DRAFT

Regional Framework
to Shape a Health Workforce
for the Future of the Western Pacific

World Health Organization
Western Pacific Region

Annex

Contents

Annex

Glossary

Accreditation	A process by which a governmental, parastatal or private body evaluates the quality of a higher education institution as a whole, or a specific higher education programme or course, in order to formally recognize it as having met certain predetermined criteria or standards and award a quality label *(1)*.
Care coordination	A proactive approach that brings care professionals and providers together around the needs of service users to ensure that people receive integrated and person-focused care across various settings *(2)*.
Continuing professional development (CPD)	Training that not only involves clinical updates or educational activities but also includes wide-ranging competencies such as research and scientific writing; the multidisciplinary context of patient care; professionalism and ethical practice; communication, leadership, management and behavioural skills; team building; and use of information technology *(3)*.
Expanded scope of practice	Development or acquisition of skills or expertise beyond the currently recognized scope of practice *(3)*.
Essential public health functions	The spectrum of competences and actions that are required to reach the central objective of public health — improving the health of populations *(2)*.
Governance	The capacity of the government to effectively manage its resources and implement sound policies *(4)*.
Health worker, health workforce, human resources for health (HRH)	All persons engaged in actions whose primary intent is to enhance health *(3,5)*. Used interchangeably in this document.
Interprofessional education (IPE)	Occurs when two or more health professionals learn about, from and with each other to enable effective collaboration and improve health outcomes *(3)*.
Licensing	A process by which a governmental authority grants permission to an individual practitioner or health care organization to operate or to engage in an occupation or profession *(4)*.
Model of care	A conceptualization of how services should be delivered, including the processes of care, organization of providers and management of services. The model of care evolves to meet the health aims and priorities of the population and to improve the performance of the health system *(2)*.
Multidisciplinary team	Group of health-care workers from different disciplines, working together to provide a specific service *(3)*.
People-centred care	An approach to care that consciously adopts the perspectives of individuals, carers, families and communities as participants in, and beneficiaries of, trusted health systems that respond to their needs and preferences in humane and holistic ways *(3)*.

Annex

Primary-health-care approach	A model of care that meets people's health needs through comprehensive promotive, protective, curative, rehabilitative and palliative care throughout life, while addressing the broader determinants of health (behavioural, economic and social), ultimately empowering people to optimize their health though advocacy and active participation *(3)*.
Regulation	Any government control exercised through legislative, administrative, legal or policy tools *(3)*.
Stewardship	A responsibility for the effective planning and management of health resources to safeguard equity, population health and well-being *(2)*.

Executive summary

A well-performing health workforce is central to a strong health system. Such a workforce is vital for the provision of continuous, coordinated and people-centred care that can address the challenges facing the World Health Organization (WHO) Western Pacific Region, including noncommunicable diseases (NCDs), ageing and unreached populations. The COVID-19 pandemic exposed vulnerabilities in the Region's health systems, especially in the health workforce. An analytical approach, based on health system needs, was employed to develop this draft *Regional Framework to Shape a Health Workforce for the Future of the Western Pacific Region*, which sets out policy options for Member States.

Despite progress, the regional health workforce is not fully prepared to meet the expanding and evolving population health needs of the Western Pacific Region. There are critical gaps – in the numbers of workers, their skill mix and geographical distribution, their productivity and their safety. The neglect of primary health care (PHC) in health systems is a key bottleneck in building the right health workforce. Inadequate capacity for planning and stewardship, poor regulation of the private sector, a lack of policies on quality and unregulated international migration are critical contributors to gaps in the health workforce.

To address the Region's challenges, the workforce envisioned for the future should be people-centred, culturally sensitive, adaptive, skilled in digital health, able to work and learn in teams, motivated and well performing, safe and satisfied, and committed to professional development. To achieve these goals, the Regional Framework presents five key strategic areas for action to strengthen human resources for health (HRH).
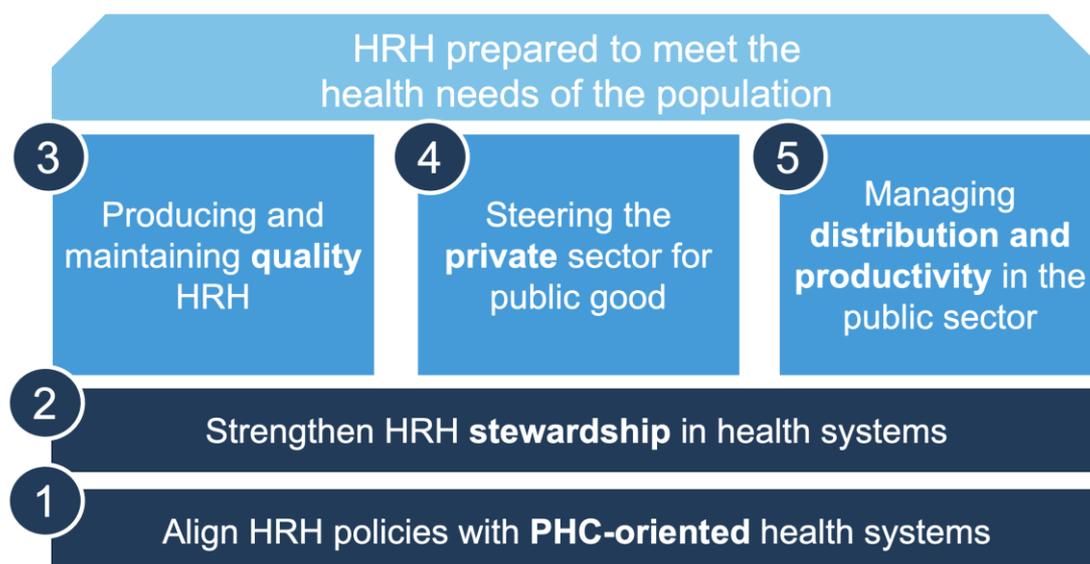
1.   **Aligning HRH policies with PHC-oriented health systems:** There is a need to adopt and invest in multidisciplinary PHC teams with referral linkages. The skill mix and scope of practice need to be optimized. Digital technology should be utilized to support this process and reorganize service delivery systems.

Annex

2.   Strengthening HRH stewardship in health systems: The institutional arrangements for HRH stewardship need to be improved along with the funding, and the health workforce must be protected and supported. Adequate recognition of the role of nurses, midwives, allied health professionals and other occupations must be promoted. There is also an urgent need for better monitoring of health workforce mobility, and the "push" factors in source countries – those influences that encourage workers to seek opportunities abroad – need to be addressed.

3.   Producing and maintaining quality in HRH: The production of HRH and in-service training should be aligned with the needs of PHC-oriented health systems. There is a need to increase HRH production, create new occupations and reskill the existing workforce. Licensing, registration and national examinations need to be strengthened to ensure quality. Continuous professional development should also include learning in teams through interprofessional education and collaborative practice.

4.   Steering the private sector for public good: The heterogeneity of the private sector should be recognized, and its appropriate roles in health systems need to be clarified. The regulation of education in the private sector will be required where its proliferation is leading to the overproduction of certain occupations and poor-quality training. Regulation will be more effective if countries are able to strengthen the public sector sufficiently to reduce its dependence on for-profit private providers. A mix of context-specific strategies for controlling so-called dual practice – working simultaneously in the public and private sectors – will be needed in countries with serious risks to PHC.

5.   Managing distribution and productivity in the public sector: The subnational distribution of HRH should be monitored, and bundled strategies covering education, regulation, incentives, and personal and professional support need to be implemented. The public sector capacity for completing recruitments needs to be strengthened and rules amended to remove barriers. An enabling environment should be provided for HRH to perform.

1.   Introduction

There can be no health system without a health workforce. A motivated and competent health workforce with the right number of workers, in the right places and with the right skill mix is central to providing integrated, people-centred care. Such a workforce is key to achieving the ambitious Triple Billion targets that are at the foundation of the WHO *Thirteenth General Programme of Work.* The targets call for 1 billion more people to benefit from universal health coverage, 1 billion more people to be better protected from health emergencies and 1 billion more people to enjoy better health and well-being.

The COVID-19 pandemic exposed vulnerabilities in the Region's health systems and widespread and long-term underinvestment in the health workforce. Investment in the health workforce can yield far-reaching health, social, economic and security benefits for the 37 countries and areas in the Western Pacific Region. Government health expenditure can be expected to yield a massive return on investment of nine to one and more than one half of itis directed to the health workforce *(6).* These expenditures are an investment, as they generate jobs, improve gender equity, reduce poverty, provide decent work, protect people and accelerate economic growth – directly contributing to the achievement of multiple Sustainable Development Goals (SDGs).

Despite progress in the Region, critical gaps remain in the overall number, distribution and quality of the health workforce, as well as protections that ensure a safe work environment. In addition, ageing populations, a growing burden of noncommunicable diseases (NCDs) and unforeseen health emergencies require a fit-for-purpose health workforce, with evolving skills and competencies.

Therefore, health workforce strategies need to be re-examined to determine what worked well and what best supports an orientation focused on primary health care (PHC). There is also a need to analyse the relationship between workforce strategies and the overall health system. Planning for the health workforce in a silo – disconnected from other parts of the health system – is unlikely to be a fruitful approach.

It is imperative to assess progress made, analyse the current landscape, project and plan for the future health workforce and develop a shared framework to address priorities effectively.

1.1   Goals of the Regional Framework

This draft *Regional Framework to Shape a Health Workforce for the Future of the Western Pacific* aims to present an ambitious yet achievable vision of the future regional health workforce. To achieve that goal, the Regional Framework will:

- identify changes needed to meet future population needs (Chapter 3);
- describe the current situation of the health workforce (Chapter 4);
- analyse the bottlenecks and enablers for change (Chapter 5); and
- set out policy options for Member States to adapt and implement within their own context (Chapter 6).

The Regional Framework is targeted primarily at policy- and decision-makers in Member States in the Region. However, it was developed to be useful to all stakeholders in tackling the long-term challenges of human resources for health (HRH).

1.2   Alignment with global and regional frameworks and strategies

This Regional Framework is closely aligned with the WHO *Thirteenth General Programme of Work* (GPW13) to achieve the Triple Billion targets through the "five-P" priority focus – Promoting, Providing, Protecting, Powering and Performing for health. It builds on existing global and regional commitments and frameworks to strengthen the health workforce.

The *Global strategy on human resources for health: Workforce 2030* has guided strategic directions globally, calling for more investment, higher efficiency, better governance and data *(7)*. The *Regional Strategy on Human Resources for Health 2006–2015,* along with the *Western Pacific Regional Action Agenda on Regulatory Strengthening, Convergence and Cooperation for Medicines and the Health Workforce,* has also enabled countries to collectively strengthen the health workforce to respond to changing population health needs *(8,9)*

This draft Regional Framework also underpins the other frameworks recently endorsed by the WHO Regional Committee for the Western Pacific, including those on NCD prevention and control, PHC, reaching the unreached, cervical cancer and mental health, among others *(10–15)*. It links with the draft frameworks on health security and Communication for Health (C4H), both of which will be presented to the Regional Committee for the Western Pacific for endorsement in October 2023.

1.3   Process of developing the Regional Framework

A team in the Health Policy and Service Design unit of the Division of Health Systems and Services of the WHO Regional Office for the Western Pacific drafted the Regional Framework. An HRH situational analysis was conducted through a review of literature and an analysis of secondary data. In addition, internal consultations were conducted with WHO country offices, other regional offices and headquarters.

A draft outline of the Regional Framework was prepared and discussed with global and regional experts with diverse backgrounds in a consultation in Manila on 17–18 January 2023. Critical review and feedback were incorporated from lessons drawn from the 12th Conference of the Asia Pacific Action Alliance on Human Resources for Health in Bangkok in January 2023, the WHO Europe Regional Meeting on Health and Care Workforce in Bucharest in March 2023 and the Fifth Global Forum on Human Resources for Health in Geneva in April 2023.

A Member State consultation was organized in Manila on 24–25 April 2023 to discuss the Regional Framework, and this revised draft was prepared for submission to the Regional Committee for the Western Pacific in October 2023.

2.   Analytical framework

There are several analytical approaches available to examine health workforce issues, as well as a tool for synthesizing key HRH frameworks. This draft Regional Framework follows a health-systems-led approach for analysing HRH through an adapted version of the visualization tool proposed by Sonderegger 2021 *(16)*(Fig. 1).

Fig. 1. Analytical framework to examine health workforce issues
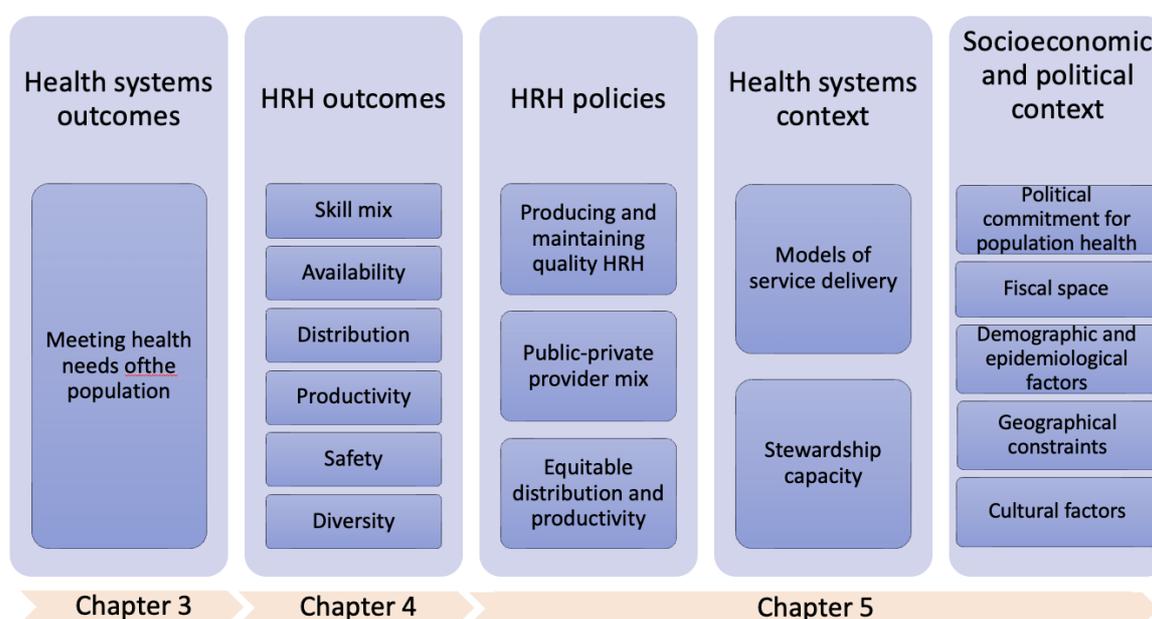
a)   **Health systems outcomes:** The main aim of a health system is to meaningfully meet the health-care needs of the population, as reflected in the global commitment to achieve universal health coverage (UHC). It implies that all people are able to access quality and safe health care, including during emergencies, without financial hardship. Further details can be found in Chapter 3.

b)   **HRH outcomes:** Meeting these health systems objectives requires that certain HRH outcomes are achieved: adequate numbers of health workers with the right skill mix should be equitably distributed across the population, and the workforce should be productive, competent, inclusive, safe and satisfied. Further details can be found in Chapter 4.

c)   **HRH policies:** The achievement of workforce outcomes depends upon the HRH policies pursued by governments. A key policy domain is of HRH production – the training and certification of health-care workers. This requires decisions on types of health professionals who should be trained together with their scope of practice, their quantity, and strategies to achieve the desired quality in training. It includes policies on standards, accreditation and licensing. The maintenance of HRH across health systems is critical and requires policies on recruitment, posting and transfer, as well as remuneration and other measures for retention, in-service training and maintaining HRH quality. This will be analysed in Chapter 5 along with other bottlenecks and examples of what has worked in tackling the challenges and the broader contexts as highlighted in the next two points.

Annex

d)   **Health systems context:** The key factors that influence HRH policies include the service delivery model, private-sector penetration in health-care provision and the capacity of governments to steward health systems.

e)   **Socioeconomic and political context:** The level of political commitment for population health, fiscal space, geographical constraints (for example, scattered islands with small populations), demographic and epidemiological factors (such as ageing) and cultural factors have an important bearing on health systems, including on HRH.

3. Current health systems outcomes and relevant trends in the future

The health workforce needs to transform to address the changing health needs of the population in a sustainable and equitable manner. The average life expectancy at birth in the Western Pacific Region in 2020 was 78.2 years; however, there was large variation across countries, ranging from Kiribati at 59.4 years to Japan at 84.3 years *(17)*. Comprehensive improvements in population health require access to relevant health services.

Fig. 2 presents the trend in SDG indicators 3.8.1 on the UHC service coverage index and 3.8.2 on financial protection. It shows that the UHC service coverage index has improved considerably in countries in the Region over the past two decades.

Fig. 2. Trends in UHC service coverage index and catastrophic health expenditure in the Region
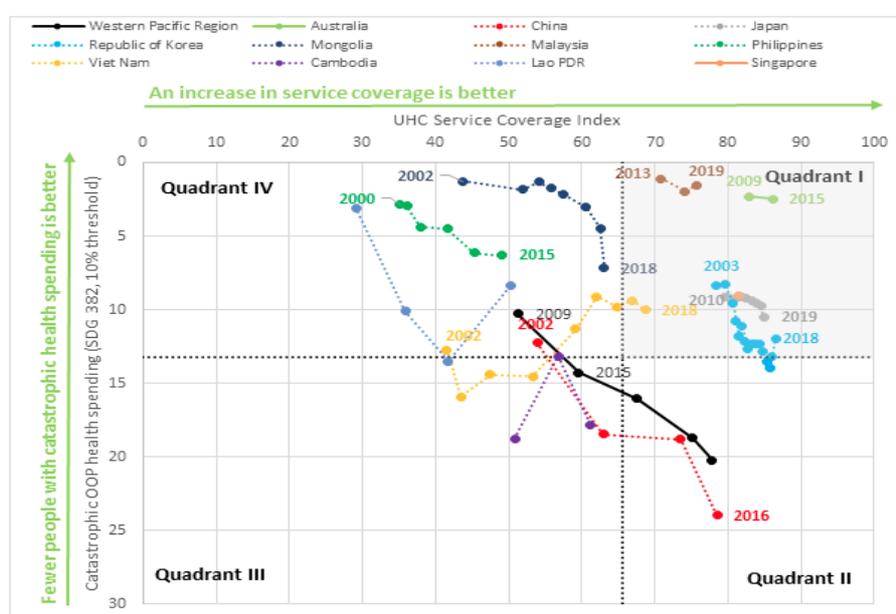
Sources: World Health Organization (2021) *(18)*; World Health Organization, Financial Protection database *(19)*

Fig. 2 also shows that the proportion of households facing catastrophic health expenditure has doubled in the Region since 2009. This trend is common across countries, excluding only a few better-performing countries such as Australia, Japan, Malaysia, Singapore and Viet Nam. It reflects the increasing reliance of health systems on out-of-pocket expenditures. While service coverage is improving, it is concerning that more people in the Region are facing catastrophic health expenditures. Urgent action is needed to divert the trend towards Quadrant I of Fig. 2 to achieve UHC.

The health needs of the population are rapidly changing. As detailed in *For the Future: Towards the Healthiest and Safest Region*, the Western Pacific Region is undergoing unprecedented economic, environmental, social and epidemiological transitions *(20)*.

Fig. 3 shows the speed at which the population is ageing. A population is considered to be "ageing" when over 7% of the people are 65 years or older, and "aged" when over 14% of people are 65 years or older. The transition from an ageing to aged society took some 60 years in Australia and New Zealand

and 24 years for Japan. Younger countries and areas such as French Polynesia and Viet Nam are expected to make the shift in less than 20 years.

Fig. 3. Speed of ageing of population in countries of the Western Pacific
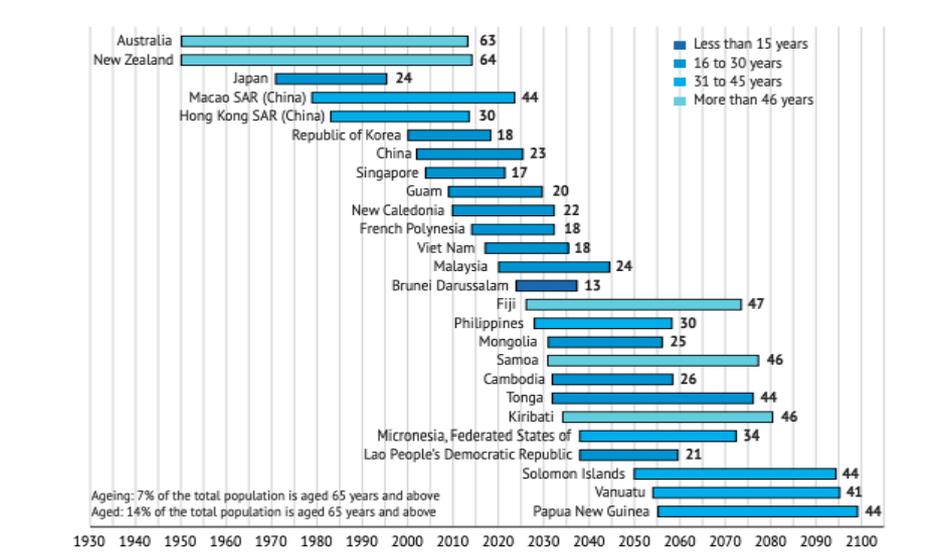
Source: United Nations Department of Economic and Social Affairs. Population Division (2019) *(21)*.

The proportion of deaths due to NCDs is projected to increase further in the future (see Fig. 4). NCDs are, in fact, the leading causes of death and disability in the Region. The four main NCDs – diabetes, cardiovascular disease, cancer and chronic respiratory diseases – account for nearly 87% of all deaths in the Region. Health emergencies and climate change add further risks to the population's health. The implication is an expanding need for a greater variety and larger volume of health services.

Fig. 4. NCD burden in countries of the Western Pacific
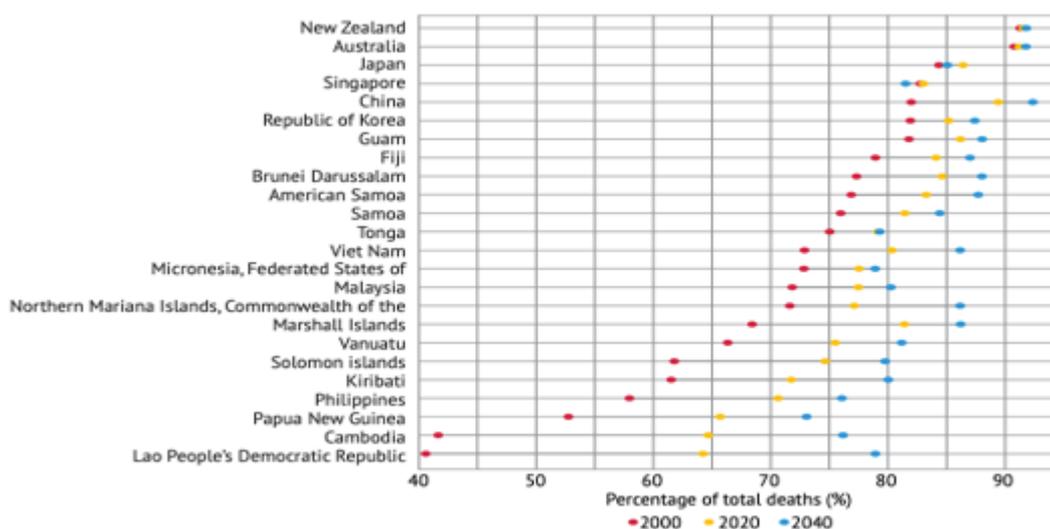
Source: Institute of Health Metrics and Evaluation, Global Burden of Disease Study *(22)*

What should health systems look like to address existing and emerging challenges?

Critical directions underlined in recently adopted frameworks share a vision of integrated PHC-oriented health systems that can meet changing population health needs and are resilient and prepared for emergencies and climate change (see Fig. 5).

Fig. 5. Paradigm shifts towards PHC-oriented health systems

Existing model	PHC-oriented health systems
Sick	Health and well-being
Quantity	Quality
Inputs	Value
Cure	Care
Fragmentation	Integration
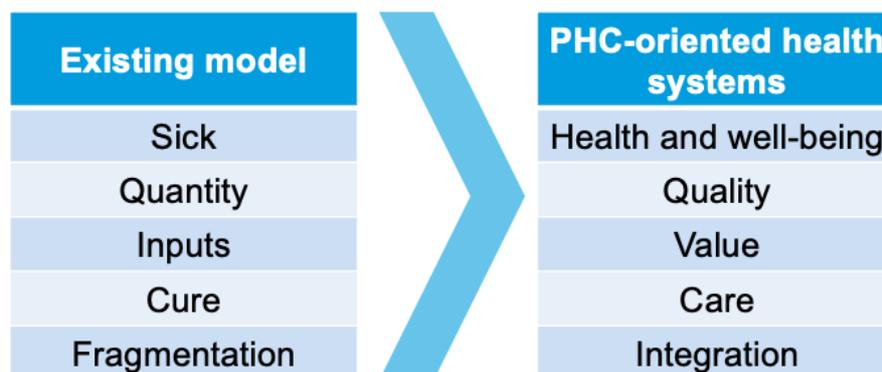
Without transforming the health workforce to be fit for the future, the Region will fail to achieve UHC for generations to come. Fragmented care will not be able to accommodate the complex health needs of the future, resulting in inefficiency, duplication, disruptions of care and increased financial burden to individuals and national health budgets. Without investing in and protecting the health workforce with quality training and decent working conditions, the Region will face increasing pressure due to worker migration and the depletion of the health workforce within and across countries. Now is the time to act for the future.

4.   Current status of the health workforce in the Western Pacific Region

This chapter provides a snapshot of six key HRH outcomes – skill mix, availability, distribution, productivity, safety and diversity. A comprehensive analysis reconfirms critical gaps in the health workforce in the Region, ranging from shortages, maldistribution and inefficient use of the existing workforce on the one hand, to the mismatch between occupations and roles needed to meet the health needs of the population on the other.

Fig. 6. HRH outcomes described in Chapter 4 of this Regional Framework (numbers indicate sub-chapters)
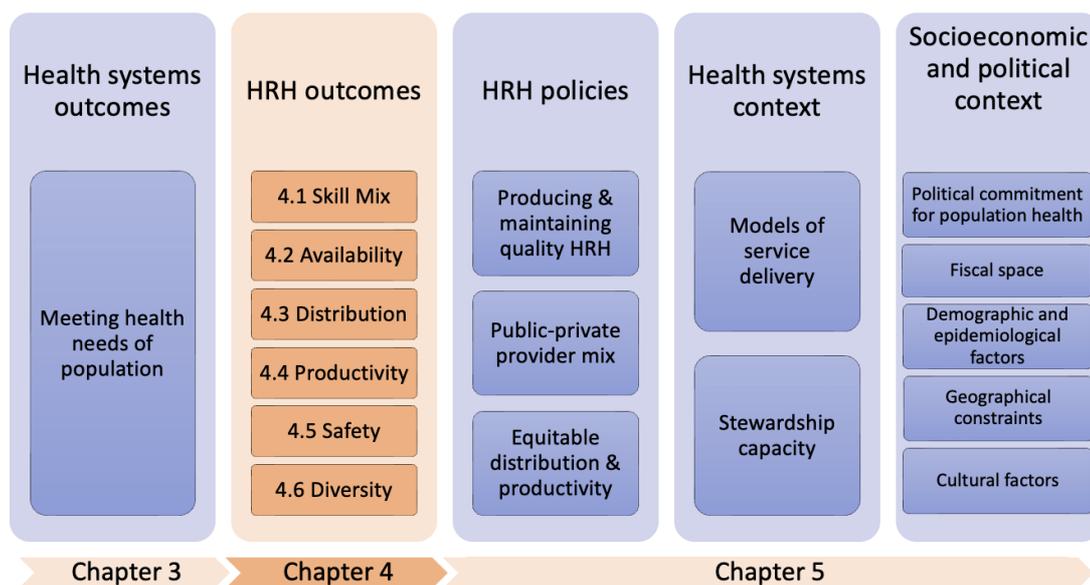
4.1   Is the Region's HRH ready to meet changing needs?

The answer is "no" – unless there are a significant and applied policy efforts. In PHC-oriented health systems, primary care is a crucial level of care because of its proximity to communities and patients. The health workforce in many countries does not have the skills and competencies to deliver a wide range of interlinked services. It often is not tuned to provide PHC via continuity of care and people-centredness, or oriented to carry out new roles, such as care coordination, case management, care transition management and patient navigation.

Traditionally, there has been greater emphasis on a profession-by-profession focus, considering medical doctors, nurses, midwives, dentists and pharmacists separately. Integrated and people-centred care networks require these professions but also need a more diverse set of occupations such as – but not limited to – physical and occupational therapists, medical assistants, community health workers, social workers, mental health workers, long-term care workers, dieticians, counsellors, home-care workers and care coordinators. The pandemic has served as a reminder that the public health and emergency workforce, including epidemiologists and public health managers, is also essential, yet insufficient in numbers and capacities.

There is a shortage of health workers to address the type and volume of emerging health-care needs related to ageing and NCDs, especially with respect to prevention, health promotion and the social determinants of health. Most countries do not have enough skilled health workers to meet periodic spikes in health needs, such as during emergencies, including environmental disasters *(23)*. The current health workforce is also poorly prepared to address the health impacts of the climate crisis *(23,24)*.

On the positive side, countries are striving to update the education and training of the workforce, expand their scope of practice, reorganize and optimize their skill mix, and create new roles and occupations. Details will be discussed in Chapter 5.

4.2   Is adequate HRH available?

Considerable HRH gaps persist in the Region, and progress is uneven, based on the best available data. In general, more health workers are associated with higher UHC service coverage index attainment, affirming the centrality of the health workforce in health service delivery (Fig. 7) *(25)*.

Fig. 7. More health workers are associated with higher UHC service coverage
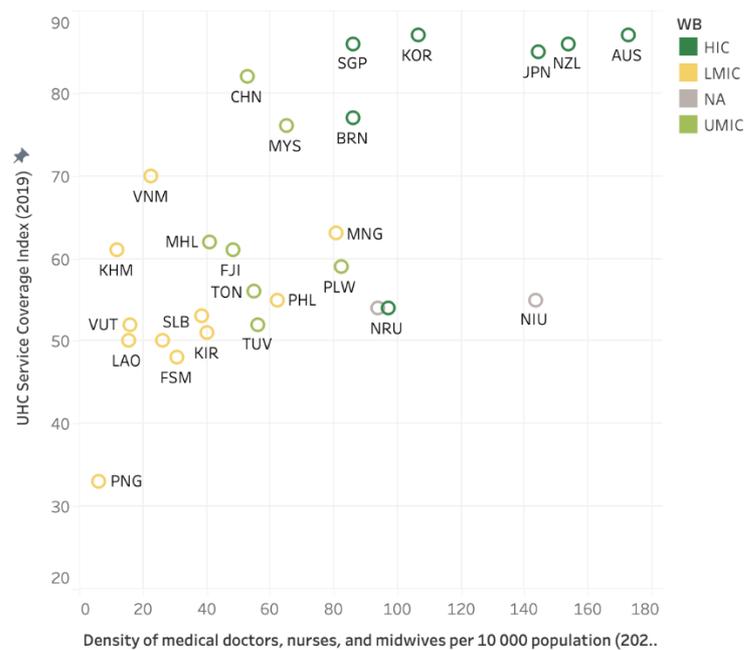
Source: Global Health Observatory *(18)*; WHO National Health Workforce Accounts data portal *(26)*.

The updated *WHO health workforce support and safeguards List 2023*[1] includes eight countries from the Region (Kiribati, the Lao People's Democratic Republic, the Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands, Tuvalu and Vanuatu) *(27)*. These countries face the most pressing health workforce challenges and require concerted investment and support.

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[1] The countries included in the *WHO health workforce support and safeguards list 2023* have a UHC service coverage index below 55 and health workforce density below the global median: 49 medical doctors, nursing and midwifery personnel per 10 000 people. These countries require priority support for health workforce development and health system strengthening, along with additional safeguards that limit active international recruitment.

Annex

The progress in improving the numbers of HRH in relation to the increase in population over the last two decades has been uneven across countries (Fig. 8 and Appendix 1).

Fig. 8. Health workforce density per 10 000 population between 2000 (or nearest) and 2020 (or latest available)

Source: WHO National Health Workforce Accounts Portal *(26)*

In terms of the density of nursing and midwifery personnel, China, Cook Islands, Fiji, Kiribati, Malaysia, the Republic of Korea, Samoa, Solomon Islands and Viet Nam have shown substantial improvements, while progress appears relatively slow in Cambodia, the Lao People's Democratic Republic, Papua New Guinea and Vanuatu.

The density of medical doctors in the Region has improved remarkably; for example, in China, Cook Islands, Fiji, Malaysia, the Republic of Korea, Tonga, Tuvalu and Viet Nam. Relatively low medical doctor densities are clearly a constraint in meeting population health needs in countries such as: Cambodia with 1.93 doctors per 10 000 people; Papua New Guinea with just 0.66 doctors per 10 000 people; and many Pacific island countries, such as Kiribati with 2.04, Solomon Islands with 1.65 and Vanuatu with 1.65.

Future shortages of the health workforce can be anticipated due to an ageing workforce in other WHO regions and in some countries in the Western Pacific. The workforce in the Region, nevertheless, is relatively young. Nurses below 35 years old account for 51% in the Region, compared to the global average of 38%. Better data and monitoring, improvements in work environments and evidence-based planning are needed for effective management of the labour market.

4.3   Is HRH equitably distributed?

The answer is "no" – based on an analysis of available data. The inequitable distribution of existing HRH is among the most crucial challenges in the Region – between rural and urban, public and private, and source and destination countries.

The chronic shortages of HRH are most severe in rural and remote areas, including islands, especially in lower-middle-income countries *(23,28–39,40–42)*. The maldistribution is also responsible for shortages in rural and remote areas even in some high-income countries where the overall availability of the health workforce appears to be sufficient *(43,44)*. Further, the sparsely populated and multiple-island geographies in some Pacific island countries, for instance, pose challenges in accessing services and involve greater travel-time requirements. For adequate service coverage, such difficult geographies require a greater density of HRH population compared to more densely populated areas *(23)*.

In the Western Pacific Region, the migration of health workers, especially nurses, to high-income countries has been a concern *(23,45)*. Although health workers trained in Pacific island countries form a small share of the total stock of foreign-trained health workers in high-income countries, their loss is important to their countries of origin because populations are smaller and the local capacity for training health workers is constrained. In such contexts, out-migration exacerbates shortages of HRH with adverse impact on health services.

Appendix 2 and Fig. 9 depict the stock of foreign-trained medical doctors and nurses in five destination high-income countries for which data are available by country of origin. For some countries, nurses who had emigrated constituted a significant proportion in relation to their existing domestic stock: 13% for Fiji, 34% for the Philippines, 7% for Samoa and 15% for Tonga. Cook Islands, Fiji, the Philippines and Samoa also have had significant emigration of medical doctors in relation to their domestic stock.

Fig. 9. Percentage of health workers practising abroad compared to the domestic stock
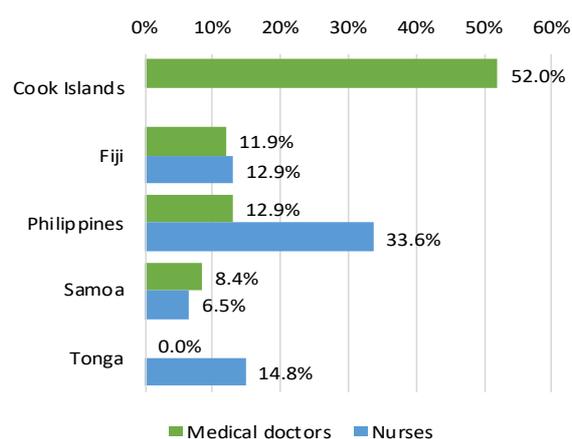
Source: OECD, OECD Stats *(46):* WHO National Health Workforce Accounts Portal *(26)*

4.4   Is HRH productive and performing?

There are considerable variations in the definitions and measurements of the productivity of HRH, which makes an assessment challenging. Studies from China and Malaysia have reported high

Annex

productivity of medical doctors in some contexts *(47,48)*. But absenteeism among public sector health workers has been found to be a widespread problem globally and in the Region *(49–54)*. Absenteeism needs to be monitored and curbed. However, a study from the Lao People's Democratic Republic has reported a low rate of absenteeism *(50)*.

Low output per health worker has been reported in some contexts. A low number of consultations per health worker may reflect problems of system inefficiencies, staff absenteeism or low productivity. As shown in Fig. 10, there is a wide variation across countries in the annual number of consultations per medical doctor. A caveat is that the number of consultations per doctor may not be comparable across different contexts as the consultations can vary in length, effectiveness and how medical teams are organized, and doctors also play other roles, such as in patient care, research and administration.

Fig. 10. Estimated number of consultations per medical doctor, latest year available
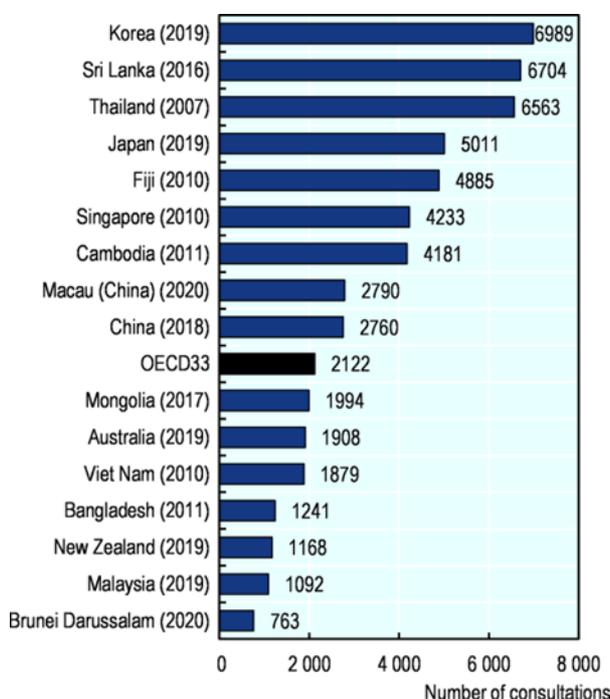
Source: OECD/WHO (2022) *(55)*()

The skills of the available workforce in health facilities may be poorly matched with the services that need to be provided. Such a skills mismatch may result in low quality or inefficiency in care. Staff shortages at facilities can also lead to a health worker being tasked with functions outside their job descriptions and competency *(30)*.

4.5 Is HRH safe and satisfied?

The answer is "no". Health workers face frequent risks, both physical and mental, and some are leaving their professions due to concerns about safety and working conditions. WHO estimates that at least 1000 health workers in the Region lost their lives during the early phase of the COVID-19 pandemic (from January 2020 to May 2021) *(56)*. In 2022 globally, 1360 attacks on health care were reported to WHO through the Surveillance System for Attacks on Health Care *(57)*.

A recent systematic review found that one in four health-care professionals reported depression and anxiety, and one in three suffered insomnia during the pandemic *(58)*. Situations of overburdened HRH, leading to problems of stressful work environments and burnout, have been reported *(59)*. Staff burnout has resulted in poor productivity and service quality *(60)*. The COVID-19 pandemic has shown that HRH gets overburdened during emergencies, which can compromise safety and motivation as well as the delivery of health services *(61)*.

Inadequate remuneration has also been identified as a source of low job satisfaction, especially in the lower-middle-income countries in the Region *(62)*. Though systematic data on the remuneration of various health workers are not available for most of the countries in the Region, many studies from different parts of the globe have pointed out that occupations such as nurses are often poorly paid compared to medical doctors and workers in other sectors. Low remuneration also impacts retention and migration, especially among nurses *(63–69)*.

4.6   Is HRH diverse and inclusive?

It is improving, but critical gaps persist in many dimensions. A diverse and inclusive health workforce is necessary to provide culturally sensitive health services to a diverse population. An inclusive health workforce is one that reflects in its composition the diversity of the various population subgroups it serves (for example, gender, geography, ethnicity and disability) *(70–72)*.

The share of women among all health workers in the Western Pacific is relatively high compared to other WHO regions, and this underscores that ensuring safe and decent working conditions for women is essential (Fig. 11).

Fig. 11. Shares of women and men among all workers employed in health and care work, 2020
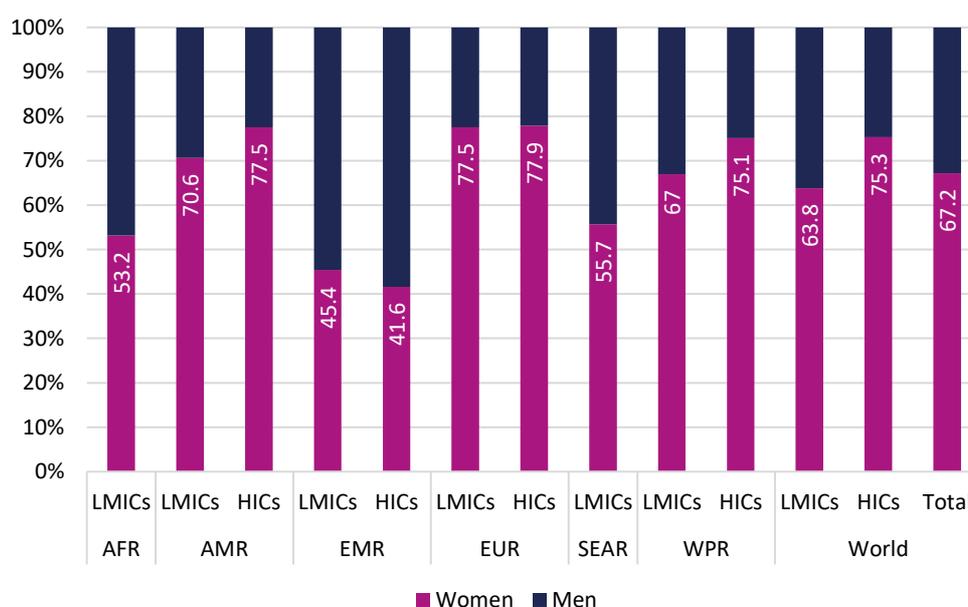
Source: World Health Organization (2022) *(73)*

Notes: ILO estimates based on data from ILOSTAT (2020). Estimates are based on data from 189 countries and territories and weighted by the total number of wage employees in each country. AFR – African Region; AMR – American Region; EMR – Eastern Mediterranean Region; EUR – European Region; SEAR – South-East Asia Region; WPR – Western Pacific Region.

Annex

A gender pay gap analysis, which included four countries from the Region, showed that pay gaps in the health-care sector are higher than in the non-health sectors *(73)*. In many countries, there tends to be an under-representation of women in higher-paid occupations or in leadership positions. For instance, though women constitute 75% of the overall health workforce in Japan, only 20% of medical doctors are women *(38)*.

There are shortfalls with respect to health workers originating from local communities in rural and remote areas. There is evidence from the Region that representation of under-served populations in the health workforce helps to achieve more equitable health services for vulnerable communities *(74–78)*.

5. What are the crucial bottlenecks underlying the HRH gaps in the Region?

Chapter 4 revealed gaps across six domains of HRH outcomes – skill mix, availability, distribution, productivity, safety and diversity. Those are a mix of both long-standing and emerging challenges. This chapter unpacks the bottlenecks that underlie those gaps and provides examples of successful approaches that have worked in different contexts (Fig. 12).

Fig. 12. HRH policies and health systems context described in Chapter 5 (numbers indicate sub-chapters)
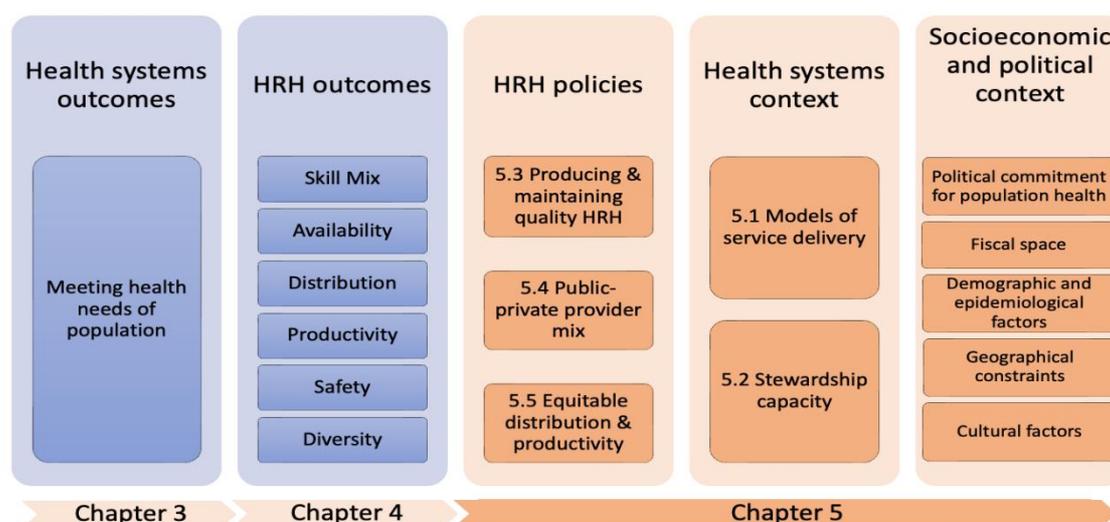
5.1 Hospital- or specialist-centric models of health care

Hospitals play a crucial function in health care, including in PHC-oriented health systems. Quality specialist care and established care pathways – from primary-care to a specialist-care facility and back to primary care and the community – enable efficient and effective health services. However, there is an overwhelming emphasis on specialized curative services in many countries in the Region where both the demand and supply of health services are focused solely on specialist care. Fig. 13 shows that curative functions account for a large share of health expenditure while preventative services are relatively neglected. This hinders progress towards more equitable provision of services and health promotion.

Though a majority of the population's health needs can be addressed in primary-care settings, people often bypass these and seek care at hospitals, which leads to overcrowding of hospitals *(15)*. Market forces continue to promote an increasing preference for specialist-led care *(79)*. Strengthening PHC can alleviate the workload at hospitals while enabling care close to the community. Fig. 14 shows the example of China, where the volume of outpatient visits for tertiary-care level (Tier III) grew at a much faster rate (12%) than growth in utilization of the community health centres representing the primary-care level (4%) between 2008 and 2017.

Annex

Fig. 13. Domestic general government health expenditure by type of service, 2019
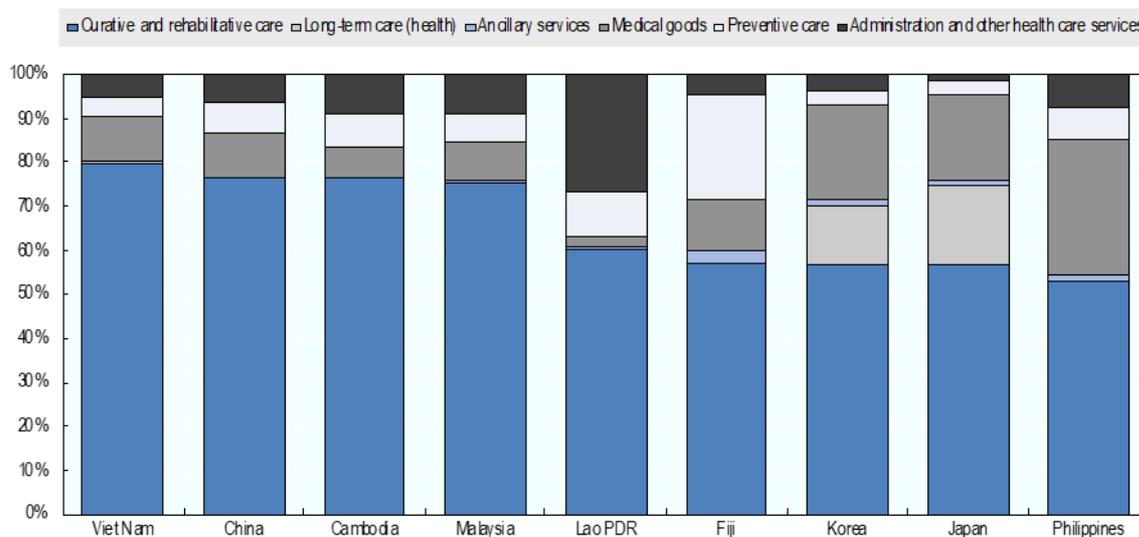
Source: OECD/WHO (2022) *(55)*

Fig. 14. Growth rate of services in different levels of health care in China 2008–2017
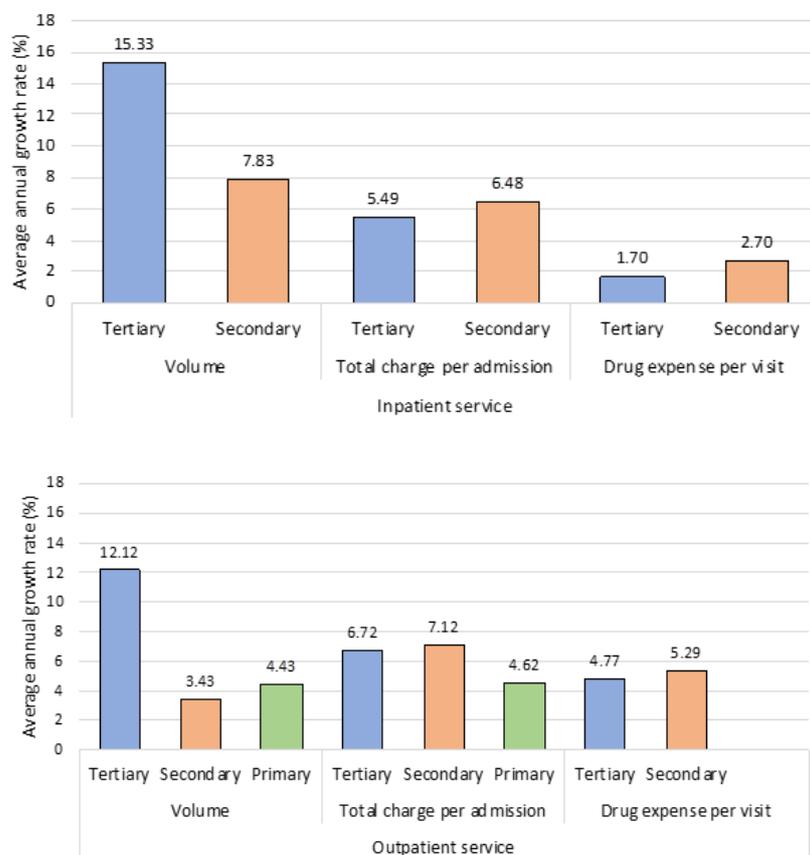
Source: Yip et al (2019) *(80)*

Health systems oriented towards specialist- or hospital-centric care tend to skew the allocation of limited resources – both infrastructure and health workforce – resulting in inequity and inefficiency. Such models of care tend to focus on production and deployment of occupations suited to specialist-based care and neglect the occupations needed for PHC.

In response, low-, middle- and high-income countries have introduced new occupations or expanded the scope of practice and roles of existing occupations to improve people's access to PHC. These occupations have been deployed in many countries across the globe in PHC teams and community-based care, including as practitioners suited for providing ambulatory care in rural and remote areas *(81–86)*. For decades, paramedical practitioners constituted a significant share of the rural workforce in countries such as China and Viet Nam *(28,29)*.

The Introduction of community health workers (CHWs) is another HRH innovation that has found significant application globally, especially for rural and vulnerable populations *(87,88)*. Well-supported CHWs have been found to be effective, including as members of PHC teams. However, the support for CHWs and their integration into health systems and existing community structures are uneven across and within countries. Examples of innovative HRH are abundant across the Region and include village health assistants in Papua New Guinea, health officers in Tonga and medical assistants in Vanuatu.

Another approach to improve access to PHC is expanding the scope of practice and advancing the roles of existing occupations. There is a range of advanced-practice nursing roles. A key example is of nurse practitioners. They have clinical skills to assess, diagnose and manage patients in PHC settings and acute care populations, as well as provide ongoing care for populations with chronic illnesses *(81,89)*. In some countries, they can also prescribe medications. Nurse practitioners are part of the health workforce in several countries and areas of the Western Pacific Region, including some Pacific island countries such as Cook Islands, Fiji, Samoa and Tonga; there are also nurse practitioners in high-income countries such as Australia, New Zealand and Singapore.

Apart from nurse practitioners, some countries in the Region have expanded the roles of nurses. In Solomon Islands, nurses work in advanced roles as public health officers. The Republic of Korea has deployed specialized nurses for home care *(63)*. China, the Philippines and Vanuatu have also deployed nurses in advanced roles in primary care. Some nurse practitioners have master's degrees and others have advanced diplomas.

Evidence shows that when nurses take up advanced roles, the quality of care is not compromised and patient satisfaction improves *(81)*. At the same time, it is important to recognize that the number of nurses in advanced roles in the Region is still small, and they are yet to be deployed on a system-wide scale. In the Western Pacific Region, 52% of countries have advanced nursing roles, but such nurses form a very small proportion of the nursing workforce *(90)*.

The biggest challenge has been in building consensus on the scope of practice of nurses in advanced roles. Rigid regulations of occupational licensing inhibit innovations in terms of new roles as they discourage use of a full scope of practice. The continued dominance of some professions in health systems decision-making has reduced the ability to devise such solutions and to promote leadership among other occupations *(91,92)*.

Annex

5.2 Inadequate capacity to plan strategically for HRH needs

Many countries have yet to define who is in charge of strategic thinking on HRH and health systems. More countries have established HRH units or teams, but their functions are variable. The HRH function at national or provincial level often gets limited to routine staff management tasks such as managing recruitment, postings and transfers, and rules for leave.

Gaps in capacity to collect and analyse HRH data and plan strategically at national or subnational levels remain a bottleneck. Capacities are needed for applied HRH research, the study of global best practices, the evaluation of domestic policies, health systems-led analysis or developing innovative solutions. There are examples available of think-tank-type institutions working to address these roles. Such institutions supplement the capacity of national ministries and subnational bodies in health systems analysis and planning (see Box 1).

Box 1. Establishing think-tank-type institutions that support applied HRH and health systems research

The Health Human Resources Development Centre (HHRDC) under the National Health Commission (NHC) of China plays a critical role in collecting and analysing HRH data and provides technical support and policy recommendations in various areas of HRH development and management *(93)*. Good examples from other WHO regions include the International Health Policy Program (IHPP) in Thailand and the National Health Systems Resource Centre (NHSRC) in India. They are closely associated with the national ministries but maintain an arms-length distance *(94,95)*. They carry out the knowledge-management functions, covering various parts of health systems, including HRH. Such bodies can add further value by constant advocacy for systems-led approaches and health policies *(95)*.

A siloed approach as opposed to systems-led thinking for HRH policy-making also has limited opportunities for identifying appropriate reforms.

Many of the reform areas extend beyond the mandate of ministries of health and involve other ministries, including finance for funding-related issues, education for policies on developing and regulating training, and civil services administrations or labour ministries for changes in recruitment or payment rules for government staff. Fragmentation in government and a lack of platforms to engage with other ministries has limited the effectiveness of reforms in a number of countries. Training policy-makers and senior managers on leadership and management can help in improving the stewardship capacity.

Political commitment to strengthen health systems has been found to be an enabler of a stronger health workforce. However, frequent political changes in some contexts disrupt the reforms and do not allow long-term strategies to strengthen HRH to be adopted or implemented. Dependence on donor funding can be a barrier for sustainable reforms as such funding can be short term, narrowly focused or uncertain.

Community engagement in co-producing HRH solutions can help health systems to move towards people-centred care. An informed and engaged community voice can also be a driver of change on complex issues such as medical dominance and specialist-centric models of care.

5.3   Insufficient policies for producing and maintaining quality of HRH

Policies on production of health professionals often focus on numbers, but it is increasingly recognized that they must pay greater attention to issues of quality and sustainable training.

Production capacity

Not all countries in the Region have the educational capacity to train all types of health professionals on their own *(62,96)*. For smaller countries, notably in the Pacific, collaborations with other countries can be a practical and efficient response option. Fiji, Papua New Guinea and Samoa have medical schools, which also train nationals from other Pacific island countries. In addition, some Pacific island countries train medical doctors in other countries outside the Region, including Cuba *(23)*. Where this happens, there is a risk, which must be mitigated, that the foreign-trained professionals may not be trained in a curriculum that focuses on population health needs or that fully addresses local cultures, values and systems.

Quality education and training

A key area to examine is the quality of HRH being trained and produced. The shortage of education infrastructure and qualified faculty pose constraints to production of quality HRH in several countries, especially many of the Pacific island countries *(23)*.

Some countries in the Region have a different problem in which many health workers, especially nurses, are being produced annually, but there are gaps in regulating quality. The training standards of some countries do not adequately respond to population health needs *(97)*. There are gaps in basic quality-assurance mechanisms of nursing education in some countries in the Region *(96)*.

Regulation and licensing

There has been significant progress in this area in the Region in recent years *(98,99)*. Most of the high-income countries have effective licensing regulations. The Philippines has a national examination for licensing nurses. More lower-middle-income countries are now expanding licensing and registration and implementing national exams prior to licensing – including Cambodia, the Lao People's Democratic Republic and Viet Nam, among others *(98–100)*. Regulation needs to cover many allied health professionals and new occupations. Collaboration between health ministries, regulatory bodies and professionals can be created as a means to strengthen regulation.

The Western Pacific Regional Network of Health Workforce Regulators, supported by WHO and the Australian Health Practitioner Regulation Agency, continues to provide an effective platform to share learning on national health workforce regulation approaches across more than 20 countries in the Region.

Interprofessional education (IPE)

The 2010 WHO *Framework for Action on Interprofessional Education and Collaborative Practice* emphasizes interprofessional education (IPE), which enables effective collaborative practice, and in turn optimizes health services, strengthens health systems and improves health outcomes *(101)*. Team building, team-based training and IPE programmes have shown considerable benefits in the ability of

PHC teams to respond better to needs of patients *(102–106)*. However, implementing IPE requires significant ''change management", as found in the experience of a programme in Viet Nam on training for teamwork, the doctor−patient relationship and other so-called soft skills *(107)*. The rigid professional boundaries and dominance of medical professions have been found to be the major barriers to IPE and collaborative practice *(108)* Successful implementation of collaborative practice requires the inclusion of IPE in accreditation and registration requirements *(101)*.

Continuing professional development

It is critical to maintain quality throughout the careers of health workers by in-service training and continuing professional development (CPD). This is more so in situations of drastically changing health needs and rapidly evolving knowledge and technologies. The CPD approach is based on a combination of self-driven learning by the individual practitioner. Its curriculum goes beyond the clinical skills and covers other competencies with the aim of improving the overall performance of the health professional in service delivery *(109)*.

While the need for CPD is recognized, it is also important to assess how well it has been implemented by various countries in the Region. Some countries in the Region, including Malaysia and the Philippines, have introduced mandatory CPD courses linked to the renewal of licensing. In the Philippines, however, many of the CPD courses were reported as poorly regulated *(110)*.

Lower-middle-income countries and Pacific island countries may not have enough training capacity to support CPD courses for all HRH. Further, those working in remote areas face poor access to courses. Training health workers as a team has been found to be useful but creating learning opportunities for PHC teams is yet to draw sufficient attention *(102)*. Some of these constraints have been reduced with greater availability of online courses and learning resources.

5.4   Unregulated private sector

The private sector plays a significant role both in producing health workers and delivering health services in the Region. Most health systems, however, have yet to define the desired role of the private sector. Without deciding the direction in which the private sector is to be steered, it will be difficult for countries to formulate the necessary policies. The policies, systems and capacity to regulate or manage the private sector are largely absent in lower-middle-income countries *(111)*. Regulatory bodies are usually underfunded and understaffed *(112)*.

Private sector in education

In the Philippines, private education institutions account for more than two thirds of the medical doctor and nurse training. Around two thirds of the production of medical doctors in Malaysia *(36)*, one half in Cambodia *(34)* and around one third in Japan *(38)* take place in the private sector. In contrast, private sector institutions have a negligible share in HRH production in the Lao People's Democratic Republic *(35)*, Mongolia *(39)*, Papua New Guinea *(30)*, Viet Nam *(28)* and Pacific island countries *(31−33)*.

In the area of HRH education, the unregulated growth of the private sector coupled with poor implementation of accreditation has resulted in overproduction of some occupations and poor quality

of education *(23,62,113)*. A similar problem has been reported where the for-profit sector is the main provider of CPD courses *(110)*.

Private sector in service delivery

The public sector is still the main employer of HRH in many countries such as the Lao People's Democratic Republic, Mongolia, Viet Nam and Pacific island countries, though the share of the for-profit private sector has increased in most countries in recent times *(29,35,39)*. In the Philippines, the share of the private sector has grown over the past two decades, and currently 56% of doctors and 55% of nurses working in the country are in the private sector *(37,73)*.

For-profit providers tend to be concentrated where households have the ability to pay, that is, in urban areas *(114)*. To serve the needs of poorer populations and remote areas, creating adequate public sector services is necessary. Where the for-profit private sector plays a dominant role in service delivery, reliance on out-of-pocket payments and unregulated prices, coupled with supplier-induced demand, have caused a situation of financial risk for patients and households *(115)*. In Japan and the Republic of Korea, the for-profit sector is not allowed to operate, but most of the facilities are private not-for-profit *(38,116,117)*. Around 80% of the medical doctors in Japan are employed by the private sector, but the country has implemented strong regulations as detailed in Box 2 *(38)*.

Box 2. Effective regulation of the private sector in Japan

Japan achieved UHC in 1961 *(38)*. The prices and quality standards for services are decided nationally, and they are the same for health-care providers in the public and private sectors *(38)* Entry of investor-owned hospitals is prohibited, and profit earned cannot be distributed as dividends. The proprietors are allowed to reinvest the profit into the facility as capital *(117)*.

Local governments and non-profit foundations play an active role in recruitment and placement of health-care professionals at public hospitals and in regions affected by staffing shortages *(38)*.

The *Global strategy on human resources for health: Workforce 2030* encourages countries to have regulatory mechanisms to promote patient safety and adequate oversight of the private sector *(8)*. For many high-income countries, strong regulation is challenging due to governance gaps. There, strengthening the public sector to reduce dependence on for-profit private providers may be necessary to improve the effectiveness of the regulatory measures. A strong public sector is also able to set the benchmark for quality of services, forcing the private sector to follow.

This implies that the public sector is not allowed to remain severely under-resourced and poorly equipped and the private sector does not have an overwhelmingly dominant share in service delivery. Expansion of public sector services can drive out low-quality providers *(118)*. Successful examples of regulation by competition in PHC services include Sri Lanka and Thailand *(118)*. China is also able to regulate the private sector, which accounts for around a 20% share in service delivery *(119,120)*. Contracting of private providers by government agencies as a means of regulating them has been attempted in many countries globally *(121)*. The evidence base, however, is inadequate to recommend it for the Western Pacific Region.

Annex

Uncontrolled dual practice

Unregulated dual practice is a concern in some countries, where health workers employed by the public sector spend a considerable part of their time working as private providers *(34,54,122,123)*. While dual practice might have helped in retaining highly skilled HRH in some contexts, unregulated practice outside the public facilities has increased out- of-pocket expenditures of households, eroded trust in public facilities and increased the preference of highly skilled HRH to work in urban areas *(34,54,122−124)*.

Box 3. Why some contexts have excessive and harmful dual practice *(122,123)*

- Dual practice is more common where effective demand is present.
- Preference for specialist-centric models of care promotes dual practice.
- There is poor HRH motivation due to inadequate resources and work environments in public facilities.
- The public sector pays poorly or less than what health workers expect or what the private sector pays, encouraging them to work outside.
- There are gaps in regulatory frameworks and capacities of governments to enforce rules, especially for the more powerful occupations.
- There are gaps in measures to allow communities and civil society to monitor providers and exert pressure.

Regulating dual practice is challenging. But prohibiting it outright may not work as a policy intervention *(122,123)*. Combinations of different context-specific strategies have been found to be useful to keep dual practice within tolerable levels. Turkey offers an example of a health ministry's successful stewardship in implementing a ban on dual practice, ensuring that a minimum defined level of services gets provided in the public sector, and finding ways to overcome the opposition from the Turkish Medical Association *(125)*.

5.5 Insufficient policies for equitable distribution and productivity in the public sector

The inequitable distribution between rural and urban, public and private, and origin and destination countries exacerbates the absolute shortage of health workers in Member States.

Some countries and local governments do not have enough public sector positions approved due to fiscal constraints, such as in the Lao People's Democratic Republic, the Philippines and some of the Pacific island countries *(62,126,127)*. At the same time, some countries face challenges to recruit even for the existing approved positions. Governance gaps, such as having complex rules and procedures for recruitment, slow down the absorption of HRH. A recent health labour market analysis revealed that Papua New Guinea has more than 14 000 approved positions vacant, mainly for this reason, and is now moving to reform and expedite the recruitment process. Also, many approved positions remain vacant when their approval does not include adequate budgetary support.

Rural retention

Many countries – including Australia, Cambodia, China, Japan, the Philippines and Viet Nam – have introduced policies to attract and retain HRH in rural areas *(40,43,128)*. The Philippines showed how appropriate changes in medical education could help in having a competent set of medical doctors willing to serve in rural areas *(128)*. Though the international evidence on the effectiveness of bonds

for rural postings is mixed, its introduction in China was found to be useful in attracting medical doctors when accompanied by cash incentives and the promise of a decent career and accommodations in rural areas. Cambodia introduced free education for nursing and midwifery courses. Another strategy used for rural retention was to expand the scope of practice of existing occupations specifically for rural areas *(40,84,85)*. For rural and remote areas, the health workforce needs to be developed in flexible ways so that they are more likely to remain and their roles more likely to suit the delivery of services needed in such areas. For example, Papua New Guinea's CHW training has been enriched to ensure their roles can be expanded to offer comprehensive services, with the majority employed and retained in rural, remote and underserved areas.

Box 4. What are the likely reasons underlying the maldistribution of HRH? *(3,40)*

- Poorly equipped health facilities in rural and remote areas.
- Rural postings seen as a detriment to career and professional development, even loss of skills.
- Poor professional support for those working in rural areas.
- Poor recognition of work in rural areas.
- Poor prospects of additional earning through dual practice.
- Poor living conditions in rural and remote areas for HRH and their families.
- Maldistribution of training schools.
- Lack of priority to candidates from rural and remote areas in admission to training.
- Lack of deployment policies to prioritize recruitment for rural and remote areas.

Some countries such as China, the Philippines and Viet Nam have tried rural pathways policies with scholarships in medical education for students from rural backgrounds *(40,126)*. Lack of priority to admit women and students from vulnerable groups has contributed to an inadequately diverse workforce *(74)* It is necessary to assess if countries have adequately pursued the bundles of interventions across education, regulation, incentives, and professional and personal support as set out in the recently revised WHO guidelines and recommendations *(3)*.

Providing financial incentives to health workers has been found to be a useful component in the bundle of policies aimed at improving attraction and retention of HRH in remote areas, but many countries have not implemented such policies, partly due to the fiscal constraints and the uncertain sustainability of the interventions *(3)*.

Market forces create the pull for HRH and training schools to prefer urban areas due to the likelihood of better earnings and infrastructure. Unless governments intervene, for example, by offering incentives and better infrastructure to work and live in rural and remote areas, the maldistribution of HRH will continue. Apart from the internal migration of health workers from rural to urban areas, health workers shifting to other occupations is also contributing to the shortage. Unfair remuneration and difficult working conditions are the key causes. Due to burnout and unsafe working conditions, many nurses have quit their jobs *(67,129,130)*.

Digital health offers the potential to substantially restructure how health services are delivered and redefine the roles of health-care workers. This can mitigate the impact of maldistribution and rural retention. There are promising examples in the Region of delivering PHC through telehealth *(131)*. In the future, the scope of expanding such outreach to remote and rural populations is likely to grow.

Annex

Migration to foreign countries

Both push and pull factors are responsible for health worker migration. The difference in remuneration across countries has been highlighted as a key motivation *(132–135)*. Furthermore, there is a concerning global trend that health workers are leaving their professions due to poor working conditions and safety concerns. Coupled with the impacts of the COVID-19 pandemic and insufficient retention measures, many high-income countries are looking to fill gaps in their workforces by hiring foreign-trained health-care workers, especially nurses, from overseas, and this poses substantial risks to the health systems in the source countries *(129,134)*.   For example, the migration of health workers from Pacific island countries, with a limited capacity for local production, appears to contribute to domestic shortages *(25,45; also see Appendix 2)*.

It is vital that countries closely monitor the current situation on health workforce mobility to inform appropriate policy decisions and negotiations. *The WHO Global Code of Practice on the International Recruitment of Health Personnel* provides a structured mechanism *(136)*. In its fourth round of reporting in 2021, 12 Member States from the Region – Australia, Brunei Darussalam, China, Cook Islands, Japan, the Lao People's Democratic Republic, Malaysia, New Zealand, the Philippines, Samoa, Singapore and Tonga – analysed the situation and reported results *(137)*. While better reporting is a positive process outcome, timely and accurate data on the flow of health workers are limited. There is also a need to assess the actions set out for ethical migration recommended in the Code of Practice.

The Code of Practice also established principles for preventing and mitigating the harmful effects of migration and aiming for mutual benefits both for origin and destination countries through bilateral agreements and fair and ethical recruitment processes. Some of the international literature has viewed migration of health workers to high-income countries as a brain drain. But not all forms of health worker migration have been assessed as harmful, and migrant health workers have the potential to bring knowledge back to their country of origin after working in high-income countries *(25,45,132,138–140)*. The right of workers to international mobility also needs to be balanced with the health workforce required by source countries. There are crucial gaps, however, in the Region with respect to the above measures. On the one hand, the countries losing health workers may not be able to offer better remuneration and living conditions to retain them, and on the other, the receiving countries have not stepped up by enacting full measures to implement ethical recruitment and increase investment in further HRH and health systems strengthening of the source countries.

HRH productivity in the public sector

Given the limited resources and expanding health needs, the productivity of the health workforce in the health system always needs to be examined and improved. For example, although the use of staffing norms is a practical approach for HRH planning and management and for equitable availability of a minimum essential workforce in remote areas, it can cause a situation of excessive staff in some locations in relation to the actual workload.

Box 5. What impacts HRH productivity adversely? *(8,141-143)*

- Poor skills or skills do not match roles.
- Shortage of supportive inputs like medical products and infrastructure.
- Poor professional support, social and peer recognition.
- Inadequate career development pathways.
- Difficult working and living conditions, poor remuneration.
- Poor systems for supportive supervision and organizational management.
- Weak accountability mechanisms and poor community engagement.
- Failure to control absenteeism.

At the individual level, inadequate remuneration reduces motivation and performance *(62,144)*. Increasing salaries for health workers in the public sector, however, is often constrained by civil service regulations set outside the health sector. Health workers in many countries did not receive payments for additional work done during the COVID-19 pandemic *(61)*. There is concern about the implications of the increasing numbers of health workers employed on temporary or contractual bases *(35,62)*. Some of the above challenges are related to fiscal constraints in countries and donor policies of funding vertical programmes.

Burnout, abuse, and unsafe working and living conditions undermine motivation and lead to gaps in performance.

6. New Regional Framework for the health workforce

6.1 The future health workforce and its attributes

The attributes of the future health workforce will be shaped by a variety of factors. Health needs – as well as the models of delivering services – are changing rapidly. There are epidemiological and demographic changes, including those related to ageing and movement of populations. There is greater recognition of health systems resilience and preparedness to meet the health challenges in emergencies, including those due to environmental disasters and climate change. Social values are evolving with greater emphasis on equity, inclusiveness and cultural diversity. These needs will also demand a shift towards PHC-oriented health systems.

Patients with greater access to online sources of health information will demand services differently. Technological advances such as digital health will change the way services are delivered. Greater use of artificial intelligence will also alter consumer demand, methods of diagnosis and service delivery models. While the opportunities and challenges for health systems due to digital health, including generative artificial intelligence, are not fully known yet, it is clear that the future workforce will need to be better prepared.

The above changes will necessitate continuing transformation of the health workforce. The paradigm shift will affect the focus of service delivery and the education and scope of competencies of the health workforce from treating a disease or a disorder to supporting and caring for people living with chronic conditions.

To address the challenges faced by the Western Pacific Region, the attributes envisioned for the workforce of the future are that it should be:

- people-centred, coordinated, building relationships of trust with communities, inclusive and culturally sensitive;
- adaptive and ready to meet changing needs of the population, resilient and prepared for challenges posed by climate change and emergencies, and competent in essential public health functions;
- skilled in digital health;
- team based across working and learning; and
- motivated and performing, safe and satisfied, committed to developing professionally.

### 6.2 Strategic actions to build the future health workforce

Strengthening the health workforce can present far-reaching health, social, economic and security benefits for countries. Investing in the health workforce generates jobs, improves gender equity, reduces poverty, provides decent work, protects people, and accelerates economic growth – directly contributing to the sustainable development of Member States *(6)*.

To address the five bottlenecks unpacked in Chapter 5, this Regional Framework presents the following five key strategic areas for action (Fig. 15):

1. Aligning HRH policies with PHC-oriented health systems
2. Strengthening HRH stewardship in health systems
3. Producing and maintaining quality in HRH
4. Steering the private sector for public good
5. Managing distribution and productivity of HRH in the public sector.

Fig. 15. Five strategic actions to build the future health workforce
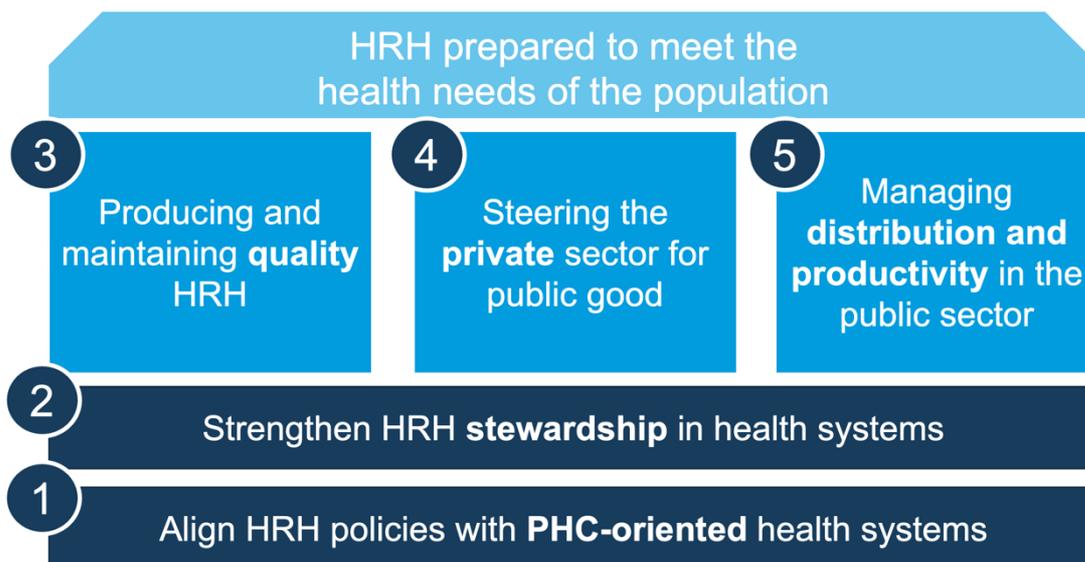
As shown in Fig. 15, this Regional Framework sets its goal as having a health workforce that meets the health needs of the population. Among the actions the Regional Framework advocates for achieving this goal, it accords primary importance to moving towards PHC-oriented health systems and adopting suitable HRH policies. In doing so, it identifies capable stewardship as the second strategic area. Transforming the HRH will require appropriate policies, which will demand political commitment.

On top of those two fundamentals, the Regional Framework delineates three main action areas for policy-makers and leaders. The third strategic area consists of policies to produce quality HRH and help workers maintain quality skills throughout their careers. The fourth strategic area focuses on the private sector, which plays a significant role in the production of health workers and service delivery. Effective policy and regulatory actions are necessary to steer it towards public good and financial protection. The fifth strategic area for action focuses on enabling the public sector to overcome two key HRH challenges – distributing the existing workforce equitably and ensuring its efficient use.

6.2.1 Aligning HRH policies with PHC-oriented health systems

The changing health needs of the population demand greater continuity of care, as well as a close and continuous relationship between health workers, patients, families and communities. The following actions will enable Member States to reorient the vision of future health systems and the health workforce.

Annex

- **Clarify health systems objectives before deciding on the reforms required in health workforce.** The HRH requirements are determined by the health systems design and the service delivery model adopted.
- **Set up an appropriate model for service delivery.** For a PHC-led approach, it is through a network of multidisciplinary PHC teams with necessary referral linkages.
- **Consider skill mix, task shifting and sharing in teams.** PHC demands working in teams to ensure integrated service delivery according to population needs and its fragmentation into vertical programmes should be avoided. In addition to the clinical roles, teams need to have skills for public health functions, managerial and support roles.
- **Optimize the scope of practice of the existing workforce.** Each occupation in the PHC workforce utilizes its full scope of practice. There may be a need to expand the scope of practice of some occupations and introduce new occupations to improve access to PHC, including CHWs and nurse practitioners. Education and regulation need to act as enablers for innovation in health workforce.
- **Use digital health to mitigate workforce shortages in rural and remote areas.** Digital health solutions need to be implemented to increase the availability of essential skills in remote areas through virtual means.
- **Mainstream policy actions to address gender inequality.** Creating working conditions conducive to the participation of women and ensuring the equal representation of women in leadership roles can have a profound impact on societies.
- **Invest in the PHC workforce,** including nurses, midwives, CHWs, allied health professionals, nutritionists and social workers among others. A strong PHC workforce needs a variety of occupations and all of them need to be strengthened. The following box illustrates with the example of nurses how to strengthen PHC workforce.

Box 6. Nurses as a key enabler towards achieving UHC

Nurses account for 68% of the five main health professionals (dentists, medical doctors, midwives, nurses and pharmacists) in the Western Pacific Region, and they play critical roles in all health-care settings, notably in PHC *(90)*.

The WHO *Global strategic directions for nursing and midwifery 2021–2025*, endorsed by the World Health Assembly in 2021, provides a set of policy priorities based on rich data and evidence that can help countries to ensure that midwives and nurses optimally contribute to achieving UHC and other population health goals *(145)*.

Furthermore, due to the considerable challenges during and beyond the COVID-19 pandemic, nursing retention, mobility and migration and its attractiveness as a profession have become an urgent concern globally and in the Region *(129,130)*.

To optimally promote and encourage nurses' contributions to achieving UHC and to strengthen and retain the nursing workforce, priority strategic actions aligning with this Regional Framework, specifically in nursing, are essential. The priority actions required are:

- Develop national nursing strategies, invest in nursing professionals and involve them in decision-making on nursing and health policies to ensure nurses optimally contribute to achieving UHC (Strategic Action Areas 1 and 2).
- Expand the scope of practice of nurses, including the introduction of nurse practitioners, to improve people's access to PHC (Strategic Action Area 1).
- Update and upgrade curricula for nurses to meet population health needs (Strategic Action Area 3).
- Enhance quality-assurance mechanisms in education, including a licensing system and its renewal with CPD and accreditation mechanisms and with standards for education and institutions to protect the public (Strategic Action Area 3).
- Provide a decent work environment and fair pay to ensure and retain nurses in the country, especially in the public sector (Strategic Action Areas 2 and 5).

To assist Member States to strengthen the nursing workforce, the priority actions of WHO include direct support and regional activities, such as creating a platform to share experiences and discuss nursing policy in the Region.

6.2.2 Strengthening HRH stewardship in health systems

Transforming the health workforce requires appropriate policies and strong political will. The following actions will enable ministries of health to lead and steer the health-related agenda among other ministries and negotiate strategically with diverse stakeholders with competing interests.

- **Promote health systems understanding.** Health leadership must be oriented to apply a health-systems lens while examining and acting on health workforce issues.
- **Improve institutional arrangements for HRH stewardship.** Clear responsibility needs to be defined, and skills and capacities increased for HRH stewardship and national and subnational planning. Platforms need to be created for regular intersectoral dialogue and community engagement to co-produce people-centred HRH solutions.
- **Challenge professional dominance.** Adequate recognition of the crucial role of nurses, midwives, allied health professionals and other occupations as part of integrated care teams must be promoted in health systems.
- **Increase government funding for health systems to support strategic HRH areas.** Potential areas for prioritizing investment include PHC workforce, rural retention strategies, CPD and training for taking on new roles and working in teams.

- **Protect and support health workers**. Health workers need to be protected from abuse, violence, discrimination, sexual harassment and burnout. Improving living and working conditions should be a priority along with fair remuneration. Career pathways and progression need to be ensured for all HRH occupations to sustain motivation for work and learning.
- **Improve HRH data to help policy-making.** In addition to numerical data, the qualitative aspects of HRH policy and implementation need to be captured. The logic of the health labour market needs to be applied for HRH planning.
- **Address health worker migration together.** There is an urgent need for better monitoring and understanding of the dynamics of health workforce mobility and its impact on health systems. *The WHO Global Code of Practice on the International Recruitment of Health Personnel* encourages ethical migration through bilateral and multilateral agreements for the mutual benefit of both source and destination countries. Both source and destination countries should implement comprehensive policies to attract, develop, and retain qualified health personnel to enable equitable health services across the Region.

6.2.3 Producing and maintaining quality in HRH

A quality health workforce is a prerequisite for achieving UHC and equitable and affordable access to quality health services. The following actions will enable Member States to improve the quality of the existing and future health workforce and ensure it is fit for purpose.

- **Align HRH production and in-service training to the needs of PHC-oriented health systems.** Training curricula should be updated towards competency-based education using interprofessional education. There is a need to improve production and deployment in line with health needs, to create new occupations where needed and, most importantly, to upskill the existing workforce.
- **Reskill to meet the needs of the future.** The existing workforce will require continuous reskilling to meet changing population health needs, including climate change and health emergencies, and to adopt new technologies, such as artificial intelligence and telemedicine.
- **Balance the quantity and quality objectives in HRH production.** Licensing, registration and national examinations are key to ensure the quality of health workers. Accreditation of health education institutions must be promoted in an important complementary and synergistic role to advance quality of education.
- **Institutionalize life-long learning.** CPD should be institutionalized through appropriate policy levers such as the periodic renewal of licensing. CPD courses should be designed to meet the learning needs and their requirements need to be regulated. Apart from training individuals, CPD should also aim at learning in teams.
- **Build international collaborations in education.** Collaborations should be promoted with an aim to improve HRH availability in countries without local production capacity.

6.2.4 Steering the private sector for public good

A large share of health care and health worker production occurs in the private sector. The following actions will enable Member States to regulate, engage and steer the private sector effectively for the public good.

- **Clarify the role of the private sector.** There is a need to recognize the heterogeneity of the private sector and to clarify roles in which they can make a positive contribution to health systems.
- **Regulate education in the private sector.** Regulation of education in the private sector will be required where its proliferation is leading to poor quality and the overproduction of certain occupations.
- **Strengthen the public sector to allow better regulation of the private sector.** Regulatory measures will be more effective if countries are able to strengthen the public sector sufficiently to reduce their dependence on for-profit private providers. A functional public-sector-led system for PHC service delivery will be needed to reduce the share of unqualified providers in health care.
- **Consider purchasing in HRH training.** Where there are critical shortages in the government's capacity for training HRH and the feasibility of improving it is poor, purchasing training from the private sector can be an option. Purchasing can also be a tool to steer private education institutions to produce HRH required for PHC-oriented health systems.
- **Manage dual practice.** A mix of context-specific strategies for controlling the dual practice – health-care workers employed simultaneously in both the public and private sectors – will be needed in countries with serious risks to PHC.

6.2.5 Managing distribution and productivity in the public sector

Making the best use of the limited resources is a must under fiscal constraints and expanding health service needs. The following actions will improve the efficiency of the HRH in the public sector:

- **Monitor the subnational distribution of HRH and implement comprehensive strategies for equitable distribution and rural retention.** The updated WHO guidance recommends bundled strategies covering education, regulation, incentives, and personal and professional support.
- **Prioritize rural areas in setting up training schools and policies favouring the admission of candidates from rural backgrounds.** Recruitment practices need to be established to prohibit discrimination, including offering job counselling and placement programmes for under-represented populations.
- **Strengthen public sector capacity for completing recruitment.** The distribution of existing vacancies needs to be assessed to prioritize filling the most urgently needed ones. It requires strengthening the public sector's capacity for recruitment and, where necessary, the civil service rules amended to remove barriers.
- **Provide an enabling environment for HRH to perform.** HRH can perform well by ensuring the availability of essential supplies and infrastructure and improved leadership in health facilities and district health systems.

7. Moving forward towards a stronger health workforce in the Region

7.1 Health systems considerations for Member States

The health workforce reforms involve health systems reforms and reforms beyond health. This requires intersectoral dialogue, collective decision-making, and oversight across authorities beyond the health ministry, such as – but not limited to – education, finance, labour and civil service administrations.

A siloed approach to the health workforce, singling out HRH issues as separate from health systems and the broader governance context, lies behind many persistent bottlenecks. For instance, the apparent shortage of health workers and very high vacancy ratio in Papua New Guinea has been primarily driven by the complex recruitment process, which is not under the direct control of health authorities. This cannot be mitigated by a siloed approach of merely increasing the posts; it can only be addressed if health authorities can effectively negotiate with other entities to optimize the distribution and composition of posts and the budget, as well as recruitment processes, in the broader health system.

Member States should consider strengthening the institutional arrangements for devising and implementing national strategies for reforms in health systems and the health workforce. Engagement with all relevant stakeholders, including health workers, education institutions, providers, communities and health systems experts, is needed.

Financing is another crucial cross-cutting element to move forward on a stronger health workforce. HRH constitutes around half of health expenditures globally *(146)*. This shows how central HRH is to health systems policy-making. Greater government spending on PHC-oriented health systems and the health workforce is essential. It will help shape well-distributed employment opportunities across geographies and populations.

A free-market-led health system will likely produce a hospital-centric, highly inequitable system, in which increasingly specialized and remunerated health professionals will be inaccessible to most of the population, financially and geographically. A public-interest-led health system, on the other hand, will result in a PHC-oriented system organized around a people-centred principle, in which consideration of the individual and their set of health conditions, risk profile and preferences are respected, and equitable access with financial protection is assured.

Investing strategically in the health workforce and systems is key to shaping the profile of the future health workforce and systems. This will improve population health and economies, accelerate social progress, and contribute to gender equity and human rights.

7.2 WHO's roles in working with Member States

WHO is committed to supporting Member States in strengthening and transforming the health workforce for the future health needs of the Region. The health workforce is at the centre of health systems and services for achieving the shared vision of WHO work with Member States and partners in the Western Pacific Region.

Priority actions for WHO in working with Member States include the following:

1. generate a strong evidence base, in collaboration with academia and other partners, to inform HRH policies and deliver impact;
2. convene regional learning platforms to accelerate exchange of information, lessons and collaboration across areas, including HRH regulation, development, stewardship and governance;
3. increase capacity of WHO to provide technical support to Member States on HRH, particularly PHC workforce;
4. provide tailored technical support to Member States to act on the five strategic areas of the Regional Framework;
5. work as one WHO across all three levels of the Organization to provide harmonized, timely and feasible technical assistance to Member States;
6. build country capacity, when required, for sustainable HRH leadership through effective training opportunities;
7. engage with partners and alliances to strengthen the support to Member States;
8. build a reserve of technical assistance through networks of experts, technical partners and collaborating centres; and
9. facilitate high-level policy advocacy to sustain and scale the investment in HRH development with actors beyond health.

7.3 Improving the data availability, including on the private sector

The availability of up-to-date HRH data, including on the private sector, is critical for countries to identify the gaps, assess them in a systems approach and to inform policy decisions. National Health Workforce Accounts (NHWA) enable Member States to measure, monitor and report policy-relevant HRH indicators in a standard, comparable manner.

As of 2023, as many as 21 countries in the Region have designated NHWA focal points, though implementation is at different stages and often misses coverage of the private sector. This situation challenges the validity and effectiveness of current HRH policies. For a more comprehensive understanding of HRH systems, improving data coverage of the private sector through, for example, professional registration and regulation mechanisms, is indispensable. Remuneration and production capacity are other critical areas in which limited data availability hinders informed policy formulation and implementation.

WHO continues to update the NHWA indicators and its platform to improve their relevance and utility for Member States. In addition, WHO will continue to support Member States in conducting detailed data analysis on the HRH dynamics, through scientific approaches such as the Workload Indicator of Staffing Needs Assessment and the Health Labour Market Analysis.

7.4 Monitoring and evaluation of progress

Monitoring progress in an accountable manner is key to accelerating the concerted efforts of WHO and Member States. Member States are encouraged to continue to measure, monitor and report progress.

Annex

In doing so, a stepwise approach to focus on key indicators that are more feasible and relevant for policy decisions has proved to be effective, based on experiences in other WHO regions *(147)*. In the five strategic areas, Member States can consider prioritizing the following indicators to monitor the progress of proposed actions in this Regional Framework (Table 1).

Table 1. Proposed priority NHWA indicators to monitor the progress

Strategic Areas	NHWA modules and indicators
1. PHC	**1. Stock and flow** 1-01 Health worker density
2. Stewardship	**4. Working conditions, governance and leadership** 4-01 Labour regulations and policies for health workforce 4-02 Health workforce governance and leadership capacity 4-03 National capacity to monitor key metrics for health workforce planning and global monitoring frameworks **3. Finance and expenditures** 3-01 Expenditure on compensation of health workers
3. Production and quality	**2. Education** 2-01 Health workforce education and training capacity 2-04 Ratio of graduates to stock 2-05 Duration of education and training 2-06 Accreditation mechanisms for education and training institutions and their programmes 2-07 Alignment of national education programmes with population service needs
4. Private sector	**1. Stock and flow** 1-05 Health worker density by facility ownership **2.Education** 2-04 Ratio of graduates to stock
5. Distribution and productivity	**1. Stock and flow** 1-02 Health worker density at subnational level 1-03 Health worker distribution by age group 1-04 Health worker distribution by gender 1-07 Health worker distribution by place of birth 1-08 Health worker distribution by place of training

In addition, periodic reporting on the implementation of *The WHO Global Code of Practice on the International Recruitment of Health Personnel* through the national reporting instrument continues to be a critical mechanism to monitor the international flow of health professionals and maintain transparency for ethical and mutually beneficial migration.

WHO will assist Member States in measuring, monitoring and reporting progress through the standardized and agreed mechanisms and continue to improve them through collaboration with Member States.

Appendix 1. Changes in density of medical doctors, nurses and midwives per 10 000 population

Country	Medical doctors				Nursing and midwifery personnel			
	2000 or nearest	Density	2020 or latest	Density	2000 or nearest	Density	2020 or latest	Density
Australia	2000	24.91	2020	41.02	2000	100.70	2021	148.20
Brunei Darussalam	2000	10.06	2021	19.13	2000	38.81	2021	67.11
Cambodia	2000	1.69	2019	2.14	2000	9.18	2019	10.25
China	2000	12.68	2020	23.87	2000	10.02	2020	33.05
Cook Islands	2001	9.15	2019	13.45	2001	33.99	2019	81.87
Fiji	1999	3.29	2015	8.14	1999	19.14	2019	38.37
Japan	2000	19.35	2020	26.14	2002	86.12	2020	124.50
Kiribati	2008	2.40	2013	1.94	1998	22.26	2018	36.22
Lao People's Democratic Republic	2000	2.79	2021	3.27	2000	10.04	2020	11.83
Malaysia	2000	6.81	2020	22.28	2000	16.93	2019	33.94
Marshall Islands	2007	5.74	2012	4.60	2007	34.82	2018	42.39
Micronesia (Federated States of)	2000	5.73	2020	9.63	2018	20.74	2019	21.99
Mongolia	2002	26.99	2018	38.59	2002	35.38	2018	42.22
Nauru	2004	9.71	2015	12.50	2004	61.17	2018	70.59
New Zealand	2000	22.35	2021	35.16	1999	95.92	2021	114.30
Niue	2003	21.05	2008	16.67	2003	89.47	2018	105.30
Palau	1998	13.76	2020	17.78	1998	59.79	2020	65.00
Papua New Guinea	2000	0.50	2021	0.63	2000	5.16	2021	5.11
Philippines	2000	12.19	2021	7.86	2000	43.18	2021	47.55
Republic of Korea	2000	13.02	2020	25.08	2000	29.98	2020	85.30
Samoa	1999	6.59	2020	5.54	1999	19.16	2020	30.15
Singapore	2000	13.76	2019	24.34	1999	40.20	2017	61.82
Solomon Islands	1999	1.29	2016	1.91	1999	8.61	2018	21.44
Tonga	2001	3.39	2021	10.09	2001	33.04	2021	41.79
Tuvalu	2002	6.25	2020	12.61	2002	40.63	2020	36.94
Vanuatu	2004	1.41	2019	1.58	2004	16.95	2019	14.00
Viet Nam	2001	5.30	2016	8.33	2001	7.42	2016	14.54

Source: WHO National Health Workforce Accounts Portal *(26)*

Annex

Appendix 2. Stock of foreign-trained medical doctors and nurses (latest year)

Source country from the Western Pacific Region	Stock of foreign-trained medical doctors in Australia, Canada, New Zealand, United Kingdom, United States	Existing stock of medical doctors in source country	% of foreign-trained stock in relation to existing stock in source country (medical doctors)	Stock of foreign-trained nurses in Australia, Canada, New Zealand, United Kingdom, United States	Existing stock of nurses in source country	% of foreign-trained stock in relation to existing stock in source country (nurses)
Cambodia	5	2 944	0.2%			
China	7 396	3 210 515	0.2%	2 884	4 445 047	0.1%
Cook Islands	13	25	52.0%			
Fiji	92	747	12.3%	428	3256	13.1%
Kiribati	0	22	0.0%	1	443	0.2%
Malaysia	888	73 973	1.2%	354	111 324	0.3%
Mongolia	23	12 211	0.2%			
Palau	0	32	0.0%	1	115	0.9%
Philippines	11 146	84 678	13.2%	172 516	512 719	33.6%
Papua New Guinea	11	580	1.9%	4	3975	0.1%
Samoa	11	119	9.2%	37	570	6.5%
Tonga	0	100	0.0%	68	461	14.8%
Vanuatu	0	46	0.0%	2	353	0.6%

Source: OECD Stats *(46)*; National Health Workforce Accounts Portal *(26)*

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