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REVIEW ARTICLE

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Assessing the status of oral health integration in South East Asian Regional Office countries' Universal Health Coverage–A scoping review

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Abstract

Background: Oral diseases affect close to 3.5 billion people worldwide and there has been a call by the World Health Organization (WHO) to integrate oral health into the Universal Health Coverage (UHC) agenda.

Objectives: To collate and synthesise information regarding the status of integration of oral health into the health systems covered by UHC across the 11 countries in the South East Asian Regional Office.

Methods: Drawing on the framework of the six building blocks of health systems as devised by WHO, we compared the public dental care coverage models, with a focus on outpatient dental care in these countries. We gathered this information from publicly available resources, databases and peer-reviewed publications to populate the template guided by the WHO Health System Building Blocks.

Results: We found a poor access to oral health care, lopsided distribution of manpower, rickety health information systems, and private sector domination and inadequate or absent financing mechanisms for outpatient procedures. The private sector was dominant in all countries except Thailand and Srilanka. Financing was absent in most countries and deficient in Thailand and Indonesia. Dental workforce was deficient in most countries except India, Srilanka,

and Thailand. Health information systems were weak with no dental items under price control. Better UHC indicators did not guarantee a lower oral disease burden.

Conclusions: Our review highlighted the close connection between service quality and human resources, governance, and finance. There is a need to establish standardised dental treatment guidelines that are uniformly adopted across countries, integrate oral health into national health and development programs, push for functional oral health research through collecting robust surveillance, economic, and social impact data and the development of cost-effective strategies tailored to each country's unique needs.

KEYWORDS
dental care, oral health, SEARO, universal health coverage, WHO health system building blocks

Highlights

- The private sector was dominant in all countries except Thailand and Srilanka
- Financing was absent in most countries and deficient in Thailand and Indonesia.
- Dental workforce was deficient in most countries except India, Srilanka, and Thailand.
- Health information systems were weak and no dental items were under price control.
- Better Universal Health Coverage metrics did not guarantee a lower oral disease burden.

1 | INTRODUCTION

The World Health Organization (WHO) Global Oral Health Status Report (2022) estimates that oral diseases affect close to 3.5 billion people worldwide and there are approximately 1 billion more cases of oral diseases compared to the combined instances of the five major non-communicable diseases (NCDs), which include mental disorders, cardiovascular diseases, diabetes, chronic respiratory diseases, and cancers. An astonishing 2.5 billion individuals are grappling with untreated dental caries (commonly known as tooth decay) alone. The prevalence of oral diseases is on the rise globally, surpassing the rate of population growth.[1] Oral diseases impose a considerable financial burden in low- and middle-income countries, with 35% of households experiencing catastrophic health expenditure related to dental care, in contrast to just 7% of other households.[2]

Over the past 3 years, there has been a significant turning point in terms of the focus and significance attributed to oral health. It has now increasingly been recognised as a global health challenge.[3] The United Nations (UN) prioritised the attainment of universal health coverage (UHC) as a crucial component of the Sustainable Development Goals (SDG 3.8) within the 2030 Agenda for Sustainable Development in 2015[4] and reaffirmed it in the UN General Assembly High-Level Meeting on UHC in 2020.[5] Considering the public health importance of oral diseases

and conditions, the 74th World Health Assembly passed a resolution regarding oral health on May27, 2021.[6] The resolution urged member states to incorporate oral health into the agendas for Non-Communicable Diseases (NCD) and UHC as outlined in the Draft Global Oral Health Action Plan 2023–2030). The Global Oral Health Action Plan seeks to provide Universal Oral Health Coverage for 80% of the global population and achieve a 10% reduction in the prevalence of major oral diseases and conditions across the lifespan by 2030.[7]

The South-East Asia Region (SEARO) comprising 11 member countries: Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste, and the Democratic People's Republic of Korea (DPRK) suffers from a high burden of oral diseases, including dental caries (tooth decay), periodontal (gum) diseases, oral cancers, and oral manifestations of systemic diseases, causing pain, difficulty in eating and speaking, and a reduced quality of life. Access to dental services is limited, particularly in rural and remote areas, due to challenges with dental infrastructure, clinics, equipment, and supplies.[8]

Taking a cue from the Global Oral Health Action Plan 2030, the WHO Regional Committee for South-East Asia introduced the Action Plan for Oral Health in South-East Asia 2022–2030. This plan aims to decrease premature mortality from oral cancer by 33.3% and reduce the prevalence of untreated dental caries in permanent teeth by 25% by 2030. Integration of oral health in primary health care and achieving UHC for all is the common overarching theme across all documents and deliberations.[8] A probable way to reduce this burden of oral diseases is the inclusion of oral health in the UHC philosophy across the region.

Universal health coverage (UHC) entails ensuring that every individual can obtain the complete spectrum of high-quality healthcare services they require, regardless of their financial circumstances, at the right time and place. This encompasses all essential health services, spanning from health promotion and prevention to treatment, rehabilitation, and palliative care throughout a person's lifetime. The effectiveness of UHC endeavours hinges on the presence of an integrated healthcare system capable of delivering comprehensive and suitable care, while simultaneously addressing the social determinants that impact health.[9]

Currently, there is a lack of evidence based information from the region on how health systems are organised and prepared to implement the WHO Action Plan for oral health. We need a systemic understanding of how oral health systems are organised and governed in SEARO member states. Therefore we undertook a narrative scoping review to collate and synthesise information regarding the status of integration of oral health into the health systems covered by UHC across the 11 countries in the SEARO using the framework of the six building blocks of health systems as devised by WHO.[10] This review seeks to enhance the current knowledge base and provide insights to policymakers, researchers, and oral health professionals regarding the progress of universal oral health service coverage integration in the region, while also encouraging further research in the field.

2 | METHODS

We conducted the scoping review in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews guidance (Supporting Information S1).[11] We do not have a published protocol for this study.

A scoping review was chosen as the suitable methodology for this investigation, considering the expansive nature of the topic. The aim was to comprehensively examine the evidence regarding the incorporation of oral health into UHC. Given the diversity, broad scope, and methodological complexity of the subject, a scoping review was deemed fitting. Additionally, the rationale for this choice stems from the extensive and heterogeneous nature of the evidence available, coupled with a lack of comprehensive reviews on the topic.

2.1 | Conceptual framework

Our research question centred on understanding the existing information regarding the integration of oral health care into the UHC systems within the 11 countries of the WHO SEARO region. To study and compare the oral health

care systems in the SEARO region, we used the six building blocks as a template (Supporting Information S2). The WHO identifies six core building blocks essential for functioning and strengthening health systems worldwide. These include leadership and governance, health workforce, HIS, medical products and technologies, financing, and service delivery.[10] Strengthening these building blocks is crucial for improving health outcomes, achieving UHC, and effectively responding to health challenges and emergencies. Although primarily focused on overall health systems, these building blocks can also be applied to dental care.

2.2 | Countries and data collection

We selected the 11 SEARO countries to compare their public dental care coverage models, with a focus on dental services provided in out-patient dental settings (dental clinics). We gathered this information from various sources, including local content, publicly available resources on national, provincial, and territorial government websites, and peer-reviewed publications.

To identify pertinent studies, we conducted a comprehensive scoping review encompassing all sources of information published in peer-reviewed journals and grey literature that addressed our research question. Employing a keyword search, we explored electronic databases such as PubMed/MEDLINE, Google Scholar, Science Direct, WHO library and databases, Global Burden of Disease databases, and grey literature. The search specifically focused on literature published in the English language, given its widespread use for official communication in most SEARO countries. The timeframe for our search was limited to studies/information published from 2012 to 2023, as this 10-year span was deemed likely to provide a thorough overview of both past and current research and information in the field. Key search terms included 'Health Systems,' Building-Blocks, 'South-east-Asia,' 'Oral health,' and 'UHC,' 'Dental care,' with Boolean terms (AND, OR) used to separate keywords. Additionally, Medical Subject Headings (Mesh) terms were incorporated into the search strategy (Supporting Information S3).

Additionally, we searched news outlets, commercial websites, for relevant information on the state of oral health care delivery systems and their adequacy/inadequacy, announcements regarding oral health care by governments and any other associated problems connected to oral health care delivery using Google search. A maximum of 10 pages of search results were assessed. In some cases, we contacted authors or website contacts for additional confirmation of details. However, due to the diverse variety of information sources gathered, no quality assessment of the evidence was conducted.

To facilitate data collection, we developed templates guided by the WHO Health System Building Blocks.[10] Data on the study setting and the key findings described in each article/webpage/news article were recorded and organised into each of the six building blocks.

Oral morbidity data, the Healthcare Access and Quality (HAQ) Index and UHC Index scores for the SEARO countries were collected from the Global Burden of Disease database.[12] To know the relationship between HAQ index scores,[13] UHC index scores[14] and oral disease burden in the SEARO countries, a correlation analysis was done. Spearman's correlation was used to correlate the UHC and HAQ index scores with the Oral Disease burden expressed in Disability-Adjusted Life Years (DALY) rates.

In the process of collating and summarising the findings, we reviewed the extracted evidence. The outcomes were then synthesised to provide a comprehensive overview of the current evidence concerning the integration of oral health care into UHC systems. To delve deeper, we conducted a thematic content analysis of the six building blocks, identifying additional factors if any that could influence health system functions.

3 | RESULTS

We retrieved a total of 5219 articles using the search strategy, of which 481 were accessed in full text, and 207 met the inclusion criteria and were included in the scoping review (Figure 1). Additional country specific information is provided in Supporting Information S4.

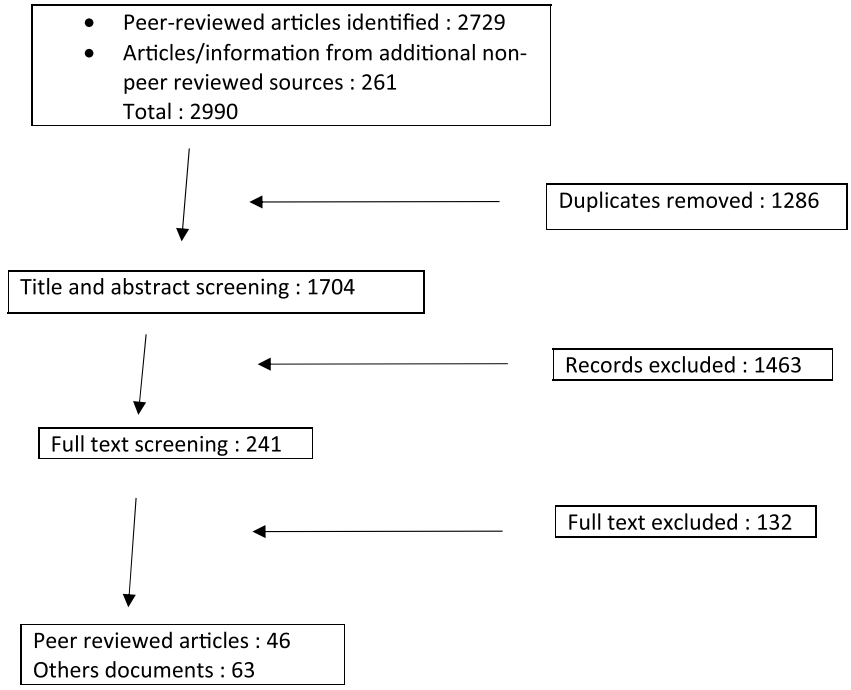

FIGURE 1 Summary of search, selection and inclusion process.

3.1 | Oral health interventions as part of health benefit packages

Access to oral health care was generally poor in all the countries, including those with significant dental manpower.[15–29] Among the SEARO countries, Bhutan, India, Indonesia, Nepal, Sri Lanka, Thailand, Timor Leste, and Maldives have included 'Routine and preventive oral healthcare' and 'Essential curative oral healthcare' in their package of dental care services, forming the core of what should be made available to all citizens through public funds. However, India and Myanmar did not offer 'Advanced Curative Dental/Oral Care' as part of their essential package. Only Bhutan, Sri Lanka, and Timor Leste provided 'Rehabilitative oral healthcare,' while Bangladesh offered none.[30]

3.2 | Health system building blocks

Table 1 presents our synthesised findings as per the Health System Building Blocks from the individual SEARO countries.

3.2.1 | Service delivery

All the countries had a multi-tiered health care system with primary care facilities at the lowest tiers predominantly in rural areas, more advanced secondary care facilities with specialists in larger towns/cities and tertiary institutions in cities/capitals for advanced care. Dental care was predominantly available in upper tiers in urban areas. Problems in service delivery arose due to the concentration of dentists in urban areas and a shortage of dentists in the government sector in Bangladesh,[31] DPRK,[32] Myanmar,[21] Nepal,[33] and India.[34] In Bhutan, there was a mismatch in manpower demand and supply,[16] while Indonesia[35] and Thailand[29] had limited service packages for dental care (see Table 1).

TABLE 1 An evaluation of the WHO building blocks in relation to oral health care delivery systems in SEARO countries.

Country	Service delivery	Health information systems (HIS)	Medical products, vaccines and technologies	Health system financing	Health workforce (dentist/ population ratio)	Leadership and governance
Bangladesh	Tiered system with subsidised care available at upper tiers. More than 50% of the population has limited or no access to dental care.	Data is incomplete and of poor quality.	No WHO recommended dental care items in the National List of Essential Medicines (NELM) list.	Tax/donor based financing. Out of pocket expenditure (OOPE) of 74%.	1:16600	Ministry of Health and Family Welfare
Bhutan	Tiered system with subsidised/free care available at upper tiers. More than 50% of the population has limited or no access to dental care.	Data quality is poor and incomplete. The biggest hospital responsible for 60%–70% care is not connected to the system.	No WHO recommended dental care items in the NELM list. Only Local Anaesthesia (L.A) Cartridge available.	Tax/donor based financing. OOPE of 15.42%	1:11500	Ministry of Health.
DPRK	Tiered system with free care available at upper tiers. Care limited to urban areas.	Data collected through surveys.	No WHO recommended dental care items in the NELM list.	Tax based financing.	No data available	Ministry of Public Health
India	Tiered system with subsidised care available mostly at upper tiers. Non-access to dental care ranged from 24% to 60% in different geographies.	Functional but data collected at lower levels is poor and incomplete.	No WHO recommended dental care items in the NELM list.	Tax based. OOPE of 50.9%	1:4766	National Oral Health Cell (NOHC) under Ministry of Health and Family Welfare
Indonesia	Tiered system with care available at upper tiers that is, the community health centre and above. Non utilisation of dental care was seen among 86% of the population.	Data quality is poor and incomplete.	No WHO recommended dental care items in the NELM list.	Co-payment insurance. OOPE is 37.3%.	1:17105	Directorate of primary health services under ministry of health
Maldives	Tiered system with subsidised care available at upper tiers. 16 government clinics present. Atolls lack dental care.	HIS not implemented	No WHO recommended dental care items in the NELM list. Only LA cartridge included.	Tax based financing.OOPE is 16.91%	1: 5000	Ministry of Health and Maldives Medical and Dental Council

TABLE 1 (Continued)

Country	Service delivery	Health information systems (HIS)	Medical products, vaccines and technologies	Health system financing	Health workforce (dentist/ population ratio)	Leadership and governance
Myanmar	Tiered system with free/subsidised care available at upper tiers. Out of reach of a majority. Only 35% adults have access.	Data quality is poor and incomplete	No WHO recommended dental care items in the NELM list	Tax and donor based financing. OOPE is 78.2%	1:16,000	The Oral Health Unit of the Department of Health, under the Ministry of Health and Sports.
Nepal	Tiered system with free/subsidised care available at upper tiers. Rural areas have limited access to dental care.	In pilot phase. Data quality is poor and incomplete.	No WHO recommended dental care items in the NELM list. Only chlorhexidine and zinc oxide powder.	Tax and donor based financing.OOPE is 54.17%	1:12,000	Eye health, ENT and Oral Health Services section under the Dept. of Health services
Srilanka	Tiered system with free/subsidised care available at all tiers. Challenges include lack of an established referral system, lack of designated oral diseases preventive staff at the grass-roots level.	Functional but weaknesses remain.	No WHO recommended dental care items in the NELM list	Tax and donor based financing.OOPE is 46.58%	1:6342. Majority in public sector.	Deputy director general dental services (DDG/DS) under Ministry of Health and the Director Oral Health
Thailand	Tiered system with care available at all tiers. Utilisation of dental care in urban regions is double that of rural areas.42% of adults access dental care.	Functional and connected to the UCS scheme.	No WHO recommended dental care items in the NELM list. Only fluoride and chlorhexidine solution included.	Insurance based. OOPE is 10.54%	1: 2500 Nearly half in public sector.	Bureau of Dental Health under the Department of Health and National Health Security Office
Timor leste	Tiered system with free/subsidised care at hospitals and community health centres.	HIS not implemented	No WHO recommended dental care items in the NELM list	Tax/Donor based financing. OOPE is 6.68%.	1:59478 Mostly in the public and NGO sectors.	Ministry of health

3.2.2 | Health care financing

Nine countries had a tax-based UHC System for dental care, where subsidised or free dental care was offered in public health facilities. Thailand utilised a public health insurance model, which combined three insurance schemes to create a large risk pool; the Universal Coverage Scheme (UCS), the Social Security Scheme, and the Civil Servant Medical Benefits Scheme. These three schemes covered similar comprehensive dental services, such as oral examinations, scaling, fillings, extractions, and wisdom tooth removal.[29] Indonesia adopted a managed capitation payment model under the Jaminan Kesehatan Nasional national health insurance programme.[35,36] Private fee-for-payment systems predominated in most countries. Bangladesh (74%) and Myanmar (78%) had the highest out-of-pocket payments as a percentage of health expenditure, followed by Nepal (54%), India (50%), and Sri Lanka (46.5%). Thailand had the lowest out-of-pocket expenditure (10.5%), followed by Indonesia (37.3%) among the major populated countries in the SEARO region.[37]

3.2.3 | Health workforce

A high concentration of dentists in urban areas was observed, which disadvantaged the rural regions in all the countries. Thailand boasted the highest dentist-to-population ratio of 1:2500,[38] with India following closely at 1:4766.[39] Among the countries mentioned, only India (1:4766),[39] Sri Lanka (1:6342),[40] and Thailand (1:2500)[38] achieved a dentist population ratio better than the ratio of 1:7500. In Thailand, dental nurses served as care providers at the lower tiers of the healthcare system.[41]

3.2.4 | Health information systems

Among all the countries, only Thailand had a well-functioning Health Management Information system (HMIS).[42] Bhutan,[43] India,[44] Indonesia,[45] and Sri Lanka[46] had fragmented HMIS systems with poor data quality and faced hardware and connectivity issues. Myanmar[47] and Nepal's[48] HMIS were still in their infancy, while Timor Leste, Maldives, and DPRK relied on rudimentary and manual systems.

3.2.5 | Medical products, vaccines and technologies

Maldives (LA cartridge), Thailand (Sodium Fluoride, Chlorhexidine, Benzocaine, and zinc oxide), Nepal (LA cartridge, Chlorhexidine), and Bhutan (LA cartridge) included dental care items in their essential medicines list. However, none of the countries had all the WHO-recommended essential items (Silver Diamine Fluoride, Glass Ionomer cement, Resin based cements, and Fluoride tooth paste, varnish, gels) required for dental care.[49]

3.2.6 | Leadership and governance

Sri Lanka, Thailand, India, Indonesia, Myanmar and Nepal had a separate bureau/division responsible for overseeing dental services nationwide. In contrast, all the other countries had dental services supervised by their central health ministries. While most of the countries had an oral health policy, Bangladesh, Myanmar, Timor Leste, Maldives, and North Korea were exceptions.

3.3 | Oral disease burden

Among the oral diseases in the SEARO region, oral cancer had the highest DALY rate (116.04), followed by periodontal diseases (99.5), and edentulism (70.7). 'Other oral disorders' (53.9), caries of permanent teeth (25.9), and deciduous teeth (2.66) followed suit (Figure 2).[12]

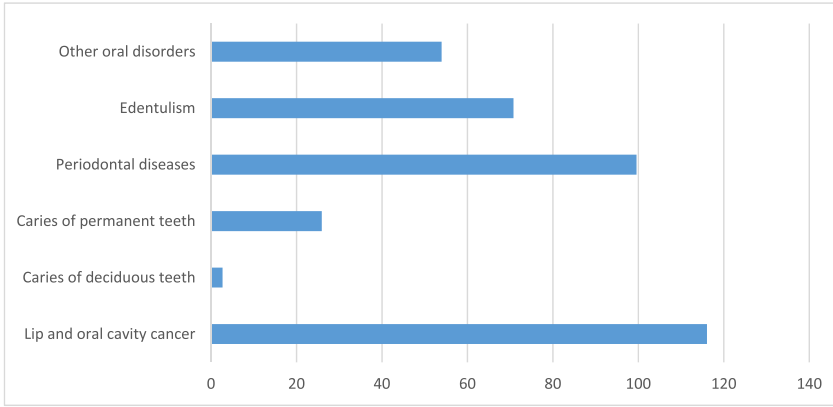

FIGURE 2 Burden of different oral diseases in the SEARO region. Unit of measurement: DALY rates, DALY, Disability Adjusted Life Year.

Thailand (333.3) had the highest DALY rate attributable to Oral Disorders, followed by Indonesia (282.8) and India (252.8). India carried the highest burden of oral cancer (138.25), followed by Sri Lanka (112.05). Timor Leste carried the highest burden of Edentulism (176.5), followed by Thailand (141.8). Bhutan (114.3) and Bangladesh (110.5). India (103.2) faced the highest burden of periodontal disease. Timor Leste (64.6) bore the highest caries burden (Figure 3).[12]

The HAQ Index and UHC Index scores were highest in Thailand (62.5; 71.6), Sri Lanka (60.5; 65.5), and Maldives (60.6; 66.8), respectively (Table 2) (11). Spearman's correlation test revealed that HAQ and UHC index scores were significantly inversely correlated with 'All Cause' DALY scores ($r = -0.945$, $p < 0.05$). However, the correlation between 'Oral Disorders' DALYs and UHC ($r = 0.427$, $p = 0.19$) and HAQ ($r = 0.573$, $p = 0.06$) was not statistically significant. The proportion of oral disorders within the overall (All cause) disease burden was less than one percent in all countries except Thailand, where it accounted for 1.37% (Table 2).

4 | DISCUSSION

Our evaluation revealed a mix of strengths and shortcomings within the oral healthcare systems of Southeast Asian Regional Office (SEARO) countries. While each nation presented its unique challenges hindering the seamless integration of oral healthcare into UHC, a common pattern became apparent. Widespread issues included an imbalanced distribution of healthcare professionals, a prevalent private sector influence, unreliable health information and management systems, and a noticeable deficiency or insufficiency in financing and health insurance for outpatient procedures in the majority of the countries under study.

4.1 | Positives and the negatives of the health systems

On the positive side, all SEARO countries boast operational multi-tiered healthcare systems that cater to UHC, albeit with varying degrees of efficiency. Thailand, Indonesia, India, and Sri Lanka have well-established programs offering free or subsidised primary care integrated into UHC. While countries like Thailand and Srilanka have integrated oral health care into their UHC schemes, for countries like Indonesia and India, it is still a work in progress. Thailand stands out with an efficient HMIS linked to the UCS scheme.[42] India, Indonesia, Sri Lanka, and Thailand employ health financing mechanisms that keep out-of-pocket expenses at or below 50%.[37] With the exception of Indonesia, these countries also have a dental workforce above the dentist/population ratio of 1:7500. Additionally, India, Indonesia,

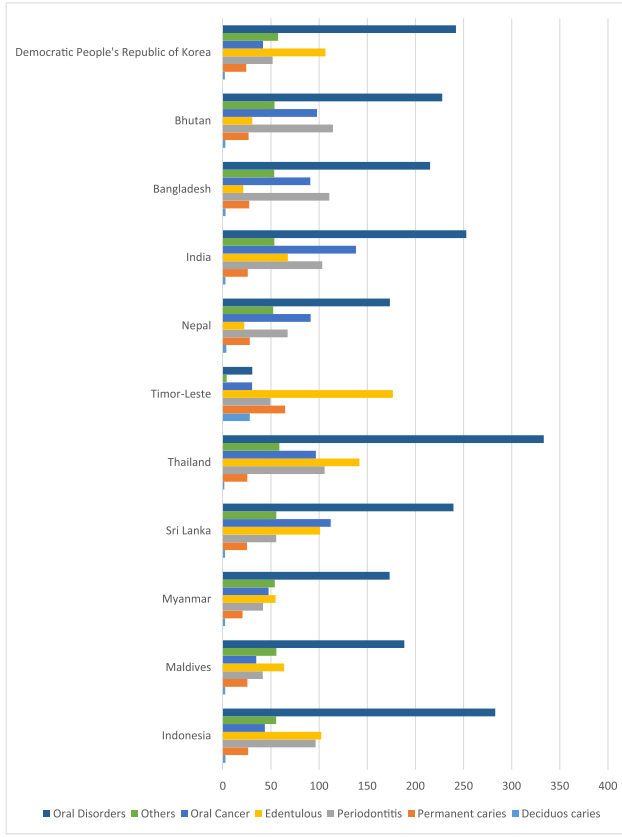

FIGURE 3 Oral Disease burden among individual SEARO countries. Unit of measurement: DALY rates, DALY, Disability Adjusted Life Years.

TABLE 2 Healthcare access and quality (HAQ) index, universal health coverage (UHC) index scores, and disease burden in SEARO countries.

Country	HAQ score	UHC score	DALY rates for 'oral disorders'	DALY rates for 'all causes'	Proportion of oral disorders within all cause DALYs (%)
Thailand	62.54289	71.6003	333.3352	24,227.12	1.37
Indonesia	40.85153	48.7277	282.8863	33,996.78	0.832
India	39.16185	46.8261	252.8846	37,843.33	0.668
Democratic People's Republic of Korea	50.0978	52.8378	242.1014	29,442.04	0.822
Sri Lanka	60.53537	65.5627	239.5073	24,579.83	0.97
Bhutan	42.05199	51.3014	227.9197	33,001.24	0.687
Bangladesh	44.09301	53.8827	215.2627	30,475.26	0.7
Maldives	60.6685	66.8566	188.5497	22,219.52	0.8
Nepal	38.76094	47.2804	173.4743	35,952.94	0.4
Myanmar	37.49823	46.9541	173.2458	38,863.36	0.4
Timor-Leste	35.67038	45.9543	30.55658	36,370.83	0.08

Abbreviation: DALY, Disability Adjusted Life Year.

Bhutan, Thailand, Nepal, and Sri Lanka have clear oral health policies that demonstrate the government's commitment to providing primary oral healthcare as part of UHC. Sri Lanka and Thailand differ from other countries as they have a significant proportion of dental care professionals in the public sector,[38] unlike the majority of countries where most dentists practice privately. Among SEARO countries, Thailand and Sri Lanka achieve the highest scores in HAQ Index and UHC Index.

However, there are several drawbacks to consider. Service delivery is weak in all countries, with more than half of the population unable to access primary dental care. This issue is particularly severe in rural areas due to a lack of facilities and personnel, especially evident in India, Bangladesh, Nepal, and Myanmar. The gap between the intent and action regarding stated oral health policies is substantial in most countries. India serves as an example; it has a well-defined oral health policy but has yet to fully implement it in most states due to budget constraints and challenges in dentist recruitment.[34] Health management information systems, crucial for informed decision-making, are weak or dysfunctional in all countries, except possibly Thailand. Most countries rely on tax-based financing, which is susceptible to changes in budget allocations. Dental manpower is primarily found in the private and urban sectors and the dentist/population ratios may not be a true reflection of active/working human resource as many opt for other professions also. None of the countries include all WHO-recommended dental materials and medicines in their essential medicines list.

Thailand and Sri Lanka, despite their high HAQ Index and UHC Index scores and low out-of-pocket healthcare expenses, have lower DALY rates for 'all causes' but high DALY rates for 'oral disorders.' The HAQ and UHC index scores negatively correlate with all-cause DALY rates in SEARO countries but not with oral disorders, indicating a relative neglect of oral health by both the populations and governments of these countries. This neglect may explain why countries like Thailand, Indonesia, and India continue to face a high burden of oral diseases despite having UHC programs, a well-staffed healthcare workforce, and lower out-of-pocket healthcare expenses. The fact that 'Oral Disorders' contributed less than 1% to 'All Cause' disease burden may also have a role in this neglect.

Recent reports highlighted significant shortcomings in dental coverage under universal health insurance schemes in Thailand,[28,29] including socioeconomic and occupation-based disparities in care utilisation and limited budget allocations that cover only basic oral prophylaxis once a year. Limited choice in selecting dental care providers among beneficiaries of these schemes was also noted. In Sri Lanka, there is an uneven distribution of dental care facilities, both public and private, with inadequate coverage in backward and impoverished areas, particularly in the northern and eastern regions.[24–26]

4.2 | Limitations

The Building Blocks framework was originally designed as a resource allocation guide for healthcare systems rather than an evaluative tool.[50] This framework has its own share of criticisms. It places a strong emphasis on service delivery while overlooking the consideration of service demand. Additionally, it fails to address crucial health promotion activities that play a pivotal role in the success or failure of healthcare systems in low- and middle-income countries. The absence of service demand resulting from inadequate knowledge and awareness can hinder even the most well-established building blocks.[50,51]

Our synthesis offers an overview of UHC within the context of dental care but does not cover certain key features of dental coverage programs that may vary across countries, such as limitations in service coverage, co-payment amounts, or variations in coverage within jurisdictions. Our search was not intended to be systematic, as the primary goal of this paper was to demonstrate the application of the Building Blocks framework to the oral healthcare system and introduce a potential research agenda.

4.3 | Contextual and system-level considerations

It's important to recognise that the six building blocks of healthcare are interconnected, and their influence on health outcomes and disease control/prevention programs can vary from one country to another. Without well-defined

functional oral health policies with long-term goals and accurate information regarding specific oral disease burden and unmet treatment needs of the population, financing for dental care within existing UHC programs may suffer. Dentists may be reluctant to join UHC programs due to low salaries and poor working conditions, opting for private practice in urban areas instead. Poor service delivery may reduce utilisation of services in UHC programs, driving patients towards expensive private dental care. This reduced utilisation may create a vicious cycle where government funding for oral health declines, and patients continue seeking private care, further increasing treatment costs and the burden of oral diseases.

These interconnected elements highlight the necessity of adopting comprehensive approaches when assessing the effectiveness of oral healthcare system interventions. Opportunities for cross learning from interdisciplinary research involving other domains of SDGs should be encouraged. An illustration of how health objectives can be harmonised with other SDGs is exemplified by the Fit for School (FIT) Programme, initiated in 2011,[52] that serves as a vital support system for Ministries of Education at national and subnational levels. Its primary objective is to foster the establishment of national standards and the implementation of guidelines for WASH (Water, Sanitation, and Hygiene) in schools, aligning with the basic service level outlined in SDGs 6 and 4. Its core focus is on collaborating with the education sector at various levels to facilitate the development and application of minimum WASH standards in schools in Cambodia, Indonesia, Lao PDR, and the Philippines. It advocates evidence-based, cost-effective preventative measures, including daily group handwashing with soap and fluoride toothpaste for tooth brushing, alongside school-based deworming following WHO guidelines. By institutionalising these interventions, the FIT Programme addresses prevalent diseases among school children.

Our review identified unique weaknesses in each building block, with far-reaching implications for other components of the dental care system, underscoring the importance of systems thinking.[53] It is evident that poor service delivery is closely linked to the human resources, governance, and finance building blocks, either directly or indirectly. Mainstreaming oral health in UHC philosophy will require a strengthened health system. This is a difficult but achievable feat. First, establishing standardised treatment guidelines that are uniformly adopted across countries can streamline oral health care practices, ensuring consistency and quality. The choice of oral health care included in UHC may be decided according to a country's social and economic priorities and needs. The choice may range from 'full spectrum oral health care' to 'advanced,' 'essential,' 'basic' and 'Urgent' in that order based on the level of integration of oral health care into UHC. Compulsory integration of 'Basic' and 'Urgent' oral health care into UHC can be a start.[54] The Basic Package of Oral Health Care advocated by the WHO is a good example of bundling of urgent, restorative and preventive services.[55] Second, integrating oral health into national health and development programs is crucial for holistic healthcare delivery. Third, the collection of robust surveillance, economic, and social impact data is vital to inform evidence-based policies and interventions. This can be only achieved by including basic oral health indicators in national health surveys. There should be a push for functional oral health research with focus on implementation strategies. Lastly, the development of cost-effective strategies tailored to each country's unique needs, often referred to as 'best buys,' can further advance oral health within the region. These concerted efforts along with responsible and regulated involvement of private sector can help bridge the gaps and make integration of oral health into UHC, a tangible and achievable goal for all in the WHO SEARO region.

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CONFLICT OF INTEREST STATEMENT

We have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Global Burden of Disease Study 2019 (GBD 2019) Data Resource at https://ghdx.healthdata.org/gbd-2019.

ETHICS STATEMENT

Not applicable.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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