Successes, Challenges and Opportunities Towards Universal Health Coverage for Maternal and Child Health in South East Asian Countries: A Systematic Review

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Abstract

Background: Sustainable Development Goal 3 (SDG-3) aims to ensure healthy lives and promote wellbeing for all. Universal Health Coverage (UHC) assures delivering health services to all who need without suffering from financial hardships. This paper aims to identify the successes, challenges and opportunities towards achieving UHC for maternal and childcare in countries in the World Health Organization, South East Asian Region (SEAR).

Methods: We conducted a systematic review of the literature. We searched PubMed, Embase, Scopus, CINAHL, PsycINFO, WHO research portal and Google scholar for studies published in English from 2010 to 2020. We included studies conducted in maternal and childcare focusing on challenges, opportunities or successes towards UHC in countries in SEAR. Data was synthesized and presented as a narrative description, according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Results: We identified 62 studies with different study designs from eight SEAR countries, majority were from India. We observed successes or opportunities in access and quality in MCH with government cash transfer schemes and private sector contribution in India, Bangladesh and Indonesia. Politically prioritized MCH care was identified as an opportunity in a state of India.

Inadequate healthcare infrastructure including trained human resources, medical products and other supplies were identified as the main challenges in the region. Facilities are overcrowded in Bangladesh and Indonesia. From provider perspective, health care workers' knowledge and skills as well as attitudes and behaviors were also identified as issues in the region. Lack of health literacy, misconceptions and cultural barriers are identified as challenges from clients' side. Difficulties in geographical distribution and transport were contributing to poor healthcare access in four countries. Deficiencies in government policies and administration were identified in some fields. Poverty was detected as an overarching barrier.

Conclusions: SEAR countries have demonstrated improvements in access, quality and equity on MCH towards UHC. There are, however, challenges related to human and other resources, health care facilities and socio-economic determinants of health. Regional bodies as well as authorities in individual countries should work on these issues to address challenges to achieve UHC.

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Introduction

The Sustainable Development Goals (SDGs) were adopted by all United Nations Member countries in 2015 as a universal action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. There are 17 integrated goals that action in one area will affect outcomes in others¹. The third Sustainable Development Goal (SDG-3) aims to ensure healthy lives and promote well-being for all at all ages¹. It has a target to reduce neonatal mortality to at least 12 per 1000 live births, under-5 mortality to 25 per 1000 live births and maternal mortality ratio to a global level of 70 per 100 000 live births by 2030². Target 3.8 focuses on achieving universal health coverage (UHC), including financial risk protection, access to quality

essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all ¹.

Universal health coverage is a broad concept in which all individuals and communities receive the health services they need without suffering financial hardship³. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care⁴. The definition of UHC expressed three related objectives namely equity in access to health services, good quality of health services and protection against financial risk ⁵.

The World Health Organization has developed an index to monitor the status of implementation of UHC. The UHC services coverage index (UHCI) is calculated as the geometric mean of the coverage of essential services based on 17 tracer indicators from the following categories: (i) reproductive, maternal, newborn and child health, (ii) infectious diseases, (iii) non-communicable diseases and (iv) service capacity and access and health security. The UHCI is reported on a unit-less scale of 0 to 100 ⁶.

Almost all countries are making progress towards UHC with different intensities. In middle- and low-income countries, the progress is slow⁴. Improvements in the index were seen in all WHO regions with European, Western Pacific and the America Regions have reached to almost 80% coverage in 2017. WHO Western Pacific Region had the largest improvement over the specified period. With minor variations between member countries, SEAR coverage has reached near 60% in 2017 ⁷.

More than a quarter of the world population lives in WHO South-East Asia Region, one of the six regions consisting 11 countries. The region has number of priority programmes aligned to SDGs, including UHC^{2,8}. The region shows tremendous achievements in under-five, neonatal mortality and maternal mortality ². According to WHO progress reviews, at the current rate of progress, the SEAR is likely to achieve the SDG target of under-five mortality reduction. However, for achieving the targets of neonatal mortality and maternal mortality, countries need significant acceleration of actions². The region also faces many challenges in providing high quality medical services without financial burden to the population. Around 800 million people in this region lack the access to essential health services; over 65 million disadvantage due to out of pocket expenditure^{2,9}. Region specific challenges and opportunities may exist towards achieving UHC and other health-related SDG targets. Achieving UHC depends on the capacity of the building blocks of the health system. It is thus essential that countries strengthen their health systems, including healthcare financing, health workforce, governance, health information system, procurement and supply of medicines and health technologies, health information system and service delivery⁴.

As far as our knowledge is concerned, there is no systematically synthesised evidence on the successes and challenges, related to health systems, towards achieving UHC for maternal and child health (MCH) services in the region. The objective of this review is to identify successes, challenges and opportunities towards achieving UHC for MCH care in SEAR countries. Our review will potentially contribute in the regional effort to achieve UHC in relation to MCH.

Methodology

A systematic review was conducted and reported in accordance with the preferred reporting items for Systematic reviews and Meta-Analyses criteria (PRISMA) ¹⁰. (See checklist in Additional file 01). In accordance with PRISMA guidelines, the systematic review was registered with the International Prospective Register of Systematic Reviews (PROSPERO) on 10th of July 2020. (Registration number: CRD42020166404).

Search Strategy

The search strategy was developed to fulfill objectives and characterized them in terms of the four elements [Population, Intervention, Comparison, and Outcomes (PICO)]. Search terms included the terms for all components of UHC, SEAR countries, similar terms for MCH care and parallel terms for challenges, opportunities and successes (Additional file 2). The selected key words were searched in following databases; PubMed, Embase, Scopus, CINAHL, PsycINFO, WHO research portal, and Google scholar. The PROSPERO registry was also searched for the confirmation of none existence of ongoing or recently completed similar systematic reviews.

Selection process

Original studies conducted in SEAR countries on any component of UHC in relation to MCH and which identified challenges, opportunities and successes towards UHC were included in the review. Systematic reviews, scoping reviews and document reviews were excluded. Only studies published in English language and published before 2010 were included. The search was restricted to after 2010 as there has been more improvement in research on UHC with the shifting from millennium development goals to Sustainable development goals 2015. Inclusion and exclusion criteria are clearly described in table 1.

Table 1: Inclusion and exclusion criteria

	Inclusion criteria	Exclusion criteria
Study design	Regardless of methodology all original research papers on Universal health coverage in relation to maternal and child health done in SEAR countries, which identified challenges or opportunities or successes were included.	Letters, editorials, reviews, narrative reviews and systematic reviews were excluded. Studies conducted in countries not in SEAR were excluded Studies which not identified challenges or opportunities or successes were excluded
Language	Studies published in English were included	Studies published in languages other than English were excluded
Publication date	Only studies published after 1 st of January 2010 were included.	Studies published before 2010 were excluded

Initial search was conducted on 3rd of February 2020. All identified papers were imported into EndNote referencing software. After removal of the duplications, the titles and abstracts were screened for relevance and eligibility criteria. Then the remaining full text papers were read and re-evaluated for data extraction. Inappropriate papers were excluded from the study. The identified successes/ opportunities and challenges were extracted separately in accordance with access, coverage, equity and quality of the services. The

extracted data were presented as a narrative synthesis according to WHO six building blocks of health systems. Findings of the review were organized and presented in accordance with objectives of the study.

Risk of bias (quality) assessment

Quality appraisal of the selected full text studies was concomitantly carried out. All included articles were assessed for reporting quality by using appropriate checklists according to the study design. Assessment tools designed by Joanna Briggs Institute (JBI) were used¹¹. The JBI qualitative checklist included 10 questions and each question included four options “Yes,” “No,” “unsure” or “not applicable”. Likewise, the JBI checklist for quantitative studies and intervention studies has 8 and 9 items respectively. Marks were given accordingly as, yes=1, no=0 and unsure=0. At the end of the evaluation of each of the included studies, we gave a score above 80% as high quality, 60- 80 % as medium quality and below 60% as low quality. In mixed method studies, two parts were assessed separately with both qualitative and quantitative checklists. A field trial was assessed with non-randomized control trial checklist (Additional file 3). No studies were excluded as a result of the quality assessment. However, the methodological rigor of each study added the confidence assessments of each review finding.

Results

The literature search initially identified 3747 papers published between January 2010 and January 2020. One thousand one hundred and eighty nine of these papers were found to be duplicates while 1192 papers were excluded by reading their titles only. One thousand two hundred and fifty four papers were excluded by reading their abstracts, as they were not related to the objectives of the study. Another 19 articles were excluded, as they were only abstract or poster presentations in conferences. Then the full texts were reviewed with 92 papers, which excluded 30, as they have not identified challenges and opportunities (Figure 1-PRISMA flow chart).

Among studies included in the review, a majority was from India (n=30, 48 %) ⁽¹²⁻⁴¹⁾. There were 11 studies from Nepal ⁽⁴²⁻⁵²⁾, 10 from Bangladesh ⁽⁵³⁻⁶²⁾, six from Indonesia ⁽⁶³⁻⁶⁸⁾ and two from Timor-Leste ^{69, 70}. From Bhutan⁷¹, Thailand ⁷², and Myanmar ⁷³ one from each was identified. Unfortunately, no study could be included from Sri Lanka, Maldives and Democratic Republic of Korea. When considering the publication year of the article, majority of selected articles were published in 2018 (n=16, 26%). In total, 21 quantitative, 33 qualitative, 07 mixed-methods and one field trial were found. Nine quantitative studies, 20 qualitative studies and five mix method studies found to be of high quality studies. The rest were found to be medium quality studies. A data table constructed for selected studies including important characteristics such as author, year of publication, country, study design, sample size, study objectives and quality assessment is attached as Additional file 4.

We found 62 articles related to the successes, challenges and opportunities for UHC with relation to MCH in WHO SEAR countries. We were able to categorize our findings in relation to access, coverage, equity and quality of maternal and childcare services. Summarized tables of extracted data are presented on Additional file 5. A narrative description of the successes and opportunities and the challenges are presented in the next section.

Successes and opportunities for UHC to MCH according to health system building blocks

a. Service delivery

Successes and opportunities in access to MCH services were identified in the region. In Bhutan, antenatal clinics conducted in primary healthcare level are an important means of reaching the ANC services to women in rural areas with difficult geographical accessibility⁷¹. In a study conducted among Scheduled-Caste (SC) women in Bihar, India, revealed that the changes in the cultural acceptability of institutional delivery are facilitating the use of maternal health services by them²⁷. Another study revealed that rural south Indian communities regularly use health care services during pregnancy and for delivery. New government programmes that increase availability of maternity services are supportive factors for the usage³⁹. A study conducted among Nepal women has identified family support, transport availability and nearby birthing center as facilitators for institutional deliveries⁵². In Indonesia, a research revealed that all private and public hospitals in a province provide full coverage of Comprehensive Emergency Obstetric and New-born Care⁶⁴. Support from friends, family and co-workers and male participation in accessing antenatal clinics are identified as enablers for early ANC booking in Bhutan⁷¹.

As a success in equity, National Rural Health Mission, a community intervention in India, had Improved MCH outcomes for the poor in rural areas with reduction of geographical and socioeconomic inequalities¹⁷. There detected a marked reduction of inequity among rural and urban antenatal care in Bangladesh between 2001 and 2010⁵⁸.

Few opportunities have been identified in quality of MCH care service delivery in India. One study detected that there are quality enablers in health care institutions such as appreciation of public-private partnerships, availability of clinical guidelines in the form of wall posters in health facilities, efforts to translate knowledge and evidence through practice and enthusiasm towards value of guidelines²². Another study has spotted that improved skills and confidence among providers, inclusion of doctors in training, increased training frequency, administrative support, and nursing supervision and feedback as factors for facilitating obstetric and neonatal emergency care²⁶. In Bangladesh, for the management of SAM in children, there are proper guidelines, cadres and inpatient management facilities as identified by a study carried out to assess preparedness⁵⁵.

b. Healthcare Financing

To achieve UHC in MCH, under the national health mission of India, several cash schemes such as Janani Suraksha Yojana Janani Shishu Suraksha Karyakram and Chiranjeevanie Yojana have been introduced. These programmes provide improvements in maternal health care in India^{14,18, 27,34,37,40}. They further provide contracting in EmOC specialists in private sector as a measure to reduce maternal mortality²⁹. In Nepal, Bangladesh and Indonesia, there are similar programmes to facilitate maternal care including institutional delivery^{42, 43, 52, 57, 59, 63, 64, 66, 67}. For the improvement of access to needy mothers and children, government of India has provided accreditation of private sector health providers in government-led schemes for maternity services. Under those schemes, the private sector can potentially play an important complementary role to the public sector for maternity services^{34, 40, 41}. As a positive factor that both government representatives and private practitioners have expressed enthusiasm in collaborating with each other with those programmes⁴¹.

c. Human resources

A success / opportunity with availability of adequate human resources for delivery care across most public health facilities has been identified only in one study in India³⁰. Accredited Social Health Activists (ASHAs) play a key role in facilitating the adoption of safe practices in postnatal care in India³⁶. Another study identified having 24 hour availability of midwives and friendly service providers in rural areas of Nepal⁵². Service providers are identified as motivated to deliver quality post-partum family planning services and transfer their knowledge to colleagues that lead to provision of high quality post-partum family planning services in Nepal⁵¹. Immunization staff and other health staff are aware of the evidence-based planning approach in immunization in Bangladesh⁵⁴.

d. Health information management system (HIMS)

As a success with HIMS, records for MCH services at a state in India were detected as satisfactory³¹.

e. Leadership and governance

Jat et. al. has noted that maternal health has become a political priority in India. There is a supportive policy environment with greater political will and better resources. This leads to several opportunities in terms of policies, guidelines and programmes for improving maternal health¹⁹. Regarding maternal nutrition, India has a better collection of programs and policies which can play a major role in improving MCH outcomes²⁸. According to Maloney et al, supportive leadership and staff motivation facilitates the implementation of standards aimed at reducing common causes of maternal death in government hospitals in India²⁵.

Challenges for UHC to MCH according to health system building blocks

a. Service delivery

Several common challenges were identified in the region in relation to access in MCH care services, which included clients' factors as well as providers'. Lack of knowledge on local health system, misconceptions and mistrust about public health system and lack of time for attending clinics were among clients' factors within vulnerable populations in India³³. Feelings of shame and embarrassment, fear of repercussion for discussing their pregnancies with their doctors, and inadequate time with their doctors were identified as barriers for access in India¹⁵. Underestimation of the severity of the condition, especially in post-partum by family was a main challenge for looking timely postpartum care²⁰. In a study conducted in India, it revealed that receiving postpartum care is rare for maternal problems. The main reason was the lack of recognition that a large proportion of maternal morbidity and mortality occurs in the postpartum period³⁹. Another study revealed that cultural barriers include cultural norms such as preference over male infant and traditional clinical practices delays maternal care seeking among Indian women³⁸.

In addition to that, lack of access to health care related information was detected as a challenge for decision to seek proper care in MCH¹⁵. The preference of pregnant women to deliver in their parents' village and the use of traditional birth attendants were some obstacles in access in Indonesia⁶³. Delayed first antenatal visit was common in Bhutan due to lack of gender insensitivity in providing care through male health workers and cost

and time in clinic visits⁷¹. Several harmful cultural practices and beliefs are identified as barriers for institutional delivery in Nepal^{42, 45, 46, 49, 52}. Perceived low-quality services are barriers for delivery and postpartum care access for rural Indian and Nepal women^{20, 39, 44, 45}. Financial constraints due to poverty was detected as an overarching structural barrier for access^{38, 39, 46}.

Male controlled family structures, intergenerational decision-making and cultural attitudes towards reproductive health information and service has reduced women's access to reproductive health services in Timor-Leste⁶⁹. Distance to health facilities, difficulty in geographical access, high transport costs, poor roads and lack of transportation facilities were identified as challenges for access to MCH care institutions throughout the region^{13, 20, 33, 39, 42, 44-46, 49, 52, 63, 69, 70}.

Several studies reported that the low quality of delivery and postpartum care provided by the institutions is a major challenge for health care access in the region^{44, 49, 69, 70}. The low quality is reflected with poor infrastructure, unfriendly health care providers, hospital policies and poor staff attitude. The restricted hours of opening, the lack of availability of medical resources and the lack of privacy are identified in maternity services in Timor-Leste⁶⁹.

Regarding the service coverage, study done in child immunization revealed the challenges for low coverage of immunization in Bangladesh included lack of quantity and quality of supervision, lack of basic immunization supplies and some technical issues such as issues on doses, registration, and poor communication with communities⁵⁴. With regard to equity on access of maternal services, inequity was detected in service delivery to migrant women working in brick kilns³³ and SC women in India²⁷. There are considerable socio-economic and geographic inequities in newborn care in Indonesia⁶⁵. In Nepal, inequity persists in care seeking for childhood diarrhea and respiratory symptoms among poor, less educated mothers over 15 years⁴⁸.

When considering the quality of MCH care, facility readiness was detected as poor for emergency obstetric care and newborn care in public and private health facilities including primary care facilities both rural and urban areas in India, Nepal and Bangladesh^{21, 31, 47, 56}. Several studies detected inadequate infrastructure leads to poor quality in maternal and child care including family planning services in the region^{12, 22-24, 26, 28, 38, 45, 51, 52, 56, 60, 65, 73}. In addition to those problems, irregular supply of water and electricity, less-functioning of blood bank¹², inadequate laboratory facilities^{12, 56, 61} were detected as challenges. Difficulty in maintaining privacy is another structural barrier¹². Overcrowded health facilities and lack of health facility accreditation were detected as challenges for quality in maternal healthcare in Indonesia⁶³. High volume of patients leads to suboptimal quality care in emergency obstetric care in rural Bangladesh⁵⁶. The rural birthing centers in Nepal are not providing quality services due to unavailability of 24-hour services as identified by Khatri⁴⁵.

In two rural districts of Uttar Pradesh, India, process gaps are observed during delivery and post-delivery stages compromising mothers' safety and quality care³⁰. Few other studies pointed out the problems with referral system for the contribution of poor quality^{12, 36, 38, 65}. According to Puett et al, referrals by community health worker of childhood conditions are treated with low quality in Southern Bangladesh institutions⁶⁰. It acts as a challenge for community management of them. Health service responses for postpartum care are identified as

poor and non-patient-centered in a study done in Indonesia⁶⁴. Postnatal care at village level is identified as non-patient-centered care practices in Klaten district, central Java Province, Indonesia⁶⁸.

Few other challenges were identified in quality service delivery with regard to providers'. Unwillingness of provider to apply new techniques also acts as barriers for quality care⁶⁵. In Myanmar, poor quality of maternal and perinatal health care detected due to inadequate relationships between health cadres⁷³. Interpersonal behavior among staff as well as patient's relatives which leads to less information sharing is another barrier for quality care¹². Hierarchy in healthcare workers is a challenge to care provision of obstetric and neonatal emergency care in primary care facilities in Bihar, India²⁶. Inadequate or lack of training of health staff is another problem in quality services^{23, 56, 73}. Antenatal care is typically delivered at the periphery by non-specialized providers in rural Karnataka State³⁹. Following providers' behaviors were identified as challenges for quality maternal and childcare in few institutions; Negligence by health staff²⁰, rudeness of staff against clients²⁵, abuse and demand for informal payments³⁰. Cultural norms and practices also play a role in quality care as identified by few studies in the region^{26, 36, 73}. Few studies have identified that high out of pocket expenditure is a challenge for quality maternal and child care^{12, 62}.

b. Healthcare financing

Even though there are government funded health beneficiary programmes in India, challenges for the proper implementation exist. The health facilities are in poor quality and provide suboptimal benefits due to lack of resources and various interactions, which lead to poor utilization of facilities¹⁸. Identified challenges for low participation of private practitioners in government-funded programmes are low and delayed reimbursements, poor infrastructure and administrative issues^{29, 41}. Despite the government's efforts at increasing access to delivery services for poor women in the private sector with programmes, uptake was low³⁴. Partial health insurance cover for migrant women working in brick kilns in district Faridabad, Haryana, India, is an access barrier for them to maternal health utilization³³. Lack of proper documentation for health insurance registration is a perceived barrier for Jamkesmas health insurance membership in Indonesia⁶³. High out of pocket expenditure is a major barrier to access to appropriate medicine in children in rural Bangladesh⁶².

Challenge in equity was detected with low receipt of JSY benefits among mothers in Odisha and Jharkhand area, India³⁷. Receipt of the benefits is highly variable, not equally distributed, favoring wealthier groups. The JSY scheme is currently not sufficient to close the poor-rich gap in institutional delivery rate³⁷. Shortage of human resources was a major health system barrier for implementation of National Rural Health Mission which implemented in India from 2005 to 2012 to reduce MCH inequalities¹⁷.

c. Human resources

Inadequate healthcare workers including specialists was identified as a challenge for provision of better maternal and neonatal care in India, Nepal, Bangladesh, Indonesia, Timor-Leste and Myanmar^{12, 22, 24, 26, 29, 8, 45, 47, 49, 51, 56, 61, 63, 69, 73}. Shortage of staff is widespread in rural areas. Provider incompetence in emergency obstetric care and neonatal care are another problem detected by many researchers over the region^{21, 52}. Lack of skills for post-delivery counseling is a challenge for provision of quality maternity care¹².

Suboptimal knowledge and skills among workers in the field leads to poor quality MCH^{22,35,47,65, 68}. Few social, professional and economic barriers are identified with midwifery personnel in Bangladesh which preventing quality maternity care⁵³. Staff nurses involving maternal, newborn, and child healthcare in government public health facilities in Uttar Pradesh, India, are working in stressful environment which may lead to low quality of services¹⁶.

d. Medical products

Several studies detected that lack of adequate supplies and drugs affects the quality in maternal and child care including family planning services in the region^{12,22,38,51,56,60}. Unavailability of medicines and therapeutic diet in facilities was detected as a challenge for management of SAM in Bangladesh⁵⁵.

e. Governance and leadership

Poor governance in birthing centers⁴⁵, lack of support from hospital administration⁵¹ and less priority given on primary health care⁵⁰ are the barriers identified in Nepal for good quality delivery and postpartum care. In Indonesia, decentralization of the health sector which created confusion regarding roles and responsibilities as well as complex administration process were identified as important factors which impede the quality care^{64, 65}. Vogel et al has identified that the deficiencies in policies and political context and deficiencies with accountability and monitoring as the barriers to implement WHO Maternal and perinatal health recommendations in Myanmar⁷³. Health policy on maternal care are not focusing on adolescent pregnancy in Thailand. It is recognized as a challenge in provision of quality care for pregnant adolescent women⁷². Pertaining to management of SAM in children in Bangladesh, there detected a conflict situation among nutrition stakeholders and problems in nutrition coordination⁵⁵.

Risk of bias assessment

The quality appraisal checklists developed by JBI cover the appropriateness of the research design and standard conceptions for assessing risk of bias and overall quality. The quality assessment helped to collect the strengths and weakness of the evidence summarized by the whole review. All quantitative studies included here are medium in quality due only to failure to identify and mention how they dealing with confounding factors. Twenty one out of 33 qualitative studies are medium due to lack of a statement on locating and influence of the researcher. However, research objectives, data collection and analysis and ethical aspects are presented nicely. Only one qualitative study failed to mention specifically in ethical approval even though other ethical aspects were mentioned²⁷. Nine quantitative studies out of 21(43%), 20 qualitative studies out of 33 (61%) and five mix method studies out of seven (71%) found to be of high quality studies. Altogether 34 (55%) studies had high quality. The rest of them were found to be medium quality studies. No study was excluded nor weighted due to quality assessment, but the quality is used to inform data interpretation.

Discussion

In this study we explored the successes and opportunities and the challenges encountered by SEAR countries towards UHC in MCH care. Results are presented according to WHO six building blocks; service delivery, health

care financing, human resources, healthcare information, medical products and leadership, and governance, with regard to access, coverage, equity and quality of MCH care.

We have detected opportunities to increase access to MCH services throughout the SEAR: public and private partnership, availability of facilities, cultural changes and family support. Government led cash transfer programmes improve MCH. Inequity has reduced in MCH services. Quality of the MCH has improved with motivated human resources and with political priority.

There are also a number of common challenges, which are preventing countries to achieving UHC in MCH services. Low health literacy, less ability to recognize post-partum issues, misconceptions and cultural barriers prevents mothers and children in SEAR from appropriate healthcare access. Difficult geography and transport problems, including high transport cost, worsens the condition. Poverty is an overarching challenge throughout the region leading to health inequity. Poor infrastructure facilities and some administrative issues reduce the benefits from government led cash transfer programmes. Inequity in MCH care persists for vulnerable populations in the region even in state beneficiary programmes.

Healthcare facilities which are providing low quality services with fewer resources are the other major challenge. Poor infrastructure including buildings, laboratory and blood bank facilities, medical products and other supplies with high volume of patients vastly contribute to reduced quality. Unavailability of 24-hour services and inability to maintain privacy are the problems related to public facilities. Inadequate HCW has a major contribution to poor quality. Healthcare personnel's inappropriate behaviors like negligence, abuse, corruption, poor relationships and unwillingness for change are attributing to poor quality. Poor knowledge and skills due to inadequate training and workplace stress of HCW has a contribution to poor quality. Lack of supervision is another challenge in quality. Deficiencies in government policies and administration were identified in some fields which hindering the quality services in MCH.

In order to address these challenges, regional countries have implemented several initiatives. Numerous cash transfer schemes in SEAR countries facilitate the maternal and childcare including institutional deliveries as detected in our review. It is tally with Hunter et al in their consolidated systematic review ⁷⁴. Contracting non-government health providers is an important step in reducing maternal mortality in India. The finding is in line with data obtained from LMIC by Rao et al. ⁷⁵.

Our review identified client perspectives such as lack of awareness and education as well as various cultural barriers as challenges for access to MCH care. These findings are consistent with results from reviews done in African countries⁷⁶⁻⁷⁸, and LMIC⁷⁹. This review also highlights the difficult geography and transport problems as a main barrier for access which comparable with number of reviews from LMIC including Africa ^{76,77,80,81}.

We identified that the shortage of human resources was a major barrier for better quality MCH care. Our result is in line with findings from LMIC⁸¹, Sub-Saharan Africa ⁷⁶ and a global situation analysis ⁸². Even in developed countries, lack of trained staff is a key challenge in maternal care in underserved areas ⁸³. A systematic review published in 2019 on the effect of UHC on equitable access to care in African countries shows that shortages in human resources act as a main barrier in access to health services ⁷⁷. Human resources are critical to the expansion of health service coverage as described by Campbell et al. ⁸⁴. HCWs'

inappropriate behaviors such as rudeness, abuse, negligence, poor coordination etc. act as a challenge for quality as shown here. The findings are compatible with other reviews on MCH quality care throughout the world ^{76,81,85}. This review finds that infrastructure in healthcare facilities including buildings and different medical supplies affect the quality of care. This agrees with findings from few other studies in sub-Saharan Africa countries ^{76,86} as well as from LMIC ⁸¹ and a global situation analysis ⁸².

The current review has the following strengths. To our knowledge, this is the first systematic review done on UHC in relation to MCH care in SEAR. The review accessed several databases and used recent publications less than 10 years old. It involved a large number of studies that covered different geographical areas in many SEAR countries. Methodologically, we included articles conducted with quantitative, qualitative, and mixed-methods study designs. Therefore, broader findings were represented rather than a homogeneous source. The studies included in this review have given remarkable findings on the present topic. More than half (55%, n=34) of the studies were assessed as high quality while no poor quality studies. Quality of included articles was appraised using a standard quality appraisal tools developed by accredited institute and used in systematic reviews widely. Even though nearly half of the included studies were conducted in India, the generalizability will not affect once considering the population distribution. We strictly adhered to the inclusion and exclusion criteria in selection process, which improved the quality of our findings.

This review has some limitations. We could include only articles published in English and indexed in PubMed, CINAHL, Embase, Psych Info, and Scopus. Gray literature, including government reports, was not included in the review. Therefore a possibility that some relevant studies published in other language or indexed elsewhere been missed cannot be excluded. We were unable to include even a single papers from three countries in SEAR, as there were none detected in our search strategy. Further, we could not perform meta-analysis of the findings due to the heterogeneity of the outcome measures and methods employed.

Implications of the review findings

Overall, despite the above limitations, the study findings have important implications reaching UHC in MCH in the SEAR. As the shortage of HCWs is critical towards UHC, training and recruiting more staff is a priority in the region. However, a mere increase in the number will not improve the quality and accessibility of services as poor attitude and lack of skills have a major contribution. Therefore, persistent competencies, skills, and attitude development programs should be continuing throughout the service ages of HCW. For the countries in the region that have sufficient private sector health staff, contracting them in public maternal and child care will have a benefit to ultimately reaching UHC. However, these programmes should be supervised thoroughly.

Government led insurance schemes report increased utilization of MCH care in countries, even though there may be other interrelated factors which responsible for the improvement. Healthcare financing requires sustained investments on capital and recurrent budget for infrastructure facilities as well as government led insurance programmes. Cash transfer programmes involve handling of large amount of money. Hence administrators must be vigilant to minimize corruption in these programmes. It is recommended to regularly review health expenditure by the governments in MCH care and related spending to commitments. Investments on healthcare infrastructure including buildings, medical products and other equipment as well as capacity building programmes in staff and communities will lead to improve access, quality, equity and coverage in

long run. Health insurance facilities should be made available for MCH care whenever possible as the poverty is an overarching barrier there. Special focus should be given in policy making on the under-privileged communities as they are more vulnerable to not getting due MCH care which eventually obstructing UHC.

The review has identified a large number of challenges, which impede health of mothers and children in the region. Effective implementation of strategies after controlling these challenges would lead to significant improvement in MCH care. We identified cultural and societal practices, which prevent provision of proper care to mothers and children. Therefore, it is recommended to incorporate culturally sound modifications in health system reforms wherever possible. Women should be empowered to take decisions of their healthcare as the other family members may support her. The findings suggest that the post-natal care has affected more than antenatal and natal care. The current and future efforts towards UHC in the region should be focused on post-natal care.

Solutions for some of the identified challenges are beyond the health system capacity, which need multi-sectorial approach. Low health literacy should be addressed even through early ages of life with education system. Due to the fact that more than quarter of the world population inhabit in the region, the high volume of patients are inevitable. Poverty elimination will be the most difficult goal to be achieved. As it persists due to geography of the country, difficult terrain issues are hard to solve with limited resources. They should be solved with long term strategies with the help of other authorities outside health. Transport problems including poor road structure, lack of vehicles and high cost of transport should be dealing with many other organizations in the government and non-governmental sectors. All the above mentioned non health solutions as well as health sector solutions are bound tightly with political decisions. Therefore, politics in the region should be supported with WHO and other global organizations.

Policy-makers and policy implementers should work together to strengthen the health system, and mitigate challenges. Inter-sectoral collaboration should be strengthened, and all stakeholders should cooperate and work together to overcome challenges that are observed at multiple levels. Political commitment by national as well as regional leaders is needed to build sustainable programmes that eventually lead to achievements of UHC in MCH care. Although the implications here are for whole SEAR countries, country specific interventions which are able to tackle specific challenges will be needed.

Implications to future research

This review found that there is limited availability of quantitative evidence regarding UHC. Further no research could be found in three countries in the region. It is important to encourage SEAR countries to build capacity for research on UHC. Future researches on the exploration of new opportunities and challenges will be helpful to improve MCH not only in the SEAR, but the globally.

Conclusions

Countries in SEAR have achievements in UHC with improvements of access, quality and equity on MCH. However, all have further way to go with the challenges on human and other resources, health care facilities and non-health related issues. Health care worker recruitments with continuous trainings and investments on health care programmes with due priority are a need of the time. Proper attention should be given to under

privileged groups to minimize inequity. Regional bodies as well as authorities in individual countries should work together to address common major challenges. Ministries of Health in relevant countries, in collaboration with other stakeholders should take immediate actions to strengthen the access and quality of MCH in order to achieve UHC.

List Of Abbreviation

ANC : Antenatal care

ASHA : Accredited Social Health Activists

CJY : Chiranjeevanie Yojana

HCW : Health care worker

HIMS : Health information management system

JBI : Joanna Briggs Institute

JSY : Janani Suraksha Yojana

LMIC : Low - and middle -income countries

MCH : Maternal and child health

NRHM : National Rural Health Mission

PRISMA : Preferred reporting items for Systematic reviews and Meta-Analyses

PROSPERO : Prospective Register of Systematic Reviews

RH : Reproductive health

SAM : Severe acute malnutrition

SC : Scheduled- caste

SDG-3 : Third Sustainable Development Goal

SDG : Sustainable Development Goal

SEAR : South East Asian Region

UHC : Universal health coverage

UHCI : UHC services coverage index

WHO : World Health Organization

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Figures

Figure 1

PRISMA flow diagram

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