KIT INSTITUTE

UNIVERSITAS PADJADJARAN

# Evaluation of the Decade for Strengthening Human Resources for Health in the WHO South-East Asian Region (2015-2024)

## Evaluation Report

KIT Institute and Universitas Padjadjaran

May 2024

# Evaluation of the SEAR Decade for HRH strengthening (2015-2024)

**Institutions responsible for the research:**

**KIT Institute**
Mauritskade 63
1092 AD Amsterdam
The Netherlands

**Universitas Padjadjaran (UNPAD)**
Jalan Raya Bandung-Sumedang Km. 21
Jatinangor, Kab. Sumedang 45363
Jawa Barat
Indonesia

# Contents

# 1 Executive Summary

Facing some of the most significant shortages in health workers globally, the World Health Organization's South-East Asian regional office selected UHC, focusing on human resources for health (HRH) and essential medicines, as a flagship priority in 2014. This commitment then evolved into the 'Decade of HRH Strengthening (2015-2024)': a ten-year agenda of HRH strengthening launched at a regional meeting in Bhutan. The ten-year agenda initially took transformative education, rural retention, and HRH for UHC as the priority themes for member states to work on, but since broadened to include governance and planning for HRH, health workforce data, information systems, international migration, and impact on service delivery.

In view of the end of the Decade, WHO SEARO sought an evaluation of HRH-related achievements across the Region's member states since its launch and the associated contribution of the WHO. The evaluation was also expected to incorporate learnings from COVID-19 and subsequent economic challenges to provide forward-looking guidance on how to adapt and improve WHO programming to accelerate progress towards UHC and the health-related SDGs. In partnership, KIT Institute and Universitas Padjadjaran (UNPAD) conducted a formative evaluation, guided by a Theory of Change (ToC), to respond to WHO SEARO's needs.

The questions this evaluation sought to answer were:

1. What are the key HRH-related activities and achievements realized by member states following the launch of the Decade?
2. What have been the key enabling factors, learnings, and challenges in advancing HRH progress across SEAR countries, with a focus on the HRH themes prioritised in the Decade agenda?
3. What is the WHO's contribution to HRH activities and achievements across WHO SEAR member states, including through the implementation of the Decade? How have the WHO's actions, updates and discussions in the country and during governing and regional meetings played a catalytic role?
4. What are key learnings from the Decade, adapted to a (post-)COVID-19 context, that can help drive progress towards HRH availability, accessibility, acceptability and quality (AAAQ), and HRH-related SDG targets? What are the key recommendations and actions for member states and the WHO?

The evaluation used a mixed methods approach, including a desk review of relevant WHO country offices and health ministry documentation, solicited presentations of country achievements from health ministries during a regional meeting, and qualitative interviews at the regional and country levels. The evaluation selected five countries in the region as case

studies, analysing more in-depth information about how and why achievements have been realised with the WHO's cooperation. These countries were Bangladesh, Bhutan, India, Indonesia, and Timor-Leste. The quantitative and qualitative findings from different data sources were triangulated and analysed across the priority themes of the Decade, seeking to identify the key achievements, gaps, enablers, and barriers of change, the WHO's contribution to achievements, and lessons learned from COVID-19.

## Key achievements

### *Availability of health workers*

- **Increased numbers:** Significant achievements have been made in increasing the production of health workers across the region, largely due to the increased numbers of training institutions and associated regulatory reforms.
- **Diverse growth:** Growth has been seen in doctors, nurses, and midwives, as well as in a range of occupations, including community health workers, paramedical practitioners, and medical assistant cadres.
- **Collaborative efforts:** Member states have collaborated to address workforce shortages, with initiatives such as collaborative training programs and arrangements for higher workforce producers to support countries with limited medical training institutes, as seen in Bhutan, Maldives, and Timor-Leste.
- **WHO's role:** The WHO's role in highlighting workforce shortages through progress reports and improvements in reporting mechanisms, such as NHWA reporting, has been instrumental in driving collaborative efforts and addressing healthcare access disparities across the region.

### *Governance and planning for HRH*

- **Strong leadership:** There has been strong governmental leadership among member states for HRH strengthening over the past decade.
- **Improved governance structures:** Across the region, HRH governance has been improved by the establishment of HRH units, with several countries setting up units in recent years to strengthen HRH planning and coordination.
- **Key legislation:** Member states have passed key HRH legislation aimed at enhancing health professional education and service delivery, with, as an illustration, India, Indonesia, and Nepal launching historic reforms in recent years.
- **Collaborative strategy development:** Collaborative efforts between member states and the WHO have led to the development of comprehensive health workforce strategies across the region, such as the Bangladesh Healthcare Workforce Strategy and Bhutan's Human Resource Development Plan.

- **Transformational laws:** Transformational legislative agendas, such as Indonesia's Health Omnibus Law, will serve as an example to the region and globally if they prove to increase HRH availability, distribution, and quality as aligned to broader health system transformation.

### *Rural retention*

- **Bundled incentives:** Member states in the SEA region have implemented various incentives and conditional initiatives to improve rural retention, including localized recruitment, mandatory rural service, rotating placements, scholarships, salary top-ups, accommodation, and transport.
- **WHO support:** The WHO has played a crucial role in supporting member states' efforts to improve rural retention by enhancing HRH reporting and convening dialogues on rural retention strategies.
- **Successful examples:** There are positive examples of retention strategies across countries of the Region, such as those implemented in Bhutan, Indonesia, and Thailand which have led to improved access to healthcare services and increased workforce stability in rural areas.
- **Telemedicine:** Telemedicine technologies have been used to train health workers and deliver healthcare services to remote and rural areas, demonstrating the potential of digital solutions in addressing healthcare access challenges.

### *Transformative education*

- **Landmark legislation:** Landmark health workforce education legislation has been passed across the region, linking education to national public health needs.
- **Education reforms:** Member states have implemented a range of education reforms, including establishing dedicated departments for health workforce education policy, revising curricula, enhancing accreditation processes, and aligning education with international standards.
- **WHO support:** In some instances, support from the WHO in obtaining international recognition for national medical accreditation institutions has enabled countries to export their healthcare professionals and benefit from remittances.
- **Regional collaboration:** Collaboration between neighbouring countries to access education opportunities unattainable domestically, as seen in Bhutan, highlights international cooperation in addressing educational gaps.

### *Health workforce data and information systems*

- **Enhanced reporting:** Improved health workforce data reporting has been one of the clear successes of the Decade period, through a combination of member state actions and WHO support.

- **Prioritization of indicators:** These improvements relied on an agreed-upon set of priority HRH indicators that were feasible and, as much as possible, useful for all member states to report biannually.
- **WHO-supported assessments:** Member states have appreciated and benefited from WHO support with formal HRH assessments, such as Health Labour Market Assessments, particularly when these assessments have responded to current issues in HRH policy.
- **Varying maturity:** Member states are at different stages in developing their HRH Management Information Systems, and the interoperability of these systems within wider health system information systems, as well as their utility, are key areas for attention.
- **Maldives' example:** The Maldives' efforts and eventual success in developing an HRH Management Information System provide an example for other countries. This success was built on their comprehensive and bottom-up assessment of service needs which led to the development of a custom HRHIS delivered by a local supplier.

### *Migration*

- **Collaboration needed:** As one of the most complex issues facing the region, many interview participants stressed the importance of intra- and inter-regional collaboration on migration to safeguard the region's interests alongside a competitive global health workforce marketplace. The first tri-regional meeting on health worker mobility is a positive example of attempting to address migration challenges comprehensively.
- **Varied approaches:** Member states' experiences with and approach to health worker migration differ between the high workforce-production countries, such as India and Indonesia, and low workforce-production countries, such as Bhutan and Timor-Leste.
- **Indonesia's "surplus":** The external migration of health workers in Indonesia, which produces a surplus at the national level, has become a government-sponsored initiative. While Indonesia has controls in place for this migration, there is an unresolved problem of sufficient public sector health workers in remote and rural areas.
- **India's export history:** India has a longer history of exporting its health workers; however, it also requires addressing localized shortages and impact on domestic health services.
- **Bhutan's challenges:** Bhutan, having newly investing in domestic medical training, now faces the issue of some its domestic health workers migrating out of the country. The country either needs greater domestic production or migration agreements to address its health worker shortages.
- **Successful collaboration:** The Maldives is an example of a system which has successfully arranged migration agreements to fill its health worker shortages coming from low domestic health workforce production.

### *Adaptation of service delivery models*

- **Translation to impact:** Member states have increasingly acknowledged the crucial link between HRH strengthening initiatives and service delivery outcomes.
- **Exemplary initiatives:** Countries like India and Indonesia have adopted ambitious initiatives to strengthen primary healthcare teams and implement team-based approaches. India's Health and Wellness Centres (HWCs), which are led by mid-level health workers, and Indonesia's Nusantara Sehat programme are examples of initiatives that use diverse cadres to deliver comprehensive primary healthcare services.
- **Targeted programmes:** Timor-Leste's *Saúde na Família* program and Bhutan's Service with Care, and Compassion Initiative also use outreach teams and team-based approaches, respectively, to address specific health needs and help estimate staffing needs.
- **WHO's ongoing role:** The WHO has played a pivotal role in supporting member states in developing and implementing these service delivery models.

### Gaps

- **(Rural) health worker shortages:** Member states continue to face shortages of health workers, both nationally and in specific cadres or geographic areas. Rural retention remains a significant challenge despite efforts and cross-country learning initiatives. Initiatives such as digitalising health worker education in Indonesia aim to overcome geographic barriers and improve service delivery quality.
- **Complex governance:** Some countries have complex governance arrangements involving multiple ministries and health professional associations, hindering both the passage and implementation of necessary HRH legislation and reforms.
- **Private sector stewardship:** Engaging with the private sector on public health-related goals like Universal Health Coverage (UHC) remains a challenge in countries with large private sectors in both education and service delivery.
- **Advancing health professional education:** Further integration of medical humanities and people-centred care into healthcare professional education is needed to improve service delivery quality. Strengthening the management of primary healthcare teams and integrating digital health competency into health workforce training programs are essential for improving service delivery models.
- **Responsive information systems:** Despite progress, health workforce data and information systems need further strengthening, especially in capturing data on the private sector workforce and non-traditional professions.
- **Migration complexities:** Health worker migration is a complex issue requiring further dialogue and cooperation at national, regional, and supra-regional levels. WHO's role in convening partners and countries for dialogue, particularly in protecting the principles of the Global Code and south-south collaboration, is crucial.

## Enablers and barriers of change

- **Country-led agenda and leadership:** The effectiveness and relevance of the Decade agenda were maintained by the WHO's support, which was led by countries' needs and requests. Substantive country leadership on HRH strengthening, exemplified by strong buy-in from HRH units and departments, has been a driving force.
- **Peri-governmental organizations:** Peri-governmental organizations like the Asia Pacific Action Alliance for Human Resources for Health (AAAH) have provided continuity and ownership over parts of the HRH agenda, supporting progress despite shifts in political regimes or priorities.
- **Proximity to decision-makers:** Strong HRH governance entities with good leadership close to ministerial decision-makers have facilitated substantial progress, as seen in India's case with large-scale changes in HRH regulation and education.
- **Workforce priorities:** Clear priorities about the desired workforce composition, such as in India, and good working relationships between different HRH bodies, as in Indonesia, have facilitated progress.
- **Language and migration:** Countries without English-language health professional education have been better protected from health worker outfluxes and brain drain, yet many member states have actively pursued initiatives to make it easier for their health professionals to work in higher-income countries.
- **Community health and COVID-19:** The COVID-19 pandemic highlighted the importance of community health cadres and health workers, emphasizing their role in providing care close to communities and reducing the burden on hospitals.
- **Over-specialization:** Overemphasis on the specialization of doctors, particularly at the hospital or secondary level, may hinder progress by neglecting primary health workforce cadres or mid-level providers.
- **Small country challenges:** Smaller countries face challenges due to their limited production base for health workers and higher per capita public costs compared to larger countries.
- **Governance alignment:** Lack of clear delegation or alignment of rules on HRH governance between central and decentralized levels can limit the impact of HRH strengthening initiatives.

## WHO’s contribution and role

- **Governance focus:** The WHO played a significant role in shaping HRH governance improvements in the region, emphasizing the importance of HRH units as leaders and executors of national HRH strategies. The WHO’s holistic focus on governance and management functions in HRH distinguishes the WHO's support from other technical and financial partners.

- **Resource allocation:** As WHO country offices in the SEA region receive a higher share of resources than the Regional Office as compared to other WHO regions, this has enabled the WHO to respond quickly to member state demand and stay engaged with country-level initiatives.
- **Improved reporting:** The Decade contributed to improving HRH reporting in the region through its biannual reporting requirements, and the WHO's contribution was enhanced where long-term relationships with member state NHWA focal points were present.
- **Technical and policy stewardship:** Many countries cited specific examples of WHO technical support and products that contributed to health workforce strengthening over the past decade. Regional publications, case studies, and mentorship arrangements facilitated cross-country learning and capacity building. The WHO also engaged closely during crucial periods of policy development in various countries, providing support during the drafting of legislation, operational plans, and national guidelines.
- **WHO advocacy:** The WHO advocated issues such as health worker migration and the accreditation of medical licensing bodies on behalf of member states in international forums.

### Lessons learned from COVID-19

- **Health worker wellbeing:** The pandemic underscored the importance of prioritizing health workers' wellbeing, both as an end in itself and as crucial to health system resilience.
- **Accessible primary healthcare:** Accessible primary healthcare within communities emerged as essential during the pandemic to maintain timely and effective healthcare delivery.
- **Digital health technologies:** The potential of digital health technologies to complement routine healthcare provision and emergency response was demonstrated, facilitating healthcare delivery and surveillance.
- **Knowledge exchange:** WHO-mediated platforms facilitated cross-country learning and knowledge exchange, allowing countries to share experiences and best practices in responding to the pandemic.
- **Forced innovation:** Countries were forced to innovate in HRH in a number of ways during COVID-19, including the adoption of eLearning platforms or online training, integrating One Health education into training, shifting investments to primary healthcare, drawing on reserve workforces, and consolidating the existing workforce through initiatives that support health worker wellbeing.

### Recommendations

The recommendations for future HRH strengthening in the region include those voiced by participants in this evaluation and our own recommendations based on an analysis of the evaluation's findings.

## RECOMMENDATIONS

### R1. COUNTRIES' VISION FOR A FUTURE HEALTH SYSTEMS TO DRIVE A FORWARD-LOOKING HRH AGENDA

- Member states are encouraged to articulate a long-term vision for their health systems, considering evolving and future health needs, desired health outcomes, and current health system characteristics.
- Aligned with the above, member states are encouraged to develop long-term HRH strategies that: integrate a primary healthcare orientation; drive the necessary evolution of the health workforce composition and its characteristics, and; harmonize country support from national stakeholders, WHO, and partners.
- WHO can support member states in envisioning future health system needs, developing comprehensive long-term HRH Strategies, and convening senior leadership and partners in support.

### R2. TRANSFORM AVAILABLE HUMAN RESOURCES FOR HEALTH INTO ACCESSIBLE AND QUALITY PEOPLE-CENTRED HEALTH SERVICES AND SYSTEMS

- Member states are encouraged to place people-centred health services at the forefront of their HRH agenda, with focused attention, measurement, and incentives (financial and non-financial) related to both the experience of patients and health workers themselves.
- Member states are encouraged to strengthen management processes that: improve the distribution and capacities of existing health workers; provide a working and career environment for healthy and motivated health workers, and; also reward and measure team performance vis-a-vis patient experience and outcomes. The scale up of digital technologies is potentially a key enabler to support management processes and systems.
- WHO can support through the capturing and sharing of successful member state practices—including the recently initiated work on health humanities—of compassionate, patient-centred care, backed by a healthy, motivating, and supportive work environment.

### R3. ADVANCE HRH DATA AND INFORMATION SYSTEMS

- Member states are encouraged to continue building on their progress in health workforce information systems and reporting, by shifting the emphasis from 'input-' to 'output-' and 'outcome-'based indicators that reflect service delivery quality and/or desired workforce composition.
- WHO can support member states in tailoring HRH information systems to meet domestic needs, starting from bottom-up approaches to the HRH information system development, with international comparability as a secondary goal.

**R4. GOVERN FOR QUALITY AND EDUCATION**

- Member states are encouraged to build on the significant growth in health worker numbers by continued attention to transformative education, focusing on quality, responsiveness, and accountability.
- WHO can support member states in implementing regulatory reforms, including through the creation of a regional network on health practitioner regulation, enabling cross-country learning and collaboration.
- WHO can support HRH governance in countries through executive courses on leadership and management, complemented by follow-up programmes of mentoring, coaching and peer learning to ensure effective and sustained transfer of knowledge and skills.

---

**R5. PROMOTE PARTNERSHIPS WITHIN THE REGION AND BETWEEN REGIONS**

- Member states and WHO are encouraged to establish donor coordination platforms and national HRH forums to reduce funding silos and enhance the effectiveness of HRH initiatives, leveraging WHO's convening power to align diverse stakeholder agendas.
- International migration remains a significant challenge that cuts across WHO Regions, and WHO are encouraged to convene regional and multi-regional forums to promote mutually-beneficial arrangements guided by the WHO Global Code of Practice. Strengthening South-South migration cooperation, in particular, holds significant promise.
- WHO can leverage existing partnerships, especially the Asia Pacific Action Alliance on Human Resources for Health, to collectively drive a long-term health workforce agenda, pool resources, and strengthen institutional capacity in countries within the region and across the Asia-Pacific at large.

---

# 2 Introduction

The World Health Organization's (WHO) 2016 global strategy on human resources for health (HRH) estimated that the South-East Asian Region (SEAR) faced the largest 'needs-based' shortages in health workers globally in 2013—of 6.9 million—followed by the African region (4.2 million).[1] Of this 6.9 million, the largest shortfalls were among nurses and midwives (3.2 million), followed by other cadres, such as community-based and mid-level health workers (2.5 million), and then physicians (1.3 million). The strategy also projected that demand for health workers in SEAR would rise from six million in 2013 to 12.2 million by 2030, based on supply and population projections.

This global strategy aimed to support countries' policy development in pursuit of universal health coverage (UHC) and the SDGs, and HRH was explicitly recognized in the SDGs as part of the means of achieving SDG3 when it called to 'substantially increase the recruitment, development, training and retention of the health workforce in developing countries'.[2] Even before the global strategy was published in 2016, the WHO SEA regional office (SEARO) selected UHC, with a focus on HRH and essential medicines, as a flagship priority in 2014, recognising regional HRH problems and the importance of HRH to health systems strengthening. This commitment then evolved, also in light of the WHO's release of several pieces of global guidance on HRH, into the 'Decade of HRH Strengthening (2015-2024)'—hereafter referred to as the Decade—launched in 2014 at a regional meeting in Bhutan.[3]

In view of the end of the Decade, WHO SEARO sought an evaluation of HRH-related achievements across the Region's member states since its launch and the associated contribution of the WHO. This formative evaluation would also feed into future HRH-related activities in the region, providing guidance on how to adapt and improve WHO programming to accelerate progress towards UHC and the health-related SDGs and learn from COVID-19. In partnership, the KIT Royal Tropical Institute (KIT) and Universitas Padjadjaran (UNPAD) have developed an evaluation approach, guided by a Theory of Change (ToC), to respond to WHO SEARO's needs.

This report starts with a history of the Decade, before outlining our evaluation objectives and methodology. The results first summarise the key HRH achievements for select case study countries (Bangladesh, Bhutan, India, Indonesia and Timor-Leste) and the region as a whole. This is followed by a description of the remaining gaps, barriers and enablers to progress, and the WHO's contribution to the achievements made. Finally, the report summarises lessons from COVID-19 and recommendations for future HRH strengthening in the region.

# 3 History of the Decade

While the Decade was officially launched in 2014, there were a number of preceding events and publications that paved the way for HRH strengthening becoming a priority in the SEA region. The following is a chronological account of events up to and during the Decade that contextualize its agenda, aims and plans.

The importance of the health workforce to health systems development has been recognized by the WHO as far back as 1970,[4] yet it was the World Health Report in **2006** that spurred action in the region when it identified that six of the region's 11 countries faced critical workforce shortages, and affirmed that an adequate number of committed and skilled health workforce, especially at primary health care level, is essential in achieving population health outcomes.[5] Health ministers of the region, at their 24th meeting in the same year, thus issued the Dhaka Declaration on 'Strengthening the Health Workforce in the South-East Asia Region' which was then translated to a Regional Strategic Plan for Health Workforce Development in **2007**.[6]

After five years with SEA countries trialling their own initiatives to address HRH challenges, WHO SEARO in **2012** both led a regional consultation to critically review HRH situations in each country following the Dhaka Declaration,[6] and at its fifth Regional Committee meeting, adopted resolution SEA/RC65/R7 on conducting comprehensive assessments of countries' health workforce education and training.[7] At the global level, this was preceded by two things. First, the WHO released global guidance on HRH, focusing on rural retention in **2010**, as well as a global code of practice on the international recruitment of health personnel.[8,9] Then, in 2011, a WHO assessment following the Second Global Forum on Human Resources for Health highlighted limited progress in addressing HRH shortages in the region.[10] This was followed later in **2013**, by a second piece of global guidance on 'transforming and scaling up health professionals' education and training.[11] These two pieces of global guidance thus filled a normative gap that would form the basis of the region's priorities when launching the Decade.

Thus it was in September **2014**, at WHO SEARO's 67th Regional Committee meeting, that resolution SEA/RC67/R6 is adopted on 'Strengthening health workforce education and training in the region' which calls on the regional director to "report progress on the implementation of health workforce development to the Regional Committee for South-East Asia every two years starting 2016 for the **next decade**".[12] Two months later, WHO SEARO holds a regional meeting on strengthening HRH in SEA ("Time for action and commitment") in Thimpu, Bhutan, operationalising the earlier resolution and calling for a 'Decade for Health Workforce Strengthening in SEA (2014-2023)' to be declared by the Regional Director and Member states.[3] During the meeting, action plans for the first two years of the decade (2015-2016) were drafted per country, and continued two-year action plans and progress reports were agreed as the basis

of progress. These action plans were to focus on, at least, rural retention and transforming health professional education.

After two years, the first progress report in **2016** noted two problems in tracking HRH progress: the lack of standard and measurable indicators, and weak national health workforce data and information systems.[13] As such, in **2017**, WHO SEARO held a regional workshop in New Delhi on 'Improving the generation and use of HRH data in the SEA Region'[14] that resulted in the development of a set of 14 HRH indicators drawn from the National Health Workforce Accounts (NHWA) and the 'Global strategy on HRH: Workforce 2030'.[1] These indicators would also be measured in future progress reports of the Decade.

For the second review of progress in **2018,** the standardized set of 14 HRH indicators were applied with each country completing a self-reported survey. The survey indicated progress was being made with eight countries achieving higher than the WHO's first HRH threshold of 22.8 doctors, nurses and midwives per 10,000 population, compared with six countries in 2014, though only two countries (Maldives and the Democratic People's Republic of Korea [DPRK]) had densities above the current 'needs-based SDG index' of threshold of 44.5 health workers per 10,000 population.[15] The suggested actions emerging from the report were to improve regional evidence on implementation and impact of interventions for rural retention and transformative education; further explore the role of accreditation in creating a culture of quality in health professional education; strengthen HRH governance, by reinforcing the capacity of HRH units and by increasing HRH planning expertise through suitable training; and continue with efforts to improve HRH data, such as including primary health care workers in regular reporting. Finally, the progress report also showed data completeness had improved since 2014, yet acknowledged this mostly reflected the public sector health workforce and left out many frontline worker groups.

The third and mid-term progress report of the Decade in **2020** found that the availability of doctors, nurses and midwives in the SEA region had increased by 21% since 2014 and nine countries were now above the first WHO threshold.[16] Yet again, however, only the same two countries were above the SDG index threshold. For the first time, the availability of PHC workforce is reported, concluding there were positive results in rural retention, growing regional experience of transformational education and improvement of HRH data completeness. The report also suggests that the International Year of the Nurse and the Midwife initiative had helped to keep health workforce strengthening in the global political spotlight.

Finally, the fourth progress report, covering the period 2020-2022 was included in the 75th Regional Committee session in September **2022.**[17] This report highlighted lessons from the COVID-19 pandemic, namely the importance of a strong primary healthcare foundation in sustaining progress towards UHC and improving global health security, and as such includes a

focus on primary healthcare workforce teams with data on non-professional frontline roles presented. In line with this, the WHO regional and country offices are reported as focusing their support on strengthening primary healthcare teams, including work in Bangladesh, India and Sri Lanka. Shortages in medical specialists at district level across countries in the region are seen as significant barriers to quality primary healthcare provision. Furthermore, significant regulatory reforms had taken place across countries aligned to the vision of transformative education. For example, the Nepal Medical Education Act, the India National Medical Commission Act and National Commission for Allied and Healthcare Professions Act. For the first time, the UHC Service Coverage Index is mapped alongside the density of doctors, nurses and midwives in region's countries, showing this relationship is not necessarily linear in several countries.[17] As such, the report suggests that increasing health worker numbers should be viewed as a means of progress and not an end in itself. The report ends by stating that to accelerate progress for the last period of the decade, countries must address deficiencies revealed by the pandemic, strengthen Ministry of Health (MoH) engagement with a wider range of stakeholders including the private sector, and ensure that health workforce development prioritizes and is based on evolving health needs. This report also signalled the start of this evaluation.

# 4 Evaluation objectives and methodology

## 4.1 Purpose and objectives of the evaluation

The overarching purpose of the evaluation was to reflect upon the key HRH-related achievements across WHO SEAR member states across the Decade, and the associated contribution from the WHO (at global, regional and country level), to facilitate both cross-county and organizational learning and accelerate progress towards achieving UHC and the health-related SDGs.

The specific evaluation objectives were to:

1. Document country progress with respect to the WHO SEAR Decade for HRH Strengthening, including Member State actions and WHO contribution, identify achievements and success stories, and key challenges encountered, and to the extent possible, the Decade's outcome or impact.
2. Taking account of lessons, innovations and priorities emerging following the COVID-19 pandemic and subsequent economic challenges, make recommendations to accelerate progress towards achievement of HRH SDG targets and strengthening the availability, accessibility, acceptability and quality (AAAQ) of health workers across WHO SEAR countries.

The primary users of this evaluation are the Regional Office and Country Offices of the WHO South-East Region. Secondary users of the evaluation include relevant HRH departments or units within member state health ministries, as well as researchers and practitioners working on HRH worldwide.

## 4.2 Evaluation scope

The thematic scope of the evaluation was the HRH-related achievements across WHO SEAR member states and the WHO's contribution to these across the Decade. This scope was operationalised into the evaluation framework in **Annexe I**, specifying the outputs, outcomes, impacts and lessons learned from HRH strengthening activities in member states. We also determined the evaluation should look at different themes within HRH which have been covered in previous progress reports, including HRH governance and planning, rural retention, transformative education, intra- and inter-national migration, and health workforce data and information systems. Further, we learned this scope should not just be focused on improvements in the availability of HRH as an end in itself, but the translation of health workforce inputs to improved service delivery, access and UHC.

The evaluation selected five countries in the region as case studies, analysing more in-depth information about how and why achievements have been realised with the WHO's cooperation. The temporal scope of the evaluation was the period since the launch of the Decade in 2014, both capturing progress until 2023 and looking forward for the next decade. The evaluation also looked at the impact of, and lessons learned from, COVID-19 on health workforce planning in the region.

The evaluation considered the health workforce comprehensively, with attention to frontline/primary healthcare workforce responsible for delivery of essential healthcare services, including health emergency response. The primary focus was on the public sector's health workforce yet, where available, information on the private sector workforce, its contribution, and the associated regulatory and stewardship role of the government were considered.

Finally, we determined during the inception phase that, in order to keep the scope of the evaluation feasible within time constraints, activities at country level in which the WHO SEA regional or country office was involved would be the primary consideration. Activities at country level initiated by the government or other development partners without the involvement of or direct link to the WHO were not studied in detail; however, a rough overview of countries' successes and challenges (without WHO involvement) was made to guide our understanding of the WHO's contribution and what more it could do at national level.

## 4.3 Evaluation questions

The questions this evaluation sought to answer were:

1. What are the key HRH-related activities and achievements realized by member states following the launch of the Decade?
2. What have been the key enabling factors, learnings and challenges in advancing HRH progress across SEAR countries, with a focus on the HRH themes prioritised in the Decade agenda?
3. What is the WHO's contribution to HRH-activities and achievements across WHO SEAR member states, including through the implementation of the Decade? How have the WHO's actions, updates and discussions in the country and during governing and regional meetings played a catalytic role?
4. What are key learnings from the Decade, adapted to a (post-)COVID-19 context, that can help drive progress towards HRH availability, accessibility, acceptability and quality (AAAQ) and HRH-related SDG targets? What are the key recommendations and actions for member states and the WHO?

## 4.4 Evaluation design

Our evaluation design was formative in that it looked to understand what worked in the Decade, how efficiently, and what improvements could be made for the decade ahead. Given the evaluation covered an extended period of time, a formative evaluation was also pertinent to understanding whether the (health or HRH) context has evolved as expected in the region, and whether this evolution calls into question the objectives set at the start of the Decade.[18]

The evaluation used a mixed methods approach, which included desk review, a regional survey questionnaire, solicited presentations of country achievements, and qualitative interviews at regional and country level. These methods were either used to collect data on all countries or case study countries only.

## 4.5 Theory of change

This evaluation was guided by a Theory of Change (ToC) that conceptualised how WHO regional and country offices' activities lead to HRH-related progress in member states (**Figure 1**). The offices' technical cooperation (TC) informs and influences activities at country level that can lead to changes in national HRH performance, and which have a number of knock-on impacts on wider health system performance and health outcomes. This ToC informed our evaluation framework (**Annexe I**) which is based on a logic that understanding how (and why) TC activities have led to HRH progress or not can support their improvement and identify cross-country learnings and new opportunities.

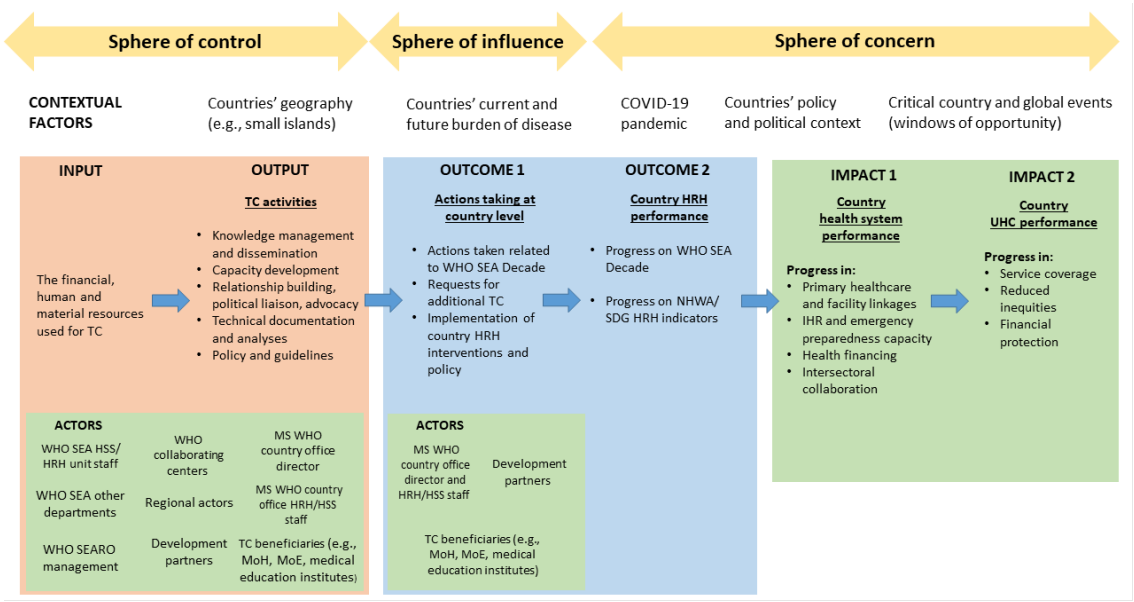


**Figure 1.** Theory of Change for the WHO regional and country offices' activities on member state HRH progress.

## 4.6 Country case studies

The selection criteria for the country case studies are presented in **Table 1**, below, and aimed to distinguish their diverse contexts. Based on the characteristics of countries against these criteria and discussions with the WHO SEARO team, we selected the following countries: Bangladesh, Bhutan, India, Indonesia, and Timor-Leste.

**Table 1.** Country case study selection criteria.

| Countries | Selection criteria | | |
|---|---|---|---|
| | **Country size and geography** | **Progress in HRH density relative to WHO threshold[1]** | **Respondent availability** |
| Bangladesh | Medium coastal | Small | |
| Bhutan | Small landlocked | Good | |
| DPRK | Medium coastal | Already high | Low |
| India | Very large coastal | Stagnant | |
| Indonesia | Large archipelago | Very good | |
| Maldives | Small island | Already high | |
| Myanmar | Large coastal | Small | Low |
| Nepal | Medium landlocked | Good | |
| Sri Lanka | Medium island | Good | |
| Thailand | Large coastal | Good | |
| Timor-Leste | Small island | Small | |

**Legend:** 1. Based on WHO SEARO fourth progress report in 2022.[17]

## 4.7 Data collection methods

The evaluation used mixed methods, including: a desk review of relevant WHO country office and health ministry documentation (including NHWA analysis), solicited presentations of country achievements from health ministries during a regional meeting, and qualitative interviews at regional and country level. Some of these methods were used to collect data on all countries, while others were only be used to collect data on case study countries. This division is shown in (**Table 2**).

**Table 2.** Application of methods across case study countries and all countries.

| Method | Countries |
|---|---|
| Desk review | All countries: Current CCS and overview of the technical cooperation activities conducted by WHO regional and country offices and MS NHWA data.<br><br>Case study countries: Current and previous CCS during the Decade, NHWA and overview of technical cooperation activities conducted by WHO regional and country offices for each case country.<br><br>Selected scientific and grey literature on HRH planning, policy and activities |
| Regional meeting presentation | All countries: Self-prepared presentation of key HRH challenges, activities, achievements, and lessons learned across Decade |
| Qualitative interviews | Case study countries: In-depth discussion of how and why progress on HRH has been made |

### 4.7.1 Desk review

The methodology followed for the desk review, as well as the two document extraction sheets developed for the regional and country level, are described in more detail in **Annexe II**. The desk review consisted of four main components:

1. During the inception phase, key regional documents of the Decade were reviewed to situate the evaluation in its historical context, as well as better understand its purpose and scope.
2. During the inception phase, available country office documentation from all countries was reviewed to understand the WHO's priorities (based on the country cooperation strategies [CCS]), key HRH activities, changes at country level and lessons learned. During data collection, any relevant country and country office documentation were collated through the stakeholder interviews and the regional meeting in Sri Lanka.
3. During the inception phase, NWHA data has been collated and analysed for the 14 indicators used in previous progress reports for ten countries in the region (excluding DPRK). These indicators relate to health worker density and distribution, health professional education, retention of health workers, HRH governance and HRH information systems.
4. During the study phase, select scientific and grey literature were reviewed for case study countries, particularly to answer the evaluation question about barriers and enablers of HRH progress at country and regional level, and the lessons learned from COVID-19.

### 4.7.2 Regional meeting presentations

Between the 10th-12th July 2023, a Regional Committee meeting took place in Sri Lanka with all WHO COs, including HRH focal points, and all member state health ministries. The purpose of this meeting was to take stock of the Decade's progress in the region, share lessons learned and discuss what is needed in the future to achieve the health-related SDGs, and strengthen the availability, accessibility, acceptability and quality (AAAQ) of health workers across WHO SEAR countries. This meeting was an opportunity to meet country representatives and collect data for this evaluation. A presentation template was developed and shared in advance of the meeting for health ministries to complete. The template required the following information to be completed: key achievements; COVID-19 lessons learned, main HRH challenges, current opportunities, WHO's contribution, remaining remarks and link to HRH unit self-assessment. At the meeting, the evaluation team presented the evaluation objectives and methodology, and qualitative interviews were scheduled with the respondents for the selected country case studies.

### 4.7.3 Qualitative interviews

Qualitative interviews were held with purposively selected regional and country stakeholders. The criteria guiding participant selection was their knowledge and experience with designing, implementing and monitoring HRH strengthening plans and activities related to the Decade. In addition, given the short timeframe of the evaluation, recommendations from the WHO on potential participants and the availability of these participants were considered. The list of respondents, roles and their assigned reference numbers are presented in **Table 3**.

Separate topic guides for regional and country stakeholders were developed, based on our evaluation framework (**Annexe III**). The guides included topics on: HRH actions taken at regional and country level; perceptions on which events and activities were significant towards progress; factors influencing change, and lessons learned and best practices. Interviews were conducted at both the regional meeting in Sri Lanka and remotely and took approximately one hour. Interviews were conducted in English or Bahasa Indonesia and recorded, transcribed and translated as needed. Respondents were informed about the objective of the interviews, asked for permission for recording, and the recordings and associated analysis files were saved in private storage folders.

**Table 3.** Type and number of respondents for qualitative interviews.

| Reference | Organisation | Role |
|---|---|---|
| **Global / regional** | | |
| **RE01** | WHO SEARO | Regional HRH advisor |
| **RE02** | WHO SEARO | Technical officer for nursing and midwifery |
| **RE03** | WHO EURO | Previous SEARO regional HRH advisor / Current EURO regional HRH advisor |
| **RE06** | AAAH | Director of regional technical partner |

| | | |
|---|---|---|
| **RE07** | IHPP | Advisor for quasi-governmental think tank that greatly influenced the Decade |
| **RE08** | WHO SEARO | Director of Programme Management and previous Director of IHPP |
| **RE09** | MoH Sri Lanka | Senior Advisor |
| **RE10** | WHO | Director of Health Workforce |
| **RE11** | WHO WPRO | Previous Technical Officer for nursing and midwifery WHO SEARO |
| **RE12** | WHO WPRO | Previous Technical Officer for Health Systems Development WHO SEARO |
| **Bangladesh** | | |
| **BA01** | WHO CO | National Professional Officer for HRH |
| **BA02** | WHO CO | Team Lead for Health Systems |
| **BA04** | MoHFW | Nursing Officer, Directorate General of Nursing and Midwifery |
| **BA05** | MoHFW | Director of the Directorate General of Medical Education |
| **Bhutan** | | |
| **BH01** | WHO CO | Country advisor for Health Systems |
| **BH03** | MoH | Human Resources Manager |
| **BH06** | Khesar Gyalpo University of Medical Sciences Bhutan | Assistant Professor, Faculty of Postgraduate Medicine |
| **India** | | |
| **IN01** | WHO CO | HRH advisor |
| **IN03** | NHSRC | Advisor, HRH |
| **IN04** | MoHFW | Technical Advisor, HRH for Health Systems |
| **IN06** | World Bank CO | Senior Economist, Health |
| **Indonesia** | | |
| **ID01** | WHO CO | National Professional Officer for Health Workforce |
| **ID02** | MoH | Staff of Centre for Planning and Empowering Human Resources for Health |
| **ID03** | MoH | Directorate of Health Worker Supervision and Guidance |
| **ID04** | MoH | Directorate of Health Worker Quality Improvement |
| **ID05** | MoH | Head of Data and Information System Division of |
| **ID06** | Association of Indonesian Nursing Education Institutions | Chairman |
| **ID07** | UNPAD | Former Chairman of the Indonesian Association of Medical Schools and Vice-Chairman of the National Board of Medical Examinations |
| **Timor-Leste** | | |
| **TL01** | WHO CO | Health Policy Advisor |
| **TL02** | MoH | National Director of Human Resources for Health |
| **TL07** | Abt Associates | HRH Lead |

## 4.8 Data analysis

During the desk review, we used the extraction sheets to initially organize relevant information across HRH themes and ToC components. We then developed a coding framework to structure the analysis of qualitative data from all of the desk review, regional meeting presentations and interviews. Using this framework, we identified common themes and issues.

Triangulation meetings were organized with the entire evaluation team to jointly review and synthesise quantitative and qualitative findings from different data sources. Interpretation issues and thematic trends were also discussed and resolved at these meetings.

## 4.9 Quality control

The following measures were taken during the inception and data collection, analysis and reporting phase as part of our quality assurance and control:

**Inception phase:**

1. Regular meetings with WHO SEARO regional advisor for HRH to discuss and agree on understanding of the assignment, its scope and objectives, taking into consideration feasibility within budget and time constraints.
2. Weekly evaluation team meetings to develop our proposed evaluation methodology, discuss preliminary findings from desk review and NHWA data, and perform member checks of each other's work.
3. Review of inception report by WHO SEARO and Regional Evaluation Management Group

**Data collection, analysis and reporting phase:**

- Co-development of methods and tools among evaluation team in weekly meetings.
- Review of tools and methodological approaches by quality assurance leads.
- Pre-testing of tools among evaluation team and with preliminary pool of 1-2 respondents.
- Shadowing of first interviews, conducted by quality assurance leads, by evaluation team members.
- Using translation services during interviews to allow participants to speak in a language they are comfortable articulating themselves in
- Member checks on other team member's coding and analysis for validity
- Triangulation of findings through meetings and synthesis of data sources
- Review of final report's first draft by quality assurance leads and WHO SEARO
- Saved version of final report with all WHO SEARO comments addressed

## 4.10 Limitations

There were several limitations of our evaluation methodology that must be taken into account when interpreting its findings. A regional survey of health ministries' HRH unit capacity was planned, but not completed by respondents. This means the evaluation lacks quantitative and comparable measures of HRH unit capacity, and instead relies on qualitative reports of capacity that can differ greatly in character and scope. We also could not interview the intended number of five to seven stakeholders in every country within the time for data collection which limits the diversity of perspectives in our analysis. Further, interview participants likely faced recall bias given the evaluation covers a ten-year period. Interview participants also may not have been in their current position for the full ten years and thus may only or preferentially share examples from the last few years, under-representing experiences from the early years of the Decade. In addition, it is difficult to disentangle the WHO's role and contribution to HRH achievement at country level, particularly in a formative evaluation. Change usually happens by an interaction of the efforts of different players and their contexts which cannot be separated out and assessed individually. In this evaluation, our only option is to ask interview participants' perspectives on the WHO's contribution. While the geographical scope of this evaluation was defined by the member states of the WHO SEA region, we learned during the inception phase that obtaining documentation and data on all countries' HRH-related activities was difficult in certain cases. As such, our ability to make evaluations about the progress made or remaining challenges was limited by the engagement of these countries themselves with the WHO on HRH strengthening. Finally, some relevant documentation was only available in local languages which we have excluded from the final analysis.

# 5 Evaluation findings

## 5.1 What progress has been made?

### 5.1.1 Key achievements

#### *Availability of health workers*

**Key messages**

- Significant achievements have been made in increasing the production of health workers across the region, largely due to the increased numbers of training institutions and associated regulatory reforms.
- Growth has been seen not only in doctors, nurses, and midwives, but also among community health workers, paramedical practitioners, and medical assistant cadres.
- Member states have collaborated to address workforce shortages, with initiatives such as collaborative training programs and arrangements for higher workforce producers to support countries with limited medical training institutes, as seen in Bhutan, Maldives, and Timor-Leste.
- The WHO's role in highlighting workforce shortages through progress reports and improvements in reporting mechanisms, such as NHWA reporting, has been instrumental in driving collaborative efforts and addressing healthcare access disparities across the region.

**Figure 2** shows that for all countries of the region, the density of doctors, nurses and midwives has increased between during the decade. The regional average density of doctors, nurses and midwives has, since 2014, increased by 69.3% to 36.4 per 10,000 population. The increase in production of health workers in the region was widely recognized as an achievement in itself. As example, health worker density in Nepal increased from 27.6 (2014) to 51.02 (2023) per 10,000 population. In Sri Lanka, the density increased from 24.7 (2014) to 33.93 (2023), and in Timor-Leste from 20.8 (2014) to 22.85 (2023). This growth in health workers in the region has not just been confined to doctors, nurses and midwives, but a range of occupations, including community health workers, paramedical practitioners, and medical assistants. While the Service Coverage Index average for the region has also increased, from 56 in 2015 to 62 in 2021, the gains in health worker numbers have not necessarily guaranteed better and more accessible healthcare. For example, the increases in health workforce stock in Indonesia over the last ten years have been linked to the high coverage levels achieved by introduction of national health insurance (JKN) in 2014, which has driven demand for health services across the country. However, health workers are heavily concentrated on Java Island, which leaves many other provinces under-resourced.[19]

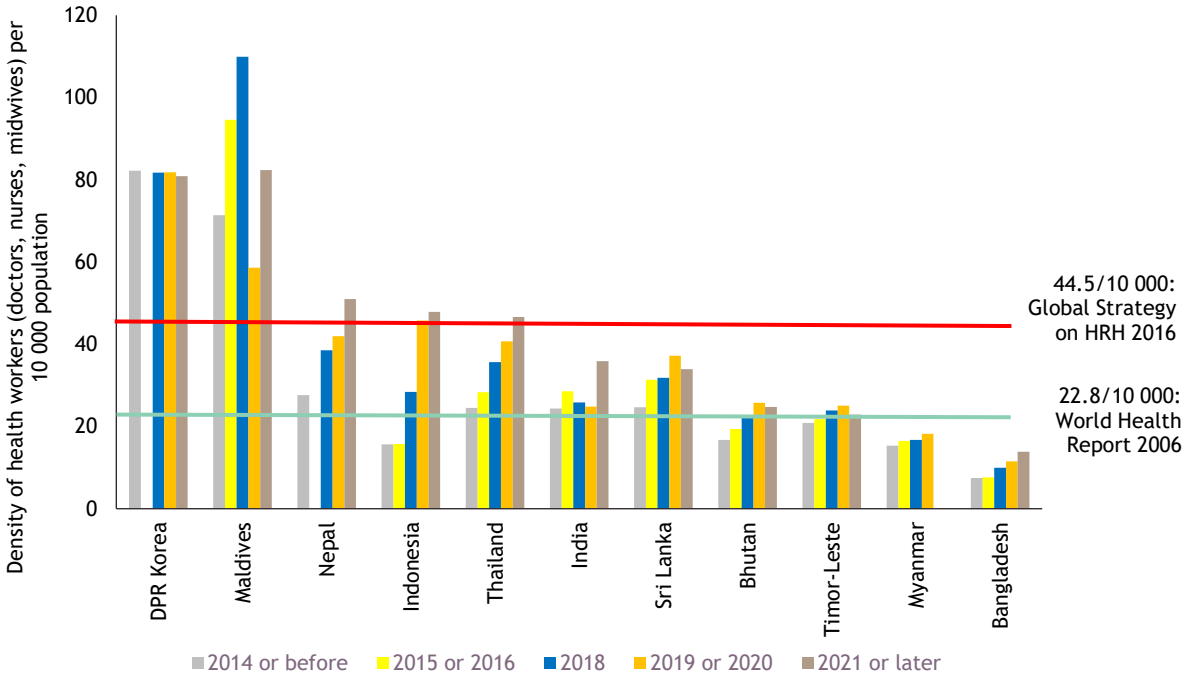


**Figure 2.** Density of doctors, nurses, and midwives per 10,000 people for SEAR countries between 2014 or before and 2021 or later (Figure from WHO SEARO Annual UHC Monitoring Report, 2024).[20]

The increase in health worker production is largely due to the expansion of training institutions and training capacity. For example, in Bangladesh, the number of medical colleges and nursing/midwifery colleges have nearly doubled and quadrupled between 2010 and 2020, respectively. India has established 379 new medical colleges since 2014, increasing the total number to 766 by 2024. This doubled the undergraduate (MBBS) seats to more than 100,000 and improved the geographic distribution of colleges and public/private mix.[21] In addition, the government of India has reserved funding in 2023 for an additional 157 nursing colleges. These will be co-located with 157 centrally funded medical colleges to address geographic imbalances and ensure quality. In Bhutan, 12 different Doctor of Medicine (MD) specialty programs have been introduced since 2015. The WHO country office plays a crucial role in advancing the HRH agenda and is working in close collaboration with the Khesar Gyalpo Medical University and the Ministry of Health (in a so-called Triparty initiative). In 2023, the first Bachelor of Medicine and Bachelor of Surgery (MBBS) program in Bhutan was initiated and will start with 24 students in January 2024.

If the WHO played any role in increasing production, it was in highlighting workforce shortages through the Decade's progress reports and improvements in NHWA reporting. Building on these higher workforce numbers, member states have collaborated in addressing workforce shortages, such as for Bhutan, Maldives and Timor-Leste, which have little or no medical training institutes. Higher workforce producers, like Thailand, India and Bangladesh have set up arrangements to

send their graduates to these countries. Timor-Leste is still in the process of seeking membership in the association of Southeast Asian Nations (ASEAN) and exploring bilateral cooperation with neighbouring nations. This collaboration aims to learn from the positive results achieved in various countries and improve healthcare access through regional cooperation.

### *Governance and planning for HRH*

**Key messages**

- There has been strong governmental leadership among member states for HRH strengthening over the past decade.
- Across the region, HRH governance has been improved by the establishment of HRH units, with several countries setting up units in recent years to strengthen HRH planning and coordination.
- Member states have passed key HRH legislation aimed at enhancing health professional education, licensing, accreditation, and regulatory frameworks, with India and Indonesia making notable strides in this regard.
- Collaborative efforts between member states and the WHO have led to the development of comprehensive health workforce strategies, such as the Bangladesh Healthcare Workforce Strategy and Bhutan's human resource development plan.
- Transformational legislative agendas, such as Indonesia's Health Omnibus Law, will serve as an example to the region if it proves to increase HRH availability, distribution, and quality.

Beyond the actions of the WHO and the influence of the Decade agenda, there is clear evidence and recognition of member states' leadership on HRH strengthening across this time period. Many participants from within the WHO pointed to this as a quality of the SEA region; rather than being 'collaborators' in the Decade agenda, countries pursued their own HRH strengthening programmes and requested WHO support as needed. This country leadership has thus contributed, during the Decade, to many member states largely increasing their production of health workforce.

In its own survey of member states in 2019, the WHO found that seven countries in the region had a dedicated HRH unit in the MoH; four of these having been set up in the preceding five years and the other three before that.[22] Since that survey, two of the three countries (Thailand and Myanmar) that reported this function being housed in different MoH departments have now created new HRH units with the WHO's support. The role of the HRH units in member states and the effectiveness to which this role is performed could not be assessed during this evaluation, however, member states recognised the need to strengthen HRH unit technical capacity and

address the high turnover of staff in HRH leadership positions during discussions of the WHO survey findings at regional meetings in 2017 and 2018.

Furthermore, interview participants from the WHO acknowledged the steps taken by member states in passing key HRH legislation over the ten-year period (**Box 1**). The increased production of health workforce in the region is testament to the fact that many of these bills focus on growing and improving health professional education in member states, as well as the licensing and accreditation of health professionals. In India especially, many pieces of legislation were implemented. Since 2016, the government of India signalled their intent to approach HRH issues more systematically by establishing a new HRH unit: the National Human Resources for Health Cell. This unit aimed to integrate a public health focus into health workforce planning. The new unit turned its attention to improving government structures and regulations. This included regulatory structures and commissions for doctors, nurse, dentists and other health professionals. For example, the National Commission for Allied Healthcare Professionals, was set up in 2021 and aims to regulate and standardise the education and practice of allied healthcare professionals not covered by other medical, nursing, dental or pharmacy commissions.

In Indonesia, the current Indonesian government's legislative agenda may be the most transformative given it has passed a Health Omnibus Law in 2023 that revokes 11 previous laws (including the Medical Education Act 2013). The law is structured around six pillars: primary services, reference services, health resilience, health financing, HRH, and health technology. With regards to HRH, it aims to improve the availability of medical and health personnel through increased implementation of (sub-)specialist education, transparency in the registration and licensing process, and improvements in employing Indonesian overseas graduate medical and health personnel through a competency evaluation.

**Box 1. Key legislation and activities passed during the decade relating to health workforce governance.**

**Bangladesh:** Non-Governmental Medical and Dental College Act 2022
**Bhutan:** Office of the Bhutan Qualifications and Professionals Certification Authority Office established in 2023
**India**: National Medical Commission Act 2019; Telemedicine Practice Guidelines for Registered Medical Practitioners 2020; National Commission for Allied and Healthcare Professions Act 2021
**Indonesia**: Health Omnibus Law 2023
**Maldives:** Health Care Professionals Act 2015
**Nepal:** Medical Education Commission Act 2019
**Thailand:** Federation of Professional Councils Thailand 2019; National Health Security Office partnership with Pharmacy Council set-up in 2020

During the decade various countries have developed health workforce strategies with support of the WHO. In Bangladesh, the Bangladesh Healthcare Workforce Strategy (BHWFS) was developed and approved in 2016 and is being revised in 2023. Translating the BHWFS into operational plans (2017-2023 and 2024-2030, under revision) was seen as a key outcome of the collaboration between the government and WHO. In Bhutan, a recent and significant achievement of the HRH unit is the roll out of a human resource development plan for 2022-2026. The MoH's plan outlines the shortfalls in health worker cadres facing Bhutan alongside planned health service expansions and means to increase the available health worker stock through domestic education and international recruitment. In Indonesia in 2015, the Ministry of Health (MoH) released its strategic plan for 2015-2019, with one of its 12 implementation strategies aiming at 'improving the availability, distribution and quality of deployed human resources for health'. In Timor-Leste, the current authoritative health sector strategy in force is the National Health Sector Strategic Plan 2011-2030, which has two main HRH objectives: to produce adequate numbers and skills of the different cadres of HRH, and; to promote excellence and ethics in all cadres of health professional functions. In 2024, the government will start developing the next five-year plan but is still looking for a donor to fund the required technical assistance.

### *Rural retention*

**Key messages**

- Member states in the SEA region have implemented various incentive and conditional initiatives to improve rural retention, including localized recruitment, mandatory rural service, rotating placements, scholarships, salary top-ups, accommodation, and transport.
- The WHO has played a crucial role in supporting member states' efforts to improve rural retention by enhancing HRH reporting and convening dialogues on rural retention strategies.
- There are positive examples of retention strategies, such as those implemented in Bhutan and Indonesia, which have led to improved access to healthcare services and increased workforce stability in rural areas.
- Telemedicine technologies have been used to train health workers and deliver healthcare services to remote and rural areas, demonstrating the potential of digital solutions in addressing healthcare access challenges.

Across the SEA region, several member states have set up incentive packages—usually bundled incentive packages—to attract and retain doctors to rural and remote areas. The WHO's contribution to this was recognised by interview participants in two spheres: first, in working with member states to improve HRH reporting so that the domestic (mal)distribution of health workforce was properly measured; second, was in convening dialogue on rural retention strategies and producing associated technical guidance. A regional webinar in 2021 discussed member state experiences with bundled incentive packages and was preceded by two reports in 2020 and 2021 that, respectively, detailed rural retention case studies from the SEA region and set out the WHO guideline on workforce development, attraction, recruitment and retention in rural and remote areas.

The SEA region countries have therefore individually implemented a range of incentive and conditional initiatives to improve rural retention for its workforce quality and quantity related to their health sector administrative structures and policies. These include the localisation of recruitment of PHC team cadres for health assistant positions, mandatory rural service for graduates or workers, rotating placements, the award of scholarships for health workers from rural and remote areas, salary top-ups or bonuses to work in hard-to-reach areas, accommodation and residential facilities, assistance to find employment for spouses, transportation access, health facility upgrading, more transparent transfer policies and temporary working arrangements and improved enforcement of penalties for mandatory rural service avoidance.

These types of initiatives to respond to rural workforce maldistributions are seen to be more responsive to the health needs of the catchment populations and to reduce the travel and access times for patients. For example, Bhutan has found success in maintaining skills and workers in rural posts through its rural staffing policies, based on secure employment packages, reliable resource availability and transparent civil service rules. In addition, there is evidence Indonesia's team-based models have improved access to maternal health services, improved TB detection, child development and community knowledge relating to child health and nutrition, and levels of physical activity.[23] Workers who participate in voluntary placement initiatives may also accrue personal benefits such as career path rewards and recognitions, for example bonus marks for admission to postgraduate programmes.

Telemedicine technologies have also been trialled as a means of bringing healthcare to remote and rural areas, including online or mobile phone-based modules used to train health workers during the COVID-19 pandemic.

### *Transformative education*

**Key messages**

- Landmark health workforce education legislation has been passed across the region, linking education to national public health needs.
- Member states have implemented a range of education reforms, including establishing dedicated departments for health workforce education policy, revising curricula, enhancing accreditation processes, and aligning education with international standards.
- Support from the WHO in obtaining international recognition for national medical accreditation institutions has enabled certain countries to export their healthcare professionals and benefit from remittances.
- Collaboration between neighbouring countries to access education opportunities unattainable domestically, as seen in Bhutan, highlights international cooperation in addressing educational gaps.

Across the region, a number of landmark pieces of health workforce education legislation have been passed over the Decade period. A key evolution of these reforms has been the linking of health workforce education to national public health needs. In line with this, interview participants noted improvements in the quality of health workforce education in the region, including inter-professional education, tied with a broadening recognition at sub-national level in member states of the political and public health benefits of building medical colleges in their district or region. The role of AAAH in hosting an annual conference on transformative education

was recognized by interview participants as a key contributor of maintained and consistent progress on workforce education. The WHO also had a key strategic role in assisting several member states having their national medical accreditation institutions internationally recognized, allowing certain countries to export their doctors and nurses inside and outside the region and benefit from the remittances transferred home, as well as supporting member states with their stakeholder consultations with respect to health education reform.

Individual member states have enacted a range of medical and health workforce education reforms including the development of directorates or departments within respective Ministries of Health that deal specifically with health workforce education policy and reform, revisions of health professional training curricula and legislation related to education quality, such as accreditation bodies and criteria, the development and publication of national health education strategies, revamping and standardisation of national licensing examinations, the creation of independent licensing and examination oversight bodies, standard examinations for foreign medical graduate licensing, adapting training modes to provide improved access and continuity, including online training modules and options, expanding and improving in-service education, the creation of fellowships and provision of scholarships, aligning health education with international standards, and better linking of academic health training institutions with localities and their workforces. In addition, formal HRH evaluations, such as Heath Labor Market Assessments (HLMA), provide baseline knowledge of the health education system that have allowed countries such as Indonesia to guide their future health worker supply plans.[24,25]

As part of the above-mentioned reforms, member states also aimed to integrate elements of competency-based learning into curricula at undergraduate levels. Some of these curricula place a strong emphasis on community-based learning, such as Bangladesh. Other member states may also utilise neighbouring country's health education systems, such as Bhutan, which supports small numbers of medical professionals to travel abroad and receive education that is unattainable in their country. The increase in quality and accreditation has seen some member states comprehensively improve their numbers of accredited programmes.[26] There is concern, as documented in case of Timor-Leste, that interventions in health workforce education may not fully translate into quality improvements in healthcare provision.[27]

### *Health workforce data and information systems*

**Key messages**

- Improved health workforce data reporting has been one of the clear successes of the Decade period, through a combination of member state actions and WHO support.
- These improvements relied on agreeing a priority set of HRH indicators that was feasible and, as much as possible, useful for all member states to report biannually.
- Member states have appreciated and benefited from WHO support with formal HRH assessments, such as Health Labour Market Assessments (HLMA) and WISN, particularly when these assessments have responded to current issues in HRH policy. WISN had mixed results due to the complexity of the data requirements.
- Member states are at different stages in developing their HRH information systems, and the interoperability of these systems within wider health system information systems, as well as their utility, are key areas for attention.

There is good evidence that health workforce data and information systems have greatly improved in the region during the Decade period, and that this was an area that the WHO provided substantive support to member states. Improving HRH reporting was an explicit WHO priority at the start of the Decade in order to properly understand each countries HRH situation and areas for attention. One of the reasons the reporting broadly improved across the region may be due to the fact that a limited set of priority HRH indicators were agreed upon among member states during a WHO regional meeting. This process agreed on 14 indicators that each country would report on, from a basket of 78 from the NHWA Handbook. The Decade's requirement of reporting on these indicators every two years led to countries prioritizing their health workforce information systems and gains being made, albeit slowly for some countries. The quality of the Decade's biannual progress reports was also a priority for the WHO, which have expanded in scope over time and changed with member state's needs; for example, the number of primary healthcare workers was eventually reported on due to a request from Bangladesh. The utility of these reports to member states thus continued to grow over the Decade, with participants mentioning they were read by both technical officers and health ministers as a means of comparison and benchmarking across member states. The relationship between the WHO and HRH or NHWA focal points within member states was key to improving this reporting. Alongside the acknowledgements of this progress, however, was a recognition of the level of detail possible through measuring 14 indicators, primarily focused on absolute or relative health worker numbers, and at times missing the workforce employed in the private sector.

Assisting countries to conduct formal health workforce assessments has been one of the most visible aspects of the WHO's member state support during the Decade. From 2018 onwards,

Health Labour Market Analyses (HLMA) have been conducted, with WHO collaboration, in Bangladesh, Chhattisgarh (India), and Sri Lanka.[24,28,29] Workload Indicators of Staffing Needs (WISN) assessments have been performed in Bangladesh, Bhutan, India, Indonesia, Nepal and Sri Lanka and a mapping of healthcare education institutions was also completed in Bangladesh in 2018. These collaborations, alongside support for NHWA reporting, have been greatly appreciated by member states, and have contributed to answering current policy questions on HRH problems in the country.

In terms of strengthening national information systems, Indonesia, Timor-Leste and the Maldives provide important and contrasting examples. Indonesia began work in 2018 on its HRH information system, *Sistem Informasi Sumber Daya Manusia Kesehatan* (SISDMK), which is aiming to be a single central source of all HRH data. The centralization of this data is partially complete, but still lacking for non-MoH health facilities. SISDMK has already played a role as a basis for decision-making, both during the COVID-19 pandemic and for the team-based deployment programme, Nusantara Sehat. Payment of health worker incentives and health worker planning and recruitment at provincial level have also used SISDMK data. With the creation of SISDMK, however, Indonesia faces managing several health system reporting applications and data fragmentation issues. The Ministry of Health is trying to rectify this by consolidating its platforms into "*Satu Sehat*" (One Health), a single national date exchange platform that will also integrate electronic medical records from health facilities. Developing a HRHIS was part of the WHO's country support to Timor-Leste, which was successfully launched in 2018, though not as comprehensive as Indonesia's. The Timor-Leste system has only been rolled at central level so far, rather than at municipal health offices, and the Ministry is reportedly having problems with the Open ware software the platform relies on. There are questions about the reliability of the data given the platform cannot track health worker movements—thus assuming health workers remain in post—and there is limited capacity and standards at central level for data maintenance and quality assurance. Finally, while not one of the member states chosen for case study, the Maldives' attempts and eventual success in developing an HRHIS provide an example for other countries with similar ambitions, and as such has been included here as a special case (**Box 2**).

**Box 2. The Maldives' development of an HRHIS.**

The current HRHIS in the Maldives came after two previous and failed attempts. These systems had failed due to insufficient consideration for the country's needs, which came from the country's unique geography as an archipelagic state and its low domestic stock of health workers. Their development had been contracted to an international supplier who had based the systems on the NHWA. But, with 80% of the health workforce being made up of expats at that time, the NHWA-based system didn't offer the functionality needed for

this unique use case. As such, the country continued to use a paper-based system to track its expat workforce.

In order to fully cater for its needs, the country needed to break from the NHWA template, and any potential greater inter-country comparability this may have afforded. In collaboration, the Ministry of Health and WHO developed a comprehensive Terms of Reference that inventorised all of the countries' service requirements and needs. This 'bottom up' approach yielded a set of 'core' and 'additional' functionalities for any prospective HRHIS. The country needed a system that could track its domestic and expat workforce in a life-course approach, managing all of workers' recruitment, attendance, payroll and compensation, training, and exit from the system. The system would also need to be feasible to implement from its central level and across its 26 atolls and 1,192 islands.

The WHO and MoH put of their request, with priority for local vendors that could enable some systems integration with other ministries and long-term maintenance. The winner was a local supplier who had previously developed information systems for the Ministry of Finance, brining invaluable experience of developing for the country's use case. The health ministry, WHO and supplier then set out a plan for the system's rollout and scale-up, starting from the 'core' functionalities at central level, and then working towards 'additional' functionalities and monitoring dashboards across the archipelago. The country now has the system rolled out to 70-80% of its atolls and has benefited from other government data infrastructure development which has brought 3G/4G/5G data connections to most islands. The HRHIS has also been linked up to a real-time health insurance information system. Aside from the system's primary function, the new insights and data on the country's health workforce that it brings has been a boon to decision makers in the MoH.

### *Migration*

**Key messages**

- As one of the most complex issues facing the region, many interview participants stressed the importance of intra- and inter-regional collaboration on migration to safeguard the region's interests alongside a competitive global health workforce marketplace. The first tri-regional meeting on health worker mobility is a positive example of attempting to address migration challenges comprehensively.
- Member states' experiences with and approach to health worker migration are split between the high workforce-production countries, such as India and Indonesia, and low workforce-production countries, such as Bhutan and Timor-Leste.

- The external migration of health workers in Indonesia, which produces a surplus at the national level, has become a government-sponsored initiative. While Indonesia has controls in place for this migration, there is an unresolved problem of sufficient public sector health workers in remote and rural areas.
- India has a longer history of exporting its health workers, however, also requires addressing shortages and impact on domestic health services.
- Bhutan, having newly investing in domestic medical training, now faces the issue of some its domestic health workers migrating out of the country. The country either needs greater domestic production or migration agreements to address its health worker shortages.
- The Maldives is an example of a system which has successfully arranged migration agreements to fill its health worker shortages coming from low domestic health workforce production.

Health worker migration is a multifaceted issue for the region that has only grown more complex during the Decade period. Some member states have conflicting agendas related to internal and external migration, both between one another and sometimes in the same country. High workforce-production countries, such as India, can financially benefit from the remittances of their doctors and nurses working in high income, global northern states, yet also suffer workforce shortages at home. Low workforce-production countries, such as the Maldives, rely on contract workers from other member states to staff their health facilities, yet also seek to expand their domestic stock. Many countries in the region have sought recognition of their national medical accreditation agencies by the World Federation of Medical Education to facilitate the export of their health workers. Many interview participants stressed the importance of intra- and inter-regional collaboration on this issue to safeguard the region's interests alongside a competitive global health workforce marketplace; an issue underscored during the COVID-19 pandemic once countries were under-resourced for the period's excess health system demand. A significant development in this regard was the first tri-regional meeting on international health worker mobility in June 2021 between SEARO, WPRO and EMRO, which solicited the involvement of participants from the development, education, finance, health, labour, migration, trade and private sectors. The meeting affirmed a commitment to health worker voices being at the centre of rules determining health worker mobility and set to establish a dialogue with the United Kingdom's Department of Health over this issue.

Indonesia is an example whereby, during the Decade period, the external migration of health workers has shifted from an issue of little concern or magnitude to a government-endorsed initiative. The country produces sufficient health professionals nationally, according to the WHO's needs-based SDG index, as well as a surplus of nurses, and yet can still struggle with staffing rural and remote areas. The government has set up agreements with governments

(Japan, for example) to find employment for Indonesian nurses abroad, while also enacting legislation in line with the Global Code to systematically manage these outflows. Next to government agreements, there are private-to-private routes, and private recruiters supporting the migration of Indonesian nurses to around 45 countries.[30] While Indonesia has measures for the international mobility of their health workers, there is an unresolved problem of sufficient public sector health workers in remote and rural areas, which could be exacerbated if outmigration increases. India, on the other hand, has a longer history of exporting doctors, with the most foreign doctors by absolute number working in OECD countries of any country in the SEARO region.[31] In certain cases, such as the state of Kerala, which has a surplus of nurses, this migration happens through governmental agreement. In other Indian states, however, there may be hidden shortages of health workers, obscured by insufficient data on the health workers that are actively practising. The WHO has supported certain states in collecting this data to provide a more accurate picture of their active workforce stock, rather than only relying on the number reported as licensed to practice.

Migration impacts smaller nations differently. Bhutan has only started domestic medical training programmes during the Decade period, meaning Bhutan faces still shortages of health workers. While, in absolute terms, few Bhutanese health professionals migrate to work abroad, these small losses have a relatively big impact on a country with such a limited domestic stock. On the other side, health workers entering the country are usually recruited for two to three years and receive the same rights and benefits as regular Bhutanese civil servants. Bhutan therefore will either have to increase its domestic production of health workers or secure agreements for migrant health workers in order fill their projected health worker shortages. The Maldives addresses their low health workforce production through relying on migrant doctors and nurses where, in 2021, 59% of doctors and 38% of nurses were expatriates. While in Timor-Leste, even small numbers of outward migration are an issue. In 2016, there were 35 Timorese doctors reportedly practising in OECD countries,[31] which at that point represented 30% of their physician stock.

Thus, while migration is complex, situational and presents different challenges across the region, certain member states may face increasing shortages if outmigration to high-income countries becomes an easier and attractive proposition without balancing mechanisms to redistribute health workers within the region.

### *Adaptation of service delivery models*

**Key messages**

- Member states have increasingly acknowledged the crucial link between HRH strengthening initiatives and service delivery outcomes.
- Countries like India and Indonesia have adopted ambitious initiatives to strengthen primary healthcare teams and implement team-based approaches. Initiatives such as India's Health and Wellness Centres (HWCs) and Indonesia's Nusantara Sehat programme use diverse cadres to deliver comprehensive primary healthcare services.
- Timor-Leste's *Saúde na Família* program and Bhutan's Service with Care and Compassion Initiative also use outreach teams and team-based approaches, respectively, to address specific health needs and help estimate staffing needs.
- The WHO has played a pivotal role in supporting member states in developing and implementing these service delivery models.

Across the Decade period, member states' have increasingly recognised the link to and potential impact on service delivery of their HRH strengthening initiatives. This recognition is based on a more nuanced understanding of HRH and the diverse cadres that can deliver healthcare services; spanning promotive to curative services and bringing points of delivery closer to communities. One of the examples of this shift is the growing attention to primary healthcare teams and team-based approaches, as a way of understanding the requisite HRH competencies and skills mixes that must be present to deliver a desired service package.

For example, India has taken ambitious steps through its HRH strengthening initiatives in this regard, first in upgrading existing primary healthcare facilities (Primary Health Centres and Sub Health Centres) to Health and Wellness Centres (HWCs) and expanding the services offered at primary level to 12 service packages. Corresponding with this is a reconfiguration of the primary healthcare teams staffing HWCs, led by a new cadre of non-physician, mid-level healthcare provider, known as the Community Health Officer. This new cadre come from nurses and AYUSH practitioners who have followed a six-month training programme in Community Health and are supported at HWCs by ASHAs and one or two multipurpose healthcare workers, instead of the auxiliary nurse midwife cadre that were previously staffing primary healthcare facilities. This team-based staffing requirement at HWCs is seen as way to securely shift tasks from secondary healthcare providers to the primary level, rather than simply between doctors and a mid-level health provider.

Indonesia's Nusantara Sehat programme similarly focuses on the team-based staffing needs to deliver comprehensive primary healthcare at *puskesmas*, requiring that at least nine professional groups (i.e., doctors, dentists, midwives, nurses, public health workers,

environmental health workers, pharmacists, laboratory technicians, and nutritionists) are present at each facility. The country's recently passed Health Omnibus Law also takes 'primary healthcare services' as its first guiding pillar, with the aim of strengthening *puskesmas* and *posyandu* (health posts) to provide promotive and preventive services close to communities.

On a different scale, Bangladesh has sought to centralise planning and management of CHWs in the country through their first National Strategy for Community Health Workers 2019-2030; breaking from the previously verticalized, disease-specific organisation of CHWs. This strategy aims to formalise the process for educating, certifying and deploying CHWs, and dovetails with the revitalisation of community clinics in the country's third health sector program (2011-2016) to provide 'community-based healthcare' in pursuit of UHC.

One of the most significant evolutions in Timor-Leste's health services offering was the implementation of *Saúde na Familia* ("Health in the Family") in 2015, which deploys outreach teams comprised of a doctor, nurse and midwife to households. The programme, which is supported by the WHO and aims to achieve universal coverage of households, also serves an indicator of HRH staffing needs. Other advances in this regard have been through the development of a basic package of health services for primary healthcare and hospitals and the ongoing development of an essential services package for primary healthcare; both of which have been supported by the WHO. These have been a first step in quantifying HRH needs on the basis of desired service delivery outcomes.

Finally, in Bhutan, positive examples of HRH positively impacting service delivery have been on a smaller, programmatic scale through the Service with Care and Compassion Initiative (SCCI). This again employs a team-based approach to understanding future staffing needs for the delivery of a package of interventions for NCDs.

### 5.1.2 Gaps

**Key messages**

- Member states continue to face shortages of health workers, both nationally and in specific cadres or geographic areas. Challenges include nursing shortages in Bangladesh due to poor career development opportunities and lack of qualified teachers, as well as shortfalls of specialists in rural or remote areas across several countries.
- Some countries have complex governance arrangements involving multiple ministries and health professional associations, hindering both the passage and implementation of necessary HRH legislation and reforms.

- Engaging with the private sector on public health-related goals like Universal Health Coverage (UHC) remains a challenge in countries with large private sector in both education and service delivery.
- Rural retention remains a significant challenge despite efforts and cross-country learning initiatives. Initiatives such as digitalization of health worker education in Indonesia aim to overcome geographic barriers and improve service delivery quality.
- Further integration of medical humanities and people-centred care into healthcare professional education is needed to improve service delivery quality.
- Despite progress, health workforce data and information systems need further strengthening, especially in capturing data on the private sector workforce and non-traditional professions.
- Health worker migration is a complex issue requiring further dialogue and cooperation at national, regional and supra-regional levels. WHO's role in convening partners and countries for dialogue, particularly in protecting the principles of the Global Code and south-south collaboration, is crucial.
- Strengthening the management of primary healthcare teams and integrating digital health competency into health workforce training programs are essential for improving service delivery models.

Several member states still face shortages of health workers. In some cases, these are widespread, national shortages of key cadres and in others these shortages are in specific cadres or related to the distribution of health workers across geographic areas. Bangladesh continues to face nursing shortages, reportedly due to the poor career-development opportunities that hinders attracting new trainees, and a lack of qualified nursing teachers which limits the size of cohorts that can feasibly be trained. Shortfalls of specialists, particularly in rural or remote areas, is a problem common to most member states in the region, spanning countries with well-developed healthcare education systems, such as Indonesia, and those in their relative infancy, such as Bhutan and Timor-Leste. The COVID-19 pandemic also made many countries keenly feel the consequence of having too few public health professionals in service.

Complex HRH governance arrangements in some countries, such as Bangladesh, where both multiple ministries and health professional associations are involved in workforce oversight and regulation, have limited their ability to pass key HRH legislation or undertake reforms. Indonesia has recently centralised health workforce governance within the government through the Health Omnibus Law in an attempt to address this; an experience which may be instructive for other countries in the region. Other member states' progress has been hindered by limited public sector health financing. Timor-Leste, for example, faced a surge in the government's health wage bill as a result of expanding its domestic health workforce education and graduates were absorbed into the public sector. The Ministry of Finance's reported inability to pay this wage bill

led in 2018 to an estimated 200-600 qualified doctors unemployed.[32] Finally, some countries with large private sector health workforces are still struggling to engage with the sector on domestic public health-related goals, such as UHC, or primary healthcare approaches. Identifying effective stewardship arrangements in these mixed health systems will be key to future HRH strengthening.

As both a Decade priority, and issue which has benefited from WHO-facilitated cross-country exchange and learning, rural retention still remains a difficult problem for many countries. There were few clear suggestions from participants about what future direction to take in rural retention initiatives, beyond experimenting with bundled incentive packages that consider employees' background and family arrangements. Indonesia, among other countries, is digitalising parts its of professional health worker education as, in part, a means to overcome the geographic barriers of face-to-face professional learning for remotely-posted health workers, as well as an initiative to enhance service delivery quality.

Participants saw the need and value of further integrating medical humanities and people-centred care into healthcare professional education, continuing the work started towards the end of the Decade. This could be linked to another widely-acknowledged need to improve service delivery quality and the quality of health worker training, both pre- and in-service. Participants from Indonesia described their remaining healthcare education challenges, which are illustrative of challenges faced by many countries in the region. These include a lack of professional training programmes, a lack of competent trainers, and the unequal access to training programmes. Bangladesh, India and Timor-Leste face the problem of lacking standardised national examinations for healthcare professional graduates. The additional lack of a national competency framework and skill labs, as recently instituted in Timor-Leste, was reportedly behind the varying quality in healthcare professionals practising in the country.

The broad progress made across the region on health workforce data and information systems did not prevent participants seeing how these could be further strengthened. Both the NHWA indicators reported as part of the Decade as well as member state HRH information systems are challenged with capturing private sector workforce, making it difficult to consider in HRH strengthening initiatives. There is also varying amounts of reporting on primary healthcare cadres and non-traditional professions (e.g., community, mid-level, public health), which will have increasing importance if seeking to achieve goals related to service coverage, quality and resilience. In Bhutan, opinions on the utility of NHWA varied among participants. Some participants spoke of it as a valuable tool for identifying health worker shortages, while others noted it doesn't fully align with reporting in the national health management information system, creating an additional reporting burden. In India, respondents instead criticized the WHO's health workforce density targets (i.e., the needs-based SDG index) as being too high or crudely applied as a one-size-fits-all for countries in the region. Participants suggested the

target's focus on achieving UHC through the health worker density may miss ways to consolidate and improve the existing workforce through investment. Reservations were also voiced about the accuracy and usefulness of the NHWA data. For example, as national health worker data is collated from different councils (e.g. nursing, allied health workers), there may be differences in measurement methods or over-reporting due to the incentives to demonstrate progress. In addition, the WISN assessments conducted across member states in the region—of which three were performed in Indian states—encounter problems due to their complex data requirements and the challenge of setting uniform activity standards for different cadres.[33]

The regional progress on health worker migration is difficult to characterise, although the issue looms large over the future HRH situation in the region and the consideration for the issue is still in its infancy. Migration is complicated by the fact it can both be a political issue cutting across different government ministries and part of bilateral cooperation agreements, or alternatively an ad-hoc set up between private healthcare companies in donor and recipient countries with little oversight. This also makes it a difficult issue for the WHO to wade into. Participants still recognised, however, that without further dialogue at both regional- and supra-regional level, the interests of high- and low-workforce producing countries in the region may not be protected for sustainable health workforce situations in the future, particularly at times of health system shock and as health worker shortages in richer countries become more pronounced. The WHO's ability to convene global northern and southern countries at a regional level was seen as a vehicle for further dialogue, particularly from an angle of protecting the principles of the Global Code and south-south collaboration.

In terms of impacting service delivery models, participants mentioned that, in line with a recommitment to primary healthcare approaches, strengthening the management of primary healthcare teams through healthcare manager training, employment packages and improved monitoring will be needed. Digital health tools also offer promising opportunities for overcoming problems with service delivery and HRH, in terms of addressing coverage gaps or alleviating overburdened workforces, yet there are still gaps in digital health governance and few health workforce training programmes that integrate digital health competency as a core skill.

## 5.2 How can the progress be explained?

### 5.2.1 Enablers and barriers of change

**Key messages**

- The effectiveness and relevance of the Decade agenda were maintained by the WHO's support being led by countries' needs and requests.
- Substantive country leadership on HRH strengthening, exemplified by strong buy-in from HRH units and departments, has been a driving force.
- Peri-governmental organizations like the Asia Pacific Action Alliance for Human Resources for Health (AAAH) have provided continuity and ownership over parts of the HRH agenda, supporting progress despite shifts in political regimes or priorities.
- Having strong HRH governance entities with good leadership close to ministerial decision makers has facilitated substantial progress, as seen in India's case with large-scale changes in HRH regulation and education.
- Clear priorities about the desired workforce composition, such as in India, and good working relationships between different HRH bodies, as in Indonesia, have facilitated progress.
- Countries without English-language health professional education have been better protected from health worker outfluxes and brain drain, yet many member states have actively pursued initiatives to make it easier for their health professionals to work in higher-income countries.
- The COVID-19 pandemic highlighted the importance of community health cadres and health workers, emphasizing their role in providing care close to communities and reducing the burden on hospitals.
- Overemphasis on the specialization of doctors, particularly at the hospital or secondary level, may hinder progress by neglecting primary health workforce cadres or mid-level providers.
- Smaller countries face challenges due to their limited production base for health workers and higher per capita public costs compared to larger countries.
- Lack of clear delegation or alignment of rules on HRH governance between central and decentralized levels can limit the impact of HRH strengthening initiatives.

A frequently cited reason for the effectiveness and relevance of the Decade agenda was that the WHO's support to member states on HRH during this period was still based on countries' needs and requests. This ensured the Decade was a flexible framework flexible that retained its (and the WHO's) legitimacy over the period. Further, the commitment made towards the Decade agenda, and HRH in general, at the start of the ten years was followed by substantive country leadership on HRH strengthening. The buy-in from country HRH departments or units and their ability to share learnings or serve as an example for others was cited as a unique characteristic of the region. This country leadership has dovetailed with the support of peri-governmental organisations like AAAH who, by convening annual meetings on transformative

education, have taken ownerships over parts of parts of the agenda and provide continuity among shifts in political regimes or priorities. Respondents also cited that those countries which have made substantial progress on HRH have been led by strong HRH governance entities, with good leaders close to ministerial decision makers. India, for example, has been able to make large-scale changes in HRH regulation and education due to strong leadership and public sector investment, while the pace of progress can be substantially slower in other countries, such as Bangladesh, which took 15 years to approve a national HRH strategy. HRH governance responsibilities that are split across different governmental departments, or HRH units that experience high staff turnover (mentioned for Bangladesh and Bhutan) were also cited barriers to progress.

India provides an example where circumstances have aligned to make progress on HRH due to a number of factors, including the strong place of primary healthcare and UHC in the political agenda of the prime minister and an increased demand for higher-quality care from the population. The fact India also had clear priorities about the health workforce cadres it sought to train more of was also cited as a reason for its good investments in health professional education. Beyond India, Indonesia was also mentioned to benefit from the support of funding partners with HRH portfolios, including AusAID, USAID and JICA. In addition, the country has had relatively good working relationships between different HRH bodies, including government departments and health professional organisations, although many HRH responsibilities have now been centralised with the Health Omnibus Law. A more general factor cited was that countries without English-language health professional education have been better protected against brain drain, although supporting health professionals to work in higher-income countries—through international recognition of national accreditation agencies and English language tuition—is something that has been actively pursued by several member states in the region. Finally, many respondents said that COVID-19 had played a huge role in emphasising the importance of community health cadres and health workers at sites of delivery close to communities. Beyond their value in overcoming patients' barriers to accessing care during lockdowns, they have also been valued for their gatekeeping function and removing the high burden on hospitals and secondary facilities.

On the other side, a barrier to progress in some countries was a tendency to (over-) focus on the specialisation of doctors—particularly at hospital or secondary level—at the expense of primary health workforce cadres or mid-level providers. This focus on promoting specialisation can overlook opportunities to serve population health needs through diverse cadres and healthcare teams. Second was that smaller countries, by their nature, have a smaller production base for health workers, and can face higher per capita public costs compared to large countries where government costs can be spread over a larger amount of people. Finally, countries where rules on HRH governance are not clearly delegated or aligned between central and decentralized levels can limit the impact of HRH strengthening initiatives.

### 5.2.2 WHO's contributions and role

**Key messages**

- The WHO played a significant role in shaping HRH governance improvements in the region, emphasizing the importance of HRH units as leaders and executors of national HRH strategies. The WHO's holistic focus on governance and management functions in HRH distinguishes the WHO's support from other technical and financial partners.
- The Decade contributed to improving HRH reporting in the region through its biannual reporting requirements and the WHO's contribution was enhanced where long-term relationships with member state NHWA focal points were present.
- Many countries cited specific examples of WHO technical support and products that contributed to health workforce strengthening over the past decade. Regional publications, case studies, and mentorship arrangements facilitated cross-country learning and capacity building.
- The WHO engaged closely during crucial periods of policy development in various countries, providing support during the drafting of legislation, operational plans, and national guidelines.
- The WHO advocated on behalf of member states in international fora on issues such as health worker migration and the accreditation of medical licensing bodies.

The WHO seems to have had a role in shaping HRH governance improvements in the region, particularly in championing the importance of HRH units as the leader and executor of a country's HRH strategy. Interview participants recognised that the WHO's support for HRH is distinct from other technical and financial partners for its holistic focus on the governance and management functions in HRH. This is also exemplified by the technical support the WHO has provided as part of developing HRH strategies in Bangladesh, Bhutan and Timor-Leste. Another widely-acknowledged contribution of the WHO was in improving HRH reporting in the region. Member state NHWA focal points have greatly benefited from a long-term relationship with counterparts in the WHO. Further, the Decade's biannual reporting requirements has harmonised and improved member states' HRH data and enabled some 'healthy' cross-country comparison and benchmarking, without normative targets becoming ends in themselves. The WHO's 'bottom up' way of working based on the needs of member states was recognised and cited as a potential factor in the region's progress, as it sought to find homegrown solutions to new challenges, such as COVID-19. Also described as a 'decolonial mindset', the WHO's actions seemed to break away from other technical and financial partners' modus operandi in duplicating solutions from

headquarters or global northern countries. The WHO has also advocated on behalf of member states in international fora on issues such as migration. The fact that the WHO helps, on the one hand, member states having their medical licensing bodies accredited by the WFME, while also advocating they don't lose the ability to staff their own health systems through uncontrolled migration, was appreciated by participants.

Many countries cited specific examples of WHO technical support and technical products that have played a part in their health workforce strengthening across the ten years. At regional level, the publication of case studies on rural retention has supported cross-country learning. In Bangladesh, the WHO's support has been led by the government's operational plan, which has taken the form of organising stakeholder consultations as part of drafting the country's Medical Accreditation Act, helping various government of Bangladesh offices in updating HRH policies, and helping draft the Medical Education Bulletin of 2022. In Bhutan, the WHO facilitated the set-up of a mentorship arrangement between the relatively nascent Khesar Gyalpo University of Medical Sciences and the All India Institute of Medical Sciences to develop online training modules. The WHO was involved in Indonesia in conducting a background study for the next National Medium-Term Development Plan [RPJMN], adapting global guidelines on rural retention for the government, and integrating health labour market data with the country's HRH information system. Aside from the country-driven nature of the WHO's support, it was on hand at crucial periods of policy development. For example, during the development of the Indian Public Health Standards, the government was in regular contact with the WHO as the latter reviewed the existing guidance. This level of engagement was apparently the same during the development of rural retention guidelines in India. The extent of the WHO's collaboration on national HRH guidance in India is illustrated by **Figure 3**, which shows every guideline and report produced in collaboration during the Decade period.

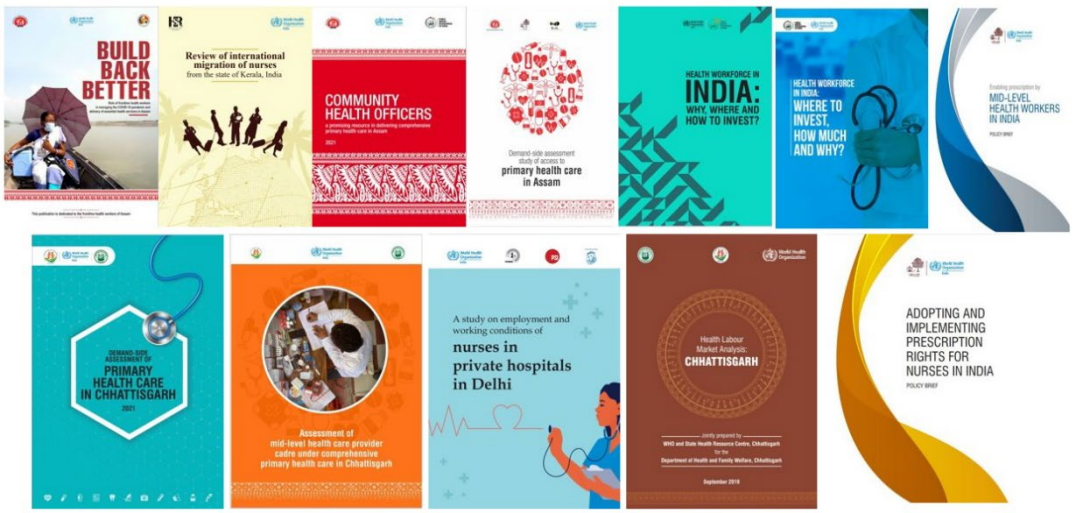


**Figure 3.** Guidelines and reports that were developed during the HRH decade in collaboration between the government of India and WHO.

Participants from Timor-Leste acknowledged the WHO's role supporting countries during the COVID-19 pandemic, and the unexpected boon to knowledge exchange that resulted from shifting the regional meetings online. This is particularly valuable to a country such as Timor-Leste, where participants recognised it currently acts as more of a recipient in these knowledge exchanges but benefits greatly from the experience of countries like Thailand, India and Indonesia.

## 5.3 Looking forward

### 5.3.1 Lessons learned from COVID-19

**Key messages**

- The pandemic underscored the importance of prioritizing health workers' wellbeing as both an end in itself and as crucial for health system resilience.
- Accessible primary healthcare close to communities emerged as essential during the pandemic, as a means to maintain timely and effective healthcare delivery.
- Digital health technologies demonstrated their potential to complement routine healthcare provision and emergency response, facilitating healthcare delivery and surveillance.
- WHO-mediated platforms facilitated cross-country learning and knowledge exchange, allowing countries to share experiences and best practices in responding to the pandemic.
- Countries were forced to innovate in HRH in a number of ways during COVID-19, including: the adoption of eLearning platforms or online trainings, integrating One Health education into training, shifting investments to primary healthcare, drawing on reserve workforces, and consolidating the existing workforce through initiatives that support health worker wellbeing.

The numerous challenges to health workforces across the region due to COVID-19 led to a number of shared experiences and learning, including: valuing health workers wellbeing both as an end in itself and as part of health system resilience; the function and quality of the health workforce beyond their absolute numbers; the importance of (financially) accessible primary healthcare close to communities; the potential of digital health technologies to complement routine healthcare provision and emergency response, and; the value of cross-country learning through WHO-mediated platforms.

The government of Bangladesh exploited the existing MuktoPaath application—first developed in 2016 as part of its Aspire to Innovate programme—to delivering eLearning for health professionals during the pandemic. This experience has led to a wider Smart Health Accelerator programme aiming to transform the health sector and workforce to ‘create an inclusive, national digital health ecosystem’. In Bhutan, the government’s health workforce priorities shifted during the pandemic from seeking an expansion in absolute health worker numbers to consolidating the existing workforce. Part of this included consideration for comprehensive employment packages, beyond financial incentives and remuneration, that retain employees in the workforce, as well as initiatives that support health worker wellbeing.

The Indonesian government reacted in a number of ways to the COVID-19 pandemic that have ongoing implications for its health workforce. One was better integrating One Health education into health workforce training programmes for their part in prevention, detection, response and control of emerging threats. Another was reviewing their health information systems to address limitations in the interoperability and exchange of information systems that impacts data availability. The human resources for health information system, SISDMK, has thus been brought under the single data exchange platform, Satu Sehat. Finally, Indonesia's community health nurses played a key role in providing healthcare during the COVID-19 pandemic, as well as enabling communication with, and surveillance of, populations, thus raising the profile of workforce cadres operating close to communities.

In India, respondents spoke of the significance of COVID-19 in bringing attention to health worker wellbeing and its connection to health system resilience. A range of different protections for health worker and families were trialled and envisaged in terms of equipment, protocols, psychosocial support and (digital) monitoring. Tied to this was a wider need to invest in the primary healthcare system and their workforce cadres given they can readily serve communities, particularly in times of crisis. The Indian government also drew upon practitioners from the Indian System of Medicines (Ayurveda, Unani, Siddha and Sowa-Rigpa) and community volunteers to form part of response measures during the COVID-19 pandemic. There were also a number of digital health tools developed during COVID-19 that established their importance for complementing healthcare provision. A Risk Assessment tool, developed by RIKA India, could be used by individuals to crudely assess their risk and make decisions about health behaviours and social distancing, while CoWIN was developed as an end-to-end application for vaccination scheduling, identity verification and certification.

In Timor-Leste, COVID-19 exposed some fundamental weaknesses of the health system in its ability to respond to emergencies. This included the need for staff training for public health competencies such as surveillance, contract tracing, testing and risk communication, as well as a lack of critical care units in order to manage severe cases. Having previously a single critical care unit in Dilli, the country has now set up a unit in every hospital. The pandemic also necessitated the shift to delivery of trainings online in order to reach large audiences at distance. The potential benefits of delivering health workforce education online in the future, particularly for health workers in remote areas, must address the reduced internet coverage in the same areas.

# 6 Recommendations

*WHO is the only agency which is looking at the technical and the managerial aspects of HRH per se… [it's] possibly the only organization which is looking at HRH in a holistic way and addressing HRH issues directly in all the countries. And the results are there to see.*

—Senior advisor to the Ministry of Health, Sri Lanka

*My sincere request to WHO is […] not to discontinue this kind of activity. It's good to continue the Decade because…because every year there is a change of plan, new ideas will come.*

—Human resources manager officer, Ministry of Health, Bhutan

The following section brings together recommendations for HRH strengthening in the region, both those that participants voiced during interviews or the Sri Lanka Regional Committee meeting, as well as our own recommendations based on an analysis of the evaluation's findings.

## RECOMMENDATIONS

### R1. COUNTRIES' VISION FOR A FUTURE HEALTH SYSTEM TO DRIVE A FORWARD-LOOKING HRH AGENDA

While the previous Decade has been flexible to shifts in needs or crises, which is equally important for maintaining WHO legitimacy, proactively developing the content of a subsequent agenda depends on member states' vision. Member states must decide what they want their health systems and workforce to look like in the next twenty to thirty years, taking account of the current provider mix and workforce composition, anticipated future health needs and epidemiological shifts, desired population health goals (e.g. UHC, disease burden reductions) and health system characteristics (value to society, resilience and health security, financial protection). Articulating these visions lays the foundations for developing a coherent long-term HRH strategy and identifying where the WHO could provide country support across this strategy cycle.

The WHO may be able to mediate such an envisioning exercise at a regional meeting to kick off the next strategy cycle, if not already started by countries themselves. Many interview participants lauded the

WHO's convening powers as part of its contribution to regional progress on HRH. Participants suggested that trying to solicit the attendance of health ministers periodically at regional meetings could help promote HRH to a ministerial-level priority, a task which could be helped while the lessons from COVID-19 are still fresh in people's minds. Whether at a regional meeting or not, discussing the contents of future basic or essential packages of health services is one way of forecasting health workforce needs and can also serve discussions with the private sector as common goals to work towards. If such an exercise would be too broad or labour-intensive, the central tenet of this recommendation is that the WHO must be led by (future) country priorities, as this has been widely recognized as one of the WHO's biggest sources of strength and legitimacy as a technical and convening partner. The subsequent recommendations outline issues that can focus the WHO's support and advocacy to member states in the next strategy cycle. Beyond being led by countries' priorities, however, the WHO can advocate that member states integrate a strong primary healthcare orientation into their HRH strategies, given this should underpin health system strengthening approaches in the region.

**KEY RECOMMENDATIONS**

- **Member states are encouraged to articulate a long-term vision for their health systems, considering evolving and future health needs, desired health outcomes, and current health system characteristics.**

- **Aligned with the above, member states are encouraged to develop long-term HRH strategies that: integrate a primary healthcare orientation; drive the necessary evolution of health workforce composition and its characteristics, and; harmonize country support from national stakeholders, WHO, and partners.**

- **WHO can support member states in envisioning future health system needs, developing comprehensive long-term HRH Strategies, and convening senior leadership and partners in support.**

## R2. TRANSFORM AVAILABLE HUMAN RESOURCES FOR HEALTH INTO ACCESSIBLE AND QUALITY PEOPLE-CENTRED HEALTH SERVICES AND SYSTEMS

The WHO should encourage member states to start the next strategy cycle with a more advanced idea of HRH, the content of which will be considered in the following recommendations. This expanded idea of HRH must first go beyond the previous Decade to integrate notions of a healthy, motivated and fairly-remunerated workforce and its inextricable connection to the delivery of services of higher quality, performance, resilience and responsiveness to population needs. The COVID-19 pandemic highlighted the physical and mental tolls on health workers operating in systems under strain, as well as the limits of building an HRH strategy around increasing absolute health worker numbers. At the same time, health

workforces need to remain accountable to the populations they serve to strengthen quality and performance. Many member states' investments would yield greater returns—in terms of impact on service delivery—by consolidating their existing workforce rather than pursuing numerical increases. Indeed, even large health worker surpluses can mask deficits in the availability of a licensed and quality active health worker stock. Adopting this framing from the outset also means that measures of progress in the next strategy cycle (i.e., what is measured) move beyond health workforce production to the transformation of those resources into quality and accessible healthcare services through creating the conditions for a happy and motivated workforce. HRH's impact on service delivery was integrated as a key theme in the latter stages of the Decade agenda and needs to be at the forefront of the WHO's next strategy cycle.

This advanced idea of HRH should also transfer to positive patient experiences. Many respondents described healthcare delivery in the region's health systems as primarily instrumental—as the administration of a drug or advice—and needing to broaden and integrate an ethic of care and people-centredness. The WHO has already started a programme aimed at incorporating medical humanities into health workforce education for member states. This needs to be complemented with other governance and management measures—for example, a health service quality policy—if the sizeable shifts required in health workforce culture are to be realised.

Most importantly, providing care considerately (rather than just a health service) requires the conditions to succeed i.e., a good quality work and career environment. Under-resourced or over-burdened health facilities will be low on time and compassion. As mentioned above, what countries measure signals to their health managers and professionals what goals their health system is working towards. Measures of patient experience and rewards or penalties for performance will support this shift. Countries with mixed health systems will have to consider the (types of) regulation and incentives they can use to encourage more people-centred care across the public, private and charity sectors. The WHO has already created a forum for member state regulators to exchange experiences, and incentivising higher quality should be an ongoing part of their agenda. Yet, health service quality regulation without fair employment packages, career opportunities and working conditions will likely create the conditions for gaming, rather than substantive changes in patient experience.

Underpinning the positive experiences of the health workforce and the people it serves is identifying what workforce composition and cadres best respond to the population's health (and non-health) needs. Consideration of the health workforce's composition needs to shift from broadly focusing on individual and traditional cadres (doctors, nurses, midwives, specialists) to i) one that distinguishes primary healthcare workforce needs; ii) one that integrates a team-based perspective, and iii) one that values and includes other, non-traditional or informal cadres, such as those operating close to communities (community health workers, volunteers, non-clinician physicians, mid-level providers etc.).

This primary healthcare orientation should be present in member states HRH strategy, which needs to consider how healthcare will be provided at the primary level (both in first-line facilities and communities) and how primary healthcare responsibilities (promotive, preventive, curative, rehabilitative, and supportive/palliative care) are best distributed across these roles. COVID-19 illustrated that a primary healthcare workforce properly capacitated to serve key health system functions can greatly enhance its resilience. Public health functions—including surveillance and risk communication, care for NCDs, and integrating digital health tools that reduce service burden—could be led at the primary healthcare level. Further, at both primary and higher levels, this distribution of responsibilities can be considered through the teams that would deliver healthcare, rather than individuals, bringing in considerations of teamwork and team competencies and how cadres are expected to work together to provide a service of a certain quality.

Health systems need to value, recognise and, in some cases, formalise cadres that have served key health system roles for many years without its institutional support. Some of these cadres work close to communities (e.g. community health workers, community nurses), which was an invaluable asset during the implementation of social distancing policies due to COVID-19, and continues to be a vehicle to better engage people and communities in their healthcare by meeting them close to home. Others are newer cadres (e.g. non-clinician physicians) that can bridge traditional role divisions (e.g. doctors and nurses) to make the best use of the available human resources to serve the local population's health needs. With a coherent vision about the types of health services, teams and competencies that member states' health systems should have in the future, these informal and new cadres can be brought under the aegis of the health system, in both more formal (e.g. licensing, training and remuneration) and informal ways (e.g. recognition in policy).

**KEY RECOMMENDATIONS:**

- **Member states are encouraged to place people-centred health services at the forefront of their HRH agenda, with focused attention, measurement and incentives (financial and non-financial) related to the experience of both the patients and health workers themselves.**

- **Member states are encouraged to strengthen management processes that: improve the distribution and capacities of existing health workers; provide a working and career environment for healthy and motivated health workers, and; also reward and measure team performance vis-à-vis patient experience and outcomes. The scale-up of digital technologies is a potentially key enabler to support management processes and systems.**

- **WHO can support the above efforts through the capturing and sharing of successful member state practices—including the recently initiated work on health humanities—of compassionate, patient-centred care, backed by a healthy, motivating and supportive work environment.**

### R3. ADVANCE HRH DATA AND INFORMATION SYSTEMS

The advances made in health workforce data and information systems by member states during the Decade need to be built on, making these systems and their indicators report on progress towards desired future health systems and workforce composition. As these desired future systems will differ, there is an argument that countries should have bespoke indicator reporting requirements based on their priorities, or a combination of 'core' and 'additional' indicators that allows some country deviation. As a general longer-term aim, these indicators should shift from being less 'input' based, such as benchmarking the active health workforce stock, towards more 'output' and 'outcome' based, which integrate some aspect of service delivery or desired service-mix composition. The above recommendations already make the case for measures of health worker and patient satisfaction as instruments of service quality improvement, and reporting on the number and density of primary health workforce cadres would also support the region's stated primary health system strengthening goals. In addition to their indicators, the example of the Maldives shows that HRH Management Information Systems should not pursue comparability and conformation to international standards (e.g. the NHWA) at the expense of serving domestic HRH administrators' and decision makers' information needs. Any information system development should start from understanding such needs (i.e., 'bottom-up') and what can be sustainably implemented and maintained, rather than ready-made but ill-suited solutions.

**KEY RECOMMENDATIONS:**

- **Member states are encouraged to continue building on their progress in health workforce information systems and reporting, shifting emphasis from 'input' to as possible 'output' and 'outcome'-based indicators that reflect service delivery quality and/or desired workforce composition.**

- **WHO to support member states in tailoring HRH Management Information Systems to meet domestic needs, starting from a bottom-up approach to the HRH Management Information System development, with international comparability as a secondary goal.**

### R4. GOVERN FOR QUALITY AND EDUCATION

The significant growth in absolute health worker numbers across the region in the last ten years is a testament to member states' HRH strengthening initiatives and shows the scale of achievements possible when concerted action is taken. Member states' gains have primarily been based on investments in training institutions and supporting legislation. The WHO can now play a role in advancing member states' actions so that higher health workforce numbers translate to better services and health outcomes through transformative education and legislation focused on quality, responsiveness and accountability.

To strengthen the region's HRH legislation, WHO can support countries in pursuing reform through the set up of a regional network for health practitioner regulation.

Great strides in strengthening HRH governance have been made across the region in recent years, centring around the set-up or change of HRH governance structures in health ministries and, in some cases, formalising HRH units. Given that the WHO plans to build on this through executive courses on leadership and management for country HRH units, the WHO needs to consider the frequency of delivering these courses in order to overcome changes in HRH unit personnel. These courses should be complemented with a follow-up programme (e.g., learning trajectory, peer InterVision or coaching) to further support the transfer of learnings into practice.

**KEY RECOMMENDATIONS:**

- **Member states are encouraged to build on the significant growth in health worker numbers by continued attention to transformative education and legislation focusing on quality, responsiveness, and accountability.**

- **WHO can support member states in implementing historic regulatory reforms including through the creation of a regional network on health practitioner regulation, enabling cross-country learning and collaboration.**

- **WHO can support HRH governance in countries through executive courses on leadership and management, complemented by follow-up programmes of mentoring, coaching and peer learning to ensure effective and sustained transfer of knowledge and skills.**

---

**R5. PROMOTE PARTNERSHIPS WITHIN THE REGION AND BETWEEN REGIONS**

The WHO could expand its convening role to try and synergize financial and technical partner activity on HRH within the region. The fragmentation of the health workforce in certain member states was revealed during COVID-19, borne out of the verticalization of funding programmes for (specific cadres of) HRH. Donor coordination platforms and forums, if not already in place, could be set up at national or regional level to reduce funding silos and enhance the effectiveness of aid. Beyond just donors, building national forums for HRH that involve the government, health professional associations and technical or knowledge institutions can catalyse the domestic HRH agenda through the building of national expertise and political momentum. Given the WHO's own agenda is led by the needs and priorities of the members state, the WHO is well placed to bring together donors and stakeholders with different HRH agendas.

---

The international migration of health workers and the benefits (i.e., remittances) or disadvantages (i.e., workforce shortfalls) this gives countries is perhaps the most complex issue that must be reconciled against the desire for UHC and good health for all in the region. While the Global Code of Practice on the International Recruitment of Health Personnel is a useful advocacy tool for the WHO, the bilateral health workforce agreements set up between member states and large recipient countries (e.g. the US and UK) rarely give donor countries much flexibility if circumstances change at home, such as health crises (e.g. COVID-19) or the economic crisis currently facing Sri Lanka. There are a number of convening roles the WHO can play in this regard. First, given these issues supersede the region, convening bi-, tri- and multi-regional meetings (e.g. with EURO, EMRO, WPRO) provides a forum to discuss mutually-beneficial migration arrangements, with the Global Code as a useful normative guide for these discussions. Second, within the region, there are already successful examples of intra-regional migration that benefit both the recipient (e.g. Maldives) and donor countries (e.g. India). The WHO's regional committee meetings can support the discussion of addressing health workforce shortfalls through such intra-regional cooperation.

A central topic discussed during the interviews, particularly with WHO staff, was the resourcing and capacity of the regional and country offices to advance HRH as a priority within member states. The impact of frequent personnel changes in WHO offices or member states' HRH units was mentioned as a potential disruption to progress and the institutional memory of country-level HRH initiatives. In the face of this, a long-term agenda (of ten years or more) that is built around the needs of member states has been successful and has likely provided continuity in the face of personnel changes. Likewise, the leadership of peri- or non-governmental technical organisations for parts of the HRH strengthening agenda can be invaluable. Thailand is a country that has maintained a long-term health system strengthening agenda across successive governments, given the work of think tanks like IHPP and AAAH. The connection between the WHO and such organisations in member states can protect against political shifts, pool resources for more impact and build institutional capacity within member states.

**KEY RECOMMENDATIONS:**

- **Member states and WHO encouraged to establish donor coordination platforms and national HRH forums to reduce funding silos and enhance the effectiveness of HRH initiatives, leveraging WHO's convening power to align diverse stakeholder agendas.**

- **International migration remains a significant challenge that cuts across WHO Regions, and WHO are encouraged to convene both regional and multi-regional forums to promote mutually-beneficial arrangements guided by the WHO Global Code of Practice. Strengthening South-South migration cooperation, in particular, holds significant promise.**

- **WHO can leverage existing partnerships, especially the Asia Pacific Action Alliance on Human Resources for Health, to collectively drive a long-term health workforce agenda, pool resources and strengthen institutional capacity in countries within the region and across the Asia-Pacific at large.**

---

# 7 References


1. WHO. *Global Strategy on Human Resources for Health: Workforce 2030*. World Health Organization; 2016.
2. UN. *Transforming Our World: The 2030 Agenda for Sustainable Development*. United Nations; 2015.
3. WHO SEARO. *Strengthening Human Resource for Health in South-East Asia: Time for Action and Commitment*. WHO; 2015.
4. Hall TL, Mejía A, World Health Organization. *Health Manpower Planning: Principles, Methods, Issues*. (Hall TL, Mejía A, eds.). World Health Organization; 1978.
5. World Health Organization. *The World Health Report 2006: Working Together for Health*. Vol 19. World Health Organization; 2006. doi:10.1080/13576280600937911
6. WHO SEARO. *Strengthening Management of Human Resources for Health in the South-East Asia Region*. WHO Regional Office for South East Asia; 2012.
7. WHO SEARO. *Strengthening Health Workforce Education and Training in the Region. Resolution of the WHO Regional Committee for South-East Asia SEA/RC65/R7.*; 2012.
8. WHO. *WHO Global Code of Practice on the International Recruitment of Health Personnel*. World Health Organization; 2010.
9. WHO. *Increasing Access to Health Workers in Remote and Rural Areas through Improved Retention: Global Policy Recommendations*. World Health Organization; 2010.
10. Dayrit MM, Dolea C, Dreesch N. Addressing the human resources for health HRH crisis in countries: how far have we gone? What can we expect to achieve by 2015? *Rev Peru Med Exp Salud Publica*. 2011;28:327-336.
11. WHO. *Transforming and Scaling up Health Professionals' Education and Training: World Health Organization Guidelines*. World Health Organization; 2013.
12. WHO SEARO. *Strengthening Health Workforce Education and Training in the Region. Resolution of the WHO Regional Committee for South-East Asia SEA/RC67/R6.*; 2014.
13. WHO SEARO. *Strengthening Human Resources for Health in the South-East Asia Region: First Progress Report on the Decade of Strengthening Human Resources for Health in SEAR 2015-2024*. International Health Policy Programme; 2016.
14. WHO SEARO. *Workshop on Improving the Generation and Use of HRH Data in South-East Asia Region: The Role of National Health Workforce Accounts*. WHO Regional Office for South East Asia; 2017.
15. WHO SEARO. *Decade for Health Workforce Strengthening in the South-East Asia Region 2015-2024: Second Review of Progress*. WHO Regional Office for South East Asia; 2018.
16. WHO SEARO. *The Decade for Health Workforce Strengthening in the SEA Region 2015-2024: Mid-Term Review of Progress*. WHO Regional Office for South East Asia; 2020.


17. WHO SEARO. Progress reports on selected Regional Committee resolutions. In: Vol 1. WHO Regional Office for South East Asia; 2022.
18. WHO. *WHO Evaluation Practice Handbook*. World Health Organization; 2013.
19. WHO SEARO. *Improving Retention of Health Workers in Rural and Remote Areas: Case Studies from the WHO South-East Asia Region*. WHO Regional Office for South East Asia; 2020.
20. Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the WHO South-East Asia Region: 2024 update, New Delhi India: World Health Organization Regional Office for South-East Asia.
21. MoHFW Bangladesh, WHO Bangladesh. *Assessment of Healthcare Providers in Bangladesh 2021*. Human Resources Branch, Health Services Division, Ministry of Health and Family Welfare Bangladesh and World Health Organization (WHO) Bangladesh; 2021.
22. Cometto G, Nartey E, Zapata T, et al. Analysing public sector institutional capacity for health workforce governance in the South-East Asia region of WHO. *Hum Resour Health*. 2019;17(1):1-11. doi:10.1186/s12960-019-0385-1
23. TNP2K. *Improving Health of the Left-Behinds: The Case of Indonesia's Nusantara Sehat*. The National Team for the Acceleration of Poverty Reduction (TNP2K); 2019. www.tnp2k.go.id
24. Nuruzzaman M, Zapata T, McIsaac M, et al. Informing investment in health workforce in Bangladesh: a health labour market analysis. *Hum Resour Health*. 2022;20(1):1-10. doi:10.1186/s12960-022-00769-2
25. Nuruzzaman M, Rahman MM, Talukder, Md Humayun Kabir; Ullah MM. Mapping of Health Professional Education Institutions in Bangladesh. In: Medical Education & Health Manpower Development (ME&HMD) and World Health Organization Bangladesh; 2018:1-183.
26. BPPSMDK. *Action Plan for the Human Resources for Health Development and Empowerment Agency Program for 2015-2019*. Health Human Resources Development and Empowerment Agency (BPPSMDK); 2017.
27. HRH2030. *HRH2030 Timor-Leste Health Workforce: Desk Review*. United States Agency for International Development; 2019.
28. MoHNIM & WHO. *Health Labour Market Analysis in Sri Lanka: A Call to Action*.; 2018.
29. Garg S, Tripathi N, McIsaac M, et al. Implementing a health labour market analysis to address health workforce gaps in a rural region of India. *Hum Resour Health*. 2022;20(1):1-13. doi:10.1186/s12960-022-00749-6
30. Tangcharoensathien V, Travis P, Tancarino AS, et al. Managing In- and Out-Migration of Health Workforce in Selected Countries in South East Asia Region. *Int J Health Policy Manag*. 2017;7(2):137-143. doi:10.15171/ijhpm.2017.49
31. Tangcharoensathien V, Travis P. Accelerate implementation of the WHO global code of practice on international recruitment of health personnel: Experiences from the South East Asia Region: Comment on "Relevance and effectiveness of the who global code practice on the international recruitment of health personnel. *Int J Health Policy Manag*. 2016;5(1):43-46. doi:10.15171/ijhpm.2015.161

32. Bertone MP, Martins JS, Pereira SM, Martineau T, Alonso-Garbayo A. Understanding HRH recruitment in post-conflict settings: An analysis of central-level policies and processes in Timor-Leste (1999-2018). *Hum Resour Health*. 2018;16(1):1-12. doi:10.1186/s12960-018-0325-5

33. Namaganda GN, Whitright A, Maniple EB. Lessons learned from implementation of the Workload Indicator of Staffing Need (WISN) methodology: an international Delphi study of expert users. *Hum Resour Health*. 2022;19(1):1-9. doi:10.1186/S12960-021-00675-Z/TABLES/4

# Annexe I: Evaluation framework

| ToC component | Outputs | | Outcomes | Impact | Lessons learned | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Evaluation topics** | **Activities WHO SEARO** | **WHO country office activities in collaboration with MoH, MoE and others** | **What has been implemented/ achieved at country level?** | **What has been achieved in terms of access to health and UHC?** | **Barriers and enablers to change** | **WHO contribution** | **Weaknesses in approaches, remaining gaps and challenges** | **COVID-19 lessons learned** | **Recommendations for future activities** |
| **Data collection methods** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; NHWA analysis; Country survey; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** | **Desk review; Sri Lanka meeting; qualitative interviews** |
| **Themes:** | | | | | | | | | |
| Generic/across themes | | | | | | | | | |
| Governance and planning for HRH | | | | | | | | | |
| Rural Retention | | | | | | | | | |
| Transformative education | | | | | | | | | |
| HW data and information systems | | | | | | | | | |
| International migration, intramigration | | | | | | | | | |
| Adaptation of service delivery and models of care (PHC, urban areas, trusted communities) | | | | | | | | | |

# Annexe II: Desk review protocol

Regional and country office documentation was sought from the WHO SEAR website (https://www.who.int/southeastasia). The search was conducted from 4 April to 19th April 2023. Firstly, regional documents specific to the Decade agenda were sought, including the 2015 'Time for Action and Commitment' regional meeting report that launched the Decade in Bhutan, as well as the four progress reports undertaken. Subsequently, the most recent WHO Country Cooperation Strategies (CCS) were retrieved along with its 'at a glance' brief versions. Next. a search of the region's country office websites was undertaken using the site's Google's search function. All 11 members states sites were searched using the terms 'health resources' and 'health workforce'. The documents were scanned for inclusion of these terms in full or where the document suggested a health workforce activity that fitted with the aims of the Decade. From the country office site searches, a total of 104 documents were retrieved. **Table I.1** shows the full inventory of country documentation obtained.

**Table I.1.** Overview of country office documentation obtained from website search.

| Country | CCS | CCS brief | Country office site documents | Total |
|---|---|---|---|---|
| **Bangladesh** | 1 | 1 | 28 | **30** |
| **Bhutan** | 1 | 1 | 1 | **3** |
| **DPRK** | 1 | 1 | 0 | **2** |
| **India** | 1 | 1 | 38 | **40** |
| **Indonesia** | 1 | 1 | 5 | **7** |
| **Maldives** | 1 | 1 | 3 | **5** |
| **Myanmar** | 1 | 1 | 6 | **8** |
| **Nepal** | 1 | 1 | 10 | **12** |
| **Sri Lanka** | 1 | 1 | 9 | **11** |
| **Thailand** | 1 | 1 | 3 | **5** |
| **Timor-Leste** | 1 | 1 | 1 | **3** |
| **Total** | **11** | **11** | **104** | **126** |

# Annexe III: Interview guides

**Table III.1.** Regional stakeholder interview guide.

| Theme | Primary question | Follow-up questions / probes |
|---|---|---|
| Background, role respondent | What is your professional position/role? | |
| | What has been your role in relation to the SEARO HRH decade? | If applicable: was the person involved in the set up? What other stakeholders were involved? What was the role of WHOS SEARO? What explained this momentum? |
| | What HRH TA/monitoring/advocacy activities have you been involved in over the past 10 years? | Collect a quick overview, categorize whether these are TA/monitoring/advocacy activities. Probe for different themes (governance and planning, rural retention, transformative education, HW data information system, migration (international/intra-migration), adaptation service delivery models) Refer to specific activities found in the desk review. |
| Best practices | What do you consider key successes in terms of TA/monitoring/advocacy activities implemented by WHO SEARO regional level? | Who initiated the activity? Which stakeholders were involved? What has been achieved in terms of output (in terms of HRH indicators) What was the output, outcome and impact of the activity? Any monitoring/evaluation reports available? |
| | What were the enabling factors? | |
| Gaps/challenges | What were the key challenges for HRH decade? | In which area is less progress seen? How can this be explained? What does worry you? What is needed to overcome these challenges? |
| Lessons learned | What are the most important lessons learned for you for the HRH decade? | What are examples of learnings, innovations and priorities that emerged from Covid-19 and subsequent economic challenges. |
| | What have lessons were learned during Covid? | |
| | National Health Workforce Accounts NHWA indicators, are they useful? | |
| SEARO's contributions | What is the WHO contribution to HRH-actions and achievements across SEAR Member States, including through implementation of the SEAR HRH Decade? | How have WHO actions and regular updates and discussions in the country and during governing and regional meetings played a catalytic role? |
| | | What were major achievements that WHO was not involved in? Which |

| | | |
|---|---|---|
| | | challenges that you faced could have been better supported by WHO? |
| | What are your views on SEARO's way of working? | What works well, what needs improvement? |
| | How would you describe your relationship with the SEARO regional office and the WHO country offices and government stakeholders? | What works well, what needs improvement? |
| | What are examples of where SEARO made a difference/contribution? (acknowledging that it is difficult to silo the attribution/contribution amongst the activities of many stakeholders. | How can this be explained? |
| Recommendations for future | What are the remaining challenges to strengthen HRH in the region? | What is needed to achieve the HRH SDG targets and strengthening the accessibility, acceptability and quality (AAAQ) of health workers across SEAR countries.<br>e.g. focus on availability instead of quality of health workers, focus on health professionals instead of end-user/access and quality of care. |
| | What activities need to take place to further strengthen HRH in the next decade. | What needs to happen at regional, country and global level. What would be the role of the different stakeholders (member states and WHO SEARO and CO) |
| | Can you share examples of other TA projects (even outside HRH) that you consider effective/innovative that the HRH field can benefit from. | |
| Snowballing | Can you suggest another contact for us to talk to? | Why should we talk to them? |

**Table III.2.** Member states qualitative interviews topic guide

| Question stream | Primary question | Follow-up questions / probes |
|---|---|---|
| Background, role respondent | What has been or is your role within your country related to HRH activities? | |
| | What HRH TA/monitoring/advocacy activities (initiated by WHO) have you been involved in in the past 10 years? | Collect a quick overview, categorize whether these are TA/monitoring/advocacy activities. Probe for different themes (governance & planning, rural retention, transformative education, HW data information system, migration (international/in country migration), adaptation service delivery models) Refer to specific activities found in the desk review. |
| Key successes | What do you consider key successes in terms of TA/monitoring/advocacy activities implemented by WHO in your country? | Who initiated the activity? Which stakeholders were involved? What has been achieved in terms of output (in terms of HRH indicators) What was the output, outcome and impact of the activity? Any monitoring/evaluation reports available? |
| | What were the enabling factors, why was it successful? | |
| Gaps/challenges | What were the key challenges for HRH decade? | In which area is less progress seen? How can this be explained? What does worry you? What is needed to overcome these challenges? |
| Lessons learned | What are the most important lessons learned for you for the HRH decade? | What are examples of learnings, innovations and priorities that emerged from Covid-19 and subsequent economic challenges. |
| | What have lessons were learned during COVID-19? | |
| | NHWA indicators, how do these help you in your work? | What can be improved? |
| WHO's contributions | What is the WHO (both regional and country office!) contribution to HRH-actions and achievement in your country? | How have WHO actions and regular updates and discussions in the country and during governing and regional meetings played a catalytic role? |
| | | What were major achievements that WHO was not involved in? |
| | How can WHO help you in the future? | |
| Recommendations for future | What are the remaining challenges to strengthen HRH in your country? | What is needed to achieve the HRH SDG targets and strengthening the accessibility, acceptability and quality (AAAQ) of health workers across SEAR countries. e.g. focus on availability instead of quality of health workers, focus on health professionals instead of end-user/access and quality of care. |
| | What activities need to take place to further strengthen HRH in the next decade? | What needs to happen at regional, country and global level. What would be the role of the different stakeholders (member states and WHO regional and country office) |
| Snowballing | Can you suggest another contact for us to talk to? | Why should we talk to them? Professional associations? Development partners? |