

# THE GLOBAL HEALTH WORKFORCE ALLIANCE: INCREASING THE MOMENTUM FOR HEALTH WORKFORCE DEVELOPMENT.

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## ABSTRACT

The Global Health Workforce Alliance was launched in 2006 to provide a joint platform for governments, development partners, international agencies, civil society organizations, academia, private sector, professional associations, and other stakeholders to work together to address a global crisis in human resources for health. Five years later the vision and mandate of the Alliance still remain valid. Despite advances in bringing the health workforce to the fore in international health policy arenas, more available knowledge and tools, and encouraging signs of commitments from many countries, health workforce bottlenecks continue to prevent many health systems from delivering essential and quality health services. Latin America is not spared from the challenges. The 2010 Second Global Forum on Human Resources for Health provided an opportunity to review progress, identify persisting gaps, reach consensus on solutions, and renew the momentum for and commitment to acutely needed investment and actions.

**Key words:** Health personnel; Health policy; Health systems; Human resources (source: MeSH NLM).

## INTRODUCTION: THE HEALTH WORKFORCE GLOBAL CRISIS

Health workers are the backbone of health systems. Several studies have demonstrated the direct correlation between the availability of health workers, coverage of health services, and population health outcomes.<sup>(1, 2)</sup>

While the global health agenda tends to be framed around individual diseases (e.g. HIV and AIDS, tuberculosis, malaria), clusters of diseases (e.g. non-communicable diseases), or conditions affecting specific population groups (e.g. maternal, newborn, and child health), national health systems deliver services in an integrated fashion and are manned by health workers with responsibilities that cut across service delivery areas. As a result, structural deficiencies of health systems tend to affect simultaneously the capacity to equitably deliver quality health services across the full range of priority health conditions.

Health workforce shortages and imbalances are perhaps the most prominent bottleneck threatening the attainment of the health Millennium Development Goals and other health development objectives. Recognition of the inadequacy of the health workforce in delivering HIV and AIDS services in the countries hardest hit by the

AIDS pandemic came as soon as serious efforts were made in scaling up access to antiretroviral treatment.<sup>(3)</sup> Progress in reducing maternal, newborn, and child mortality is too slow to attain the MDG targets in most countries. This disappointing trend is underpinned by a number of concomitant factors, of which health workforce imbalances are clearly one of the most significant.<sup>(4)</sup> And within the emerging agenda of broadening the objectives of health systems in low- and middle-income countries (LMIC) to include also non-communicable diseases (NCD), the health workforce has already been identified as a key constraint.<sup>(5)</sup> Health workforce insufficiencies also negatively affect preparedness for and response to global security threats posed by emerging and epidemic-prone diseases, including avian flu, Severe Acute Respiratory Syndrome (SARS), hemorrhagic fevers, as well as natural and man-made disasters.<sup>(6)</sup>

In the mid 2000s several related initiatives led to a better understanding of the severity and the impact of the health workforce crisis. The Joint Learning Initiative (JLI), supported by the Rockefeller Foundation and others donors, was launched in 2002 to examine the problems in human resources for health (HRH) in greater depth, with the objective of improving health across countries and equitably within different parts and different socio-economic strata within countries.

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The JLI analysed trends in human resources availability and shortages, indicating that “there are not enough health workers, they do not have the right skills and support networks, they are overstretched and overstressed, and often they are not in the right place”; it also held consultations in countries identifying regional best practices and developed a strategic report on global human resources for health.<sup>(7)</sup>

The JLI report was followed by a range of policy discussions and negotiations to drive the initiative forward. In February 2005, a high-level consultation in Oslo brought together key stakeholders to develop a common global platform of action. During this consultation, the decision was taken to create a new global partnership. To kick start this new initiative, a special technical working group was formed, which developed over 2005 and early 2006 a Strategic Plan of what would become the Global Health Workforce Alliance (hereafter referred to as the “Alliance”).<sup>(6)</sup>

During World Health Day 2006, the World Health Organization (WHO) shared the most critical findings of its World Health Report (WHR) 2006, indicating a serious shortage of health workers - a worldwide gap of 4,250,000 - compounded by maldistribution, uneven performance and quality, insufficient incentives and remuneration, poor working conditions, inadequate management practices and support. The report indicated that the challenge was global, but the burden was greatest in 57 priority countries overwhelmed by poverty and disease, which were identified as having “critical shortages.” Shortages were most severe in sub-Saharan Africa, which, despite having 11% of the world’s population and 24% of the global burden of disease, reported having only 3% of the world’s health workers.<sup>(8)</sup>

Launching the WHR 2006, WHO set out a 10-year plan to address the crisis, calling for national leadership to urgently formulate and implement country strategies for the health workforce, to be supported also by development partners.

With this backdrop, the Alliance was officially launched on 25 May 2006 at the 59<sup>th</sup> World Health Assembly in Geneva.

## MANDATE AND INSTITUTIONAL FRAMEWORK OF THE ALLIANCE

The launch of the Alliance was based on an understanding that a number of players, within and outside the health sector, are routinely involved, or can be constructively engaged, in health workforce-related processes: coordination among them is crucial both among different

health sector stakeholders (e.g. government, private sector, civil society, development partners etc), and across different sectors (health, education, finance, civil service, etc). While a single organisation could not offer all the required solutions, a common platform for key players to collaborate could contribute to addressing this global and multi-faceted crisis.

The Alliance was therefore launched as a global partnership, with the vision that “all people everywhere will have access to a skilled, motivated and supported health worker, within a robust health system.” Its mission is to “advocate and catalyse global and country actions to resolve the human resources for health crisis, to support the achievement of the health-related millennium development goals and health for all.”<sup>(9,10)</sup>

At an operational level the Alliance works to:

1. highlight the crisis of human resources for health and keep it on the global agenda through a range of advocacy initiatives and engagements;
2. broker knowledge and facilitate the sharing of best practices on health workforce issues for more evidence-based responses;
3. convene countries, members, partners, and other relevant stakeholders to work together to find solutions to health workforce challenges, and facilitate their effective implementation.

These three work streams (advocacy, brokering knowledge, convening) converge towards the inclusive development, financing, implementation, and monitoring of national health workforce strategies and plans. The ultimate goal is equitable access to health workers to ensure delivery of essential health services for better health outcomes. This conceptual framework is outlined in figure 1.

The Alliance Secretariat, headed by an Executive Director, is hosted by WHO headquarters in Geneva through a special relationship governed by a Memorandum of Understanding (MOU). The Alliance follows the legal and administrative procedures of WHO, but it works independently. WHO does not fund or control the Alliance’s operations.<sup>(6)</sup>

The Alliance is governed by a Board composed of a selection of Alliance members, key stakeholders in HRH development, and main funding partners.<sup>(11)</sup> WHO, being a founding member and special partner of the Alliance in light of the hosting arrangement, has a permanent seat on the Board. Other Board members are drawn from a range of different constituencies, including professional associations, non-governmental

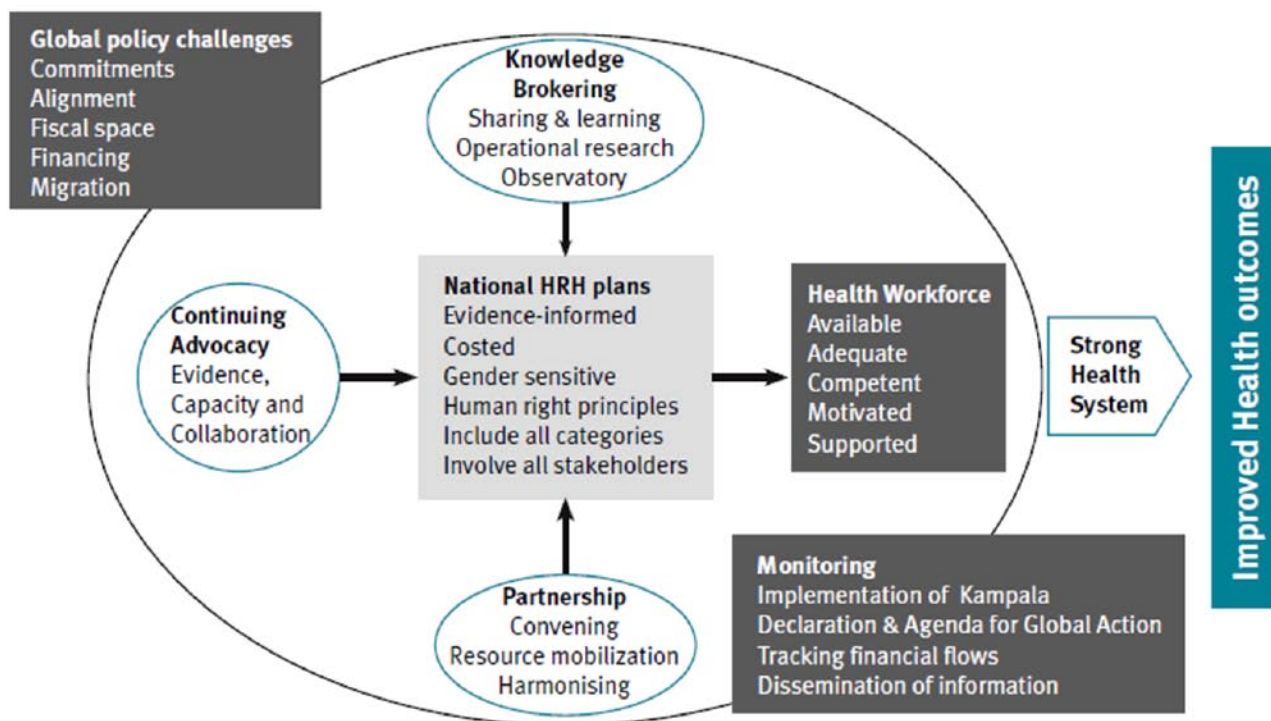


Figure 1. Conceptual framework for the Alliance's work <sup>(10)</sup>

organisations (NGOs), academia, and governments. The Board meets twice a year, sets the policies and strategic directions of the Alliance, and oversees the work of the Secretariat.

*The members and partners of the Alliance*

As of January 2011, the Alliance had 301 members<sup>(1)</sup> and nearly 30 partners<sup>(2)</sup> from around the world, drawn from academic and research institutions, foundations, national governments, non-governmental and civil society organisations, private corporations, professional associations, international agencies, hospital networks, and trade unions (Table 1).

Membership in the Alliance is obtained by demonstrating through an application process an institutional commitment to resolving the health workforce crisis and to strengthening human resources for health.

An organisation seeking membership of the Alliance should:

Table 1. Breakdown of Alliance members, by constituency and by geographical regions.

By WHO region:		By category:	
Regional Office for Europe (EURO)	74	Academia	92
Regional Office for the Eastern Mediterranean (EMRO)	21	NGO	95
Regional Office for the Americas (AMRO)	84	Foundations	15
Regional Office for Africa (AFRO)	61	Private corporation	25
Regional Office for South East Asia (SEARO)	37	Professional associations	20
Regional Office for the Western Pacific (WPRO)	24	National governments	19
		Financial institutions	1
		UN	8
		others	26
<b>Total</b>	<b>301</b>	<b>Total</b>	<b>301</b>

1 Members are the organisations that joined the Alliance through an application process.

2 Partners provide funding and other support and collaborate directly with the Alliance members and the Secretariat.

- be active in the area of human resources for health, or a closely related field;
- endorse the values and general principles of the Alliance, as reflected in its strategic plan;
- represent an institution, agency, or government active in the Alliance’s priority areas;
- be actively supporting the attainment of the Kampala Declaration and the Agenda for Global Action. <sup>(12)</sup>

The Alliance is governed by a Board which includes representatives drawn from its various constituencies and members. In addition there are processes for consulting with the broader membership base, for example through virtual or face-to-face consultations, as done through a members’ platform meeting in January 2011.

Alliance members are independent in their operations and strategies, but they have in the Alliance a shared vehicle and platform for collaboration. The true strength of the Alliance does not lie in the capacity of the Board or the Secretariat to take forward the HRH agenda in isolation, but in the extent to which its members and partners own and share its vision and strategy, and drive them forward themselves as well as in partnership with one another.

**ACHIEVEMENTS AND OPPORTUNITIES**

*GLOBAL ATTENTION*

In the past few years, the human resources for health crisis has progressed from a neglected issue to one of the most visible and discussed topics in the health and development debates. Building on the JLI and the WHR

2006, the Alliance and its members played a critical role to maintain and increase the momentum for HRH development through a number of initiatives and events: in March 2008, the Alliance convened the First Global Forum on Human Resources for Health in Kampala, Uganda. <sup>(13)</sup> The Forum built consensus on how to accelerate HRH action at global and country levels, strengthen implementation capacity for HRH action at these levels, and develop partnerships to work on HRH as a global network. The Forum culminated with the adoption of the Kampala Declaration and the Agenda for Global Action, <sup>(14)</sup> which serves as an overarching framework to guide health workforce development globally. (see table 2).

The First Global Forum and subsequent work undertaken by the Alliance progressively led to increased momentum and attention to health workforce issues. A number of international events and processes over the past three years have reflected the paramount importance of strengthening health systems, and the health workforce in particular, including G8 summits, <sup>15</sup> the recommendations of the High Level Taskforce on Innovative International Financing for Health Systems, <sup>(16)</sup> the proceedings of International AIDS Conferences, <sup>(17)</sup> Women Deliver and Countdown to 2015 events <sup>(18)</sup> (focused on maternal, newborn, and child health), African Union summits <sup>(19)</sup> and similar fora in other regions. The 2010 UN High Level Summit on the Millennium Development Goals and the UN Secretary General’s Global Strategy for Women’s and Children’s Health also have clearly highlighted the importance of health systems strengthening through HRH. <sup>(20)</sup> Most recently, the Second Global Forum on Human Resources for Health, held in Bangkok, Thailand, in January 2011 provided an opportunity

**Table 2:** The six strategies of the Agenda for Global Action

<b>Agenda for Global Action</b>	
The Agenda for Global Action identifies the need to develop global, regional, national and local partnerships to implement six interconnected strategies to address the health workforce crisis.	
1.	Building coherent national and global leadership for health workforce solutions
2.	Ensuring capacity for an informed response based on evidence and joint learning
3.	Scaling up health worker education and training
4.	Retaining an effective, responsive and equitably distributed health workforce
5.	Managing the pressures of the international health workforce market and its impact on migration
6.	Securing additional and more productive investment in the health workforce

to re-convene the global HRH community to review progress since the First Global Forum, and renew the momentum and the commitment to health workforce development.<sup>(21)</sup>

### **BROKERING KNOWLEDGE ON HRH.**

Aside from attention to and visibility of the issue, effective action depends on applying solutions of known efficacy. In this respect, the last few years have seen important new guidance emerging in the form of evidence, tools, and normative frameworks to address health workforce challenges at national and transnational levels.

New evidence has highlighted the positive potential of community health workers and mid-level health providers to improve access to essential health services, a policy option that can contribute to retention of health workers in rural areas while containing costs.<sup>(22-25)</sup> Evidence-based guidance is now available on rural retention of health workers<sup>(26,27)</sup> and some aspects of task-shifting.<sup>(28)</sup>

Through the work of task forces and working groups convened by the Alliance, new guidance has been made available on health worker education,<sup>(29)</sup> laying the ground for the work of a high-level commission which has identified the needs of health worker education in the 21<sup>st</sup> century.<sup>(30)</sup> Other tools have been developed and disseminated to facilitate the overall health workforce development cycle,<sup>(31)</sup> and more specific ones on the planning,<sup>(32)</sup> costing,<sup>(33)</sup> and monitoring<sup>(34)</sup> of HRH development. At the normative level, a WHO global code of practice on international recruitment of health personnel (the Code)<sup>(35)</sup> was adopted at the World Health Assembly (WHA) in 2010, providing an unprecedented opportunity for countries to collaborate in tackling the challenges of international brain drain. Best practices have been identified on a range of HRH functions, such as advocacy for HRH,<sup>(36)</sup> or factors contributing to positive practice work environments and leading to improved satisfaction, performance, and retention of health workers.<sup>(37)</sup> Information and evidence sharing has significantly improved through

**Table 3.** Country Coordination and Facilitation of an integrated HRH response

<b>Promoting an integrated HRH response at national level</b>
<p>The complexity underpinning health workforce availability and performance calls for integrated and coordinated responses that pay adequate attention to every critical step in the “supply chain” of health workers, and involve all key stakeholders. Ministries of health could strengthen health workforce development by working more closely with other sectors (including education, labour, civil service, finance), and other non-state actors within the health system (such as academia, private sector employers, professional associations, and regulatory bodies, civil society, international organisations, and development partners).</p>
<p>To contribute to a more integrated, coordinated and inclusive health workforce response, the Alliance launched a process of Country Coordination and Facilitation (CCF) in a first wave of 17 crisis countries from all regions. The process entails providing catalytic support to national HRH coordination mechanisms to effectively carry out a number of functions:</p>
<p>identifying HRH priorities as an essential component of health system development;</p>
<ul style="list-style-type: none"> <li>• establishing linkages with all public sector departments, private and civil society institutions that are involved in HRH;</li> </ul>
<ul style="list-style-type: none"> <li>• promoting dialogue, information and data sharing, facilitate the exchange of best practices among HRH stakeholders;</li> </ul>
<ul style="list-style-type: none"> <li>• advocating for adequate investments in HRH from both external sources and national strategies and budgets, such as the medium term expenditure framework (MTEF) and the poverty reduction strategy papers (PRSP);</li> </ul>
<ul style="list-style-type: none"> <li>• supporting negotiations and arbitration with different partners on matters relating to HRH;</li> </ul>
<ul style="list-style-type: none"> <li>• monitoring and evaluating the progress in HRH development on a regular basis.</li> </ul>

the establishment of dedicated HRH databases,<sup>(318,39)</sup> communities of practice, and other types of fora for virtual exchange.<sup>(40,41)</sup>

### COMMITMENT TO NATIONAL LEVEL SOLUTIONS

Global attention and availability of tools and evidence however, will not suffice in redressing the health workforce crisis unless they are backed up by leadership and commitment at national level. Government leadership exercising its stewardship role is critical.<sup>(42)</sup> A number of successful health workforce development initiatives demonstrate how some countries have taken ownership of the HRH development agenda by adopting various combinations of policy reforms and investment decisions. Ethiopia, Pakistan, and Ghana, for example are attempting to address shortage and maldistribution of physicians, nurses, and midwives by prioritising the training and deployment of health workers at the community level.<sup>(43-45)</sup> Mozambique allows Cesarean sections to be performed by mid-level health providers, who conduct the vast majority of these life-saving procedures in rural areas, maintaining low morbidity and mortality.<sup>(46)</sup> Rwanda has improved the motivation and performance of its health workforce by aligning donor-supported salary top-ups with national priorities through a results-based financing strategy that has contributed to scaling up coverage of essential maternal and child health services.<sup>(47)</sup> Brazil has succeeded in professionalizing hundreds of thousands of “nurse-agents” through a national programme carried out by dozens of training institutions in all 27 states, contributing to the re-configuration of health teams into family health teams, an essential element of Brazil’s Unified Health System.<sup>(25)</sup>

Other countries have taken action to address systematically their human resource crisis. Malawi, with the support of partners like the UK Department for International Development (DFID) and the Global Fund to Fight AIDS Tuberculosis and Malaria (the Global Fund) has implemented a comprehensive Emergency Human Resources Programme (EHRP) that has led to improved availability, distribution, and performance of health personnel, and is credited with saving 13,000 lives.<sup>(48)</sup> Many more countries are taking similar initiatives, and several made specific pledges to boost their health workforce in the context of the United Nations Global Strategy for Women’s and Children’s Health.

Recognizing the persisting need for external financial support in some low-income countries, several development partners, including Japan<sup>(49)</sup>, the United Kingdom, and the

United States President’s Emergency Plan for AIDS Relief (PEPFAR)<sup>(50)</sup> have made specific commitments to train new health workers. In a related development, the Global Fund, the GAVI Alliance, the World Bank, and WHO are setting up a joint funding platform for health systems<sup>(51)</sup>, which has the potential to create new opportunities to finance health workforce development (Table 3).

### CHALLENGES AND THREATS

Despite encouraging signs of progress at several levels, important challenges persist and are apparent across all areas related to health workforce development.

In terms of national level leadership, the increased attention is not always translating into effective stewardship through implementation of realistic and needs-based health workforce strategies, nor through the consistent adoption of evidence-based policies. Many countries for example, are still not exploiting the full potential of task shifting.<sup>(52)</sup> Similarly, the functionality and inclusiveness of national coordination mechanisms for HRH development are uneven. Of equal importance, information and data on health workforce availability, distribution, and performance are not systematically available, hindering the monitoring and effective management of health workforce development.<sup>(53)</sup>

In many countries, especially in Africa and complex emergency settings, education and training capacity is insufficient to match the growing demand for health workers and the diversifying set of skills they need in order to cope with the double burden of communicable and non-communicable diseases.

Working conditions and incentives in LMIC are still inadequate to ensure the retention of health workers in rural areas. While mitigation measures are being put in place in some contexts, it is unclear, due to lack of updated and reliable information on health personnel distribution, whether these are having the desired effects.

International migration of health personnel from LMIC to high-income countries will continue unabated (and might actually worsen, given the increasing needs of aging populations in high-income countries) unless the supply and demand factors that determine it are addressed comprehensively. The Code provides a valid framework to do just that, but its formal adoption at the WHA alone will not create a real and sustainable change.

A global economic crisis, restrictive macro-economic policies<sup>(54)</sup>, concerns about the transparency<sup>(55)</sup> and

additionality<sup>(56)</sup> of development assistance for health all may impede the necessary investments in health workforce development from both domestic and international sources. Persisting governance constraints in some contexts limit the efficiency - and impact - of investments made.<sup>(57)</sup>

## HRH: AN UNFINISHED AGENDA

Individual examples of progress in tackling the health workforce crisis exist, alongside clear indications of persisting challenges. In terms of density and distribution of health workers, lack of reliable data in publicly accessible databases prevent the drawing of firm conclusions as to whether the overall and nation-specific situations have improved since the crisis was first highlighted as an issue in the mid- 2000s. According to statistics available in the Global Atlas of the Health Workforce, all 57 priority countries originally identified by the WHR 2006 still remain below the threshold of 2.3 doctors, nurses, and midwives per 1,000 population.<sup>(58)</sup> For most of these countries however, the data reported date back to the 2004-2006 period. More recent data are available for only a few countries.

To review progress, foster mutual accountability, and facilitate a renewal and strengthening of commitment for health workforce development, the Alliance conducted in 2010 an analysis of the health workforce governance and policy environment in the 57 priority countries.<sup>(59)</sup> The findings were published in 2011 and first disseminated at the Second Global Forum on Human Resources for Health, revealing both areas of progress and those needing renewed attention. Two key findings revealed that less than half of the countries surveyed reported implementing a costed and evidence-based health workforce development plan; and that the availability of health workforce data is uneven and particularly limited regarding the international movement of health workers, a precondition for the effective monitoring of the Code. Progress in putting into practice the Kampala Declaration and the Agenda for Global Action is, therefore, patchy, both in relation to different domains of health workforce development, and across countries and regions.<sup>(60)</sup>

While sub-Saharan Africa is unquestionably the region hardest hit by the health workforce crisis, other regions remain severely affected: South East Asia is the region needing the highest number of additional health workers, as a consequence of the large populations -- and health worker needs -- in countries such as Pakistan, India, Bangladesh, and Indonesia.

Latin America is also affected in a serious way, and it is unclear whether things are improving. El Salvador, Haiti, Honduras, Nicaragua, and Peru count among the 57 priority countries affected by a critical health workforce shortage. Among these 5 countries, Haiti's health workforce crisis is particularly severe, with an extremely low density of physicians, nurses, and midwives, and limited progress in putting in place the required mechanisms, policies, and strategies to tackle the problem. At the other end of the spectrum, the density of physicians, nurses, and midwives in El Salvador and Peru is closer to the minimum recommended threshold of 2.3 per 1,000 population. El Salvador and Peru also reported a comparably more favourable policy environment for HRH development. Honduras and Nicaragua had not yet responded to the survey at the time when the monitoring report was published.<sup>(59)</sup>

## FUTURE STEPS

The recently concluded Second Global Forum on Human Resources for Health re-committed to the principles of the Kampala Declaration and Agenda for Global Action, and identified a set of actions required to move forward the HRH development agenda.<sup>61</sup>

An "all of government" response will be required to ensure coordinated action and coherent policies across sectors. Relevant governance and coordination mechanisms should be bolstered to ensure an HRH response owned by all major stakeholders, including those within the public sector and those outside it, and to create mechanisms for collaboration, mutual support, and accountability. The capability to plan and manage the health workforce should be strengthened according to the needs of the local context.

There is a particular need to strengthen national capacities to collect, collate, analyse, and share regularly health workforce data to inform policymaking, planning, and management.

Pre-service training of health workers should be scaled up in countries facing critical shortages, and incorporate emerging best practices and approaches.<sup>(62)</sup>

Suitable policies and strategies, including fair remuneration, appropriate incentives, access to necessary resources, prevention of work-related hazards, and supportive management practices, should be adopted to attract and retain health workers with appropriate skills mix in rural and other under-served areas. Such policies and strategies

should be used to influence global labour markets in favour of health worker retention in LMIC. Health worker performance - in terms of both productivity and quality, also should be enhanced through regulation, accreditation, and compliance with national standards, competency-based curricula and education programmes, effective supervision, and enabling practice environments.

Sufficient resources for health workforce development must be secured from domestic and international sources, ensuring the complementarity of the latter by addressing restrictive macro-economic policies and domestic governance and transparency constraints. The required investments and support should be aligned to country priorities and national health plans; have a long-term perspective; be predictable and flexible; and allow for investment in pre-service education, remuneration, and the improvement of working conditions for health personnel.<sup>(63)</sup>

The nature and complexity of these tasks make it evident that only coordinated and integrated action by a number of different constituencies and stakeholders can deliver such an ambitious programme of change. Within this agenda, the Alliance will continue serving as the leading global advocate, networking hub, convener, and knowledge broker to catalyse action for health workforce development at both the national and global levels.

### Conflicts of Interest

None declared

### Author Contributions

All authors have contributed equally and are listed in alphabetical order.

## REFERENCES

1. Anand S, Bärnighausen T. Health workers and vaccination coverage in developing countries: an econometric analysis. *Lancet*. 2007;369(9569):1277-85.
2. Anand S, Bärnighausen T. Human resources and health outcomes: cross-country econometric study. *Lancet*. 2004;364(9445):1603-9.
3. Egger M, Boule A, Schechter M, Miotti P. Antiretroviral therapy in resource-poor settings: scaling up inequalities? *Int J Epidemiol*. 2005;34(3):509-12.
4. Bhutta ZA, Chopra M, Axelson H, Berman P, Boerma T, Bryce J, et al. Countdown to 2015 decade report (2000–10): taking stock of maternal, newborn, and child survival. *Lancet*. 2010;375:2032-44.
5. Samb B, Desai N, Nishtar S, Mendis S, Bekedam H, Wright A, Hsu J et al. Prevention and management of chronic disease: a litmus test for health-systems strengthening in low-income and middle-income countries. *Lancet*. 2010; 376:1785-97.
6. Global Health Workforce Alliance. Negotiating for access to health workers for all. In: Sheikh M, Afzal MM (ed). *Negotiating and navigating global health: case studies in global health diplomacy*. London: World Scientific/Imperial College; 2011.
7. The Joint Learning Initiative. *Human Resources for health. Overcoming the crisis*. Washington, DC: JLI; 2004.
8. World Health Organization. *Working together for health*. Geneva: WHO; 2006.
9. Global Health Workforce Alliance. *Alliance vision and mission*. Geneva: WHO; c2011.
10. Global Health Workforce Alliance. *Moving forward from Kampala - strategic priorities and directions of the Global Health Workforce Alliance: 2009 to 2011*. Geneva: WHO; 2008.
11. Global Health Workforce Alliance. *Alliance board*. Geneva: WHO; c2011.
12. Global Health Workforce Alliance. *Members and partners*. Geneva: WHO; c2011.
13. Global Health Workforce Alliance. *First global forum on human resources for health*. Kampala, Uganda: WHO; 2008.
14. Global Health Workforce Alliance. *The Kampala Declaration and Agenda for Global Action*. Kampala, Uganda: WHO; 2008.
15. G8 Summit 2009 outcome declaration. *Responsible leadership for a sustainable future*. Roma: G8; 2009.
16. The International Health Partnership. *Taskforce on international financing for health systems: constraints to scaling up and costs*. Geneva: IHP; 2008.
17. International AIDS Society. *Advancing evidence and equity: report on the XVIII International AIDS Conference*. Viena: AIDS; 2010 [citado el 15 de marzo de 2011] Disponible en:
18. Countdown to 2015. *Taking stock of maternal, newborn and child health*. New York: UNICEF; 2010.
19. African Union. *15th African Union Summit - Maternal, infant and child health and development in Africa*. Malabo: The African Union Commission; 2011.
20. United Nations Secretary General. *Global strategy for women's and children's health*. New York: WHO; 2010.
21. Global Health Workforce Alliance. *Second global forum on human resources for health*. Bangkok: WHO; 2011.
22. Lewin S, Munabi-Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, van Wyk BE et al. *Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases*. *Cochrane Database Syst Rev*. 2010;(3):CD004015.



23. **Global Health Workforce Alliance.** 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. Geneva: WHO; 2010.
24. **World Health Organization.** Mid-level health workers The state of the evidence on programmes, activities, costs and impact on health outcomes A literature review. Geneva: WHO; 2008.
25. **Global Health Workforce Alliance.** Mid-level health providers a promising resource to achieve the health Millennium Development Goals. Geneva: WHO; 2010.
26. **World Health Organization.** Increasing access to health workers in remote and rural areas through improved retention - Global policy recommendations. Geneva: WHO; 2010.
27. **Dolea C, Stormont L, Braichet JM.** Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. Bull World Health Organ. 2010;88(5):379-85.
28. **World Health Organization.** Task-shifting – global recommendations and guidelines. Geneva: WHO; 2007.
29. **Global Health Workforce Alliance.** Task force for scaling up education and training for health workers. Geneva: WHO; 2009.
30. **Bhutta ZA, Chen L, Cohen J, Crisp N, Evans T, Fineberg H, et al.** Education of health professionals for the 21st century: a global independent Commission. Lancet. 2010;375:1137-8.
31. **Global Health Workforce Alliance.** HRH action framework. Geneva: WHO; c2011.
32. **World Health Organization.** Models and tools for health workforce planning and projections. Geneva: WHO; c2011.
33. **Global Health Workforce Alliance.** Resource requirement tool. Geneva: WHO; 2008.
34. **WHO, USAID, World Bank.** Handbook on monitoring and evaluation of human resources for health: with special applications for low- and middle-income countries. Geneva: WHO/USAID/World Bank; 2009.
35. **World Health Organization.** WHO global code of practice on the international recruitment of health personnel. Geneva: WHO; 2010.
36. **Global Health Workforce Alliance** Health workforce advocacy initiative. Geneva: WHO; c2011.
37. **Global Health Workforce Alliance.** Positive Practice environments Campaign. Geneva: WHO; c2011.
38. **Capacity Plus.** HRH Global Resource Center. Washington: Capacity Plus; c2004.
39. **Global Health Workforce Alliance.** Knowledge Center. Geneva: WHO; c2011.
40. **Global Health Workforce Alliance.** The HRH Exchange. Geneva: WHO; c2011.
41. **HIFA 2015.** Healthcare information for all by 2015. Oxford: HIFA.
42. **World Health Organization.** The world health report-health systems: improving performance. Geneva: WHO; 2000.
43. **Phillips JF, Bawah AA, Binka FN.** Accelerating reproductive and child health programme impact with community-based services: the Navrongo experiment in Ghana. Bull World Health Organ. 2006;84(12):949-55.
44. **Wakabi W.** Extension workers drive Ethiopia's primary health care. Lancet. 2008;372(9642):880
45. **Douthwaite M, Ward P.** Increasing contraceptive use in rural Pakistan: an evaluation of the Lady Health Worker Programme. Health Policy Plan. 2005;20(2):117-23.
46. **Pereira C, Cumbi A, Malalane R, Vaz F, McCord C, Bacci A, et al.** Meeting the need for emergency obstetric care in Mozambique: Work performance and histories of medical doctors and assistant medical officers trained for surgery. BJOG. 2007;114:1530-3.
47. **Basinga P, Gertler P, Binagwaho A, Soucat A, Sturdy J, Vermeersch C.** Paying primary health care centers for performance in Rwanda. Washington: World bank policy research working paper; 2010.
48. **O'Neil M, Jarrah Z, Nkosi L, Nkosi L, Collins D, Perry C, Jackson J, et al.** Evaluation of Malawi's emergency human resources programme. Cambridge: Department for International Development; 2010.
49. **Ministry of Foreign Affairs of Japan.** Japan's contribution to the G8 development agenda. Tokio: Ministry of Foreign Affairs of Japan; 2009.
50. **Lantos T, Hyde HJ.** United States global leadership against HIV/AIDS, tuberculosis, and malaria reauthorization act of 2008. President's emergency plan for AIDS relief. Washington, DC: Congress of the United States; 2008.
51. **England R.** The GAVI, Global Fund, and World Bank joint funding platform. Lancet. 2009;374:1595-6.
52. **Cavagnero E, Daelmans B, Gupta N, Scherpbier R, Shankar A.** Assessment of the health system and policy environment as a critical complement to tracking intervention coverage for maternal, newborn, and child health. Lancet. 2008;371:1284-93.
53. **Pick W.** Lack of evidence hampers human-resources policy making. Lancet. 2008;371(9613):668-74.
54. **Stuckler D, Basu S, Gilmore A, Batniji R, Ooms G, Marphatia AA, Hammonds R, McKee M.** An evaluation of the International Monetary Fund's claims about public health. Int J Health Serv. 2010;40(2):327-32.
55. **The Economist.** Cleaning up: can the global fund to fight AIDS, tuberculosis and malaria restore its reputation as the best and cleanest in the aid business? London: The Economist Group; 2011.
56. **Lu C, Schneider MT, Gubbins P, Leach-Kemon K, Jamison D, Murray CJ.** Public financing of health in developing countries: a cross-national systematic analysis. Lancet. 2010;375(9723):1375-87.

- 57. **Vujcic M, Ohiri K, Sparkes S.** Working in health - financing and managing the public sector health workforce. Washington, DC: The World Bank; 2009.
- 58. **World Health Organization.** Global atlas of the health workforce. Geneva: WHO; c2003-2007.
- 59. **Global Health Workforce Alliance.** Reviewing progress, renewing commitments - progress report on the Kampala Declaration and Agenda for Global Action. Geneva: WHO; 2011.
- 60. **Sheikh M.** Commitment and action to boost health workforce. Lancet. 2011 Jan 24. [Epub ahead of print]
- 61. **Global Health Workforce.** Outcome statement of the second global forum on human resources for health. Geneva: WHO; 2011.
- 62. **World Health Organization.** Framework for action on interprofessional education and collaborative practice. Geneva: WHO; 2011.
- 63. **Cometto G, Ooms G, Starrs A, Zeitz P.** A global fund for the health MDGs? Lancet. 2009;373:1500-2.

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