



TECHNICAL  
SERIES



**ON PRIMARY  
HEALTH CARE**

Building the  
**economic case for  
primary health care:**  
a scoping review

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This document was produced under the technical direction of Pavlos Theodorakis (Health Systems and Public Health, WHO Regional Office for Europe).

The principal writing team consisted of Michael Anderson, Sarah Averil Albala, Nishali Patel, Josie Lloyd and Elias Mossialos at the London School of Economics, England.

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The views expressed in this document do not necessarily represent the opinions of the individuals mentioned here or their affiliated institutions.

## Abbreviations

CHW	community health worker
HIC	high-income countries
LMIC	low- and middle-income countries
PCP	primary care physician
PHC	primary health care
UN	United Nations
WHO	World Health Organization



## Executive summary

Powerful evidence suggests that primary health care (PHC), particularly primary care, can produce a range of economic benefits through its potential to improve health outcomes, health system efficiency and health equity. This is demonstrated in a conceptual framework in Fig.3, and summarized below:

- Health outcomes – primary care can improve population health in terms of life expectancy, all-cause mortality, maternal, infant and neonatal mortality as well as mental health outcomes.
- Health system efficiency – primary care can reduce total hospitalizations, avoidable admissions, and emergency admissions and hospitalizations.
- Health equity – primary care improves equitable access to health care and equitable health outcomes.

Despite these benefits, internationally, PHC is prioritized to varying degrees. This document reviews the evidence for the economic benefits of PHC, but there remains a need to further develop the economic case for increased investment in PHC. Research is needed to characterize which aspects of primary care and PHC have the greatest potential to improve health outcomes, health system efficiency and health equity, thereby maximizing the potential economic benefits; and to identify the barriers and enablers to implementation. Such research will provide a roadmap for strengthening PHC systems and allow policy-makers to target investments.

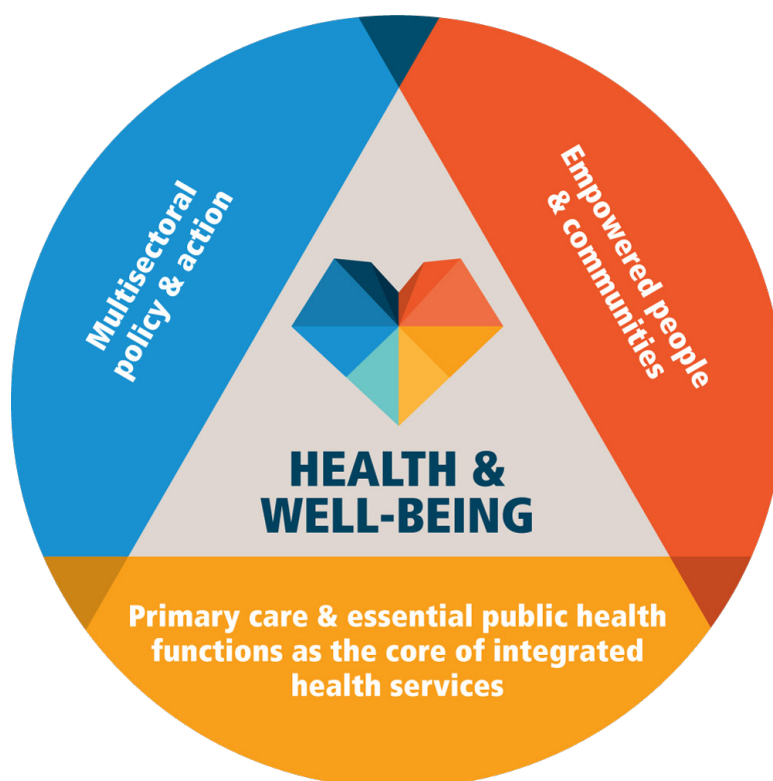


# Introduction

The term “primary health care” (PHC) first emerged in the United Kingdom in the 1920s with the publication of a government white paper, the “Dawson Report”. The report suggested that PHC centres would become the model for providing community health care services as a strategy to address health inequalities and respond to the increasing complexity of health care delivery (1). Over the following decades, the concept of PHC developed significantly, culminating in the 1978 Alma-Ata Declaration, which defined PHC as “essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford” (2).

Now, 40 years later, the Global Conference on Primary Health Care reaffirms the global commitment to PHC, as a key strategy to achieve universal health coverage and the United Nations (UN) Sustainable Development Goals (SDGs) (3). To date, the implementation of PHC internationally has been limited by the lack of a universally accepted definition. The background paper for the Global Conference on Primary Health Care, *A vision for primary health care in the 21st century*, aims to resolve this issue by describing PHC as whole-of-society approach to health, based on three interrelated and synergistic components (Fig. 1).

Fig. 1. Conceptual framework of PHC



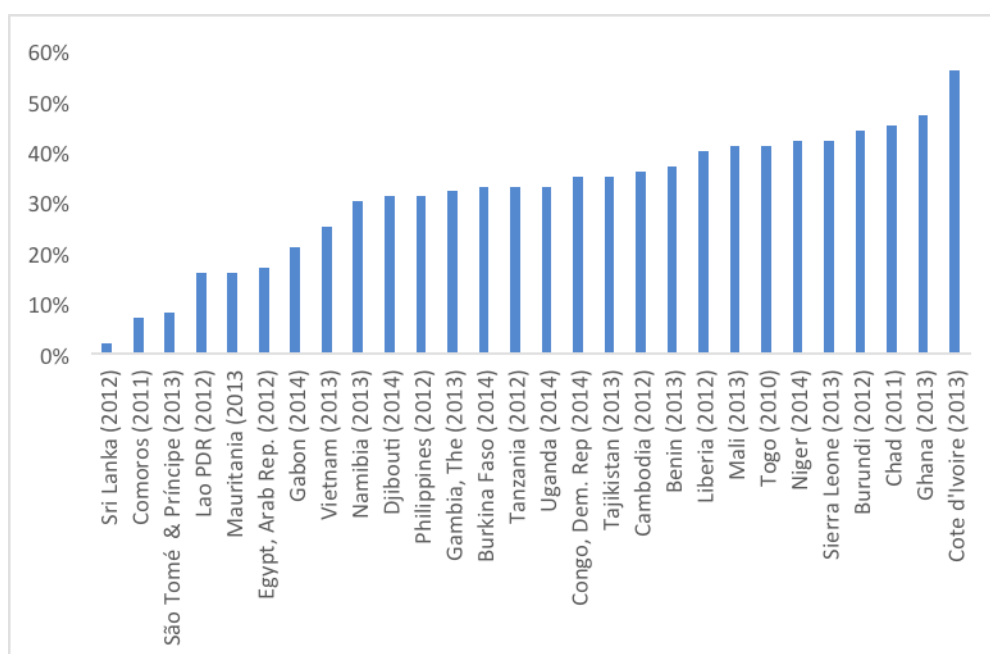
Source: *A vision for PHC in the 21st century: toward universal health coverage and the Sustainable Development Goals* (Draft 4 September 2018, WHO).

The first of these pillars, “Health services” includes the delivery of quality multidisciplinary primary care and essential public health functions. The second, “Multisectoral policy and action”, encompasses policies and action across governments, ministries, nongovernmental organizations and the private sector that address the social, economic, environmental and commercial determinants of health. The third, “Empowered people and communities”, describes how people should be empowered to optimize their health, both in terms of self-care and as informal care givers, and as engaged communities, whereby people are active partners and actors in health services.

The delivery of primary care can be understood as the delivery of five key concepts of primary care: providing first contact of care for new health problems, comprehensive care for most health problems, continuity of care, long-term person-focused care and care coordination (4). The public health functions specifically relevant to a PHC approach and closely linked to primary care are health promotion, health protection, and disease prevention (service delivery), surveillance and response, and emergency preparedness (intelligence) (5).

Despite significant evidence linking PHC to improved health outcomes, health system efficiency and health equity (6), the degree to which health systems and societies align with PHC varies considerably across countries (7). For example, the percentage of government spending dedicated to PHC is estimated to vary between 2% and 56% across a range of low- and middle-income countries (LMIC) <sup>1</sup> (Fig. 2). In the context of competing demands for limited resources, building the economic case for PHC is essential in order to convince policy-makers to increase investment in PHC. Hence, this paper describes the outcomes of a scoping review via a conceptual framework, to explore multiple pathways through which PHC can be linked to economic benefit.

Fig. 2. Percentage of current government health spending dedicated to PHC



Adapted from PHCPI (8).

<sup>1</sup> Data was collected by PHCPI team using the System of Health Accounts (SHA) 2011 standards, which were jointly developed by WHO, the Organisation for Economic Co-operation and Development (OECD) and the United States Agency for International Development (USAID). A working definition for PHC expenditure has been developed that includes all expenditures for providers who only provide PHC services, expenditures for PHC preventive services provided by additional providers, a proportion of overall capital costs, and a proportion of administrative expenditures.

# What do we know about the economic benefits of PHC?

To date, our knowledge of the economic benefits of PHC has been hampered by methodological constraints. Measuring the strength and quality of PHC is difficult because of a lack of unified definitions and data requirements. Also, the impact of PHC is broad and is interrelated with other sectors, which leads to significant uncertainty when attempting to quantify the benefit.

Nevertheless, some international studies have analysed the strength of PHC-orientation in health systems, which has led to mixed conclusions (9,10). Most of the data we have on the economic impact of PHC reflect the health services component. An international study comparing the strength of primary care in 13 high-income countries (HICs) found that strong primary care led to improved population health and lower health expenditure (9). A later study that compared the strength of primary care in 31 European countries used an alternative definition; it found that stronger primary care is linked to better population health, but also to higher overall health expenditure (10).

Beyond these studies, most of what we can deduce about the economic benefits of PHC is derived from measurable outcomes such as mortality, hospital admissions and health care costs. For example, there is evidence that increased investment in primary care can reduce use of secondary care and reduce overall health costs (4,6,11–14). Also, growing evidence demonstrates that primary care can improve population health in terms of life expectancy, all-cause mortality, and maternal, infant and neonatal mortality (4,15,16). More specifically, evidence shows that, compared with subspecialists, primary care physicians (PCPs) use fewer resources in terms of hospitalizations, prescriptions and common tests and procedures (17,18). Further, the return on investment from community health workers (CHWs) has been estimated as \$10 for every \$1 spent in sub-Saharan Africa (19). In addition, there is compelling evidence of significant economic benefit from the provision of preventive services in PHC; for example, the return on investment from childhood immunizations in LMIC has been estimated as \$44 for each \$1 spent (20). With such a breadth of evidence, a collective review of the potential economic benefits of PHC across multiple pathways, with the evidence summarized, is required.

## Objective

The objective of this document is to summarize the results of a scoping review of literature in order to build the economic case for increased investment in PHC, using a conceptual framework. This document does not aim to provide a summary of the economic benefits of individual interventions within PHC; rather, it aims to review the economic benefits of PHC more generally. This document offers an introduction to the economic benefits of PHC, which may influence further work in specific areas of PHC delivery.

## Why a scoping review?

Scoping reviews aim to rapidly map the key concepts and main types of evidence underpinning a research area. They are often used in complex areas, or in areas that have not been researched comprehensively (21). In contrast, systematic reviews focus on a well-defined question for which appropriate study designs can be identified in advance. Scoping reviews are performed, for example, to examine the extent, range and nature of research activity; to determine the value of undertaking a full systematic review; to summarize and disseminate research findings; and to identify research gaps in the existing literature (22).

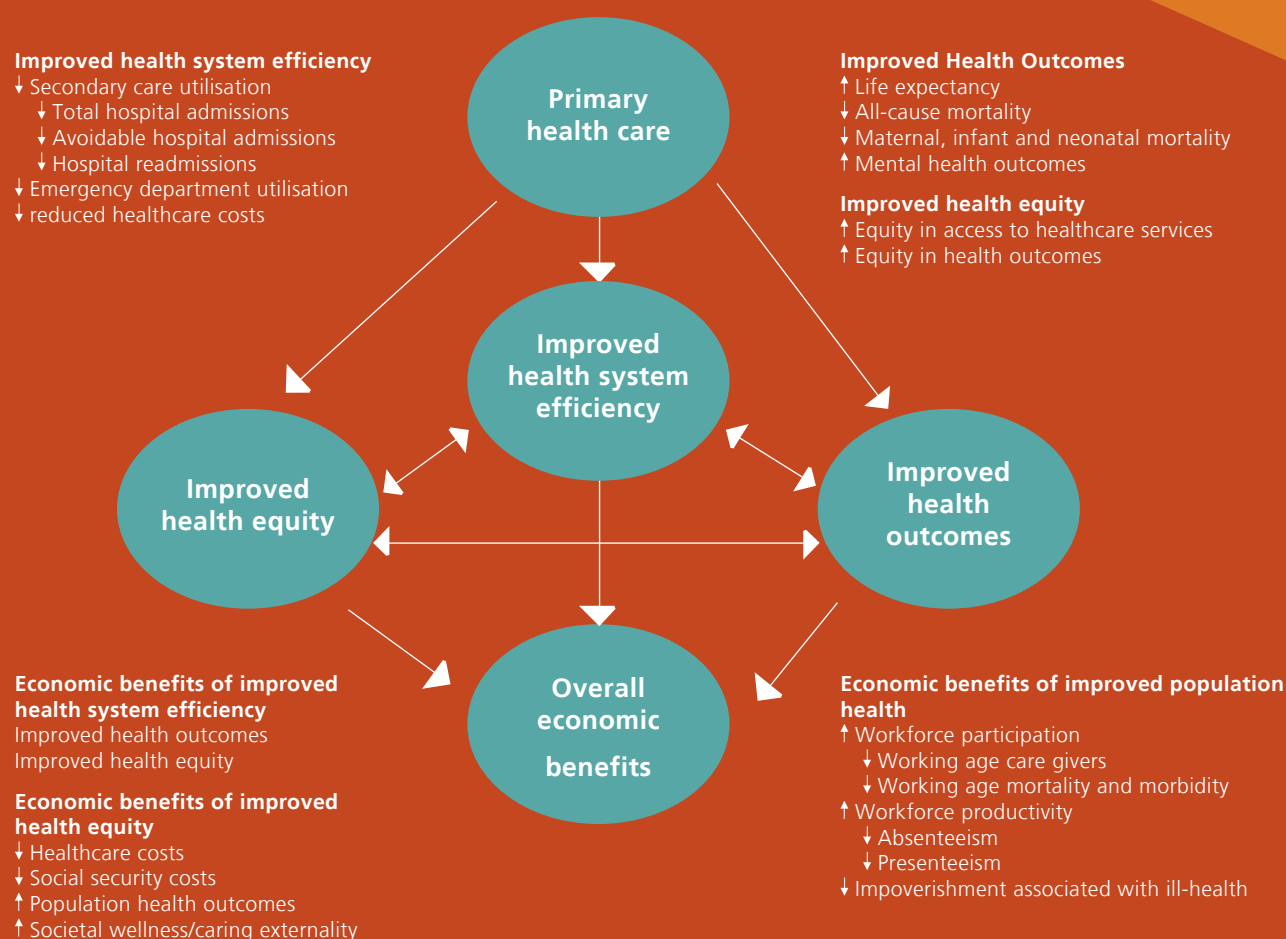


As noted, a wealth of evidence suggests a link between PHC and other measures such as health outcomes, use of secondary care and reduced health care costs, although the evidence linking PHC to economic benefit is limited. The definitions of PHC and primary care vary, as do the many potential pathways linking PHC to economic benefits. These pathways are complex, ill-defined and multifactorial. Therefore, it is not possible to neatly define this research question or appropriate study designs. Undertaking an initial scoping review can help to identify both the type of evidence that exists and any gaps in the literature. In the future, the findings from this review can be used to launch systematic reviews, to further develop the economic arguments for PHC.

## Scoping review conceptual framework

To direct the scoping review, the coauthors of this report have developed a conceptual framework. The underlying theory for this framework relies on the known macroeconomic benefits of improved health outcomes, health system efficiency and health equity. The subsequent literature review focused on highlighting evidence that demonstrates the link between PHC and these three factors. Fig. 3 depicts this conceptual framework and the proposed mechanisms through which PHC can be linked to improved health outcomes, health system efficiency and health equity.

Fig. 3. Conceptual framework for economic case for PHC investment



## Pathway 1: economic benefit of improved health outcomes

Several landmark reports – for example, the WHO commission on macroeconomics and health, the Lancet commission on investing in health and the UN high-level commission on health employment and economic growth – have highlighted strong evidence that improved health outcomes have significant macroeconomic benefits (23–25). For example, a systematic review of 13 papers estimated that increasing life expectancy by 5 years increased gross domestic product (GDP) by between 0.0% and 0.58%; only one paper estimated a neutral effect (26). This effect is due to a range of implications throughout the life course. For example, poor antenatal, postnatal and child health are predictors for poor income later in life and for delayed cognitive development (27–29). Further, an analysis of the impact of maternal and infant mortality on GDP found that, in 86% (154/180) of countries, changes in under-5 mortality affected GDP; similarly, in 69% (119/170) of countries, changes in maternal mortality affected GDP (30). In working-age adults, illness and disability markedly increase the probability of being unemployed; recent data from the United Kingdom show that, with illness and disability, the probability of unemployment doubles (31). Even for the employed, illness and disability significantly lower productivity, with absenteeism and presenteeism responsible for substantial costs globally (32–34). In addition, an unhealthy population prevents many adult children from entering the labour market; for example, many become carers instead of entering the labour market (35). Also, improved health in the elderly can reduce isolation and facilitate greater participation in society.

This review explores the extent to which PHC is linked to improved health outcomes such as life expectancy, all-cause mortality, and maternal, infant and neonatal mortality, as well as cardiovascular and mental health outcomes.

## Pathway 2: economic benefit of improved health system efficiency

From a macroeconomic perspective, health system efficiency is a measure of the degree to which the inputs into a health care system – such as expenditure, capital and labour – achieve the stated objectives of the system (e.g. improved health outcomes and health equity) (36). From a microeconomic perspective, increased health system efficiency can be understood as reducing wasteful use of health care resources (including avoidable hospitalizations, readmissions to hospital and unnecessary use of emergency departments), thus reducing health care costs.

Inefficient use of health care resources may also deny patients health gains that are achievable with the optimal mix of resources (37). Wasteful use of health system resources has economic consequences due to the benefits lost from decreased investment in other aspects of the economy, such as education and infrastructure; also, it may reduce society's willingness to contribute to the future funding of health services.

This review will establish the extent to which PHC improves health system macroefficiency (i.e. maximizes health outcomes and health equity) and health system microefficiency (i.e. reduced avoidable admissions, readmissions, emergency department use and health care costs). However, the link to health care costs is context dependent; in many countries, increased investment in PHC may increase overall health care costs but still represent a more efficient use of health care resources.

## Pathway 3: economic benefit of improved health equity

The economic consequences of health equity are well understood. A study of the economic cost of health inequalities in the European Union estimated that welfare losses related to health inequality were 9.4% of GDP (38). Some argue that equity and efficiency are conflicting objectives, although recent economic thinking challenges this concept. Social welfare is often maximized by narrowing inequalities caused by externalities that lead to allocative inefficiencies in public spending (39). Efficiency and equity often mutually enhance each other; for example, in early childhood development (40).

This review discusses the extent to which PHC is linked to improved health equity, in terms of both reduction in inequities in health outcomes and access to health care services.



# Selection criteria

This scoping review attempts to summarize extensive evidence by using a conceptual framework. For practical purposes, systematic and nonsystematic reviews were prioritized. For health equity, individual articles were also considered because of the limited evidence available. The scope of this review is the impact of the delivery of primary care services on health outcomes, health system efficiency and health equity. Reviews of individual interventions within primary care were also considered if they encompassed one or more of the five primary care functions (first contact of care; comprehensive care; continuity of care; long-term, person-focused care; and care coordination). For example, transitional care, case management and medical home programmes involve, to some extent, care coordination, person-focused care and comprehensive care.

## Search strategy

For each proposed pathway (health outcomes, health system efficiency and health equity), three independent reviewers searched PubMed, Medline, WHO Index Medicus, WHOLIS (KMS), SCOPUS and the Cochrane Library for references up to 31 July 2018; they also searched the grey literature. The lead reviewer also applied the search criteria across all pathways and checked references. Data regarding the type of review, number and type of studies included, measure of PHC used, countries reviewed and summary of findings were entered into an Excel™ spreadsheet.

## Health outcomes

The search strategy was designed to highlight evidence that shows that primary care is associated with improved health outcomes. The health outcomes examined were life expectancy, mortality rates, cardiovascular disease, cancer and mental health. Specifically, the search terms "Primary care" or "General practice" were coupled with the terms "Health outcome", "Mortality", "Survival" and "Mental Health" for both titles and abstracts, using the filter "Review".





## Health system efficiency

The search strategy was designed to highlight evidence that shows that primary care is associated with improved efficiency of the health care system. We examined the measures of total hospital admissions, avoidable hospital admissions, hospital readmissions and emergency department presentations. Specifically, the search terms "Primary care" or "General Practice" were coupled with the terms "Hospital admission", "Avoidable admission", "Readmission", "Emergency department", "Accident and emergency", "Secondary care", "Continuity", "Cost", "Expenditure" and "Spending" for both titles and abstracts, using the filter "Review".

## Health equity

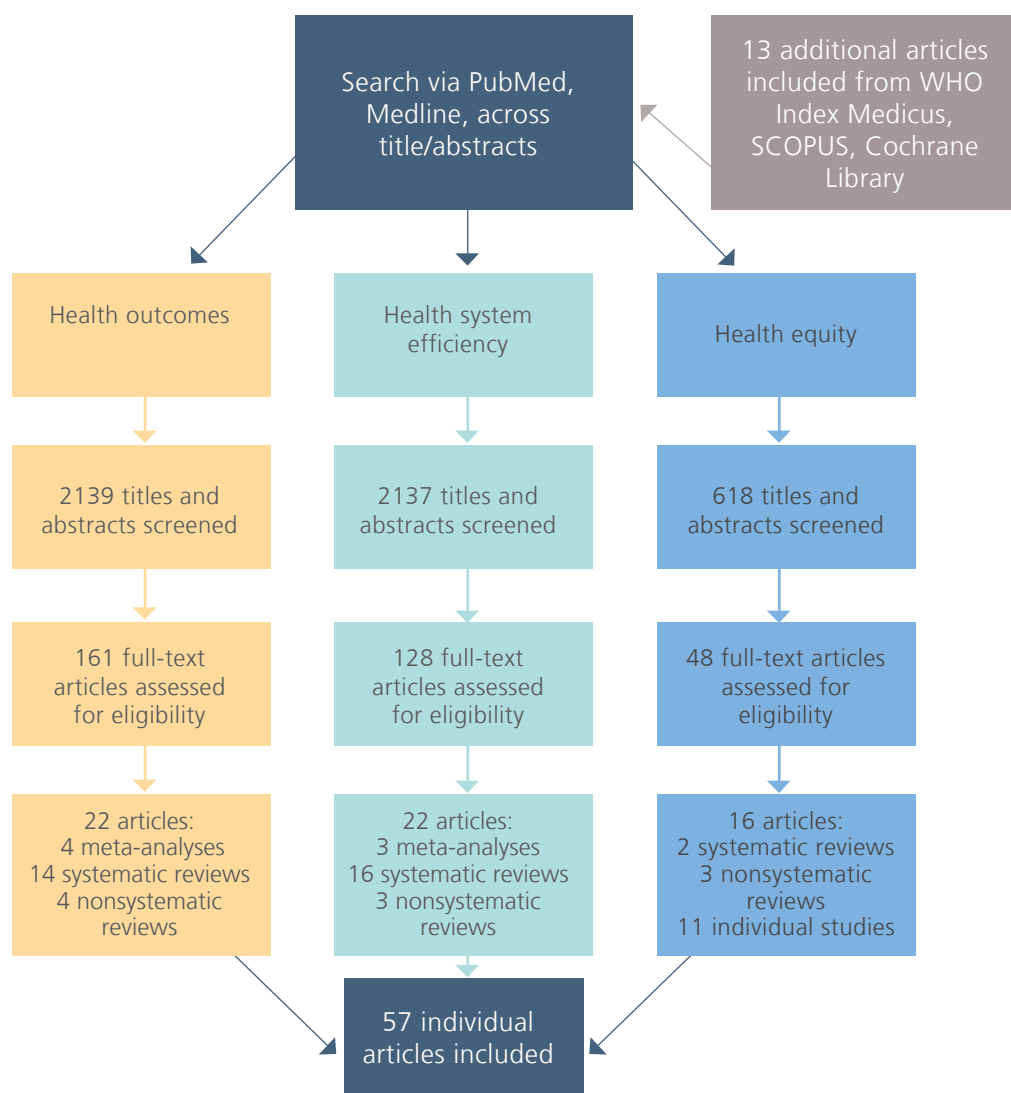
The search strategy was designed to highlight evidence that links primary care with reduced health care costs. Specifically, the search terms "Primary care" or "General practice", were coupled with the term "Equity" for both titles and abstracts, without using the filter "Review". The decision was made not to use this filter because an initial search yielded limited results.

# Results

## Total number of reviews identified

The results of the search strategy are shown in Fig. 4.

Fig. 4. Search strategy results



PubMed and Medline searches identified 4984 results in total. All titles and abstracts were reviewed, revealing 337 potentially relevant articles. After reviewing the full text of these articles, 45 reviews met the selection criteria, with an additional 13 reviews retrieved from searching further databases. In total, the search identified 22 reviews related to health outcomes, 22 reviews related to health system efficiency and 16 articles related to health equity (Fig. 4). Three reviews were selected twice because they considered evidence relevant to two categories (4,18,41). Most of the reviews identified were either systematic reviews or meta-analyses (78%, 36/46); 11 individual studies relevant to health equity were also considered.

## How did the literature reviewed define PHC?

The reviews identified assessed the impact of a variety of measures of PHC which, consistent with a previous review (6), can be broadly split into three categories:

- **Speciality of the provider.** Literature that defined primary care according to the speciality of individual providers, primarily as generalists (family doctors, general paediatrics and general internists) compared with specialists; however, this categorization does not acknowledge how specialists may also enact primary care functions.
- **Primary care functions.** Literature that assessed the impact of the five core primary care functions across providers: providing first contact of care; comprehensive care; continuity of care; long-term, person-focused care; and care coordination (4). Specific examples include new models of care such as case management programmes, transitional care programmes and medical home models, all of which encompass both care coordination and person-focused care.
- **Orientation of the system.** Certain literature focused on the strength of primary care among geographical areas, which is often defined as the orientation of the system. This could be measured as high ratios of PCPs to patients, or patient populations that frequently have usual sources of care that provide primary care functions.

## What is the quality of evidence identified?

Most studies reviewed used observational data, and they often used quasi-experimental designs, such as cross-sectional, case-control and cohort studies. In cases for which genuine uncertainty exists about the supposed benefits of specific interventions within the primary care setting, such as transitional care or case management programmes, then randomized controlled trials (RCTs) were also used. In many cases, the use of RCTs led to a meta-analysis.

Measure	Evidence reviewed	Overall findings
<b>Health outcomes</b>		
All-cause and cause-specific mortality (cancer, heart disease, stroke)	4 systematic reviews (18,42–44) 1 nonsystematic review (4)	Strong evidence that supply of PCPs leads to reduction in all-cause and cause-specific mortality. Strong evidence that continuity of care leads to a reduction in all-cause mortality.
Maternal, neonatal and child mortality	7 systematic reviews (16,45–50)	Strong evidence that primary care is associated with significant reductions in maternal, neonatal and child mortality in LMIC.
Mental health outcomes (anxiety, depression, suicide)	5 systematic reviews (51–55) 1 nonsystematic review (56)	Strong evidence that primary care interventions can have a positive impact on measures of severity for depression, anxiety and suicide.
<b>Health system efficiency</b>		
Total hospitalizations	4 systematic reviews (57–60)	Strong evidence that continuity of care can reduce total hospitalizations. Some evidence that case management programmes in primary care are associated with a reduction in total hospitalizations.
Avoidable hospitalizations	3 systematic reviews (61–63)	Strong evidence that PCP supply and greater access to PCPs can reduce the number of avoidable hospitalizations. Strong evidence that continuity of care can reduce avoidable hospitalizations.

Measure	Evidence reviewed	Overall findings
Hospital readmissions	3 systematic reviews (64–66)	Some evidence that case management and transitional care programmes can reduce hospital readmissions.
Emergency department use	6 systematic reviews (58,59,67–70)	Strong evidence that reduced access to primary care (PCPs per capita, distance to primary care) is linked to increased emergency department use. Strong evidence that continuity of care is linked to reduced emergency department use.
Health care costs	5 systematic reviews (18,60,69,71,72) 3 nonsystematic reviews (4,6,73)	Some evidence that PCP supply, speciality of provider, continuity of care and improved access to primary care can reduce total health care costs. Mixed evidence regarding the association between case management and medical home programmes in primary care and health care costs.
<b>Health equity</b>		
Equitable access	2 systematic reviews (74,75) 4 individual studies (76–79)	Some evidence that primary care, as compared with other health services, can improve equity of access, especially for disadvantaged adults. Although dependent upon the design of PHC services including the reimbursement mechanisms for PCPs. Some international evidence that access to primary care services are distributed evenly whereas access to specialist care is often pro-rich.
Equitable health outcomes	3 nonsystematic reviews (13,80,81) 7 individual studies primary care (10,12,82–86)	Strong evidence from the USA that primary care improves equity of health outcomes across a range of measures. Some international evidence that strong PHC systems are associated with reduced inequities in self-rated health.



## Health outcomes

Outcome measures studied: All-cause and cause-specific mortality (cancer, heart disease, stroke), maternal, neonatal and child mortality, suicidal ideation, suicide attempts, depression onset and anxiety severity.

Countries studied: Predominantly English-speaking HICs, apart from maternal, neonatal and child mortality where focus is LMIC.

### *Main findings*

There is significant evidence that primary care improves health outcomes, even when using alternative measures of primary care. Several reviews demonstrate how the supply of PCPs is associated with a reduction in all-cause mortality (4,42,43), with one meta-analysis showing an increase of one PCP per 10 000 is associated with an average mortality reduction of 5.3%, or 4.9 per 10 000 per year in the United States of America (USA) (43). Continuity of care, a core primary care function, was associated with a reduction in all-cause mortality in nine countries in 16 studies (44,60).

There is also overwhelming evidence that primary care interventions, such as the use of CHWs, reduce maternal, child and neonatal mortality in LMIC (16,42,46–50,87). However, one systematic review found mixed evidence regarding the use of CHWs to improve health outcomes in HIC (41). Another review assessed current evidence that primary care is linked to improved adult health outcomes in LMIC, and concluded that “there is little peer reviewed evidence on the role of PHC in adult health in low and middle-income countries” (45). Nevertheless, under-5 child mortality is a major component of life expectancy, and poor child health is linked to worsening adult health (27,88). Hence under-5 mortality is a useful benchmark for monitoring progress of health outcomes across health care systems. There is also evidence that PHC services are a useful platform for implementing interventions that improve mental health outcomes related to depression, anxiety and suicide (51–56).

## Health system efficiency

Outcome measures studied: Total hospitalizations, avoidable admissions, hospital readmissions, emergency department use, total health care costs per capita (US\$).

Countries studied: Predominantly English-speaking HICs.

### *Main findings*

Many studies looked at the impact of primary care on avoidable admissions and hospital readmissions (89). Avoidable admissions are typically defined as preventable admissions for ambulatory care sensitive conditions, which include acute diseases such as gastroenteritis and urinary tract infections, and chronic diseases such as asthma and diabetes (90). The arrangement of primary care is relevant, because continuity of care reduced total hospitalizations, avoidable admissions and emergency department use (58–61,63,67,68,70). In addition, reduced access to primary care, quantified as either PCPs per capita or distance to primary care centre, is associated with increased emergency department use and avoidable admissions (62,67,68). Although some evidence suggested that the implementation of case management and transitional care programmes in primary care is associated with a reduction in both total hospitalizations and readmissions (57,64,65), one meta-analysis of case management programmes in PHC found no significant association (71).

In terms of health care costs, most of the evidence identified was from the USA, although this paper primarily concerned systematic and nonsystematic reviews of the literature. Regarding speciality of the provider, PCPs use fewer resources than subspecialists (e.g. diagnostic tests, prescribing, procedures) (18). Also some evidence suggests that, compared with subspecialists, PCPs are associated with reduced health care costs (6). Further, increased supply of PCPs (i.e. PCP per capita) is associated with reduced health care costs (6). In addition, the key primary care functions of first point of contact and continuity of care are associated with more appropriate, effective and less costly care (4,60). Evidence from literature that analysed the association between case management and medical home models in primary care and health care costs is mixed, with studies either showing a reduction, an increase or no significant difference in health costs (71–73).

## Health equity

Outcome measures studied: equity of access, equity of health outcomes.

Countries studied: predominantly USA.

### *Main findings*

The literature focused on the impact of primary care in reducing both inequities in access to health care services and inequities in health outcomes. There is strong evidence that primary care improves access to health care services and mitigates the health implications of disparities in socioeconomic status in the USA (79,81–85). An international study also found that access to PCPs was more equitable than access to specialists groups (76). A later study in Europe found that stronger primary care systems in were associated with lower inequity in self-rated health (10). However, the extent to which primary care can improve equity of access and health outcomes depends on the reimbursement mechanisms for PCPs and the financing arrangements of the health care system (74,78).

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# Areas for future research

## Maximizing the economic benefits of PHC

The delivery of primary care is not homogenous among or even within countries. Maximizing the economic benefits of primary care primarily depends on our understanding of which aspects of primary care have the highest potential to improve health outcomes, health system efficiency and health equity. For example, accessibility, continuity of care and consultation time are crucial for improving health outcomes and reducing hospitalizations and emergency department use (58–61,63,67,68,70,91). Studies also show a high return on investment for certain interventions within PHC, such as childhood immunizations and the use of CHWs (19,20).

There is a need to characterize the aspects of primary care that maximize economic benefits; this could direct policy-makers tasked with strengthening primary care systems towards the facets of primary care to prioritize. After establishing these priority areas, the barriers and enablers to implementing and maximizing the economic benefits of primary care need to be identified. For example, the extent to which PC can improve health equity depends on PCP reimbursement mechanisms and health care financing arrangements (74,78,92). This important work could provide a roadmap for strengthening PHC globally.

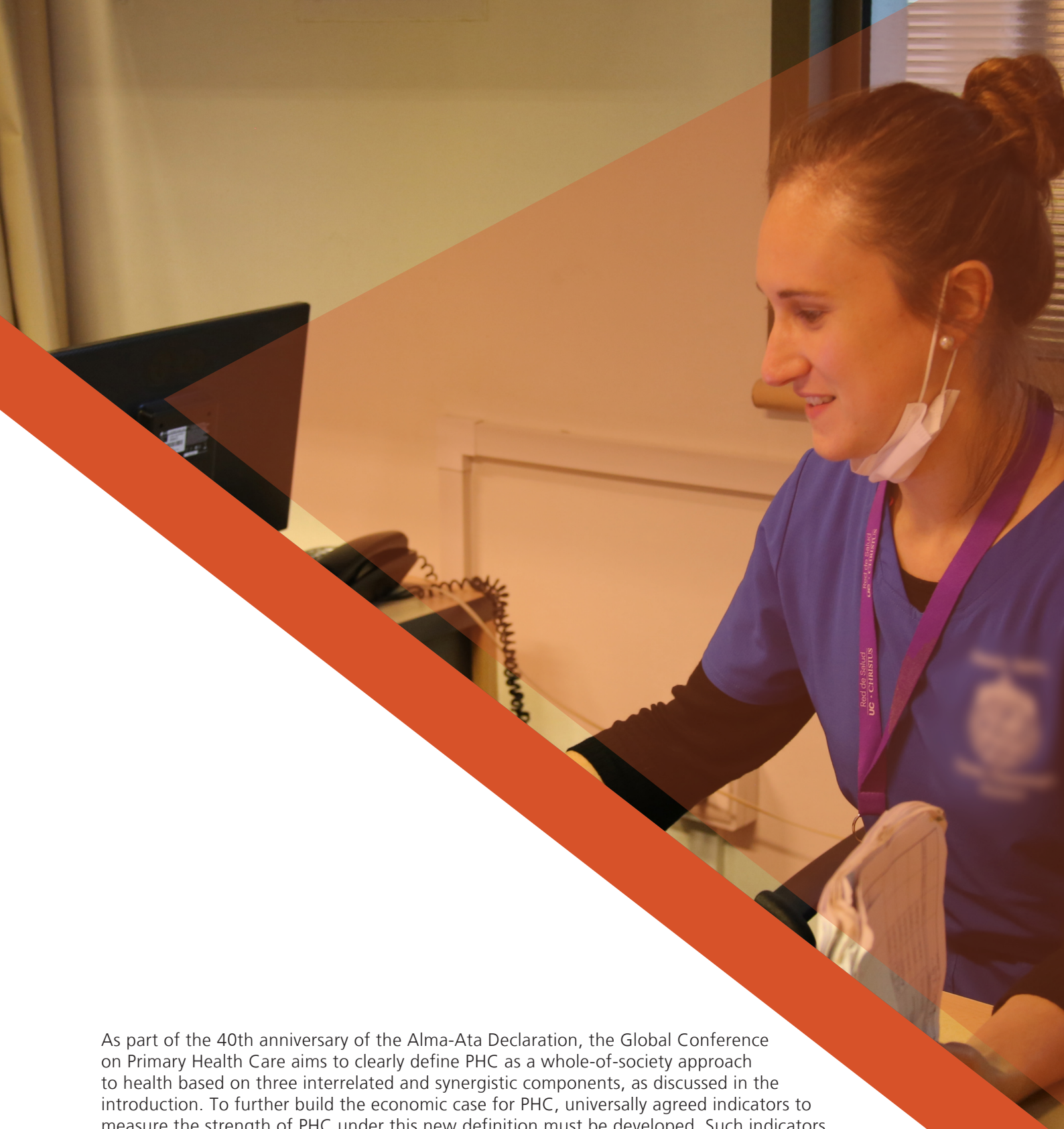
## Further international comparisons

Much can be gained from analysing the strength of PHC among countries and the subsequent implications for health outcomes, health system efficiency and health equity. To achieve this, a clear measure of the strength of PHC is required. Currently, this analysis is limited to health service delivery and orientation towards primary care. Further evidence is needed about the economic impact of the other components of PHC, including multisectoral policies and action on the determinants of health, as well as the empowerment of individuals, families and communities. Even within the scope of health services and primary care, different approaches have been taken to measure the strength of primary care, using a combination of publicly available data, expert panels and questionnaires (Table 2).

**Table 2. Measures of PHC strength**

<b>Starfield and Shi 2002 (9)</b>	<b>PHC Activity Monitor for Europe (PHAMEU) (10)</b>	<b>Quality and Costs of Primary Care in Europe (QUALICOPC) (93)</b>	<b>Primary Health Care Performance Initiative (PHCPI) (94,95)</b>
Data collected from OECD health data and expert panel	Data collected from international literature, governmental publications, statistical databases and national expert consultations	A set of four surveys (1 for GPs, 2 for patients, 1 for practices); data collected between October 2011 and December 2013	International health databases (e.g. DHS, GHO, SARA, SDI, SHA, SPA, UNICEF, WDI, WHO)
Nine characteristics, including mode of financing, type of PCP, percentage of PCPs versus specialists, PCP salaries, any cost-sharing, requirement for patient lists, access arrangements and strength of academic primary care departments	77 indicators across 5 key dimensions: structure, access, coordination, continuity and comprehensiveness	60 questions split across 10 dimensions: process (access, continuity, coordination, comprehensiveness), structure (governance, economic conditions, workforce development), and outcomes (quality, efficiency, equity)	25 indicators across 5 categories; system, inputs, service delivery, outputs, outcomes

DHS: Demographic and Health Surveys; GHO: Global Health Observatory; OECD: Organisation for Economic Co-operation and Development; PHAMEU: Primary Health Care Activity Monitor for Europe; PHCPI: Primary Healthcare Performance Initiative; QUALICOPC: Quality and Costs of Primary Care in Europe; SARA: Service Availability and Readiness Assessment; SDI: Service Delivery Indicator; SHA: Strategic Health Accounts; SPA: Service Provision Assessment; UNICEF: United Nations Children's Fund; WDI: World Development Indicators; WHO: World Health Organization.



As part of the 40th anniversary of the Alma-Ata Declaration, the Global Conference on Primary Health Care aims to clearly define PHC as a whole-of-society approach to health based on three interrelated and synergistic components, as discussed in the introduction. To further build the economic case for PHC, universally agreed indicators to measure the strength of PHC under this new definition must be developed. Such indicators would both allow research into the potential economic benefits of PHC and facilitate the monitoring of PHC implementation internationally.

## PHC in LMIC

Although the substantial evidence linking primary care delivery in LMICs to reductions in maternal, neonatal and child mortality is positive, further research is required on the impact of primary care in LMIC regarding adult health outcomes, health system efficiency and health equity. Currently, the sparse evidence available is mostly observational (96). Many LMIC are experiencing rapid economic and social changes and, without high-quality evidence, it is impossible to rule out alternative explanations for any results observed.

## Limitations

Because the focus of this scoping review is broad and the review attempts to summarize a great deal of evidence, systematic and nonsystematic reviews were prioritized. In addition, the selected search terms were applied only to titles and abstracts, and the common search terms (primary care and general practice) did not include “family medicine” or “family doctors”, or any analysis of the other two components of PHC (empowered people and multisectoral policy and action). These factors limit the results. Therefore, relevant literature may have been missed, although this limitation must be balanced against the feasibility of summarizing such a large body of evidence.

Further, this scoping review did not undertake a complete review of specific interventions within PHC, and only reviewed interventions that encompassed aspects of primary care functions (i.e. first contact of care; comprehensive care; long-term, person-focused care; and care coordination). Some examples include the implementation of transitional care, case management and medical home programmes in the primary care setting. A breadth of specific programmes and interventions are used within primary care, and it is possible that some have not been reviewed. However, a full review of any individual interventions within PHC that are linked to improved health outcomes, health system efficiency or reduced health care costs was outside the scope of this review.

In addition, the quality of the systematic reviews was not assessed; for example, using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) or A Measurement Tool to Assess Systematic Reviews (AMSTAR) criteria (97,98). Therefore, the estimation of the relative strength of association between primary care and health outcomes, health system efficiency and health equity was not systematic and could be challenged.

## Conclusions

This document offers a useful introduction to the multiple pathways through which PHC, particularly primary care, can lead to economic benefits. Powerful evidence links primary care to improved health outcomes, health system efficiency and health equity. Despite some limitations, this body of evidence builds a strong economic case for increased investment in primary care and PHC. This scoping review reinforces the increasing imperative to prioritize PHC globally, because these arguments are equally relevant in LMIC and HIC.

To further develop the case for prioritizing PHC, we need to better characterize which aspects of primary care and PHC can maximize the associated economic benefits, and to identify any enablers and barriers to replication elsewhere. This work will provide a roadmap for strengthening PHC systems and allow policy-makers to target investments.





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