Health Workforce

Human resources for health are the cornerstone of the health system in every country and play a critical role in achieving universal health coverage. To ensure healthy lives and promote well-being for all at all ages, a strategic and substantive investment in the health workforce is essential, matching the supply and skills of health workers effectively to population needs, now and in the future (1–3). Creating transformed and sustainable health workforces requires effective policy actions across sectors (including health, social care, welfare, education, finance, labour and foreign affairs) and engaging with providers in the public and private sectors and with civil society, trade unions, health worker associations, regulatory bodies and educational and training institutions (1,4).

Overview

There are various definitions used for the health workforce but in the context of attaining the Sustainable Development Goals (SDGs) it is important to have a broad and inclusive perspective: “all people engaged in actions whose primary intent is to enhance health” (5).

The health workforce is one of the six building blocks defined in the WHO health system framework (service delivery; health workforce; information; medical products, vaccines and technologies; financing; and leadership and governance). A sustainable, resilient, equitably distributed and accessible workforce is key to improving health service coverage and delivering the highest attainable standard of health and well-being in the WHO European Region (2,4). This workforce needs to have the right knowledge, skills, values, ethics and behaviours to be able to address all population health challenges and it must be motivated and empowered to deliver high-quality care that is appropriate and sensitive to the sociocultural expectations of the population. It must also be adequately supported by the health system (1).
Strengthen the health workforce: health worker supply–demand imbalances, geographical and sectoral maldistribution and health worker migration are system characteristics in most Member States of the WHO European Region and notably contribute to unmet health needs in rural, remote and underserved regions and communities (1,4).

Although the countries of the WHO European Region exceed the SDG index threshold of 4.45 physicians, nurses and midwives per 1000 population (Fig. 1) (1,6), the significant projected growth in demand, driven by population ageing and increasing expectations (7), presents an ongoing challenge for all countries to improve the skill distribution and the sustainability of supply, distribution, motivation and effectiveness of the workforce.

Policies are required that address issues related to the work environment, well-being at the workplace and “decent work” in order to improve retention, participation, motivation and the sustainable supply of health workers with the right skills and geographic distribution (2,4).

The health workforce is highly resource intensive and global estimates for countries of low and middle income suggest that an additional $274 billion spending on health is needed per year by 2030 to make progress towards the SDG 3 targets; around 75% of this is for health systems, with health workforce and infrastructure as the main cost drivers (8). While the specific challenges in the European Region may vary from the global context, workforce remains one of the main cost drivers.

High-income countries have a service delivery profile that goes beyond the provision of essential health services, with a labour market characterized by high mobility of physicians, nurses and midwives, and geographic and sectoral maldistribution that continues to be a challenge for improved access. Workforce modelling exercises of the Organisation for Economic Co-operation and Development (OECD) that took into consideration these and other implications estimated that by 2030 there will be shortfall in human resources for health against service requirements (9).

Reduce maternal mortality, end preventable newborn and child deaths: although great progress has been made with the expansion of coverage for maternal and child health in the WHO European Region, there are still areas needing improvement (10).

On average, 99% of births are attended by skilled health personnel in the Region. However, this percentage ranges from 88% to 100% among different Member States (3,6).

Beyond survival, the trends in disease and disabilities in this population group have changed; this has an impact on the organization and delivery of services, of which the workforce is a cornerstone (10).

End the epidemics of communicable diseases: the lack of sustainable human resources and sound health financing mechanisms present significant challenges at all levels for communicable diseases.

Effective, integrated and sustainable workforce strategies to support, among other needs, integrated care for HIV, tuberculosis, viral hepatitis and drug dependency are urgently needed. These models of integrated care should be delivered by properly staffed, trained and responsive multidisciplinary teams, including physicians, nurses, psychologists, social workers and social mediators, among others (11).

Countries are in particular need of specialized staff to ensure prevention, control and care for multidrug and extensively drug-resistant tuberculosis. This includes ensuring adequate services for children and adults, improving case detection and scaling up diagnostic and laboratory capacity (12).
Reduce premature mortality from noncommunicable diseases: the WHO European Region has the highest burden of noncommunicable diseases worldwide (13,14). The distribution and mix of human resources for health have commonly been encountered as health system barriers to better responses to the noncommunicable disease burden (15). Achieving a more effective distribution and mix of human resources for health can be an enabler for better health system responses to noncommunicable diseases. For example, exacerbation of chronic conditions that affect people of working age can be prevented by provision of access to regular check-ups that have minimal disruption to patients’ daily routines; this would lessen the rates of avoidable hospitalizations and reduce health care costs.

Ensure access essential medicines and vaccines: WHO estimates that more than half of all medicines worldwide are prescribed, dispensed or sold inappropriately, and that half of all patients fail to take medicines correctly (16). These are crucial challenges to ensuring sustainable access to essential medicines, particularly in view of the growing threat from antimicrobial resistance. Health workers play a vital role in the responsible and appropriate prescribing and use of medicines, which will help to address these issues.

• It is estimated that antimicrobial resistance causes 25 000 deaths annually in the European Union alone (17). Health workers have a vital role in mitigating, preventing and controlling antimicrobial resistance. Effective communication, education and training of the health workforce in the prudent use of antimicrobial drugs, adequate hygiene and infection prevention and control in health care settings will support ensuring the continued availability of effective medicines.

Strengthen the capacity of all countries for early warning and risk reduction: ensuring a sustainable, balanced and appropriately skilled health workforce in sufficient numbers is a core capacity for adequate implementation of the International Health Regulations (IHR) (2). The WHO European Region’s IHR capacity score for human resources was estimated at 42% according to the results of the last IHR monitoring questionnaire (2016) (18). Public health personnel must be provided with appropriate knowledge, skills and competencies, and resources to respond to a public health emergency.

Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs1 and entrepreneurship: the transformation of professional, technical and vocational education and training, including curricula development, is required to optimize the performance, quality and impact of the health workforce (4).

• Worldwide, global expenditure for health professionals’ education is less than 2% of health expenditure and it has been observed that the availability and distribution of educational institutions and curricula do not align well with either country population size or national burden of disease (20).

• Stewardship, accreditation and learning systems for health professionals’ education are perceived as weak and unevenly practised around the world. Although many educational institutions have launched innovative initiatives, little robust evidence is available about the effectiveness of such reforms (20).

• Scaling up transformative, high-quality professional, technical and vocational education and training, plus lifelong learning, is required. In addition, the capacity and quality of educational institutions should be strengthened through accreditation and the use of information and communication technology solutions to support the delivery of education (4).

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1 According to the International Labour Organization (19) “Decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.”.
Achieve full and productive employment and decent work for all women and men: the health sector is a key economic area and a job generator. Investing in health care education and employment results in direct and indirect contributions to economic growth along different pathways: economic output, social protection and cohesion, innovation and health security (1,2).

- In the WHO European Region, the estimated number of health workers was 12.7 million in 2013 and is forecast to rise to 16.8 million in 2030 (1). Estimates from Norway, for example, suggest that up to 38% of Norway’s workforce might work within the health sector by 2060 (2).
- Supporting health workforce performance, motivation, satisfaction, retention and well-being by promoting decent work and positive working environments will help to optimize the performance, quality and impact of investments in the health workforce (4).
- However, there is still likely to be a shortage of health workers, and the lack of skilled labour constrains job creation in the health sector. With the right policies in place, investment in education and job creation in the health sector will contribute to promoting inclusive economic growth (2,4).
- Economic growth, health labour market and demographic trends are important dynamics in the demand for health care that need to be considered for effective planning (1). For example, the demand for health care will likely increase in emerging economies and move beyond the essential services. In advanced economies, the issues are a growing demand for health workers together with an ageing population.

Ensure women’s full and effective participation and equal opportunities for leadership: as the health sector is a growing employer of women, it can greatly contribute to gender equality. Today, women are the main providers of care, including in humanitarian crises and conflict settings, yet gender bias, physical and sexual violence and harassment remain important challenges (2).

- Globally, the health and social sector employs an increasingly greater share of women (70%) than any other sector (41% total across all sectors) (21). In the WHO European Region in 2014, 52% of physicians were females, an increase of 4% since the early 2000s (21). While women make up the vast majority of health workers in most countries and systems, there remains a challenge in many to ensure that they have equal opportunities to continuing professional development and the achievement of senior positions.

Significant mismatches exist between supply and demand for health workers at all levels – globally, nationally, subnationally and sectorally – leading to inequitable distribution and deployment of health workers (1). Ensuring that there is alignment between service delivery priorities and planning and investment in the health workforce can assist in reducing inequalities by identifying staff shortages and improving the distribution of health workers and skills’ mix.

- Inequalities in the relative density of physicians, nurses and other health workers between Member States of the WHO European Region are considerable; for example, there are five times more doctors per head of population in some countries than in others (22).
- The situation with regard to nurses is of even greater concern; some countries have nine times fewer nurses than others per head of population (22).
- There is need for investments in creating health workforces (with jobs that meet the ILO decent work ideals) with the right skills in the right numbers and in the right places, particularly for women and young people (2,4).
- Developing or using available and effective tools to formulate plans that quantify health workforce needs, demand and supply for projected future scenarios can support sustainable workforce planning and improve distribution and skill mix (4).
- The importance of international migration of health workers must be considered (1), particularly in view of the impact of divergent working and living conditions in countries and the mobility of the health workers within the WHO European Region (23).
Develop effective, accountable and transparent institutions at all levels: it is important to build effective policy stewardship, leadership and governance capacity within health workforce institutions in order to develop and maintain a sustainable health workforce. This requires the participation of multiple stakeholders, and this aim should be clearly articulated and evident in national policy frameworks (1,4).

- Achieving a health workforce that is fit for purpose requires actions across all sectors involved with the health labour market. Sustainable, coherent and effective policy actions are best orchestrated across the finance, education, health, social welfare, labour and foreign affairs arms of government through inter-ministerial structures, coordination mechanisms and policy dialogues (2,4). Several countries have established dedicated institutions that include representatives from educators, professionals, universities and the public and private sectors to support the transformation of education, training and skills (2). For example, radical improvements in the quality of the workforce are possible if the higher education and health sector collaborate by implementing a transformative education agenda (20). This agenda could be further used to catalyse the expansion of the health workforce supply.

- Among the key challenges for effective governance and strengthening of institutional capacity are to ensure effective intersectoral collaboration and governance between stakeholders, to strengthen technical capacity and to mobilize financial resources for the human resources for health agenda (24). This requires political will and accountability of governments and ministries (1).

Commitment to act

Two recent global strategic developments, the Global Strategy on Human Resources for Health: Workforce 2030 (1) and Working for Health and Growth: Investing in the Health Workforce (2), provide a unique opportunity for a paradigm shift in health workforce policy and reinforce the key focus of the Tallinn Charter: Health Systems for Health and Wealth (25).

By adopting the Global Strategy (1) all WHO Member States committed “to improve health, social and economic development outcomes by ensuring universal availability, accessibility, acceptability, coverage and quality of the workforce through adequate investments to strengthen health systems, and the implementation of effective policies at national, regional and global levels” (Box 1).

Box 1. Leaving no one behind...

*Increasing access for the underserved Roma population in Romania:* health mediators used to improving health status. Compared with the general population, the Roma have higher infant mortality rates, lower life expectancy at birth and lower rates of childhood immunization. Cultural and language barriers, as well as the fact that a part of the Roma population is not documented, have impeded the access of Roma to health services, leading to these significant inequities.

In 2002, the Romanian Ministry of Health initiated a national programme to establish the new role of Roma health mediator. The purpose of the programme and role was to improve the health status of Roma and their access to health care services by facilitating communication between health personnel and Roma communities, and to increase the efficacy of public health interventions. Mediators are often Roma women with a high-school level of education who have been recommended by local communities and approved by medical practitioners and who have successfully completed a brief training (26).

Over a period of three years, higher vaccination coverage of Roma children and an increased number of Roma registered with family doctors were observed (27). However, unintended consequences were noted and challenges were faced because of insufficient initial training, modest remuneration of the mediators and difficult working conditions (27). Lack of transparency in programme funding and limited opportunities for continuous training of mediators have also attracted criticism. To ensure the sustainability of the programme, a new project is underway to retrain the health mediators for certification.
The second global development was the publication in 2016 of the report Working for Health and Growth by the United Nations High-Level Commission on Health Employment and Economic Growth (2). This led to an intersectoral five-year action plan for health employment and inclusive economic growth (2017–2021) (28), developed by the International Labour Organization (ILO), the OECD and WHO.

The WHO Regional Office for Europe has developed a framework for action for health workforce sustainability (4), which builds on these global initiatives and translates them into the regional context. It provides policy options for Member States to consider in order to achieve the following strategic objectives:

- education and performance to transform professional, technical and vocational education and training and to optimize the performance, quality and impact of human resources for health through evidence-informed policies;
- planning and investment to align investment in human resources with the current and future needs of the population and of health systems through effective planning;
- capacity-building for institutions involved in provision of human resources for health for effective policy stewardship, leadership and governance; and
- analysis and monitoring to improve the evidence base and to strengthen the data and applications that support analytical approaches to policy and planning for human resources for health.

The framework for action will be supported by a toolkit of strategies, planning tools and case studies of practice in provision of human resources for health, which will be launched at the Regional Committee in 2018 and will support Member States and relevant stakeholders in the implementation of the framework and in related labour market analyses (Box 2) (4).

**Box 2. Intersectoral action**

**Better management of the mobility of the health professionals:** rapidly increasing demand for health care professionals in countries facing shortages is producing a net migration loss of these workers from their origin countries, in particular from countries that offer less attractive working conditions or lower remuneration. Migration of health workers can significantly affect health systems and service delivery in the origin countries.

An approach to managing this inevitable phenomenon is presented by bilateral agreements – a form of migration that is managed in a way that enables health worker migrants some degree of legal support and that has a positive effect on source and destination countries, as well as the individual health workers. This approach must be properly managed and well governed for the benefit of all three parties, with collaboration with the international community through, for example, bilateral agreements, and the involvement of different sectors (e.g. labour, finance, health and education), plus the engagement of the public and private sector (29).

In Germany, the implementation of cooperation agreements between the Federal Employment Agency and the public employment services in Bosnia and Herzegovina, the Philippines, Serbia and Tunisia takes place within the framework of the Triple Win-Migration Project (30). The focus of the Triple Win-Migration partnership is on links between the German long-term care sector and countries that are not part of the European Union. The WHO Code of Global Practice is one of the guiding principles for the Project and it is based on the vision that (i) source countries will win knowledge (skilled workforce), (ii) Germany will win labour and gains from cultural diversity, and (iii) migrants will win job opportunities (in both destination and source countries) and skills.

Within this cooperative framework, foreign nurses are recruited and trained in their country of origin according to their language skills. The project management provides them with support with regard to their transfer to Germany (e.g. recognition of qualifications, residence and work permits). It also provides them with intercultural training. The foreign nurses have the opportunity to work in German health care facilities and are further educated in geriatric and elderly care. They are actively supported to utilize this gained work experience for the benefit of their home country.
Monitoring progress

The WHO Regional Office for Europe is developing a joint monitoring framework for the SDG, Health 2020 and noncommunicable diseases indicators\(^2\) to facilitate reporting in Member States and to provide a consistent and timely way to measure progress. It is recognized that an inadequate health and social workforce would compromise achieving all Health 2020 targets\(^{(31)}\). The following, as proposed in the global indicators framework of the United Nations Economic and Social Council (ECOSOC), will support monitoring progress in health workforce strengthening\(^{(32)}\).

\[\text{ECOSOC indicators}\]
3.c.1. Health worker density and distribution
3.1.2. Proportion of births attended by skilled health personnel

In addition, the Global Strategy on Human Resources for Health provides a monitoring and accountability framework to assess progress towards achieving its milestones at 2020 and 2030\(^{(1)}\). The overall aim is to streamline reporting requirements for Member States by progressively improving data on human resources for health, effectively linking the monitoring of the Global Strategy with that of the WHO Global Code of Practice and other human resource-focused global and regional resolutions and strategic documents on health.

**WHO support to its Member States**

The WHO Regional Office for Europe works at both regional and country levels with other partners (e.g. European Union, ILO, OECD) to assist Member States in addressing health workforce challenges. In the context of implementing the Framework for Action, the Regional Office for Europe will have several main areas of responsibility in taking this forward. These include a focus on:

- improving the quality of data for profiling of human resources for health and analysis through harmonizing standards, definitions and indicators;
- monitoring health workforce dynamics, trends and progress on addressing the human resources challenges and supporting informed decision-making;
- facilitating multistakeholder policy dialogues;
- developing country profiles for human resources for health;
- organizing capacity-building workshops and training courses on how to use tools for policy analysis, planning, education and management of human resources for health; and
- building and maintaining technical cooperation, networks and partnerships in the human resources for health thematic area.

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**Partners**

WHO collaborates with the following partners, among others, to strengthen human resources for health:

- European Union Joint Action on Health Workforce Planning and Forecasting
- ILO
- OECD
- WHO collaborating centres for human resources for health
- European network of WHO collaborating centres for nursing and midwifery
- European Forum of National Nursing and Midwifery Associations
- International and national health professionals organizations
- Civil society organizations
- Academic institutions and European organizations for health professional education.

**Resources**

- Toolkit for a sustainable health workforce in the WHO European Region (currently in development)

**Key definition**

**Human resources for health.** All workers in the health services, public health and in related areas, and workers who provide support to these activities [1,4]. This broad scope usually includes, but is not limited to, health professionals, other health and social care workers, informal carers, support staff, administrators and managers. Such workers can be located in one or more environments, such as public health, primary and community care, long-term care, secondary and tertiary care or in support functions.

**References**


