HUMAN RESOURCES FOR HEALTH

Action Framework for the
Western Pacific Region (2011–2015)
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1. BACKGROUND

1.1 PURPOSE

Many health systems in the Western Pacific Region remain beset by a health workforce crisis: absolute shortages of qualified health workers; inequitable distribution of workers and inefficient skill mix; training and education poorly matched to patient and population needs; and financial constraints with poor motivation and retention in most lesser-resourced countries.

The *Regional Strategy on Human Resources for Health (2006–2015)*, endorsed in resolution WPR/RC57.R7 by the WHO Regional Committee in 2006, guided the collaborative actions of WHO and Member States in strengthening health workforce responsiveness to population health needs through enhanced health system performance and service quality.

These actions included strengthening of national human resource strategic planning and human resources for health (HRH) information systems; reviews and updating of regulatory systems; initiatives addressing the quality and relevance of health professional education; analyses of policy options for rural and remote retention in selected countries, along with publication of global evidence-based policy recommendations on the same issue; and the formulation and dissemination of subregional and global codes of practice for the international recruitment of health workers.
Despite this progress, there remains an urgent need for intensified, collaborative and multisectoral HRH actions to improve universal coverage and access to quality health services in order to reduce population health inequities and achieve better health outcomes for all.

1.2 GLOBAL AND REGIONAL CONTEXT

Many countries face similar challenges in providing equitable access to quality health services for all and improving health outcomes. A sufficient health workforce, adequately prepared and equitably distributed, is necessary for creating strong health systems. However, developing and maintaining an equitably distributed, competent and effective health workforce is an ongoing struggle for many countries, requiring innovative, collaborative and comprehensive national and international planning and strategic actions.

The Western Pacific Region is making better progress towards the health-related Millennium Development Goals (MDG) than other WHO regions. However, progress is unequally spread within and between countries, with rural and poor populations lagging behind. Progress towards achievement of MDG 4 and 5 targets, reduced child mortality and improved maternal health, requires a multi-dimensional approach to service delivery, incorporating core HRH elements, integrated with information management systems, essential medicines, equipment and technologies, financing, service delivery, leadership and governance.¹²

The Region also grapples with mounting negative effects of climate change, health risks, ongoing natural disasters and other public health emergencies. While globalization is accelerating worldwide transmission of communicable diseases, health disparities are widening, populations including health workers are aging, and the burden of chronic conditions is

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¹ Western Pacific Regional Strategy for Health Systems Based on the Values of Primary Health Care. Manila, WHO Regional Office for the Western Pacific, 2010.

increasing. Estimates suggest that the number of older people in this Region will grow faster than in any other WHO region.³

Four out of every five deaths in the Western Pacific Region are due to the most common noncommunicable diseases (NCD)—cancer, cardiovascular disease, chronic respiratory conditions and diabetes.⁴ The poorest people have the highest burden of NCD, as they have greater exposure to risk factors and less access to preventive and therapeutic services. Health systems in the Region are developing more integrated and comprehensive models of prevention, risk reduction and care provision that use available resources more efficiently and reduce disease complications.

1.3 PRIMARY HEALTH CARE, NOW MORE THAN EVER

A resolution to strengthen health systems based on the values and principles of primary health care (PHC) was endorsed at the fifty-ninth session of the WHO Regional Committee for the Western Pacific. The resolution (WPR/RC59.R4) urges Member States to develop and implement strategies for health systems strengthening and PHC to achieve improved health outcomes for their people, especially those who are poor or otherwise most vulnerable. The common values of PHC and the right to health underpin the Western Pacific Regional Strategy for Health Systems Based on the Values of Primary Health Care as well as the Regional Health Financing Strategy for the Asia Pacific Region (2010–2015), which aims for universal coverage by quality health services without excessive household financial burden.

The crucial role of HRH in the context of health systems strengthening, primary health care renewal, universal access and equity was the focus of a mid-term review of the Regional Strategy on Human Resources for Health (2006–2015). Technical norms at global and regional levels have also been recently developed to further support countries in addressing the challenges of health workforce strengthening, and implementing the agreed regional resolutions. These norms include global evidence-based guidelines.
on increasing access to health workers in remote and rural areas,\textsuperscript{5} a global code of practice for the international recruitment of health personnel,\textsuperscript{6} and a Pacific code for the migration of health workers.\textsuperscript{7}

\subsection*{1.4 REGIONAL PROGRESS IN STRENGTHENING HUMAN RESOURCES FOR HEALTH (HRH)}

Three WHO meetings have been organized to review challenges and progress in implementing the \textit{Regional Strategy on Human Resources for Health (2006–2015)} and to propose an action framework to further guide and scale up implementation.\textsuperscript{8,9,10} Consultations during these meetings, technical reviews of national progress by key strategic result areas in 2009, and a mid-term review of the strategy in 2011 provided the basis for a fairly comprehensive assessment of the current situation of HRH in the Region and the identification of priority issues. The assessment was also informed by reports from Member States, project documents and numerous other publications.

Recognizing the importance of the health workforce in achieving population health goals and the links these have to broader socioeconomic goals, national governments are stepping up efforts to resolve HRH challenges, as evidenced by the formation of high-level, multisectoral committees or taskforces and the issuance of HRH decrees in many countries.

\begin{thebibliography}{99}
\bibitem{5} Global policy recommendations: increasing access to health workers in remote and rural areas through improved retention. Geneva, World Health Organization, 2010.
\bibitem{7} \textit{Pacific Code of Practice for Recruitment of Health Workers and Compendium}. Endorsed at the Seventh Meeting of Ministers of Health for Pacific Island Countries, Port Vila, Vanuatu, 12 to 15 March 2007 (http://www.wpro.who.int/NR/rdonlyres/6B61BEAA-B30B-4CFA-A9F145174895/0/Pacificcodeofpractice.pdf, accessed 6 June 2011).
\bibitem{8} \textit{Meeting on the Regional Strategy and Initiatives on Human Resources for Health}, Manila, WHO Regional Office for the Western Pacific, 24–26 August 2009.
\bibitem{9} \textit{Meeting on Nursing Education and Human Resources for Health}, Nadi, Fiji, WHO Regional Office for the Western Pacific, 7–11 February 2011.
\bibitem{10} \textit{Meeting on an Action Framework for the Regional Strategy on Human Resources for Health}, Manila, WHO Regional Office for the Western Pacific, 4–6 April 2011.
\end{thebibliography}
Across the Region, countries have been responding to the HRH challenges by strengthening health workforce strategic planning and human resource management systems. Actions taken include improvements in the collection and sharing of population and health data; better links between workforce planning and health service and educational sector planning; steps to reorient health services towards primary health care, health promotion and integrated care provision across the continuum of care; and the testing of strategies to reduce access barriers for disadvantaged groups.

Countries have intensified efforts to improve human resources production and development. Examples include increased participation of minority groups in the health workforce; and concerted interventions in multiple countries to strengthen the quality and relevance of education and training. Evaluations of such interventions are limited.

Improved HRH management practices have resulted in reviews of skills-mix, roles and functional requirements of health workers, with the aim of improving their motivation and performance. Implementation of evidence-based interventions to increase retention in rural and remote areas, as well as strategies to mitigate effects of migration, have resulted in some improvements to the geographic distribution of health workers.

Governance, leadership and partnerships have been addressed through the introduction, review and/or strengthening of legislative and regulatory frameworks and improved coordination of stakeholders and partners; capacity-building in HRH strategic planning and management; improving the quality and safety of service delivery; and the establishment and sustaining of regional HRH, nursing and midwifery networks.

Despite these efforts, insufficient progress has been made in the delivery of universally accessible quality health services.
2. CRITICAL GAPS AND CHALLENGES

Intensified strategic actions are required to address absolute shortages of qualified health workers; unbalanced distribution of workers and inefficient skill mix; training and education poorly matched to patient and population needs; and lack of motivation and retention in most lesser-resourced countries. Increased sustainable financing of HRH is imperative for workforce strengthening and scaling up.

2.1 CROSS-SECTORAL PLANNING AND POLICY ALIGNMENT

Health workforce planning and policy alignment across sectors, including health, education, finance and labour, are currently lacking in many countries. More attention must be spent on facilitating policy dialogue and joint decision-making across sectors with multiple stakeholders, including all relevant ministries, the public–private service delivery sector, professional associations, nongovernmental and faith-based organizations, consumers and communities, and technical and donor partners.

2.2 HEALTH SECTOR FINANCING AND GOVERNANCE

HRH policies, plans and interventions call for strong political commitment and sustained financial investments to support workforce scaling up in areas of greatest need, i.e. employment costs and pre-service education.\(^{11}\) In the Western Pacific Region, little has been done to increase health sector funding even though the consequences of inadequate investment...

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\(^{11}\) Efficiency and effectiveness of aid flows towards health workforce development: Exploratory study based on four case studies from Ethiopia, the Lao People’s Democratic Republic, Liberia and Mozambique. Geneva, World Health Organization, 2011.
are widely recognized. As such, many countries are struggling to improve the recruitment, deployment, retention and performance of the health workforce. In countries with chronically under-resourced health facilities, the salaries of health workers are significantly lower than the cost of living and payment is sometimes delayed. Government resource constraints, as well as inadequate investments and inefficient resource mobilization, including insufficient use of fiscal space, are factors that make it difficult for countries to achieve universal access to quality health services. Reductions in out-of-pocket payments for health services and improved financial risk protection and safety nets, especially for the poor and vulnerable population segments, are essential in overcoming financial barriers to access to quality services.

2.3 HRH DATABASES, INFORMATION MANAGEMENT SYSTEMS AND STRATEGIC PLANS

In most lesser-resourced countries, databases and other data sources, as well as HRH information management systems (IMS), even if they exist, do not provide policy-makers and planners with the necessary minimum data sets (MDS) to enable full workforce analyses by sex, age, location (rural or urban) and ethnicity. Furthermore, governments have not completely or consistently identified health service priorities, or delineated the functions and staffing norms for different facilities or services, further limiting the effectiveness of workforce planning efforts.

2.4 WORKFORCE SHORTAGES AND MALDISTRIBUTION

Workforce shortages and maldistribution of health workers are problems shared throughout the Region, though the seriousness of the problems varies from country to country. Cambodia, the Lao People’s Democratic Republic, Papua New Guinea, Solomon Islands, Samoa, Vanuatu and Viet Nam continue to face acute overall shortages of health workers (doctors, nurses and midwives), with a density of less than

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12 Fiscal space is defined as room in the government’s budget that allows it to provide resources for desired purpose without jeopardizing the sustainability of its financial position or the stability of the economy.
2.3 per 1000 population. Overall, the Region has insufficient numbers of essential groups of health personnel, including: qualified tutors/faculty for education and training; mental health personnel; community-based nurses and midwives and selected categories of medical specialists; adequately trained health facility and equipment engineers and maintenance personnel; and, in the Pacific islands, local, low-cost prosthetic makers. All countries also have workforce distribution inequities with most health workers found in urban areas, leaving rural areas underserved.

2.5 IMPLEMENTATION OF HRH PLANS

While many countries have HRH plans in place to address workforce issues, it is clear that implementation is not easy. Even when HRH priorities are clearly delineated, there may still be inadequate strategic action planning and budgetary support to adequately address urgent HRH needs. Disconnects still exist between health services and educational and workforce planning, contributing to inefficiencies and misalignment in training, deployment and uptake into the workforce. Limited capacity for human resource management at the national, provincial and facility levels, limited cross-sectoral and multi-stakeholder involvement and other underlying, constraining health system factors all contribute to the difficulties countries have in following through on policy-level commitments, and implementing strategies and plans.

2.6 EDUCATION AND TRAINING

The standards and quality of education and training of health professionals remain below par in many countries, resulting in a health workforce that is ill-prepared to effectively respond to rapidly changing, complex health systems and population health challenges surrounding ageing and the growing burden of noncommunicable diseases. Faculty in lesser-resourced countries typically lack clinical expertise as well as formal preparation in education, teaching and learning. They tend to impart knowledge, interpersonal skills and clinical practices that are outdated and not

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evidence-based. As such, students do not acquire the necessary clinical reasoning skills for safe practice. Basic entry-to-practice competencies of new graduates are negatively influenced by gaps between classroom learning and mentored clinical learning as well as inadequate clinical supervision and role-modelling. Safe and quality services are continually eroded by shortages of formally prepared educators as well as multiple inadequacies in the promotion of student-centred, experiential learning, problem-solving and critical thinking within the clinical context. Though the production of the health workforce requires scaling up, educational institutions in most lesser-resourced countries are ill-equipped to do so due to human and other resource constraints, without severe compromises in educational quality.

2.7 INFORMAL HEALTH WORKERS

Informal health workers, including community health workers, traditional practitioners and lay caregivers, are playing increasingly important roles in the primary health care systems of most countries to compensate for workforce shortages. The HRH challenges of the formal workforce apply to the informal workforce, to an even greater extent, as many informal health workers do not receive salaries or supervision. Insufficient comparative and analytical data exist regarding their education, deployment, utilization, retention and effectiveness in the Region. While informal health workers have multiple titles and varying types and depth of training, studies and experience have shown that they can play important roles in child survival, maternal health and management of infectious diseases,15,16 as well as health literacy, community empowerment and resilience, all of which contribute to improved health. There is a potential for better primary health care system coverage through the use of adequately trained and supported community or informal health workers, who are deployed to complement the work of health professionals but not to serve as direct substitutes for health professionals.17

17 Lin V., Ridoutt L. and Hollingsworth B. What incentives are effective in improving the deployment of health workers in primary health care settings in Asia and the Pacific? Manila, WHO Regional Office for the Western Pacific, (pre-publication, May 2011).
2.8 RESEARCH, ANALYSIS, MONITORING AND EVALUATION

The growing amount of analysis and research being undertaken throughout the Region will inform policy development and planning, but more is needed to capture the unique characteristics of each country and its health workforce. To date, much of the research has been directed at better understanding the workforce situation, and the underlying causes of particular problems. There has been little investigation of the impact of interventions taken to resolve problems; however, in many countries, not enough time has passed for such impacts to be felt, and resources for monitoring or independent analysis are limited.
3. HUMAN RESOURCES FOR HEALTH ACTION FRAMEWORK (2011–2015)

Countries in the Western Pacific Region are working hard to address the challenges of developing and sustaining a health workforce that is sufficient, competent, responsive and adequately supported to meet population health needs. Although many workforce challenges are common to all countries, their unique health systems and political, socioeconomic and topographical situations necessitate workforce policies and strategic interventions specific to each country context. As countries address these challenges, they are guided by a universal vision.

3.1 HRH VISION 2020

Universal coverage for access to quality health services, particularly for the most vulnerable and excluded groups, with improved patient and community health outcomes, through a balanced distribution and efficient skill mix of a multi-professional, motivated workforce able to prevent and manage a full range of conditions and empower people and communities to manage their own health needs as fully as possible.

3.2 HRH ACTION FRAMEWORK

The HRH Action Framework, depicted in Figure 1, was designed to achieve the HRH Vision 2020. The Framework’s six interlinked action fields—human resource management systems, policy, finance, education, partnership and leadership—must all be taken into account in health workforce development and overall health system improvement. The Framework highlights the need for multisectoral and multi-stakeholder
collaboration and other factors critical for sustainable HRH and health service improvements.\textsuperscript{18}

While the HRH Action Framework is applicable in all countries, the way it is used is influenced by the elements specific to the country context, including the labour market. The outcomes of applying the Framework are also influenced by the strength of other components in the health system (e.g. availability of medical products and equipment, health care financing and health information).

\textbf{Figure 1: HRH Action Framework for WHO Western Pacific Region}


3.3 **KEY RESULT AREAS, STRATEGIC OBJECTIVES AND CORE INDICATORS**

The HRH Action Framework was revised to take into account increasing health system complexities, changing health needs and system demands posed by ageing populations and noncommunicable diseases, and the corresponding growing need for scaled-up health workforce education and training to maintain competencies. As such, the revised Framework is comprised of four key result areas, rather than the three identified in the original version,\(^{19,20}\) as well as corresponding strategic objectives and core monitoring and evaluation indicators guiding the implementation of actions.

<table>
<thead>
<tr>
<th>Key Result Area 1</th>
<th>Strategic Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workforce strategic response to evolving and unmet population health and health service needs.</td>
<td>Ensure that health workforce plans and strategies respond to population and service needs, particularly those of the most vulnerable and excluded groups, evolving health worker functions, and technological advances.</td>
</tr>
</tbody>
</table>

**Core monitoring and evaluation indicators**

- Existence of a funded human resources plan addressing population needs and priority HRH areas.
- Number of health workers overall per 10 000 population as well as number of doctors, nurses and midwives per 10 000 population.
- Distribution of health workers by rural and urban location (as defined by country official documents).

Strengthening of HRH minimum data sets is required for workforce production and effective deployment. Analysing policy options and implementing more efficient and effective HRH skill mix, aligned with minimum packages of service delivery at all levels are important

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\(^{20}\) Workforce management is addressed with workforce utilization and retention as it lays the foundation for improved retention. Partnerships have been more fully addressed in key result area 4, in recognition of the need for coordinated, collaborative and sustained action in support of the HRH Vision 2020.
areas that need to be strengthened to better inform the policy-making process. Reporting on and analysing trends, using agreed-upon sets of core monitoring and evaluation indicators, are essential in monitoring the implementation of plans. Furthering the consistent and systematic dissemination of research findings and application of evidence to policy-formulation and practice is of utmost importance.

<table>
<thead>
<tr>
<th>Key Result Area 2</th>
<th>Strategic Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workforce education, training and continuing competence.(^{21})</td>
<td>Develop and continually upskill an inter-professional, flexible, competent workforce able to prevent and manage a full range of conditions and empower people and communities to manage their own health needs as fully as possible.</td>
</tr>
</tbody>
</table>

**Core monitoring and evaluation indicators**

- Annual number of graduates of health training institutions, broken down by category of health professional.
- Percentage of health professional graduates employed in the health sector within 12 months after graduation.
- Evidence of implementation of national or standardized institutional competency examination for each health professional cadre.
- Percentage of graduates in each health professional cadre passing the national competency examination on the first attempt.

Establishing and applying academic standards, entry-to-practice competencies and faculty development initiatives, with continual strengthening of regulatory frameworks and the operational work of regulatory bodies, are important actions to improve quality education, practice standards and accreditation capacities in Member States. Subsequent to a global analysis of the current state of health professional education, the independent Commission on Education of Health Professionals has called for all health professionals in all countries to “be educated to mobilize knowledge and to engage in critical reasoning and

\(^{21}\) “Continuing competence” is a newer version of the concept of “professional development” that ensures individual as well as collaborative/team learning to enable “all health professionals to engage effectively in a process of lifelong learning aimed squarely at improving patient care and population health.” *The Future of Nursing: Leading Change, Advancing Health.* Institute of Medicine, 2011.
ethical conduct so that they are competent to participate in patient and population-centred health systems as members of locally responsive and globally connected teams ... to assure universal coverage of the high-quality comprehensive services that are essential to advance opportunity for health equity within and between countries.”22

<table>
<thead>
<tr>
<th>Key Result Area 3</th>
<th>Strategic Objectives</th>
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</thead>
<tbody>
<tr>
<td>Health workforce utilization, management and retention.</td>
<td>Maximize functions of the health workforce, staff and skill mix efficiency and management and retention to improve service delivery in terms of equity, universal access, quality and effectiveness.</td>
</tr>
</tbody>
</table>

**Core monitoring and evaluation indicators**

**Management**
- Number of countries with evidence of formulation or implementation of professional competencies and standards and of quality assurance mechanisms to ensure competence of health professionals.
- Number of countries with evidence of a performance appraisal system in place.

**Skill mix**
- Births attended by trained health personnel/total births.

**Recruitment and rural/remote retention**
- Percentage of vacant posts annually as a percentage of all recruits and/or total number of vacant posts, broken down by geographical location (rural, urban).
- Total number of health workers recruited to rural, underserved areas annually.

**Migration**
- Annual attrition rate of health workers by cadre or percentage of health workers leaving the health sector.

Improving the management, retention, participation and motivation of the health workforce requires application and testing of innovative interventions including bundled packages of incentives, other effective retention strategies, effective performance management at all levels, and an adequate skill mix, as countries struggle to achieve better health outcomes using their existing workforce.

<table>
<thead>
<tr>
<th>Key Result Area 4</th>
<th>Strategic Objectives</th>
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</thead>
<tbody>
<tr>
<td>Health workforce governance, leadership and partnerships for sustained HRH contributions to improved population health outcomes.</td>
<td>Strengthen health workforce cross-sectoral planning, policy coherence, regulations and partnerships to ensure the delivery of universally accessible, effective, evidence-based, quality and safe services.</td>
</tr>
</tbody>
</table>

**Core monitoring and evaluation indicators**

- Number of countries with evidence of existing, active HRH partnerships and networks with products/outputs addressing workforce efficiency and effectiveness.
- Evidence of nationally enacted policies addressing terms and conditions of work.
- Evidence of nationally enacted policies addressing quality, including infection control.
- Evidence of up-to-date, reliable health workforce registration databases.

Government-wide, multi-stakeholder approaches are required to address the contextual labour market and health systems strengthening issues underlying HRH shortages, particularly those in rural, remote and other underserved areas.

Sustainable workforce investments require prioritized and costed human resource plans addressing resources required; necessary increased investments; analysis of improved fiscal space utilization as well as taking into account the timeline and the predictability of external funding.

Integrated, coordinated donor support is essential to avoid fragmented, donor-driven or other potentially disruptive support that greatly impairs healthy system functioning. Multiple types of donor support could be applied in the following ways: strengthening of the HRH IMS; infrastructure strengthening or rebuilding of educational institutions; faculty development; innovative curricular changes; and ongoing technical support in lieu of financial contributions.

Unless adequate resources are secured, lack of investment will continue to be a major barrier to resolving many of the key HRH challenges, regardless of the appropriateness of other actions taken by governments and development partners.
3.4 EXPECTED RESULTS

Concerted action by WHO and Member States, in close collaboration with stakeholders, partners and donors, can be expected to result in some key achievements, including:

- increased numbers of countries with strengthened, costed and implemented national HRH plans and HRH management capacities;
- improved HRH information systems and minimum data sets supported by a growing body of regional shared databases;
- scaled up investments in pre-service education and continuing competence;
- regulatory and policy analysis and updates enabling full functional utilization of all cadres of health workers, including policies and interventions addressing rural and remote recruitment and retention;
- growing body of literature and research, as well as application of evidence to planning, policy-formulation and practice; and
- improved and expanded cross-sectoral partnerships and dialogue for more coherent planning, policy-making and more sustainable HRH financing.

3.5 RESULTS-BASED HRH ACTION FRAMEWORK

The strategic actions chosen to address priority HRH challenges in the next five years are clustered within the four key result areas. The actions are further categorized into macro-level structural input, operational or organizational actions, processes or steps, expected outputs, outcomes and impacts. Thus the results-based action framework serves as a stepwise approach to changes and an overall assessment of progress and performance in the four key HRH domains or key result areas, within the context of national health system strengthening.
**Key result area 1: Health workforce strategic response to evolving and unmet population health and health service needs**

**Strategic objective:** Ensure that health workforce plans and strategies respond to population and service needs, particularly those of the most vulnerable and excluded groups, evolving health worker functions, and technological advances.

<table>
<thead>
<tr>
<th>Macro-level structural input</th>
<th>Operational processes</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information management systems (IMS)</strong></td>
<td><strong>Information management systems (IMS)</strong></td>
<td><strong>Information management systems (IMS)</strong></td>
<td></td>
<td>Increased life-expectancy;</td>
</tr>
<tr>
<td>• Established focal point for HRH IMS for data collection, dissemination and analysis;</td>
<td>• Established mechanisms for transparency in information sharing;</td>
<td>• Application of HRH information for decision-making and policy formulation at all levels;</td>
<td>• Increased population access to an adequate, competent, productive and supported workforce for quality health care.</td>
<td>Increased equity, responsiveness of health services;</td>
</tr>
<tr>
<td>• Information systems for policy and planning in place;</td>
<td>• Continued and improved evidence-based decision-making in HRH analysis and reporting;</td>
<td>• Private sector workforce data integrated into national IMS;</td>
<td></td>
<td>Reduced mortality and burden of disease as measured by:</td>
</tr>
<tr>
<td>• Action plan, timeline and targets in place for strengthening HRS IMS;</td>
<td>• Increased knowledge, data acquisition from the private sector and the labour force and market; and</td>
<td>• Easily accessible, shared workforce databases used for workforce analyses and planning;</td>
<td>- under-5 mortality;</td>
<td>- maternal mortality ratio;</td>
</tr>
<tr>
<td>• Minimum HRH data sets established, linked to definitions, data sources; and</td>
<td>• Increased accessibility and sharing of workforce data bases across departments, levels and sectors.</td>
<td>• Number of national data points on the stock and distribution of health workers produced within past three years; and</td>
<td>- mortality by cause of death by sex and age</td>
<td>- TB prevalence;</td>
</tr>
<tr>
<td>• Number of health workers per 10,000 population as well as number of doctors, nurses and midwives per 10,000 population for both the public and private sectors.</td>
<td></td>
<td>• Current number and distribution of health workers.</td>
<td></td>
<td>Reduction in cause-specific mortality and morbidity.</td>
</tr>
</tbody>
</table>
### Key result area 1: Health workforce strategic response to evolving and unmet population health and health service needs

**Strategic objective:** Ensure that health workforce plans and strategies respond to population and service needs, particularly those of the most vulnerable and excluded groups, evolving health worker functions, and technological advances.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>HRH strategic plans</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
| • HRH plan based on sound situation analysis using workforce planning models and tools;  
  • Workforce policy or strategy addressing population needs and workforce response in terms of gender, equity, vulnerability; and  
  • HRH plan integrated into national health plan. | **HRH strategic plans**  
  • Formation, operation and funding of a distinct team or unit responsible for analysis, HRH planning;  
  • Provision of cost estimates and input into overall HRH cost estimates by all levels of the health system;  
  • Prioritization of HRH plan, with costing at individual element levels inclusive of: immediate training costs, longer-term employment costs, and broader health system costs;  
  • Prioritized HRH action plan detailed with workforce targets by national minimum data set categories and time frame;  
  • Formal government endorsement/approval of HRH plan;  
  • Operational implementation of the HRH plan; and  
  • Regular review and revision of HRH plan based on an ongoing evaluation and operational research. | **HRH strategic plans**  
  • Existence of a funded, prioritized HRH plan addressing population needs and identified priority HRH areas:  
    - National HRH plan integrated into national policies and plans  
    - Projected HRH needs for public and private sectors included in HRH plan;  
    - Implementation of national HRH plan with monitoring and evaluation mechanisms and development of national evaluation plan; preparation of reports based on evaluations. | • Increased population access to an adequate, competent, productive and supported workforce for quality health care. | • Increased life-expectancy;  
  • Increased equity, responsiveness of health services;  
  • Reduced mortality and burden of disease as measured by:  
    - under-5 mortality;  
    - maternal mortality ratio;  
    - mortality by cause of death by sex and age - TB prevalence;  
  • Reduction in cause-specific mortality and morbidity. |
**Key result area 2: Health workforce education, training and continuing competence**

**Strategic objective:** Develop and continually upskill an inter-professional, flexible, competent workforce able to prevent and manage a full range of conditions and empower people and communities to manage their own health needs as fully as possible.

<table>
<thead>
<tr>
<th>Macro-level structural input</th>
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<th>Outcomes</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Cross-sectoral policy-making, planning</strong></td>
<td>• Formation of high-level cross-sectoral working group or stakeholder committee tasked with policy analysis and planning to ensure that universally accessible, quality services are delivered and population health needs are met through health worker education and continued capacity-building; and • Policy analysis carried out and strategic plans developed to improve primary and secondary education and to ensure that health professional applicants and students meet entry requirements and successfully complete programmes.</td>
<td>• Cross-sectoral policy-making, planning • Formal endorsement/recognition of national cross-sectoral stakeholder committee; • Evidence of active engagement of relevant sectors, consumers, communities and professional organizations in developing and improving competency-based health professions education; and • Review and periodic updating of entry-to-practice competencies, practice standards to meet newly emerging roles, and changing population needs.</td>
<td>• Cross-sectoral policy-making, planning • Available data on estimates of total cost of education per cadre; • Innovative models of educational delivery and quality improvement evaluated and reported on, involving: resource sharing, clinically contextualized learning, inter-professional education and/or education/practice models of service delivery; • Evidence of scaling up and evaluation, application of lessons learnt from educational production and quality initiatives; • Adequate number of health professional educational institutions with development needs receiving technical and financial support for faculty and programme strengthening; and • Increased budgetary allocations and financial support for health professions education institutions.</td>
<td>• Increased population access to an adequate, competent, productive and supported workforce for quality health care.</td>
</tr>
</tbody>
</table>

**Health Professions Education**

• Academic accreditation body and regulatory systems established to ensure quality, quantity, relevance and competencies for work positions; • Established core competencies for all cadres of health professionals.

**Health Professions Education**

• Regular academic quality improvement meetings; actions taken, evaluated and recorded; and internal and external assessments benchmarked against established national and global academic quality standards.

**Health Professions Education**

• Annual number of graduates of health training institutions broken by category of health worker; • National or standardized institutional competency examination in place for each health professional cadre.
### Key result area 2: Health workforce education, training and continuing competence

**Strategic objective:** Develop and continually upskill an inter-professional, flexible, competent workforce able to prevent and manage a full range of conditions and empower people and communities to manage their own health needs as fully as possible.

<table>
<thead>
<tr>
<th>Macro-level structural input</th>
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<th>Outcomes</th>
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</tr>
</thead>
</table>
| **Health Professions Education**
  - Academic quality standards and indicators established, applying international standards/guidelines to assess:
    - programme graduates;
    - programme development and revision, including resources;
    - programme curriculum;
    - academic faculty and staff;
    - programme admission;
  - Faculty development programme established for continued professional growth and number of qualified, skilled educators increased, including clinical educators/preceptors;
  - Mechanisms put in place for mentoring and coaching faculty, staff and students;
  - HRH tracking of number of entrants into health professional training programmes (with nationally approved curriculum) within last three years, with trend analysis and policy options; and
  - Number of students in medical, nursing and midwifery pre-service education programmes, per qualified instructor monitored, with policy interventions to ensure quality.
| **Health Professions Education**
  - Implementation of regular faculty appraisals, faculty development and reporting of progress;
  - Data on increased faculty retention, increased number of educators, and improved competencies;
  - Curricular content, community rotations, service arrangements and student assessments reflect capacity development in rural and vulnerable population health;
  - Ratio of staff (faculty, preceptors) to student;
  - Annual training budget per worker;
  - Annual number of days for continuing professional development (CPD); and
  - Percentage of staff receiving CPD.
| **Health Professions Education**
  - Percentage of graduates in each cadre passing national competency examination on the first attempt (data monitored, reported and evaluated to ensure quality, safe competencies for practice).
| **Increased population access to an adequate, competent, productive and supported workforce for quality health care.**
| **Continuing competence**
  - Establishment of integrated coordinated programme for continuing competence and lifelong learning of all health professionals.
| **Continuing competence**
  - Scaling up integrated, competency-based continued learning programmes for individuals and teams.
| **Continuing competence**
  - Policies and processes in place that support the continuing competence of individuals and teams, with accompanying evaluation data.
| **Increased life-expectancy;**
| **Increased equity and responsiveness of health services;**
| **Reduced mortality and burden of disease as measured by:**
  - under-5 child mortality;
  - maternal mortality ratio;
  - mortality by major cause of death by sex and age;
  - TB prevalence; and
| **Reduction in cause-specific mortality and morbidity.**

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“Competencies” do not represent tasks, but rather higher-level competencies (applied knowledge; attitudes; skills; clinical decision-making processes) essential for the provision of safe care in clinical situations across all care settings.
### Key result area 3: Health workforce utilization, management and retention

**Strategic objective:** Maximize health workforce utilization, management, skill mix, recruitment and retention to improve service delivery in terms of equity, universal access, quality and effectiveness.

<table>
<thead>
<tr>
<th>Macro-level structural input</th>
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</table>
| **Management** | **Management** | **Management** | **Increased population access to an adequate, competent, productive and supported workforce for quality health care.** | **Increased life-expectancy;**
| • Comprehensive, coherent macro-level human resource management (HRM) strategy, policies and plans as part of the overall national HRH plan, addressing:  
  - staff supply, recruitment needs, processes;  
  - working conditions, health, safety;  
  - setting pay levels and incentive packages;  
  - harmonizing relations between staff, and  
    teamwork/inter-professional teamwork;  
  - labour relations, skills-requirements and skill mix;  
  - performance management—optimizing production and quality of care, supervision, professional career development, job descriptions, and performance appraisal; and  
  • Established policies and training programme for all senior staff for HRM skill development and updating. | • Participatory staff involvement in planning and changing HRM at facility level;  
  • Strong, active HRM and leadership skill development at all levels supporting productivity, competence, responsiveness, team work and problem-solving;  
  • Institutional policies that are gender-specific; plans addressing satisfactory, favourable working conditions: equipment and supplies, infrastructure, support services, regulations of work, lines of authority, decision-making, accountability, ethical and unethical behaviour, recognition. | • Number of senior staff at primary health care facilities who received in-service management training (with nationally approved curriculum) in past 12 months; and  
  • Percentage of health service providers at primary health care facilities who received personal supervision a minimum of every six months. | **Increased equity and responsiveness of health services**  
  (health worker, patient, community satisfaction surveys);  
  **Reduced mortality and burden of disease as measured by:**  
  - under-5 child mortality;  
  - maternal mortality ratio;  
  - mortality by major cause of death by sex and age;  
  - TB prevalence; and  
  **Reduction in cause-specific mortality and morbidity.** |

<table>
<thead>
<tr>
<th>Staff and skill-mix efficiency</th>
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<tr>
<td>• HRH analyses of options for improved efficiency and effectiveness, within local context of population needs, alternative models of service provision, evolving skills/competencies and assurance of quality, and safety.</td>
<td>• Institutional/facility skill mix analyses, adjustments or new introductions which maximize health benefits, outcomes while maintaining or reducing costs.</td>
<td>• Analysis, evaluation of interventions matching staff skill, competency mix to care needs of specific populations.</td>
</tr>
</tbody>
</table>

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24 Skill mix usually refers to the mix of posts, grades or occupations in an organization. It may also refer to the combination of activities or skills needed for each job in the organization. In: Buchan J. and Dal Poz M. *Skill mix in the health care workforce: reviewing the evidence*. Bulletin of the World Health Organization, 2002, 80:575–580.
Key result area 3: Health workforce utilization, management and retention

**Strategic objective:** Maximize health workforce utilization, management, skill mix, recruitment and retention to improve service delivery in terms of equity, universal access, quality and effectiveness.

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<tr>
<td><strong>Recruitment policy frameworks address:</strong></td>
<td><strong>Recruitment and retention</strong>&lt;br&gt;• Workload and other studies implemented to address and rectify HRH imbalances between levels of care and urban and rural areas;&lt;br&gt;• Data availability of distribution of health workers (by occupation/specialization, region, place of work and sex);&lt;br&gt;• Policies analysed, implemented and evaluated for obligatory community service to rural and/or urban underserved areas and populations;&lt;br&gt;• Bundled packages of incentives to support deployment, recruitment and retention being implemented and evaluated;&lt;br&gt;• Number of health workers newly recruited at primary health care facilities in the past 12 months (as percentage of planned recruitment target);&lt;br&gt;• Number of days of health worker absenteeism relative to the total number of scheduled working days over a given period among staff at PHC facilities; and&lt;br&gt;• Percent of health workers with intention to stay in or leave the rural areas.</td>
<td><strong>Recruitment to rural, remote, underserved areas and retention</strong>&lt;br&gt;• Increase in stated preferences for working in rural/remote, underserved areas;&lt;br&gt;• Total number of health workers recruited to rural, underserved areas;&lt;br&gt;• Proportion of new graduates entering into practice in rural, remote or underserved areas;&lt;br&gt;• Proportion of health workers staying in rural areas (stability index or retention rate) in past 12 months;&lt;br&gt;• Length of service in rural areas; and&lt;br&gt;• Density of health workers in rural areas compared to urban areas.</td>
<td><strong>Outputs</strong></td>
<td><strong>Impact</strong></td>
</tr>
<tr>
<td>Recruitment policy frameworks address:&lt;br&gt;• recruitment of students from rural, underserved areas; and&lt;br&gt;• obligatory service agreements and/or other incentives for mandatory practice rotations in rural or underserved areas.</td>
<td>Retention&lt;br&gt;• Career pathway frameworks in place linked to continued competency development, performance assessment, quality and financial, non-financial incentives;&lt;br&gt;• Succession planning policies, plans for leadership development, mobility, rotation; and&lt;br&gt;• Retention policies and programmes addressing:&lt;br&gt;  - salary standards;&lt;br&gt;  - conditions of service;&lt;br&gt;  - incentives, rewards linked to performance; and&lt;br&gt;  - favourable work environments aimed at increasing satisfaction retention.</td>
<td><strong>Recruitment and retention</strong></td>
<td><strong>Increased population access to an adequate, competent, productive and supported workforce for quality health care.</strong></td>
<td><strong>Increased life-expectancy;</strong>&lt;br&gt;<strong>Increased equity and responsiveness of health services (health worker, patient, community satisfaction surveys);</strong>&lt;br&gt;<strong>Health outcomes (urban as compared to rural, impoverished areas);</strong>&lt;br&gt;<strong>Reduced mortality and burden of disease as measured by:</strong>&lt;br&gt;  - under-5 child mortality;&lt;br&gt;  - maternal mortality ratio;&lt;br&gt;  - mortality by major cause of death by sex and age;&lt;br&gt;  - TB prevalence; and&lt;br&gt;<strong>Reduction in cause-specific mortality and morbidity.</strong></td>
</tr>
</tbody>
</table>

Data showing increased motivation and intention to remain in workplace<br>• Job satisfaction of rural and urban health workers<br>• Patient satisfaction (and analysis of rural as compared to urban satisfaction)
**Key result area 3: Health workforce utilization, management and retention**

**Strategic objective:** Maximize health workforce utilization, management, skill mix, recruitment and retention to improve service delivery in terms of equity, universal access, quality and effectiveness.

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<td><strong>Transitions, attritions and exits (migration)</strong></td>
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<td><strong>Outcomes</strong></td>
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</tbody>
</table>
| HRH minimum data sets contain essential data elements, in shared database | • Increased tracking and analysis of all elements of HRH minimum data sets  
  • Number of doctors, nurses and midwives produced or graduated in a year  
  • Number of doctors, nurses, midwives immigrating internationally in a year, as share of total number in each workforce category.  
  • Proportion of nationally trained health workers as compared to foreign-trained health workers entering the country annually | • Stocks and flows of health workers—data availability and trend analysis based on HRH minimum data sets  
  • Strengthened policy coherence addressing international recruitment and in-country health system, population health needs  
  • Regularly updated and available HRH MDS data, reporting on number of health workers trained abroad entering country annually, relative to number of nationally trained graduates | • Increased population access to an adequate, competent, productive and supported workforce for quality health care. | • Increased life-expectancy;  
  • Increased equity and responsiveness of health services (health worker, patient, community satisfaction surveys);  
  • Health outcomes (urban as compared to rural, impoverished areas);  
  • Reduced mortality and burden of disease as measured by:  
  - under-5 child mortality;  
  - maternal mortality ratio;  
  - mortality by major cause of death by sex and age;  
  - TB prevalence; and  
  • Reduction in cause-specific mortality and morbidity. |
### Key result area 4: Health workforce, governance, leadership and partnerships for sustained HRH contributions to improved population health outcomes

**Strategic objective:** Strengthen health workforce cross-sectoral planning, policy coherence, regulations and partnerships to ensure the delivery of universally accessible, effective, evidence-based, quality and safe services.

<table>
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<tr>
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<td><strong>Governance</strong></td>
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<td><strong>Outcomes</strong></td>
<td><strong>Impact</strong></td>
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<tr>
<td>- Existence of a cross-sectoral national coordination body (including health, planning, education, finance, labour, public or civil service commission) or formal mechanisms for HRH strategic planning, including application of labour market data, stakeholder coordination, and HRH sustained investments;</td>
<td>- Multi-stakeholder involvement in HRH planning, evaluation and policy-making (including public and private sectors, international and national NGOs, faith-based organizations, civil society, professional associations, multinational and bilateral development partners, global health initiatives);</td>
<td>- HRH plan developed and evaluated with participation of various stakeholders and sectors;</td>
<td>- Increased population access to an adequate, competent, productive and supported workforce for quality health care.</td>
<td>- Increased life-expectancy</td>
</tr>
<tr>
<td>- Coherent cross-sectoral HRH policies developed and implemented for production, distribution, utilization and issues surrounding migration;</td>
<td>- Innovative intervention models evaluated and reported on; policy briefs issued on HRH priority issues/needs;</td>
<td>- HRH policy integration into other sector policies and programmes;</td>
<td></td>
<td>- Increased equity, responsiveness of health services</td>
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<tr>
<td>- Ongoing evaluation of policies and outcomes to ensure HRH responsiveness to evolving population health needs within PHC context and changing models of health service delivery; and</td>
<td>- Donors forum conducted for alignment and harmonized activities; and</td>
<td>- Commitment of national government and international community to HRH plan implementation and sustainability:</td>
<td></td>
<td>- Reduced mortality and burden of disease as measured by:</td>
</tr>
<tr>
<td>- Policy and mechanisms established for donor and partner support.</td>
<td>- Mechanisms to ensure certain level of local autonomy over HRH financial, material, human resources for locally developed strategies, matching health worker needs and essentials packages of care delivery at all levels.</td>
<td>- costed HRH plan;</td>
<td>- under-5 child mortality</td>
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<tr>
<td><strong>Leadership and partnerships</strong></td>
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<tr>
<td>- Leadership capacity-building policies and structures in place; and</td>
<td>- Mechanisms for capacity-building and upgrading in place at all levels;</td>
<td>- commitment to appropriate or increased allocation from national sources;</td>
<td></td>
<td>- maternal mortality ratio</td>
</tr>
<tr>
<td>- Establishment of networks and partnerships of relevant committed leaders and stakeholders.</td>
<td>- Strengthened capacities in:</td>
<td>- receipt of donor funding; and</td>
<td></td>
<td>- mortality by major cause of death by sex and age</td>
</tr>
<tr>
<td></td>
<td>- data literacy, analysis, reporting skills;</td>
<td>- data availability: HRH expenditures as % of public expenditures and GDP.</td>
<td></td>
<td>- TB prevalence</td>
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<tr>
<td></td>
<td>- analysis, generation and application of evidence and research;</td>
<td></td>
<td></td>
<td>- Reduction in cause-specific mortality and morbidity</td>
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<tr>
<td></td>
<td>- use of tools and techniques for HRH system;</td>
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Key result area 4: Health workforce, governance, leadership and partnerships for sustained HRH contributions to improved population health outcomes

**Strategic objective:** Strengthen health workforce cross-sectoral planning, policy coherence, regulations and partnerships to ensure the delivery of universally accessible, effective, evidence-based, quality and safe services.

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<tr>
<td><strong>Leadership and partnerships</strong></td>
<td>- Institutional economic, quality and equity assessments and overall policy analysis; and - Generation, analysis, dissemination and application of evidence; - Networks and partnerships have formal aims, objectives, operating procedures, workplans, monitoring and evaluation of work; and - Network expansion, strengthening, sustainability, increased collaboration and productivity.</td>
<td>Dissemination and publication of outputs and technical work products resulting from networks and partnerships</td>
<td>Increased population access to an adequate, competent, productive and supported workforce for quality health care.</td>
<td>Increased life-expectancy, increased equity, responsiveness of health services, reduced mortality and burden of disease as measured by: under-5 child mortality, maternal mortality ratio, mortality by major cause of death by sex and age, TB prevalence, reduction in cause-specific mortality and morbidity.</td>
</tr>
<tr>
<td><strong>Regulation and safety</strong></td>
<td>Policy enactment for improved working conditions at all levels, in all facilities; and Systems, monitoring, evaluation and accountability mechanisms for quality improvement, health and safety, improved working conditions at facility level for public and private facilities.</td>
<td>Health professional registration system data up to date and accurate for both private and public sectors; Increasing number of public and private facilities with policies, systems for quality improvement (including infection control), health and safety, and improved working conditions; Public access and transparency in workforce registration, licensure, disciplinary data; and Regular surveys and reporting of facility quality and safety data benchmarked with national, regulatory and/or accreditation standards and indicators.</td>
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</table>