

Unpacking the black box of the effectiveness of task forces in maternal and neonatal health in Morocco : A realist evaluation protocol

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Abstract

Background

In low and middle incomes countries (LMICs), health policies failed to reduce significantly maternal and neonatal mortality rates. This was attributed to inequitable access to care and to poor governance of local health systems. In Morocco, there are still regional disparities with access to maternal care, and poor governance of regional maternal and neonatal health programmes (RMNHP). To address these governance issues, the ministry of health implemented in 2017 a multi-actor's governance structure called "*regional task forces*" (RTF). They aim at enabling collective concerted actions, active engagement of local community partners and better coordination between health systems managers and frontline workers in the monitoring, assessment and implementation of RMNHP. In this study, we aimed at analysing how regional taskforces were implemented in six health regions and identify the mechanisms and contextual conditions underlying their effectiveness.

Methods

We adopted the realist evaluation as a suitable approach to decipher complex intertwined social phenomena. We adopted a multiple embedded case study design that allows a flexible exploration of different levels of analysis and takes into consideration the role of context. First, we developed an initial programme theory based on a literature review and policy document analysis as follows: "*A taskforce is effective whenever there is a fit between its intrinsic technocratic, political, democratic and learning capacities and the characteristics of the institutional context, the complexity of health problems and the engagement and leadership of actors*". Our programme theory will be refined using 10 to 12 individual interviews (IDI) with policy implementers. We will use secondary documents, and 4 to 6 interviews with taskforces members (clinicians, managers, and midwives). We will then carry two in-depth case studies in one low and one high performing taskforce using additional 6 to 12 interviews, 3 focus group discussions with senior managers, clinicians, and midwives. Qualitative data analysis will be informed by Intervention Context Actor Mechanism Outcome (ICAMO) hypothesis coding. We will then compare the different ICAMOs across cases using qualitative comparative analysis .

Discussion

The resulting programme theory will guide the reinforcement of regional governance of MNH programmes in Morocco.

1. Background

Reduction of maternal and neonatal mortality is a major concern for policy makers, researchers and practitioners (1–4). In the last thirty years, many health system reforms were implemented to reduce the maternal and neonatal mortality (1, 2, 5, 6). In 2015, these reforms failed to achieve the Millennium Development Goals (MDG 4 and 5) and were unlikely to achieve the Sustainable Development Goal (SDG

3: reduce global maternal mortality ratio to less than 70 per 100.000 live births, and to reduce neonatal mortality rates to less than 12 per 1000 live births by 2030)(1, 2, 7).

In maternal and neonatal health (MNH), governance processes are key to address complex social and economic challenges such as poverty and inequitable access to care (8–11). The implementation of governance processes is associated with better population health (10–12), child mortality reduction (8) and maternal mortality reduction (13–16). We mean by governance systems, the set of mechanisms, processes, institutions that ensure that citizens, and groups of actors, formulate their interests, exercise their rights, assume their responsibilities and resolve their divergences (17). The study of governance imply the study of power distribution between different stakeholders, the notion of social or physical space where power is exercised, the convergence of decision and concerted actions, and the notion of participative democracy that refers to the continual debates between central, regional, provincial levels and civil society (18, 19).

As other LMICs, Morocco has achieved considerable progress in the reduction of maternal and (332 to 72.6 maternal death ratio between 1992 to 2018) and child mortality ratio (76 to 22.16 between 1992 to 2018 (20). However, many proven effective MNH interventions (e.g., maternal fee exemption policies) were poorly implemented because of lack of governance and leadership at regional level (21–24).

To address these governance issues, the ministry of health implemented in 2017 a decentralised governance structure called “*regional task forces*”(RTF). They were intended to ensure adequate coordination and concerted collective actions between local health system actors (regional, provincial health officers) and health providers, and to some extent ensure appropriate stakeholders engagement and community participation (25). Regional taskforces are governance systems that enables the motivation of policy implementers and frontline health workers and ensures a dynamic engagement of regional stakeholders in the governance of MNH programmes (26, 27). We consider regional taskforces as complex governance networks that results from a dynamic interaction between agents (members) and structures (health facilities). These interactions are constrained by the institutional statutory rules, and a network of interconnected healthcare interfaces(28, 29).

In health policy and system research, little attention has been paid to the mechanisms underlying the effectiveness of decentralised governance systems and policy networks(27, 30). In Morocco, five years after their implementation, little is known about how effective regional taskforces in reinforcing the governance of RMNHP. To this end, this study aimed at exploring how effective are taskforces and identify the mechanisms underlying their effectiveness and contextual conditions within which these mechanisms are hindered or facilitated.

2. Methods

Realist evaluation

Realist evaluation (RE) is a theory driven evaluation that starts and ends with a detailed hypothesis called programme theory developed on the basis of existing knowledge and tested through iterative process of theory development, testing and refinement using empirical research(31, 32)(see figure 1).

According to Merton, 1967, programme theories are “ *theories that lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behaviour, social organization and social change.*” (33);

We consider regional taskforces as complex social systems characterised by a dynamic network of interacting agents and structures and by the emergence of unpredictable outcomes depending on context and time periods (35). The realist evaluation (RE) proved appropriate in deciphering such complex social systems (32, 36).

Developing an initial programme theory

Following guidance from (Westhorp,2012) and (Shearn,2017)(36) (37), we combined a rapid review of theoretical frameworks of health system governance structures and policy processes (18) (38) with policy document analysis (25, 39-41) and interviews with policy makers to develop a programme theory, that explain how, and under which conditions a regional taskforce is effective in the specific context of Morocco.

Based on the analysis of policy documents (25), an effective regional taskforce (RTF) need to accomplish the following goals: 1) *Coordinating* actions between different types of actors from different health systems organisations (Health regional office, teaching referral hospital, regional, provincial hospitals and primary healthcare centres (PHC)(25). 2) *Strategic management of MNH programmes* by analysing health system performance in relation to MNH and aligning national MNH strategies to the context of the health regions and provinces. 3) *Technical support to MNH programme implementation*.RTF supports provincial health teams in identifying implementation gaps and allocating required technical support, regulations and resources to alleviate them. 4) *Monitoring* MNH key performance indicators (e.g. Proportion of certified child birth centres, proportion of births attended by skilled health personnel, antenatal care coverage, caesarean section rate) (42) and ensuring the quality assurance of health information management systems at provincial level (e.g. maternal mortality surveillance systems (SSDMAR). 5) *Engaging with partners* : an effective taskforce needs to be able to engage with local partners (Governor, funders, socio-professional organisations, community representatives...etc).

In health policy and system research, many health system governance frameworks exist(17, 27). Most of these are inspired from economic and political theories (*agency theory, policy networks*, etc). In this study, in line with (booth, 2012) (43) and (Brinkerhoff and Bossert 2014)(17), we posit that effective governance systems are characterised by a best fit between their intrinsic capacities and the context of policy processes (complexity of health problems, leadership and engagement of actors, and the institutional statutory rules).

Intrinsic capabilities are the causal powers, (mechanisms in realist terms (44)), that are triggered in specific contexts which bring about the outcome of interest (in our case, degree of goal attainment) (38). These capabilities refer to the dynamic abilities of governance systems and organisations to coordinate a set of tasks and to utilise their internal resources to achieve specific end results(45) According to (Contandriopoulos,2004)(18),intrinsic capabilities includes technocratic, political, democratic and learning processes. Technocratic capabilities refer to the ability of the taskforce to support policy implementation by delegation of responsibilities, priority setting and ensuring accountability to central administration. Political capabilities refer to the ability to engage with key stakeholders. This depends on the decision space and degree of autonomy of members, their capacity to set rules and procedures, to negotiate and distribute power among its members. Democratic capabilities refer to the ability of members to reach consensus and implement agreed upon collective decisions. Finally, learning capabilities mean the ability to stimulate learning processes, use of evidence, and knowledge sharing among actors (Contandriopoulos,2004)(38).

By context, we mean the complex nature of health problems (technical difficulties, diversity of actors, the nature of required social change), the pre-existing healthcare statutory rules and legal frameworks (decision making processes, role attribution, objective coherence and resource allocation), the leadership and engagement of actors (senior managers and frontline workers), and finally, the general context of health regions (organisation of regional health systems, staff availability, pre-existing relationships)(18).

We formulate our programme theory as follows " *a taskforce is effective whenever there is a best fit between its intrinsic technocratic, political, democratic and learning capacities and the characteristics of the institutional context, the complexity of health problems and the engagement and leadership of actors (see figure 2.)*

Multiple embedded case study design

We will adopt a multiple embedded case study design (46) that allows a flexible exploration of different levels of analysis and takes into consideration the role of context (47).

The multiple embedded case study design is a suitable approach for the exploration of complex social phenomena and is flexible enough to allow the cross case comparative analysis (47) and the testing of our programme theory in two negative and positive cases.

Case definition

The case here corresponds to the dynamic interactions between actors and structure within the MNH regional taskforce.

Case selection

We selected six health regions :Tangier Al Hoceima Tetouan (TTA), Marrakech Safi (MS), Benimellal Khenifra (BMK), Casablanca Settat (CS), Deraa Tafilalt (DT) , Rabat Salé Kenitra (RSK). We purposefully

chose the six case studies to allow maximum variation in regional contexts (rural versus urban, with or without financial support, high versus low population density). The selection processes was informed by discussions between research team members and with commissioners of the evaluation (Ministry of health, direction of population and the UNICEF) (meeting, 22 oct 2020).

Selection of participants

The selection of participants is guided by the programme theory (31, 48) and the statutory regulations (49). We included two types of participants :

1. taskforces members : this group includes *ex officio members* (regional health officer (RHO), provincial health officers (PHO), hospital directors, heads of maternity wards and primary healthcare networks), and *professional experts* in the following disciplines: neonatology, gynaecology and obstetrics, anaesthesiology and resuscitation, neonatal resuscitation, neonatology, paediatrics, midwifery (25).
2. Policymakers and consultants who have been involved in the design and the implementation of the RTF.

Data collection

We based the choice of the data collection methods on our initial programme theory (figure 2). We will follow specific guidelines in carrying our individual interviews (50), focus group discussions (FGDs)(51), a document review. Interviews and FGD, will be carried out in Moroccan dialect or in French (see supplementary files 1-3). All interviews and FGD will be audio recorded and transcribed.

During the research, we will collect relevant policy documents (taskforce meeting minutes, regional action plans, regional strategic plans, maternal death audit reports etc).

We will adopt a sequential data collection (see figure 3) to allow the refinement of our programme theory (programme specification in realist terms)(32, 34, 48, 52). Data collection will be organised in three phases:

Phase 1: We will carry out 10 to 12 individual interviews (see supplementary) with policy makers funders, experts who designed or participated to the implementation of RTF intervention. Snowballing technique will be used to identify additional key informants. We will also collect policy documents, reports and statutory regulations that informs “taskforce” policy formulation, and implementation processes. The end result of this phase is a refined programme theory.

Phase 2: We will conduct 4 to 6 individual interviews in each regional taskforce with taskforces members (regional health officer, health managers at regional and provincial level, health professionals). At the end of this cycle, we will use comparative case analysis that allows us to identify sufficient and necessary

conditions that led the desired outcome. This phase will guide the selection of one high performing and one low performing taskforce)

Phase 3: We will conduct two in depth case studies (taskforces with contrasting performance). In each case study, we will carry-out additional 6 to 12 face to face or online (due to the Covid19 pandemic) individual interviews and three focus group discussions with managers (RHO, PHO, hospital directors, head of maternity) and experts (physicians, professional association representatives, midwives). At the end of this phase, we will be able to confirm or refute our programme theory (53) (see figure 3).

Data analysis

In case analysis

During the initial coding phase, we will use concept and nvivo coding(54). Initial coding is guided, but not restricted by our programme theory. We will use NVivo 11 to manage the qualitative data (transcripts, policy documents, summary contacts) (55). In a second phase, we will use the causation coding method(54) by identifying respondents individual reasoning about the causal powers underlying the effectiveness of taskforces.

During this iterative process, we will focus specifically on the causal linkages between the intrinsic capacities of taskforces and the contextual elements identified during in case empirical data analysis. We will use the Intervention-Context-Actors-Mechanism-Outcome configuration (ICAMO) as a heuristic tool to describe and identify plausible causal configurations (56, 57).

Cross case analysis

To compare different ICAMOs configurations between the 6 different case studies, we will use qualitative comparative analysis(58).

Qualitative comparative analysis

To compare each taskforce in the six health regions, we will use qualitative comparative analysis (QCA) (58). QCA is a case-based method that allows for a systematic comparative analysis, description, interpretation, categorisation and explanation of cases (58-62). QCA proved appropriate in identifying typologies of cases and set theoretical relations (63-65).

In this study, QCA will allows us to compare cases by identifying necessary or sufficient conditions (in this case,[taskforce core functions, see figure 2 and supplementary file 3] to bring about the desired outcome (strengthened MNH health system governance).

Using QCA, we will be able to categorise each case by assessing the degree of membership in each specific set of subfunctions (in QCA terminology this process is called calibration)(65). We will use specifically QCA crisp set that differentiate qualitatively between a set of cases on the basis of case full membership scores (0 or 1)(65). For instance, a taskforce, that is not carrying meetings on a regular

basis will be scored (0). 0 is a membership score that is a qualitative attribute that describe *full non membership* to a subset [Taskforce with regularity of meetings]). A taskforce that is carrying situation analysis of MNH in the health region will be scored (1). 1 means *full membership* to a subset of TSF carrying situational analysis)(see table supplementary file 3). This will allow us to test the sufficiency or necessity of contextual conditions derived from our initial programme theory and cross case analysis. Plausible conditions include, for instance, the existence of financial support, actors' engagement, leadership of regional health officers, mobilisation of extrabudgetary resources, involvement of frontline workers...etc (see figure 2 and supplementary file 3).

At the end of the analysis, we will construct a truth table that is a visual description of the configurations of cases (membership scores in different set of conditions (subfunction). In practice, we will use crisp set QCA using Excel QCA add-in software(66). Following the comparison between the different ICAMO configurations across different cases, we will synthesise them into a refined programme theory.

3. Discussion

The study findings will be reported using Ramesses guidelines for reporting realist evaluations(67)

The added value of this research is the relevance of using multiple embedded case study designs that combines multiple research methods (Realist evaluation and qualitative comparative analysis). The RE is best suited for unravelling the underlying social mechanisms(32). Whereas, the qualitative comparative analysis, (61, 64, 68, 69) allows cross case analysis with large N number of case studies. It is also useful in testing the sufficiency and necessity of contextual conditions that may facilitate or hinder the activation of causal mechanisms. QCA is also useful in allowing both programme theory refinement and testing (70).

Integrating RE and QCA might be considered as a promising research avenue in addressing challenges in evaluating complex interventions in real world settings (71-73). To our knowledge, the combination of RE and QCA has not yet been explored in LMIC settings.

Our research has practical implications for policy makers in a sense that it sheds a light on how to strengthen health system governance at subnational levels and to inform policymakers about major implementation gaps that hinder effective health system strengthening at regional level. To this end, the realist evaluation approach is well suited for informing policy makers about the role of contexts, power dynamics and other factors in shaping the working of governance systems in sexual and reproductive health (45, 74).

However, there are some common methodological challenges to realist evaluations (69, 75, 76). First, the initial difficulty, as in any realist evaluation, is the careful selection of programme theories by using policy documents, literature review, interviews with RTF designers, implementors and the use of exploratory case studies (37, 69, 75-77). This implies confronting our IPT with empirical data and testing its plausibility against other rival theories(77-79) .

Second, we acknowledge the complexity of measuring governance concept(35). Using conceptual frameworks in operationalising regional governance subfunctions will provide us with guidance during thematic analysis, cross case analysis, and may be helpful in moving forward the agenda of measurement of health system governance (27). In this study, we focused on qualitative data because it provides rich accounts of contexts, it allows the unravelling of individual reasoning and power dynamics and take into consideration of the dynamic nature of social governance systems(47).

Finally, recall bias is commonly described in retrospective realist evaluations(78). We will mitigate this risk by careful triangulation and cross validation of data from multiple sources (interviews, focus group, policy document and routine data).

In summary, RE combined with QCA allows appropriate understanding the relationship between governance structures (in our case RTF) and human agency in the field of sexual and reproductive health. It also allows a better understanding of how, why, and under which conditions governance systems might work (or not). By using multiple embedded cases studies, RE allows theoretical replication described by (Yin,2018) (47) across different settings and overcomes the traditional external validity limitation of cases studies.

Abbreviations

BMK : Beni Mellal and Khenifra

DT : Draa Tafilalt

ENPSF : 'Enquête Nationale sur la population et la santé familiale'

IPT : Initial programme theory

LMIC : Low- and Middle-Income Countries

MNH : Maternal and neonatal health

MS : Marrakech-Safi

OECD: Organisation for Economic Co-operation and Development

PHC : Primary healthcare centres

PHO : Provincial health officer

QCA : qualitative comparative analysis

RE : Realist Evaluation

RHO : Regional health officer

RMNHP : Regional maternal and neonatal health programmes

RSK : Rabat - Sale -Kenitra

RTF : Regional taskforce

SDG : Sustainable development goals

Declarations

This research is part of cooperation framework 2019-2020 between the ministry of health and UNICEF Morocco frameworks.

Ethics approval and consent to participate

The research protocol was approved by the Moroccan Institutional Review Board in Rabat (n°03/21) .All interviewees were informed before the start of data collection about the study objectives, the topics, the type of questions and their right to refuse being interviewed or interrupt the interview at any time. The same information was included in an information sheet that was given to candidate interviewees and reiterated when the written consent form was discussed before the start of the interview.

Consent for publication : « Not Applicable »

Availability of data and material : « Not Applicable »

Competing interests : The authors declare that they have no competing interests.

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Author's contributions

All the four authors contributed to the original design and analysis and writing of the manuscript. ZB, MR and BA drafted the first research protocol. ZB, MR, SM, CH, BA carried out the data collection. Initial coding was done by all authors and were discussed between the research team members. ZB edited the final draft. All authors read and approved the final manuscript.

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Figures

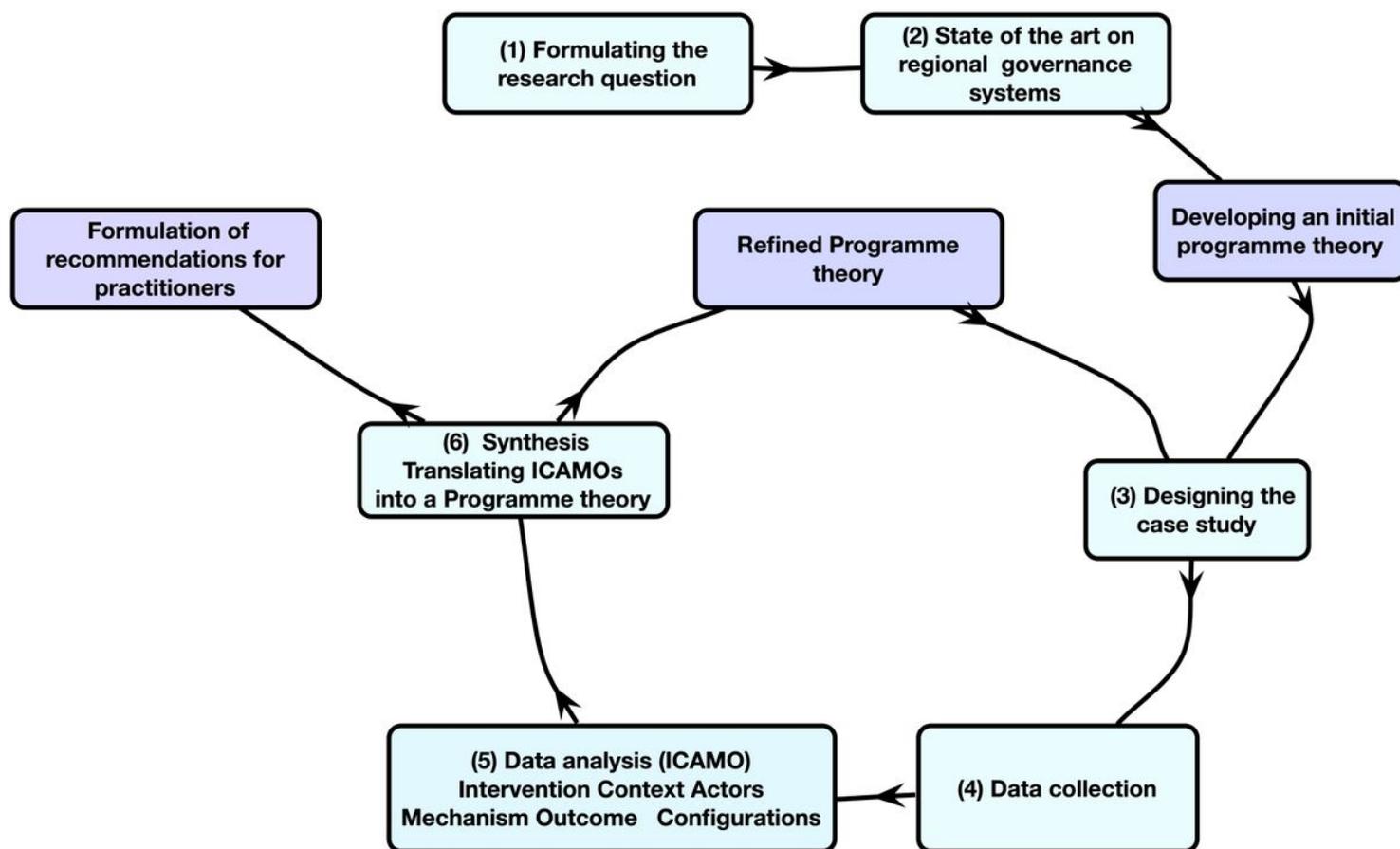


Figure 1

Realist Cycle adapted from (Belrhiti et al, 2020)(34)

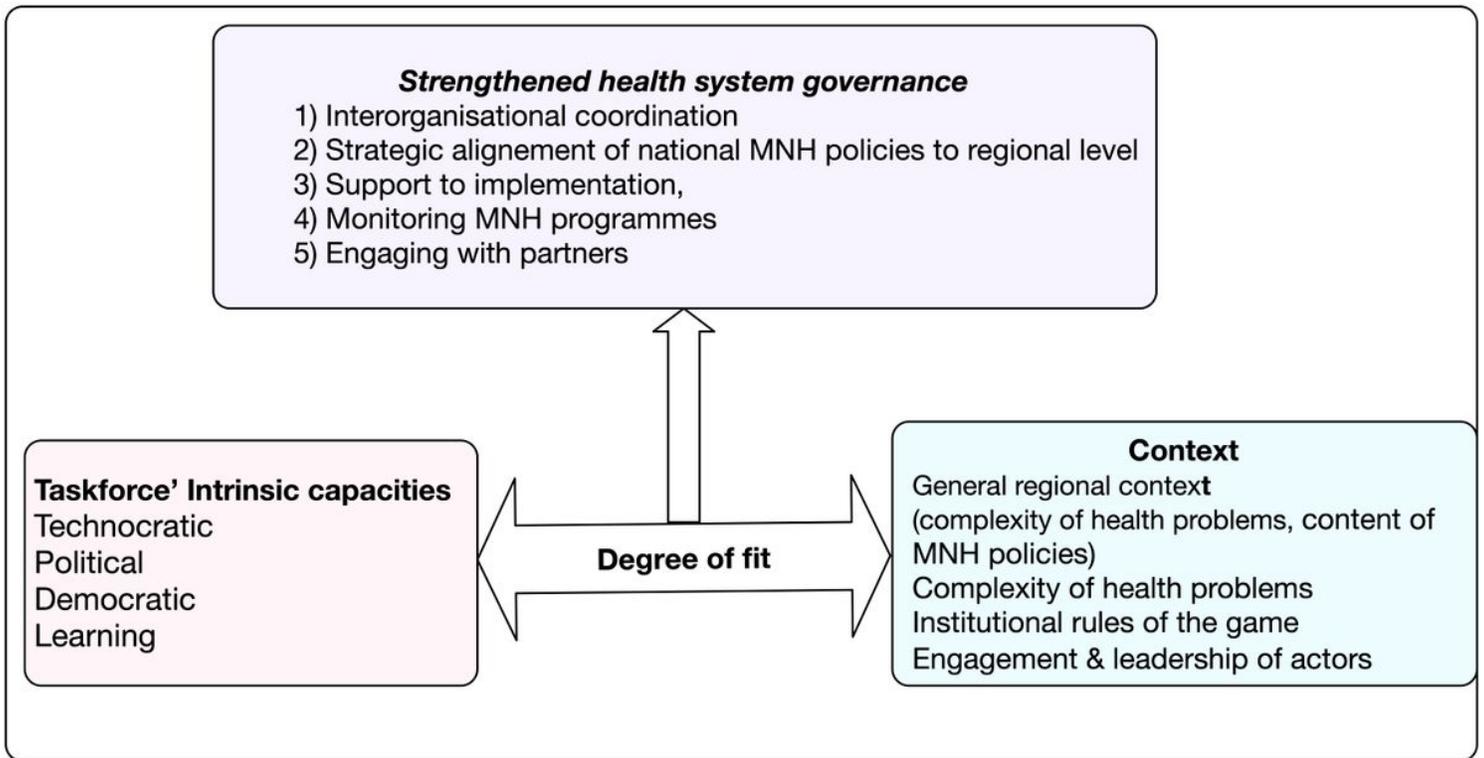


Figure 2

Initial programme theory

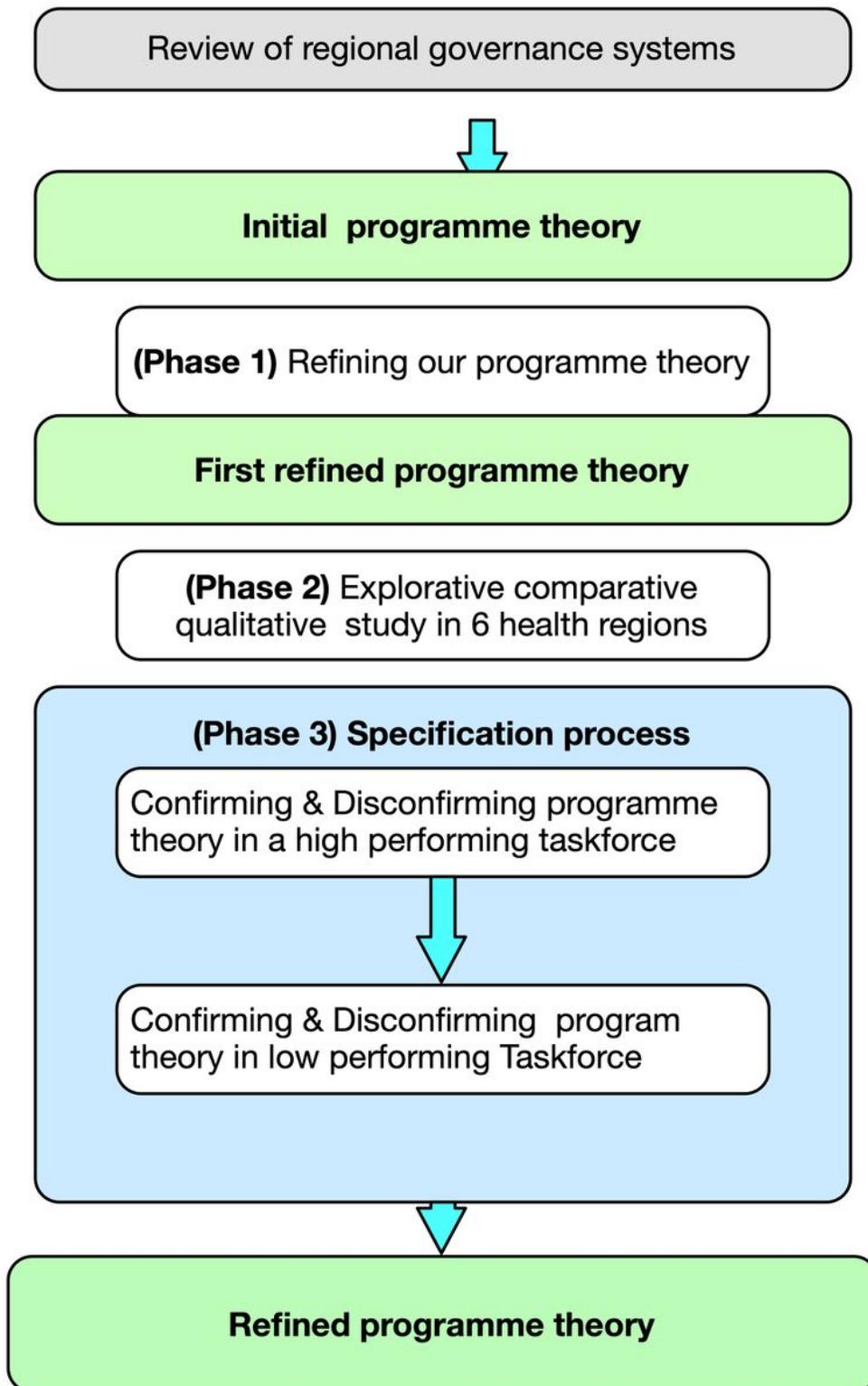


Figure 3

Multiple embedded design

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