

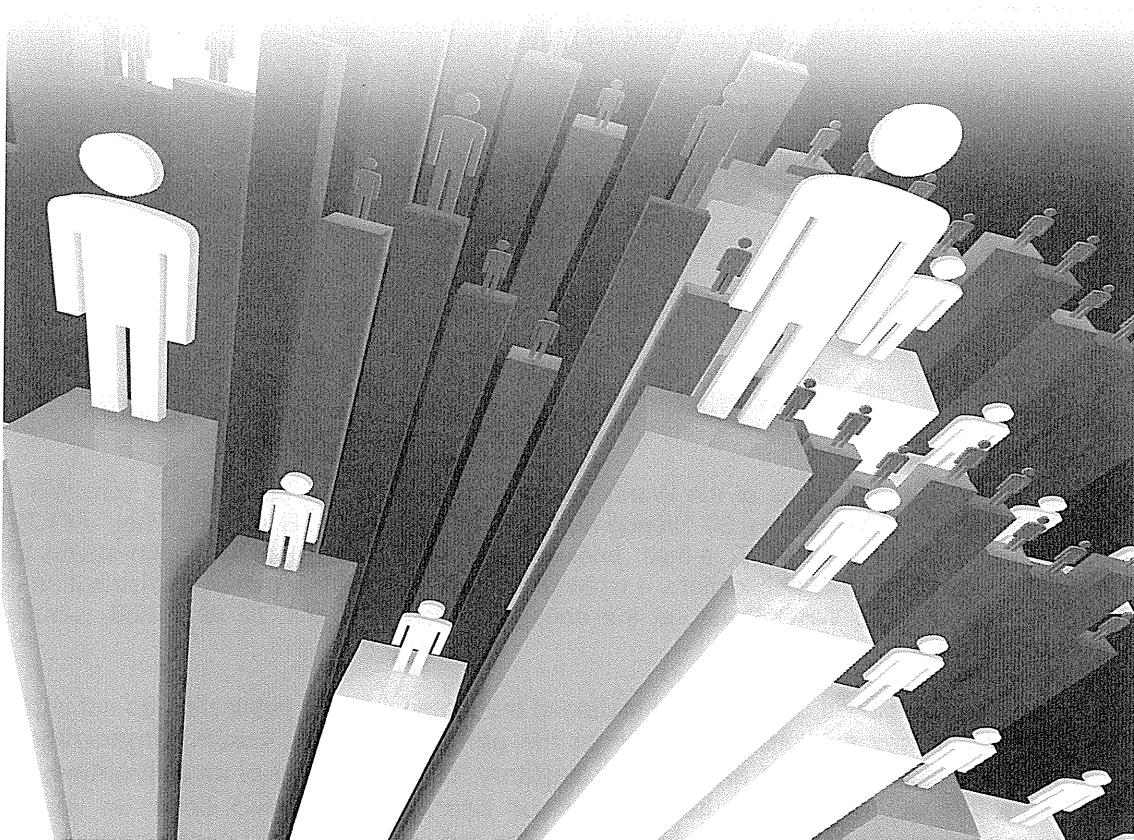
### ATTACHMENT 3: KEY MESSAGES DERIVED FROM FOUR CONSULTATIONS

The following table illustrates the significant messages from the outcomes of the four consultations:

Technical consultation – Amsterdam	Evidence Summit - Washington DC	Regional Meeting - Addis Ababa	Consultation - Nairobi
<ul style="list-style-type: none"> <li>• A number of innovative practices are available to be adapted; however, they require comprehensive policy framework and sustained financing.</li> <li>• Multistakeholder collaboration with strong community ownership, under government stewardship and engagement of public sectors, public sector, NGOs, bilateral and multilateral partners is essential for a successful CBP programme.</li> <li>• CBP programmes should be embedded in the formal health system, providing career opportunities and enabling environment such as political commitment, sufficient supplies and adequate working conditions including workload, teamwork, supervision, and quality assurance mechanisms.</li> <li>• Research is needed on impact and cost effective analysis of CBP programmes.</li> <li>• Wide diversity in the background and training that CBP programmes between countries and between programmes within countries demand further research and clarity of roles and tasks and evidence-based appropriate training, with standardization of curriculum and continuous education.</li> </ul>	<ul style="list-style-type: none"> <li>• An evidence-to-action strategy should guide country policy making and programming for CHWs.</li> <li>• There is a pressing need for a more coordinated approach to sound stewardship of CHWs programmes at both the country and global levels. In this perspective, a collective commitment to improved stewardship, backed by better coordination, collaboration, and research, could help address the common constraints that inhibit optimal CHWs performance. As the literature does not satisfactorily address the central question of the relative and combined contribution of communities and formal health systems in enhancing CHWs performance, there is need for development of a research agenda to support sustainable, effective health service delivery at community level. Additional research will strengthen the evidence base on questions of policy and programmatic importance.</li> </ul>	<ul style="list-style-type: none"> <li>• A variety of large-scale CHWs mechanisms are possible across different countries with strong government support; however, functionality must precede scale up in order to be sustainable.</li> <li>• Advocacy is the key element in scaling up CHWs programmes; therefore, prioritizing the community as the foundation would strengthen CHW programs</li> <li>• Advocacy at the leadership level is critical as well, with the identification of CHW champions to help direct focus to CHW needs.</li> <li>• The health workforce crisis challenges can be addressed by scaling up CHW programmes through a collaborative process, integrating in larger health system and providing tools needed to deliver universal services</li> <li>• The CHW AIM tool provides a systematic and comprehensive way of looking at and improving CHWs programme performance; efforts to support its use for assessment, planning, and evaluation should be prioritized in the public and NGO sector.</li> </ul>	<ul style="list-style-type: none"> <li>• Development partners should proactively work with countries to roll out promising practices and high impact interventions for achieving MDG 4 &amp; 5.</li> <li>• Countries should strive to improve supply of health workers at frontline by translating and adapting/adopting global and continental initiatives to specific country contexts and needs.</li> <li>• Multistakeholder national coordination platforms such as Country Coordination and Facilitation (CCF) mechanism can facilitate communication and dialogue among actors, to engage them in decision making and mutual accountability processes.</li> <li>• All stakeholders need to duly focus on workers at the frontline of services and their functions, recognise their value in the system in ensuring equitable access and the need of health workers at other levels of the service delivery system to enable and support their front-line role, guided by identified competence needs and appropriate skills mix in context</li> <li>• Civil society, academic, FBOs and other non-state actors should work with countries to strengthen the evidence base on impact of initiatives and interventions at the frontline.</li> </ul>

## 6- References

1. Global experience of Community Health Workers for delivery of Health related Millennium Development Goals, a systematic review, country case studies, and recommendations for integration into National Health systems, Global Health Workforce Alliance, Geneva, 2009
2. Integrating Community Health Workers in national health workplan, Global Health Workforce Alliance, 2010 (document available at <http://www.who.int/workforcealliance/knowledge/themes/community/en/> )
3. Final report: Technical consultation on the role of community based providers in improving Maternal and Newborn Health, Royal Tropical Institute, Netherlands, 2012
4. Meeting brief: Evidence Summit on Community and Formal System Support for Enhanced Community Health Worker Performance, USAID Global Health Bureau, Washington DC, 2012
5. Final report: Community Health Worker Regional Meeting, USAID-funded Health Care Improvement Project, Addis Ababa, Ethiopia, 2012
6. Final report: Health workers at the Frontline – Acting on what we know: Consultation on how to improve front line access to evidence-based interventions by skilled health care providers, NORAD, Nairobi, Kenya, 2012.
7. Mid-level health providers: a promising resource to achieve the health Millennium Development Goals, Global Health Workforce Alliance, Report WHO/HSS/HWA/Mid level providers/2010/A, 2010 (document available at <http://www.who.int/workforcealliance/knowledge/resources/mlpreport2010/en/>)
8. Fourth high level forum on aid effectiveness, Busan, republic of Korea, 29 November-1 December 2011 ([http://www.fao.org/fileadmin/user\\_upload/capacity\\_building/Busan\\_Effective\\_Development\\_EN.pdf](http://www.fao.org/fileadmin/user_upload/capacity_building/Busan_Effective_Development_EN.pdf) )
9. Countdown to 2015: Tracking Progress in Maternal, Newborn and Child Survival (document available at <http://www.countdown2015mnch.org/about-countdown> )
10. Commission on Information and Accountability for Women’s and Children’s Health (document available at [http://www.who.int/pmnch/media/membernews/2011/20110620\\_commission\\_on\\_accountability/en/index.html](http://www.who.int/pmnch/media/membernews/2011/20110620_commission_on_accountability/en/index.html))
11. The Global Health Workforce Alliance strategy 2013 to 2016 (document available at <http://www.who.int/workforcealliance/knowledge/resources/ghwastrat20132016/en/index.html>)



## Transforming and scaling up health professionals education and training



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## Preface

## Contributors and acknowledgments

These guidelines are part of the World Health Organization (WHO) programme on the Rapid Scaling Up of the Health Workforce. This programme is an essential component of WHO's efforts to reach the Millennium Development Goals, strengthen health systems and achieve universal coverage in the context of primary health care.

These activities have been supported by Margaret Chan, Director-General of WHO and Carissa Etienne, formerly Assistant Director-General for Health Systems and Services. Manuel M. Dayrit, Director, of the former Department of Human Resources of Health (HRH), Rebecca Bailey of the former Department of Human Resources of Health and more recently by Mario Dal Poz, former Coordinator, HRH.

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The WHO headquarters team was led by Erica Wheeler with support from Mwansa Nkowane. Editorial assistance was provided by Joanne McManus (independent consultant, UK) for all aspects of the writing of the guidelines as well as the accompanying policy briefs. The guidelines were copy edited by Diana Hopkins (independent consultant, Geneva).

The members of the Core Guidelines Development Committee are acknowledged below. A complete list with contact addresses is in Annex 10 of these guidelines.

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From WHO departments at headquarters the expert consultation meetings were chaired initially by Manuel M. Dayrit, Director of the former Department of Human Resources for Health (HRH) with support from Francesca Celletti and latterly by Wim Van Lerberghe, Director for Health Policies, Systems and Workforce of which department the Human Resources for Health Team is now a part. Logistical support for the expert consultation meetings was provided by Virgie Largado, formerly of the HRH Department, and Regine Guin. The following staff members in WHO's regional offices were actively involved in the expert consultations meetings: Walid Abubaker (WHO Regional Office for the Eastern Mediterranean, Egypt); Silvina Malvarez (WHO Regional Office for the Americas), USA); Ezekiel Nukuro (WHO Regional Office for the Western Pacific, the Philippines); Galina Perfilieva (WHO Regional Office for Europe, Denmark); Buddiharja Singgih (WHO Regional Office for South-East Asia, India).

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All participants to the consultation meetings signed a declaration of interest. Eighty-nine participants declared interest in terms of receiving non-commercial financial support for research and consulting from public bodies interested in the education and training of health workers. These interests were not considered to conflict with participation in the development of the guidelines.

The guidelines were peer reviewed by XXXXX. Their comments were sent electronically to the HRH team. The WHO Secretariat then made all the appropriate amendments.

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The views expressed in these guidelines can in no way be taken to reflect the official opinion of PEPFAR, USAID, the European Commission, IntraHealth, CapacityPlus or any partners involved in their development.

A list of expert group members and other participants to all expert consultation meetings is provided at the end of this document at Annexes 12 and 13.

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## Abbreviations

CIDMEF	Conférence Internationale des Doyens et des Facultés de Médecine d'Expression Française
CPD	Continuing professional development
DFID	Department for International Development (UK)
EFNE	European Federation of Nursing Educators GAVI: Global Alliance for Vaccine and Immunization
GFATM	Global Fund to Fighting AIDS, Tuberculosis and Malaria
GHWAA	Global Health Workforce Alliance
GRADE	Grading of Recommendations Assessment, Development and Evaluation
GRC	Guidelines Review Committee
HRH	Human resources for health
HRIS	Human resource for health information system
ICM	International Confederation of Midwives
ICN	International Council of Nurses
IPF	International Pharmaceutical Federation
JICA	Japanese International Cooperation Agency
JLI	Joint Learning Initiative (on the analysis of the global health workforce)
MEPI	Medical Education Partnership Initiative
NEPI	Nursing Education Partnership Initiative
PEPFAR	United States President's Emergency Plan for AIDS Relief
PICO	Population/intervention/comparison/outcome
SIDIIEF	Secrétariat international des infirmières et infirmiers de l'espace francophone
STOP-TB	Partnership to fight tuberculosis
TUFH	The Network: Towards Unity for Health
USAID	United States Agency for International Development
WFME	World Federation <i>for</i> Medical Education
WHO	World Health Organization

## Executive summary

**There is a stand alone 12 page summary which will be finalized following any further comments on the document and these will be then condensed into 4-5 pages to be inserted here.**

# 1. Transforming and scaling up health professionals education and training: Why is it urgently needed?

A severe lack of health professionals is leaving millions of people without access to appropriate health services, principally primary care. This is the most critical challenge to achieving universal coverage of health services. If competent appropriately skilled health professionals are not available in adequate numbers and distributed proportionately to the population, many citizens will not receive the services corresponding to their health needs.

The World Health Report 2006 estimated that an additional 2.4 million doctors, nurses and midwives were needed globally (WHO 2006a). There is no indication that this deficit has been significantly reduced since that estimate was first published. The health workforce is one of the six building blocks of the health-care system which countries need to strengthen if the objective of universal equitable access to good quality health services is to be achieved (WHO 2007). Producing more health professionals alone will not be sufficient; what a population needs is a health workforce with the right competencies to respond to its evolving needs. In most countries, rich and poor, the education of health professionals has traditionally been isolated from health services delivery needs and has not been adapted to rapidly changing population health profiles. An excessive focus on hospital education and segregated education in professional silos are not an appropriate preparation for team work, and for management leadership which 21st century health services require (Joint Learning Initiative 2004; WHO 2006a; GHWA 2008; Frenk et al. 2010).

Undoubtedly, more health professionals are needed with new competencies and motivation to serve the needs of society. The transformation of health professionals education can be achieved by competent and dedicated leaders focusing on health needs and the objectives of the health-services system. The WHO *Initiative on transforming and scaling up health professional education and training* is a contribution to this difficult but inspiring task (Box 1).

### **Box 1. Our collective task**

Transformative scale up of health professional education and training is defined as the sustainable expansion and reform of health professional education and training to increase the quantity, quality and relevance of health professionals, and in so doing strengthen country health systems and improve population health outcomes.

Source: Celetti et al. (2011).

### **Why is WHO developing guidelines?**

In 2006, the World Health Assembly (WHA) called on all Member States to contribute to a rapid scaling up of the production of health workers (resolution WHA59.23, Box 2). The resolution also called for the development of national comprehensive health workforce strategies.

### **Box 2. Excerpts of WHA Resolution 59.23 – Rapid scaling up of health workforce production**

The Fifty-ninth World Health Assembly,

(...)

Recognizing that shortages of these health workers are interfering with efforts to achieve the internationally agreed health-related development goals, including those contained in the Millennium Declaration, and those of WHO's priority programmes;

(...)

Recognizing the importance of achieving the goals of self-sufficiency in health workforce development,

...URGES Member States to affirm their commitment to the training of more health workers by:

(...)

(2) promoting training in accredited institutions of a full spectrum of high-quality professionals, and also community health workers, public health workers and paraprofessionals;

(...)

(4) promoting the concept of training partnerships between schools in industrialized and developing countries involving exchanges of faculty and students;

(...)

(6) using innovative approaches to teaching in industrialized and developing countries, with state-of-the-art teaching materials and continuing education through the innovative use of information and communications technology....

Source: WHO (2006b).

Policy discussions which followed initially focused on the need for increased educational capacity and production. The problems of insufficiency of health workers were perceived to be exacerbated by migratory flows, largely from low-income to high-income countries, which resulted, in 2010, in the adoption by the WHA of a *WHO*

*Global Code of Practice on the International Recruitment of Health Personnel* (WHO 2010a). A related issue, the inequitable geographical distribution of the available health workers, led to the publication of the WHO policy recommendations on *Increasing Access to Health Workers in Remote and Rural Areas through Improved Retention* (WHO 2010b). Soon, the need was raised to address the shortcomings in current approaches to the education of health professionals in a more systematic manner. The Independent Commission on Education of Health Professionals for the 21st Century (Frenk et al. 2010) directly addressed the issue.

As a global normative and technical health agency, WHO has assumed responsibility for providing guidance to countries on the transformative scaling up of health professionals education. To do so, it has brought together existing expertise to construct a robust evidence base that can inform new policies to increase the quantity and improve the quality of skills, knowledge and attitudes, and the relevance of health professionals education and training. In 2009, WHO joined forces with the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the United States Agency for International Aid (USAID) who shared the objective "to strengthen the quality and capacity of nursing, midwifery, and medical education in Africa" with sound policy and technical guidance in order to build a quantitatively stronger health workforce with a greater capacity to respond to the health needs of individuals and communities. This was subsequently expanded to cover other health professionals.

Scaling up education and training is a critical component of the strategies to strengthen the health workforce, but much of its effectiveness will be lost if it is not complemented with policies to retain the graduates, and to provide them with working conditions that will enable them to use their knowledge and skills productively (GHWA 2008).

The primary objectives of this initiative are to:

1. provide sound policy and technical guidance in the area of pre-service education, particularly to countries experiencing shortages of doctors, nurses and midwives (technical and policy guidelines);
2. guide countries on how to integrate continuing professional education (CPE) as part of the scaling up of medical, nursing and midwifery education to ensure excellence in care, responsive health-service delivery and sustainable health systems.

The guidelines primarily address the first objective. After several discussions, a suggestion was made to the WHO Secretariat and endorsed by the Guidelines



Development Group to broaden the range of health professionals from doctors, midwives and nurses to cover a wider range of health professionals (Annex 1), and not to confine the geographical focus to Africa, despite the high concentration of countries in human resources for health (HRH) crisis in the region. The Guidelines are intended to serve the needs of a variety of groups: government leaders and policy-makers in health, education, finance, labour and the civil service; public and private education and training institutions; students, educators and researchers; professional associations and regulatory bodies; health services managers; civil society, and development partners intervening in the health sector.

### **Statement of the problem**

The number of health professionals worldwide, and the quality and relevance of their education, is insufficient to meet the current and future health needs of local populations.

### **Goal**

To transform and scale up the education and training of health professionals to contribute to health system strengthening and to improve health outcomes.

### **Objectives**

- To increase the number of health professionals.
- To improve the quality of health professionals in terms of their competence, responsiveness and productivity.
- To improve the relevance (including skill mix, availability and equitable distribution) of health professionals to the local context.

### **Scope of guidelines**

The guidelines encompass the education and training of all groups of health professionals (see Annex 1 for definitions). The interventions therefore apply to all levels of education and training of health professionals (undergraduate, postgraduate, continuing professional development, and others to address the continuum of education) in both the public and private sectors in all countries.

## **Definition and guiding principles for transforming and scaling up of health professionals education and training**

The transformative scale up of health professionals education and training is defined as the expansion and reform of health professionals education and training to increase the quantity, quality and relevance of health professionals so as to best meet population health needs and expectations in an equitable and efficient manner and, in so doing, strengthen countries' health systems and improve population health outcomes.

It is a multidimensional process that involves increasing the number of health professionals and ensuring that they have competencies relevant to the needs of the population. Additionally, it involves building the institutional capacity to produce and employ the desired number and skill mix of health professionals in a sustainable way. This requires the development of a sufficient and competent workforce of educators and trainers, the utilization of effective education methods, and access to adequate infrastructures, equipment and learning tools.

In developing and implementing these guidelines, the Core Guidelines Development Group (also referred to as the Core Group in this document) was inspired by a common vision of the transformation and scale up of health professional education and training (Box 3).

### **Box 3. The vision for transformative education**

- Greater alignment is needed between educational institutions and the systems that are responsible for health service delivery.
- Country ownership of priorities and programming related to the education of health professionals with political commitment and partnerships to facilitate reform at national, regional and local levels.
- Promotion of social accountability in professional education and of close collaboration with communities.
- Clinicians and public health workers who are competent and provide the highest quality of care for individuals and communities.
- Global excellence coupled with local relevance in research and education.
- Vibrant and sustainable education institutions with dynamic curricula and supportive learning environments, including good physical infrastructure.
- Faculty of outstanding quality who are motivated and can be retained.

Adapted from Celetti et al. (2011).

The Core Group agreed on five main areas for interventions as follows:

1. education and training institutions
2. accreditation and regulation
3. financing and sustainability
4. monitoring, implementation and evaluation
5. governance and planning.

In order to realize transformation in these five areas, the work was guided by a series of principles which are considered fundamental to success. These state that changes need to:

- be country-owned, country-led, context-specific, and embedded in the broader socio-economic and development characteristics of communities and populations;
- respond to population health needs and expectations, and adapt to evolving epidemiological profiles and burdens of disease;
- aim at health equity, delivery of people-centred services, responsiveness and inclusion;
- foster the use of effective strategies of promotion, prevention, education and rehabilitation;
- contribute to universal access to health services;
- be designed and implemented system-wide and through multi-sectoral coordination and include all relevant public and private sector stakeholders (policy-makers at all levels in health, education, labour and finance; education and training institutions and associations; professional associations and regulatory bodies; health services administrators; communities and civil society; and development agencies and partners);
- be aligned with national health objectives and strategies and human resources for health plans (evidence-based, costed, affordable and sustainable);
- apply a combination of context-specific interventions, applicable in both the public and private sectors, in broad areas such as governance, educational and training institutions, regulatory frameworks, financing, and planning;
- produce health professionals who have a set of globally recognized core competencies that are locally relevant, and who are able to serve their local communities in an effective manner;
- ensure that an increase in the production of health professionals is accompanied by an increase in the absorptive capacity of the labour market to employ and retain additional health workers;

- be supported by significant long-term financial investment, and effective leadership and management, good information systems and political commitment to produce appropriate health professionals to meet needs;
- be monitored and assessed with respect to the quantity, quality and relevance of professionals who are practicing within the health system, and not simply on the amount of new graduates.

The task of writing guidelines on health professional education is complex because of the multiple dimensional nature of the subject. Our objective is to focus on the most transforming interventions, on the basis of current evidence and on expert opinion.

Recommendations have to take into consideration what has been demonstrated to work, and make proposals with a strong potential to produce benefits in terms of improved health service provision and outcomes for populations. They comprise two types: good practices and general recommendations that are either conditional or strong. The transformation and scaling up of health professionals education should be based on the best “evidence” available.

However, innovation also implies creativity and risk-taking. McMaster University which introduced problem-based learning in medical education and set up the Towards Unity for Health Network in late 1969, launched 30 years later other pioneering transformative changes in health professional education, even though research-based evidence in support of their initiatives was scarce. Their source of inspiration was sound expert opinion, and value choices such as the promotion of more equitable access to and universal coverage of health services, and the recognition that life-long learning and continuing adaptation to change were needed (Lee Kwan 1997; Boelen 2000). As Albert Einstein is often quoted as saying, *“we cannot solve our problems with the same thinking we used when we created them.”* A member of the expert group expressed a similar point by saying: “we are talking about changing a system that hasn't worked, but we are looking for evidence in a system that has not worked in order to address the problems.”

### **Methods of work**

The expert group used the following multi-pronged methodological strategy to bring together the evidence available in support of the guidelines, which countries can then use with reasonable assurance that they will facilitate sound policy development in matters of health professionals education. An outcomes framework, which is based on