



BMJ Open Influence of contextual factors on strengthening key strategic and operational levers of primary healthcare to achieve universal health coverage: a protocol for a realist review

Daniel Erku ^{1,2,3}, Resham Khatri,³ Aklilu Endalamaw,^{3,4} Eskinder Wolka,⁵ Frehiwot Nigatu,⁵ Anteneh Zewdie,⁵ Yibeltal Assefa ³

To cite: Erku D, Khatri R, Endalamaw A, *et al.* Influence of contextual factors on strengthening key strategic and operational levers of primary healthcare to achieve universal health coverage: a protocol for a realist review. *BMJ Open* 2023;**13**:e070370. doi:10.1136/bmjopen-2022-070370

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-070370>).

Received 21 November 2022
Accepted 20 March 2023



© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to

Dr Daniel Erku;
d.erku@griffith.edu.au

ABSTRACT

Introduction Existing scoping reviews on the link between primary healthcare (PHC) and universal health coverage (UHC) have not sufficiently addressed the underlying causal mechanisms in which key strategic and operational PHC levers contribute to improved health system and realisation of UHC. This realist review aims to examine how key PHC levers work (independently and holistically) to achieve an improved health system and UHC, and the conditions and caveats that influence the outcome.

Methods and analysis We will employ a four-step realist evaluation approach: (1) define the review scope and develop initial programme theory, (2) database search, (3) data extraction and appraisal, (4) synthesis of evidence. Electronic databases (PubMed/MEDLINE, Embase, CINAHL, SCOPUS, PsycINFO, Cochrane Library and Google Scholar) and grey literature will be searched to identify initial programme theories underlying the key strategic and operational levers of PHC and empirical evidence to test these matrices of programme theories. Evidence from each document will be abstracted, appraised and synthesised through a process of reasoning using a realistic logic of analysis (ie, theoretical, or conceptual frameworks). The extracted data will then be analysed using a realist context–mechanism–outcome configuration, including what caused an outcome, through which mechanism, and under which context.

Ethics and dissemination Given the studies are scoping reviews of published articles, ethics approval is not required. Key dissemination strategies will include academic papers, policy briefs and conference presentations. By capturing the relationship between sociopolitical, cultural and economic contexts and the pathways in which PHC levers interact with each other and the broader health system, findings from this review will facilitate the design and development of evidence-based, context-sensitive strategies that will enhance effective and sustainable PHC implementation strategies.

INTRODUCTION

Despite remarkable achievements in improving the health outcomes of the global

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The realist synthesis methodology allows for a flexible approach to unpack the complexities of implementing primary healthcare and determine what strategies are effective for whom and under what circumstances.
- ⇒ Our review may be subject to some of the inherent methodological limitations associated with realist synthesis, including challenges related to reproducibility and generalisability.
- ⇒ In conducting a realist synthesis, ensuring quality assurance is contingent on reviewers' explicitness and reflexivity, which may introduce potential biases that need to be considered.

population during the era of the Millennium Development Goals, important gaps still persist in people's ability to attain the highest possible level of health.¹ Universal health coverage (UHC) is a key target of the 2030 Sustainable Development Goals (SDGs).² UHC means that all people receive the quality health services they need, while ensuring that health service utilisation does not expose users to financial hardship.^{3,4} Primary healthcare (PHC), which first came to the fore with the 1978 Alma Ata declaration,⁵ provides the programmatic engine for UHC, the health-related SDGs and health security.⁶

Primary Health Care (PHC) is a comprehensive approach to healthcare that involves all sectors of society and government. Its goal is to promote the highest possible level of health and well-being, and to provide equitable and timely distribution of healthcare based on people's needs.⁷ As such, a strong PHC system is a critical milestone along the road to achieving UHC targets. Integrating PHC across a wide range of policies, strategies and services requires a substantial paradigm

shift in how policies and activities are prioritised, funded and implemented.^{8–10} PHC involves various strategic and operational levels to ensure effective implementation and achievement of its goals. At the strategic level, PHC requires strong political commitment, leadership and governance, funding and allocation of resources, and meaningful engagement of individuals, communities and stakeholders from all sectors.^{9 10} At the operational level, PHC involves an integrated, people-centred model of care, multisectoral action, sound public–private partnership, adequate and competent PHC workforce and digital technology-enabled service delivery.¹¹ The full list of WHO’s operational framework levers can be found in online supplemental file 1. These strategic and operational levers of PHC align with the well-known building blocks and functions of effective health systems and are summarised in the WHO’s recent draft operational framework, which aims to provide guidance to countries throughout the national planning cycle on how commitment to PHC can be translated into UHC outcomes.¹¹ Several potential mechanisms and theoretical links have been proposed regarding how core PHC strategic levers can help achieve intermediate and final health system goals. For example, the WHO’s health system performance assessment framework for UHC, published in 2022, conceptually links health system functions (ie, governance, financing, resource generation and service delivery) to intermediate and final health system goals.¹² However, these theoretical links are often left implicit without any systematic analysis of the role and influence of contextual factors and confounders on the success, failure and/or unforeseen consequences of PHC implementation, and how various PHC levers work (or do not work) to achieve UHC and in what circumstances.¹³ Implementing all levers needs to consider the contexts, strengths and weaknesses of the health system. Implementation of PHC approaches and principles depends on sociopolitical, cultural and economic contexts and their interacting pathways.¹⁴ Contextual factors (which are often conceptualised as barriers and facilitators to effective implementation), the components of PHC levers and theoretical underpinnings of PHC levers are highly intertwined, with all three interacting with and influencing each other.¹⁵ In most implementation studies, it is difficult to decipher an intervention from its context, mainly due to loosely and arbitrarily defined boundaries¹⁶ and the dynamic nature of contexts. Furthermore, contextual factors that act as barriers to implementation in one setting may facilitate implementation in another.¹⁷ Examining what approach to implementation of PHC levers works and under what conditions using a theoretically driven and explanatory approach will provide a valuable insight into the role context plays in the success, failure and unforeseen consequences of PHC in achieving UHC.¹⁸ Several theoretical frameworks have been published linking one or more PHC levers to UHC outcomes and health system goals. This realist review aims to understand how PHC levers contribute to intended and unintended outcomes,

and the underlying contexts and mechanisms in which PHC levers contribute to improved health system and realisation of UHC. Using existing programme theories and frameworks that underpin the various levers of PHCs, we will synthesise the existing evidence on:

- ▶ What are the intended and unintended outcomes of key strategic and operational levers of PHC on achieving UHC outcomes?
- ▶ What are the key mechanisms by which key strategic and operational levers of PHC result in their intended and unintended outcomes?
- ▶ What are the important contextual influences on how different mechanisms produce intended and unintended outcomes?

METHODS

We will employ a realist evaluation approach originally developed in the 1990s by Pawson and Tilley to explore the underlying contexts and mechanisms of PHC principles and health systems¹⁵ within the context of achieving UHC. This review will be guided by four steps, as proposed by Pawson *et al*¹⁵: (1) define the review scope and develop initial programme theory, (2) search for evidence, (3) data extraction and appraisal and (4) synthesis of evidence.

Scope of the review

This Realist Review (RR) aims to refine our understanding of how the core strategic and operational levers of PHC work (independently and holistically) to achieve an improved health system and UHC, and the conditions and caveats that influence the outcome. Informed by the literature and identified theoretical frameworks that describe a theoretical relationship among contexts, mechanisms and outcomes, we will examine how, why, for whom and under what circumstances does PHC levers work in achieving UHC outcomes and health system goals.

Definitions

For this suite of reviews, PHC is defined as ‘a whole-of-society approach to health that aims at ensuring the highest possible level of health and well-being and their equitable distribution by focusing on people’s needs and as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation and palliative care, and as close as feasible to people’s everyday environment’.¹⁹ PHC is not a level of care or a goal in itself, but rather a reorientation of health systems towards a comprehensive, community-based approach to healthcare that facilitates a feasible and equitable route to achieving UHC. Context entails the backdrop of programmes, including any characteristics and circumstances that are not part of the PHC lever(s) but are key features of the environment in which PHC lever(s) are implemented. Mechanisms are underlying entities, processes or structures of PHC levers, which operate in specific contexts to generate outcomes of interest, that is,

UHC. The context–mechanism–outcome (CMO) configuration explains the causal relationship between contextual factors, whether a mechanism of interest is triggered by it (or not) and the intermediate and final outcomes produced.

Search strategy

The search strategy will involve two phases: (1) searches to identify initial programme theories underlying the intervention (ie, the mechanisms through which principles of PHC affect the health system and results in UHC) and (2) searches to identify empirical evidence to test this matrix of programme theories. As the first step in a realist synthesis, an initial scoping search will be conducted to identify a suite of theoretical or conceptual frameworks that explain and/or visualise the underpinning assumptions about why certain components and processes of PHC levers are required to achieve one or more desired outcomes. First, we will provide a detailed elaboration of the theoretical or conceptual frameworks that underpin the key principles of PHC through electronic searches of the grey literature and consultation with health system experts. The search strategy and keywords for theoretical or conceptual frameworks will be based on purposefully broad, relatively unstructured exploratory internet-based searches to locate a varied range of theories, models and frameworks, which can provide an overview of the topic area. The scoping searches will be augmented by a specific, highly focused search strategy and keywords for empirical evidence, which will be built on three key concepts (PHC, PHC levers or principles and UHC), and will be tailored to each database. Boolean operators and truncations will vary depending on the database. The search will include articles published from the inception of each database up to the end of December 2022 and

will be run without any time-related, language or country-related limitations.

The following scholarly databases will be searched: PubMed/MEDLINE, Embase, CINAHL, SCOPUS, PsycINFO, Cochrane Library and Google Scholar. We anticipate the need to examine specific case studies to test hypotheses about contextual differences in how PHC levers work for whom and under what conditions. Thus, grey literature searches will also be conducted using searches of websites of relevant bilateral and trilateral agencies, ministry of health and other government agencies. Depending on the type of PHC levers, we will include relevant grey literature (eg, mHealth Database for digital health). Where relevant, citation and reference tracking (ie, forward and backward citation searches of included articles) will be conducted to further locate eligible articles that may have been missed from the database search. The search strategy will be tailored to each database, while various keywords and synonyms will be tested and added to each concept. All search strategies, keywords and synonyms will be tested and refined further during the review. An example of search strategies for digital health enabled PHC to achieve UHC is presented in [table 1](#).

We will include editorials, opinion/position pieces, commentaries, realist evaluations, process evaluations, feasibility studies, qualitative and quantitative studies, programme manuals and systematic and scoping reviews. The search will be conducted separately for each of the PHC principles. The research team will select, assess and discuss a random sample of 10% of documents from each search results to ensure the search strategy is consistent with the hypothesis and the retrieved documents are relevant. The remaining documents will be screened

Table 1 Example of keywords to be employed in the search strategy

PHC lever—digital health	ehealth OR e-health OR 'electronic health' OR 'digital health' OR 'digital technolog*' OR 'digital intervention*' OR 'electronic care' OR telemedicine OR 'tele medicine' OR telehealth OR tele health OR telecare OR tele care OR telemonitoring OR tele monitoring OR teleconsultation OR tele-consultation OR videoconsult* OR 'video consult' OR 'text messag*' OR texting OR 'mobile health' OR 'mobile care' OR mhealth OR 'm health' OR android OR app OR apps OR audio* OR 'cell phone' OR cellphone OR computer* OR mobile OR multi-media OR multimedia OR 'personal digital assistant' OR PDA OR SMS OR 'social medi*' OR software or telecomm* OR e-Portal OR ePortal OR eTherap* OR e-therap* OR forum* OR 'information technolog*' OR 'instant messag*' OR internet* OR ipad OR i-pad or iphone OR i-phone OR ipod OR i-pod OR android OR web* OR 'smart phone' OR smartphone OR 'mobile phone' OR e-mail* OR email*
UHC	'Universal Health Care' OR 'Health Equity' OR 'Health Services Accessibility' OR 'Quality of Health Care' OR 'health coverage' OR 'care coverage' OR 'service coverage' OR 'treatment coverage' OR 'universal coverage' OR 'universal health coverage' OR 'UHC' OR 'financing coverage' OR 'Financial risk protection' OR 'Financial hardship' OR 'Financial protection' OR 'Financial protection in health' OR 'Efficiency' OR 'Equity' OR 'Responsiveness' OR 'coverage' OR 'effectiveness' OR 'performance'
PHC	'Primary health care' OR 'community engagement' OR 'intersectoral coordination' OR 'multisectoral action*' OR multisectoralism OR 'appropriate care' OR 'comprehensive health care' OR 'Equity' OR 'Integrated care' OR 'continuity of care' OR resilience
PHC, primary healthcare; UHC, universal health coverage.	

by one reviewer per PHC principles, while the research team meets regularly to discuss and ensure the screening criteria, which will be developed a priori, are being accurately and consistently applied.

Data extraction, appraisal and synthesis

Data will be extracted and synthesised following a realist review approach.¹⁵ Unlike traditional systematic reviews which use standardised data abstraction form, RR involves note-taking and text annotation to extract and synthesise key information on how an intervention works (or not), which are then highlighted and labelled within components of the selected theoretical framework. Accordingly, we will employ different and appropriate ways of data extraction at different stages of the review. This includes deductive codes prepared a priori based largely on the selected programme theories and inductive codes for sections of text that seem relevant to the mechanism, context and/or outcome of interest. Owing to the potentially large volume of documents, data extraction will be divided among the review team, whereby one reviewer will independently extract detailed information for each PHC principles, while the completeness and accuracy of data collection then be verified by a second reviewer. The data extraction process will be iterative, with repeated discussion (and consensus where there are disagreements) among the research team on data extraction approach and the initial analytical framework.

Quality appraisal process will take an iterative, holistic approach and will be conducted throughout the review process instead of focusing on the methodological rigour of studies as is the case for traditional systematic reviews.¹⁵ Where relevant, we will employ a specific methodological checklist appropriate to the method used in the included document (eg, the Mixed Method Appraisal Tool (MMAT)).²⁰ The MMAT is chosen as it allows a concomitant assessment of studies with diverse methodologies, has theoretical and content validity and has been tested for efficiency and reliability.²¹ Evidence from each document will be abstracted, appraised and synthesised through a process of reasoning using a realistic logic of analysis (ie, theoretical or conceptual frameworks). The extracted data will then be analysed using a realist CMO configuration, including what caused an outcome, through which mechanism and under which context. Where studies conducted in comparable circumstances or contexts reported differing findings, the sources of evidence will be consolidated and situated to explain possible reasons and contextual confounders. We will also juxtapose sources of evidence in situations where information about digital health solutions in one document allows insights into evidence about outcomes in another document.

Patient and public involvement

None.

Ethics and dissemination

Given the studies are scoping reviews of published articles, ethics approval is not required. The findings will

be written up according to the publication standards outlined by the realist and meta-narrative evidence synthesis (RAMESES) group and will follow the format set out by the RAMESES standards.²² Dissemination of these findings is of particular importance for policy-makers and researchers in furthering the debate on promoting PHC reforms and strategies to achieve PHC goals. Key dissemination strategies will include academic papers, policy briefs and conference presentations.

DISCUSSION

Accelerating progress towards UHC requires strengthening health systems through investment in the foundations of health systems and adopting an integrated approach, based on PHC, that leaves no one behind. A 'PHC-oriented health system' maximises equity and solidarity and is composed of key strategic and operational levers that support UHC.²³ Existing scoping reviews on the link between PHC and UHC have not sufficiently addressed the underlying causal mechanisms in which key strategic and operational PHC levers contribute to improved health system and realisation of UHC. Thus, there is a significant need for research with a more explanatory approach (exploring how and why) that clarifies and clearly delineates the context, mechanism and processes through which PHC principles improve the health system and result in UHC. These suites of scoping reviews and realist syntheses aim to bridge these gaps by providing a context-sensitive evidence synthesis focusing on the influence of contextual factors on strengthening health systems through PHC approach to achieve UHC. By capturing the relationship between sociopolitical, cultural and economic contexts and the pathways in which PHC levers interact with each other and the broader health system, findings from this review will facilitate the design and development of evidence-based, context-sensitive interventions that will enhance effective and sustainable PHC services.

The scoping reviews will follow the realist synthesis approach, a theory-driven evidence synthesis approach designed to unpack the heterogeneity and complexity of intervention, thereby understanding what works for who and under what circumstances. Using data from multiple sources (eg, peer reviewed papers, policy documents and grey literature) and a programme theory, RR aims to make sense of the various circumstances and unintended consequences that may have a direct or indirect influence on the success of an intervention. At the core of realist review is the context-bound assumption, that is, interventions may work in one context but not in others. Thus, an outcome is measured as the context (eg, cultural norms, values, how services are configured etc) and mechanisms (eg, the resources offered by the intervention) in which the programme is implemented.

As with all evidence synthesis methods, our approach is not without limitations. Although we will use rigorous and standard realist review approach to summarise and

present empirical data from the published literature, our review may suffer from the inherent methodological limitations of a realist synthesis, such as reproducibility and generalisability. Furthermore, quality assurance within realist synthesis is dependent on reviewers' explicitness and reflexivity, subjecting to further bias. To remediate this, we will build checks and balances throughout the review process by undertaking a formal and continuous reflective discussion with review team members. Some of them are health policy and health system experts. Overall, given that realist synthesis is rooted in theoretical frameworks and 'logic of enquiry', it will enable us to follow a flexible approach to untangle the complexity of PHC implementation and explain what works for whom and in what circumstances. The findings will provide insight to policy-makers and service providers codesign service provision for greater efficiencies and equity.

Author affiliations

¹Centre for Applied Health Economics, Griffith University, Nathan, Queensland, Australia

²Menzies Health Research Queensland, Griffith University, Gold Coast, Queensland, Australia

³School of Public Health, The University of Queensland, Herston, Queensland, Australia

⁴College of Medicine and Health Sciences, Bahir Dar University, Bahir Dar, Ethiopia

⁵International Institute for Primary Health Care in Ethiopia, Addis Ababa, Ethiopia

Twitter Daniel Erku @erkudaniel

Contributors DE, YA, AE and RK conceived and designed the study. DE developed the search strategy and drafted the manuscript. YA, EW, RK, FN, AZ and EW reviewed and edited the manuscript. All authors approved on submitting the article for publication.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Daniel Erku <http://orcid.org/0000-0002-8878-0317>

Yibeltal Assefa <http://orcid.org/0000-0002-8636-1282>

REFERENCES

- Motala S, Ngandu S, Mti S, *et al*. Millennium development goals: country report 2015; 2015.
- Yamey G, Shretta R, Binka FN. The 2030 sustainable development goal for health. *BMJ* 2014;348:g5295.
- Wong J. Achieving universal health coverage. *Bull World Health Organ* 2015;93:663–4.
- Kutzin J. Health financing for universal coverage and health system performance: concepts and implications for policy. *Bull World Health Organ* 2013;91:602–11.
- World Health Organization, Regional Office for Europe. *Declaration of Alma-ata*. World Health Organization, 1978.
- World Health Organization. Primary health care on the road to universal health coverage: 2019 global monitoring report; 2021.
- World Health Organization. *A vision for primary health care in the 21st century: towards universal health coverage and the sustainable development goals*. World Health Organization, 2018.
- Lal A, Erondu NA, Heymann DL, *et al*. Fragmented health systems in COVID-19: rectifying the misalignment between global health security and universal health coverage. *Lancet* 2021;397:61–7.
- Assefa Y, Gilks CF, van de Pas R, *et al*. Reimagining global health systems for the 21st century: lessons from the COVID-19 pandemic. *BMJ Glob Health* 2021;6:e004882.
- Abimbola S, Negin J, Jan S, *et al*. Towards people-centred health systems: a multi-level framework for analysing primary health care governance in low- and middle-income countries. *Health Policy Plan* 2014;29 Suppl 2:ii29–39.
- World Health Organization. Operational framework for primary health care. Transforming vision into action: WHO. 2019. Available: <https://www.who.int/publications/i/item/9789240017832>
- Papanicolas I, Rajan D, Karanikolos M, *et al*. Health system performance assessment: a framework for policy analysis. World Health Organization; 2022.
- Gilmore B, McAuliffe E, Power J, *et al*. Data analysis and synthesis within a realist evaluation: toward more transparent methodological approaches. *Int J Qual Methods* 2019;18:160940691985975.
- Walley J, Lawn JE, Tinker A, *et al*. Primary health care: making Alma-Ata a reality. *Lancet* 2008;372:1001–7.
- Pawson R, Greenhalgh T, Harvey G, *et al*. Realist review--a new method of systematic review designed for complex policy interventions. *J Health Serv Res Policy* 2005;21:31–34.
- Øvretveit J. Understanding the conditions for improvement: research to discover which context influences affect improvement success. *BMJ Qual Saf* 2011;20 Suppl 1:i18–23.
- May CR, Johnson M, Finch T. Implementation, context and complexity. *Implement Sci* 2016;11:141.
- Pfadenhauer LM, Gerhardus A, Mozygemba K, *et al*. Making sense of complexity in context and implementation: the context and implementation of complex interventions (CICI) framework. *Implement Sci* 2017;12:21.
- World Health Organization. A vision for primary health care in the 21st century: towards universal health coverage and the sustainable development goals. WHO; 2018. Available: <https://apps.who.int/iris/handle/10665/328065>
- Hong QN, Fàbregues S, Bartlett G, *et al*. The mixed methods appraisal tool (MMAT) version 2018 for information professionals and researchers. *EFI* 2018;34:285–91.
- Pace R, Pluye P, Bartlett G, *et al*. Testing the reliability and efficiency of the pilot mixed methods appraisal tool (MMAT) for systematic mixed studies review. *Int J Nurs Stud* 2012;49:47–53.
- Wong G, Greenhalgh T, Westhorp G, *et al*. Development of methodological guidance, publication standards and training materials for realist and meta-narrative reviews: the RAMESES (realist and meta-narrative evidence syntheses – evolving standards) project. *Health Services and Delivery Research* 2015;2:1–252.
- UHC2030. Action on health systems, for universal health coverage and health security. A UHC2030 strategic narrative to guide advocacy and action. 2022. Available: https://www.uhc2030.org/fileadmin/uploads/uhc2030/Documents/Key_Issues/Advocacy/UHC2030_Health_systems_narrative_actions_paper.pdf