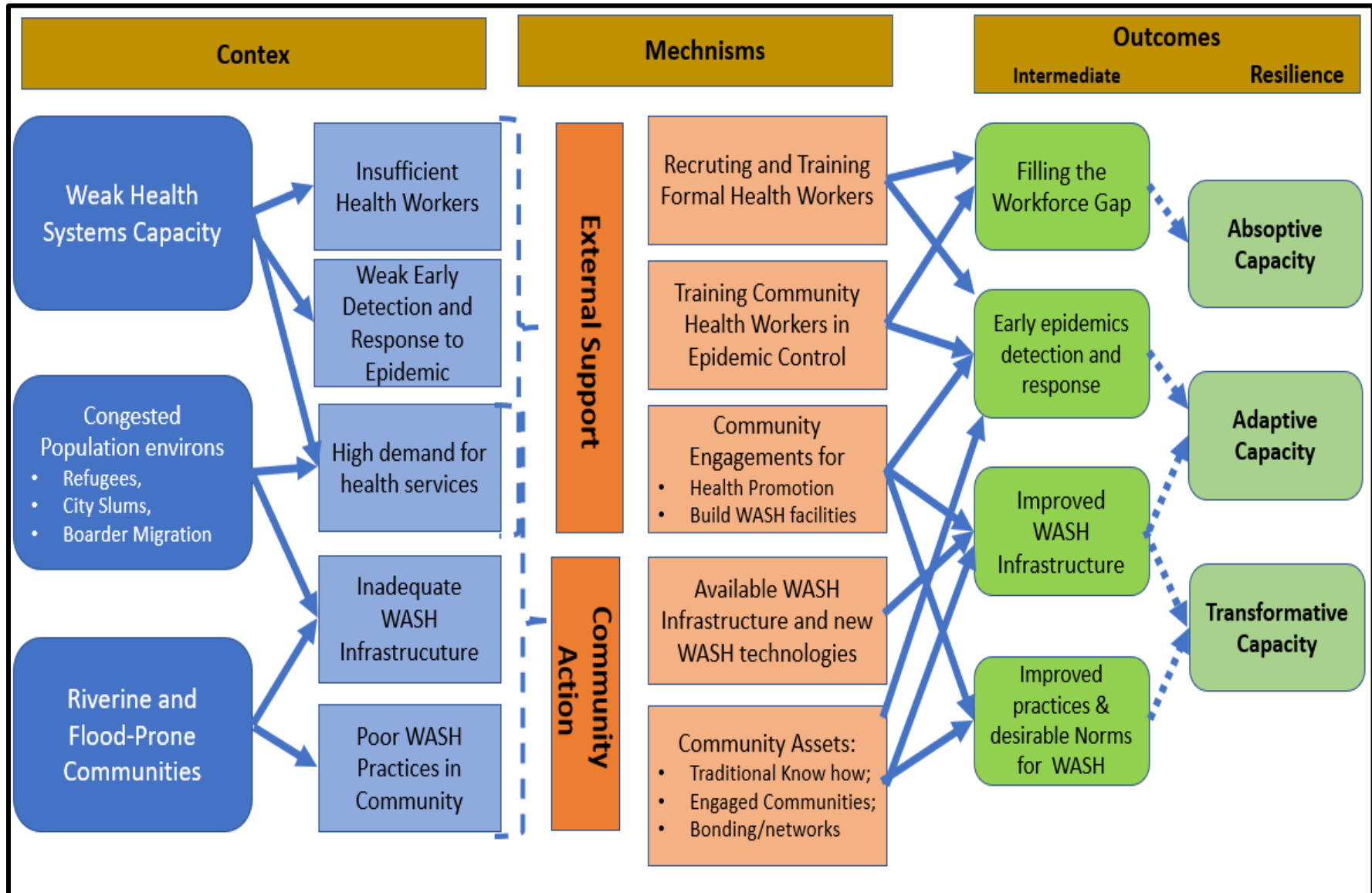
PARES: Uganda Data Extraction Template for Rapid Realist Literature Review- Cholera									
Author	Year published	Title	Country focus (if applicable)	Health / environmental focus	Methods	Information on CONTEXT	Information on MECHANISMS	Information on OUTCOMES	
Labbé, Joïène Ford, James Berrang-Ford, Lea Donnelly, Blanaid Lwasa, Shuaib Namanya, Didacus Twesigomwe, Sabastian Harper, Sherilee	2016	Vulnerability to the health effects of climate variability in rural southwestern Uganda	Uganda	Environment Vulnerability and adaptations to environment related health risks/priorities	Majorly qualitative methods(5) e.g. IDIs, KIs, and ethnographic methods such as Biography, future storylines and photo voice.	The Bakiga communities in South Western Uganda are more vulnerable to climate related health risks due to their location and dependence on agriculture " -climate change will however not affect the health of all populations equally" p.932 - in Vulnerability is worsened by the limited capacity of Ugandas health care system to address existing health stresses p.933 -The bakiga have a history of low immunity because of a history of limited prevalence of the A gambiae vector in the highland region.	Adaptation of these communities to these health risks is dependent on their capacity to reduce sensitivities to identified health challenges among the potential of increasing exposures. -Strategies aimed to reduce exposure and sensitivity and support adaptive capacity of adaptation actions will require an integration of both traditional and scientific knowledge in order to be culturally appropriate, relevant and effective. Interventions and policies aimed to reduce exposure and sensitivity and support adaptive capacity must be informed by economic and cultural determinants at the local, regional and national level.- Traditional knowledge may affect sensitivity at the individual and community level. medicine and food were historically important	Application of vulnerability framework demonstrates that there exist complex pathways through which exposure sensitivity and adaptive capacity operate	
Maat, Harro Balabanova, Dina Mokuwa, Esther Richards, Paul Mohan, Vik Ssengooba, Freddie Twinomuhangi,	2021	Towards sustainable community-based systems for infectious disease and disaster response; Lessons from Local Initiatives in Four African Countries	Uganda, Ethiopia, sierra Leone, Madagascar	Health/ environmental. Climate change and infectious diseases with zoonotic origins e.g ebola, zika	Mixed methods (QUAL-quant). Largely Qualitative methods, participatory research methods e.g Interviews, observation, workshops. Qual info triangulated with descriptive data on health indicators.	<b>Uganda:</b> highland agrarian region with rising population hence pressure on available land and wide spread wetland encroachment and cultivation on steep hills. Warm weather with soil erosion and flooding = high malaria prevalence. - <b>Ethiopia:</b> Country with government structures supporting implementation of organised community responses for public health. Existence of wide network of multisectoral womens	Movement of pathogens from animals to human.- climate change as a major driver in emergence of zoonotic pathogens primarily through its effects on ecologies in which zoonotic diseases thrive and affect human populations. a) local universities working with diverse approaches to co-produce community led health responses in Uganda and Ethiopia. -MUCCRI championed a community based	Local innovation and resilience in responding to health threats emerges from and reconfigure systems of care. - Use of information from CBA has led to Reduction of impact of drought -tolerant, rainstoms and floods on farming and food security.( through growth of drought tolerant and early maturing crops. - Participation of many community members enabled the aversion of conflicts that threatened to arise from scarce resource of land.	

# Cholera: Resilience Mechanisms



CONTEXT	MECHANISM	OUTCOME
1. Weak Early Detection of Cholera	Early warning systems in form of surveillance actions, reporting, case management and health care access	Improved surveillance and timely response, (contributes to Reduced morbidity and mortality from cholera and diarrheal diseases in the long term)
2. Insufficient(formal) health workers and Limited capacity to undertake effective reporting and timely response	Recruiting and training health workers to undertake surveillance for outbreaks roles	Filling workforce gap and improved HW capacity to support early detection
3. Limited capacity of community HWs to aid effective reporting and timely response	Training/Sensitization of close to community health workers (CHWs) to undertake surveillance for outbreaks roles	Improved Capacity of CHWs to support early detection and reporting of notifiable diseases/Cholera.

# Theory of Change: Resilience to Cholera

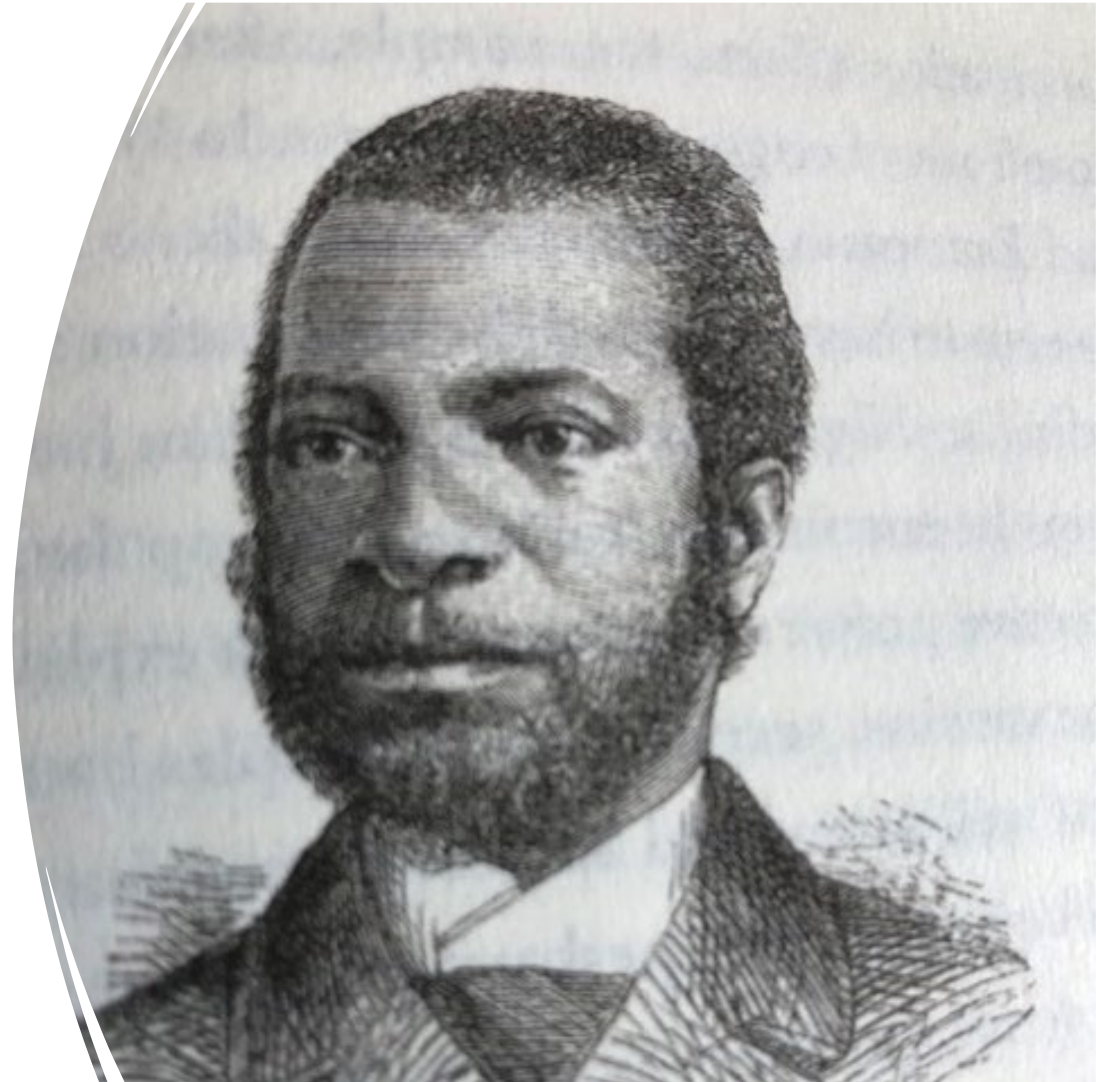


# RE is much more than a realist review – which has many limitations!

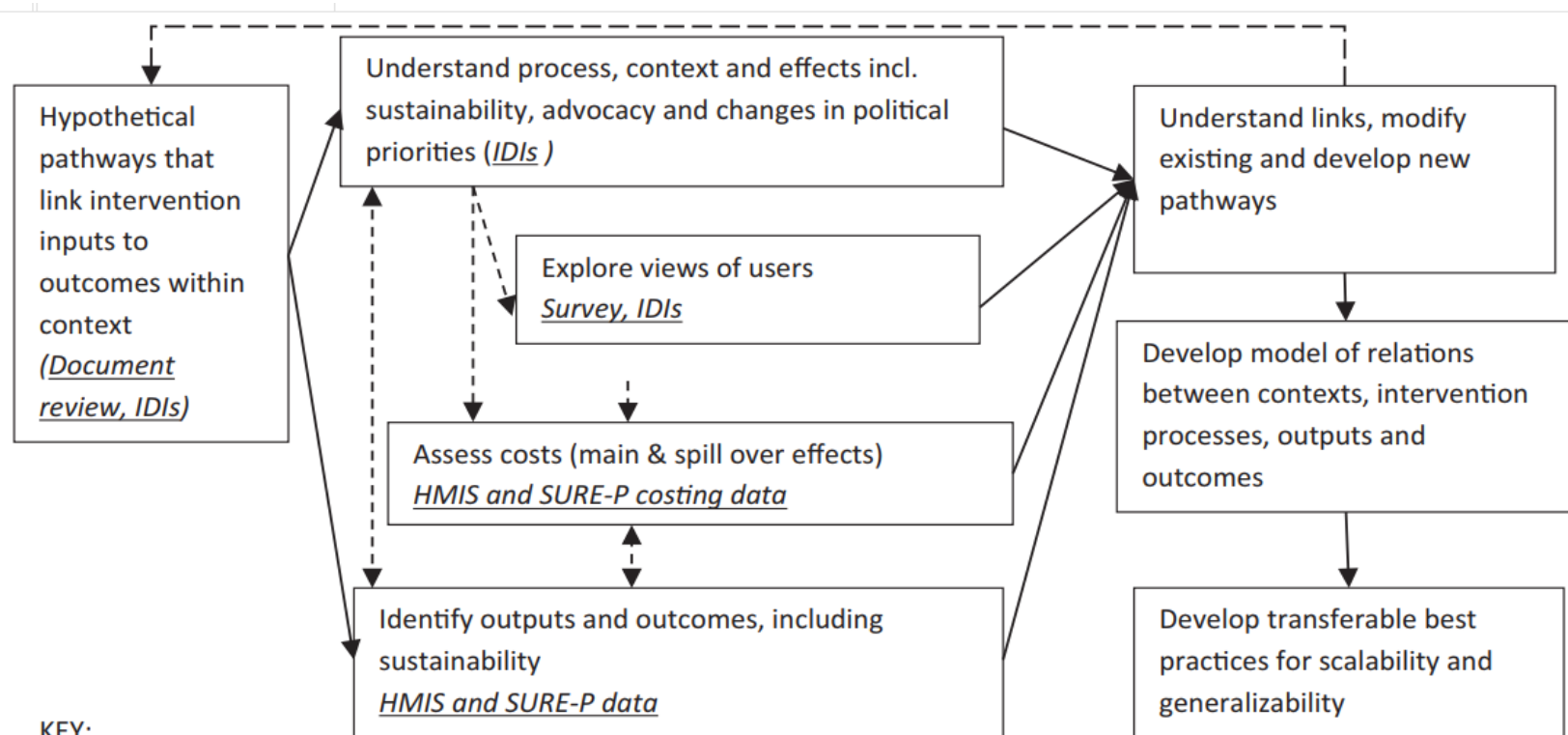
## **James Africanus Beale Horton MD, 1835-1883**

A Sierra Leonean trained in Britain as a doctor for the British West African colonial army, a pioneer of smallpox inoculation in West Africa, and advocate for Sierra Leonean political independence.

Horton was the first to publish a description of the symptoms of sickle cell anaemia (1872). None of Horton's works feature in a PubMed search on his name (since PubMed does not include many historic texts).



# Applying RE to a national MCH programme in Nigeria (Mirzoev et al. 2020)



KEY:

*Italics* methods and data sources

→ study progression between phases

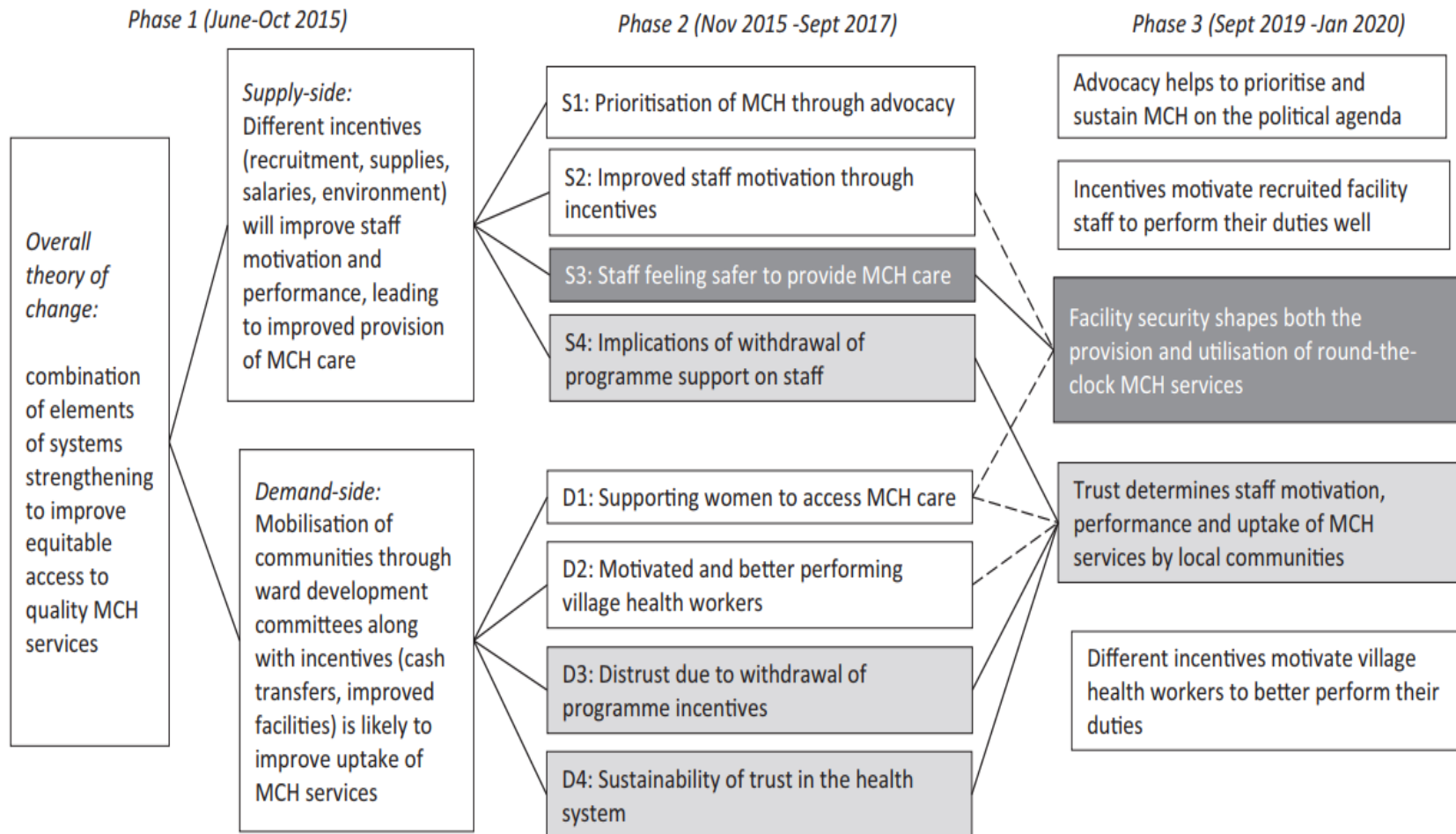
- - - → links between methods

IDIs: In-depth interviews      HMIS: Health Management Information System

Figure 1: Study Methods

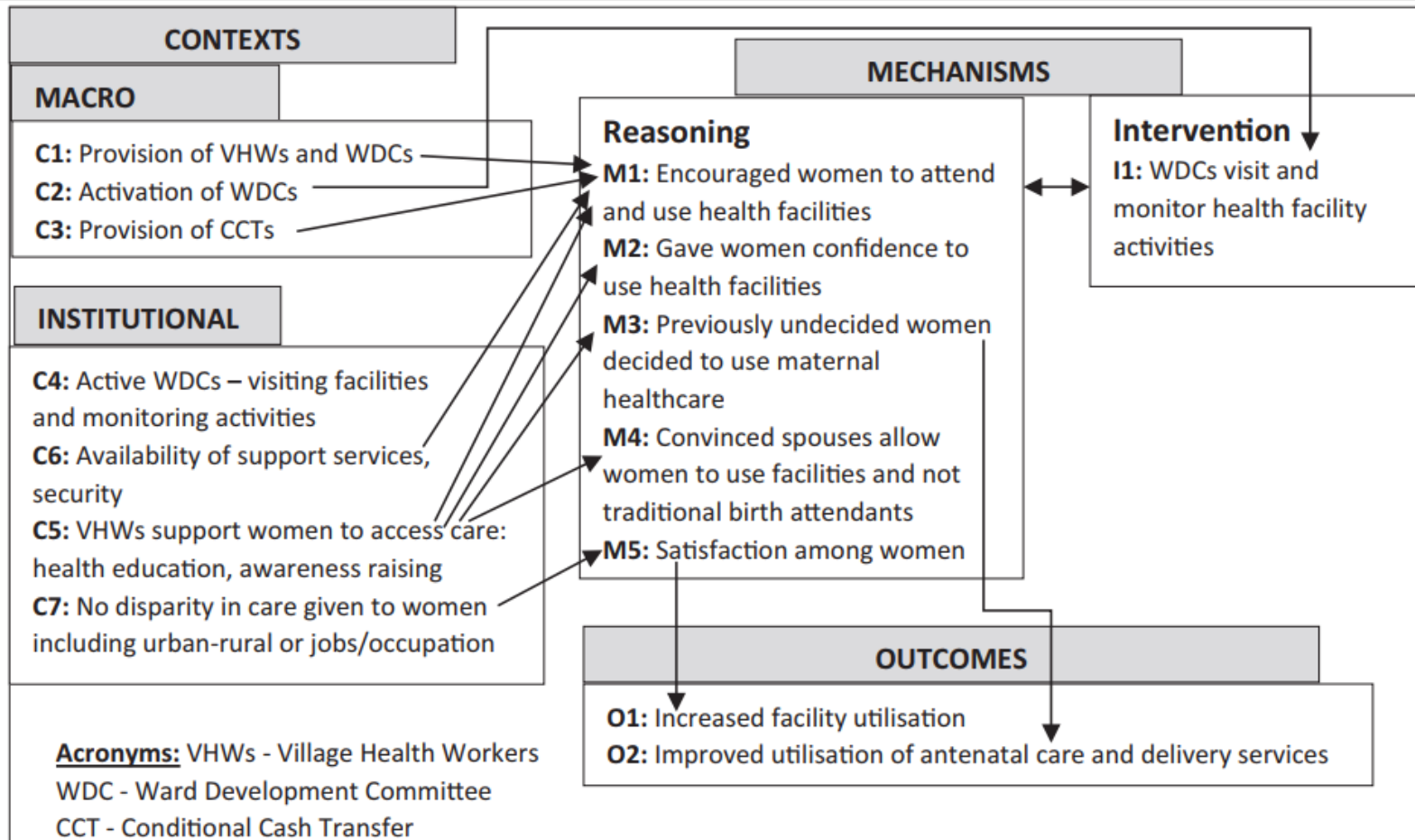
**Source:** Tolib Mirzoev, Enyi Etiaba, Basseyy Ebenso et al. (2020) Tracing theories in realist evaluations of large-scale health programmes in low- and middle-income countries: experience from Nigeria *Health Policy and Planning*, 2020, doi: 10.1093/heapol/czaa076

# Multiple programme theories enable identification of overarching theory pathways



**Figure 2** (1) Emergence of trust and security PTs throughout the study. Dashed lines show indirect links whereas solid lines show direct progression of theories and (2) darker grey shows emergence and progression of the security theory whereas lighter grey shows the same for the trust theory.

# Visualisation of programme theory on Trust



*Narrative:* In the context of pregnant women's inability to pay for transportation to health facilities, or for medicines and MCH services, if WDCs are mobilized and trained; and pregnant women are provided CCT; and if VHVs encourage and support women to attend MCH services, then pregnant women will feel safer and confident to regularly attend health facilities, thus leading to increased and sustained utilization of health facility-based MCH services (such as ante-natal care, deliveries and postnatal care), and ultimately to better MCH service outcomes.

# Reflective exercise: applying RE to your work

Thinking about your own research plans:

- 1) Are you clear what the “problem” or challenge is that you want to investigate?
- 2) Have you considered the context(s) of your research problem?
- 3) Have you developed an initial hypothesis about what might solve this problem in relation to a realist perspective (i.e. what mechanisms might lead to positive change)?
- 4) Are your objectives and research questions clear and simple?
- 5) Will they enable you to answer how and why contexts & mechanisms interact to produce outcomes?
- 6) Are you using a range of methods (e.g. literature reviews, FGDs, IDIs, any secondary/quantitative analyses)? Do you capture a wide range of voices in your stakeholder sampling?
- 7) Are your analysis plans iterative (i.e. do they build in reflection and triangulation of your findings from different methods and different phases of your research)?