

Allocation of Financial Resources to Primary Healthcare: A Scoping Review Protocol

Abstract

Background: Countries possessing robust primary healthcare (PHC) systems typically yield superior health outcomes, reduced inequality, and diminished healthcare expenses for their citizens. Moreover, PHC demonstrates a direct correlation with the efficient utilization of resources. However, the allocation of financial resources dedicated to PHC varies significantly among countries and lacks explicit clarity. Therefore, this paper aims to conduct a review of published literature to ascertain the extent of resource allocation to PHC across diverse nations. In addition, it aims to explore associated factors, challenges, and mechanisms influencing this allocation. **Methods:** This scoping review protocol will adopt the Joanna Briggs Institute's scoping review methodology, which was updated in 2020. It will leverage library studies and refer to reputable databases. The inclusion criteria will include studies conducted between January 2000 and December 2023, focusing on criteria, amounts, mechanisms, and challenges associated with financial resource allocation to PHC globally. In addition, studies must be published in either English and Persian. Studies lacking full-text availability will be excluded from the review. Mendeley software will be utilized to organize and manage the collected studies. The study selection process will be visually depicted using the PRISMA-SCR diagram. Conventional content analysis will be employed to analyze the studies. **Conclusions:** Considering the position and role of primary health care in promoting the health of society, by implementing this protocol, the data obtained from the proposed scoping review will enable the managers and officials of the health system to follow the experiences of different countries in the field of scientific and fair allocation of financial resources to PHC, reinforcing Universal Health Coverage (UHC).

Keywords: Financial resource allocation, primary healthcare, research protocol, resource allocation

Introduction

Every country strives to enhance the overall health of its population to enable active participation in economic and social activities while maintaining good health.^[1] Primary healthcare (PHC) is widely recognized as a key strategy in many nations to attain this goal.^[2] As the allocation of resources to PHC represents a global concern,^[3] a recent UN meeting adopted a resolution urging countries to ensure sufficient public funding to fortify health systems. Emphasis was placed on delivering timely, high-quality services and augmenting resource allocation to PHC.^[4] Consequently, strengthening and enhancing health systems, including PHC, are intricately linked to optimal resource allocation.^[5] Countries boasting robust PHC systems often exhibit improved health outcomes, reduced inequality, and decreased healthcare expenses.^[6]

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Amid the COVID-19 pandemic, the World Health Organization (WHO) Commission released a report on financial allocations to PHC, garnering widespread acclaim. This report underscores that the COVID-19 crisis highlights the necessity for increased investments in health.^[7] It advocates for all nations to enhance their investments in PHC and formulate improved strategies for allocating financial resources. Such actions aim to foster equal access, equity, and parity, enhancing PHC services and fortifying health systems to address the evolving health needs of populations adeptly.^[8] Following commitments established at the International PHC conference in October 2018, countries and stakeholders pledged, in line with the Alma-Ata Declaration, to ensure adequate financial resource allocation for PHC. Nevertheless, the WHO asserts that numerous countries allocate insufficient funds toward societal health and employ inefficient spending practices.^[9] Health systems frequently

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grapple with resource shortages, making equitable resource allocation, particularly in financial terms, a critical concern for health systems worldwide.^[10]

For instance, Radinmanesh *et al.*^[10] (2021) conducted a review to explore factors influencing the allocation of financial resources. Their findings highlighted various significant factors affecting need-based resource allocation formulas, including age, gender, socioeconomic status or deprivation, ethnicity, standardized mortality ratio (SMR), modified health indicators (such as disease outcomes, self-rated health, and assessed disability), geographic area or residence (rural vs. urban), cross-flows, cost of services, and financial assistance.

In addition, Maharaj *et al.*'s^[11] (2018) study indicated that the Ministry of Health's chosen formula for resource allocation follows a need-based approach. This approach incorporates factors such as population size, differential cost estimates for care provision in rural versus urban areas, and a regional Burden of Disease index. These findings emphasize the importance of regularly updating these factors for effective resource allocation.

Okorafor and Thomas (2007)^[12] conducted a study in South Africa, revealing the absence of a clear mechanism for resource allocation within the country. They highlighted that provincial governments possess independent decision-making authority regarding the allocation of resources to health services and PHC. This autonomy stands as a significant obstacle hindering the attainment of a more equitable distribution of PHC resources. The researchers advocated for increased involvement of the national government in decisions related to resource allocation for PHC services.

Burström *et al.*^[13] (2017) explored resource allocation to PHC in Sweden, observing a shift toward dependency on provider location, patient choice, and demand rather than prioritizing care needs. Their findings suggested that the PHC reform may have compromised the equitable provision of PHC, contradicting the principles outlined in the Swedish Health and Medical Service Act. Consequently, they stressed the necessity for vigilant monitoring to identify factors and effective mechanisms for appropriate financial resource allocation.

Regarding the quantification of PHC expenditures for resource allocation, a study by Adilson Soares in 2019 illustrated that in 2014, the per capita cost of PHC accounted for 37.5% of total municipal expenses. Notably, Campinas exhibited the highest per capita cost in medium and high complexity care, while Presidente Prudente registered the lowest.^[14]

As a result, an examination of various studies reveals a recurrent emphasis on the significance of resource allocation to diverse tiers within the healthcare sector. Researchers consistently highlight the importance of proposing formulas, mechanisms, and influential factors

involved in allocating budgets specifically for PHC. While each article presents distinct data in this domain, there is a lack of comprehensive synthesis and integration of these findings into a unified framework.

Consequently, by implementing this protocol, the data obtained from the proposed scoping review will enable the managers and officials of the health system to follow the experiences of different countries in the field of scientific and fair allocation of financial resources to PHC, reinforcing Universal Health Coverage (UHC).

Methods

In this scoping review protocol, the primary objective is to explore the various facets of financial resource allocation, a crucial area of investigation. This review will focus on studies centered around the allocation of financial resources, specifically to PHC. The scope involves examining criteria used for allocating financial resources to PHC, the allocated amounts, associated influencing factors, and the mechanisms and challenges inherent in this global allocation process.

Protocol design

To gather data for the scoping review, the updated 2020 protocol from the Joanna Briggs Institute (JBI) will serve as the guiding framework. This protocol comprises nine comprehensive steps that outline the methods, procedures, and specifics of the review process^[15]:

- 1) Defining and aligning the objective/s and questions
- 2) Developing and aligning the inclusion criteria with the objectives and questions
- 3) Describing the planned approach to evidence searching, selection, data extraction, and presentation of the evidence (search strategy)
- 4) Searching for the evidence
- 5) Selecting the evidence
- 6) Extracting the evidence
- 7) Analysis of the evidence
- 8) Presentation of the results
- 9) Summarizing the evidence about the purpose of the review, making conclusions, and noting any implications of the findings.

Stage 1: Defining and aligning the objective/s and questions

The accuracy and clarity of research questions are pivotal in devising an effective search strategy. In addition, selecting inclusion and exclusion criteria aids in retrieving pertinent records, refining the protocol, enhancing the effectiveness of literature searches, and establishing a coherent structure for presenting the scoping review report.^[16]

The objectives of this protocol are to identify criteria for resource allocation to PHC, examine the allocated amounts across different countries, investigate related factors influencing allocation, and explore the mechanisms involved. The specific research questions to be addressed include:

1. What are the criteria and factors for allocating financial resources to PHC in the world?
2. What is the amount of financial resources allocated to PHC?
3. What is the mechanism for allocating financial resources to PHC?
4. What are the challenges of allocating financial resources to PHC?

Stage 2: Developing and aligning the inclusion criteria

The study’s review will encompass research based on specific inclusion and exclusion criteria. Inclusion criteria are as follows: 1) Studies conducted globally between January 2000 and December 2023, focusing on criteria, quantity, mechanisms, and challenges regarding financial resource allocation within the realm of PHC. This time frame aligns with the WHO’s endorsement of the Global Strategy for Health for All in 2000, mandating PHC implementation and consequently fostering an upsurge in PHC-focused studies. 2) Studies published in English and Persian languages. Exclusion criteria encompass studies inaccessible in full text. The review process will involve two team members screening studies, with a third member making the final decision. In addition, the review will adhere to the Participants, Concept, Context (PCC) framework as proposed by the JBI^[17] for guidance.

Types of participants: In this review, the focus is not on examining a specific population. Instead, the scope entails examining studies conducted between 2000 and 2023 that delve into the patterns of financial resource allocation to PHC worldwide in English and Persian languages.

Concept: Determination of allocation criteria, the amount of resource allocation to PHC, and factors and mechanisms.

Context: Financial resource allocation in the PHC of different countries.

Types of sources: The review will encompass original research, comprising both quantitative and qualitative studies, conducted in the domain of financial resource allocation to PHC. In addition, articles categorized as letters to the editor, available in both Persian and English languages, will be considered for inclusion. Persian articles will be included to ensure comprehensive coverage of relevant publications, especially considering authors who are native Persian speakers, to prevent overlooking pertinent contributions in Persian literature. Gray literature sources, such as theses, guidelines, and course notes, will also be part of the review.

We will base our search strategy on the PCC framework described in Table 1.

Stage 3: Search strategy

Utilizing library resources and consulting reputable databases such as Proquest, PubMed, Scopus, Web of Science, the WHO website, and the United Nations (UN)

Table 1: PCC framework of our scoping review

PCC element	Definition
Participants	-
Concept	Determination of allocation criteria, the amount of resource allocation to PHC, related factors and mechanisms, and the process and mechanism related to the allocation of financial resources to PHC.
Context	Primary health care of different countries

Table 2: Search strategy

Database	Search strategy
PubMed	("resource allocation"[MeSH Terms] OR "resource allocation"[Title/Abstract] OR "financial resource allocation" OR "allocation of financial resource*" [Title/Abstract] OR finance*[Title/Abstract] OR budgets [MeSH Terms] OR budgets[Title/Abstract] OR funding [Title/Abstract]) AND ("Primary Healthcare"[Title/Abstract] OR "Primary Healthcare"[Title/Abstract])
Scopus	TITLE-ABS-KEY)("financial resource allocation" OR "allocation of financial resource*" OR "financial resource allocation formula" OR "financial resource allocation framework" OR finance* OR "financial resource*" OR budgets OR funding) AND (TITLE-ABS-KEY("Primary Healthcare" OR "Primary Healthcare"))
WOS	TS= (("resource allocation" OR "allocation of financial resource*" OR "financial resource allocation formula" OR "financial resource allocation framework" OR finance* OR "financial resource*" OR budgets OR funding) AND ("Primary Healthcare" OR "Primary Healthcare"))
ProQuest	not(("financial resource allocation" OR "allocation of financial resource*" OR "financial resource allocation formula" OR "financial resource allocation framework" OR finance* OR "financial resource*" OR "allocation of financial resource" OR budget OR funding) AND ("Primary health care*" OR "Primary Healthcare"))

website ensures comprehensive access to relevant studies. In addition, to broaden the search scope, Google Scholar will be employed. Furthermore, the Elmet search engine will be specifically utilized to retrieve Persian theses and articles. Within the PubMed database, keywords will be meticulously identified using the MeSH system, coupled with the strategic use of AND and OR operators. The retrieved studies will be systematically organized and cataloged within the Mendeley software. The search strategy in different databases has been shown in Table 2.

Stage 4: Searching for the evidence

We will apply the search strategy in each database and perform the search.

Stage 5: Selecting the evidence

The study’s outcomes will be integrated into Mendeley, followed by the elimination of duplicate articles. Subsequently, two reviewers will assess the titles and abstracts of all articles. Article not meeting inclusion criteria

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or meeting exclusion criteria will be excluded, while the remaining articles will undergo comprehensive evaluation. Any disagreement between reviewers will be resolved through discussion of each discrepancy. Subsequently, two independent reviewers will thoroughly analyze the articles, and any unresolved disagreements following the screening process will be reviewed. In cases where consensus cannot be reached between two reviewers regarding an article, a third reviewer will serve as an arbitrator. The article selection process is visually depicted in Figure 1.

Stage 6: Extracting the evidence

In this protocol step, a “Data Extraction Form” table will be developed to gather vital source information systematically. This form will encompass key details, including author names, study objectives, contextual specifics related to PHC in diverse countries’ health systems (such as geographical location), publication year or period, research methods utilized, detailed concepts encompassing resource allocation to PHC, associated factors, criteria, processes, allocation mechanisms, and survey findings or outcomes. Any necessary revisions identified during subsequent reviews will prompt necessary corrections and updates to the table accordingly.

Stage 7: Analysis of the evidence

Conventional content analysis will serve as the method to analyze the acquired articles. This approach is typically employed to describe a phenomenon, especially when there is limited existing theory or literature on the subject. It allows for emergent categories and their respective

names to arise directly from the data rather than relying on predetermined categories.^[18] Consequently, this study will classify the results into primary conceptual categories such as criteria and factors, mechanisms, challenges, and the allocated amount of resources specifically designated for PHC. Each article will be separately categorized based on these core thematic areas.

Stage 8: Presentation of the results

The results presentation section will detail the identification and selection of various studies. It will feature a narrative elucidation of the search decision-making process, encompassing the PRISMA-SCR flowchart [Figure 1]. Comprehensive details regarding the search outcomes, study selection, retrieval process, and a final summary of the results will be provided in this section. During the review and refinement stages of the protocol, the draft tables and graphs will be subject to modification by reviewers, aligning them with the content of the studies based on reviewers’ insights. Upon approval, the finalized results will be prepared for publication. These results will include descriptions of the reviewed sources’ objectives, adopted concepts, and outcomes pertaining to the four review questions: 1) criteria and factors, 2) process and mechanism, 3) challenges, and 4) the amount of resource allocation to PHC.

Stage 9: Summarizing the evidence, drawing conclusions, and delineating any implications of the findings

This protocol outlines a scoping review aiming to assess published papers, elucidating resource allocation to PHC across diverse countries alongside associated factors and

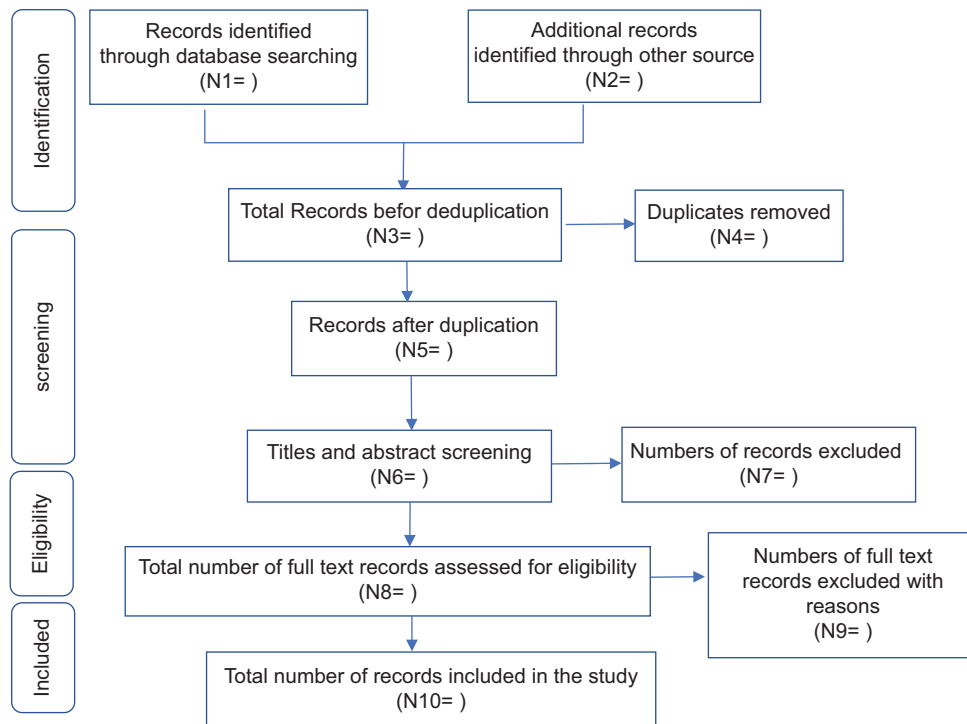


Figure 1: Preferred Reporting Items for Scoping Reviews Flow diagram

mechanisms. Employing the updated 2020 JBI scoping review methodology and the PCC framework, the study will establish a comprehensive search strategy leveraging library resources and reputable databases. The initial stages involve delineating inclusion criteria and will follow the PRISMA-SCR diagram to illustrate the study selection process. Upon study selection, conventional content analysis will be applied to scrutinize the identified studies. Results addressing four core review questions, namely 1) criteria and factors, 2) mechanism, 3) challenges, and 4) allocation amounts to PHC, will be systematically categorized and summarized for analysis.

The review's outcomes will assist policymakers in understanding criteria, mechanisms, and challenges related to PHC resource allocation across countries. This knowledge will aid in making informed decisions and addressing challenges, ensuring optimal financial allocation to PHC. For researchers, these findings will serve as a foundation to design improved resource allocation models, fostering advancements in societal health levels.

Conclusions

The findings from the implementation of this protocol will be made known to a wide audience.

Considering the position and role of primary health care in promoting the health of society, by implementing this protocol, we will obtain data that will enable health system managers and officials to gain access to diverse country experiences in the field of allocation of financial resources to PHC, bolstering efforts to advance Universal Health Coverage (UHC) by emphasizing the pivotal role of PHC in enhancing overall societal health.

Limitation

In this protocol, the review encompasses published studies available in Persian and English. Consequently, studies published in languages other than Persian and English might not be included, potentially leading to the omission of relevant information from those sources.

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Conflicts of interest

There are no conflicts of interest.

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