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DOI: 10.4103/jehp.jehp_193_21

# Nature of the private hospital services toward universal health coverage: A systematic scoping review of the developing countries evidence

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## Abstract:

Private hospital services (PHS) with the undeniable effects on the Universal Health Coverage (UHC) goals have a considerable contribution to the health system of developing countries. The purpose of this systematic scoping review (ScR) was to identify and map the available evidence regarding the developing countries to scrutinize the nature of the PHS toward UHC through providing graphical/tabular information of the records trends and types, sources of the records, frequent settings, drivers of the PHS growth, range of the PHS, behaviors of the PHS, and opportunities for policy actions. This study was performed following the 2017 published methodological guidance of the Joanna Briggs Institute for the conduct of ScR. Furthermore, a narrative-thematic synthesis integrated with the systematic analysis applying approach to health system strengthening (HSS) through systems thinking was employed. Thirty-two included records in English that met the inclusion criteria were found between 2011 and July 2020. There has been a sharp increase in the generation of the records with a 90.6% growth rate between 2015 and 2020. The most frequent records types were review article, and the lancet was the most specialized journal. India was the most frequent country. Near half of the growth drivers of PHS have been originated from the governance. Besides, the range of PHS was identified only about Mongolia, and the significant frequency of codes of the PHS behaviors (32.6%) was related to integrated people-centered health service delivery. 47.8% of the identified HSS interventions were recommended about governance. Governance plays a decisive role in the nature of the PHS in UHC. Concerning the dynamic architectures of interactions between health system functions, probably the countries themselves have realized the importance of the governance role in the HSS than other functions. Given the all of the recommended interventions were a combination of foundational and institutional, sustainable participation of PHS in the health system seems far and requires a solid will of the governments. Future research is needed about the range of PHS and its behaviors in terms of consumables, revenue-raising, and pooling of funds.

## Keywords:

Policy-making, private hospitals, universal coverage, universal health

## Introduction

### Background, and theoretical framework

Private hospital services (PHS) with the undeniable effects on the Universal Health Coverage (UHC) objectives and goals,<sup>[1]</sup> have had a considerable contribution

to the health system of developing countries from the past to present.<sup>[1,2]</sup> On the other hand, pursuant to the UHC pledge-to leave no one behind<sup>[3]</sup>-progress toward UHC that will be essential to Sustainable Development Goals,<sup>[4]</sup> requires a fundamental shift toward integrated health-care systems.<sup>[5]</sup> With respect to the complexity of health systems, systems thinking is inevitable.<sup>[6]</sup> Since one

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**How to cite this article:** Fallah R, Maleki M. Nature of the private hospital services toward universal health coverage: A systematic scoping review of the developing countries evidence. *J Edu Health Promot* 2021;10:425.

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Received: 14-02-2021  
Accepted: 11-04-2021  
Published: 30-11-2021

way to ensure the system's performance is health system strengthening (HSS) and according to Figure 1, HSS also has impact on UHC,<sup>[7]</sup> we chose theoretical approach to HSS through "systems thinking" as a powerful tool that first decodes the complexity of a health system and then applies that understanding to design better interventions to strengthen systems, increase coverage, and improve health.<sup>[8]</sup>

### Rationale and objective

There is evidence across the world that the private health sector can contribute effectively in all the three dimensions of UHC,<sup>[9]</sup> but enhancement of the contribution of the private sector has recognized as one of the overarching challenges that influence the health system performance,<sup>[10]</sup> and particularly, there is an urgent need to reassess the arguments used in favor of scaling-up the for-profit private sector in the poor countries.<sup>[11]</sup>

Some successful efforts found compared the PHS in terms of the ownership,<sup>[12-14]</sup> some others pointed only to private sector growth regardless of the private hospital,<sup>[11]</sup> and also such evidence has grounded by the extracted data of some mapping or scoping studies.<sup>[9,15,16]</sup> Nevertheless, there is a lack of evidence that has scrutinized systematically the nature of the PHS toward UHC in terms of the services range, growth, behaviors, and policy actions. Moreover, considering that Fallah and Bazrafshan<sup>[1]</sup> identified the above-mentioned gaps in their study and suggested them as future research priorities, the objective of the current systematic scoping review (ScR) was identifying and mapping the available evidence about the nature of the PHS in the UHC journey of the developing countries through providing graphical/tabular some main information.

## Materials and Methods

### Study approach

This systematic ScR was conducted from May 2019 to July 2020. The nine-steps published methodological guidance of the Joanna Briggs Institute (JBI) for the conduct of ScR,<sup>[17]</sup> that is congruent and consistent with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for-ScR checklist<sup>[17,18]</sup> along with the narrative synthesis integrated with the systematic analysis as knowledge synthesis methods<sup>[19]</sup> to meet the objective.

### Inclusion criteria

Defining the PCC elements for ScR (Population: Private hospitals, Concept: Service delivery, and Context: UHC in developing countries) was a substantial step in developing the inclusion and exclusion criteria<sup>[17,20,21]</sup> [Table 1] to come to a shared conception. To gain comprehensive resources and to find the records

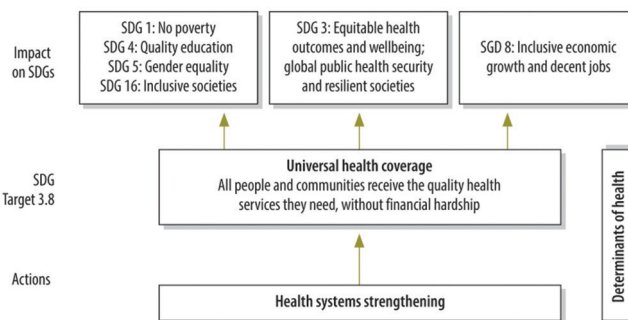


Figure 1: How health system strengthening contributes to sustainable development goals through universal health coverage

were not indexed in databases, all relevant documents including gray literature were searched.

### Research questions

Referring to the guidance, based upon the PCC elements,<sup>[17,21]</sup> seven research questions (RQ) were derived from the objective of the study. To make better understand audiences, its priority is as follows in Table 2.

### Search strategy

A three-step search strategy as posited in JBI guidance<sup>[17]</sup> was undertaken after defining the RQ using PCC. Following initial scoping searches of online relevant databases and search engines (PubMed, Embase, and Google Scholar) using MeSH terms, Emtree, and similar studies, a list of the search terms and inclusion criteria were developed. Full searches were then performed regardless of the time and language limitations. To find gray literature such as dissertations and reports,... and to attain some manuscripts before peer review in a journal some search engines and website were employed [Figure 2]. The inclusion of the search results was continued up to it was explicitly obvious that the listed results were irrelevant. The reference lists of found records were searched, and thus, backward and forward-searching was also employed. Some search strategies including search terms are presented in detailed [Box 1].

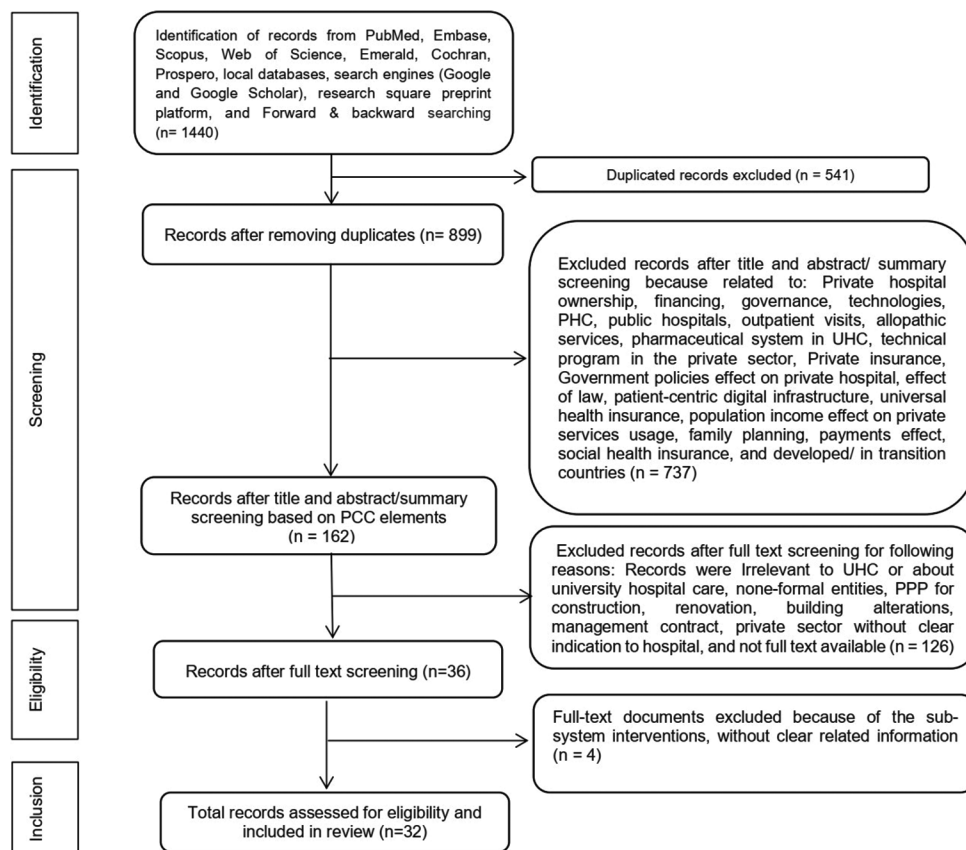
### Selection of the evidence

To remove duplicates and simplify the reviewing process all records found in the search were managed by bibliographic software (EndNote version X8). According to Figure 2, the identified records were reviewed at all stages based upon the inclusion and exclusion criteria according to the PCC. The judgment about the fitness of records was made by both authors, and any disagreements were resolved in discussion with each other. The interdisciplinary essence of the retrieved records and the challenges of using quality criteria across the research paradigms meant that the appraisal of the included records classified in Table 3

**Table 1: The public construction commission elements definitions, inclusion and exclusion criteria**

Inclusion criteria	Exclusion criteria
Types of sources The full-text of evidence was available The evidence was peer-reviewed articles or grey literature. (whether empirical or nonempirical, commentary, editorial)	The full-text of evidence wasn't available
Population The evidence was about all types of PHS including formal, for-profit, nonprofit, domestic, and international that could be active even inside of governmental hospitals <sup>[22]</sup> and also in terms of privatization forms was corporatization, outsourcing, (PPP), and the full or partial sale of the public <sup>[23]</sup>	The evidence was about PHS regarding formal entities and traditional healers, PPP for construction, renovation, building alterations, management contract and also nonformal entities
Concept The evidence pointed to nature of the PHS that Service delivery includes effective, safe, and quality personal and nonpersonal health interventions that are provided to those in needs, when and where needed, with minimal waste of resources <sup>[8]</sup>	The evidence was about the nature of the PHS in terms of the other functions of the health system towards UHC
Context The evidence was related to Universal Health Coverage that has been considered as cube proposed by the WHO that provides three interrelated components <sup>[24,25]</sup> and in developing countries based on the (WESP) classifications <sup>[26]</sup>	The evidence was about universal health insurance or University hospital care The evidence was related to developed or in transition countries

PPP=Public-private partnership, PHS=Private hospital services, WESP=World economic situation and prospects, UHC=Universal health coverage



**Figure 2:** A flow diagram illustrating the selection process, reasons for exclusion, and final record number

was confined to considerations of relevance rather than research quality.

### Data extraction, synthesis, and analysis

Choosing the narrative synthesis as a systematic and transparent approach,<sup>[55]</sup> after further familiarization with the data, data coding was undertaken in deduction,

induction, and verification phases. In the first phase, the framework method following Gale *et al.* model was selected as a systematic and flexible approach, particularly in multidisciplinary research teams were not all members have experience of qualitative data analysis.<sup>[56]</sup> The retrieved data were informed applying the theoretical approach to HSS through “systems thinking.”

**Table 2: Research questions sets and sub-set**

Research questions	Remarks
<p><b>BRQ</b></p> <p>BRQ1 - Records trend and types: What are the status and the chronological trends of various types of available evidence about the nature of the PHS towards UHC with respect to their various categories, and approaches? This question can be considered as a preliminary exercise prior to the conduct of a systematic review and can be provided a foundation to audiences for a future investigation of a systematic review</p> <p>BRQ2 - Sources of the records: Which journal/organization contains the largest number of the included records about the nature of the PHS toward UHC? What is the most specialized journal in the field? The answer to this question helps researchers select appropriate journals for topics and subjects related to PHS in UHC</p>	<p>Evidence about PHS dealing with UHC was found and selected [Figure 3]. In the absence of explicit research design in some of the records, the designs were determined by analyzing the circumstances of the information and the activities utilized</p> <p>The sources of the retrieved records were reported based on the referred journal or corresponding organization</p>
<p><b>CRQ</b></p> <p>CRQ1 - The frequent settings: Which setting is the most frequent among the geographical coverage of the available evidence? The answer to this question underlines leading countries or regions related to the nature of the PHS towards UHC to international and national stakeholders</p>	<p>The geographical coverage of the records was searched to find the location that was mentioned empirically around the nature of the PHS towards UHC. Where the document was about a region (a set of countries) and the data were presented as a general conclusion and not separately for each country, the coding was done based on the region</p>
<p><b>PRQ</b></p> <p>PRQ1 - Drivers of the PHS growth: What are the drivers of the PHS growth? This question helps the policy and decision-makers to understand the drivers of the PHS</p>	<p>The drivers were explored thematically with the lens of privatization forms, wherever has been stated clearly</p>
<p><b>CoRQ</b></p> <p>CoRQ1 - Range of the PHS: What are the observed schemas of the countries' PHS? This question helps the policy makers to identify the mixed- health system private partners</p> <p>CoRQ2 - Behaviors of the PHS: What are the behaviors emerged under the influence of PHS in the context health system? This question helps the policy and decision-makers to design or evaluation phase of the approach</p> <p>CoRQ3 - Opportunities for policy actions: What are the recommended opportunities for policy actions in conjunction with the emergent behaviors? This question shows the international and national stakeholders what potential policy options targeted to specific conditions for the future</p>	<p>It was responded according to available evidence, wherever had been exactly reported concerning the level and type</p> <p>Health System behavior which reveals itself as a series of events over time can affect positively or negatively in the health system context<sup>[6]</sup> In this question, the emergent behaviors influenced by PHS were reviewed in the context of relationships with the other health system functions</p> <p>The action refers to system-level interventions that aim at HSS<sup>[7,8]</sup> and were coded following the strategies of the integrated people-centered health services framework</p>

BRQ=Bibliometric research questions, PHS=Private hospital services, UHC=Universal health coverage, CRQ=Context research questions, PRQ=Population research questions, CoRQ=Concept research questions, HSS=Health system strengthening

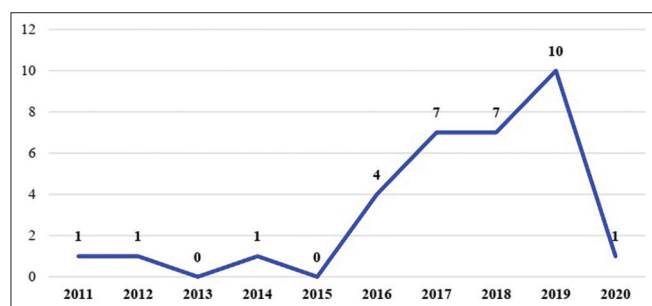


Figure 3: Chronological trends of the available evidence

For the second phase, the free code was dedicated to the messages extracted from the records which allow new themes to emerge inductively. The coding schema was refined through the continuous comparative analysis. Whereby the coded concepts were certified, modified, unified, and/or added to through several iterations

of analysis. Entire this process, a team approach was applied to minimize individual bias pertained to multiple analysts involved in coding and interpreting data. Hence, both authors committed to validate coding decisions and discuss emerging themes finally, the themes, categories, and codes were searched aiming to explore other classification in terms of the conflict situations and WHO regions. The findings were synthesized in both quantitative (using frequencies) and qualitative (thematic analysis) format through Excel.

## Results

The electronic databases and search engines identified 1440 records of which 36 were deemed as potentially eligible. After screening, 32 records were eligible for the inclusion in this review. The findings were classified based on each RQ and then were illustrated as tabular or visual representations.

**Table 3: Contributions of evidence on the nature of the private hospital services towards universal health coverage (sorted by time)**

Authors/reference	Title	Year	Type of review	Contributions
Reddy <i>et al.</i> <sup>[27]</sup>	Towards achievement of universal health care in India by 2020: A call to action	2011	Proposal paper	Proposes the creation of the integrated national health system to achieve health care for all by 2020
Zaidi <i>et al.</i> <sup>[9]</sup>	Role and contribution of private sector in moving towards universal health coverage in the Eastern Mediterranean region	2012	Report	Discusses the current role of the private sectors with a focus on regulation, consumer information financing of the private sector towards UHC Analysis of success drivers and constraints in strengthening the role of the private sector in regulation and service delivery Proposes a framework that includes regulation, service delivery, and financing Proposes a list of priorities for EMR states and the role of the WHO in supporting states in strengthening PPP
EMRO* <sup>[15]</sup>	Analysis of the private health sector in countries of the Eastern Mediterranean: An exploring unfamiliar territory	2014	Report	Presents information on trends in privatization and implications for the private health sector Display the current status of the private health sector in countries of the region Discusses challenges and gaps in relation to the private health sector
Morgan <i>et al.</i> <sup>[28]</sup>	Performance of private sector health care: Implications for universal health coverage	2016	Review	Reviewed the evidence of important individual factors and consider the implications for UHC in LMICs Identified factors that affect private sector performance Developed a conceptual framework theorizing the links between individual performance characteristics and system-level effects that determine progress towards UHC
Mackintosh <i>et al.</i> <sup>[29]</sup>	What is the private sector? Understanding private provision in the health systems of low-income and middle-income countries	2016	Report	Proposed a set of metrics to identify the structure and dynamics of private provision in their particular mixed health systems; and to identify the consequences of specific structures, the drivers of change, and levers available to improve efficiency and outcomes
Montagu and Goodman <sup>[30]</sup>	Prohibit, constrain, encourage, or purchase: How should we engage with the private health-care sector?	2016	Systematic review	Reviewed the evidence for the effectiveness and limitations of such private sector interventions in LMICs <sup>†</sup>
McPake and Hanson <sup>[31]</sup>	Managing the public–private mix to achieve universal health coverage	2016	Review	Extrapolated and discussed main messages from the papers to inform policy and research agendas in the context of global and country-level efforts to secure UHC in LMICs
Tsevelvaanchig <i>et al.</i> <sup>[32]</sup>	Role of emerging private hospitals in a postsoviet mixed health system: a mixed methods comparative study of private and public hospital inpatient care in Mongolia	2017	Mixed methods approach of quantitative and qualitative techniques	Identified the geographical distribution of private hospital admissions Showed the main types of private inpatient services delivered by private hospitals, in comparison with public hospitals Highlighted reasons for the urban concentration of private hospital admissions Identified conditions that do not require hospitalization and root causes
Gele <i>et al.</i> <sup>[33]</sup>	Beneficiaries of conflict: a qualitative study of people's trust in the private health care system in Mogadishu, Somalia	2017	Qualitative	Explored the accessibility to, as well as people's trust in, the private sector
Sean <i>et al.</i> <sup>[34]</sup>	Organizing health coverage goals the private sector to support universal	2017	Report	Highlighted success stories: SHOPS plus examined six diverse countries (Japan, Philippines, Indonesia, Brazil, Germany, and South Africa) that have successfully organized private providers to identify lessons on strengthening their voice, improving quality of care, and expanding their access to revenue opportunities

Contd...

**Table 3: Contd...**

Authors/reference	Title	Year	Type of review	Contributions
Wadge <i>et al.</i> <sup>[35]</sup>	How to harness the private sector for universal health coverage	2017	Commentary	Commented on the framework, evaluating the impact of private providers on health and health systems which has been piloted in Narayana health, a private hospital chain in India will be launched on June 28, 2017
Maurya <i>et al.</i> <sup>[36]</sup>	Horses for courses: Moving India towards universal health coverage through targeted policy design	2017	Current opinion	Presented information on health system and policy options for universal coverage Investigated challenges of replicating high performing primary healthcare systems nationally Reviewed experience of purchasing care in social health insurance programs and improving the effectiveness of Shi programs
Zaidi <i>et al.</i> <sup>[16]</sup>	Expanding access to healthcare in South Asia	2017	Review	Present recent proliferation of policy initiatives Afghanistan, Pakistan, Bangladesh, and India
Alami <sup>[37]</sup>	Health financing systems, health equity and universal health coverage in Arab Countries <sup>†</sup>	2017	Literature review	Placed the region in an international context, benchmarking reform efforts against the experiences of developing countries in working towards UHC
Zodpey and Farooqui <sup>[38]</sup>	Universal health coverage in India: Progress achieved and the way forward	2018	Editorial	Suggested the way forward for UHC in India
Makinde <i>et al.</i> <sup>[39]</sup>	Distribution of health facilities in Nigeria: Implications and options for universal health coverage	2018	Review	Reviewed the geographic and sectoral distribution of health facilities in Nigeria Discussed implications on the UHC strategy selected
Tangcharoensathien <i>et al.</i> <sup>[40]</sup>	Health systems development in Thailand: A solid platform for successful implementation of universal health coverage	2018	Review	Presented successful implementation of UHC in Thailand
Kwon <sup>[41]</sup>	Advancing universal health coverage: What developing Countries can learn from the Korean experience?	2018	Organizational paper-study series	Presented Korean experience in advancing UHC
EMRO <sup>[42]</sup>	Private sector engagement for advancing universal health coverage	2018	Organizational paper	Presented the current state of the private health sector in the EMR Explained why engagement with the private health sector in service delivery is necessary Proposed a framework for action for effective engagement with the private health sector to move towards UHC The framework for the analysis of the private health sector followed the conceptual framework of the six health system building blocks
Lu and Chiang <sup>[43]</sup>	Developing an adequate supply of health services: Taiwan's path to universal health coverage	2018	Review	Analyzed how Taiwan historically built up the supply of health services that made achieving UHC possible Identified four key strategies adopted in the health service sector development
Tsevelvaanchig <i>et al.</i> <sup>[44]</sup>	Regulating the for the profit private healthcare providers towards universal health coverage: A qualitative study of legal and organizational framework in Mongolia	2018	Qualitative	Maps the current regulatory architecture for private healthcare in Mongolia Explored its role for improving accessibility, affordability, and quality of private care and identified gaps in policy design and implementation
Chapman and Dharmaratne <sup>[45]</sup>	Sri Lanka and the possibilities of achieving universal health coverage in a poor country	2019	Review	Identify factors enabling Sri Lanka to progress toward UHC Presented Sri Lanka's healthcare challenges

Contd...

**Table 3: Contd...**

Authors/reference	Title	Year	Type of review	Contributions
Erdenee <i>et al.</i> <sup>[46]</sup>	Mongolian health sector strategic master plan (2006–2015): A foundation for achieving universal health coverage	2019	Review	Analyzed changes in the health sector toward achieving UHC based on relevant literature, government documents, and framework analysis Investigated how basic principles of UHC were incorporated and reflected in Mongolia's health sector strategic master Plan
Zhu <i>et al.</i> <sup>[47]</sup>	Analysis of strategies to attract and retain rural health workers in Cambodia, China, and Vietnam and context influencing their outcomes	2019	Qualitative	Described the strategies supporting rural health worker attraction and retention in Cambodia, China, and Vietnam and explored the context influencing their outcomes
Clarke <i>et al.</i> <sup>[22]</sup>	The private sector and universal health coverage	2019	Perspectives	Suggested approaches to managing, and where appropriate, engaging the private sector as part of efforts to achieve UHC
Cowley and Chu <sup>[48]</sup>	Comparison of private sector hospital involvement for UHC in the Western Pacific Region <sup>§</sup>	2019	Commentary	Summarized the growth of private hospitals in China, Vietnam, and Lao PDR** according to some UHC attributes such as quality, accountability, equity, and efficiency Concludes with potential action steps for increasing the contribution of the private hospital sector toward attaining UHC in these three countries
Yip <i>et al.</i> <sup>[49]</sup>	10 years of health-care reform in China: Progress and gaps in universal health coverage	2019	Review	Reviewed progress and gaps in UHC in China
Danaei <i>et al.</i> <sup>[50]</sup>	Iran in transition	2019	Review	Presented transition trends and lessons learnt from Islamic republic of Iran
Titoria and Mohandas <sup>[51]</sup>	A glance on public private partnership: An opportunity for developing nations to achieve universal health coverage	2019	Review	Showed the necessity of public-private partnership and related challenges in India
Stewart and Wolvaardt <sup>[52]</sup>	Hospital management and health policy—a South African perspective	2019	Review	Addressed policy evolution, Current policy issues that are ended to the need for UHC, hospital management in South Africa
Khoonthaweelapphon Woraset <sup>[53]</sup>	The liberalization of Thailand medical services industry: Case study between Thailand and South Korea	2019	Thesis-case study	Focused on the examination of the medical service industry in Thailand and South Korea
Asbu and Masri <sup>[54]</sup>	Determinants of hospital efficiency: insights from the literature	2020	Literature review	Reviewed the literature on hospital efficiency and its determinants

PPP=Public-private partnership, UHC=Universal health coverage, EMRO=Eastern Mediterranean Regional Office's, LMIC=Low- and middle-income countries

### Bibliometric research questions

#### Records types

Figure 3 demonstrates a sharp increase in the generation of the records with the 90.6% growth rate between 2015 and 2020. The classifications of the records according to their contributions [Table 3 and Figure 4] show that the most frequent records type was review articles (47%). Furthermore, it is seen that during the peak, the review article was the most frequent type of record (60%). Another point we found out was that Zaidi *et al.*<sup>[9,16]</sup> and Tsevelvaanchig *et al.*<sup>[32,44]</sup> were the most repeated corresponding authors among the records.

#### Sources of the records

We found that the selected records were published in 16 journals (approximately 81%) and produced by six organizations (approximately 19%). Figures 5 and 6

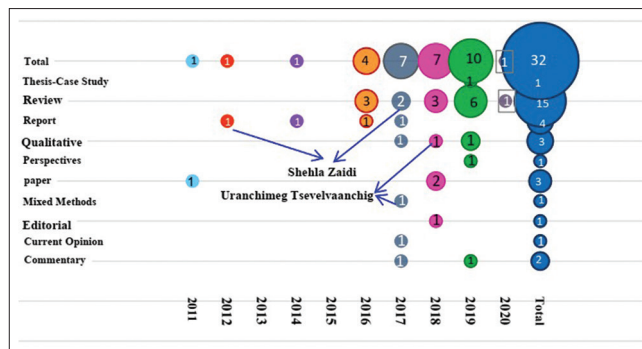


Figure 4: Bubble plot of records methods per year

show except in 2011, publication in the journals was started in 2016 from the Lancet that encompassing 35% of all the journal articles. It was also revealed that 75%

**Box 1: Some search strategies and search terms for this review**

Search in PubMed through both MeSH terms and manual search

((((((((((("Private Sector"[tiab]) OR "private sector"[Title/Abstract]) OR ("Private Sector"[tiab] OR "Private Sectors"[tiab])) OR ("Private Enterprise"[tiab] OR "Private Enterprises"[tiab])) OR ("Public Private Partnerships"[tiab] OR "Public Private Partnership"[tiab])) OR "public private sector partnerships"[Title/Abstract]) OR ("Public Private Sector Partnerships"[tiab] OR "Public Private Sector Partnership"[tiab])) OR ("Public Private Cooperation"[tiab] OR "Public Private Cooperations"[tiab])) OR "public private cooperation"[Title/Abstract]) OR ("public private sector cooperation"[tiab] OR "public private sector cooperations"[tiab])) OR ("Private Hospitals"[tiab] OR "Private Hospital"[tiab]) OR "private hospital"[Title/Abstract])) AND (((("universal health coverage"[tiab] OR "UHC"[tiab]) OR "universal health coverage"[Title/Abstract]) OR "universal health coverage scheme"[Title/Abstract]))

Search in Embase through both Emtree and manual search

('private sector'/exp OR 'private hospital'/exp OR 'public-private partnership'/exp OR 'private sector':ab, ti OR 'private sectors':ab, ti OR 'private hospital':ab, ti OR 'private hospitals':ab, ti OR 'public private partnership':ab, ti OR 'public private partnerships':ab, ti OR 'private economy':ab, ti OR 'for profit hospital':ab, ti OR 'for profit hospitals':ab, ti OR 'investor owned hospitals':ab, ti OR 'investor owned hospital':ab, ti OR 'private clinic':ab, ti OR 'private clinics':ab, ti OR 'public-private sector partnerships':ab, ti OR 'public-private sector partnership':ab, ti OR 'private-public collaboration':ab, ti OR 'private-public collaborations':ab, ti OR 'private-public cooperation':ab, ti OR 'private-public cooperations':ab, ti OR 'private-public mix':ab, ti OR 'private-public mixes':ab, ti) AND ('universal health coverage' OR uhc)

of journals are indexed in the Web of Science, Scopus, and PubMed.

**Context Research Questions**

*The frequent settings*

According to Table 4 across the 38 settings, India was the most frequent country (15%) and WHO Western Pacific Regional Office was the most active region (34.2%).

**Population research questions**

*Drivers of the private hospital services growth*

According to Table 5, near the half (48.7%) of the logical or illogical growth drivers of PHS have been originated from the governance. Furthermore, among the WHO regions, the highest frequencies of the drivers belonged to the WPR (48.5%).

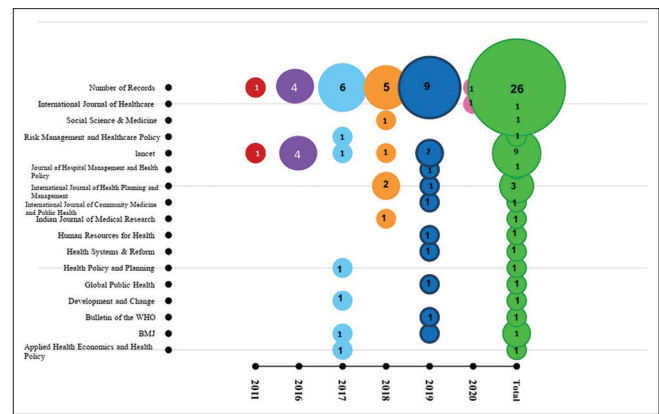


Figure 5: Bubble plot of journals per year

**Table 4: The frequency of the contributed settings**

Settings/year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total frequency of settings	Proportion (%)
India	1						3	1	1		6	15
LMICs						4					4	10
China									3		3	8
EMRO		1		1				1			3	8
Mongolia							1	1	1		3	8
South Africa							1		1		2	5
South Korea								1	1		2	5
Thailand								1	1		2	5
Vietnam									2		2	5
Bangladesh							1				2	5
Arab countries							1				1	3
Cambodia									1		1	3
Islamic republic of Iran									1		1	3
Nigeria								1			1	3
Somalia							1				1	3
Pakistan							1				1	3
Sri Lanka									1		1	3
Taiwan								1			1	3
Lao PDR									1		1	3
Total frequency of settings	1	1	0	1	0	4	10	7	14	0	38	100
Number of records per year	1	1	0	1	0	4	7	6	8	0	28	100
Number of participating settings	1	1	0	1	0	4	6	7	11	0	19	100

LMIC=Low- and middle-income countries, EMRO=Eastern Mediterranean Regional Office's, PDR=Prescriber's digital reference



### Concept research questions

#### Range of the private hospital services

As Table 6 shows, among the identified countries, Sri Lankan PHs are an exception that did not provide inpatient services,<sup>[45]</sup> and only China provided PHS through both the PH and PPP.<sup>[48]</sup>

#### Behaviors of the private hospital services

Figure 7 shows that the significant frequency of codes (32.6%) was related to integrated people-centered health service (IPCHS) delivery and it may indicate an inherent direct effect of this function on UHC; however, the extracted codes

related to the indirect effects of service delivery through other functions and sub-functions (especially benefit package) as system-wide effects on UHC objective and goals can confirm the need for systems thinking in the analysis. Based on the predefined categories, no data were found around behaviors of the PHS in terms of the consumable, revenue-raising, and pooling of funds.

#### Opportunities for policy actions

Most of the identified interventions [Table 7] were recommended about governance (47.8%) and South Africa (30%).

**Table 5: Drivers of private hospitals growth**

Theme	Category	Code	Countries	
Governance	Lack of regulation	The absence of significant regulation resulted in an increase of PPPs	China and Viet Nam <sup>[48]</sup>	
		Competitive constraint caused by lax regulatory environment	South Africa <sup>[34,52]</sup>	
	Dysfunctional management	Poor public hospitals management	South Africa <sup>[34]</sup>	
		Supportive regulations	More attractive incentives introduced by the private hospital regulations	Lao PDR <sup>[48]</sup>
	Supportive policy initiatives	Set of regulations that better define cost support policy	The introduction of licensing regulation by the MOH <sup>††</sup>	China, Vietnam, and Lao PDR <sup>[48]</sup>
			PPP policy due to moving toward fully autonomous public hospitals caused by social mobilization policy	Mongolia <sup>[32]</sup>
		Government pro-privatization policies	Viet Nam <sup>[48]</sup>	
		PPP initiatives	South Africa <sup>[34,52]</sup>	
		Racial desegregation of government hospitals	Pakistan <sup>[9]</sup>	
		Public sector reforms advocated downsizing hospital beds and inpatient care	South Africa <sup>[52]</sup>	
		Legal mandate for private providers to participate in NHI	Mongolia <sup>[32]</sup>	
	Service delivery	Insufficient public hospital services	Economic liberalization or market-based economy effect on health market	South Korea <sup>[48]</sup>
			Public sector vacuum in deprived areas	China, Vietnam, and Lao PDR <sup>[48]</sup> Sri Lanka <sup>[45]</sup>
			Insufficient public hospital services	Somalia <sup>[33]</sup>
			Over-burdening of public hospital	Mongolia <sup>[32]</sup>
To supplement the damaged and weekend public sector during conflict			Jordan <sup>[9]</sup>	
Limited capacities of public sector			Lebanon <sup>[9]</sup>	
Capacity constraints to offer tertiary services			Tunisia <sup>[9]</sup>	
To provide hospital services in the postconflict period			Jordan <sup>[9]</sup>	
Preference of specialists for private practice			Afghanistan <sup>[9]</sup>	
Profit seeking by private providers			Nigeria <sup>[39]</sup>	
Resources Creation	Health workforce	Governmental financial incapacity to provide high-quality health care in tertiary health services	South Korea <sup>[41]</sup>	
		Low funding to the public sector	Occupied Palestinian Territories <sup>[15]</sup>	
Financing	Low funding to the public sector	Expansion of for-profit hospital because of under-funded and less developed public hospital	India <sup>[36]</sup>	
		Poor financial ability of the government for health expenses rendered by decades of armed conflict	Jordan <sup>[9]</sup>	
		Set of institutions that better define cost support policy	Somalia <sup>[33]</sup>	
	Supportive infrastructure	Proper government loans to provide PHS in the rural areas	China, Vietnam, and Lao PDR <sup>[48]</sup>	
		Recurrent cost support of the government resulted in PPP policy	South Korea <sup>[41]</sup>	
			China, Vietnam, and Lao PDR <sup>[48]</sup>	

PPP=Public-private partnership, MOH=Ministry of Health, NHI=National Health Insurance, PHS=Private Hospital Services, PDR=Prescriber's digital reference

**Table 6: Range of the services**

Forms of privatization	Level of services	Types of services	Countries
Private hospital	-	Outpatient care, the provision of ancillary services, and the supply of pharmaceuticals, medical supplies, and medical equipment	Sri Lanka <sup>[45]</sup>
	-	Admission of patients who have been discharged from the public hospital with a long stay	Mongolia <sup>[32]</sup>
	Secondary and tertiary care	Most frequently admission because of the internal medicine, neurology, traditional medicine, gynecology, otorhinolaryngology, and ophthalmology	Mongolia <sup>[32]</sup>
	Secondary and tertiary care	-	India <sup>[36]</sup>
	Secondary and tertiary care	-	IR Iran <sup>[42]</sup>
PPP (commercial activities in the public hospitals caused by autonomy in managing public hospitals)	-	Elective (often cosmetic) surgery, VIP services, and checkups	China <sup>[48]</sup>
	-	Markups on drug sales, addressing “patient-requested services,” commercialization of certain departments such as lab or X-ray services, employee (usually doctor) ownership of the hospital	China and Viet Nam <sup>[48]</sup>
PPP (contracting private hospital with ministry of health)	Complement curative services specially in tertiary level	-	Jordan <sup>[9]</sup>
	-	Started with hemodialysis services	Tunisia <sup>[9]</sup>
	Tertiary care	-	Occupied Palestinian Territories <sup>[9]</sup>

PPP=Public-private partnership

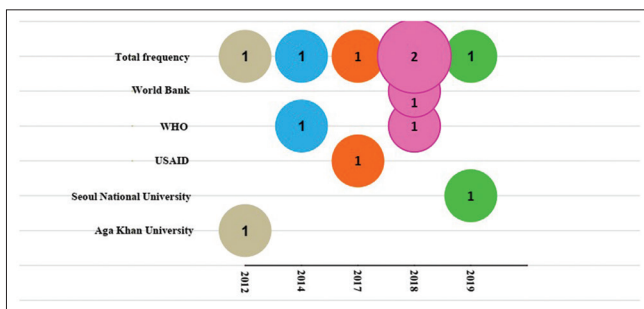


Figure 6: Bubble plot of corresponding organizations per

## Discussion

### Bibliometric research questions

#### Records types

According to findings, the increase in the number of review articles in recent years can indicate the global motivation to produce this scientific product. Furthermore, a low number of the systematic review<sup>[30]</sup> ( $n: 1$ ) and a significant number of records (20%,  $n: 3$ ) that was extracted from a mapping or ScR<sup>[9,15,16]</sup> can indicate three points: (1) being unknown of this topic, (2) lack of the sufficient data to perform a systematic review, and (3) confirming the rationale for the current review.

#### Sources of the records

The *lancet* was the most specialized journal due to the publication of nine articles belonging to two series of papers entitled *UHC and private health care*, and *India:*

*Towards UHC.* Furthermore, the WHO<sup>[15,42]</sup> was more precedent, although Aga Khan University was the pioneer.

### Context research questions

#### The frequent settings

Mapping the results shows that 18.4% ( $n: 7$ ) of all records belonged to EMRO and two of them<sup>[9,15]</sup> has grounded by the extracted data of some mapping or scoping studies. It could be presumably due to the incentive strategy<sup>[10]</sup> of this region.

### Population research questions

#### Drivers of the private hospital services growth

The successful and unsuccessful experiences of countries show the importance of the political support and commitments of the governments for the growth of the private sector beds. As in Viet Nam, China, and Lao PDR, although policies encouraging the role of the PHs are actively being implemented, the insufficient capital, and fierce competition from public hospitals as a consequence of the PPP policy has reduced the proportion of the private for-profit hospitals.<sup>[32,48]</sup> On the other hand, the South Korean experience shown that the government support of the PH overcame this problem and made it being a full UHC partner.<sup>[41,48]</sup>

The next noteworthy point is the importance of regulating competition in the health market. For example, despite the PPP policy and cost support of the government in China and Viet Nam, the absence of regulation guides has led to an increase of PPPs<sup>[48]</sup> and a dominant share of the public hospitals, by the same

**Table 7: Policy actions**

Theme	Category	Code	Countries
Strengthening governance and accountability	Regulation	Strengthen the framework, mechanisms and regulatory bodies	India, <sup>[38]</sup> Mongolia, <sup>[32]</sup> Somalia, <sup>[33]</sup> South Africa, <sup>[34]</sup> China, Viet Nam, and Laos <sup>[48]</sup>
		Balancing of both statutory and market harnessing approaches in regulation consistency and its enforcement	Mongolia <sup>[32]</sup>
	Bolstering participatory governance	Strengthen effective stewardship role of government	South Africa <sup>[34]</sup>
		Remove of political interference in managers appointments	South Africa <sup>[52]</sup>
		Accountability of the managers for the outcomes of the service they manage	South Africa <sup>[52]</sup>
		Legal support to make private hospital services more dominant rather than isolated	Mongolia <sup>[32]</sup>
Reorienting the model of care	Defining services based on the needs	Creating a comprehensive policy to define a complementary role for the PHSs	Mongolia, <sup>[32]</sup> India <sup>[35,38]</sup>
		Defining the benefit package by keeping in account people social and economic context and their health-care needs	India <sup>[38]</sup>
		Strategic purchasing	India <sup>[36]</sup>
	Coordinating across sectors	Review of the syllabus used by medical faculties to improved and provide knowledge and skills of maintaining professional rapport with patients, uphold patients' dignity, and respect their rights	Somalia <sup>[33]</sup>
		Systematic improvement program across the health system to ensure good services for patients	South Africa <sup>[52]</sup>
		Accountability of the health care workers for their actions	South Africa <sup>[52]</sup>
Creating an enabling environment	Coordinating health programs and providers	Movement of the health-care workers to a mindset of continuous improvement	South Africa <sup>[52]</sup>
		Quality education for medical students	Somalia <sup>[33]</sup>
	Reorienting the health workforce	Hospital management needs to be professionalized requiring managers to be able to demonstrate managerial competency	South Africa <sup>[52]</sup>
		Improving funding levers	Applying targeted incentives for engaging private investments such as government-subsidies for PHS, contracting

PHS=Private hospital services

token, the lax regulation allowed private corporate entities to dominate the PHSs in South Africa.<sup>[34,52]</sup> Furthermore, in spite of the mixed health system strategy in Mongolia, the lack of the implementation guide resulted in a rapidly unrestricted growth of the small PH that include the low proportion of total hospital beds (20%) and play an increasing role in providing inpatient care.<sup>[32,44]</sup> Governments need to pay attention to the forms of privatization.

Furthermore, in the 25% of the countries (Lebanon, Afghanistan,<sup>[9]</sup> Occupied Palestinian Territories,<sup>[15]</sup> and Somalia<sup>[33]</sup>), PHSs have grown during the conflict or postconflict period which necessitates national and international attention toward the rational contribution of the PHS in achieving UHC through the resilient health system.

### Concept research questions

#### *Range of the private hospital services*

Although the private sector is the main provider of

hospital services in the Arab countries,<sup>[37]</sup> and also most countries of EMRO have a reasonable supply of PHS,<sup>[9]</sup> there is limited information available on the range of services offered in EMRO.<sup>[15]</sup> This is also confirmed in this study, and limited information was obtained from only four countries (IR Iran,<sup>[42]</sup> Jordan, Tunisia, and Occupied Palestinian Territories<sup>[9]</sup>). Future research is needed to fill this gap. Across the all identified countries, the range of services was mentioned only in Mongolia that the two private and public hospitals have overlapped and duplicated services.<sup>[32]</sup>

#### *Behaviors of the private hospital services*

Findings regarding this section can make an important contribution to the existing body of knowledge about the status of PHS in different countries and settings. Concerning governance, although the records pointed to private hospital role in formulating health policy,<sup>[45,42,36]</sup> the data indicated that evidence for evidence-based policy-making in most countries was incomplete and inadequate,<sup>[15,31]</sup> or was incomparable.<sup>[31]</sup> Since the report



Figure 7: Radial-tree-map of the emerged behaviors

of EMRO emphasized the need for developing a regional strategy for collecting, monitoring, and evaluating private health governance in all EMRO countries<sup>[15]</sup> and given India's successful strategy,<sup>[57]</sup> there is a need for the adoption and implementation of policies and strategies by other governments to improve private hospital evidence.

The results about the benefits package design were heterogeneous and indicated that PHS obligations restricted access to services in South Africa.<sup>[34,48]</sup> Benefits package design has been challenging in two countries. Respectively, in Mongolia in terms of entitlement,<sup>[32]</sup> and in South Korean private hospitals which provided benefit package services similar to public hospitals in terms of both obligations and entitlement.<sup>[41]</sup> Accordingly, Maurya *et al.* reported that each of the service levels related to private hospitals due to their distinctive characteristics requires different approaches or policy tools depending on the context of the countries.<sup>[36]</sup>

UHC is people-centered though, this review showed gaps between private and public hospital services

in Mongolia,<sup>[32]</sup> while according to Wadge *et al.*, "governments should invest first in primary care and prevention to achieve UHC, the private sector in some settings can fill in the gaps in secondary and tertiary care provision."<sup>[35]</sup> Furthermore, the absence of the referral system, its poor implementation, and its related consequences were observed in some countries.<sup>[32,45]</sup> Thus, according to Makinde *et al.*, the need for a strategy to ensure continuity of care through a referral system is substantial.<sup>[39]</sup>

Of note that, inequity was seen in almost all forms of access to PHS.<sup>[15,32,34,47,58]</sup> This should be taken into account when coordinating public and private hospitals or purchasing services from private hospitals. In this regard, the study conducted in Mongolia was turned out as a successful experience.<sup>[32]</sup>

#### Opportunities for policy actions

There are three noteworthy points: (1) Among all countries, only in India<sup>[36]</sup> interventions were proposed for both short-term and long-term; (2) Since, most of the growth factors and HSS interventions were

originated to the governance, it can be concluded that the countries themselves have realized the importance of the governance role in the HSS; (3) A mix of foundational and institutional HSS interventions based on the WHO proposed approach<sup>[3]</sup>-was observed. To achieve transformational HSS efforts that are focused on sustainability and exploring new ways of providing services that provide additional benefits, prerequisites are definitely needed.

The innovation of this review, which is also its strength is the simultaneous applying of three inherently systematic tools that make this study more systematic than a common ScR: (1) ScR which is inherently systematic, (2) Systems-thinking approach for HSS, and (3) Framework method.

### Limitation and recommendation

This review was subjected to several limitations, including (a) this study was Finished in July 2020, and the time spent on its preparation and publishing lasted more than half of a year. Thus, the records related to this time range were not included, as we had already reached the results and prepared the diagrammatic and tabular forms. (b) The quality assessment of the included records was not conducted because of two reasons: (1) unlike the systematic reviews, ScR provide an overview of the existing evidence, irrespective of quality,<sup>[17]</sup> and (2) we did not want to miss any evidence.

The quantity and variety of the found records confirmed the rationale of the current study, thus, regarding the identified knowledge gap future research is recommended about the range of PHS, and its behaviors in terms of the consumable, revenue-raising, and pooling of funds.

### Conclusions

To build a healthier world by 2030, UHC is a direction rather than a destination.<sup>[59]</sup> Furthermore, not every country can achieve a “full UHC package” at the same speed.<sup>[60]</sup> In other words, choosing the right road to UHC through the right policies will vary significantly according to countries’ starting point.<sup>[60]</sup> Although especially in conjunction with PHSs, regarding the dynamic architectures of interactions between system functions, with a glance at originating most of the growth factors and HSS interventions from governance, the upshot of this review to address both national and international audiences such as health policy-makers and other stakeholders show that probably the countries themselves have realized the importance of the governance role in the HSS. It seems that about the interested countries in similar cases, governance needs more attention than other functions of the health system.

Given that most of the recommended HSS interventions based on the IPCHS strategies were a combination of foundational and institutional, it seems that to leaving no one behind, sustainable participation of private hospitals in the health system is far and it requires a solid will of the governments.

### Acknowledgment

The authors would like to sincere thanks to Florien M. Kruse, postdoctoral researcher at IQ healthcare, Radboud University Medical Center, the Netherlands, because she guided us in differentiating between the two UHC, respectively “Universal Health Coverage” and “University Hospital Care” in the defining Inclusion criteria step

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

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