Reviewing Progress, Renewing Commitment.

Progress report on the Kampala Declaration
and Agenda for Global Action

global health
workforce
alliance

Acknowledgments

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Abbreviations

AGA	Agenda for Global Action
CHW	Community health worker
KD	Kampala Declaration
GAVI	Global Alliance for Vaccines and Immunisation
HMIS	Health Management Information System
HRIS	Human Resource Information System
HRH	Human Resources for Health
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
MDGs	Millennium Development Goals
MoH	Ministry of Health
M&E	Monitoring and evaluation
OECD	Organisation for Economic Cooperation and Development
OPM	Oxford Policy Management
TWG	Technical Working Group
UN	United Nations
WHO	World Health Organization
USAID	United States Agency for International Development

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This report provides a snapshot of the HRH policy and governance situation in the priority countries affected by severe HRH challenges.

Foreword

The Kampala Declaration and Agenda for Global Action, agreed at the first Global Forum on Human Resources for Health held in Uganda in 2008, committed participants to an ambitious agenda to strengthen the health workforce at all levels. The Alliance was given the mandate to track progress in implementing the strategies adopted, with a focus on achieving access for all to skilled, motivated and supported health workers.

At the global level, the last few years have seen health system strengthening rise to greater prominence in the international health policy discourse. The grave impact of weak health systems, and health workforce challenges in particular, on the delivery of quality health-care services have been underscored by every major international health event and process since 2008. These range from G8 summits to the analyses and recommendations of the High Level Taskforce on Innovative International Financing for Health Systems, African Union summits and similar regional events and, very recently, the adoption of a WHO Global Code of Practice on the International Recruitment of Health Personnel, and the launch of the United Nations Secretary-General Global Strategy for Women's and Children's Health. All of these processes have called upon countries and the international community to address the overarching health system constraints that prevent countries from accelerating progress on the path to the Millennium Development Goals, universal access to HIV prevention, treatment and care, and universal health coverage.

These welcome developments have also been reflected in increased attention and commitments to resolve the health workforce crisis. But are these indications of commitment translating into the required actions and investment decisions by governments, development partners and other relevant stakeholders at country level? Are we making real progress in implementing the Agenda for Global Action?

With these questions in mind, the Alliance has analysed the key policy and governance elements that characterize a country's response to its health workforce challenges. We have looked at how countries are doing in planning and coordinating their health workforce interventions, at their efforts in relation to information systems, education and retention strategies, and investment decisions. In addition we have complemented this analysis of key health workforce policies with case stories submitted by countries and organizations that illustrate, through a more qualitative approach, the progress in implementing the Agenda for Global Action in the priority countries.

This report does not have all the answers. In fact, it highlights areas where further research and similar evaluations should concentrate. But it does represent the first attempt to track progress in implementing the Kampala Declaration and Agenda for Global Action, and provides a snapshot of the human resources for health policy and governance situation in the priority countries affected by severe health workforce challenges. The report highlights areas of progress as well as those that, conversely, require increased attention. This report can therefore serve as an instrument for countries, partners and other relevant stakeholders to review progress together, to hold one another accountable, and to renew and strengthen their commitment to work in partnership to develop and implement sustainable solutions to the global health workforce crisis.

The key findings and conclusions of the report are of relevance to governments, development partners, health providers, employers, academia, research and training institutions, civil society, the private sector, professional associations and health workers themselves, among other relevant stakeholders. We urge all of these constituencies to join hands and work together towards the vision that "all people, everywhere, shall have access to a skilled, motivated and facilitated health worker within a robust health system".

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Executive summary

The first ever Global Forum on Human Resources for Health was held in Kampala, Uganda in March 2008. The Kampala Declaration and Agenda for Global Action that emerged from this meeting committed participants to an ambitious agenda to invest in and improve human resources for health (HRH), particularly in countries facing critical health workforce challenges.

The Alliance was given the mandate to monitor progress against the AGA strategies. In the run-up to the second Global Forum on Human Resources for Health to be held in Bangkok, Thailand in January 2011, the Alliance conducted a survey among the 57 priority countries to assess the extent to which they are making progress. A questionnaire was drawn up and sent to focal persons in the ministries of health in each priority country in July 2010. Respondents were asked to fill in the forms online or by e-mail. Nine proxy indicators were developed to track each of the strategies of the Agenda for Global Action[1].

In parallel, an open call was launched for country case stories that illustrate best practices in tackling health workforce challenges, to add a qualitative dimension to the analysis.

This report is based on analysis of the responses to the questionnaire, combined with excerpts from submitted case stories and reference to secondary literature. The case stories were filtered using five criteria, i.e. those that are relevant to the AGA themes, show success in tackling challenges, are recent, show evidence of sustainability and have a clear narrative. A one-page country brief has been prepared for each of the priority countries to give an update on their HRH status and progress. The briefs contain background demographic, health, health system and HRH statistics, as well as scores for responses to the tracking survey.

Limitations of this analysis include the absence of baseline data with which to compare these responses (to understand the trends), the self-reported nature of the responses (which are therefore prone to a certain level of subjectivity) and the focus on process issues and binary (yes/no) questions. The latter, for example, precludes an analysis of the quality and comprehensive nature of plans, the level of functionality of coordination mechanisms and other governance structures, or the extent of additional investments.

The findings of the analysis, summarized below, only reflect data from countries that responded to the questionnaire (51 of 57 priority countries, 89%).

- Most countries (44, 86%) have an HRH plan, although there is slower progress in developing a supporting cost estimate and budget (25, 49%). Implementation is also lagging behind planning, which may be because many plans have only recently been drawn up.
- Thirty-three countries (65%) have a national coordinating committee for HRH, most with some degree of representation beyond the ministry of health.

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[1]Number of countries that have developed and implemented:

(1) costed and evidence-based HRH plans;

(2) an intersectoral coordination mechanism for involving relevant stakeholders in HRH development;

(3) a national mechanism with processes and/or tools for HRH data users and producers to inform policy-making and management of the health workforce;

(4) a well functioning HRH information system;

(5) programmes to increase the production of doctors, nurses/midwives and community health workers;

(6) strategies/approaches to attract and retain the health workforce in underserved areas;

(7) policies to favour in-country retention of personnel;

(8) increased budgetary allocations for community health workers as a proportion of the health sector budget;

(9) additional investment from multilateral and bilateral partners for HRH plans.

- Fewer than half the respondents (22, 43%) reported having a mechanism to inform policy-making through data sharing.
- Countries reported having statistics for higher level cadres, but less so for community health workers (CHWs). Around half the countries reported having updated their HRH statistics once or twice in the last two years. Data are mostly available on employment status and distribution, but not on migration patterns.
- Most countries (47, 92%) reported increased enrolment of higher level cadres in training since 2008. Around 60% increased training opportunities for CHWs, scholarships, and/or started new training schools for doctors or nurses. A high proportion (around 70%) has modified their training curricula.
- Thirty-two countries (63%) reported having implemented strategies such as increased salaries, allowances or benefits to attract and retain workers in underserved areas.
- Most countries also reported improvements to career development for doctors, nurses and midwives (the range for different cadres was 53% to 69%), although for CHWs the proportion was less than a third.
- Increased recruitment (a reflection of increased allocation of domestic resources) was reported by around 80% of countries for doctors, nurses and midwives, although the proportion was lower for CHWs (just over half).
- Thirty-nine countries (76%) reported receiving support from donors to implement some or all of their HRH plans.

The publication of this first progress report on the Kampala Declaration and Agenda for Global Action represents a new milestone in HRH, providing an essential foundation for future analysis and a snapshot of the impact of HRH improvements that stakeholders can use to review progress collectively, to hold one another accountable and to renew their commitments to sustainable HRH solutions.

The report shows that the Kampala Declaration and Agenda for Global Action remain valid and relevant to the needs of countries in their efforts to improve human resources for health. The six recommended strategies of the Agenda for Global Action (AGA) are providing pertinent and useful guidance on actions needed to improve the health workforce situation. Several countries reporting good progress across all or most indicators are also on track to improve overall health outcomes in line with the targets of the United Nations Millennium Development Goals.

While progress is not even across all countries, the reported data show that countries are making improvements in terms of **leadership (AGA 1)**, especially in relation to the development of national HRH plans. However, the results show slower progress in terms of costing, funding and therefore implementation of the plans. Countries and partners should enhance efforts in this respect as well as ensure broader engagement and integration with a range of country stakeholders, within and outside the public sector.

Further efforts are also required in the area of **evidence (AGA 2)**. Countries, development partners and academia need to collaborate to increase capacity to track data on health workforce education, distribution, employment status and rural to urban, as well as international migration patterns. These data need to be accessible to, and used by HRH stakeholders to better inform managerial and policy decisions.

Many countries have reported increases in **education (AGA 3)** and training for health personnel, especially for the traditional cadres of doctors, nurses and midwives. Greater attention should, however, be given to the quality of education and improvements for non-traditional cadres such as community-based and mid-level health workers, who can contribute to a more efficient and sustainable skills mix in the health workforce.

In the critical area of **retention (AGA 4)**, countries need to make more progress in deploying and retaining health workers in underserved areas. This could be achieved by considering the policy recommendations in the WHO guidelines for rural retention of health personnel and lessons learnt from best practices like the Emergency Human Resources Programme in Malawi, employing both financial and non-financial incentives.

With regard to international **migration (AGA 5)**, both source and destination countries should work collaboratively to develop laws, systems and administrative procedures to effectively implement and measure the impact of the WHO Code of Practice on International Recruitment of Health Personnel.

In terms of **investment (AGA 6)**, the funding gap to meet HRH needs over the next five years in the majority of priority countries is estimated at some US$40 billion. Countries should increase domestic allocations, with the support of International Financial Institutions to relax macroeconomic restrictions when these hamper health workforce improvements. In many low-income countries, however, domestic resources will not be enough, and significant sustainable external funding is required to address country-specific health workforce needs. In this context, important new opportunities have been opened by the commitments made in support of the United Nations Secretary-General Global Strategy for Women's and Children's Health and the establishment of a joint funding platform for health system strengthening.

In future, in order for reports such as this to provide a stronger evidence base upon which to adopt interventions, it will be important to analyse factors that underpin the quality and successful implementation of HRH plans, the determinants of effective functioning of national HRH coordination mechanisms, the evolution of training curricula and competency frameworks that enable an optimal skills mix, and trends in health expenditure for HRH. The focus should also shift from input and process indicators (e.g. the existence of policies and plans) to output indicators (e.g. the availability and distribution of health workers). It will also be important for individual countries to set up their own monitoring and tracking mechanisms to assess progress at local and national levels.

In summary, this report shows that while actions on the ground in a number of countries are starting to make a difference, considerable work remains to be done to implement fully the Kampala Declaration and Agenda for Global Action in the majority of priority countries. HRH stakeholders share clear and collective responsibility for identifying and honouring the individual actions that will turn many of the outstanding commitments into practical reality.

The publication of this first progress report on the Kampala Declaration and Agenda for Global Action represents a new milestone in HRH.

From Kampala to Bangkok

Priority countries

It is increasingly recognized that the persistent shortage of health workers is a major obstacle to achieving the Millennium Development Goals (MDGs) – in particular MDGs 4 (child survival), 5 (maternal health) and 6 (combating major diseases) (UN 2010a). The World Health Report 2006 identified 57 priority countries that fell below the threshold of 2.3 doctors, nurses and midwives for every 1000 people – the minimum number generally considered necessary to deliver essential health services. This amounts to a critical shortage of nearly 4.3 million health workers globally, including 2.4 million doctors, nurses and midwives (Figure 1) (WHO 2006a).

The shortage is proportionately greatest in the African region. However, if absolute numbers are considered, the shortfall is greatest in Asia because of highly populous countries such as Bangladesh, India, Indonesia and Pakistan.

The greatest discrepancy related to burden of disease occurs in sub-Saharan Africa, which accounts for 24% of the global burden of disease against only 3% of health workers (WHO 2006a).

Figure 1   Human resources for health priority countries

Source: WHO (2006a)

Countries with critical shortage
Countries without critical shortage

Of the 57 priority countries, 39 (68%) are in Africa, 12 (21%) in Asia, 4 (7%) in Central America, 1 (2%) in South America and 1 (2%) in Oceania. There are no priority countries in Europe or North America. The 57 countries have 2.74 billion (40%) of the world's estimated 6.75 billion people. India has the largest population among these countries, with 1.18 billion people, while Equatorial Guinea is the least populous country, with a population of 659 000.

According to the World Bank country classification, 36 (63%) countries are low-income, 19 (33%) are lower-middle-income, 1 (2%) is upper-middle-income and 1 (2%) is a high-income country.

Table 1   List of priority countries by continent and income status

Africa	Liberia [a]	Bhutan [b]
Angola [b]	Madagascar [a]	Cambodia [a]
Benin [a]	Malawi [a]	India [b]
Burkina Faso [a]	Mali [a]	Indonesia [b]
Burundi [a]	Mauritania [a]	Iraq [b]
Cameroon [b]	Morocco [b]	Lao People's Democratic Republic [a]
Central African Republic [a]	Mozambique [a]	Myanmar [a]
Chad [a]	Niger [a]	Nepal [a]
Comoros [a]	Nigeria [b]	Pakistan [b]
Congo [b]	Rwanda [a]	Yemen [b]
Côte d'Ivoire [b]	Senegal [b]	
Democratic Republic of Congo [a]	Sierra Leone [a]	Central America
Djibouti [b]	Somalia [a]	El Salvador [b]
Equatorial Guinea [d]	Togo [a]	Haiti [a]
Eritrea [a]	Uganda [a]	Honduras [b]
Ethiopia [a]	United Republic of Tanzania [a]	Nicaragua [b]
Gambia [a]	Zambia [a]	
Ghana [a]	Zimbabwe [a]	South America
Guinea [a]		Peru [c]
Guinea-Bissau [a]	Asia	
Kenya [a]	Afghanistan [a]	Oceania
Lesotho [b]	Bangladesh [a]	Papua New Guinea [b]

[a] Low-income; [b] Lower-middle-income; [c] Upper-middle-income; [d] High-income

The Kampala Declaration

The first Global Forum on Human Resources for Health was held in Kampala, Uganda, in March 2008. At this event over 1500 participants came together to discuss the way forward for the global health workforce crisis. Participants included government representatives, multilateral and bilateral donors, academic institutions, civil society organizations, the private sector and health-worker associations. The meeting resulted in the endorsement of the Kampala Declaration and Agenda for Global Action, which built on the commitments previously made by high-level policy-makers from around the world by setting out a road map to guide work on human resources for health (HRH) for the period 2008–2018. The Kampala Declaration calls upon all relevant stakeholders at country, regional and global levels to take collective responsibility for addressing the health workforce crisis (Box 1).

Box 1   The Kampala Declaration and Agenda for Global Action

Health Workers for All and All for Health Workers

Declaration

We, the participants at the first Global Forum on Human Resources for Health in Kampala, 2-7 March 2008, and representing a diverse group of governments, multilateral, bilateral and academic institutions, civil society, the private sector, and health workers' professional associations and unions;

Recognizing the devastating impact that HIV/AIDS has on health systems and the health workforce, which has compounded the effects of the already heavy global burden of communicable and non-communicable diseases, accidents and injuries and other health problems, and delayed progress in achieving the health-related Millennium Development Goals;

Recognizing that in addition to an effective health system, there are other determinants to health;

Acknowledging that the enjoyment of the highest attainable standard of health is one of the fundamental human rights;

Further recognizing the need for immediate action to resolve the accelerating crisis in the global health workforce, including the global shortage of over 4 million health workers needed to deliver essential health care;

Aware that we are building on existing commitments made by global and national leaders to address this crisis, and desirous and committed to see immediate and urgent actions taken;

Now call upon:

1. Government leaders to provide the stewardship to resolve the health worker crisis, involving all relevant stakeholders and providing political momentum to the process.

2. Leaders of bilateral and multilateral development partners to provide coordinated and coherent support to formulate and implement comprehensive country health workforce strategies and plans.

3. Governments to determine the appropriate health workforce skill mix and to institute coordinated policies, including through public private partnerships, for an immediate, massive scale-up of community and mid-level health workers, while also addressing the need for more highly trained and specialized staff.

4. Governments to devise rigorous accreditation systems for health worker education and training, complemented by stringent regulatory frameworks developed in close cooperation with health workers and their professional organizations.

5. Governments, civil society, private sector, and professional organizations to strengthen leadership and management capacity at all levels.

6. Governments to assure adequate incentives and an enabling and safe working environment for effective retention and equitable distribution of the health workforce.

7. While acknowledging that migration of health workers is a reality and has both positive and negative impact, countries to put appropriate mechanisms in place to shape the health workforce market in favour of retention. The World Health Organization will accelerate negotiations for a code of practice on the international recruitment of health personnel.

8. All countries will work collectively to address current and anticipated global health workforce shortages. Richer countries will give high priority and adequate funding to train and recruit sufficient health personnel from within their own country.

9. Governments to increase their own financing of the health workforce, with international institutions relaxing the macro-economic constraints on their doing so.

10. Multilateral and bilateral development partners to provide dependable, sustained and adequate financial support and immediately to fulfil existing pledges concerning health and development.

11. Countries to create health workforce information systems, to improve research and to develop capacity for data management in order to institutionalize evidence-based decision-making and enhance shared learning.

12. The Global Health Workforce Alliance to monitor the implementation of this Kampala Declaration and Agenda for Global Action and to re-convene this Forum in two years' time to report and evaluate progress.

Tracking the progress of the Kampala Declaration and Agenda for Global Action : indicators, methods and limitations

The Kampala Declaration called for the convening of a new Global Forum every two years to report on progress against the agreed strategies. The Alliance was given the mandate to coordinate monitoring and reporting.

In the run-up to the Second Global Forum on Human Resources for Health to be held in Bangkok in January 2011, the Alliance has therefore conducted a survey to review progress against selected indicators relating to the health workforce policy and governance environment in the 57 priority countries.

The Alliance convened a Technical Working Group (TWG) comprising international experts in the field of human resources for health. The TWG

developed a methodology for reviewing advances or gaps in the health workforce environment in the priority countries that combined both quantitative and qualitative methods. For collecting and compiling quantitative information, the TWG identified a set of indicators to assess progress made in the six strategies of the Agenda for Global Action (AGA) (Table 2).

A questionnaire was drawn up (in English, French, Spanish and Portuguese) and sent to focal persons in each priority country in July 2010. Respondents were asked to fill in the forms online or submit them by e-mail. Completed questionnaires were received from the HRH focal points of 51 (89%) countries.

In parallel, an open call was launched for country case stories that illustrated best practices and innovative approaches in tackling health workforce challenges, in order to complement the findings of the survey with a more qualitative dimension of analysis. These case stories were filtered using five criteria (having relevance to the AGA themes, showing success in tackling

Table 2 Agenda for Global Action strategies and progress indicators

AGA Strategies	Progress indicators
1. Building coherent national and global leadership for health workforce solutions	1. Number of countries that have developed costed and evidence-based HRH plans [2]
	2. Number of countries with an intersectoral coordination mechanism for involving relevant stakeholders in HRH development [3]
2. Ensuring capacity for an informed response based on evidence and joint learning	3. Number of countries with a national mechanism with processes or tools for HRH data users and producers to inform policy making and management of the health workforce (e.g. HRH observatory)
	4. Number of countries that have a well functioning HRH information system
3. Scaling up health worker education and training	5. Number of countries having implemented programmes to increase the production of doctors, nurses/midwives and/or community health workers
4. Retaining an effective, responsive and equitably distributed health workforce	6. Number of countries implementing strategies/approaches for attracting and retaining the health workforce in underserved areas
5. Managing the pressures of the international health workforce market and its impact on migration	7. Number of countries implementing policies to favour in-country retention of personnel
6. Securing additional and more productive investment in the health workforce	8. Number of countries in which budgetary allocations for community health workers[4] as a proportion of the health sector budget have increased
	9. Number of countries that have received additional investment from multilateral and bilateral partners for the implementation of HRH plans

[2] For the purpose of this survey, a plan may include documents that appear under different titles, such as National HRH Policy, National HRH Strategic Plan, National HRH Plan or National HRH Strategies.

[3] A national committee in charge of HRH coordination, which includes representatives from public agencies of different sectors (e.g. health, education, finance, civil service), non-public sectors and external partners.

[4] Community health workers (CHWs) are known by many different names in different countries. Typically they are members of the communities where they work, are selected by the communities, are answerable to the communities for their activities, are supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers.

challenges, being recent, showing evidence of sustainability, and having a clear narrative). This report is based on an analysis of the responses to the questionnaire combined with excerpts from submitted case stories and reference to secondary literature.

A one-page country brief has been prepared for each of the priority countries to give an update on their HRH status (chapter 8). The briefs contain background demographic, health, health system and HRH statistics (taken from the Global Atlas of the Health Workforce), as well as scores for responses to the survey. For some countries, reference has also been made to data from the Countdown to 2015 database in relation to progress in meeting MDG 4 (reducing child mortality) The full methodology for all study components is presented in Annex C.

A number of limitations of this analysis should be acknowledged to enable a better contextualization of the findings. The first constraint met was the absence of baseline data, which would have been useful to be able to analyse trends for the group of countries and by region. The questionnaire relies on self-reported results, and there may be variance in the accuracy and objectivity of responses provided. This has been mitigated by choosing respondents (HRH focal points in ministries of health) whose roles should ensure that they have full and up-to-date knowledge of their country situation.

Another limitation is the extent to which the questionnaire, and the indicators therein, can capture fully the AGA strategies. In order to facilitate answers and to minimize the administrative burden on respondents, the proxies chosen focus on dichotomous (yes/no) questions and on process indicators, which are limited in their ability to reveal more significant changes to quality and outputs or outcomes. For example, while a country may have an HRH plan, the survey does not reveal its content or quality. In the same way, the existence of an observatory or an HRH coordination mechanism does not provide indications on its level of functionality. Similarly the fact that a country is implementing retention strategies does not imply that these are effective.

In addition to the limitations relating to the survey methodology, there are also limitations with regard to the secondary data sources used for the development of country briefs (chapter 8), particularly in relation to HRH

data. The only indicator available from publicly accessible databases for the full range of countries is that on the density of doctors, nurses and midwives. However, the rural/urban distribution of health workers was not available for all priority countries.

Aggregate findings

The consolidated scores for all respondent countries across the nine progress indicators, if equal weight is given to all questions asked within each indicator, show that the highest performance is in relation to securing support from development partners for HRH plans (AGA 6) and increasing production of HRH (AGA 3) (Figure 2).

The lowest scores relate to the existence of mechanisms to inform policy-making through data sharing (AGA 2), the inclusiveness of HRH coordination mechanisms (AGA 1), and strategies to favour in-country retention (AGA 5). However, as there were no baseline data, conclusions cannot be drawn on trends.

Figure 2 Consolidated results across nine progress indicators
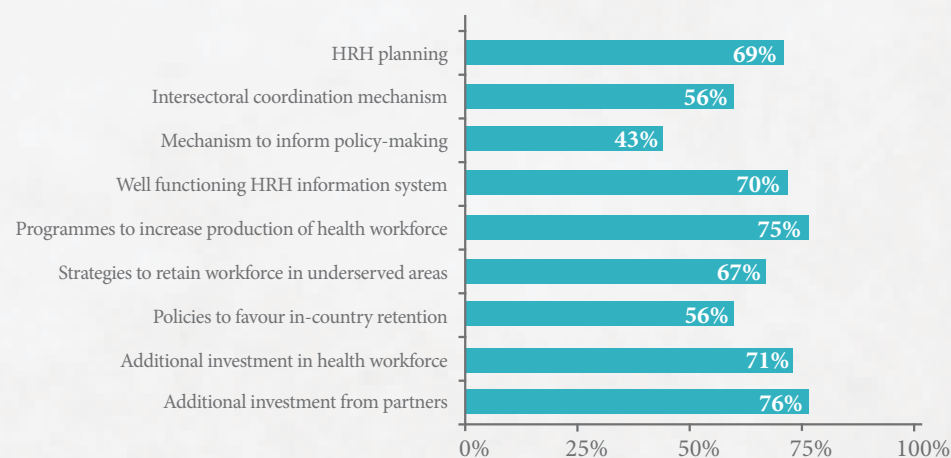
Chapters 1–6 contain detailed findings on each AGA strategy. In addition, individual country briefs are presented in chapter 8, while the summary of responses to the questionnaire, the country progress scores and details of the study methods are provided in annexes A, B and C, respectively.

1

Building coherent national and global

leadership

for health workforce solutions

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1.1   Overview

The challenges that most countries face with respect to their health workforce require health leadership at national and global levels to articulate problems and implement solutions. At the national level, it is imperative for senior management in ministries of health and other relevant ministries, such as those of education, finance, labour, and the civil service, to take the lead in developing strategic plans for health, as well as ensuring their successful implementation. This is often hampered by the fragmentation of efforts, unrealistic time frames and the lack of involvement of relevant stakeholders, particularly those from other sectors (O'Neil, 2008). The AGA calls for the following priority actions:

- governments to provide coherent policy and regulatory frameworks across sectors;
- governments and partners to develop, implement and evaluate comprehensive, costed health plans;
- all stakeholders, including research and development partners and civil society, to contribute to overcoming constraints and creating mutual accountability mechanisms.

1.2   Survey results

1.2.1   Countries with costed and evidence-based human resources for health plans

Of the 51 respondents, 44 countries (86%) reported having a national HRH plan (Figure 1.1). Forty-three plans (84%) were developed on the basis of an HRH situation analysis or related information and were therefore considered to be evidence-based. Twenty-five countries (49%) had a costed HRH plan that included an estimated budget, and 29 (57%) reported that their HRH plan was being implemented. The following 24 countries (41%) not only had evidence-based and costed HRH plans, but were also implementing them: *Benin, Burkina Faso, Burundi, Congo, Côte d'Ivoire, El Salvador, Eritrea, Ethiopia, Gambia, Guinea-Bissau, Lao People's Democratic Republic, Lesotho, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nigeria, Rwanda, Togo, Uganda, United Republic of Tanzania, Zambia and Zimbabwe* (Figure 1.2).

Figure 1.1 Number of countries with or without an HRH plan, by continent
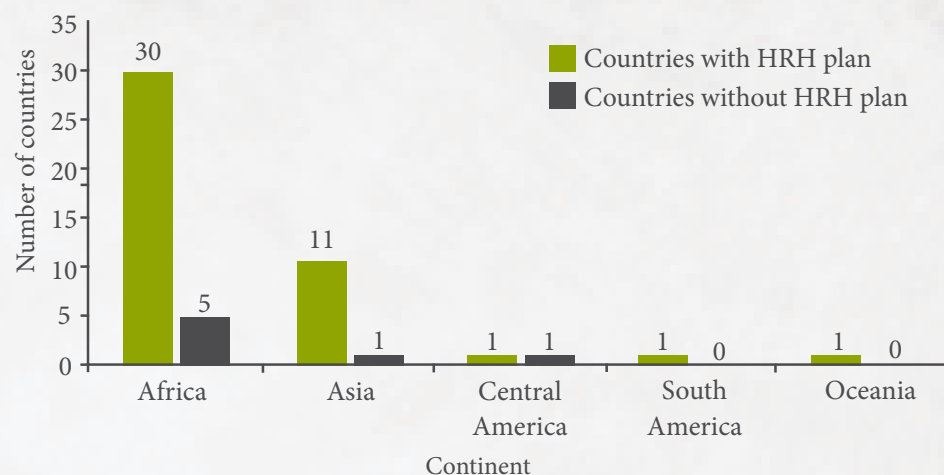
1.2.2   Countries with intersectoral coordination mechanisms

The number of countries with an intersectoral coordination mechanism (e.g. a national committee) to involve relevant stakeholders in HRH development was another progress indicator developed to assess the implementation of AGA 1. In this survey, 33 countries (65%) reported that they had a national committee in charge of HRH coordination.

Countries were asked whether any public agency, apart from the Ministry of Health (MoH), was represented on the national HRH committee (e.g. the ministry of education or labour, or a civil service agency). Twenty-eight countries (55%) reported having this wider representation.

Non-public sector representation on the committee was reported in 24 countries (47%) (e.g. private for-profit, private not-for-profit, community- or faith-based organizations).

Representatives of external partners, such as bilateral or multilateral organizations, were present in the national HRH committee of 29 countries (57%).

Figure 1.2 Number of countries with costed, evidence-based and implemented HRH plans

57 priority countries

51 countries submitted data

43 countries had evidence based HRH plans

29 countries were implementing HRH plans

25 countries had costed HRH plans

24 countries had evidence based and costed HRH plans and were implementing them
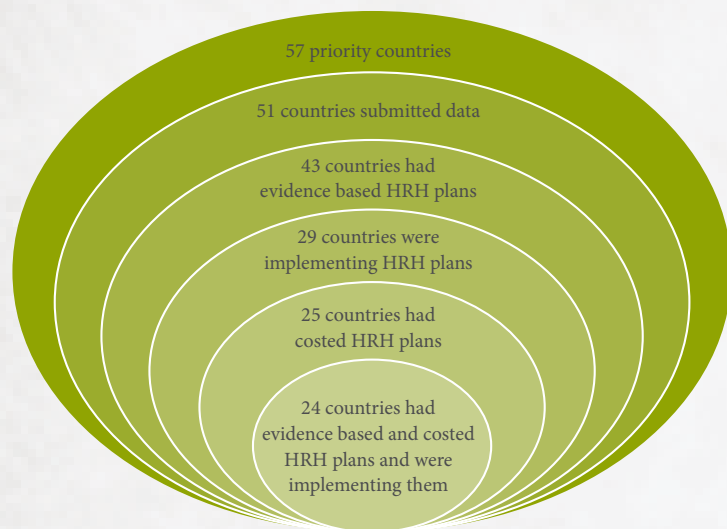
Figure 1.3 Non-ministry of health representation in the HRH committee

External representation on national HRH committee

Number of countries: 51
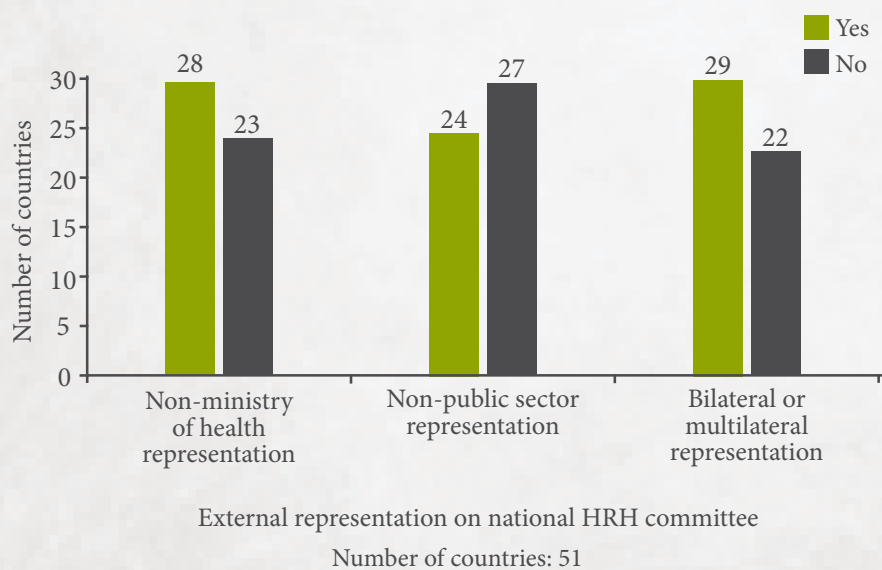
Twenty-two countries (43 %) reported having all three types of external representation in their HRH committee, namely: *Bangladesh, Burkina Faso, Cameroon, Central African Republic, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Ghana, Iraq, Kenya, Lesotho, Liberia, Malawi, Mali, Mauritania, Niger, Nigeria, Papua New Guinea, Togo, United Republic of Tanzania, Zambia and Zimbabwe.*

Box 1.1 International commitment to leadership in addressing the HRH crisis

In response to the report on monitoring the achievement of Health Development Goals, the Sixty-second World Health Assembly urged Member States to review policies, including those on recruitment, training and retention, that exacerbate the problem of the lack of health workers, and their imbalanced distribution, within countries and throughout the world, in particular the shortage in sub-Saharan Africa, which undermines the health systems of developing countries (World Health Organization, 2009).

In July 2009, the G8 Declaration reaffirmed the commitment of Member States to address the scarcity of health workers in developing countries and recognized the need for health worker improvements in order to meet the goal of universal access to health services. The Kampala Declaration and AGA were key reference documents for the G8 communiqués in 2008 and 2009, as well as for the background paper on HRH for the UN Global Strategy for Women's and Children's Health in 2010 (UN, 2010a) and for other international partnerships, such as the International Health Partnership + (International Health Partnership, 2010).

1.3   Discussion

These findings suggest a growing momentum in developing plans (with 86% of countries reporting having them in place), but a greater challenge to costing them (fewer than 50% of countries have developed relevant financial estimates). Reported implementation was also relatively low. The indicators have limitations in that they do not allow an analysis of the content and quality of plans, their comprehensiveness, the extent to which they consider some of the important but more rarely discussed issues, including health worker performance and human resources management issues, or whether they are adequately tailored to the specific context of the country. Some of these issues are explored in a

complementary WHO study, which examined the content of HRH plans (WHO, 2010a).

One of the recommendations of the framework paper on the financing of HRH (Alliance, 2009a) was that countries should develop fiscal space analyses for HRH based on estimated costs of scaling up and revenues required for its funding. Any gaps found can then be applied to advocacy activities and modification of plans. This said, one HRH focal person quoted:
"The HRH Strategy was developed and was costed; however it was very costly thus it was shelved."

In terms of stakeholders, public bodies such as other ministries and bilateral and multilateral agencies (e.g. donors and international agencies) are the most likely to be involved in HRH planning, while non-public bodies (e.g. nongovernmental or local organizations) are less commonly included.

Case story 1.1 Planning for HRH solutions in Ethiopia

Immediately after the First Global Forum on Human Resources for Health in Kampala, the Federal Ministry of Health in Ethiopia established an HRH Taskforce, which consisted of relevant development partners, training institutions and professional associations. The HRH Taskforce undertook a rapid HRH situation analysis, which identified some major challenges, including low density and inadequate skill-mix among health workers, low training capacity with low output for major HRH categories, and a poor Human Resource Management system. To guide the response to the HRH crisis, the Government has developed a twelve-year comprehensive HRH Strategic Plan (2009-2020), which details the HRH planning, management, education, training and skill development and legal framework. The plan, which also presents information on the required budget and contains some innovative elements (such as the new cadre of community-based health extension workers), is the first of its kind for Ethiopia.

Following on from the HRH strategic plan, the Government has supported the scale-up of HRH training and education, measures to improve health workforce retention, and the development of a legal framework and Human Resources Information System (HRIS).
Submitted by: The Federal Ministry of Health, Ethiopia

Case story 1.2 Strengthening stewardship for improved health worker performance and quality of care in Niger

In 2008 in Niger's Tahoua districts, patients in maternity departments often waited as long as six hours for a 12-minute consultation. Poorly trained health workers, often unsure of their own job tasks, provided patient care. These workers were frequently reassigned to new posts, inadequately supervised and overworked. By 2010, however, clients of health facilities in Tahoua waited five minutes before a 15-minute appointment with a trained and dedicated health-care provider.

These changes occurred after Niger's Ministry of Health (MoH) asked the Health Care Improvement Project to help it conduct HR improvement interventions in the Tahoua Region. The collaborative approach involves health workers from all levels coming together to outline objectives, define health worker roles, and carry out tasks detailed in a change package. The package is a document clearly detailing objectives and proposed strategies to meet the goals of increasing health worker engagement, productivity and their patients' quality of care.

Quality improvement teams formed at the regional, district and facility levels work to increase health care efficiency and eliminate existing problems in the Tahoua Region. Before the programme's implementation in 2008, an assessment conducted in Tahoua showed health workers had neither job descriptions nor performance evaluations. By July 2010, 95% of health workers had a written job description. Data collected by quality improvement teams participating in the collaboration programme showed nearly 100% adherence (67 out of 68) to clinical standards for essential newborn care. Adherence to the same standards was at 74% (64 out of 86) in January 2009. In July 2010, the MoH adopted a national resolution to integrate the HR improvement strategies into the upcoming five-year national health plan.
Submitted by: United States Agency for International Development (USAID)

2

Ensuring capacity for
an informed response based on
evidence
and joint learning

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2.1   Overview

The development of effective policies and plans that address the country-specific constraints relating to health workers requires strong technical capacity to compile, analyse and use HRH data, as well as to draw upon best practice from abroad. Unfortunately in many low- and middle-income countries these capacities are weak and human resource data are unreliable, fragmented and out-of-date, making the accurate monitoring of the workforce very difficult.

The Agenda for Global Action (Alliance, 2008a) outlines a number of priority actions to address these constraints, including:

- scaled up investment in capacity building of health workforce policy and management;
- the development of regional and sub-regional networks to facilitate shared learning;
- the strengthening and sharing of health workforce policy research by academic institutions;
- the development of standardized indicators; and
- the incorporation of monitoring and evaluation frameworks into the national health workforce plan.

Box 2.1   International support for strengthened HRH information systems

The Health Metrics Network (HMN) was launched in 2006 with the objective of supporting partner countries to strengthen their health management information system through the provision of assessment tools, technical assistance and some financial support. While the scope, in terms of the number of partner countries, is limited, the support provided is nevertheless an important step forward in improving the evidence base of health systems, including HRH. In an exercise supported by HMN in 2006–2007, which used a scaled questionnaire to support self-assessment in selected low- and middle-income countries for four key dimensions of HRH data, tracking the output of health professional education institutions was ranked as the area of weakest performance in most countries).

2.2   Survey results

2.2.1   Countries with national mechanisms for use of HRH data

Twenty-two out of 51 countries (43%) reported that they had a national mechanism for HRH data users and producers to inform policy-making and management of the health workforce (Figure 2.1).

Figure 2.1 Number of countries with a national mechanism for use of HRH data, by continent
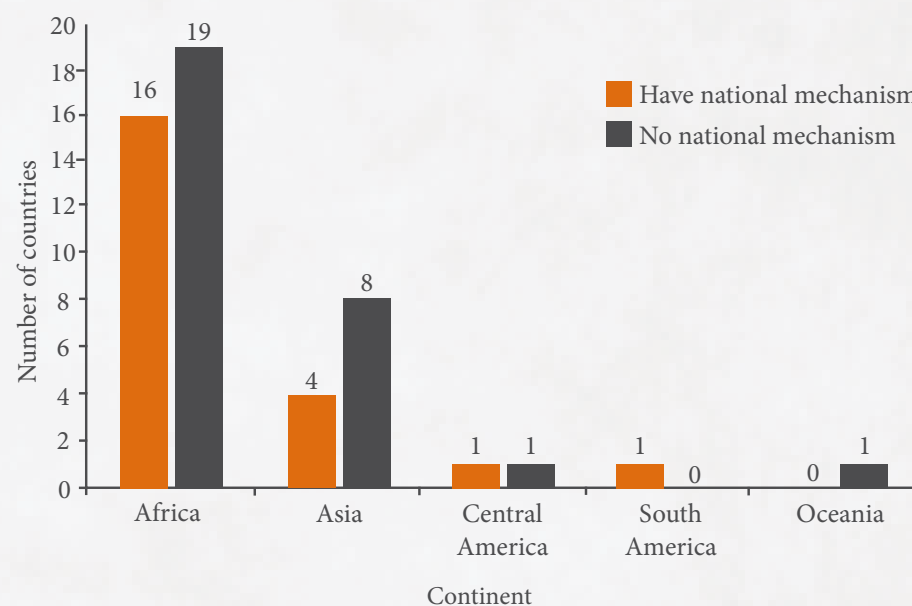
2.2.2   Countries with well-functioning HRH information systems

Countries were requested to provide information on whether HRH statistics were available for doctors, nurses, midwives and community health workers, at least for the public sector. The results are set out in Table 2.1.

According to the findings of the survey, most countries had HRH statistics for doctors, nurses and midwives. However, the availability of HRH statistics for community health workers was relatively low.

Table 2.1 Countries with HRH statistics and regular updating of the statistics

	HRH statistics exist n (%)	Statistics updated 12-times since 2008 n (%)	Statistics updated 3 or more times since 2008 n (%)
Number of doctors	49 (96)	27 (53)	19 (37)
Number of nurses	50 (98)	28 (55)	19 (37)
Number of midwives	48 (94)	26 (51)	19 (37)
Number of community health workers	31 (61)	21 (41)	9 (18)

Number of countries: 51

The HRH focal points of these countries were also asked whether the HRH statistics were analysed based on employment status, geographical distribution (urban–rural) and migration to other countries. The frequencies were 41 (80%) for employment status, 44 (86%) for geographical distribution and 10 (20%) for migration to other countries. The countries that did analyse the migration data were *Eritrea, Guinea-Bissau, Haiti, Indonesia, Kenya, Nigeria, Peru, Togo, Uganda and the United Republic of Tanzania.*

Case story 2.1 Developing the Kenya Health Workforce Information System

The Kenya Health Workforce Information System (KHWIS) began in 2002 as a project to track the supply and deployment of Kenya's nursing workforce in 2008 it expanded to develop a comprehensive health workforce surveillance system. The project represents an ongoing collaboration between the Government of Kenya's Ministry of Medical Services (MoMS) and Ministry of Public Health and Sanitation (MoPHS) and their professional groups together with international and faith-based partners.

The KHWIS comprises workforce supply and deployment databases for four distinct health professional councils:

- the Nursing Council of Kenya;
- the Kenya Medical Laboratory Technicians and Technologists Board;
- the Clinical Officers Council; and
- the Kenya Medical Practitioners and Dentists Board.

The KHWIS links "supply data" retained by the regulatory boards (such as, training institution, registration date, continuing education, and licensure renewal) to "deployment data" retained by the Government of Kenya (such as facility of employment, employment number, and in-service training) to create composite profiles on individual health personnel.

As a result of the KHWIS's electronically linked databases, timely and accurate workforce information can now be produced. For example, prior to the establishment of the KHWIS, it was difficult for the MoMS to confirm deployment data, much less detect personnel who were on the payroll but no longer at post (i.e. "ghost workers"). In order to address the issue of ghost workers, the Department of Nursing Services regularly compared KHWIS data with the Government's payroll database. This linkage identified personnel discrepancies and eliminated payroll inefficiencies. The KHWIS has also influenced changes in Kenya's health policy. In 2009, data from the KHWIS – illustrating a public sector loss over the next ten years of 25% of its nursing workforce, due to mandatory retirement – resulted in the Government of Kenya raising its civil servants' mandatory retirement age from 55 to 60 years of age.

The KHWIS project is at the forefront in facilitating HRIS South–South cooperation, hosting visits from colleagues in Nigeria, Uganda, the United Republic of Tanzania and Zimbabwe.
Submitted by: Ministry of Health, Kenya

2.3   Discussion

The survey reveals that a growing number of countries are setting up mechanisms, such as health workforce observatories, to improve information sharing and to facilitate policy development, monitoring and decision-making. As this approach is relatively new, however, the proportion of priority countries reporting a functioning mechanism is still under half (44%).

Challenges in data collection, analysis and maintenance still remain. While the vast majority (93–96%) of countries reported having data on doctors, nurses and midwives, far fewer reported maintaining registers of community health workers (CHWs) (58%), and these registers are less likely to be regularly updated. In terms of analysis, data are frequently analysed by employment category (80%) and geographical distribution (88%), but not so frequently by migration patterns (18%). This confirms wider international studies, which have pointed to the weakness of national systems in monitoring migration patterns (OECD, 2010).

The quality of the datasets is not assessed by this survey, but other sources confirm that maintaining accurate and up-to-date records is a challenge for many health systems. Maintaining data on the private sector is particularly problematic as few governments maintain records on private practitioners and many private practitioners are not registered (WHO, 2009).

Case story 2.2 Facilitating international exchange of best practices in HRH

A group of MoH officials from Malawi undertook a study tour in the Philippines with the purpose of understanding how this country, which had faced a severe HRH challenge, was able to tackle it through a number of innovative approaches. In the 1980s and 1990s, the Philippines had faced a huge brain drain, together with an inability to attract medical professionals to rural areas. Similarly, Malawi, with until very recently one of the lowest ratios of health workers per person in the world, faced intense problems of outward migration of health workers, and had poor access to health services, especially in rural areas. The MoH in Malawi was interested to learn about the measures introduced by the Government of the Philippines to address these issues, including supporting decentralization of health-care provision, incentives, curricula to encourage health workers to remain in the country and to work in more rural provinces, and community health management.

The Malawi study tour, supported by VSO, visited a variety of health organizations in the Philippines, both governmental and nongovernmental, ranging from national to community levels. The learning and recommendations from the study tour were disseminated further within the MoH in Malawi. One example of such learning has been the development of Health Surveillance Assistants – a type of CHW – in Malawi. There are now around 10 000 of these Health Assistants in Malawi, mostly in rural areas, sharing tasks with overworked local nurses and midwives.

The value of the Malawi–Philippines study tour was emphasized in 2010 when the learning was widened to include an exchange with MoH staff from Zimbabwe. The Zimbabwean delegation was able to talk to health workers at different levels and gain an understanding of what is being done in Malawi. The experience from the Philippines therefore is spreading further, each time being adapted to local realities and different circumstances.

Submitted by: VSO International

Progress on Agenda for Global Action Strategy 3:

3
Scaling up health worker
education
and training
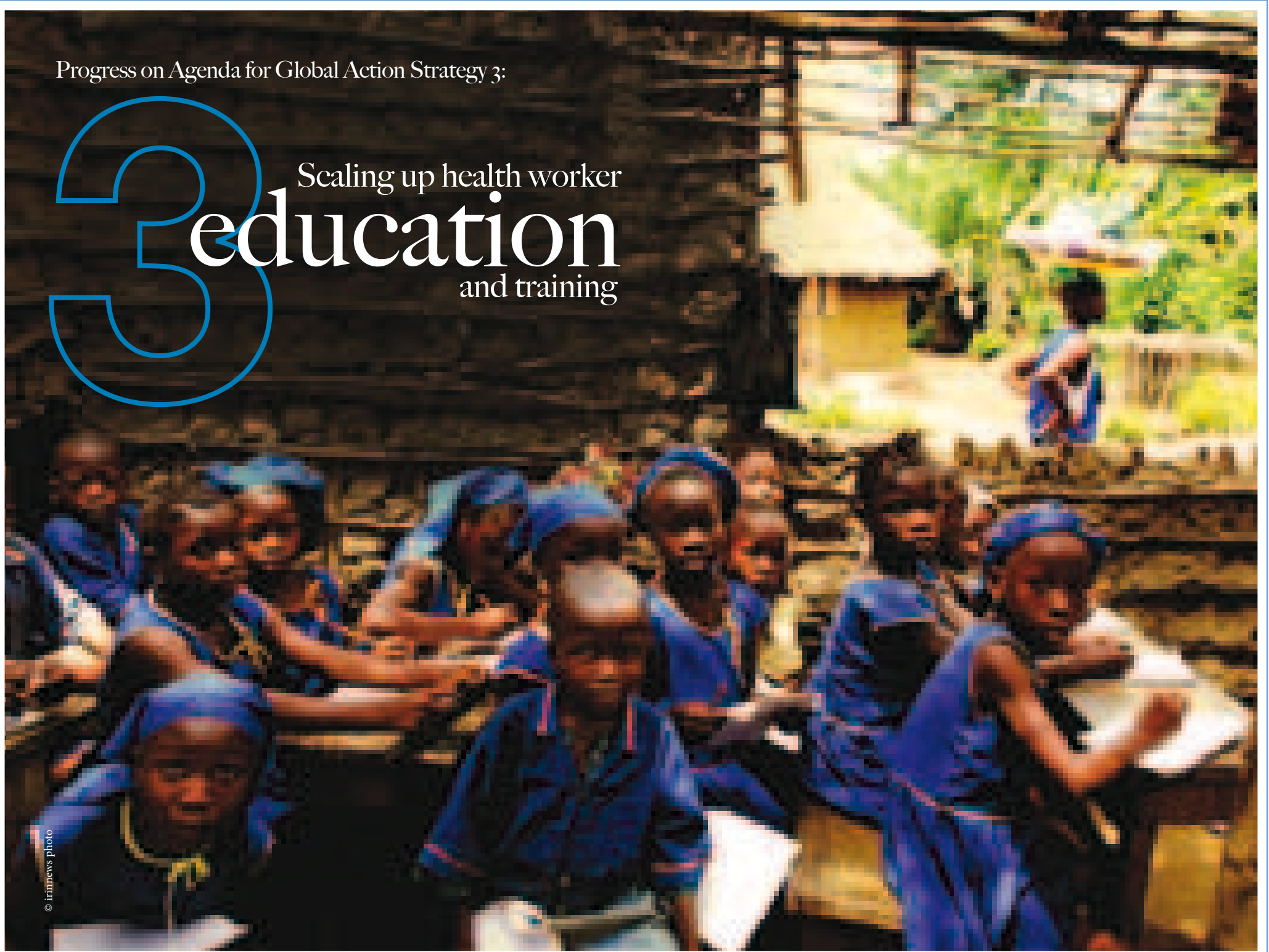
3.1 Overview

Ensuring the availability of the full range of health workers with the appropriate mix of skills requires innovative approaches to training and education, and the implementation of coordinated and context-specific policies that address each country's human resource needs. A major challenge to intensifying the scaling up of health worker training and education is the need for sustained financial and political commitment. Some examples of the challenges commonly faced by countries struggling to increase their health workforce include: disparity between the scale-up plans and funding available; lack of country ownership and political commitment; lack of coordination across different players; lack of sufficient training faculties and infrastructure; and outdated curricula and teaching methods.

The Agenda for Global Action has identified a range of priority actions to guide national and regional efforts in scaling up the education and training of health workers. These actions include, but are not limited to:

- understanding the countries' health worker needs in terms of quantity and skill mix and instituting country-relevant policies with at least a ten-year planning horizon;
- expanding training for community and mid-level health workers alongside highly-skilled staff;
- instituting the appropriate regulatory framework, including quality standards for service and accreditation systems for education and training;
- linking the scale-up of health workers with health workforce information systems;
- taking on approaches to in-service training that minimize disruption to workflow; and
- increasing financial commitment to health workforce training and education by the international community in a predictable way.

Box 3.1 Scaling Up, Saving Lives

Building on the Kampala Declaration and the Agenda for Global Action, the Taskforce for Scaling Up Education and Training for Health Workers, convened by the Global Health Workforce Alliance, published their findings and recommendations in the report Scaling Up, Saving Lives (Alliance 2008b). Focusing on the 57 priority countries, the report found that the current approaches taken by many governments are not working as the number of health workers being trained continues to fall below grossly the countries' needs. The report presents some practical solutions to this challenge that have worked in other countries and sets out the critical success factors and effective strategies to ensure that everyone has access to trained, motivated and facilitated health workers. Core recommendations include:

1. National 10-year plans should be developed with short-, medium- and long-term measures, including a massive expansion of community-based and mid-level health workers alongside the education of more specialized health workers;
2. Education ministers should support the development of training curricula that are community-, competency- and team-based, and aligned with national strategies;
3. Local, regional, international and public–private partnerships should increase investment in centres of excellence, and develop locally relevant knowledge and innovative training and education;
4. Significant financial support from development partners should be earmarked for national plans, alongside greater flexibility from ministries of finance;
5. Alignment of all stakeholders should be promoted, including international organizations and initiatives on the pay of health workers and support for pre- and in-service training;
6. National quality assurance mechanisms for training and education should be developed, supported by regional and international organizations;
7. The Alliance should continue to play a central role in the dissemination of learning and good practice.

3.2   Survey results

It was found that the training enrolment numbers in most of the countries surveyed had increased since 2008 (Figure 3.1). The job category with the lowest rate of increase in enrolment was the CHWs.

Figure 3.1 Number of countries with increased training enrolment numbers

Types of healthcare providers
Number of countries: 51
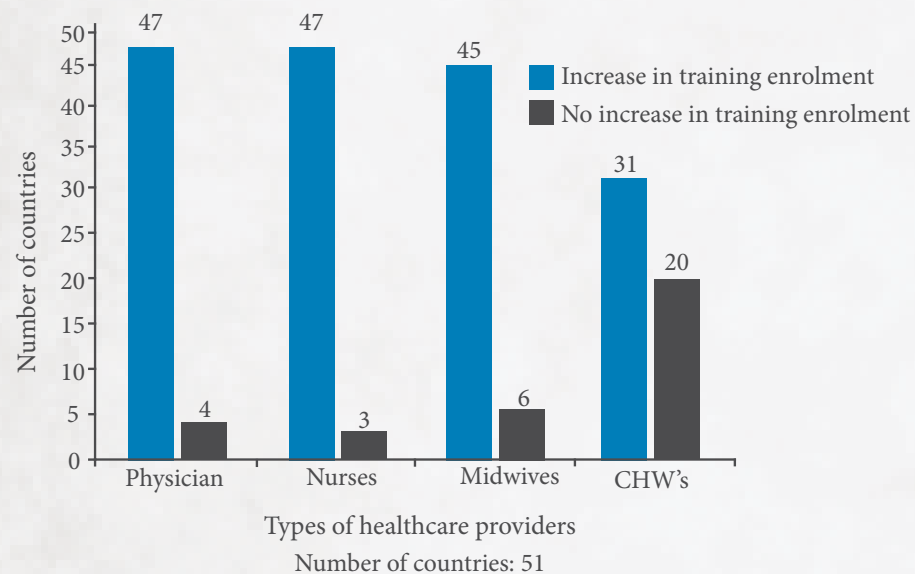
The survey also investigated whether there had been an increase since 2008 in the number of international scholarships awarded from any international agency or from the Government for doctors and nurses to study at both undergraduate and graduate levels. Thirty-two out of 51 countries (63%) reported an increase in absolute numbers of international scholarships.

The same proportion of countries (63%) also reported having set up new medical and nursing training programmes since 2008. Thirty-five out of 51 countries (67%) have developed or adjusted their training curricula in response to the health needs of their country. Since 2008, 16 out of 51 countries (31%) have undertaken all three measures, namely increasing the number of international scholarships, establishing new medical or nursing training programmes, and

developing or adjusting their curricula based on identified needs. These countries were: *Angola, Bangladesh, Burkina Faso, Cambodia, Côte d'Ivoire, India, Kenya, Lao People's Democratic Republic, Liberia, Mozambique, Niger, Rwanda, Uganda, the United Republic of Tanzania, Yemen and Zambia.*

Box 3.2 Scaling up training and certification in Afghanistan

The Director of Human Resources in Afghanistan's Ministry of Public Health formed a leadership group comprising government, professional association, union, university, and civil society representatives. This group established a Directorate of Human Resources and helped link its work to that of other departments.

The Directorate's first task was to identify the number, type and location of health workers in the country, and to determine their level of competence. Among the many refugees returning to Afghanistan were health workers trained by nongovernmental organizations (NGOs) operating cross-border projects in Pakistan during the war, whose roles had been expanded beyond the level of their training. Other health workers had no formal training, but still provided health care during the war years. Still others had received training that was not relevant to their current jobs. To address this disparity and to begin to build a consistent level of quality into the HR system, the Directorate of Human Resources established a national registration system and created a database to record the training and background of 24 500 health workers. A semi-autonomous board was established to test and certify staff in nine categories of nursing, midwifery and allied health professions. Approximately 2 400 people have been tested to date.

While it is imperative to increase the number of health workers in Afghanistan, the quality of their training is also crucial. High-quality training is being provided to refresh the skills of existing health workers and to train new health workers, in particular female physicians, nurses and midwives. Both the nursing and midwifery pre-service curricula have been revised. An accreditation system for nursing education is being finalized and a system of accreditation for midwifery has been established. With these new standards in place, 800 professional midwives (the first trained in the country in seven years) had graduated from Afghanistan's Institute of Health Sciences by September 2006. By September 2008, this number had reached 1 128.
Source: Shiffbauer et al., 2008

3.3   Discussion

The findings indicate that almost all of the responding priority countries are taking action to increase the enrolment and training of health workers, which will contribute to removing the bottlenecks in health worker recruitment. The dichotomous yes/no design of this question, however, did not allow respondents to provide details on the exact scale of the increase in their country.

The following comments made by HRH focal persons provide additional information on issues related to trends in the education of health worker education, such as curricula reform:

"The Patan Academy of Health Sciences (PAHS) was established in 2008 and has developed a new curriculum for its undergraduate medical education programme, primarily to respond effectively to the current and emerging health care challenges of Nepal in general and that of rural areas in particular. PAHS has enrolled its charter class of medical students and the courses began in June 2010."

"The curriculum for physicians went from the traditional approach based on disease patterns to a problem-solving approach. The curricula for community health workers, undergraduate nurses, nursing specialization programmes and allied health workers (health extension, environment health) are all underpinned by competency-based approaches."

Some informants raised concerns about quality:

"Bangladesh increased training enrolment numbers in all categories –doctors, nurses, midwives, medical assistants, health technologists, and community health workers in the public sector. Besides these, we have more schools opened in the private sector than the public sector in all the above-mentioned categories. But the great challenge remains the quality control of human resources for health."

Planning for an appropriate skill mix, so that health workers are trained to an adequate level, but not beyond, is also important in identifying a country's health workforce education priorities. In recent years, building on the "task shifting" approach championed by WHO (WHO, 2008b), there has been growing international consensus on the role and potential contribution of mid-level personnel (Lehmann, 2008) and CHWs (Alliance, 2010) (see box 3.3) to reaching health goals across a wider range of essential health services.

> ### Box 3.3 CHWs – findings of a systematic review and country case studies
>
> A recent study into of the contribution of CHWs, commissioned by the Alliance with support from USAID (Alliance, 2010), found that they play a very diverse range of roles and offer considerable potential in relation to the MDGs. Core recommendations of the report were that:
>
> - CHWs should be coherently inserted into wider health systems and included in national and local strategic HRH plans
> - village health committees should contribute to the selection of CHWs
> - the pre-service curriculum should include knowledge of preventive and basic curative health care
> - CHWs should continually assess community health needs
> - CHWs should have referral protocols with formal health and other social services
> - CHWs should benefit from regular and continuous supportive supervision and monitoring.

Prior to 2008, Lesotho had no further training for physicians or nurses after they completed their pre-service education, except for ad hoc workshops. According to Lesotho's Human Resources Needs Assessment and the Attrition and Health Sector survey, a lack of continuing education was one of the main reasons that Lesotho had very few physicians (approximately 190, only 45 of whom were part of the Basotho ethnic group). There was also a substantial decrease (44%) in nurses practising in Lesotho from the mid-1990s to the mid-2000s.

Guided by the Agenda for Global Action, Boston University's public health arm in Lesotho, the Lesotho-Boston Health Alliance (LeBoHA), has worked in collaboration with Lesotho's Ministry of Health and Social Welfare (MOHSW) to stem and reverse the flow of human resources out of the country through innovative techniques. Since 2008, LeBoHA has assisted in forming the first post-graduate medical specialty training programme in Lesotho. LeBoHA has also assisted in establishing the first in-service, competency-based continuing education programme for nurses. In addition to scaling up the training of physicians and nurses, LeBoHA has also strengthened the capacity of hospital management and central level managers to practise evidence-based policy- and decision-making in order to improve resource allocation. LeBoHA has focused on the interconnecting properties of the AGA strategies and improved HRH by integrating them to build strong health systems to support the health workforce.

Submitted by: the Lesotho Boston Health Alliance

Survey findings indicate that almost all of the responding priority countries are taking action to increase the enrolment and training of health workers, which will contribute to removing the bottlenecks in health worker recruitment.

4 Retaining

an effective, responsive and equitably distributed health workforce

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4.1   Overview

Policy-makers around the world are faced with the complex challenge of ensuring that there are sufficient numbers of skilled and motivated health workers in the right place at the right time. Since an entirely free labour market will never lead to a well distributed health workforce, governments try to influence the distribution of health workers through regulation and financial and non-financial incentives.

The Agenda for Global Action outlines the priority actions that need to be taken in order to ensure a more equitable distribution of health workers with the right mix of skills, who are motivated to perform their role in an effective manner. These actions include:

- the development and implementation of innovative approaches to providing sustainable and acceptable financial and non-financial incentives for health personnel to work in underserved areas;
- the availability of effective managers at all levels of the public sector to implement well designed, comprehensive and coherent retention strategies;
- the implementation of staff performance management systems;
- proactive collaboration among stakeholders to discuss and monitor issues relating to retention, job satisfaction, professional and social recognition, public–private mix as well as the enabling role of communities; and
- the support and collaboration of partners in terms of predictable and long-term financial support for activities including the development of innovative ways to improve retention and distribution of health workers.

Box 4.1 Focusing on retention

Following the Kampala Declaration and Agenda for Global Action, several recent international events have underlined the importance of improving health worker retention:
- The G8 Communiqué of July 2008 restated the need to assure the effective retention of health workers, and in the Communiqué the Japanese Government pledged support to train an additional 100 000 health workers in Africa.[5]
- The November 2008 report of the Commission on Social Determinants of

[5] http://www.un.org/millenniumgoals/2008highlevel/pdf/commitments/Japan.pdf.

Health urged action by governments and international partners to address specifically the imbalances in the geographical distribution of health workers in rural areas as a structural determinant of poor health outcomes.
- In June 2009, the High Level Taskforce on Innovative International Financing for Health Systems urged all governments to ensure that all people, including rural and remote populations, have access to safe, high-quality and essential health-care services.
- In 2010, WHO published a set of recommendations aimed at government leaders and policy-makers outlining ways to increase access to health workers in remote and rural areas through improved retention (WHO, 2010c).

4.2   Survey results

4.2.1 Countries attracting and retaining the health workforce in underserved areas

The majority of countries – 32 out of 51 (63%) – reported having implemented strategies or approaches to attract and retain the health workforce in underserved areas (Figure 4.1).

Figure 4.1 Number of countries implementing strategies to attract and retain the health workforce in underserved areas, by continent

Number of countries: 51
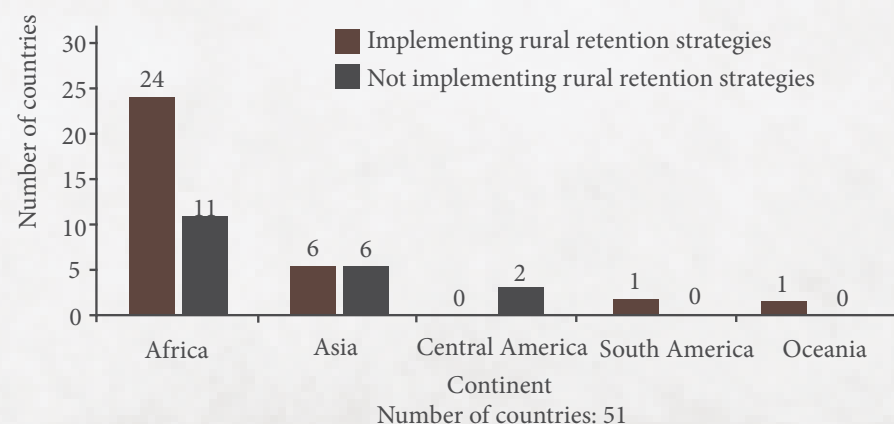
The respondents were asked whether their countries had more vacancies in the public sector, due to new facilities having been built, retirement, health workers leaving the country, or any other factors. The number of countries reporting increased numbers of vacancies in the different cadres were 42 (82%) for doctors, 39 (76%) for nurses, 38 (75%) for midwives and 20 (39%) for community health workers. These figures indicate the continuing need for expansion and retention strategies.

Countries were also asked whether the staffing levels in private hospitals had increased since 2008. Twenty-five countries (49%) responded positively, 12 (24%) countries reported no increase in staffing in private hospitals and 14 (27%) countries could not respond, possibly because of a lack of data from the private sector.

In the majority of countries, there was an increase in the number of new hospitals and health centres in both urban and rural areas (Figure 4.2).

Figure 4.2 Increase in hospitals or health centres

Number of countries: 51
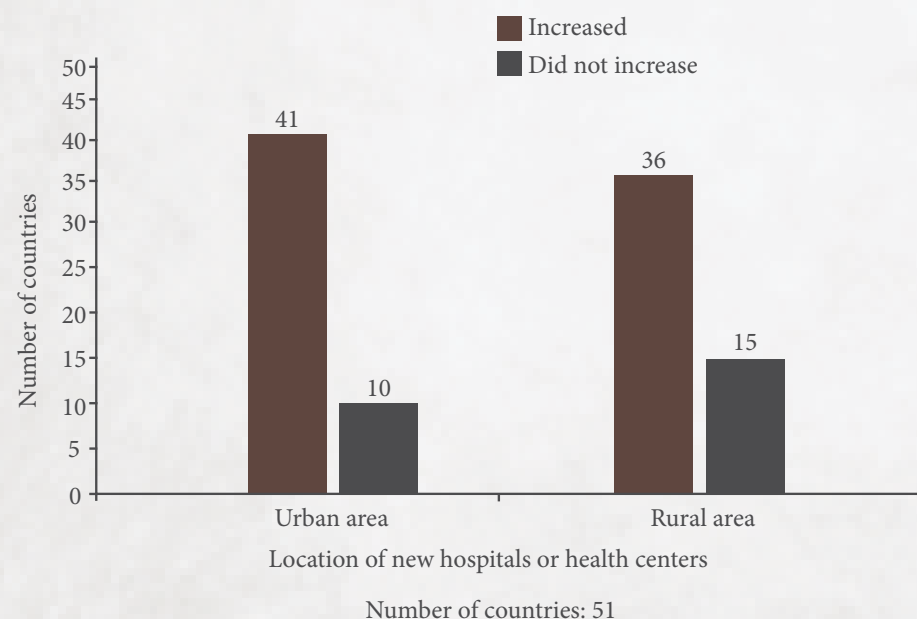
Six countries reported progress in all three areas. They had built new facilities in the public sector for all three groups of health care providers, there were increases in staffing levels in private hospitals and there were additional hospitals built in both urban and rural areas. These countries were: *Bangladesh, Comoros, Côte d'Ivoire, Equatorial Guinea, Kenya and Mozambique.*

Case story 4.1 Extending primary care coverage in rural communities – the Nigeria midwives service scheme

Nigeria is the most populous country in Africa, with an estimated population of 150 million. With its poor health indicators, it is making slow progress towards achievement of the MDG goals. The maternal mortality rate in this country was estimated at 1100 in 2005, according to joint agency estimates (WHO et al., 2007). The health sector faces many challenges, including those of ensuring the right mix of HRH at all three levels of the health system – local, state and federal. In order to overcome these challenges, the Government of Nigeria established the midwives service scheme in 2009, aimed at mobilizing unemployed and retired midwives into service in selected primary health care facilities in rural areas. The goal was to provide an emergency response to HRH gaps and to ensure an increase in the number of patients having skilled attendance at delivery. The scheme has been a collaboration between the three levels of the system and international partners, and is implemented by the National Primary Health Care Development Agency.

To date, 2488 midwives have been deployed to 652 rural health facilities, with a retention rate of 93%. This is close to the target of 2500, which was set in 2009. Midwives have been trained in life-saving skills and the integrated management of childhood illness. The scheme has also been accompanied by measures to strengthen the public health-care system generally, including community mobilization. Under the scheme, the federal level contributes 50% of funding, while states contribute 33% and local governments 13%. However, one of the main challenges is the fact that some states and local governments have not been fulfilling their commitment.

Submitted by: the National Primary Health Care Development Agency of Nigeria

Faced with dire shortages of health personnel and poor health outcomes, the Government of Malawi launched a new health initiative in 2004 to deliver an Essential Health Package, including a major scale-up of HIV related services. Improving staffing levels is the single greatest challenge to implementing this approach. Donors such as DFID and The Global Fund agreed to assist the Government to develop an Emergency Human Resources Programme with the goal of scaling up staffing levels. The programme concentrated on five main areas:

- improving incentives for recruitment and retention of staff through salary top-ups;
- expanding domestic training capacity;
- using international volunteer physicians and nurse tutors as a stop-gap measure;
- providing international technical assistance to bolster planning and management capacity and skills; and
- establishing more robust monitoring and evaluation capacity.

The Emergency Human Resources Programme (EHRP) also developed health surveillance assistants (HSAs), who work at the community level delivering basic health care. The VSO supports the programme with international volunteers who deliver training at all levels of the health service, from the central ministry level through to hospitals and clinics and out to the villages where the HSAs work. The HSAs are bringing tuberculosis (TB) diagnosis and other services closer to the communities, encouraging early TB screening and relieving some of the burden from the physicians.

The diagnosis of TB is complex and entails repeated visits, long queues and delays for patients. One patient complained: *"We came back to wait for the result, we waited and waited but the result never came out. We went to the health centre to find out about the result only to be told that the sputum was sent to Ntcheu District hospital, if the result came we will inform you. In the end we stayed at home… Now this is a thing of the past, the services are near us and easier to access".* An external evaluation of the EHRP has reported that this initiative of the Government of Malawi has contributed to the saving of over 13 000 lives (MSH, 2010).

Submitted by: VSO International

4.3   Discussion

AGA 4 presents a challenge to monitoring and evaluation as it is a particularly complex goal with many facets. However, the responses to the questionnaire indicate that the majority of countries (63% of respondents) have introduced some measures to attract and retain health staff in underserved areas since 2008.

The questionnaire responses also indicated a growing demand for health workers, with more vacancies being reported, especially for doctors (82%). There is also some indication of increased levels of private employment (reported in 49% of cases, although a significant number did not respond to this question, presumably because of lack of data). Within urban areas there are new facilities to be staffed (80% reported increases since 2008), while in rural areas there has been a comparatively smaller increase (71%). However, equitable distribution and health worker responsiveness were not investigated through the chosen proxy indicators.

Retention, motivation and the appropriate distribution of health workers require a complex mix of approaches and measures. Each country should identify and implement the most appropriate combination of educational, regulatory, financial and management support interventions to respond to their retention challenges.

The guidelines on retention of health workers in rural areas recently developed by WHO (WHO, 2010c) provide a useful framework to explore and select relevant policy options.

5

Managing the pressures of the international health workforce market and its impact on

migration

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5.1   Overview

Health workers, like workers in all sectors, tend to migrate to countries where working conditions are better. The international labour market for health workers is such that developed countries with strong purchasing power can outbid poorer countries. Such dynamics lead to a breakdown of public health systems in poorer countries that have already used their meagre resources to train health workers. Policy-makers are thus faced with the dilemma of needing to balance two fundamental rights, namely the right of an individual to self-betterment and the right of the community to health.

It is recognized that an international and coordinated response is required to address this issue. The AGA has therefore put forward the following priority actions to manage the pressures of the international health workforce market and the impact of these pressures on migration:

- Governments must monitor the flows of their health work force to inform policy decisions.
- Governments should implement the WHO Global Code of Practice on the International Recruitment of Health Personnel (see Box 5.1), which provides guidance on the international recruitment of health workers.
- All countries must work collectively to address current and anticipated shortfalls in global health workforces, with richer countries giving high priority to training and recruiting health workers within their own countries.
- Governments should be supported to develop coherent policies and build capacity to analyse the implications of trade agreements on health workforces.
- Innovative approaches to assist health worker retention should be tested.

Box 5.1 WHO Global Code of Practice on the International Recruitment of Health Personnel

The Health Worker Migration Global Policy Advisory Council was convened in 2007 by the Alliance with the mission to review, discuss and promote innovative measures and policy actions to address health worker migration globally. The Council was responsible for providing expert advice on the drafting of a new global code for the recruitment of health workers that was adopted by the Sixty-third World Health Assembly in May 2010.

Key components of the Code include:

- greater commitment to assist countries facing critical health worker shortages in their efforts to improve and support their health workforce;
- joint investment in research and information systems to monitor the international migration of health workers in order to develop evidence-based policies;
- Member States to meet their health personnel needs with their own human resources as far as possible and thus take measures to educate, retain and sustain their health workforce; and
- migrant workers' rights enshrined and equal to domestically trained health workers.

Source: WHO 2010b

5.2   Survey results

The question was asked whether there had been an adjustment to the salary scale, or any increase in allowances or benefits for health workers in remote or hardship areas since 2008. Such measures to improve domestic working conditions can play a significant role in shaping international labour markets in favour of retention. Thirty-two out of 51 countries (63%) reported having undertaken some or all of these measures.

The priority countries were also asked whether there had been an improvement in career development in different categories of health-care providers. Figure 5.1 shows that the majority of countries reported an improvement in career development for doctors, while approximately half reported an improvement for nurses and midwives. However, only 18 countries (35%) reported improvements in career development for community health workers. These countries were: *Afghanistan, Angola, Côte d'Ivoire, Equatorial Guinea, Ethiopia, Gambia, Haiti, Kenya, Lao People's Democratic Republic, Liberia, Malawi, Mali, Myanmar, Niger, Nigeria, Senegal, Togo and Zimbabwe.*

Figure 5.1 Improvement in career development

Figure 5.1 Improvement in career development

- Improvement in career development
- No-Improvement in career development

Types of healthcare providers

Number of countries: 51
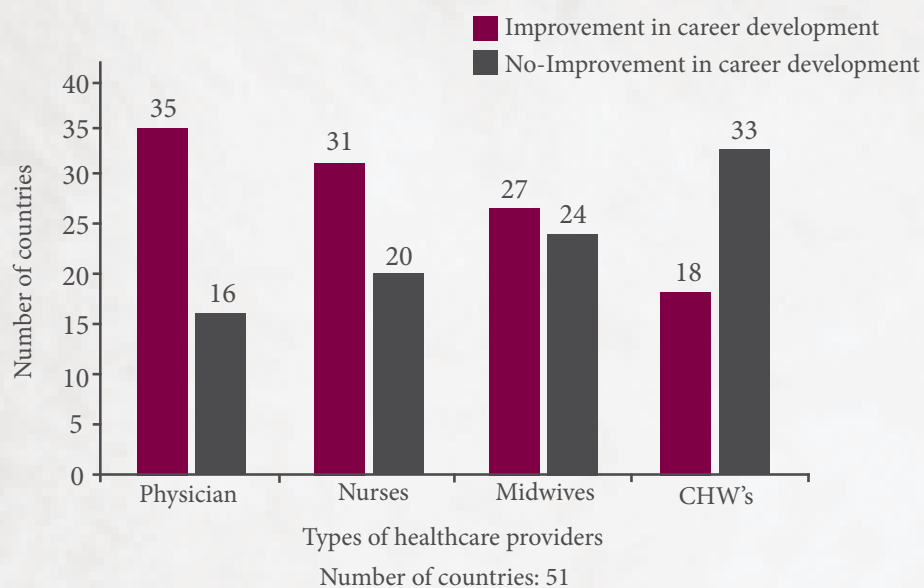
5.3   Discussion

Overall, 63% of countries reported having taken some measures since 2008 to increase incentives of health workers to serve in remote or hardship areas (such as pay increases, allowances or other benefits), and the majority are striving to improve the work environment through better career development opportunities. However, while doctors and nurses are reported to have seen improvements in career development in most cases, CHWs only benefited from such opportunities in a third of the countries that responded. This discrepancy suggests that countries may be focusing on improving the conditions of categories of staff who are more internationally mobile. Direct evidence on whether migration flows have increased or reduced is not available.

Comments from some respondents suggest that in certain cases, improvements in pay and conditions remain insufficient and/or inconsistent:

"There has been an improvement in career development for the doctors category only, which is mostly individual efforts, not the part of the health system."

"There is a slight increase in salary for those who work in rural areas and higher-risk areas such as radiology...Career development is lacking except in Health Priority programmes where scholarships are provided, e.g. midwifery and child health. This includes conferences as well such as HIV/AIDS."

"Where there have been increases in the salaries of health workers since 2008, these are still below the living wage. Career development, although in existence, is limited by the resources available."

The policy recommendations to address international migration of health workers are similar for both source and destination countries, namely to focus on expanding education and training capacity, improving retention of existing workers through better management, remuneration and career development opportunities, adopting a more efficient skill-mix, and enhancing HRH productivity.

The recent approval of the WHO Global Code of Practice on the International Recruitment of Health Personnel opens unprecedented opportunities to collaborate on maximizing the benefits and minimizing the negative effects of international migration of health workers.

Priority countries should start putting in place the measures, systems and legal and administrative mechanisms required for the successful implementation and monitoring of the provisions of the Code.

Case story 5.1 Retaining health workers in Indonesia

Building on a pilot that offered incentives and the opportunity to joining the civil service to fill vacant posts in remote, borderline areas, the Minister of Health in Jakarta used the Kampala Declaration to advocate for more funding from Parliament and the Ministry of Finance to scale up the initiative. The proposal was approved in 2009 and the programme was scaled up accordingly. In 2010, to raise awareness of all stakeholders, in particular the local governments, the President of Indonesia issued Presidential Instruction No. 1 Year 2010 on the Acceleration of the Implementation of National Development Priorities. The instruction emphasized the importance of the deployment of strategic health workers in remote, underserved areas and small islands. To ensure future sustainability, one of the priority activities was to conduct a mapping of health workers. The implementation of the Presidential Instructions was conducted under the close supervision of the Presidential Taskforce for National Development.

By August 2010, the MoH had sent 1018 health workers, comprising 477 doctors, 140 midwives and 303 other health workers, to 257 Community Health Centres in 35 districts. In addition, 98 senior residents (the final stage of medical specialist training) were sent to district hospitals.

To increase the long-term supply of health workers, the MoH has also provided financial support (special scholarships) with bonding attachments for Medical Specialist Training, Diploma IV Nursing (Specialist Training), and Bachelor Degree programmes in Community Midwifery in collaboration with 13 medical schools, 9 health polytechnics and 2 public health schools. More than 2000 students were awarded scholarships between 2008 and 2010.

Submitted by: Ministry of Health, Indonesia

...while doctors and nurses are reported to have seen improvements in career development in most cases, CHWs only benefited from such opportunities in a third of the countries that responded.

6

Securing additional and more productive

investment

in the health workforce

6.1   Overview

In the 57 countries facing a health workforce crisis, securing adequate funding for HRH is one of the most difficult challenges. It requires the concerted effort of a number of players if effective and long-term solutions are to be found. Investment in the health workforce needs to be prioritized among competing demands for resources, and new solutions must be found to overcome the restrictions imposed in relation to the civil service wage bill (e.g. wage ceilings and civil service downsizing). The Paris Declaration on Aid Effectiveness commits multilateral and bilateral donors to aligning financial support with national priorities. This presents an opportunity for countries with a health workforce crisis to stand firm on their commitment to addressing this challenge by prioritizing it in their national and sectoral plans.

The Agenda for Global Action calls for countries to commit more financial resources to the implementation of national health workforce policies through the allocation of new and existing domestic and external resources. Some of the priority actions outlined include:

- allocating an adequate proportion of the health sector funding to the health workforce;
- providing increased external resources to the health sector in accordance with the Paris Declaration on Aid Effectiveness;
- addressing issues of fiscal space by analysing macroeconomic conditions that affect wage ceilings, health spending and civil service hiring conditions;
- developing costed health workforce plans based on evidence on what affects retention and health worker performance;
- engaging more with the private sector as a way of finding solutions to meeting the health workforce needs; and
- developing financial risk sharing mechanisms and performance-based financing systems to provide more predictable and productive financing for health workers.

Box 6.1 International commitments to investment in the health workforce

The following are examples of commitments made by international bodies to increase financing for the global health workforce shortfall:

1. The European Union Programme of Action published in 2006 underlined the importance of sustained and predicable financing to tackle the health workforce crisis and committed Member States to mobilize funding.

2. Signatories to the International Health Partnership, a Global Compact for achieving the MDGs, collectively committed to tackling the health workforce crisis – "particularly having enough trained health workers, in the right places and with the motivation, skills, equipment, commodities and medicines to do their work" (IHP, 2007).

3. The President's Emergency Programme for AIDS Relief (PEPFAR), a pillar of the United States Government Global Health Initiative, includes human resource constraints in health as one of the key policy areas to be addressed as part of the partnership framework (PEPFAR, 2009). It has pledged US$ 1.2 billion for human capacity development in Ethiopia, Kenya, Mozambique and Zambia between 2008 and 2013 (DFID/USAID, 2010), and committed to training 140 000 health workers.

4. The High Level Taskforce on Innovative International Financing for Health Systems and, more recently, the UN Secretary General Global Strategy for Women's and Children's Health called for the training of an additional 2.6–3.5 million health workers in 49 low-income countries.

5. One of the outputs of the High Level Taskforce on Innovative International Financing for Health Systems was a health systems strengthening platform, launched in 2010 to harmonize systems of support from players such as the World Bank, The Global Fund, GAVI and WHO.

6.2   Survey results

6.2.1 Countries with increased budgetary allocation for recruitment of new health workers

In most of the countries surveyed there was a reported increase in public sector employment for doctors (41 out of 51 countries, 80%), nurses (42 out of 51 countries, 82%) and midwives (39 out of 51 countries, 76%). However, for community health workers, the number of countries reporting an increase was lower (27 out of 51 countries, 53%) (Figure 6.1).

Figure 6.1 Increased recruitment in the public sector

Number of countries: 51
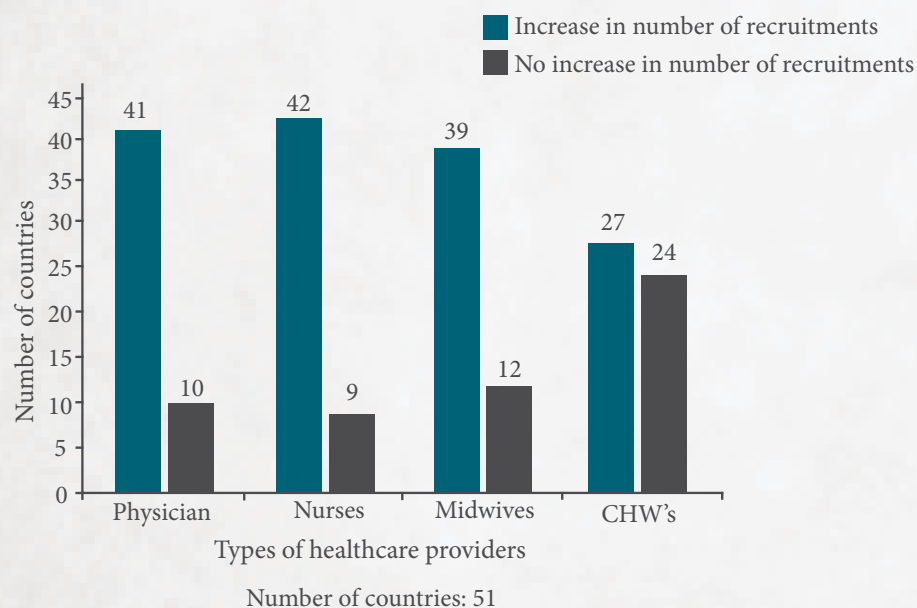
The respondents were also asked whether there had been an improvement in the workplace environment and 33 countries (65%) responded affirmatively.

6.2.2 Countries with additional investment from donors

The countries were asked whether there was donor support from multilateral or bilateral partners to implement all or part of the HRH plan. Of 51 countries, 39 (76%) reported having donor support to implement the HRH plan.

Figure 6.2 Countries with donor support, by continent

Number of countries: 51
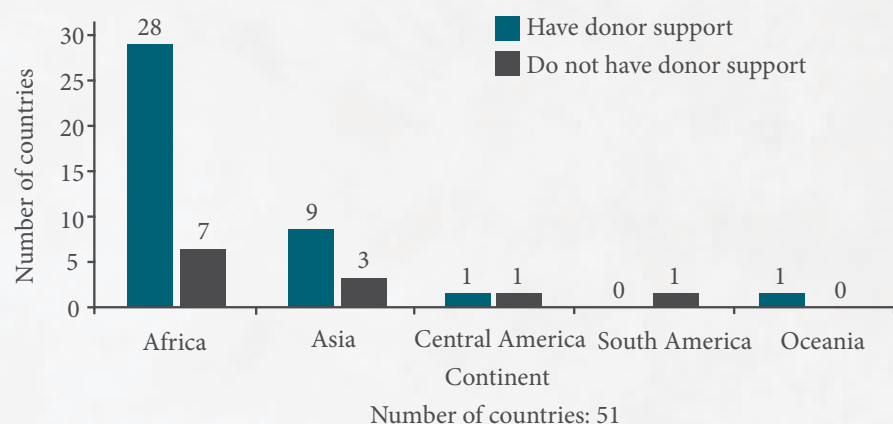
Case story 6.1 Investing in the health workforce in Zimbabwe

Zimbabwe's health sector faced increasingly severe human and financial resource constraints between 1997 and 2007. This reversed many of the health gains that had been made since independence in 1980. The country's economic challenges peaked in 2008, with inflation reaching 231 million per cent. This caused an unprecedented deterioration of the health infrastructure, a loss of experienced health professionals, drug shortages and a steep decline in the availability of health services for the population.

Since 2008, Zimbabwe has been making a concerted effort to address the HRH crisis by adapting recognized solutions and developing new ones. It has:
- drafted a costed and evidence-based HRH plan;
- established an intersectoral coordination mechanism involving relevant stakeholders for HRH development (the HRH task force);
- drafted the HRH profile as a first step towards an HRH observatory;

- strengthened the HMIS to support the collection, dissemination and use of information around individual health workers and their needs;
- implemented innovative training programmes and other policy initiatives to increase production of HRH in support of primary health care;
- introduced a financial retention scheme and other innovative policy initiatives to retain the health workforce, particularly in underserved areas;
- advocated for, and adopted the Global Code of Practice on the International Recruitment of Health Personnel;
- placed priority on CHWs and community responses in support of primary health care through its National Health Strategy 2009–13; and
- received additional investment from multilateral and bilateral partners (including the Global Fund to Fight AIDS, Tuberculosis and Malaria).

For now, the worst of Zimbabwe's HRH crisis has been resolved through strong partnership and collaboration between multiple stakeholders. Both short- and long-term solutions to the HRH challenge have been defined. Continued collaboration, dialogue, innovation and financial support from local and global partners over the next five years leading up to the 2015 MDG targets are expected to help move Zimbabwe closer to the vision of equity and quality of health for all.
Submitted by: the Health Service Board and the Ministry of Health and Child Welfare, Zimbabwe

6.3   Discussion

The findings indicate that the majority of priority countries that responded are committed to increasing the resources devoted to HRH, as indicated by the increased numbers of recruitments.

Some comments provided by the respondents suggest progress, but under continuing difficult conditions:

"Attempts are under way to improve the recruitment and retention of health-care personnel in public sectors. However, this needs to be operationalized."

"There has been an improvement in some selected workplace environments, which is not satisfactory as a whole."

"There has been an increase in the number of health workers joining or re-joining the public health sector. However there still remains a challenge in certain categories, especially specialist doctors, nurses, pharmacists, environmental health and laboratory scientists. Where the established (authorised posts) are filled, it is usually by young graduates."

The scale of the challenge is large. According to estimates produced by WHO for the High Level Taskforce on Innovative International Financing for Health Systems in 2009, over US$ 55 billion (22% of the additional resource requirements to meet the health MDGs in 49 low-income countries) would be needed through 2015 for training, salaries and incentives. According to other analyses, US$ 30 billion could be needed by 2015 to scale up pre-service HRH training in Africa alone (Alliance, 2009a).

More recent cost estimates have been produced for the UN Secretary General's Global Strategy for Women's and Children's Health in 2010, by adapting the High Level Taskforce's estimates for the costs of reaching the health MDGs by 2015 in 49 low-income countries. Estimates of the additional costs required for human resources were US$ 40.11 billion for 2011–2015 (UN, 2010). Human resources constituted just under 24% of the total estimated additional resources (both programmatic and for health systems strengthening) of US$ 146.28 billion (US$ 116 per capita).

Tools, such as the Resource Requirement Tool[6] developed by the Task Force on Human Resources for Health Financing convened by the Alliance (Alliance, 2009b), are available to assist with country level planning and estimation of the resource requirements for employment and pre-service training of health workers. However, projections of government health expenditure for the 49 low-income countries analysed by the High Level Taskforce on Innovative International Financing for Health Systems and the UN Secretary General's Global Strategy for Women's and Children's Health conclude that this group of countries is likely to remain dependent on external support to scale up their health programmes. This confirms previous analyses, which highlight the need to increase the allocation of domestic resources and – at least in some contexts – to supplement these with international support.

[6]http://www.who.int/workforcealliance/knowledge/resources/rrt/en/index.html.

Case story 6.2 Zambia's health workforce optimization model

Zambia is facing an HRH crisis. The average vacancy rate is 61% among public sector doctors, nurses, clinical officers and midwives. In addition, there is inequity of access to health services in rural areas. Zambia has 70 health-care workers per 100 000 rural population versus 159 health-care workers per 100 000 urban population. The country has recognized that evidence-based decision tools could help answer some of its burning HRH questions, such as:

- Given the limited financial resources, in which cadres should we invest most heavily?
- Where are health services in greatest demand relative to the staffing levels?
- How can we most effectively mobilize financial resources to align with MoH priorities?

The answer was the Optimization Model, which uses the MoH Health Management Information System data to calculate the number and type of health workers needed at each of the more than 13 000 health facilities to meet actual health demands. It is based on the conducting of expert interviews with clinicians to gather information on the procedures carried out by each cadre, the time required for each, and productivity patterns. The model includes six cadres: doctors, clinical officers, nurses, midwives, laboratory specialists, and pharmacists. It provides information on:

- variance between the number of current and funded positions;
- variance between the current and optimal number of positions (as estimated by the current demand for health services);
- shortages according to geographic region;
- highest priority cadres for scale-up based on vacancies.

Although it is early days, Zambia has hosted two formalized recruitment processes, using the Optimization Model, which has led to the posting of over 1200 students to areas of greatest need. The expectation is that the system will contribute to:

- improved access to health-care providers in areas that have the highest demand for health services;

- reduced disparity between urban and rural health worker distribution;
- efficient resource usage to train the cadres most in demand;
- improved health indicators where supply of health workers meets demand; and ultimately
- meeting the health MDGs.

Submitted by: Ministry of Health, Zambia

Of 51 countries surveyed 39 (76%) reported having donor support to implement the HRH plan.

7
Conclusions

Without addressing crucial bottlenecks in human resources, the backbone (yet often the weakest link) of health systems, it will not be possible to achieve MDGs 4, 5 and 6; nor will it be possible to make progress towards achieving the broader objective of universal health coverage.

There is a global consensus on priority strategies to address the health workforce crisis, which is enshrined in the Kampala Declaration and Agenda for Global Action (KD/AGA), adopted at the First Global Forum on Human Resources for Health in 2008. This report represents the first attempt to track progress in implementing the KD/AGA, and aims to serve as an instrument for partners and stakeholders to collectively review progress, hold one another accountable, and renew and strengthen commitment to develop and implement sustainable HRH solutions.

The three years since the First Global Forum on Human Resources for Health have seen numerous indications of increased attention and commitment at global, regional and national levels to resolve the health workforce global crisis. 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. Examples include the G8 summits, the recommendations of the High Level Taskforce on Innovative Health Financing for Health Systems, the proceedings of International AIDS Conferences, Women Deliver and Countdown to 2015, events focused on maternal, newborn and child health, African Union summits and similar regional events. Most recently, the UN High Level Summit on the Millennium Development Goals and the UN Secretary General's Global Strategy for Women's and Children's Health have also highlighted the importance of health systems strengthening through HRH.

This first attempt to review progress in implementing the KD/AGA aims to see whether the commitments expressed in these fora are in fact translating into the required actions and investment decisions by governments, development partners and other relevant stakeholders. Despite a number of limitations, which have been described and discussed in the previous chapters, this report provides a snapshot of the HRH policy and governance situation in the priority countries affected by severe HRH challenges, pointing to both areas of progress and others that, conversely, require increased attention.

AGA 1 (leadership)

While the vast majority of countries reported having an HRH plan, they also indicated that this is not always being implemented. The report also shows that HRH plans were only costed in less than half of the countries that responded, yet costing is an important pre-requisite for allocation of adequate resources and implementation. Similarly, HRH coordination mechanisms exist for the majority of countries, but their level of functionality and the extent to which representatives from sectors other than health, or stakeholders outside the public sector, are involved is variable.

Going forward, efforts should be made to ensure that:

- All countries have national health workforce plans that are costed in a realistic way, are comprehensive, gender balanced, evidence- and needs-based and include clearly prioritized implementation strategies;
- The development and subsequent implementation of these plans occur in concert with the main sectors involved (including health, education, finance, civil service, labour) and with stakeholders outside the public sector;
- Where appropriate and requested by countries, technical assistance is made available to support their development, implementation and monitoring, and local HRH planning and management capacity is enhanced.

AGA 2 (evidence)

Most countries reported the existence of statistics on the availability, employment status and geographic distribution of doctors, nurses and midwives. There are, however, significant gaps in relation to availability of similar information for non-traditional cadres, such as community health workers, and for the private sector health workforce. Moreover, the frequency of updating of health workforce statistics is variable. Less than half of the countries reported the existence of a national mechanism (e.g. a HRH observatory) for information sharing and policy dialogue on HRH.

- Countries, development partners and academia should increase investment in health workforce information systems and track health workforce

education, deployment, distribution, performance, employment status and attrition due to both internal and overseas migration.

- In order to ensure the use of evidence provided and sustainability, health workforce information systems should be owned by HRH stakeholders and provide the link between managerial demand and the production of relevant information.
- Attention should also be given to generating global public goods through the building and dissemination of new knowledge on which HRH interventions work, for whom, and under what circumstances.

AGA 3 (education)

Most countries have reported an increase in the enrolment of trainees to become doctors, nurses and midwives (the proportion of countries reporting a similar increase for community health workers is, however, significantly lower). An increase has also been reported in the provision of scholarships, the development of new training infrastructure and facilities, and the updating of curricula.

- Countries should increasingly prioritize investment in the education and deployment of community-based and mid-level health workers in order to project a workforce with an adequate and sustainable skills mix.
- Countries should better tailor education curricula to health system and population needs, and better engage with the private sector to leverage its contribution to scaling up the education and training of priority health workers.
- Equally important is enhancing the quality of the health workforce, ensuring that health personnel possess the competency required to fulfil their roles, have access to continuous professional development and are capable of delivering quality services in an integrated health-care system.

AGA 4 (retention)

The majority of countries reported that they were implementing policies to attract and retain health workers in disadvantaged areas. With the launch of the recent WHO policy recommendations on increasing access to health workers in remote and rural areas, an effective framework is now in place to adopt combinations of incentives and regulatory policies, as well as to improve the practice environment through supportive management. National efforts and strategies should focus on implementing interventions that address the stark imbalances in the geographical distribution of the health workforce. Crucial elements include:

- Career-related incentives, including job security, a manageable workload, professional development opportunities, family and lifestyle incentives;
- The use of innovative incentives (both monetary and career enhancement pathways) to ensure adequate distribution and retention of health workers in areas of greatest need;
- A positive work environment, such as the availability of necessary supplies and adequate referral services, health-care workers' safety, access to information, supportive management and supervision and flexible schedules;
- Selection of students with a rural background and an intrinsic motivation to work and live in rural settings, tailoring curricula, teaching methods and the location of education infrastructure to practice in rural areas.

AGA 5 (migration)

The majority of countries reported putting in place some of the necessary measures required to shape the health labour market in favour of in-country retention, such as improvements in remuneration and benefits, hardship area allowances, and improvements in career development opportunities for doctors, nurses and midwives (less so for community health workers).

These are steps in the right direction although the extent of their implementation and their effects on retention efforts should be analysed. In parallel, both source and destination countries should also:

- Establish and maintain the legal and administrative frameworks to translate the Global Code of Practice on the International Recruitment of Health Personnel into the practical laws and ensure arrangements for its implementation; and
- Bolster their human resource information system to monitor the effectiveness of this implementation.

AGA 6 (investment)

Most countries reported increases in the allocation of resources for the recruitment of doctors, nurses and midwives (less so for community health workers). Similarly, only a minority of countries have indicated that they do not receive donor support for the implementation of the HRH plan.

Despite this, a resource gap persists and is estimated at US$ 40 billion through to 2015 by the UN Secretary General's Global Strategy for Women's and Children's Health. In many low-income countries, only significant levels of international support will allow the full funding of an adequate health workforce response.

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- International assistance should be provided in the form of long-term predictable support, aligned to national plans and country needs, and cover both investment and recurrent costs for non-disease specific human resources for health.
- Domestic resource allocation to HRH should also increase when not sufficient and, where long-term investments in the health workforce are hindered by macroeconomic policies, governments should relax them, with the support of International Financial Institutions.

A long-term monitoring agenda

An additional accomplishment of this analysis was the identification of knowledge bottlenecks that should be addressed through further research and similar evaluations in the future. These include:

- Factors that underpin the quality and the successful implementation of HRH plans and the effective functioning of national HRH coordination mechanisms;
- The evolution of training curricula and competency frameworks required for an optimal skills mix;
- Workforce movement, availability and distribution, both within and across countries;
- Performance and quality issues relating to the workforce; and

- Trends in health expenditure for HRH, from both domestic and international resources.

In addition, in order to capture changes in the strength and performance of the global health workforce and the contribution to the overall performance of the health systems in which health workers operate, a long-term monitoring agenda is warranted. The emphasis should progressively broaden from input and process-related indicators (e.g. the existence of policies, plans and governance mechanisms) to qualitative aspects relating to the functionality of structures and mechanisms. Emphasis should then move on to the content and relevance of policies and strategies and to output indicators (e.g. the number of health workers trained, deployed, performing well; the percentage of retention in rural areas/in country). Moreover, the focus should shift from a global tracking of progress towards embedding review mechanisms in national health management information systems and policy setting and decision-making processes. Training and capacity building interventions should be designed and implemented with the specific objective of addressing this need.

A broader consideration relating to monitoring progress in implementing the AGA, and more generally health workers' availability and distribution in priority countries, relates to the need to move beyond the density of doctors, nurses and midwives as the sole HRH benchmark. New targets should be adopted that better reflect a more diverse composition of the health workforce, and that represent more attainable and realistic objectives considering the financial constraints faced by many low-income countries (Bossert, 2010). In terms of setting objectives and benchmarks, beyond quantitative targets, it may be helpful also to provide recommendations exploring other dimensions, including geographic distribution, gender composition, minimum standards, competency frameworks and other aspects related to wider management practices.

As efforts are intensified to achieve the health MDGs and to move towards a universal health coverage paradigm, monitoring health workforce status and performance is a critical activity to ensure that political will translates into timely and effective actions and investment decisions, which will result in the implementation of sound strategies for health workforce development.

Country briefs for the **58**
57 priority countries

This chapter provides a one-page country brief for each of the priority countries. The briefs contain background demographic, health, health system and HRH statistics, as well as scores for responses to the tracking survey in relation to the AGA indicators. A short paragraph at the beginning of each country brief provides some highlights in relation to the findings of the survey for countries that responded.

The demographic and health indicators were obtained from WHO's Global Health Observatory (http://apps.who.int/ghodata/). These basic statistics were presented in three groups: demographic and health indicators; health system indicators; and health expenditure indicators, using the latest available data. Per capita gross national income (GNI) data were collected from The World Bank database (http://data.worldbank.org/). The HRH density data were obtained from WHO's Global Atlas of the Health Workforce (http://apps.who.int/globalatlas/). Aggregate density data for physicians, nurses and midwives are reported in the tables. The graphs on health worker density refer to the same aggregate figures for most countries, but to urban-rural density for the countries for which disaggregated data were available. Maps in the country briefs were generated using Travel Map Generator (http://www.29travels.com/travelmap/), which uses the Google Maps Application programming interface (API).

When it was deemed appropriate to contextualise better the findings of the survey on HRH indicators, reference was also made to the overall progress the country is making in improving its health outcomes, choosing as a proxy indicator the reduction in under-5 mortality rates. The database used as a reference in these cases was that of Countdown to 2015: Tracking Progress in Maternal, New-born and Child Survival (http://www.countdown2015mnch.org/).

Afghanistan

Afghanistan reported satisfactory performance against most indicators, including attracting donor support and scaling up the production of health workers, despite the obvious challenges of a country emerging from conflict. Further progress could be made through the development of a comprehensive, evidence-based and costed HRH plan, as well as the establishment of an HRH coordination mechanism with wider participation and an institutional mechanism for data sharing with policy-makers.

Country description

Continent	Asia
Population (in thousands)[1]	27 208
Gross national income per capita ($)[2]	1 110
Adult literacy rate (%)[1]	28
Life expectancy at birth (years)[1]	42
Infant mortality rate (per 1,000 live birth)[1]	165
Under-5 mortality rate (per 1,000 live birth)[1]	257
Maternal mortality ratio (per 100,000 live birth)[1]	1 400
Per capita total expenditure on health (PPP int. $)[1]	16
Government expenditure on health as percentage of total health expenditure[1]	23.6
Government expenditure on health as percentage of total govt. expenditure[1]	3.7
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	7
Density of physicians (per 10,000 population)[3]	2
Density of nurses and midwives (per 10,000 population)[3]	5

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Physicians: 2.0
Nurses and Midwives: 5.0

■ National average

Density per 10.000 population

Indicator	Progress in percentage
HRH planning	40
Intersectoral coordination mechanism	0
Mechanism to inform policy-making	0
Well functioning HRH information system	73
Programmes to increase production of health workforce	86
Strategies to retain workforce in underserved areas	75
Policies to favour in-country retention	100
Additional investment in health workforce	100
Additional investment from partners	100
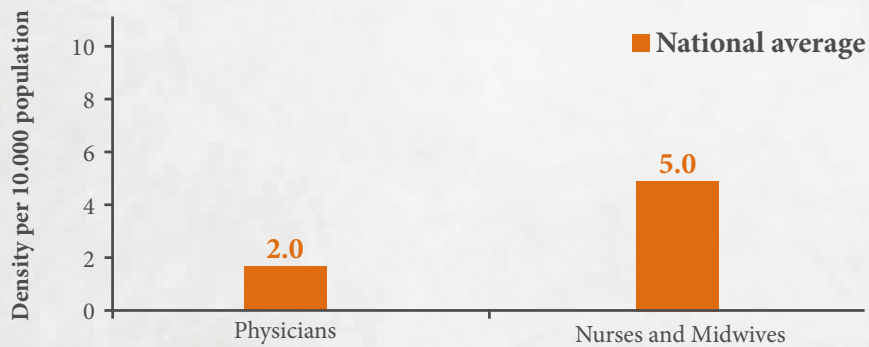
Angola

Angola reported good performance against most indicators. With gross national income per capita higher than most countries in the region, it might improve further the efficiency of its investments in the health workforce by widening participation to HRH coordination structures, improving its HRH information system, developing a mechanism to inform policy-makers, and strengthening its HRH plan.

Country description

Continent	Africa
Population (in thousands)[1]	1 802
Gross national income per capita ($)[2]	4 970
Adult literacy rate (%)[1]	67.4
Life expectancy at birth (years)[1]	46
Infant mortality rate (per 1,000 live birth)[1]	130
Under-5 mortality rate (per 1,000 live birth)[1]	257
Maternal mortality ratio (per 100,000 live birth)[1]	610
Per capita total expenditure on health (PPP int. $)[1]	131
Government expenditure on health as percentage of total health expenditure[1]	80.3
Government expenditure on health as percentage of total govt. expenditure[1]	5.3
Hospital beds (per 10,000 population)[1]	8
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	14.3
Density of physicians (per 10,000 population)[3]	0.8
Density of nurses and midwives (per 10,000 population)[3]	13.5

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	60
Intersectoral coordination mechanism	0
Mechanism to inform policy-making	0
Well functioning HRH information system	55
Programmes to increase production of health workforce	100
Strategies to retain workforce in underserved areas	75
Policies to favour in-country retention	60
Additional investment in health workforce	100
Additional investment from partners	100

National average

- Physicians: 0.8
- Nurses and Midwives: 13.5

Density per 10.000 population
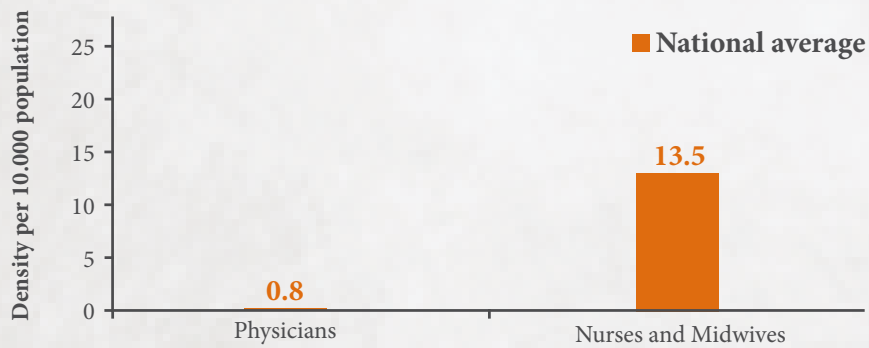
Bangladesh

Bangladesh reported good performance against several indicators, including the production of health workers and retaining health-care providers in underserved areas. Unsurprisingly, it is one of the few priority countries on track to meet the MDG 4 of reducing child mortality by three quarters by 2015.* A national mechanism to inform policy-makers through data sharing and measures to retain the workforce within the country are areas of possible further improvement.

* Countdown to 2015 Decade Report.

© UN Photo/Amjad Jamal

Country description

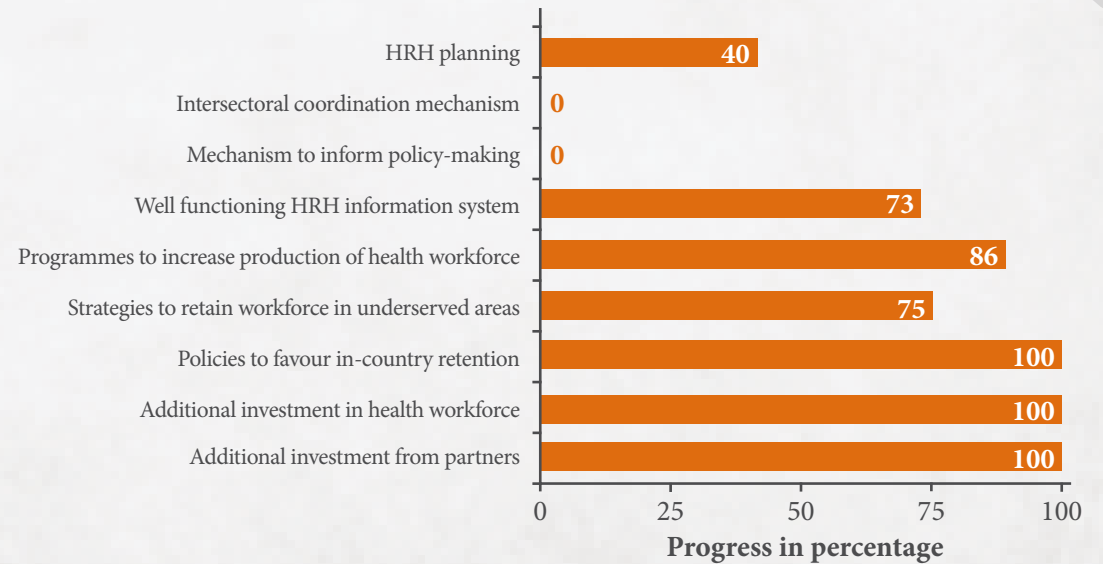| Continent	Asia
Population (in thousands)[1]	160 000
Gross national income per capita ($)[2]	1 580
Adult literacy rate (%)[1]	53.5
Life expectancy at birth (years)[1]	65
Infant mortality rate (per 1,000 live birth)[1]	43
Under-5 mortality rate (per 1,000 live birth)[1]	54
Maternal mortality ratio (per 100,000 live birth)[1]	340
Per capita total expenditure on health (PPP int. $)[1]	42
Government expenditure on health as percentage of total health expenditure[1]	33.6
Government expenditure on health as percentage of total govt. expenditure[1]	8.0
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	5.8
Density of physicians (per 10,000 population)[3]	3.0
Density of nurses and midwives (per 10,000 population)[3]	2.8

PPP int. $, international dollar purchasing power parity.
Source:
- . [1] WHO: Global Health Observatory;
- . [2] World Bank: Data;
- . [3] WHO: Global Atlas of the Health Workforce
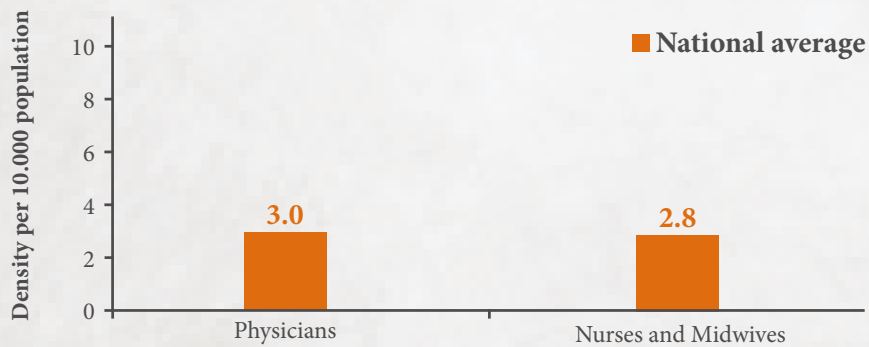
Score for individual AGA progress indicators
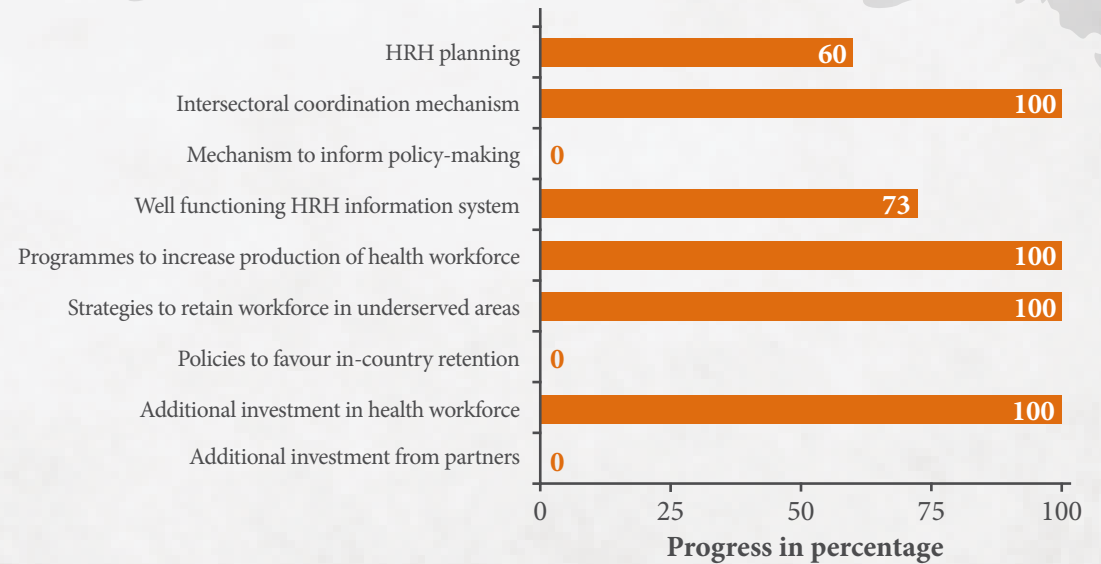
Benin

Benin reported having an evidence-based and costed HRH plan and an institutional mechanism for informing policy-makers, backed up by a functioning HRH information system. The overall progress can be further improved by broadening participation to the HRH coordination processes to non-Ministry of Health partners and securing additional investments into its HRH plan through both domestic and international resources.

© istock Photo

Country description

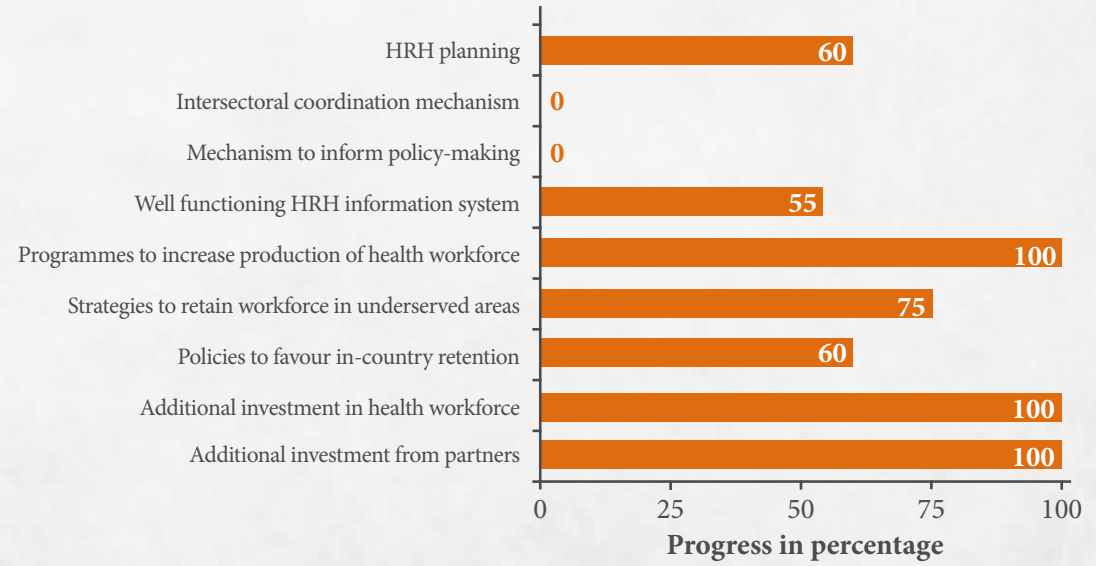| Continent	Africa
Population (in thousands)[1]	8 662
Gross national income per capita ($)[2]	1 510
Adult literacy rate (%)[1]	40.5
Life expectancy at birth (years)[1]	57
Infant mortality rate (per 1,000 live birth)[1]	76
Under-5 mortality rate (per 1,000 live birth)[1]	121
Maternal mortality ratio (per 100,000 live birth)[1]	410
Per capita total expenditure on health (PPP int. $)[1]	70
Government expenditure on health as percentage of total health expenditure[1]	51.8
Government expenditure on health as percentage of total govt. expenditure[1]	10.7
Hospital beds (per 10,000 population)[1]	5
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	8.3
Density of physicians (per 10,000 population)[3]	0.6
Density of nurses and midwives (per 10,000 population)[3]	7.7

PPP int. $, international dollar purchasing power parity.
Source:
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Bar chart: Density per 10.000 population — National average
- Physicians: 0.6
- Nurses and Midwives: 7.7

Bar chart: Progress in percentage
- HRH planning: 100
- Intersectoral coordination mechanism: 0
- Mechanism to inform policy-making: 100
- Well functioning HRH information system: 73
- Programmes to increase production of health workforce: 43
- Strategies to retain workforce in underserved areas: 88
- Policies to favour in-country retention: 60
- Additional investment in health workforce: 20
- Additional investment from partners: 0

Bhutan

Bhutan reported having made considerable investments and efforts to bolster HRH, including strategies for retention and production of health workers, which receive also external support, and the presence of a national mechanism to inform policy-makers. Further progress could be made by strengthening its coordination structures and improving its HRH plan, for example by providing financial estimates of the resources required for its implementation.

© UN photo/G. Diez

Country description

| Continent	Asia
Population (in thousands)[1]	687
Gross national income per capita ($)[2]	5 300
Adult literacy rate (%)[1]	52.8
Life expectancy at birth (years)[1]	63
Infant mortality rate (per 1,000 live birth)[1]	54
Under-5 mortality rate (per 1,000 live birth)[1]	81
Maternal mortality ratio (per 100,000 live birth)[1]	200
Per capita total expenditure on health (PPP int. $)[1]	188
Government expenditure on health as percentage of total health expenditure[1]	80.3
Government expenditure on health as percentage of total govt. expenditure[1]	10.7
Hospital beds (per 10,000 population)[1]	17
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	3.4
Density of physicians (per 10,000 population)[3]	0.2
Density of nurses and midwives (per 10,000 population)[3]	3.2

PPP int. $, international dollar purchasing power parity.

Source:

- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Burkina Faso

Burkina Faso reported having a fully developed and costed HRH plan, a participatory intersectoral coordination structure, and mechanisms to inform policy-makers. It could strengthen its HRH information system, and may consider intensifying its efforts in implementing strategies to retain the health workforce in underserved areas of the country.

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Country description

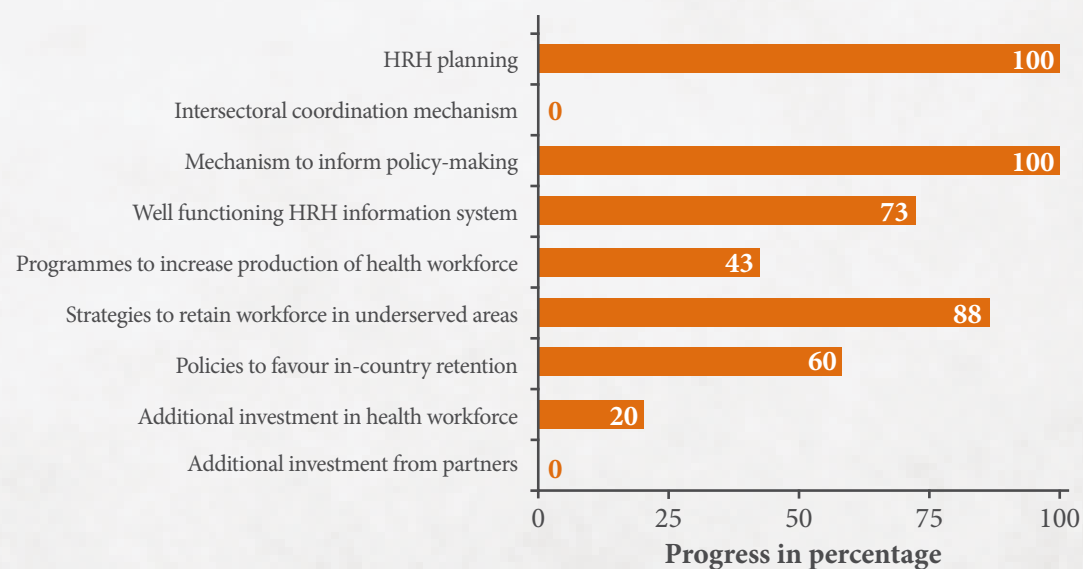|	
Continent	Africa
Population (in thousands)[1]	15 234
Gross national income per capita ($)[2]	1 170
Adult literacy rate (%)[1]	28.7
Life expectancy at birth (years)[1]	51
Infant mortality rate (per 1,000 live birth)[1]	92
Under-5 mortality rate (per 1,000 live birth)[1]	169
Maternal mortality ratio (per 100,000 live birth)[1]	560
Per capita total expenditure on health (PPP int. $)[1]	72
Government expenditure on health as percentage of total health expenditure[1]	56.1
Government expenditure on health as percentage of total govt. expenditure[1]	13.3
Hospital beds (per 10,000 population)[1]	9
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	7.9
Density of physicians (per 10,000 population)[3]	0.6
Density of nurses and midwives (per 10,000 population)[3]	7.3

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**
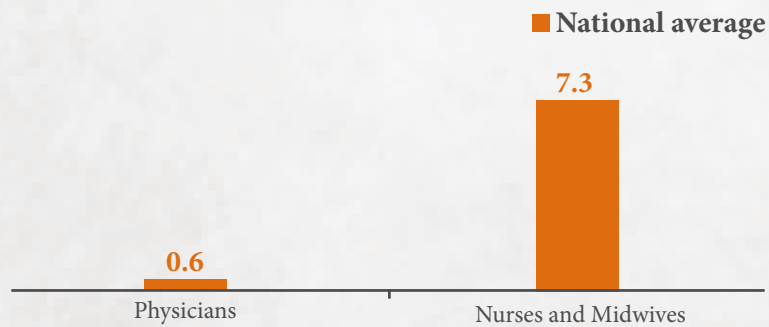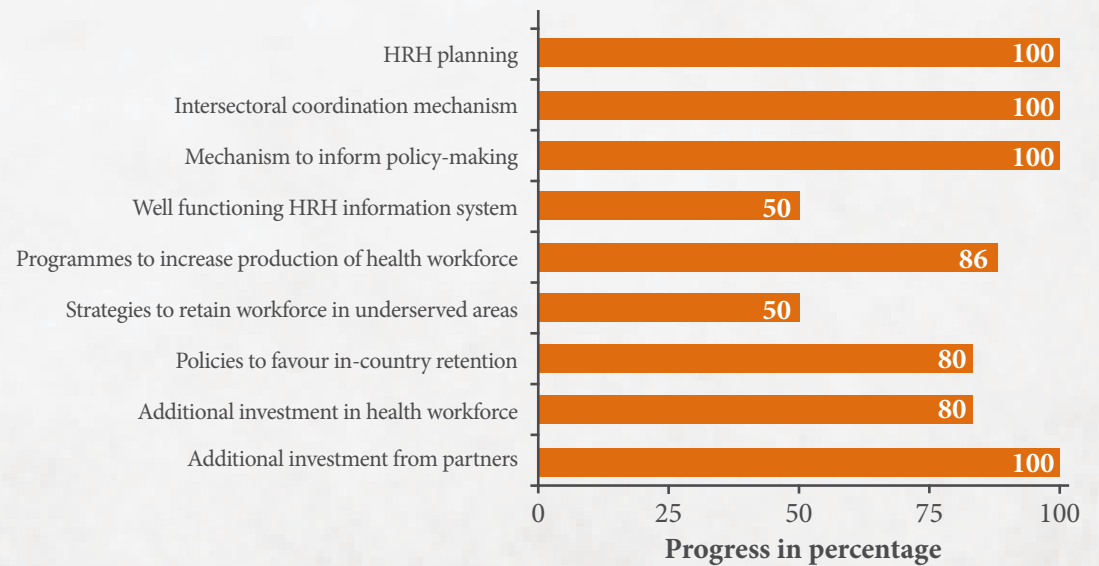
Burundi

Burundi reported positive performance on several indicators, including the presence of a costed and evidence-based HRH plan and the capacity to attract donor support. Wide urban–rural disparities in the distribution of health workers, however, contribute to its limited progress in improving the under-5 mortality rate,* pointing to the need for additional investments in, and more attention to implementing rural retention strategies.

* Countdown to 2015 Decade Report.

Country description

Continent	Africa
Population (in thousands)[1]	8 074
Gross national income per capita ($)[2]	390
Adult literacy rate (%)[1]	59.3
Life expectancy at birth (years)[1]	50
Infant mortality rate (per 1,000 live birth)[1]	102
Under-5 mortality rate (per 1,000 live birth)[1]	168
Maternal mortality ratio (per 100,000 live birth)[1]	970
Per capita total expenditure on health (PPP int. $)[1]	51
Government expenditure on health as percentage of total health expenditure[1]	37.7
Government expenditure on health as percentage of total govt. expenditure[1]	12.5
Hospital beds (per 10,000 population)[1]	7
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	2.2
Density of physicians (per 10,000 population)[3]	0.3
Density of nurses and midwives (per 10,000 population)[3]	1.9

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Density per 10.000 population

■ Urban
■ Rural

Physicians: Urban 1.7, Rural 0.1
Nurses and Midwives: Urban 3.8, Rural 1.5

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	0
Mechanism to inform policy-making	0
Well functioning HRH information system	59
Programmes to increase production of health workforce	57
Strategies to retain workforce in underserved areas	38
Policies to favour in-country retention	60
Additional investment in health workforce	60
Additional investment from partners	100
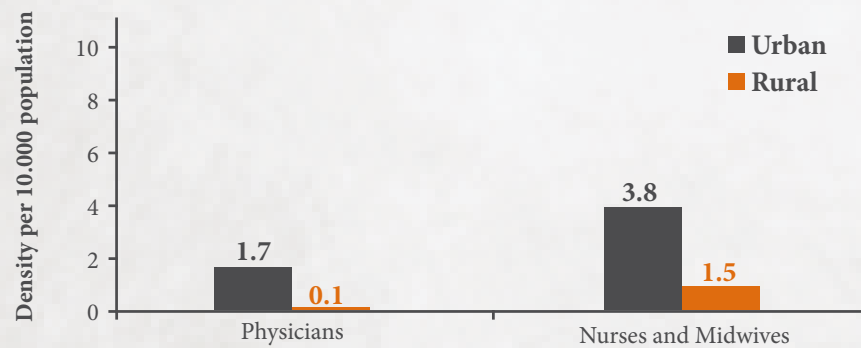
Cambodia

Cambodia reported good performance across most indicators, including its HRH planning, information systems, and retention strategies. To make further improvements, the country could include other ministries, nongovernmental organizations and international agencies in the HRH development process, and increase its budgetary allocation and investment in the health workforce.

Country description

Continent	Asia
Population (in thousands)[1]	14 562
Gross national income per capita ($)[2]	1 850
Adult literacy rate (%)[1]	76.3
Life expectancy at birth (years)[1]	62
Infant mortality rate (per 1,000 live birth)[1]	69
Under-5 mortality rate (per 1,000 live birth)[1]	89
Maternal mortality ratio (per 100,000 live birth)[1]	290
Per capita total expenditure on health (PPP int. $)[1]	108
Government expenditure on health as percentage of total health expenditure[1]	29.0
Government expenditure on health as percentage of total govt. expenditure[1]	11.1
Hospital beds (per 10,000 population)[1]	NA
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	10.1
Density of physicians (per 10,000 population)[3]	1.6
Density of nurses and midwives (per 10,000 population)[3]	8.5

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
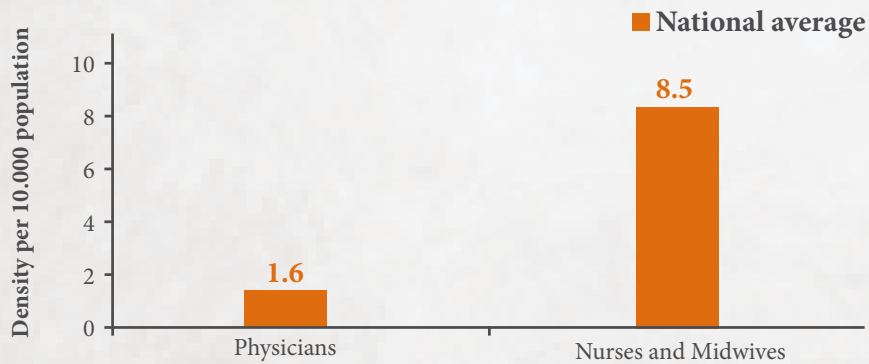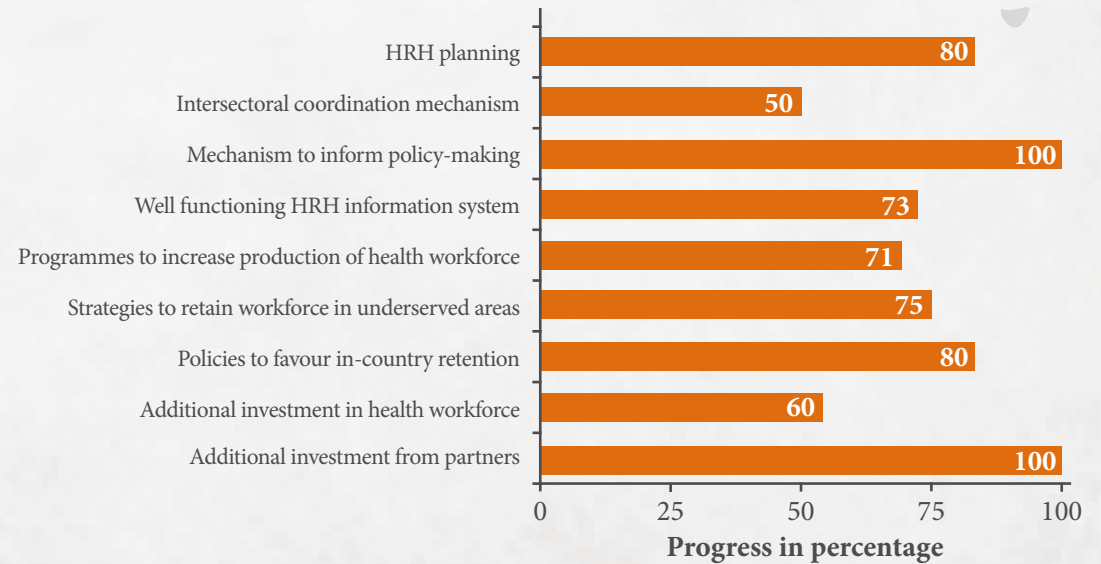
Cameroon

Cameroon reported the presence of a multisectoral coordination mechanism with wide participation, and the existence of mechanisms and processes to inform policy makers about gaps and needs in the HRH sector. It reported that its HRH plan is not costed, a factor which may have contributed to its limited success in attracting resources for HRH and to the plan not being implemented. Cameroon could also strengthen its in-country retention efforts.

© istock Photo

Country description

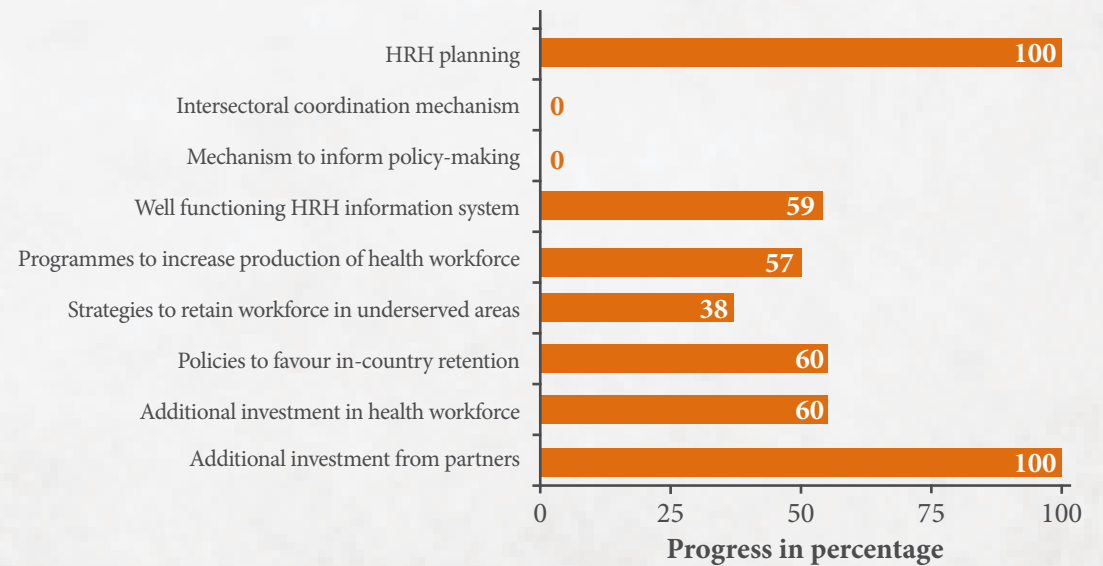| Continent	Africa
Population (in thousands)[1]	19 088
Gross national income per capita ($)[2]	2 130
Adult literacy rate (%)[1]	67.9
Life expectancy at birth (years)[1]	53
Infant mortality rate (per 1,000 live birth)[1]	82
Under-5 mortality rate (per 1,000 live birth)[1]	131
Maternal mortality ratio (per 100,000 live birth)[1]	600
Per capita total expenditure on health (PPP int. $)[1]	104
Government expenditure on health as percentage of total health expenditure[1]	25.9
Government expenditure on health as percentage of total govt. expenditure[1]	8.2
Hospital beds (per 10,000 population)[1]	15
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	17.9
Density of physicians (per 10,000 population)[3]	1.9
Density of nurses and midwives (per 10,000 population)[3]	16.0

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
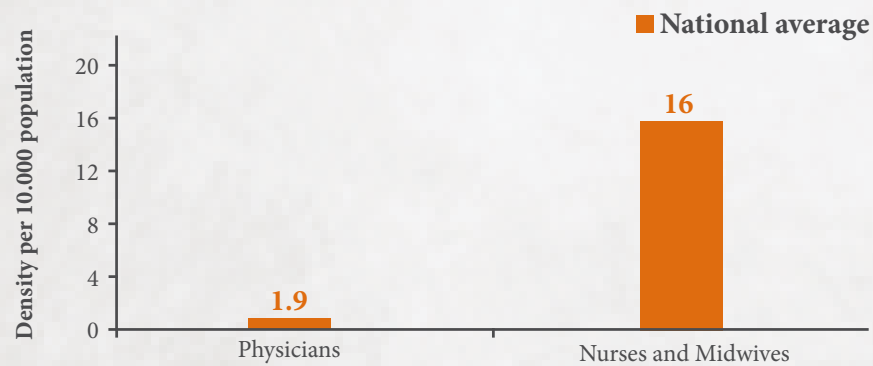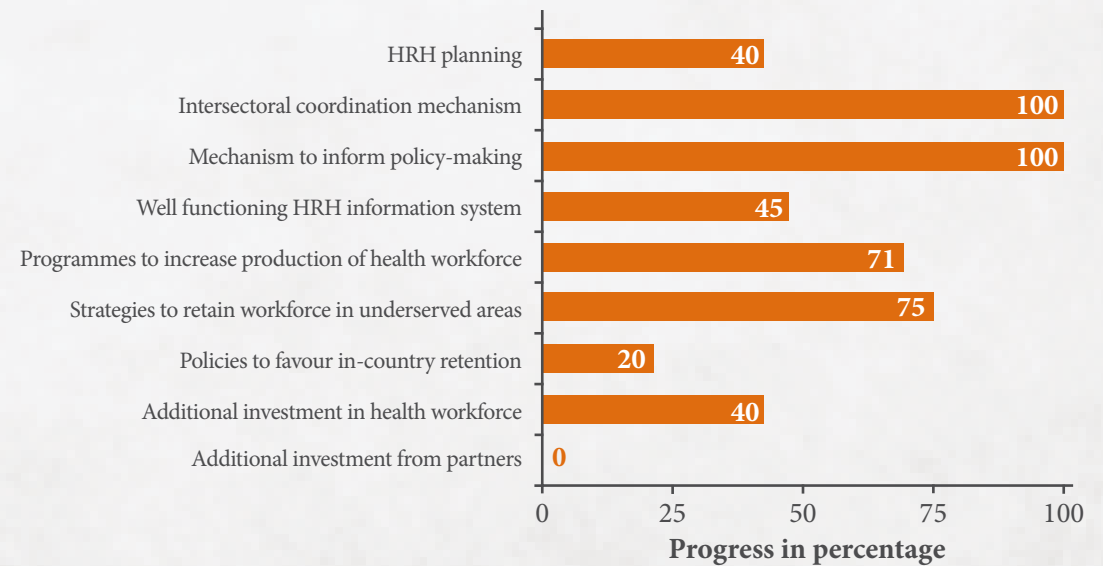
Central African Republic

The Central African Republic reported having strong intersectoral coordination and a mechanism to inform policy-makers and HRH managers. It reported having no HRH plan, and having made limited additional investment in the health workforce and in strategies to favour the retention of health personnel in rural and remote areas. The lack of progress in reducing child mortality* may be partly related to these specific constraints, which warrant increased attention.
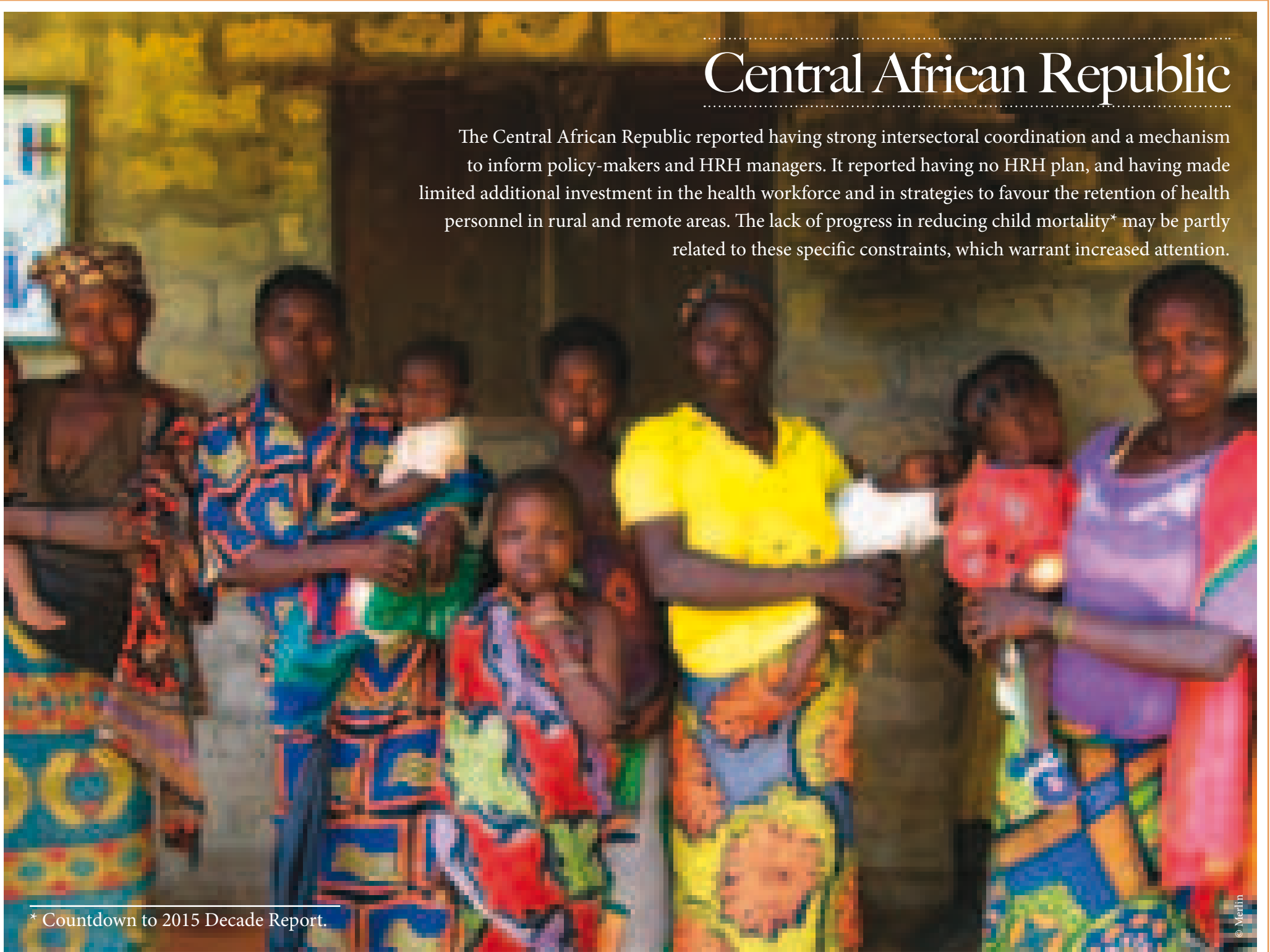
* Countdown to 2015 Decade Report.

© Merlin

Country description

| Continent	Africa
Population (in thousands)[1]	4 339
Gross national income per capita ($)[2]	730
Adult literacy rate (%)[1]	48.6
Life expectancy at birth (years)[1]	48
Infant mortality rate (per 1,000 live birth)[1]	115
Under-5 mortality rate (per 1,000 live birth)[1]	173
Maternal mortality ratio (per 100,000 live birth)[1]	850
Per capita total expenditure on health (PPP int. $)[1]	30
Government expenditure on health as percentage of total health expenditure[1]	34.7
Government expenditure on health as percentage of total govt. expenditure[1]	11.0
Hospital beds (per 10,000 population)[1]	12
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	4.9
Density of physicians (per 10,000 population)[3]	0.8
Density of nurses and midwives (per 10,000 population)[3]	4.1

PPP int. $, international dollar purchasing power parity.

■ **National average**

Density per 10.000 population

Physicians: 0.8
Nurses and Midwives: 4.1

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	20
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	100
Well functioning HRH information system	50
Programmes to increase production of health workforce	43
Strategies to retain workforce in underserved areas	50
Policies to favour in-country retention	0
Additional investment in health workforce	0
Additional investment from partners	100

Progress in percentage

Chad

At the time when this report was prepared, responses to the questionnaire used for the survey were not yet available for Chad.

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Country description

|	
Continent	Africa
Population (in thousands)[1]	10 914
Gross national income per capita ($)[2]	1 070
Adult literacy rate (%)[1]	31.8
Life expectancy at birth (years)[1]	46
Infant mortality rate (per 1,000 live birth)[1]	124
Under-5 mortality rate (per 1,000 live birth)[1]	209
Maternal mortality ratio (per 100,000 live birth)[1]	1 200
Per capita total expenditure on health (PPP int. $)[1]	72
Government expenditure on health as percentage of total health expenditure[1]	56.3
Government expenditure on health as percentage of total govt. expenditure[1]	13.8
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	3.2
Density of physicians (per 10,000 population)[3]	0.4
Density of nurses and midwives (per 10,000 population)[3]	2.8

PPP int. $, international dollar purchasing power parity.

Source:

- . [1] WHO: Global Health Observatory;
- . [2] World Bank: Data;
- . [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Not available.
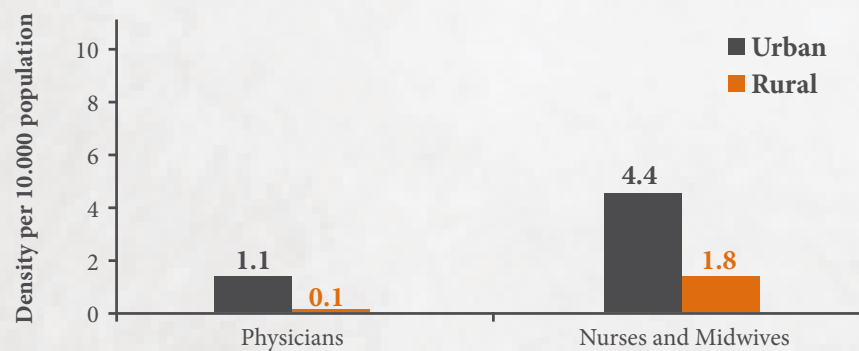
Comoros

Comoros reported satisfactory performance on several indicators, including its HRH planning capacity, the existence of a mechanism to inform policy-making, and its efforts to improve retention in remote areas. To support these efforts, it could improve on intersectoral coordination, increase the production of health-care workers and investment of domestic resources, and adopt strategies to retain them within the country.

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Country description

Continent	Africa
Population (in thousands)[1]	661
Gross national income per capita ($)[2]	1 170
Adult literacy rate (%)[1]	75.1
Life expectancy at birth (years)[1]	60
Infant mortality rate (per 1,000 live birth)[1]	75
Under-5 mortality rate (per 1,000 live birth)[1]	105
Maternal mortality ratio (per 100,000 live birth)[1]	340
Per capita total expenditure on health (PPP int. $)[1]	37
Government expenditure on health as percentage of total health expenditure[1]	57.2
Government expenditure on health as percentage of total govt. expenditure[1]	8.4
Hospital beds (per 10,000 population)[1]	22
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	8.9
Density of physicians (per 10,000 population)[3]	1.5
Density of nurses and midwives (per 10,000 population)[3]	7.4

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
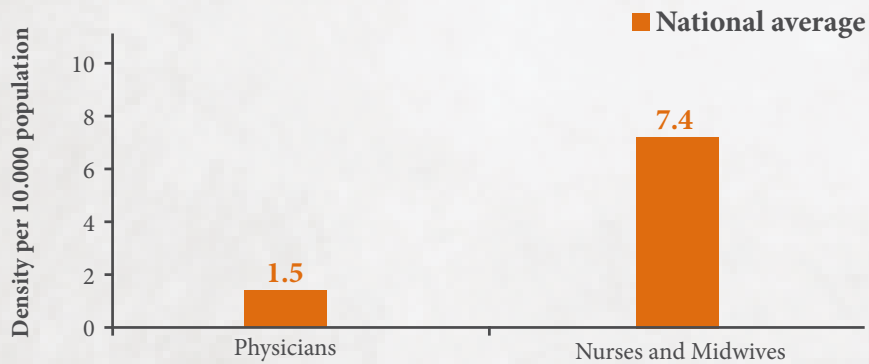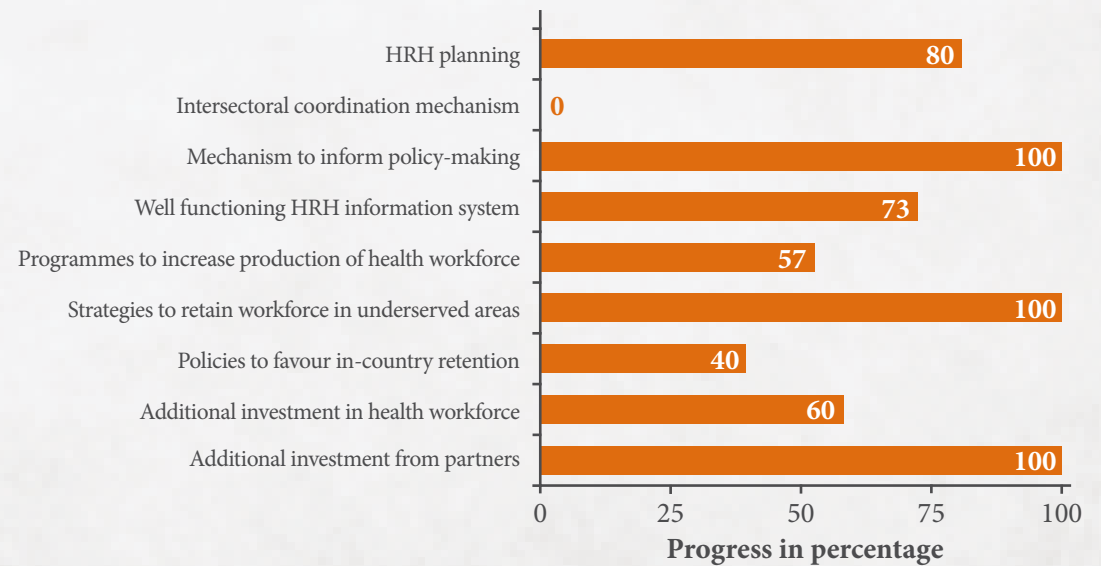
Congo

Congo reported the existence of a fully developed and costed HRH plan and donor support to implement it. Other indicators show limited stakeholder participation in HRH development processes, weak HRH information systems, and limited investment in the production, deployment and retention of health workers. These areas warrant increased attention for the country to improve its health outcomes.

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Country description

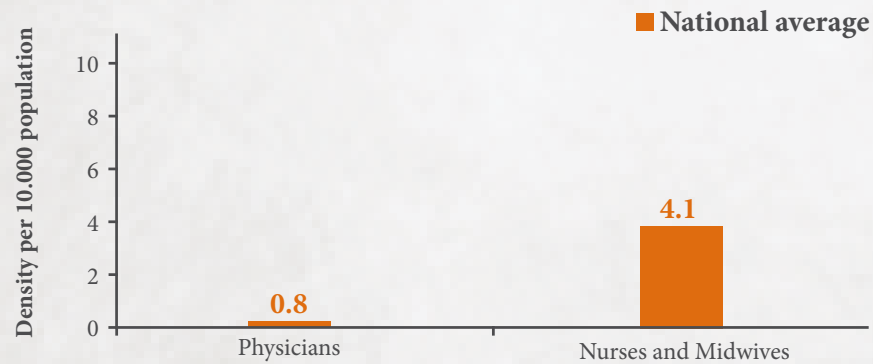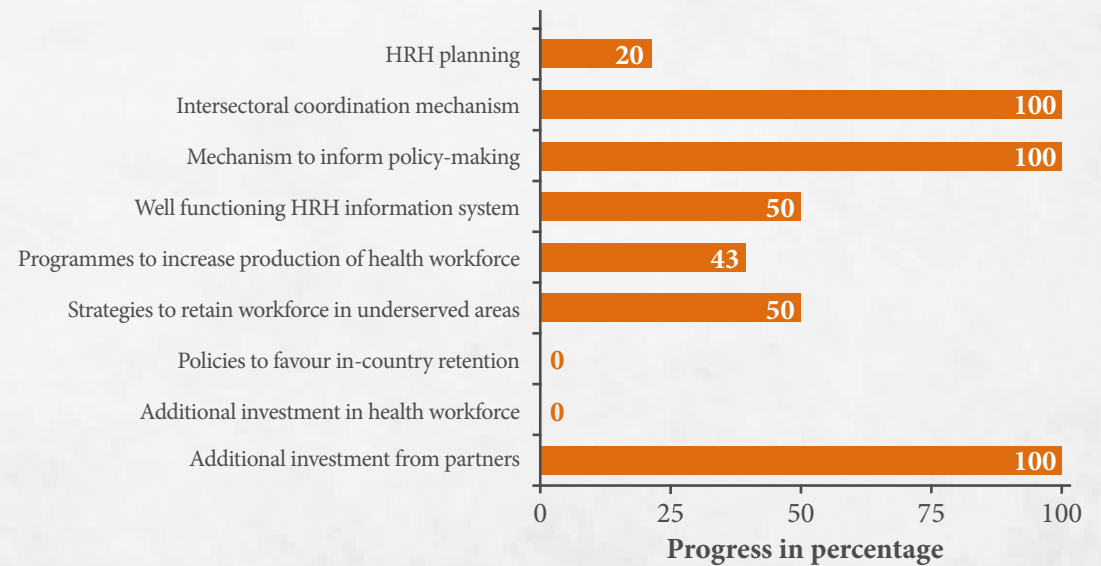| Continent	Africa
Population (in thousands)[1]	3 615
Gross national income per capita ($)[2]	2 830
Adult literacy rate (%)[1]	NA
Life expectancy at birth (years)[1]	54
Infant mortality rate (per 1,000 live birth)[1]	80
Under-5 mortality rate (per 1,000 live birth)[1]	127
Maternal mortality ratio (per 100,000 live birth)[1]	580
Per capita total expenditure on health (PPP int. $)[1]	90
Government expenditure on health as percentage of total health expenditure[1]	70.4
Government expenditure on health as percentage of total govt. expenditure[1]	5.1
Hospital beds (per 10,000 population)[1]	16
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	9.1
Density of physicians (per 10,000 population)[3]	1.0
Density of nurses and midwives (per 10,000 population)[3]	8.2

PPP int. $, international dollar purchasing power parity.
NA, not available

■ National average

Density per 10.000 population

- Physicians: 1.0
- Nurses and Midwives: 8.2

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	25
Mechanism to inform policy-making	0
Well functioning HRH information system	36
Programmes to increase production of health workforce	14
Strategies to retain workforce in underserved areas	25
Policies to favour in-country retention	20
Additional investment in health workforce	60
Additional investment from partners	100

Progress in percentage
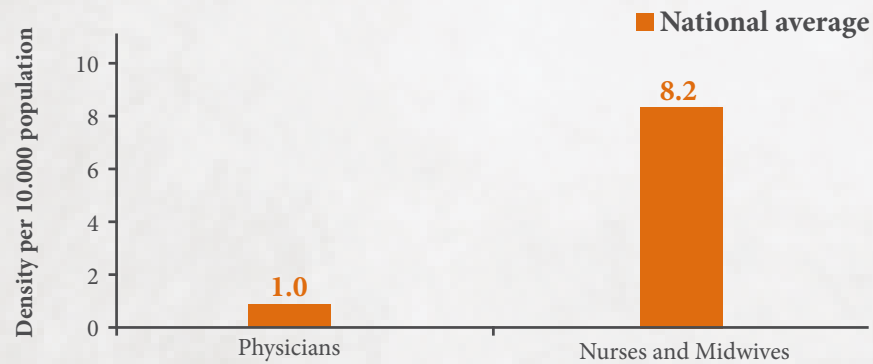
Côte d'Ivoire

Côte d'Ivoire reported very good performance on most indicators, but it has a very high disparity in the urban–rural distribution of physicians, nurses and midwives, and has made very limited progress in improving its child mortality records.* The country may analyse and address the reasons why an apparently favourable HRH policy and governance environment are not translating into a better availability and distribution of health workers, and improved health outcomes.

* Countdown to 2015 Decade Report.

Country description

| Continent	Africa
Population (in thousands)[1]	20 591
Gross national income per capita ($)[2]	1 590
Adult literacy rate (%)[1]	48.7
Life expectancy at birth (years)[1]	56
Infant mortality rate (per 1,000 live birth)[1]	81
Under-5 mortality rate (per 1,000 live birth)[1]	114
Maternal mortality ratio (per 100,000 live birth)[1]	470
Per capita total expenditure on health (PPP int. $)[1]	67
Government expenditure on health as percentage of total health expenditure[1]	24.0
Government expenditure on health as percentage of total govt. expenditure[1]	4.8
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.2
Density of physicians (per 10,000 population)[3]	1.4
Density of nurses and midwives (per 10,000 population)[3]	4.8

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce
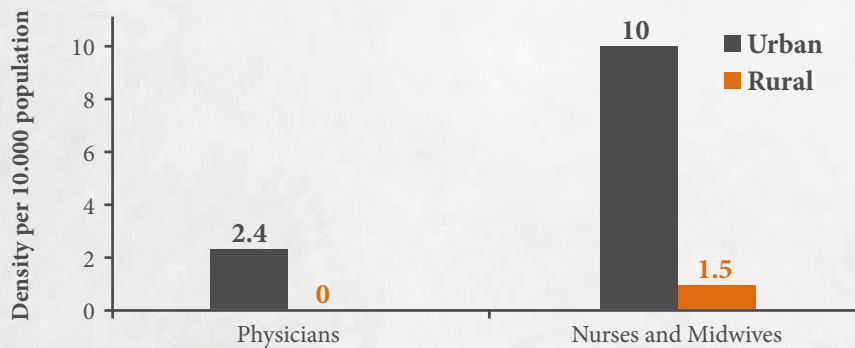
Score for individual AGA progress indicators
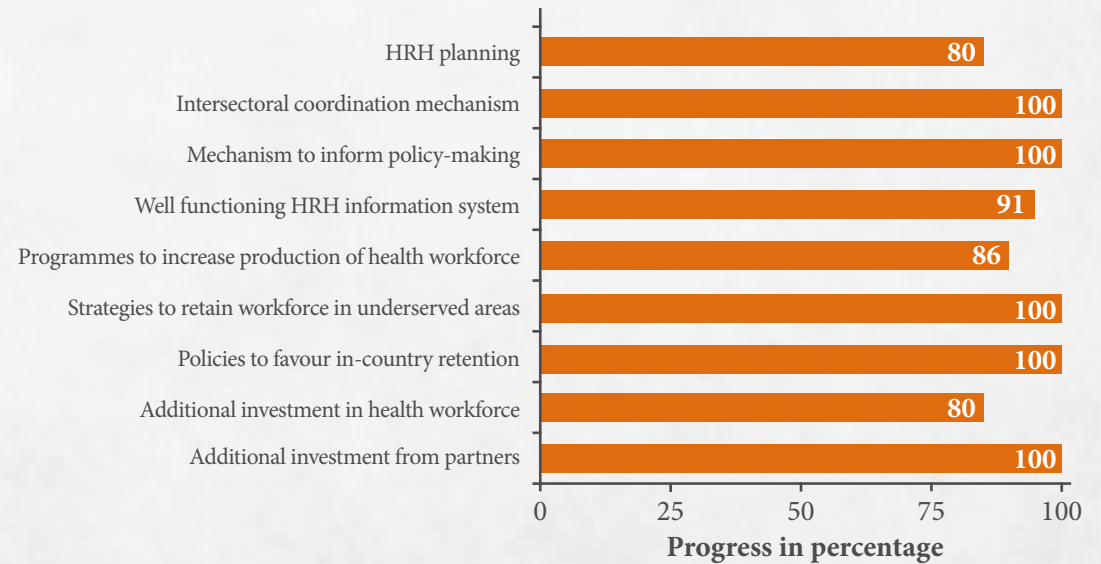
Democratic Republic of the Congo

The Democratic Republic of the Congo reported having a strong intersectoral coordination mechanism with a functioning HRH information system. These are encouraging findings considering the socioeconomic and political situation from which the country is emerging. The country reported a lower performance on other indicators, including its health workforce production and retention efforts. Low levels of domestic resource allocation and a reported lack of investment in HRH from partners represent additional areas requiring attention.

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Country description

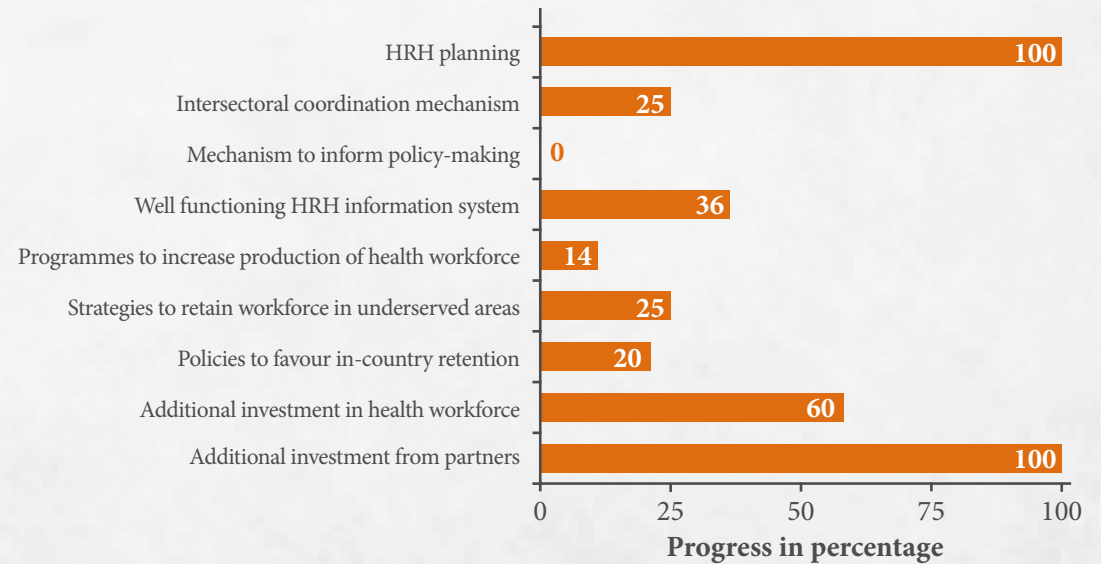| Continent	Africa
Population (in thousands)[1]	64 257
Gross national income per capita ($)[2]	280
Adult literacy rate (%)[1]	67.2
Life expectancy at birth (years)[1]	NA
Infant mortality rate (per 1,000 live birth)[1]	126
Under-5 mortality rate (per 1,000 live birth)[1]	199
Maternal mortality ratio (per 100,000 live birth)[1]	670
Per capita total expenditure on health (PPP int. $)[1]	17
Government expenditure on health as percentage of total health expenditure[1]	22.3
Government expenditure on health as percentage of total govt. expenditure[1]	5.9
Hospital beds (per 10,000 population)[1]	8
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.4
Density of physicians (per 10,000 population)[3]	1.1
Density of nurses and midwives (per 10,000 population)[3]	5.3

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- . ¹ WHO: Global Health Observatory;
- . ² World Bank: Data;
- . ³ WHO: Global Atlas of the Health Workforce
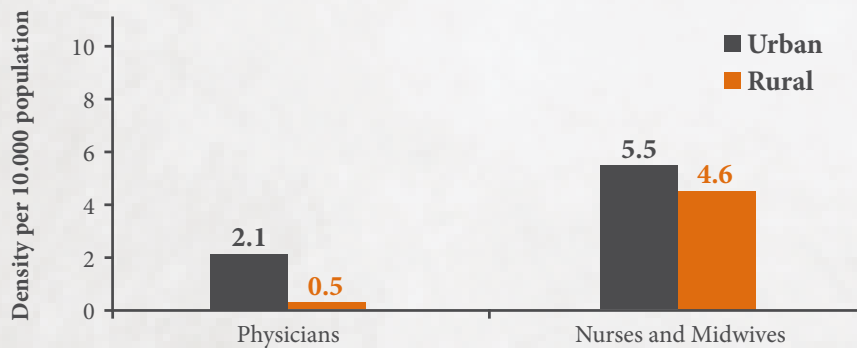
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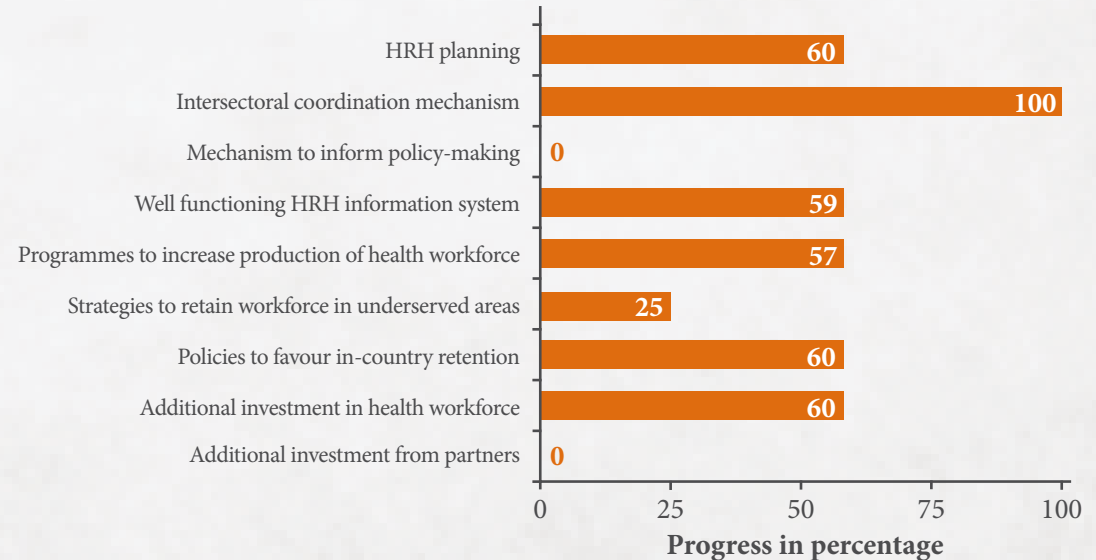
Djibouti

Djibouti reported having donor support complementing a fair level of investment of domestic resources. A good overall performance was also reported in relation to its HRH information system, even though an institutional mechanism to share data to inform policy-making would be useful. Other areas requiring attention are in-country and rural retention, and the costing of its HRH plan.

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Country description

| Continent	Africa
Population (in thousands)[1]	849
Gross national income per capita ($)[2]	2 420
Adult literacy rate (%)[1]	NA
Life expectancy at birth (years)[1]	59
Infant mortality rate (per 1,000 live birth)[1]	76
Under-5 mortality rate (per 1,000 live birth)[1]	95
Maternal mortality ratio (per 100,000 live birth)[1]	300
Per capita total expenditure on health (PPP int. $)[1]	148
Government expenditure on health as percentage of total health expenditure[1]	76.6
Government expenditure on health as percentage of total govt. expenditure[1]	14.2
Hospital beds (per 10,000 population)[1]	NA
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	7.5
Density of physicians (per 10,000 population)[3]	1.8
Density of nurses and midwives (per 10,000 population)[3]	5.7

PPP int. $, international dollar purchasing power parity.
NA, not available
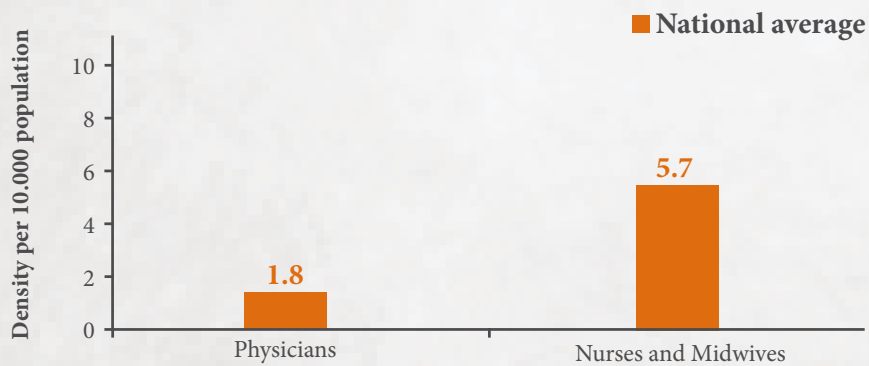
Score for individual AGA progress indicators
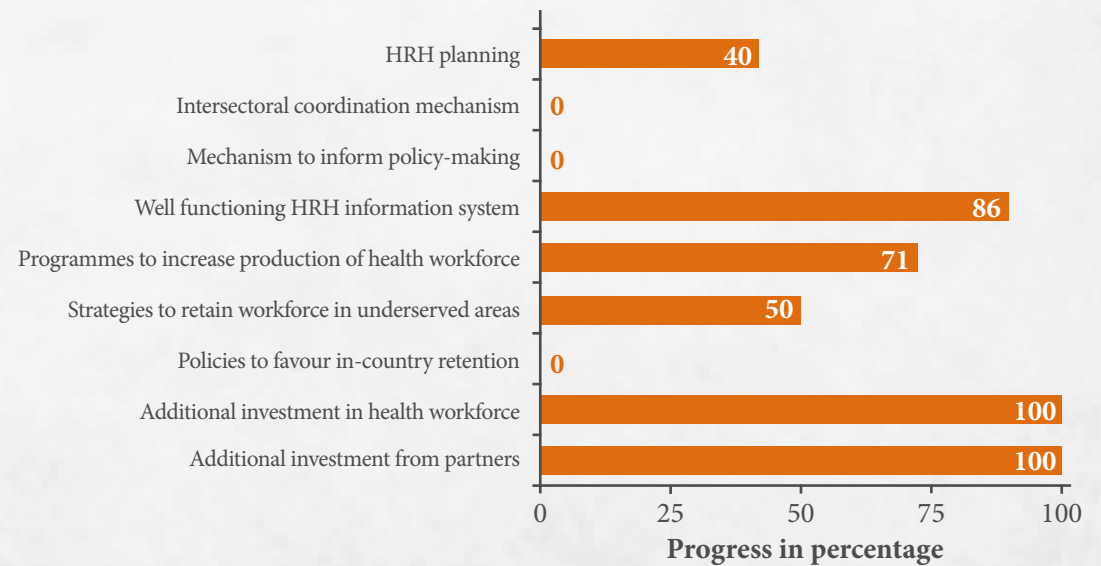
El Salvador

El Salvador reported having a fully developed HRH plan, a mechanism to inform policy-making and a functioning HRH information system. It could make further efforts in retaining health workers within the country and in the underserved areas. As a middle-income country with an adequate level of allocation of domestic resources to health, it may have less need for additional investment from development partners, which would explain the low score against this last indicator.

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Country description

| Continent	Central America
Population (in thousands)[1]	6 134
Gross national income per capita ($)[2]	6 650
Adult literacy rate (%)[1]	82
Life expectancy at birth (years)[1]	72
Infant mortality rate (per 1,000 live birth)[1]	16
Under-5 mortality rate (per 1,000 live birth)[1]	18
Maternal mortality ratio (per 100,000 live birth)[1]	110
Per capita total expenditure on health (PPP int. $)[1]	402
Government expenditure on health as percentage of total health expenditure[1]	NA
Government expenditure on health as percentage of total govt. expenditure[1]	14.3
Hospital beds (per 10,000 population)[1]	8
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	20.4
Density of physicians (per 10,000 population)[3]	12.4
Density of nurses and midwives (per 10,000 population)[3]	8.0

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**

Density per 10.000 population

Physicians	12.4
Nurses and Midwives	8.0

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	75
Mechanism to inform policy-making	100
Well functioning HRH information system	82
Programmes to increase production of health workforce	71
Strategies to retain workforce in underserved areas	0
Policies to favour in-country retention	0
Additional investment in health workforce	80
Additional investment from partners	0

Progress in percentage
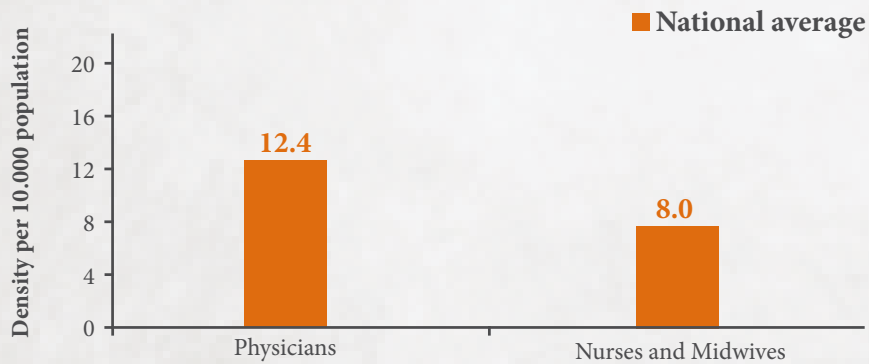
Equatorial Guinea

Equatorial Guinea reported good performance across most indicators, including the scale-up of production, deployment and retention of health workers. Its high-income status and relatively high level of health spending, however, contrast with the comparatively low density of health workers and the insufficient progress in improving child mortality.*4 The country may consider the development of an HRH plan to improve the efficiency of its investment decisions.

* Countdown to 2015 Decade Report.

© UN photo/Albert Gonzalez Farran.

Country description

| Continent	Africa
Population (in thousands)[1]	659
Gross national income per capita ($)[2]	21 750
Adult literacy rate (%)[1]	87
Life expectancy at birth (years)[1]	53
Infant mortality rate (per 1,000 live birth)[1]	90
Under-5 mortality rate (per 1,000 live birth)[1]	147
Maternal mortality ratio (per 100,000 live birth)[1]	280
Per capita total expenditure on health (PPP int. $)[1]	543
Government expenditure on health as percentage of total health expenditure[1]	80.4
Government expenditure on health as percentage of total govt. expenditure[1]	7.0
Hospital beds (per 10,000 population)[1]	19
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	8.3
Density of physicians (per 10,000 population)[3]	3.0
Density of nurses and midwives (per 10,000 population)[3]	5.3

PPP int. $, international dollar purchasing power parity.
Source:
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**
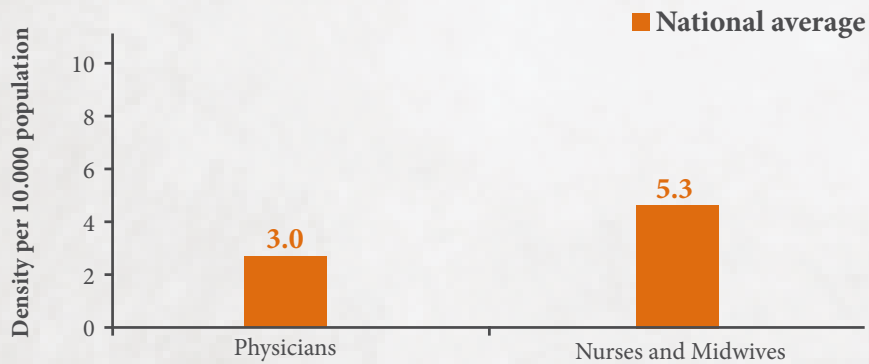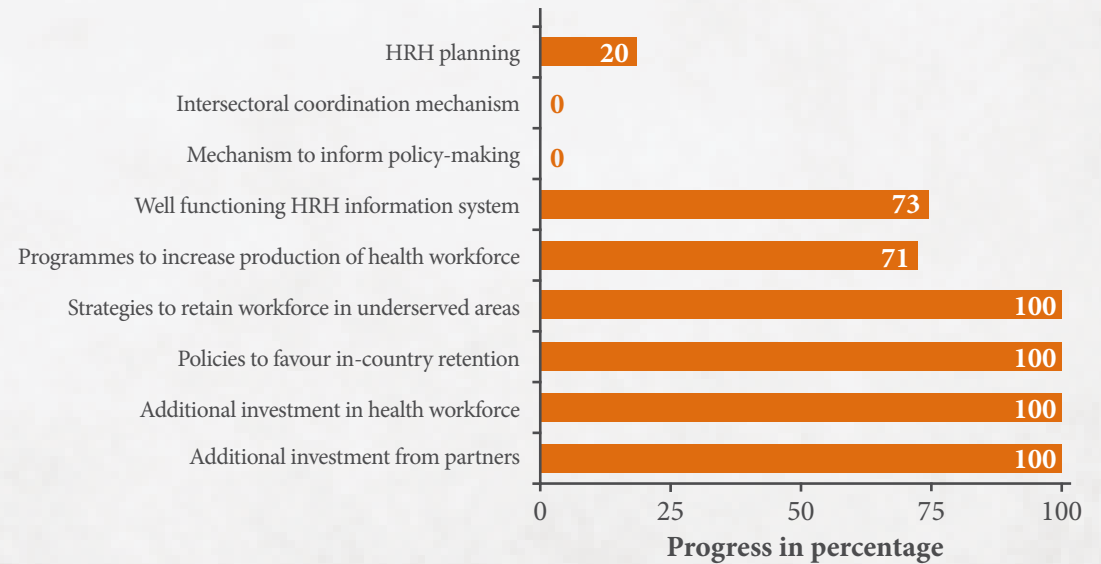
Eritrea

Eritrea reporting having a fully developed and costed HRH plan, which it is implementing with donor support to complement the low level of domestic resource allocation. Strategies to improve rural retention of health workers appear not to have yielded the desired results yet, as the country has a very high disparity in urban–rural distribution of health workers.

Country description

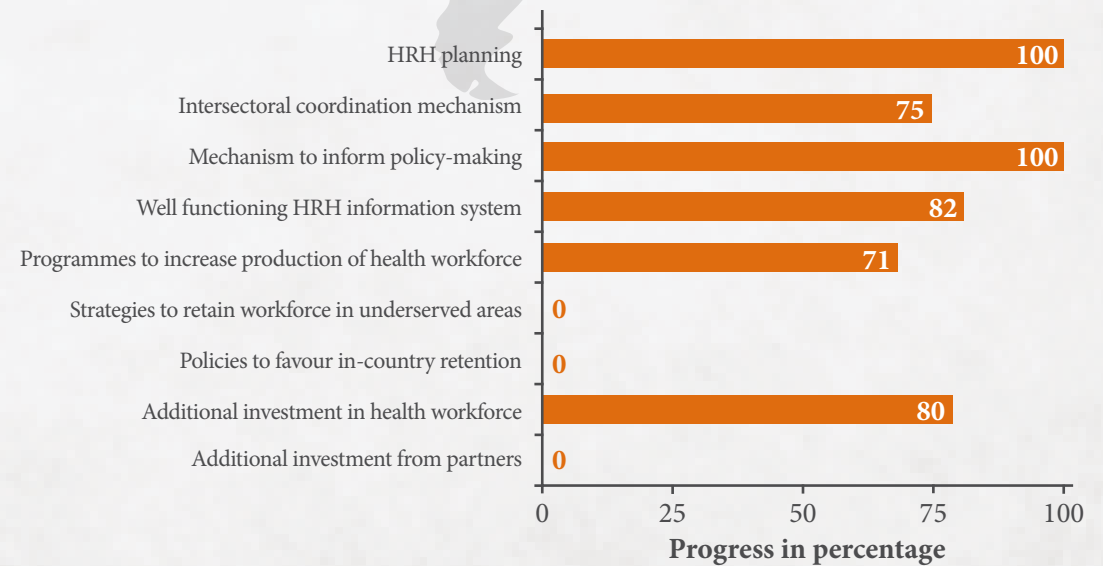| Continent	Africa
Population (in thousands)[1]	4 927
Gross national income per capita ($)[2]	640
Adult literacy rate (%)[1]	64.2
Life expectancy at birth (years)[1]	65
Infant mortality rate (per 1,000 live birth)[1]	41
Under-5 mortality rate (per 1,000 live birth)[1]	16
Maternal mortality ratio (per 100,000 live birth)[1]	280
Per capita total expenditure on health (PPP int. $)[1]	20
Government expenditure on health as percentage of total health expenditure[1]	45.3
Government expenditure on health as percentage of total govt. expenditure[1]	4.2
Hospital beds (per 10,000 population)[1]	12
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.3
Density of physicians (per 10,000 population)[3]	0.5
Density of nurses and midwives (per 10,000 population)[3]	5.8

PPP int. $, international dollar purchasing power parity.

Source:
- . [1] WHO: Global Health Observatory;
- . [2] World Bank: Data;
- . [3] WHO: Global Atlas of the Health Workforce
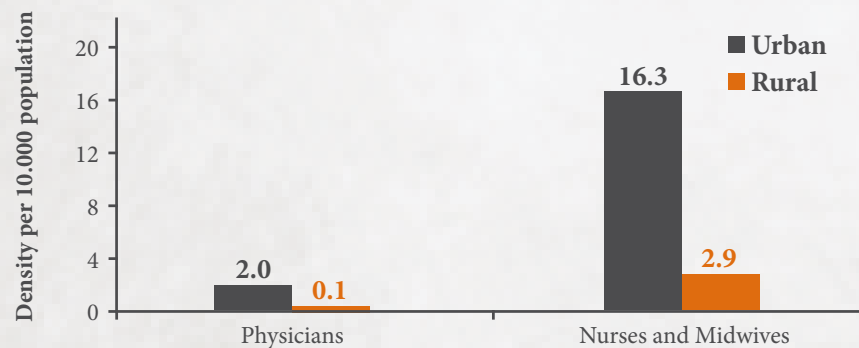
Score for individual AGA progress indicators
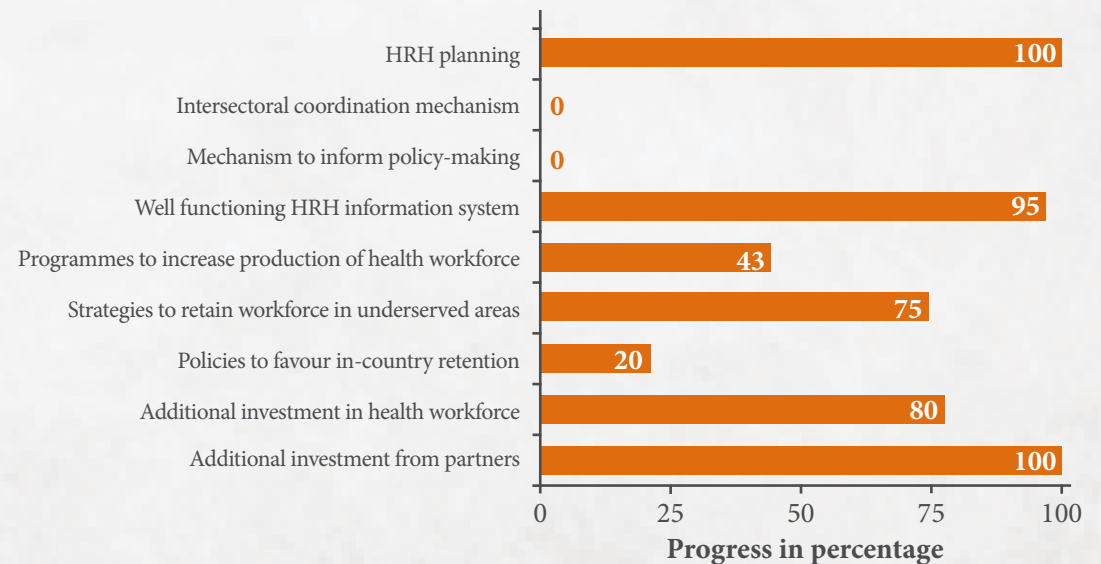
Ethiopia

Ethiopia reported good performance on most indicators. It could make further progress in the retention of health workers in the underserved areas of the country, to which its innovative programme of training and deploying community health extension workers will contribute. Despite its very low overall density of physicians, nurses and midwives, and a low per capita health spending, Ethiopia has nearly cut its child mortality in half since 1990*, highlighting the potential of well-targeted investment strategies even in resource-limited settings.

* Countdown to 2015 Decade Report.

© UN photo/Louise Gubb

Country description

| Continent	Africa
Population (in thousands)[1]	80 713
Gross national income per capita ($)[2]	870
Adult literacy rate (%)[1]	35.9
Life expectancy at birth (years)[1]	58
Infant mortality rate (per 1,000 live birth)[1]	69
Under-5 mortality rate (per 1,000 live birth)[1]	109
Maternal mortality ratio (per 100,000 live birth)[1]	470
Per capita total expenditure on health (PPP int. $)[1]	30
Government expenditure on health as percentage of total health expenditure[1]	58.1
Government expenditure on health as percentage of total govt. expenditure[1]	10.2
Hospital beds (per 10,000 population)[1]	2
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	2.6
Density of physicians (per 10,000 population)[3]	0.2
Density of nurses and midwives (per 10,000 population)[3]	2.4

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	75
Mechanism to inform policy-making	100
Well functioning HRH information system	59
Programmes to increase production of health workforce	86
Strategies to retain workforce in underserved areas	38
Policies to favour in-country retention	60
Additional investment in health workforce	80
Additional investment from partners	100

Density per 10.000 population

Physicians: 0.2

Nurses and Midwives: 2.4
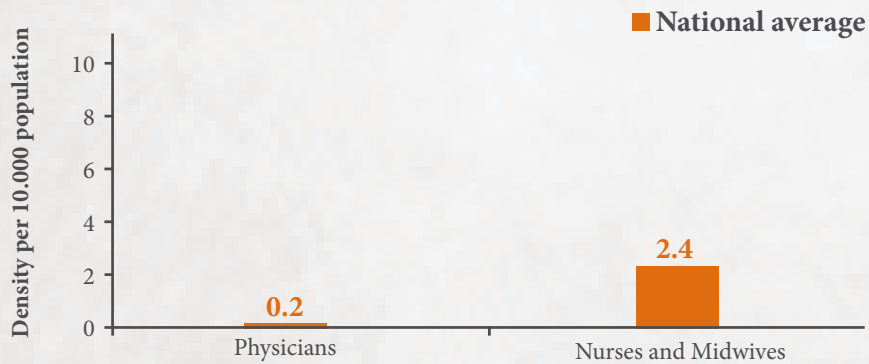
Gambia

Gambia reported good performance on the majority of indicators, including HRH planning, and production, deployment and retention of the health workforce. It could make further progress by increasing participation from other ministries, nongovernmental organizations and international agencies in its HRH coordination and development processes, and by establishing a national mechanism for data sharing to inform policy-makers.

Country description

| Continent	Africa
Population (in thousands)[1]	1 660
Gross national income per capita ($)[2]	1 290
Adult literacy rate (%)[1]	NA
Life expectancy at birth (years)[1]	59
Infant mortality rate (per 1,000 live birth)[1]	80
Under-5 mortality rate (per 1,000 live birth)[1]	106
Maternal mortality ratio (per 100,000 live birth)[1]	400
Per capita total expenditure on health (PPP int. $)[1]	71
Government expenditure on health as percentage of total health expenditure[1]	47.9
Government expenditure on health as percentage of total govt. expenditure[1]	11.6
Hospital beds (per 10,000 population)[1]	11
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.1
Density of physicians (per 10,000 population)[3]	0.4
Density of nurses and midwives (per 10,000 population)[3]	5.7

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

National average
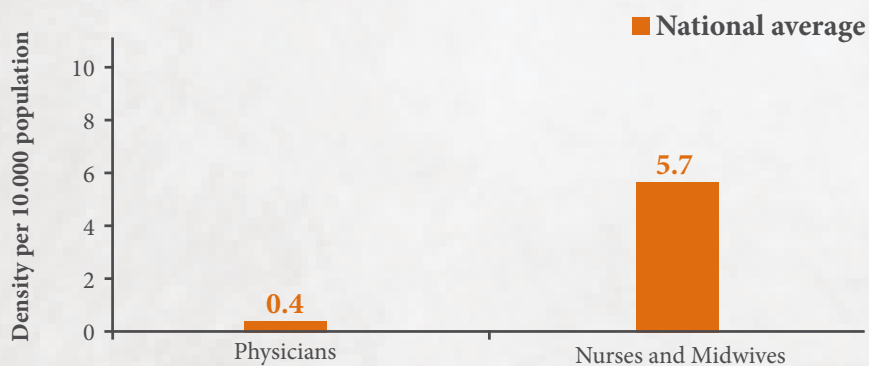
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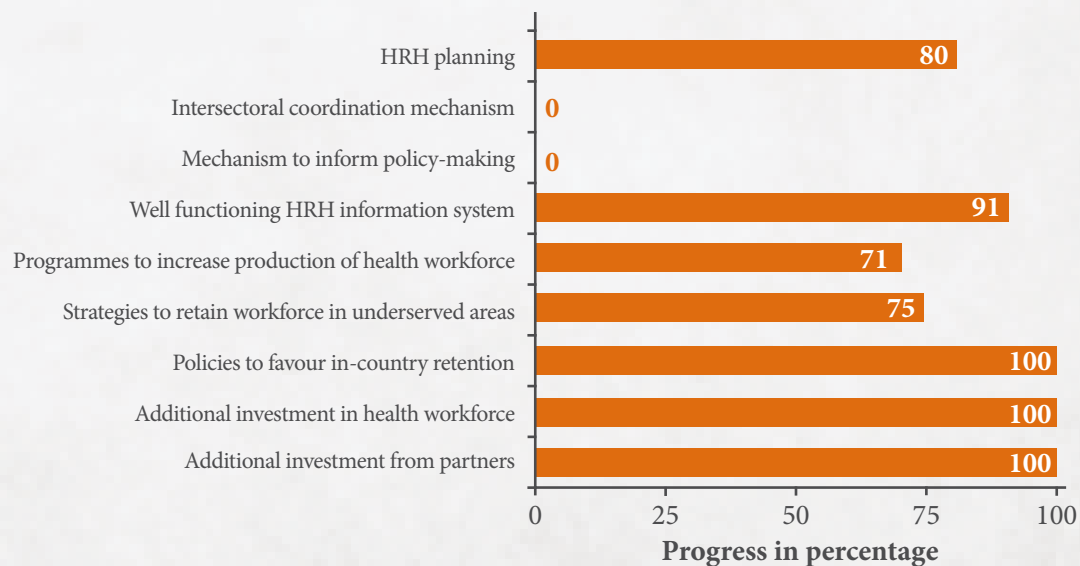
Ghana

Ghana reported good performance in several areas, including the implementation of its HRH plan, a strong HRH information system, and the capacity to attract donor support. It might, however, benefit from increased investment in recruitment and greater emphasis on retention of health workers in underserved areas.

Country description

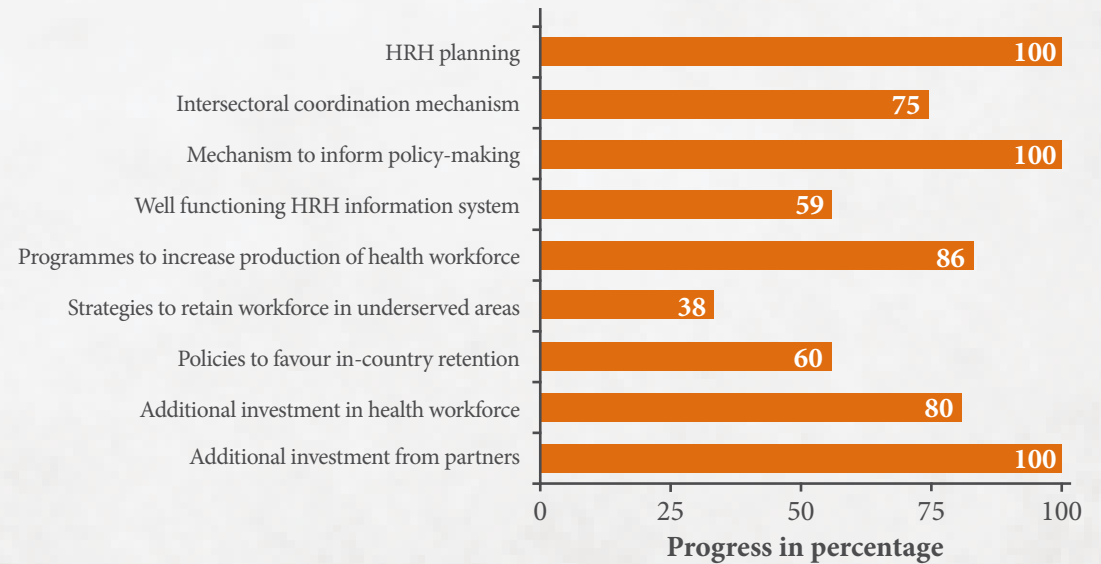| Continent	Africa
Population (in thousands)[1]	23 351
Gross national income per capita ($)[2]	1 440
Adult literacy rate (%)[1]	65
Life expectancy at birth (years)[1]	62
Infant mortality rate (per 1,000 live birth)[1]	51
Under-5 mortality rate (per 1,000 live birth)[1]	76
Maternal mortality ratio (per 100,000 live birth)[1]	350
Per capita total expenditure on health (PPP int. $)[1]	113
Government expenditure on health as percentage of total health expenditure[1]	51.6
Government expenditure on health as percentage of total govt. expenditure[1]	10.7
Hospital beds (per 10,000 population)[1]	9
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	10.8
Density of physicians (per 10,000 population)[3]	1.1
Density of nurses and midwives (per 10,000 population)[3]	9.7

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
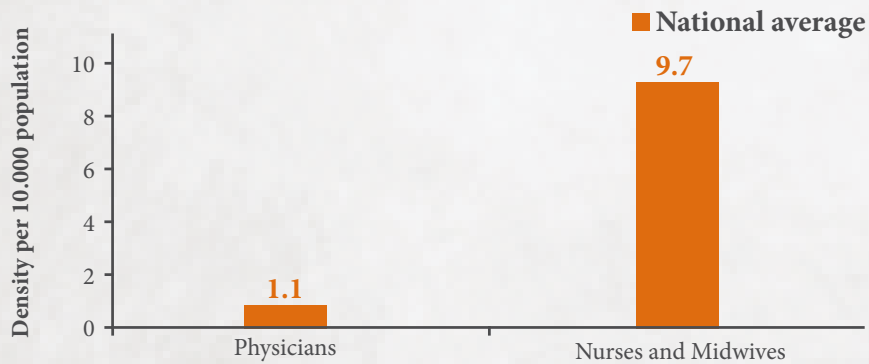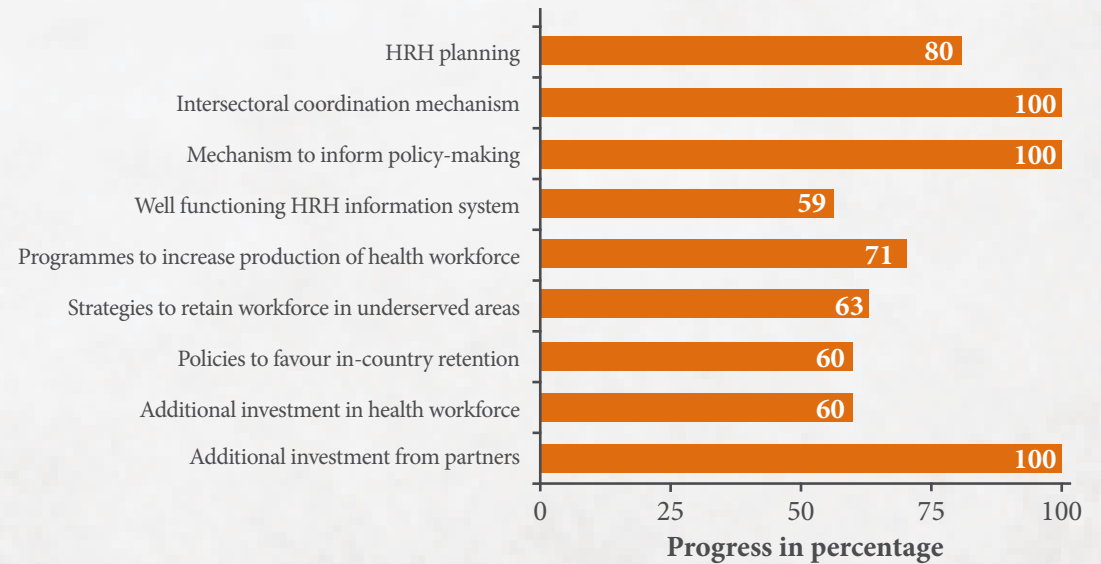
Guinea

Guinea reported having an HRH plan, although its implementation appears to be in the early stages. Despite the capacity of attracting donor support to complement a very low level of domestic resource allocation, efforts appear to be still limited in the production, recruitment and retention of health workers, resulting in a very low density of physicians, nurses and midwives. Other areas that may need attention include HRH coordination, a mechanism to inform policy-makers, and HRH information systems.

© UN photo/Albert Gonzalez Farran

Country description

| Continent	Africa
Population (in thousands)[1]	9 833
Gross national income per capita ($)[2]	970
Adult literacy rate (%)[1]	29.5
Life expectancy at birth (years)[1]	54
Infant mortality rate (per 1,000 live birth)[1]	90
Under-5 mortality rate (per 1,000 live birth)[1]	146
Maternal mortality ratio (per 100,000 live birth)[1]	680
Per capita total expenditure on health (PPP int. $)[1]	62
Government expenditure on health as percentage of total health expenditure[1]	11.0
Government expenditure on health as percentage of total govt. expenditure[1]	4.7
Hospital beds (per 10,000 population)[1]	3
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	1.4
Density of physicians (per 10,000 population)[3]	1.0
Density of nurses and midwives (per 10,000 population)[3]	0.4

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
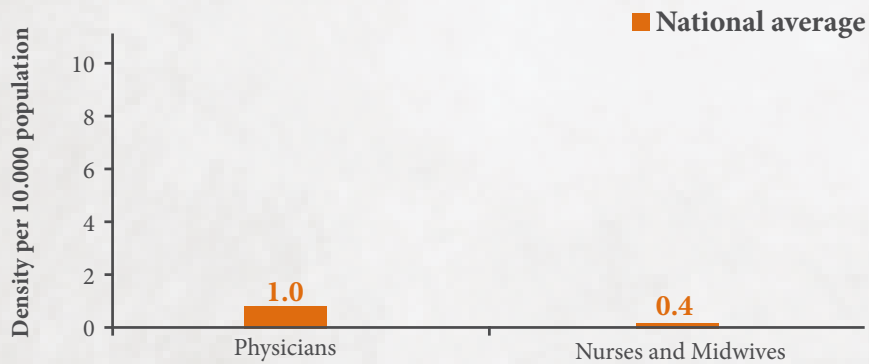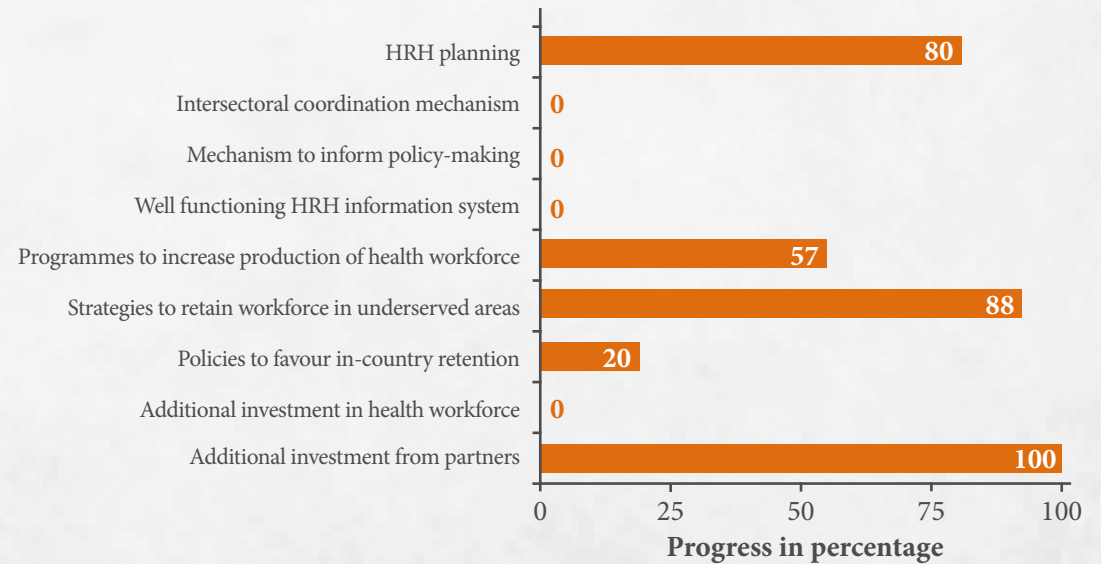
Guinea-Bissau

Guinea-Bissau reported good performance across several indicators, including donor support and a functioning HRH information system. Its efforts at retaining its health workers in rural areas appear to be relatively more successful with regard to nurses and midwives than to doctors. An area requiring attention is the development of an institutional mechanism to inform policy-makers.

Country description

| Continent	Africa
Population (in thousands)[1]	1 575
Gross national income per capita ($)[2]	520
Adult literacy rate (%)[1]	NA
Life expectancy at birth (years)[1]	49
Infant mortality rate (per 1,000 live birth)[1]	117
Under-5 mortality rate (per 1,000 live birth)[1]	195
Maternal mortality ratio (per 100,000 live birth)[1]	1 000
Per capita total expenditure on health (PPP int. $)[1]	33
Government expenditure on health as percentage of total health expenditure[1]	25.9
Government expenditure on health as percentage of total govt. expenditure[1]	4.0
Hospital beds (per 10,000 population)[1]	10
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.0
Density of physicians (per 10,000 population)[3]	0.5
Density of nurses and midwives (per 10,000 population)[3]	5.5

PPP int. $, international dollar purchasing power parity.
NA, not available
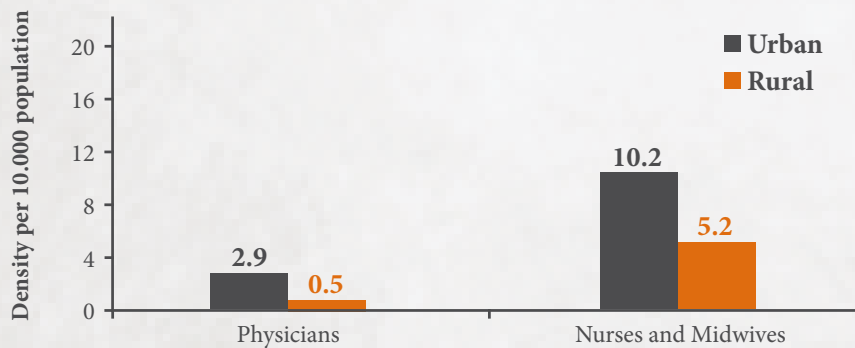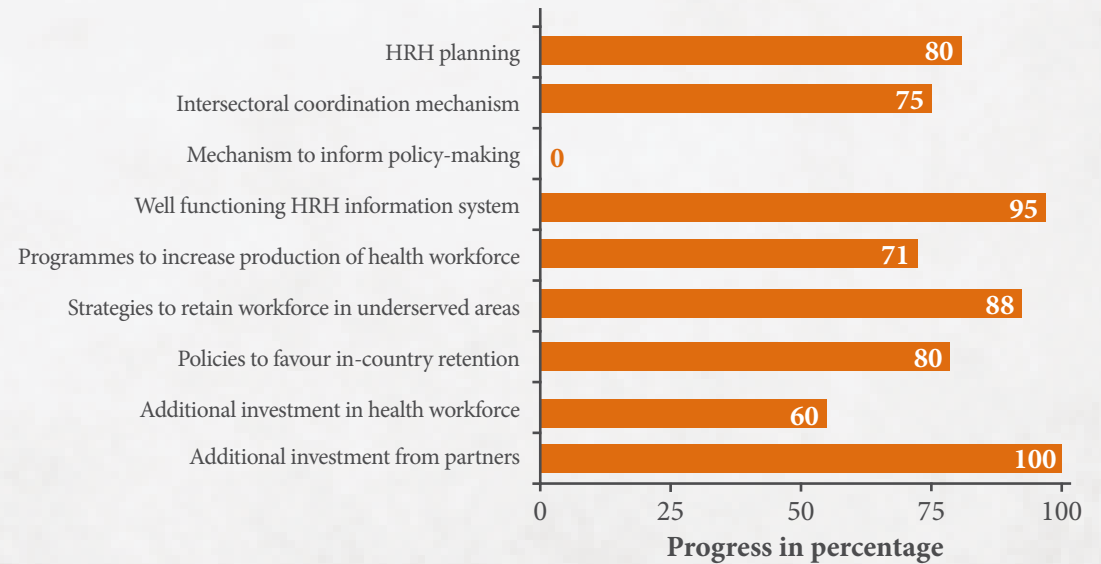
Score for individual AGA progress indicators

Haiti

Haiti reported positive performance in attracting donor support and in maintaining health workforce statistics. It could, however, strengthen other areas, including the development and costing of an HRH plan, the establishment of an intersectoral coordination mechanism, and the scaling-up of training, deployment and rural retention of its health workforce.

Country description

| Continent	Central America
Population (in thousands)[1]	9 876
Gross national income per capita ($)[2]	NA
Adult literacy rate (%)[1]	NA
Life expectancy at birth (years)[1]	62
Infant mortality rate (per 1,000 live birth)[1]	54
Under-5 mortality rate (per 1,000 live birth)[1]	72
Maternal mortality ratio (per 100,000 live birth)[1]	300
Per capita total expenditure on health (PPP int. $)[1]	58
Government expenditure on health as percentage of total health expenditure[1]	23.3
Government expenditure on health as percentage of total govt. expenditure[1]	9.2
Hospital beds (per 10,000 population)[1]	13
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	3.6
Density of physicians (per 10,000 population)[3]	2.5
Density of nurses and midwives (per 10,000 population)[3]	1.1

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Bar chart — National average, Density per 10.000 population:
- Physicians: 2.5
- Nurses and Midwives: 1.1

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	20
Intersectoral coordination mechanism	0
Mechanism to inform policy-making	0
Well functioning HRH information system	82
Programmes to increase production of health workforce	57
Strategies to retain workforce in underserved areas	13
Policies to favour in-country retention	40
Additional investment in health workforce	0
Additional investment from partners	100
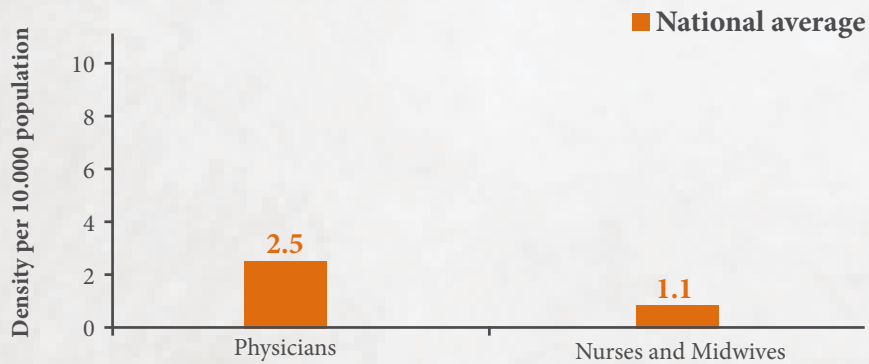
Honduras

At the time when this report was prepared,
responses to the questionnaire used for the survey
were not yet available for Honduras.

Country description

Continent	Central America
Population (in thousands)[1]	7 319
Gross national income per capita ($)[2]	3 840
Adult literacy rate (%)[1]	83.6
Life expectancy at birth (years)[1]	70
Infant mortality rate (per 1,000 live birth)[1]	26
Under-5 mortality rate (per 1,000 live birth)[1]	31
Maternal mortality ratio (per 100,000 live birth)[1]	110
Per capita total expenditure on health (PPP int. $)[1]	235
Government expenditure on health as percentage of total health expenditure[1]	65.7
Government expenditure on health as percentage of total govt. expenditure[1]	19.0
Hospital beds (per 10,000 population)[1]	7
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	18.9
Density of physicians (per 10,000 population)[3]	5.7
Density of nurses and midwives (per 10,000 population)[3]	13.2

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Not available.

103
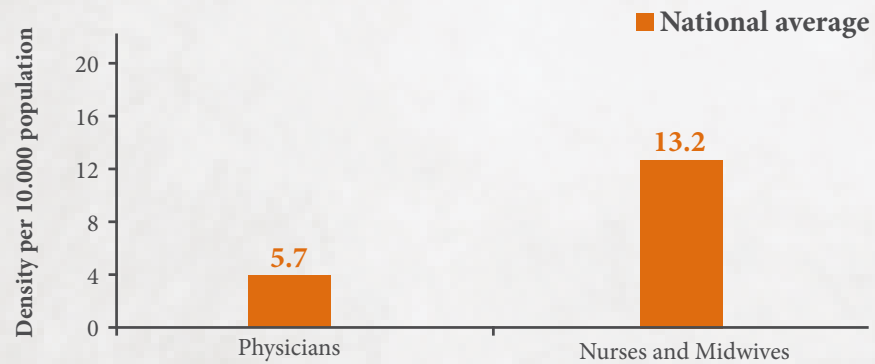
India

India reported good performance in relation to scaling up the production of new health-care workers, and in strategies to retain them in rural areas. However, it also reported the lack of an intersectoral coordination structure and an institutional mechanism to inform policy-makers. Its capacity to attract donor support to co-finance its HRH development needs could also be strengthened.

Country description

| Continent	Asia
Population (in thousands)[1]	1 181 412
Gross national income per capita ($)[2]	3 020
Adult literacy rate (%)[1]	66
Life expectancy at birth (years)[1]	64
Infant mortality rate (per 1,000 live birth)[1]	52
Under-5 mortality rate (per 1,000 live birth)[1]	69
Maternal mortality ratio (per 100,000 live birth)[1]	230
Per capita total expenditure on health (PPP int. $)[1]	109
Government expenditure on health as percentage of total health expenditure[1]	26.2
Government expenditure on health as percentage of total govt. expenditure[1]	3.8
Hospital beds (per 10,000 population)[1]	9
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	18.5
Density of physicians (per 10,000 population)[3]	5.8
Density of nurses and midwives (per 10,000 population)[3]	12.7

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce
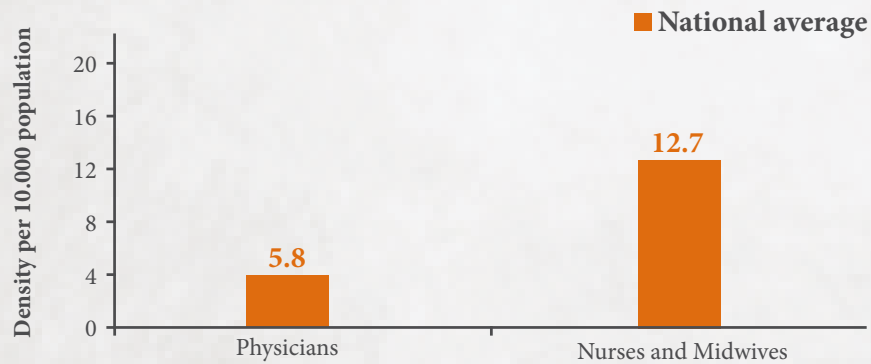
Score for individual AGA progress indicators
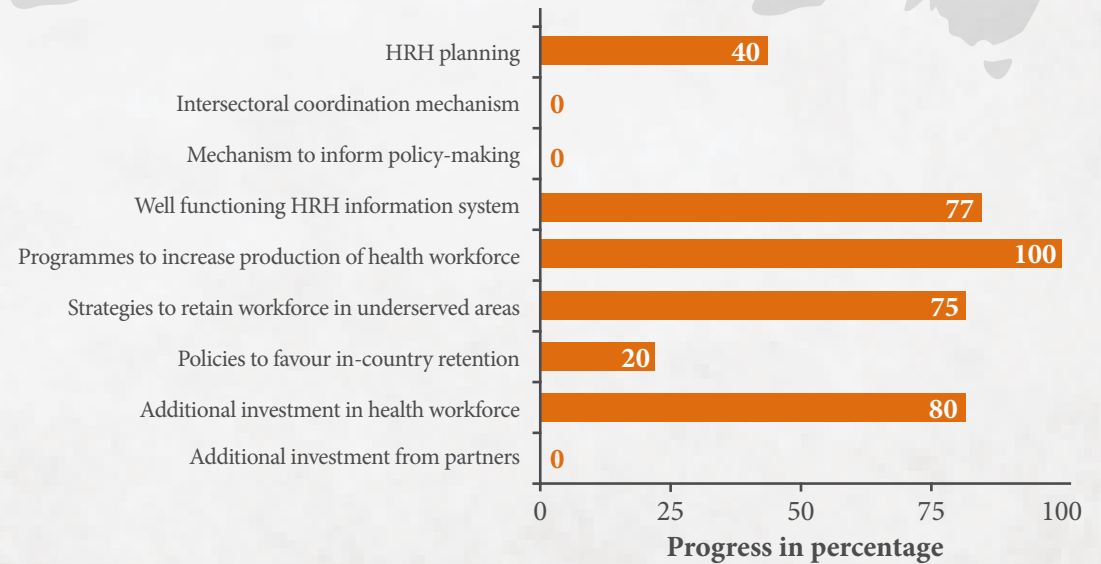
Indonesia

Indonesia reported a functioning HRH information system and the presence of donor support for its HRH development needs. It may improve further by strengthening and costing its HRH plan, ensuring wider stakeholder involvement in the national HRH committee, as well as developing a mechanism to inform policy-making.

Country description

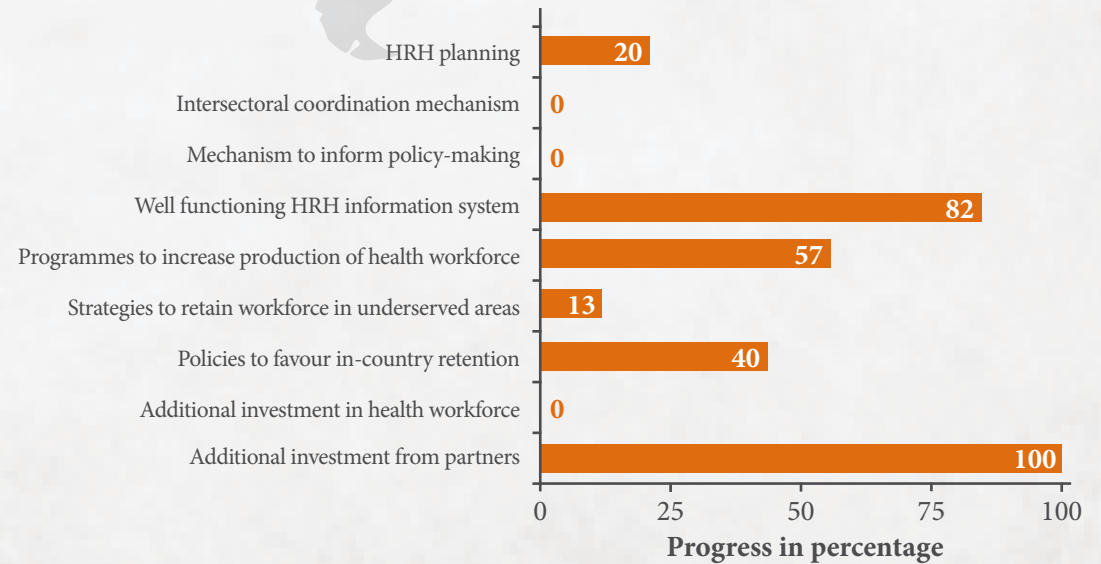| Continent	Asia
Population (in thousands)[1]	227 345
Gross national income per capita ($)[2]	3 860
Adult literacy rate (%)[1]	92
Life expectancy at birth (years)[1]	67
Infant mortality rate (per 1,000 live birth)[1]	31
Under-5 mortality rate (per 1,000 live birth)[1]	41
Maternal mortality ratio (per 100,000 live birth)[1]	240
Per capita total expenditure on health (PPP int. $)[1]	81
Government expenditure on health as percentage of total health expenditure[1]	54.4
Government expenditure on health as percentage of total govt. expenditure[1]	6.2
Hospital beds (per 10,000 population)[1]	6
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	9.5
Density of physicians (per 10,000 population)[3]	1.3
Density of nurses and midwives (per 10,000 population)[3]	8.2

PPP int. $, international dollar purchasing power parity.

Source:

- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average

Iraq

Iraq reported satisfactory performance across most HRH areas, i.e. intersectoral coordination, HRH information and data-sharing systems, production and deployment efforts, and the capacity to attract donor support. These are quite significant findings for a country emerging from conflict, but Iraq could still improve in terms of HRH planning and retention efforts.

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Country description

Continent	Asia
Population (in thousands)[1]	30 096
Gross national income per capita ($)[2]	3 310
Adult literacy rate (%)[1]	74.1
Life expectancy at birth (years)[1]	63
Infant mortality rate (per 1,000 live birth)[1]	36
Under-5 mortality rate (per 1,000 live birth)[1]	45
Maternal mortality ratio (per 100,000 live birth)[1]	75
Per capita total expenditure on health (PPP int. $)[1]	78
Government expenditure on health as percentage of total health expenditure[1]	75.0
Government expenditure on health as percentage of total govt. expenditure[1]	3.1
Hospital beds (per 10,000 population)[1]	13
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	15.8
Density of physicians (per 10,000 population)[3]	5.3
Density of nurses and midwives (per 10,000 population)[3]	10.5

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
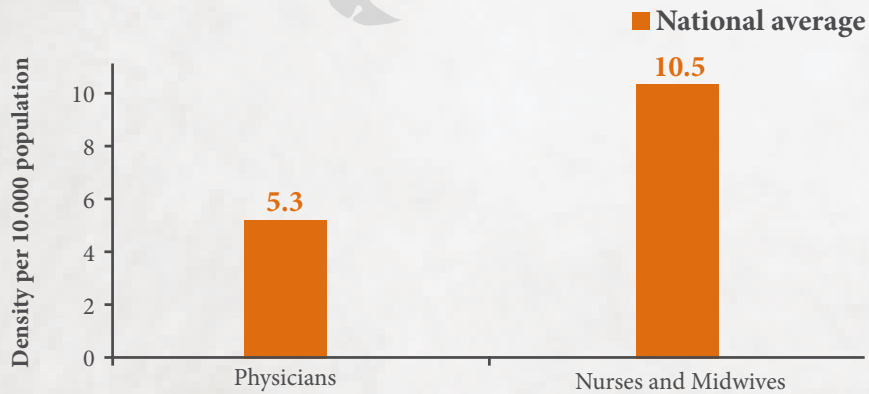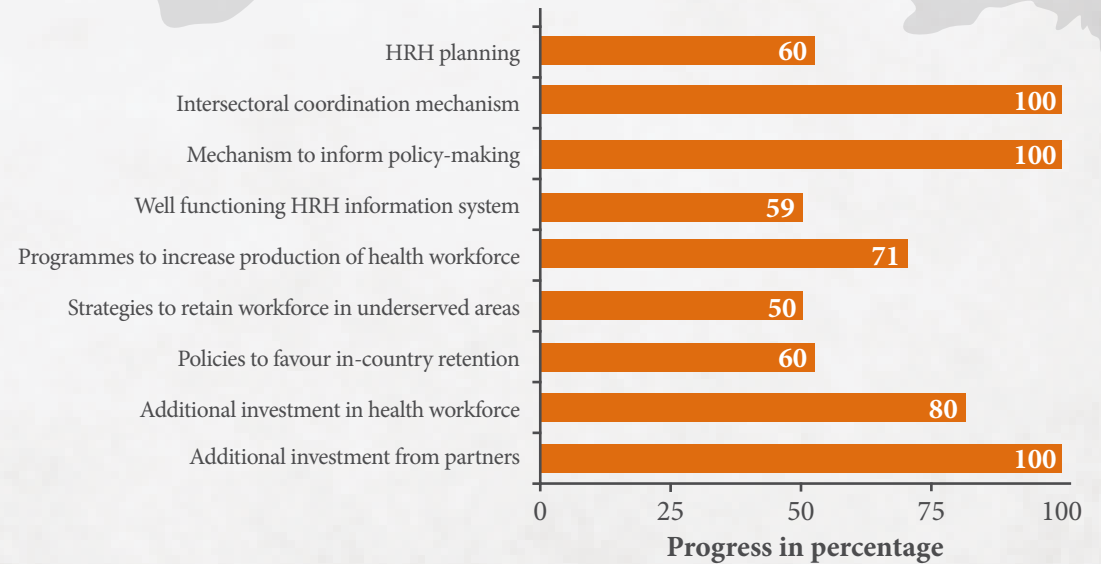
Kenya

Kenya reported very good performance on almost all HRH indicators, a finding that contrasts with the fact that the country has not made progress in improving its child mortality records.* The reasons why an apparently favourable HRH policy and governance environment are not translating into improved health outcomes should be investigated further and addressed through appropriate actions.

* Countdown to 2015 Decade Report.

Country description

| Continent	Africa
Population (in thousands)[1]	38 765
Gross national income per capita ($)[2]	1 560
Adult literacy rate (%)[1]	73.6
Life expectancy at birth (years)[1]	54
Infant mortality rate (per 1,000 live birth)[1]	81
Under-5 mortality rate (per 1,000 live birth)[1]	128
Maternal mortality ratio (per 100,000 live birth)[1]	530
Per capita total expenditure on health (PPP int. $)[1]	72
Government expenditure on health as percentage of total health expenditure[1]	42.0
Government expenditure on health as percentage of total govt. expenditure[1]	7.8
Hospital beds (per 10,000 population)[1]	11
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	13.2
Density of physicians (per 10,000 population)[3]	1.4
Density of nurses and midwives (per 10,000 population)[3]	11.8

PPP int. $, international dollar purchasing power parity.

Source:

- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	80
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	100
Well functioning HRH information system	68
Programmes to increase production of health workforce	100
Strategies to retain workforce in underserved areas	100
Policies to favour in-country retention	100
Additional investment in health workforce	100
Additional investment from partners	100

■ National average

Density per 10.000 population

- Physicians: 1.4
- Nurses and Midwives: 11.8
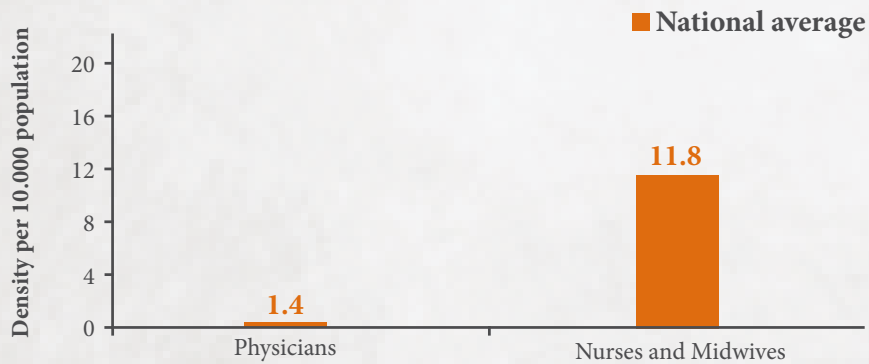
Lao People's Democratic Republic

The Lao People's Democratic Republic reported good performance on most indicators, including its HRH planning, health worker production, and investment of domestic and international resources. It could still improve in the areas of intersectoral coordination, information systems, and especially in implementing measures to foster retention in underserved areas.

Country description

Continent	Asia
Population (in thousands)[1]	6 205
Gross national income per capita ($)[2]	2 050
Adult literacy rate (%)[1]	72.7
Life expectancy at birth (years)[1]	62
Infant mortality rate (per 1,000 live birth)[1]	48
Under-5 mortality rate (per 1,000 live birth)[1]	61
Maternal mortality ratio (per 100,000 live birth)[1]	580
Per capita total expenditure on health (PPP int. $)[1]	84
Government expenditure on health as percentage of total health expenditure[1]	18.9
Government expenditure on health as percentage of total govt. expenditure[1]	3.7
Hospital beds (per 10,000 population)[1]	12
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	13.2
Density of physicians (per 10,000 population)[3]	3.5
Density of nurses and midwives (per 10,000 population)[3]	9.7

PPP int. $, international dollar purchasing power parity.
Source:
.   [1] WHO: Global Health Observatory;
.   [2] World Bank: Data;
.   [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

National average
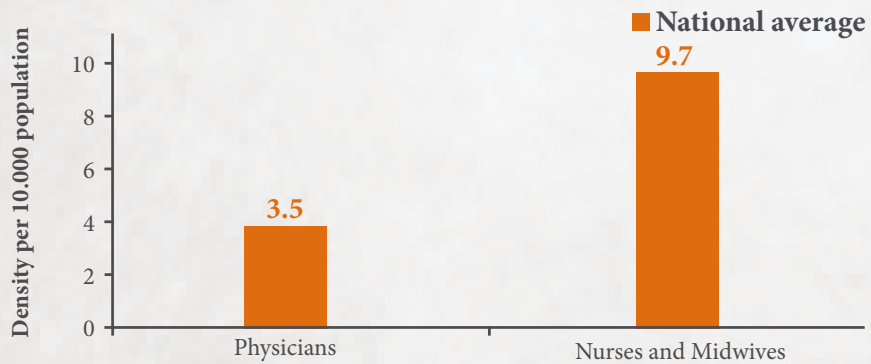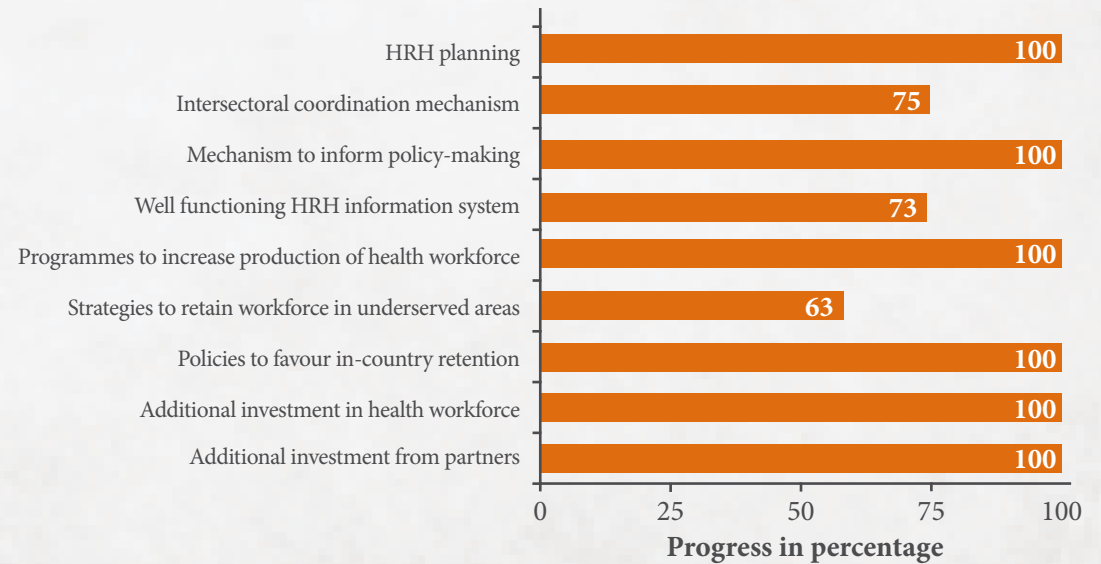
Lesotho

Lesotho reported the presence of a costed HRH plan, multisectoral participation in the HRH committee, and donor support. It could make further progress through the establishment of an institutional mechanism to inform policy-makers, and may consider devoting increased domestic resources to its health workforce.

© istock Photo

Country description

| Continent	Africa
Population (in thousands)[1]	2 049
Gross national income per capita ($)[2]	1 970
Adult literacy rate (%)[1]	82.2
Life expectancy at birth (years)[1]	47
Infant mortality rate (per 1,000 live birth)[1]	63
Under-5 mortality rate (per 1,000 live birth)[1]	79
Maternal mortality ratio (per 100,000 live birth)[1]	530
Per capita total expenditure on health (PPP int. $)[1]	92
Government expenditure on health as percentage of total health expenditure[1]	58.3
Government expenditure on health as percentage of total govt. expenditure[1]	7.9
Hospital beds (per 10,000 population)[1]	13
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.7
Density of physicians (per 10,000 population)[3]	0.5
Density of nurses and midwives (per 10,000 population)[3]	6.2

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce
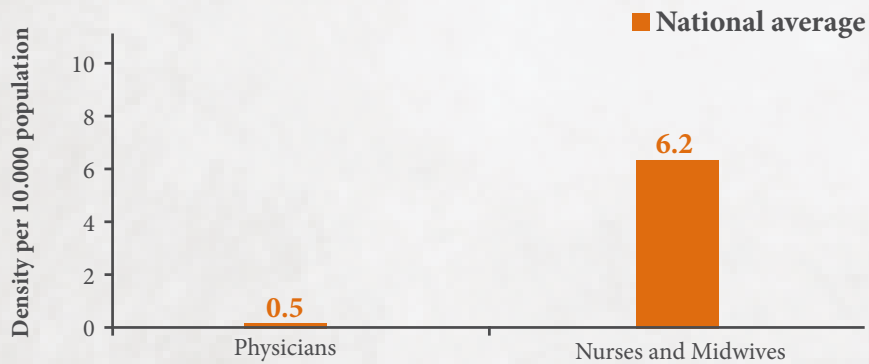
Score for individual AGA progress indicators
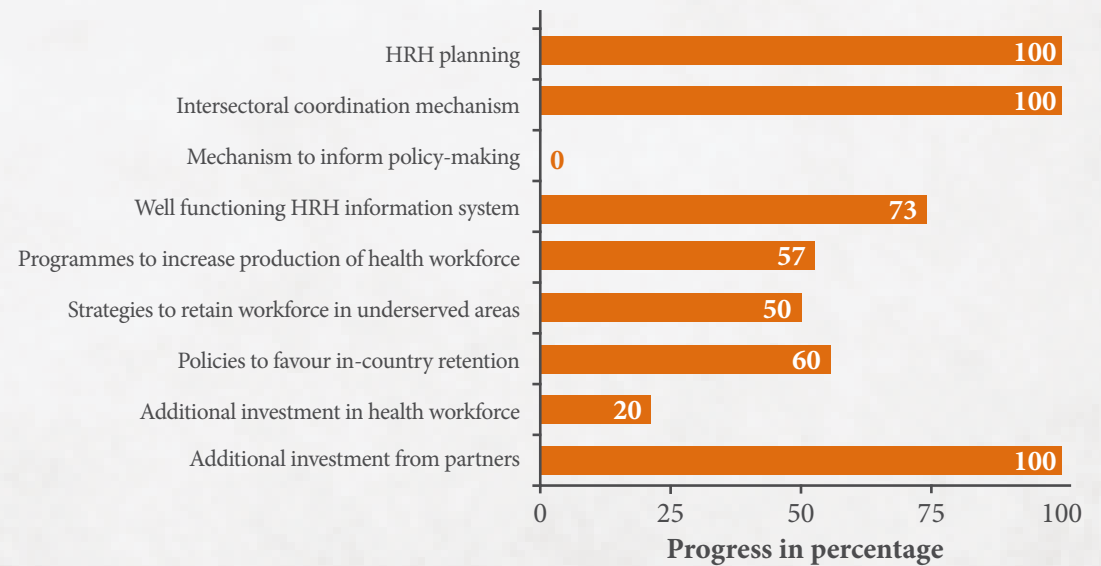
Liberia

Liberia reported good performance on most indicators, including production, deployment and retention of health workers, although it could further improve on its HRH planning and retention strategies. Starting with a very low density of health workers, Liberia would benefit from increased domestic and international resources to bolster its health workforce.

© Merlin / Tugela Ridley

Country description

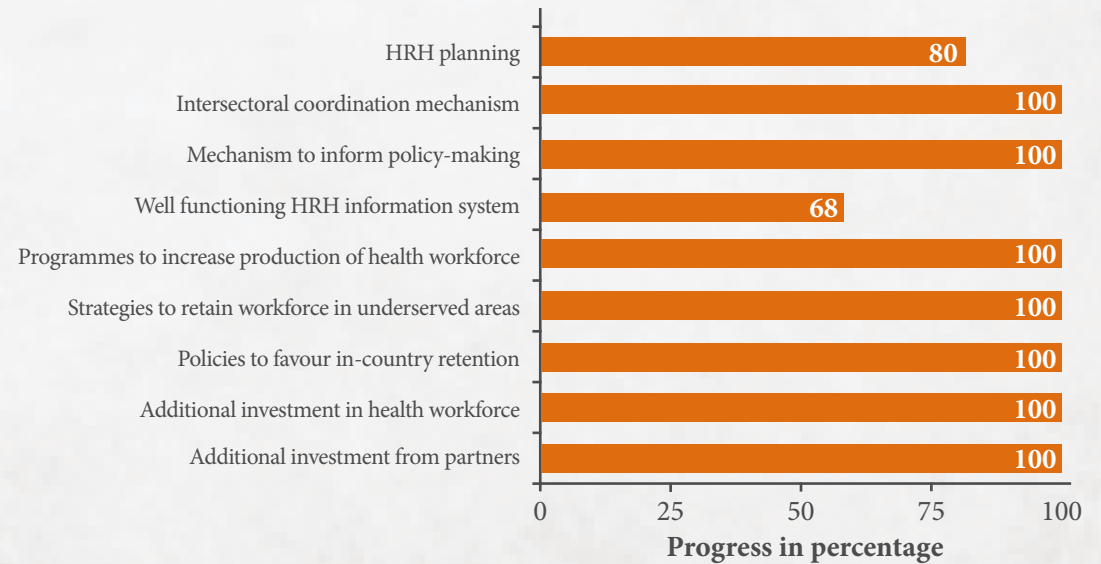| Continent	Africa
Population (in thousands)[1]	3 798
Gross national income per capita ($)[2]	310
Adult literacy rate (%)[1]	55.6
Life expectancy at birth (years)[1]	54
Infant mortality rate (per 1,000 live birth)[1]	100
Under-5 mortality rate (per 1,000 live birth)[1]	144
Maternal mortality ratio (per 100,000 live birth)[1]	990
Per capita total expenditure on health (PPP int. $)[1]	39
Government expenditure on health as percentage of total health expenditure[1]	26.2
Government expenditure on health as percentage of total govt. expenditure[1]	16.6
Hospital beds (per 10,000 population)[1]	7
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	2.8
Density of physicians (per 10,000 population)[3]	0.1
Density of nurses and midwives (per 10,000 population)[3]	2.7

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	60
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	100
Well functioning HRH information system	73
Programmes to increase production of health workforce	100
Strategies to retain workforce in underserved areas	88
Policies to favour in-country retention	100
Additional investment in health workforce	100
Additional investment from partners	100

■ National average

Density per 10.000 population

	Density
Physicians	0.1
Nurses and Midwives	2.7
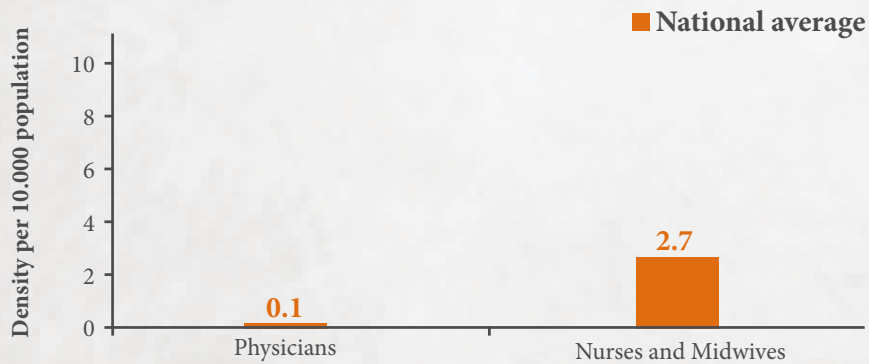
Madagascar

At the time when this report was prepared, responses to the questionnaire used for the survey were not yet available for Madagascar.

Country description

| Continent	Africa
Population (in thousands)[1]	1 911
Gross national income per capita ($)[2]	1 050
Adult literacy rate (%)[1]	70.7
Life expectancy at birth (years)[1]	60
Infant mortality rate (per 1,000 live birth)[1]	68
Under-5 mortality rate (per 1,000 live birth)[1]	106
Maternal mortality ratio (per 100,000 live birth)[1]	440
Per capita total expenditure on health (PPP int. $)[1]	41
Government expenditure on health as percentage of total health expenditure[1]	66.2
Government expenditure on health as percentage of total govt. expenditure[1]	14.8
Hospital beds (per 10,000 population)[1]	10
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	4.8
Density of physicians (per 10,000 population)[3]	1.6
Density of nurses and midwives (per 10,000 population)[3]	3.2

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Not available.

■ **National average**
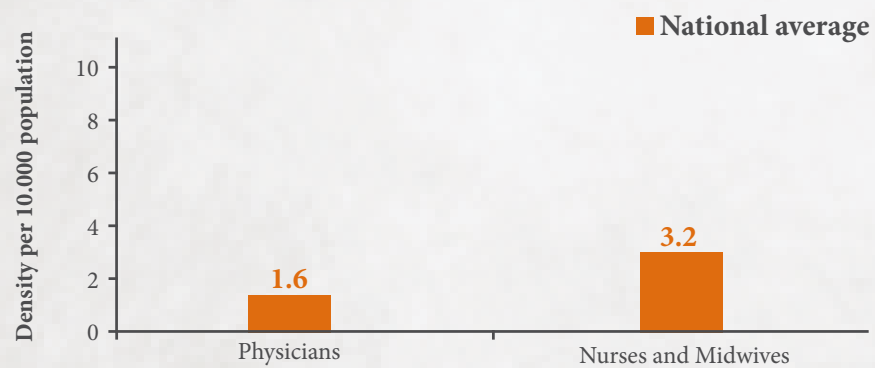
Malawi

Malawi reported good performance on most of the indicators, and is one of the few countries that have succeeded in tackling comprehensively its health workforce challenges through its Emergency Human Resources Programme. It is no surprise that the country is on track to meet MDG 4.* Malawi's progress is an example of what is possible even in low-income settings when good strategies, adequate resources and political commitment come together. It could improve further by establishing institutional mechanisms to inform policy-makers.

* Countdown to 2015 Decade Report.

© VSO/ Simon Rawles

Country description

| Continent	Africa
Population (in thousands)[1]	14 846
Gross national income per capita ($)[2]	760
Adult literacy rate (%)[1]	71.8
Life expectancy at birth (years)[1]	53
Infant mortality rate (per 1,000 live birth)[1]	65
Under-5 mortality rate (per 1,000 live birth)[1]	100
Maternal mortality ratio (per 100,000 live birth)[1]	510
Per capita total expenditure on health (PPP int. $)[1]	50
Government expenditure on health as percentage of total health expenditure[1]	66.2
Government expenditure on health as percentage of total govt. expenditure[1]	11.9
Hospital beds (per 10,000 population)[1]	11
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	3.0
Density of physicians (per 10,000 population)[3]	0.2
Density of nurses and midwives (per 10,000 population)[3]	2.8

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

National average

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	0
Well functioning HRH information system	91
Programmes to increase production of health workforce	86
Strategies to retain workforce in underserved areas	75
Policies to favour in-country retention	100
Additional investment in health workforce	100
Additional investment from partners	100
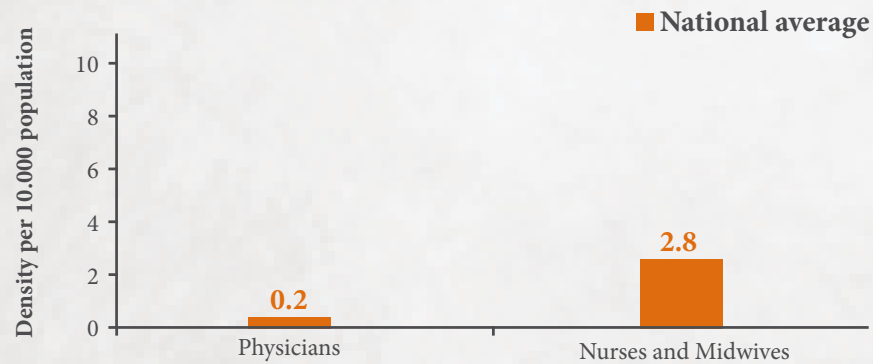
Mali

Mali reported the existence of a costed and evidence-based HRH plan, the presence of a functioning HRH information system and the implementation of policies to retain the health workforce. However, it lacks an institutional mechanism for informing policy-makers, and has not attracted donor investment in its HRH plan so far. It should sustain its efforts at increasing production and deployment of health workers to overcome its very low density of physicians, nurses and midwives.

© isinnews photo

Country description

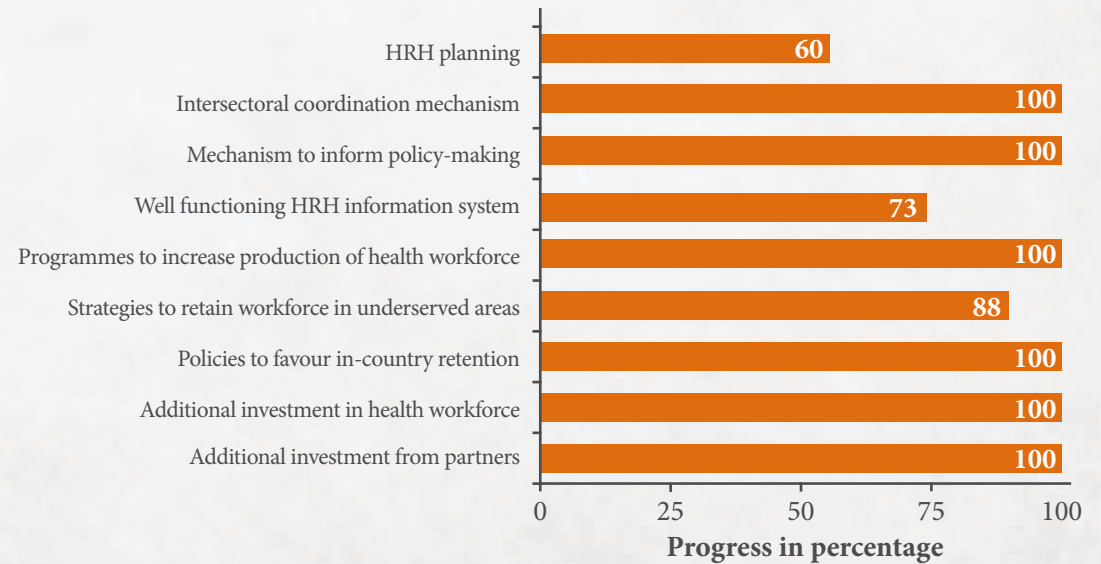| Continent	Africa
Population (in thousands)[1]	12 706
Gross national income per capita ($)[2]	1 150
Adult literacy rate (%)[1]	26.2
Life expectancy at birth (years)[1]	49
Infant mortality rate (per 1,000 live birth)[1]	102
Under-5 mortality rate (per 1,000 live birth)[1]	194
Maternal mortality ratio (per 100,000 live birth)[1]	830
Per capita total expenditure on health (PPP int. $)[1]	67
Government expenditure on health as percentage of total health expenditure[1]	51.4
Government expenditure on health as percentage of total govt. expenditure[1]	11.8
Hospital beds (per 10,000 population)[1]	6
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	2.7
Density of physicians (per 10,000 population)[3]	0.7
Density of nurses and midwives (per 10,000 population)[3]	2.0

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**

	Density per 10.000 population
Physicians	0.7
Nurses and Midwives	2.0

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	0
Well functioning HRH information system	73
Programmes to increase production of health workforce	71
Strategies to retain workforce in underserved areas	25
Policies to favour in-country retention	100
Additional investment in health workforce	80
Additional investment from partners	0
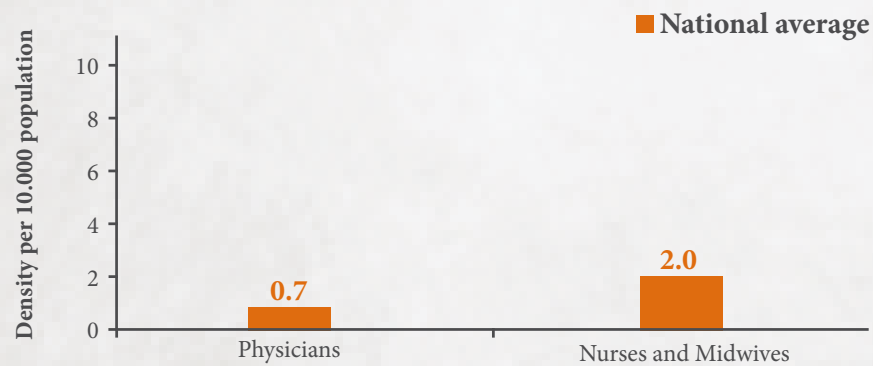
Mauritania

Mauritania reported having a fully developed and costed HRH plan, engaging all stakeholders in HRH coordination, a functioning HRH information system, and an institutional mechanism to inform policy-makers. It could consider further improvements through targeted efforts to retain its workforce in underserved areas and getting partner support for its plan.

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Country description

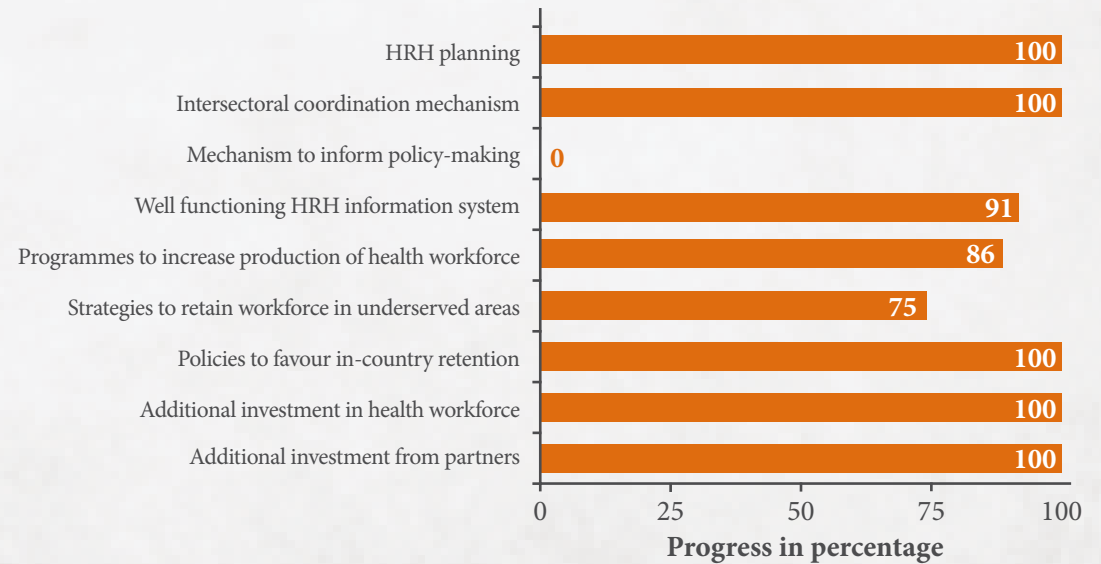| Continent	Africa
Population (in thousands)[1]	3 215
Gross national income per capita ($)[2]	2 000
Adult literacy rate (%)[1]	55.8
Life expectancy at birth (years)[1]	58
Infant mortality rate (per 1,000 live birth)[1]	75
Under-5 mortality rate (per 1,000 live birth)[1]	118
Maternal mortality ratio (per 100,000 live birth)[1]	550
Per capita total expenditure on health (PPP int. $)[1]	47
Government expenditure on health as percentage of total health expenditure[1]	65.3
Government expenditure on health as percentage of total govt. expenditure[1]	5.3
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	8.0
Density of physicians (per 10,000 population)[3]	1.3
Density of nurses and midwives (per 10,000 population)[3]	6.7

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**
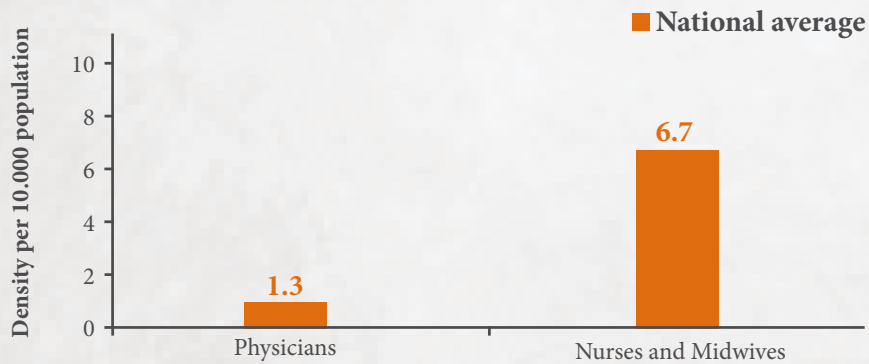
Morocco

At the time when this report was prepared, responses to the questionnaire used for the survey were not yet available for Morocco.

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Country description

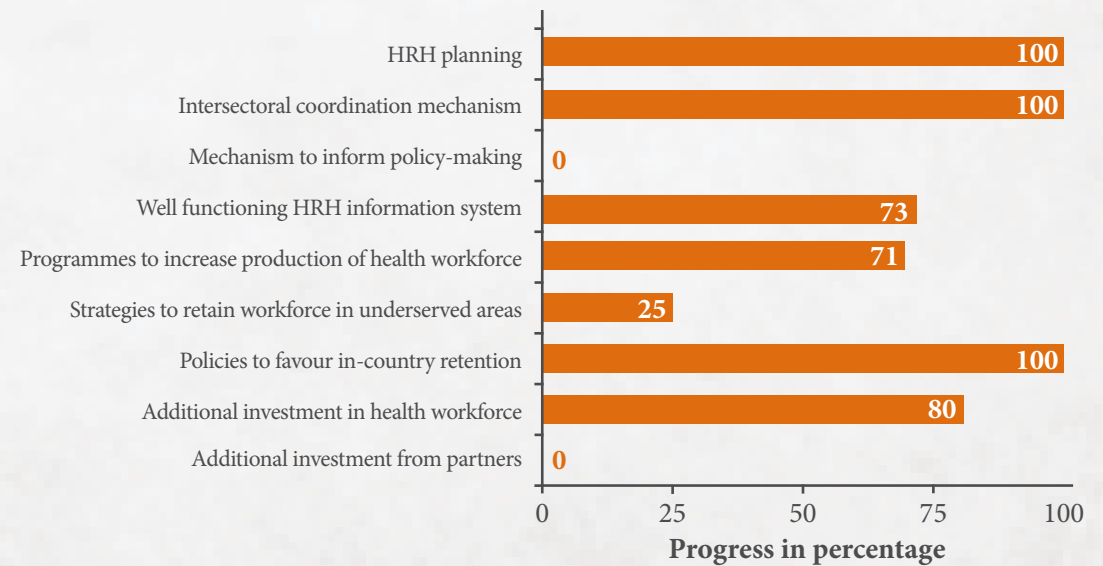|	
Continent	Africa
Population (in thousands)[1]	31 606
Gross national income per capita ($)[2]	4 190
Adult literacy rate (%)[1]	55.6
Life expectancy at birth (years)[1]	72
Infant mortality rate (per 1,000 live birth)[1]	32
Under-5 mortality rate (per 1,000 live birth)[1]	36
Maternal mortality ratio (per 100,000 live birth)[1]	110
Per capita total expenditure on health (PPP int. $)[1]	202
Government expenditure on health as percentage of total health expenditure[1]	33.8
Government expenditure on health as percentage of total govt. expenditure[1]	6.2
Hospital beds (per 10,000 population)[1]	11
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	13.4
Density of physicians (per 10,000 population)[3]	5.6
Density of nurses and midwives (per 10,000 population)[3]	7.8

PPP int. $, international dollar purchasing power parity.
Source:
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Not available.

■ National average
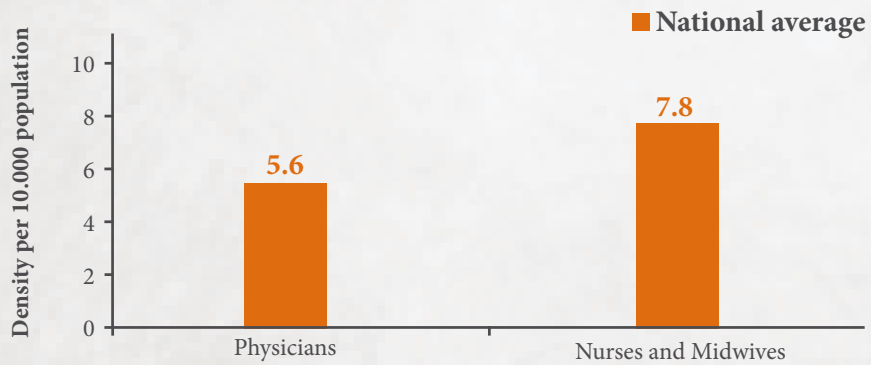
Mozambique

Mozambique reported good progress in most of the HRH areas investigated, including the presence of a costed HRH plan, efforts to scale up the production, deployment and retention of health workers (strategies that are much needed considering the low density of physicians, nurses and midwives in the country). Areas of possible improvement include its coordination structure and an institutional mechanism for data sharing to inform policy-makers.

Country description

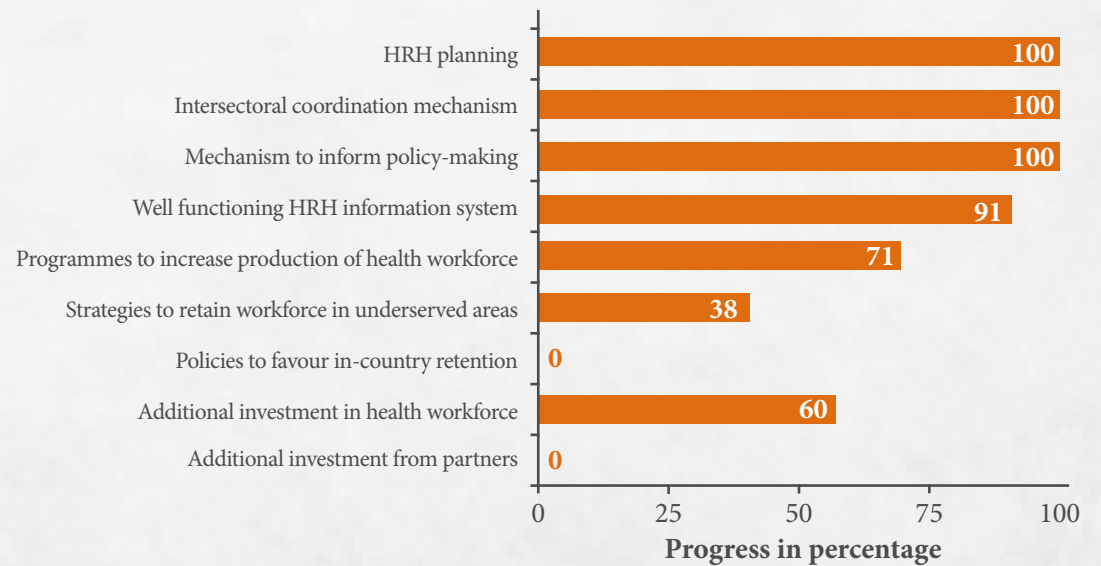| Continent	Africa
Population (in thousands)[1]	22 383
Gross national income per capita ($)[2]	780
Adult literacy rate (%)[1]	44.4
Life expectancy at birth (years)[1]	51
Infant mortality rate (per 1,000 live birth)[1]	90
Under-5 mortality rate (per 1,000 live birth)[1]	130
Maternal mortality ratio (per 100,000 live birth)[1]	550
Per capita total expenditure on health (PPP int. $)[1]	39
Government expenditure on health as percentage of total health expenditure[1]	71.9
Government expenditure on health as percentage of total govt. expenditure[1]	12.6
Hospital beds (per 10,000 population)[1]	8
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	3.4
Density of physicians (per 10,000 population)[3]	0.3
Density of nurses and midwives (per 10,000 population)[3]	3.1

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	50
Mechanism to inform policy-making	0
Well functioning HRH information system	73
Programmes to increase production of health workforce	86
Strategies to retain workforce in underserved areas	100
Policies to favour in-country retention	80
Additional investment in health workforce	80
Additional investment from partners	100

National average

Density per 10.000 population

Physicians 0.3

Nurses and Midwives 3.1
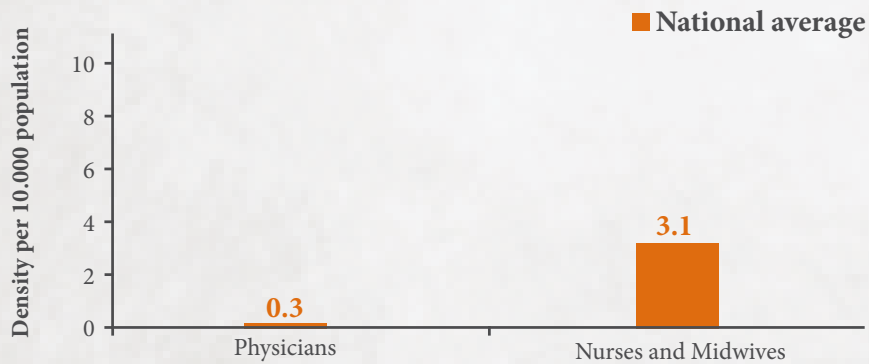
Myanmar

Myanmar reported good performance across most of the indicators, including its HRH planning, and investment in the training and deployment of health workers. It could still improve its HRH policy and governance environment by establishing an institutional mechanism to inform policy-makers and by bolstering its strategies to retain health workers in rural areas.

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Country description

| Continent	Asia
Population (in thousands)[1]	49 563
Gross national income per capita ($)[2]	NA
Adult literacy rate (%)[1]	89.9
Life expectancy at birth (years)[1]	54
Infant mortality rate (per 1,000 live birth)[1]	76
Under-5 mortality rate (per 1,000 live birth)[1]	122
Maternal mortality ratio (per 100,000 live birth)[1]	240
Per capita total expenditure on health (PPP int. $)[1]	21
Government expenditure on health as percentage of total health expenditure[1]	11.7
Government expenditure on health as percentage of total govt. expenditure[1]	0.9
Hospital beds (per 10,000 population)[1]	6
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	13.4
Density of physicians (per 10,000 population)[3]	3.6
Density of nurses and midwives (per 10,000 population)[3]	9.8

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**

131
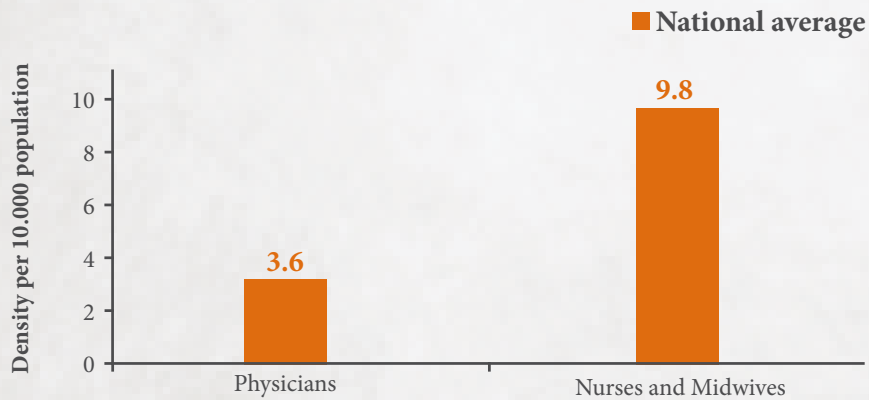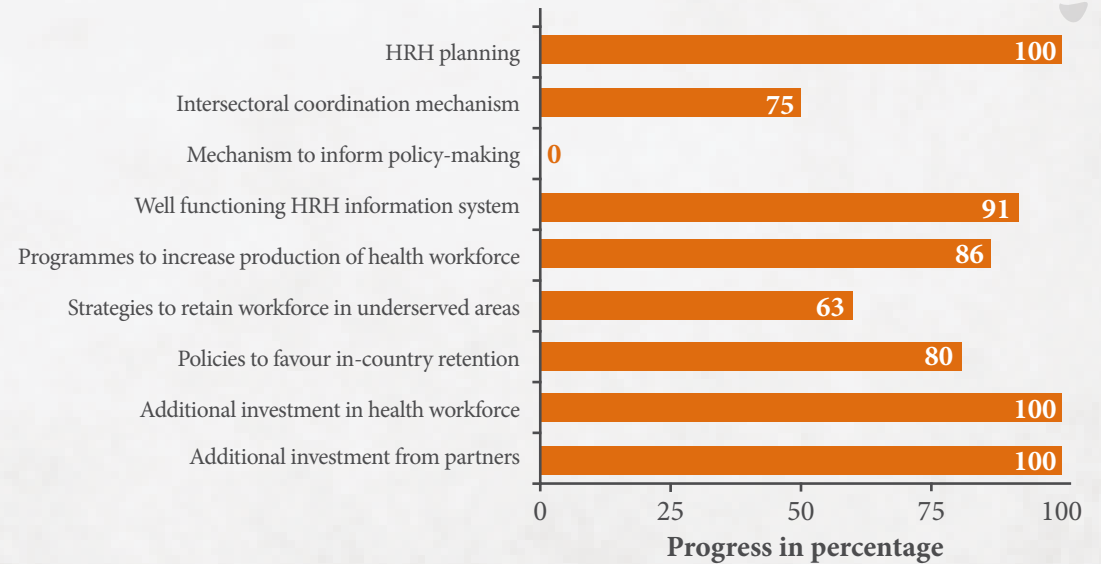
Nepal

Nepal reported good performance in scaling up health worker education and training. It has also established an HRH information system. It could improve further in terms of HRH planning, coordination, retention strategies and by increasing investment in HRH.

Country description

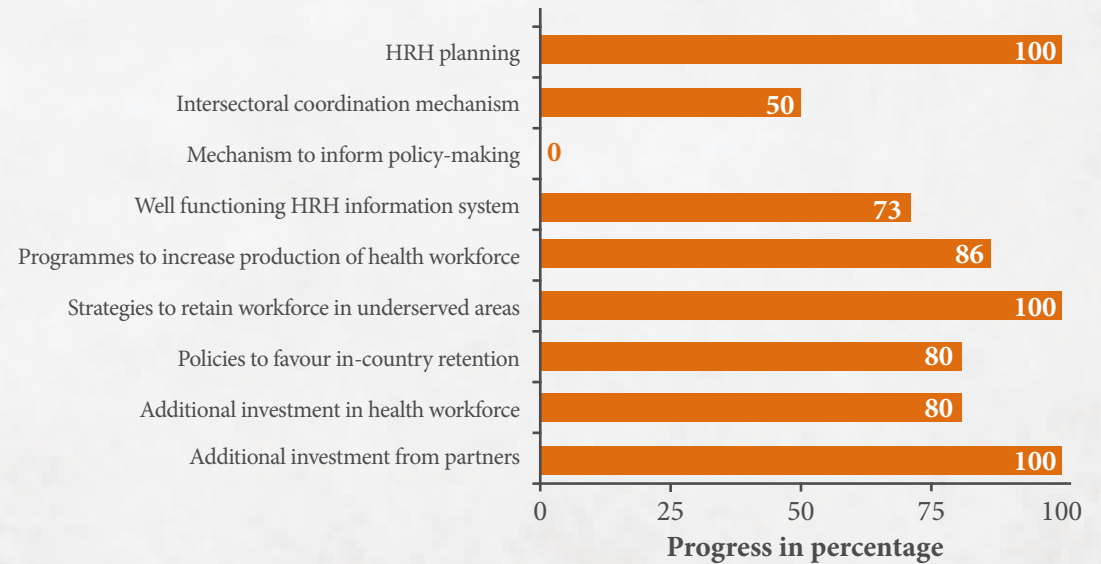| Continent	Asia
Population (in thousands)[1]	28 810
Gross national income per capita ($)[2]	1 120
Adult literacy rate (%)[1]	56.5
Life expectancy at birth (years)[1]	63
Infant mortality rate (per 1,000 live birth)[1]	41
Under-5 mortality rate (per 1,000 live birth)[1]	51
Maternal mortality ratio (per 100,000 live birth)[1]	380
Per capita total expenditure on health (PPP int. $)[1]	53
Government expenditure on health as percentage of total health expenditure[1]	39.7
Government expenditure on health as percentage of total govt. expenditure[1]	10.9
Hospital beds (per 10,000 population)[1]	50
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	6.7
Density of physicians (per 10,000 population)[3]	2.1
Density of nurses and midwives (per 10,000 population)[3]	4.6

PPP int. $, international dollar purchasing power parity.
Source:
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce

■ National average
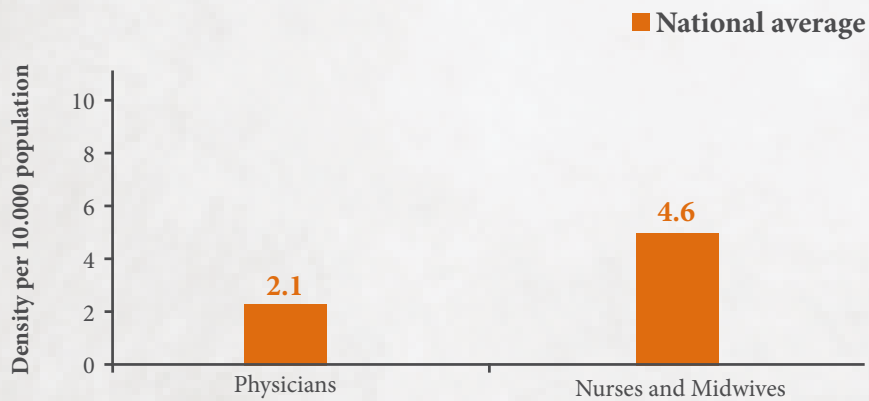
Score for individual AGA progress indicators
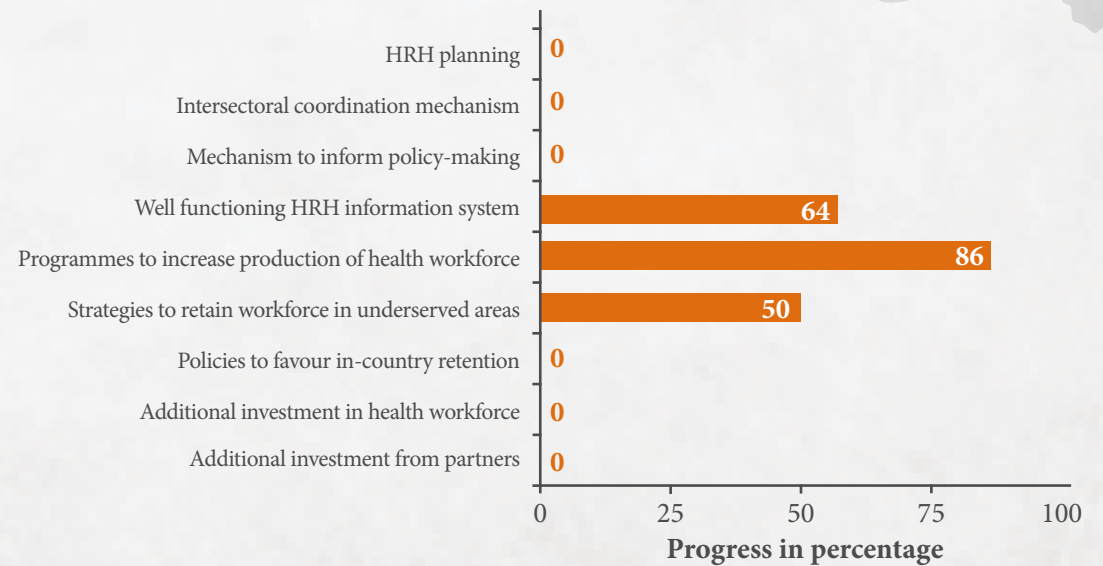
Nicaragua

At the time when this report was prepared, responses to the questionnaire used for the survey were not yet available for Nicaragua.

Country description

| Continent	Central America
Population (in thousands)[1]	5 667
Gross national income per capita ($)[2]	2 610
Adult literacy rate (%)[1]	78
Life expectancy at birth (years)[1]	74
Infant mortality rate (per 1,000 live birth)[1]	23
Under-5 mortality rate (per 1,000 live birth)[1]	27
Maternal mortality ratio (per 100,000 live birth)[1]	100
Per capita total expenditure on health (PPP int. $)[1]	232
Government expenditure on health as percentage of total health expenditure[1]	54.9
Government expenditure on health as percentage of total govt. expenditure[1]	16.3
Hospital beds (per 10,000 population)[1]	9
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	14.4
Density of physicians (per 10,000 population)[3]	3.7
Density of nurses and midwives (per 10,000 population)[3]	10.7

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Not available.
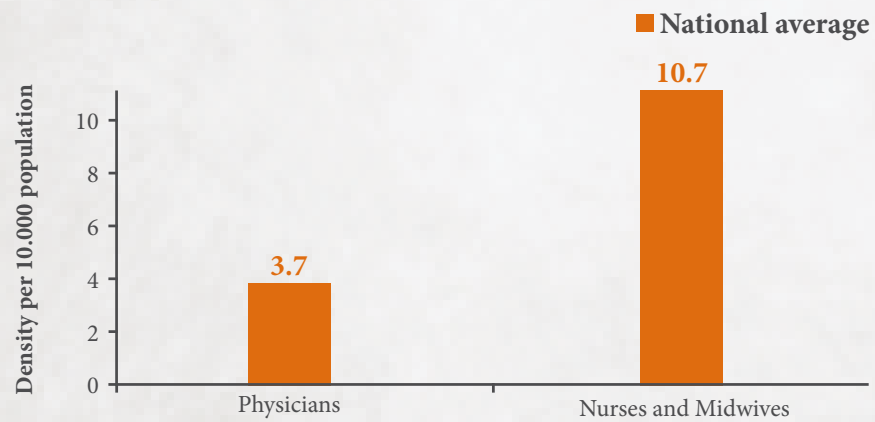
Niger

Niger reported having an inclusive intersectoral coordination mechanism and programmes to increase the production of health workers. However, it still needs a costed and evidence-based HRH plan, a data-sharing platform to influence policy-making, and strategies to retain the health workforce in underserved areas of the country, a finding in keeping with the very high disparity in urban–rural distribution of physicians, nurses and midwives.

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Country description

| Continent	Africa
Population (in thousands)[1]	14 704
Gross national income per capita ($)[2]	680
Adult literacy rate (%)[1]	28.7
Life expectancy at birth (years)[1]	52
Infant mortality rate (per 1,000 live birth)[1]	79
Under-5 mortality rate (per 1,000 live birth)[1]	167
Maternal mortality ratio (per 100,000 live birth)[1]	820
Per capita total expenditure on health (PPP int. $)[1]	35
Government expenditure on health as percentage of total health expenditure[1]	52.8
Government expenditure on health as percentage of total govt. expenditure[1]	12.4
Hospital beds (per 10,000 population)[1]	3
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	1.6
Density of physicians (per 10,000 population)[3]	0.2
Density of nurses and midwives (per 10,000 population)[3]	1.4

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Density per 10.000 population — Urban / Rural

- Physicians: Urban 1.2, Rural 0.04
- Nurses and Midwives: Urban 9.4, Rural 0.7

Indicator	Progress in percentage
HRH planning	20
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	0
Well functioning HRH information system	86
Programmes to increase production of health workforce	100
Strategies to retain workforce in underserved areas	75
Policies to favour in-country retention	60
Additional investment in health workforce	40
Additional investment from partners	100
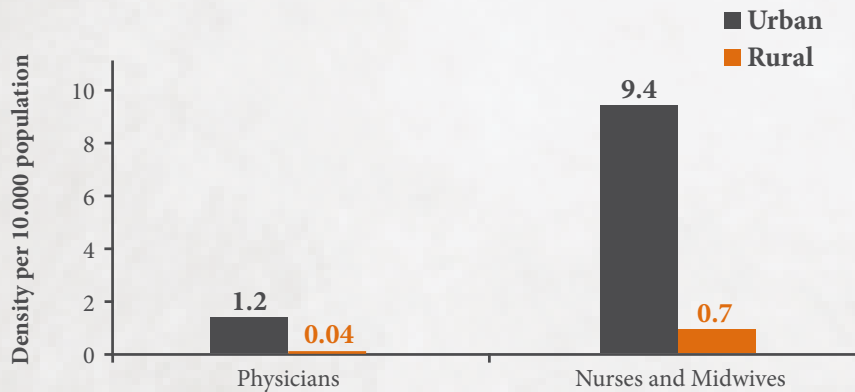
Nigeria

Nigeria reported good performance on most HRH domains. It could make further progress by strengthening its HRH information system and making additional investments in HRH. The country may analyse and address the reasons why an apparently favourable HRH policy and governance environment are not translating into improved health outcomes*.
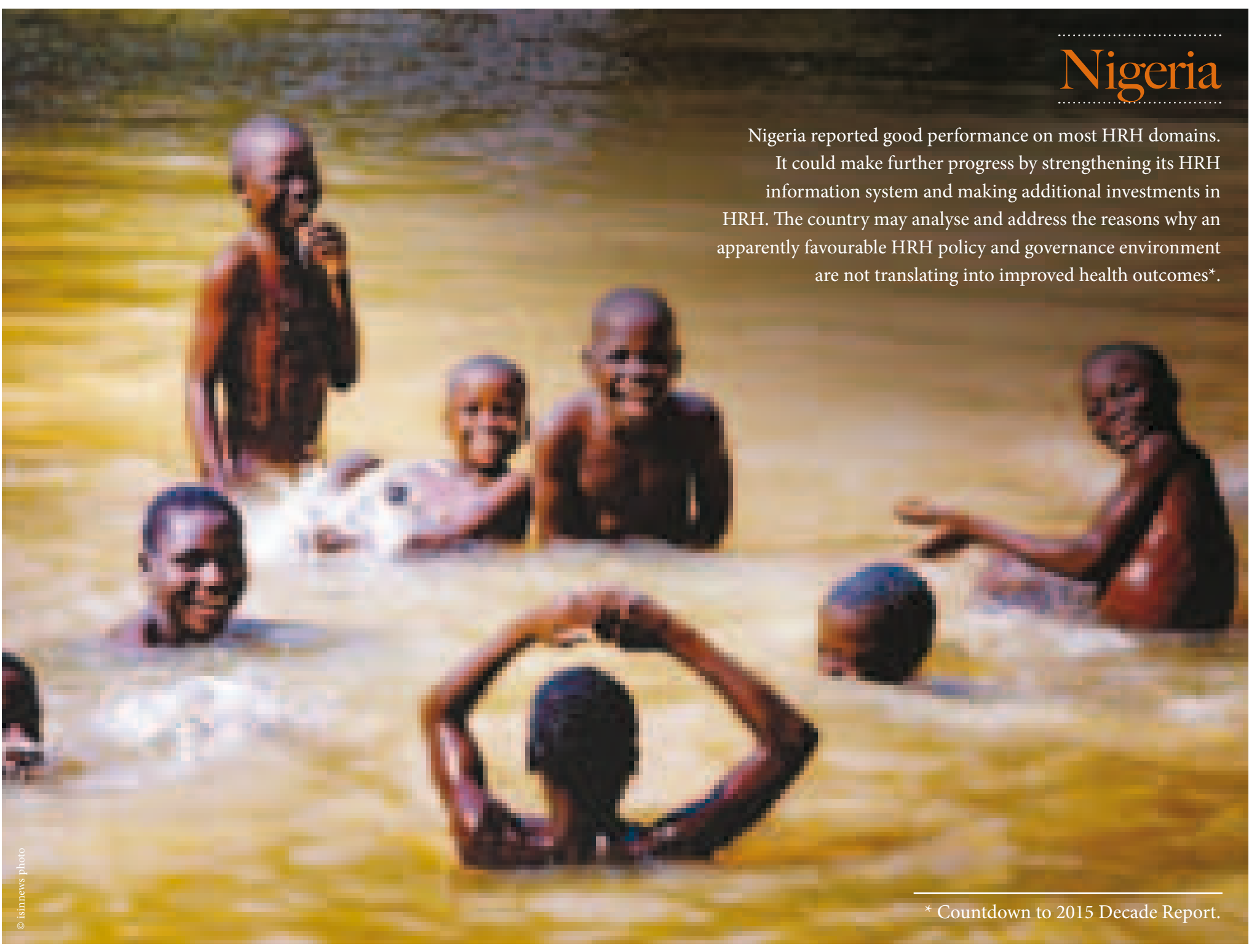
* Countdown to 2015 Decade Report.

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Country description

Continent	Africa
Population (in thousands)[1]	151 212
Gross national income per capita ($)[2]	1 980
Adult literacy rate (%)[1]	72
Life expectancy at birth (years)[1]	49
Infant mortality rate (per 1,000 live birth)[1]	96
Under-5 mortality rate (per 1,000 live birth)[1]	186
Maternal mortality ratio (per 100,000 live birth)[1]	840
Per capita total expenditure on health (PPP int. $)[1]	131
Government expenditure on health as percentage of total health expenditure[1]	25.3
Government expenditure on health as percentage of total govt. expenditure[1]	6.5
Hospital beds (per 10,000 population)[1]	5
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	20.1
Density of physicians (per 10,000 population)[3]	4.0
Density of nurses and midwives (per 10,000 population)[3]	16.1

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ **National average**
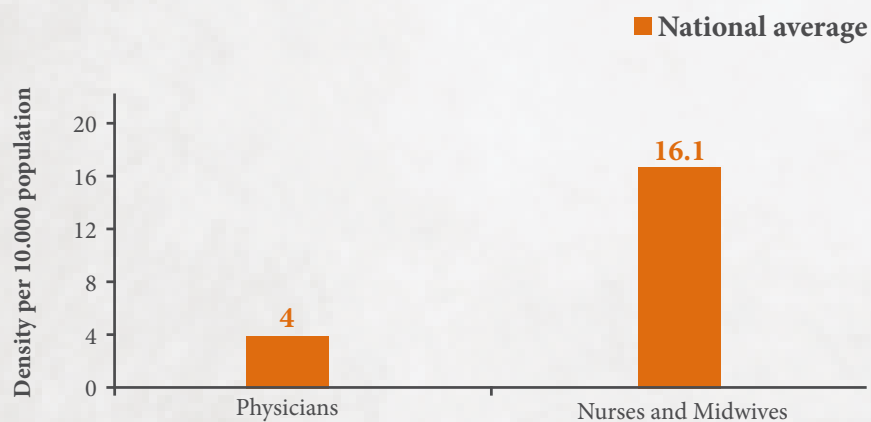
Score for individual AGA progress indicators
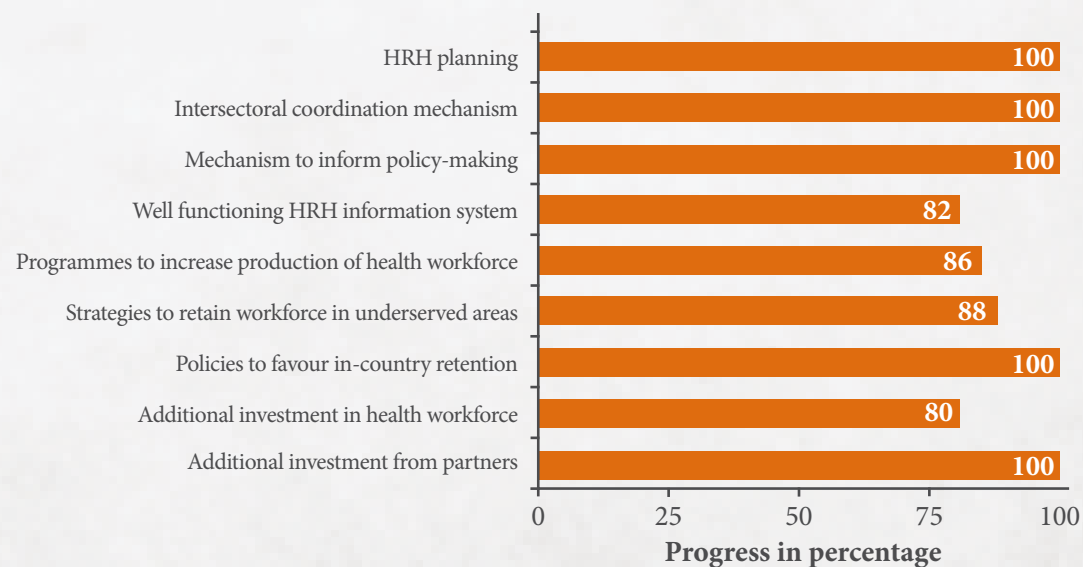
Pakistan

Pakistan reports receiving good donor support for its HRH development priorities. It is working to increase production of health workers and to develop a functioning HRH information system. However, it could improve other aspects such as stakeholder participation in HRH coordination processes, and developing and implementing policies to retain its health workforce, in both urban and rural areas. The composition of its health workforce is currently skewed towards physicians, which should be balanced by investing more in other categories of health workers.

Country description

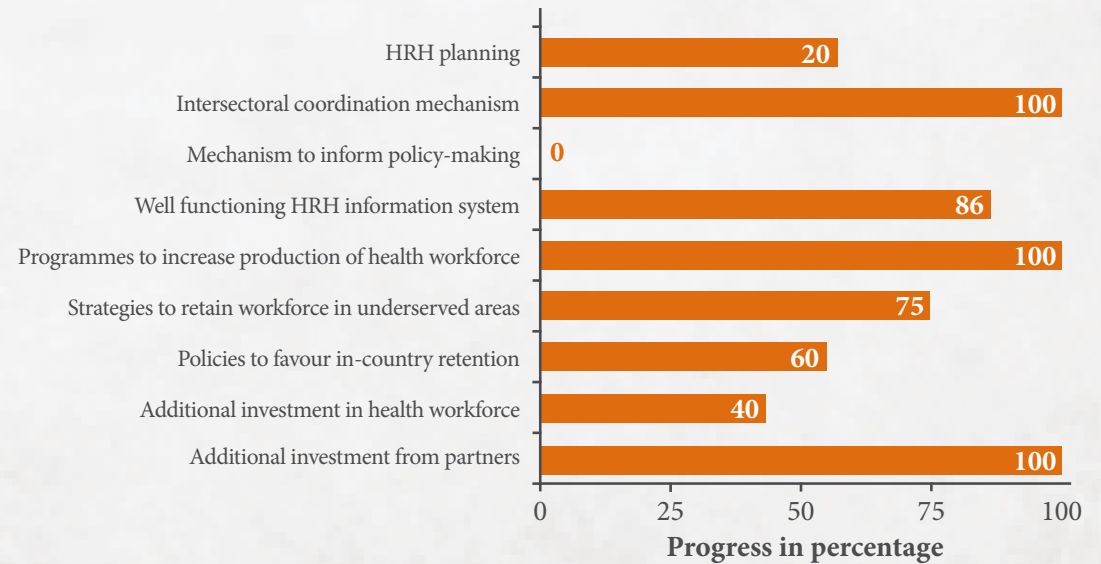|	
Continent	Asia
Population (in thousands)[1]	176 952
Gross national income per capita ($)[2]	2 590
Adult literacy rate (%)[1]	54.2
Life expectancy at birth (years)[1]	63
Infant mortality rate (per 1,000 live birth)[1]	72
Under-5 mortality rate (per 1,000 live birth)[1]	89
Maternal mortality ratio (per 100,000 live birth)[1]	260
Per capita total expenditure on health (PPP int. $)[1]	64
Government expenditure on health as percentage of total health expenditure[1]	30.0
Government expenditure on health as percentage of total govt. expenditure[1]	3.5
Hospital beds (per 10,000 population)[1]	20
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	11.6
Density of physicians (per 10,000 population)[3]	7.8
Density of nurses and midwives (per 10,000 population)[3]	3.8

PPP int. $, international dollar purchasing power parity.
Source:
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce
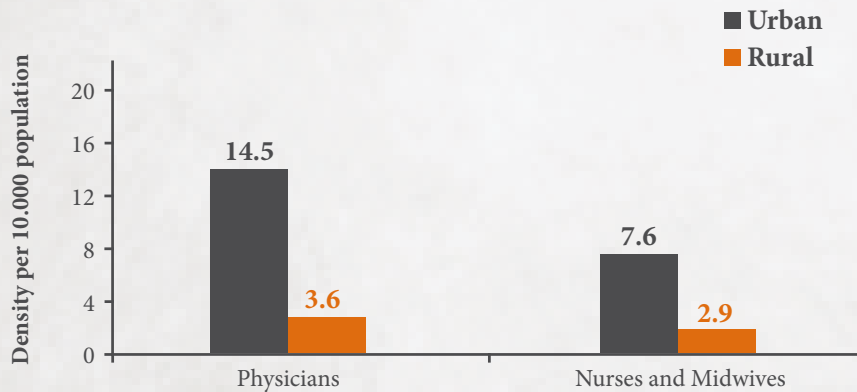
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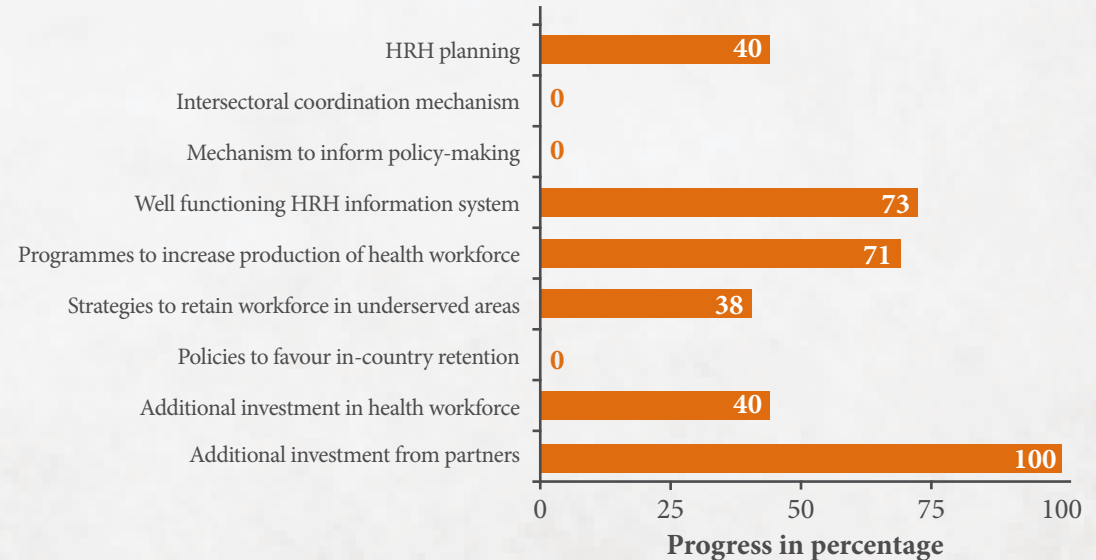
Papua New Guinea

Papua New Guinea reported good performance against most indicators, including its HRH coordination structures, and the production and deployment of health workers. It could still strengthen its HRH plan (e.g. by costing it) and information system, develop an institutional mechanism to inform policy-makers, and bolster efforts aimed at rural retention of health workers.

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Country description

| Continent	Oceania
Population (in thousands)[1]	6 577
Gross national income per capita ($)[2]	2 180
Adult literacy rate (%)[1]	57.8
Life expectancy at birth (years)[1]	62
Infant mortality rate (per 1,000 live birth)[1]	53
Under-5 mortality rate (per 1,000 live birth)[1]	69
Maternal mortality ratio (per 100,000 live birth)[1]	250
Per capita total expenditure on health (PPP int. $)[1]	65
Government expenditure on health as percentage of total health expenditure[1]	81.3
Government expenditure on health as percentage of total govt. expenditure[1]	7.3
Hospital beds (per 10,000 population)[1]	NA
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	5.8
Density of physicians (per 10,000 population)[3]	0.5
Density of nurses and midwives (per 10,000 population)[3]	5.3

PPP int. $, international dollar purchasing power parity.
NA, not available

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ National average
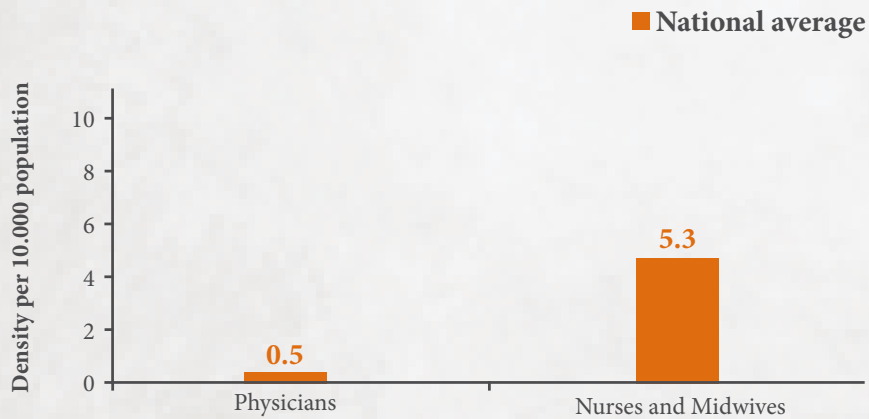
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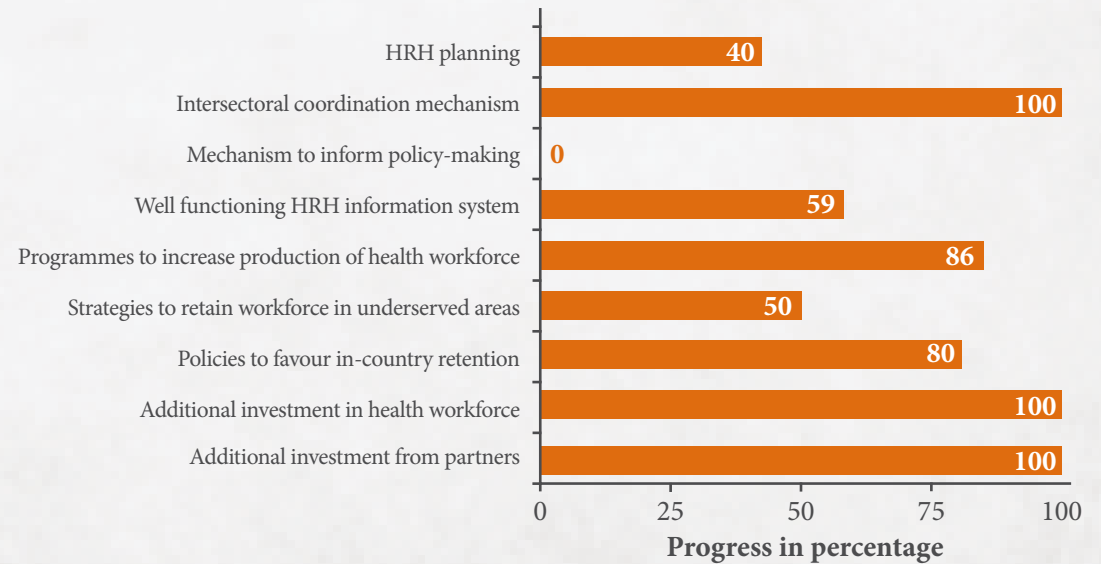
Peru

Peru reported the presence of a mechanism to share data and inform policy-makers, and fairly good performance in retaining its health workers in rural areas. It could further improve its HRH planning and information system, and intensify efforts in securing additional investment in HRH from both domestic and international sources.

© istock Photo

Country description

| Continent	South America
Population (in thousands)[1]	28 837
Gross national income per capita ($)[2]	7 960
Adult literacy rate (%)[1]	89.6
Life expectancy at birth (years)[1]	76
Infant mortality rate (per 1,000 live birth)[1]	22
Under-5 mortality rate (per 1,000 live birth)[1]	24
Maternal mortality ratio (per 100,000 live birth)[1]	98
Per capita total expenditure on health (PPP int. $)[1]	327
Government expenditure on health as percentage of total health expenditure[1]	58.4
Government expenditure on health as percentage of total govt. expenditure[1]	15.6
Hospital beds (per 10,000 population)[1]	15
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	18.4
Density of physicians (per 10,000 population)[3]	11.7
Density of nurses and midwives (per 10,000 population)[3]	6.7

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ National average
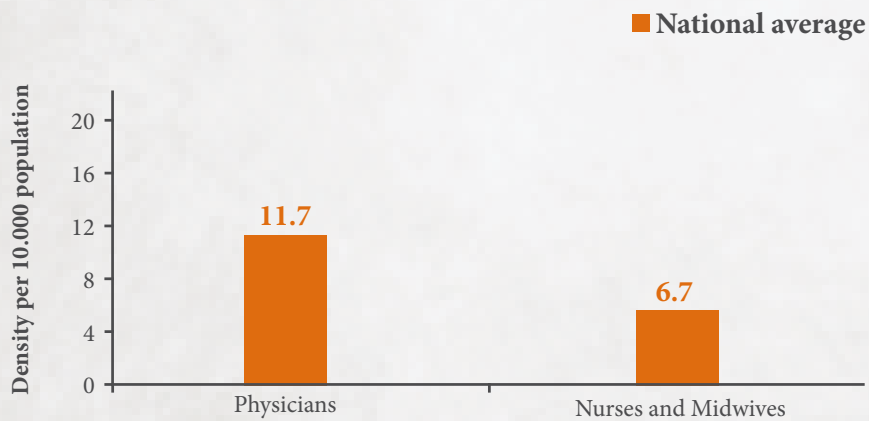
Score for individual AGA progress indicators
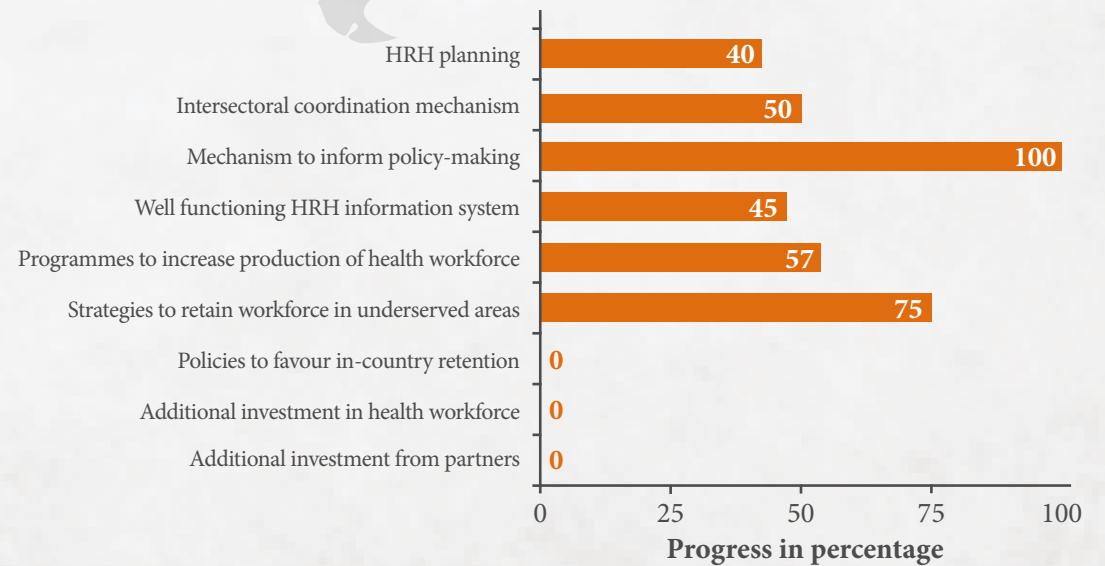
Rwanda

Rwanda reported very good progress on most indicators, including its HRH planning and coordination processes, its information systems, and efforts and investments to scale up the production and deployment of health workers. The latter has also benefited from the support of development partners. Rwanda could still bolster its in-country retention efforts in order to optimize the returns from its investment in HRH.

© WHO

Country description

| Continent	Africa
Population (in thousands)[1]	9 721
Gross national income per capita ($)[2]	1 020
Adult literacy rate (%)[1]	64.9
Life expectancy at birth (years)[1]	58
Infant mortality rate (per 1,000 live birth)[1]	72
Under-5 mortality rate (per 1,000 live birth)[1]	112
Maternal mortality ratio (per 100,000 live birth)[1]	540
Per capita total expenditure on health (PPP int. $)[1]	95
Government expenditure on health as percentage of total health expenditure[1]	47.0
Government expenditure on health as percentage of total govt. expenditure[1]	19.5
Hospital beds (per 10,000 population)[1]	17
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	4.7
Density of physicians (per 10,000 population)[3]	0.2
Density of nurses and midwives (per 10,000 population)[3]	4.5

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ **National average**
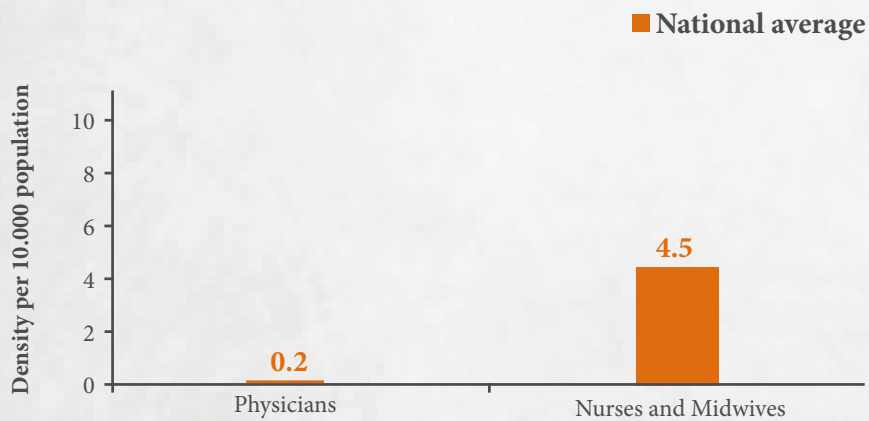
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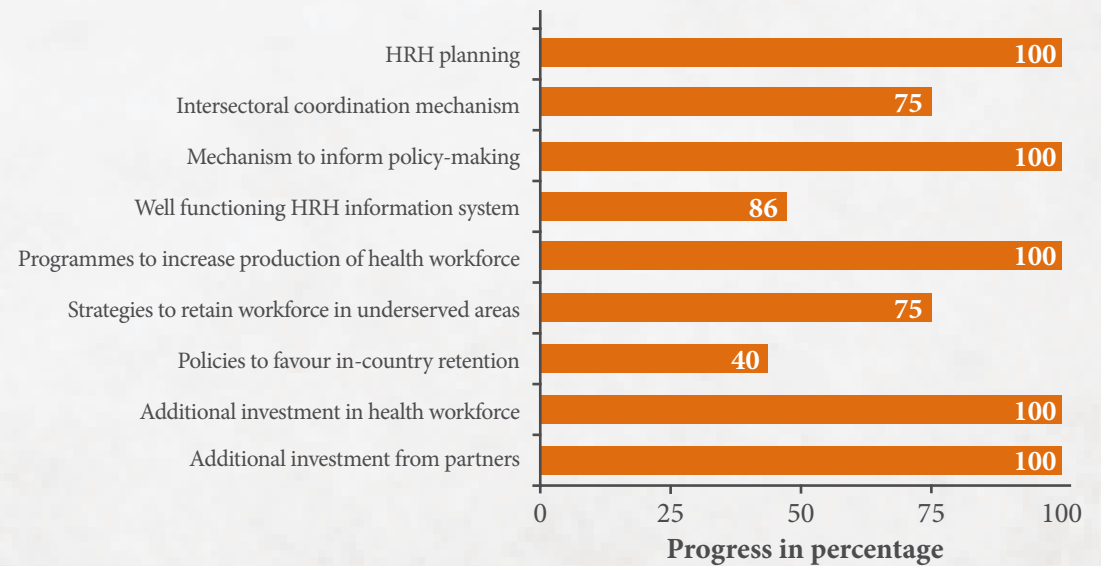
Senegal

Senegal reported good performance in relation to the allocation of additional resources for HRH and the production of more health workers. However, the country requires an evidence-based and costed HRH plan, and an intersectoral coordination mechanism involving other stakeholders and development partners. By addressing these elements, Senegal will be more likely to succeed in attracting donor support for its HRH priorities.

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Country description

Continent	Africa
Population (in thousands)[1]	12 211
Gross national income per capita ($)[2]	1 780
Adult literacy rate (%)[1]	41.9
Life expectancy at birth (years)[1]	59
Infant mortality rate (per 1,000 live birth)[1]	57
Under-5 mortality rate (per 1,000 live birth)[1]	108
Maternal mortality ratio (per 100,000 live birth)[1]	410
Per capita total expenditure on health (PPP int. $)[1]	99
Government expenditure on health as percentage of total health expenditure[1]	56.0
Government expenditure on health as percentage of total govt. expenditure[1]	12.1
Hospital beds (per 10,000 population)[1]	3
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	4.8
Density of physicians (per 10,000 population)[3]	0.6
Density of nurses and midwives (per 10,000 population)[3]	4.2

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ **National average**
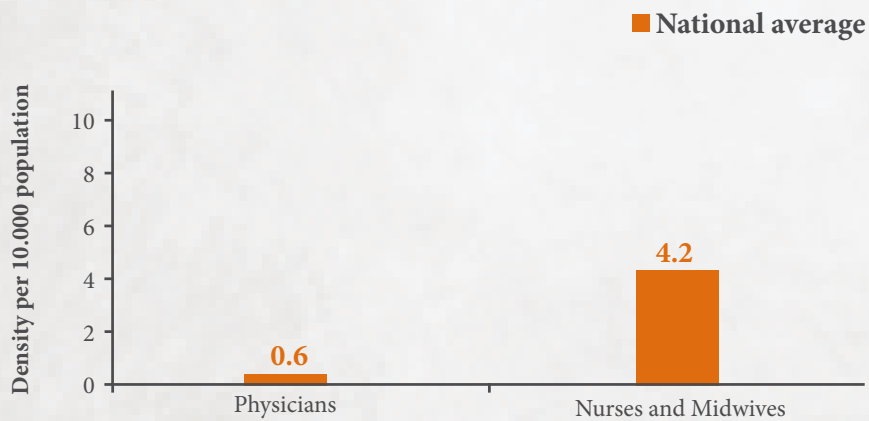
Score for individual AGA progress indicators

Sierra Leone

At the time when this report was prepared, responses to the questionnaire used for the survey were not yet available for Sierra Leone.

Country description

Continent	Africa
Population (in thousands)[1]	5 560
Gross national income per capita ($)[2]	770
Adult literacy rate (%)[1]	38.1
Life expectancy at birth (years)[1]	49
Infant mortality rate (per 1,000 live birth)[1]	123
Under-5 mortality rate (per 1,000 live birth)[1]	194
Maternal mortality ratio (per 100,000 live birth)[1]	970
Per capita total expenditure on health (PPP int. $)[1]	32
Government expenditure on health as percentage of total health expenditure[1]	31.3
Government expenditure on health as percentage of total govt. expenditure[1]	7.8
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	1.9
Density of physicians (per 10,000 population)[3]	0.2
Density of nurses and midwives (per 10,000 population)[3]	1.7

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

Not available.

■ **National average**

151
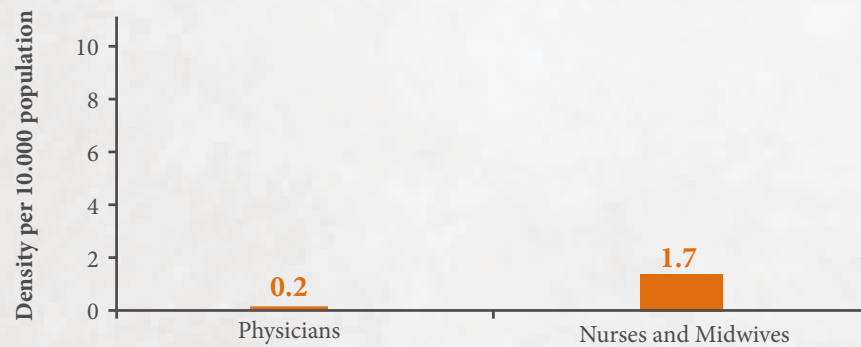
Somalia

Somalia reported increased investment in the health workforce and establishing programmes to increase their education and training. However, it may consider additional efforts by developing an HRH plan, a national mechanism to inform policy-makers, putting in place measures to ensure in-country retention, and securing donor support for its HRH development needs.

© World Bank/Arni Vitale

Country description

| Continent	Africa
Population (in thousands)[1]	8 926
Gross national income per capita ($)[2]	NA
Adult literacy rate (%)[1]	NA
Life expectancy at birth (years)[1]	48
Infant mortality rate (per 1,000 live birth)[1]	119
Under-5 mortality rate (per 1,000 live birth)[1]	200
Maternal mortality ratio (per 100,000 live birth)[1]	1 200
Per capita total expenditure on health (PPP int. $)[1]	NA
Government expenditure on health as percentage of total health expenditure[1]	NA
Government expenditure on health as percentage of total govt. expenditure[1]	NA
Hospital beds (per 10,000 population)[1]	NA
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	1.5
Density of physicians (per 10,000 population)[3]	0.4
Density of nurses and midwives (per 10,000 population)[3]	1.1

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**

Togo

Togo reported good performance across most indicators, having a costed HRH plan, an inclusive coordination structure, and additional domestic and international resources to scale up the production and deployment of health workers. It needs to sustain these efforts, considering the low baseline availability of physicians, nurses and midwives. It could also intensify further its efforts in retaining health workers in underserved areas, and consider the establishment of a national mechanism to inform policy-makers.

Country description

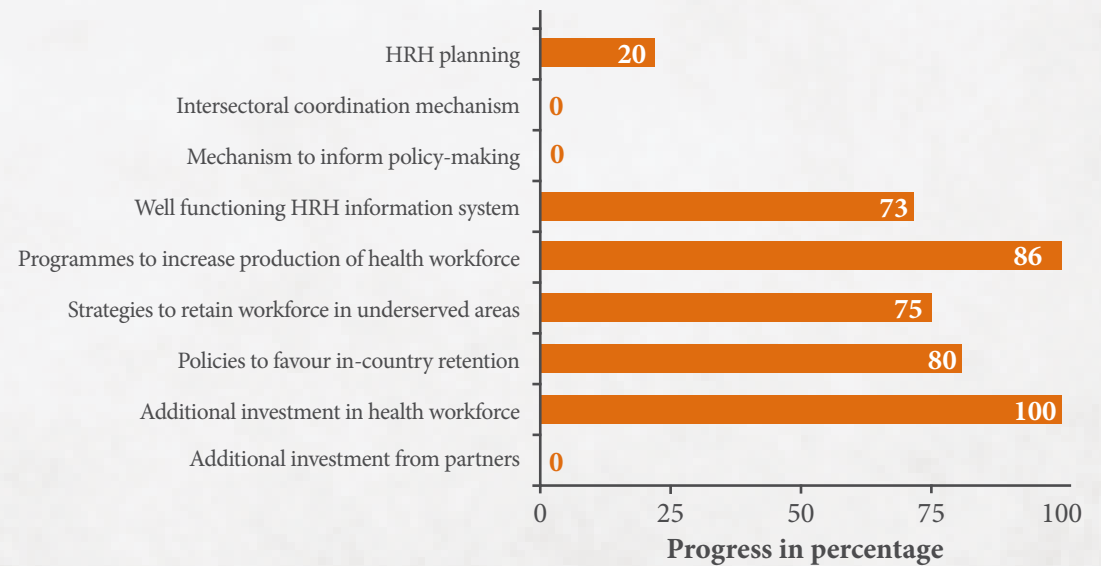| Continent	Africa
Population (in thousands)[1]	6 459
Gross national income per capita ($)[2]	840
Adult literacy rate (%)[1]	53.2
Life expectancy at birth (years)[1]	59
Infant mortality rate (per 1,000 live birth)[1]	64
Under-5 mortality rate (per 1,000 live birth)[1]	98
Maternal mortality ratio (per 100,000 live birth)[1]	NA
Per capita total expenditure on health (PPP int. $)[1]	68
Government expenditure on health as percentage of total health expenditure[1]	24.9
Government expenditure on health as percentage of total govt. expenditure[1]	7.7
Hospital beds (per 10,000 population)[1]	9
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	3.2
Density of physicians (per 10,000 population)[3]	0.5
Density of nurses and midwives (per 10,000 population)[3]	2.7

PPP int. $, international dollar purchasing power parity.
**Source:**
- .   [1] WHO: Global Health Observatory;
- .   [2] World Bank: Data;
- .   [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**
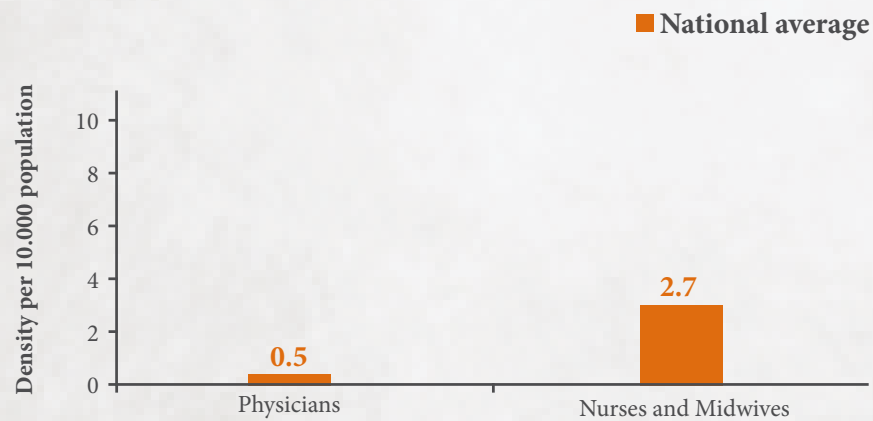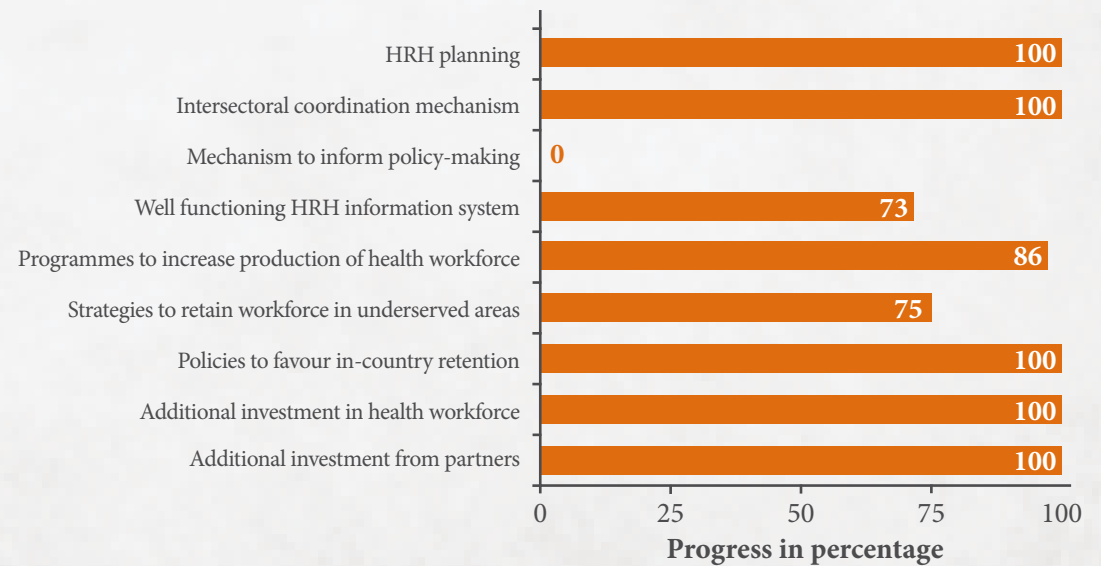
Uganda

Uganda reported good performance on most of the indicators, having a costed and evidence-based HRH plan, an inclusive coordination structure, and increased investment of both domestic and international resources in the production, deployment and retention of its health workforce. Its main area for future improvement is in relation to information systems to support HRH policy decisions and interventions.

© UN Photo/G. Piozzi

Country description

Continent	Africa
Population (in thousands)[1]	31 657
Gross national income per capita ($)[2]	1 130
Adult literacy rate (%)[1]	73.6
Life expectancy at birth (years)[1]	52
Infant mortality rate (per 1,000 live birth)[1]	84
Under-5 mortality rate (per 1,000 live birth)[1]	135
Maternal mortality ratio (per 100,000 live birth)[1]	430
Per capita total expenditure on health (PPP int. $)[1]	74
Government expenditure on health as percentage of total health expenditure[1]	26.2
Government expenditure on health as percentage of total govt. expenditure[1]	9.8
Hospital beds (per 10,000 population)[1]	4
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	14.3
Density of physicians (per 10,000 population)[3]	1.2
Density of nurses and midwives (per 10,000 population)[3]	13.1

PPP int. $, international dollar purchasing power parity.
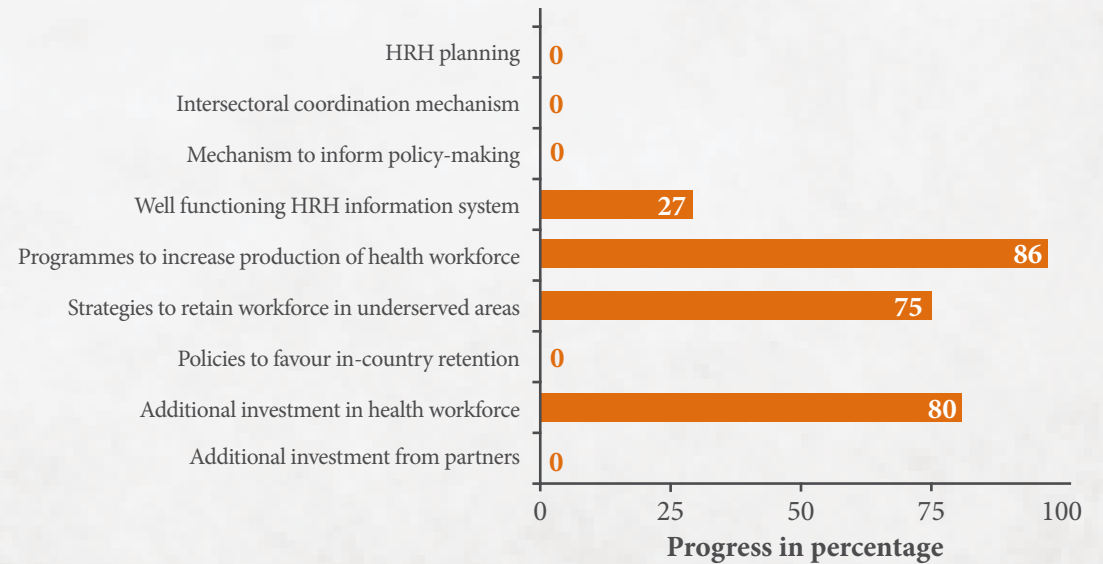**Source:**
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce

■ **National average**
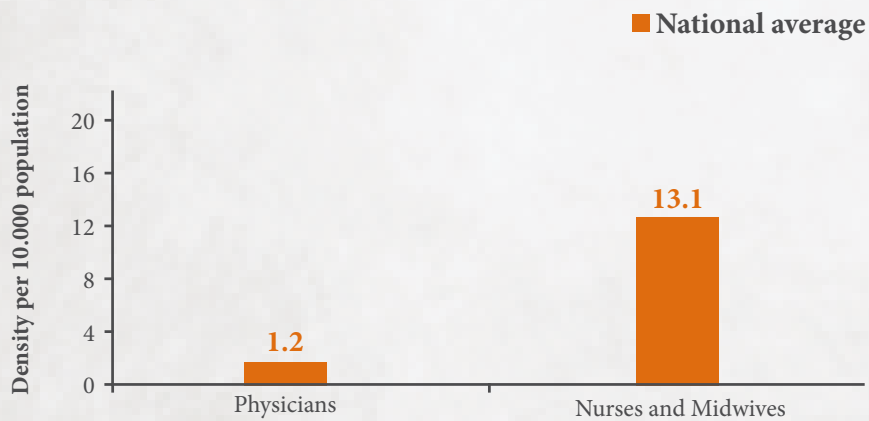
Score for individual AGA progress indicators
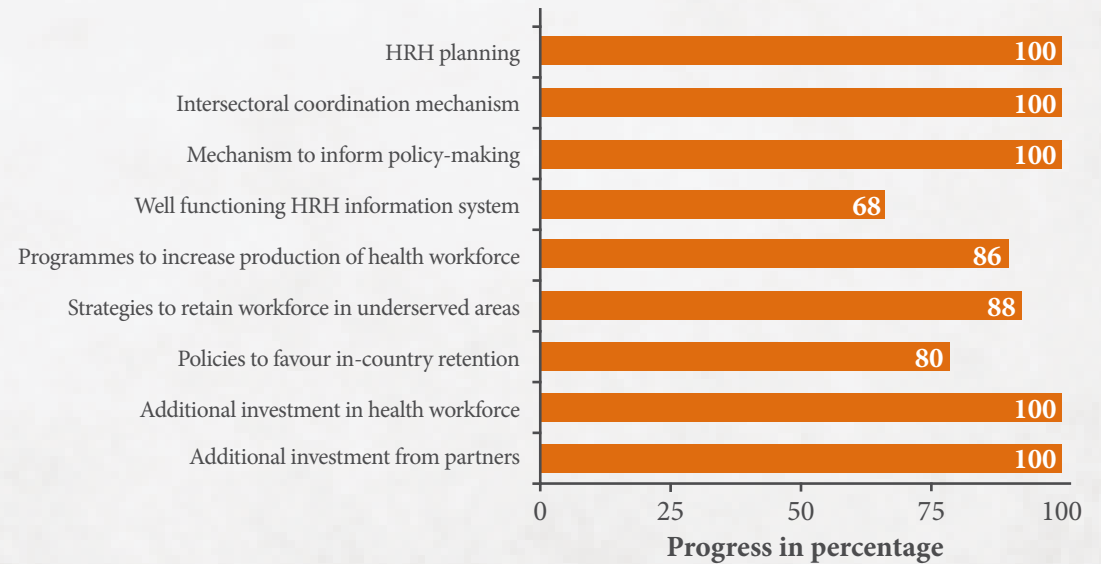
United Republic of Tanzania

The United Republic of Tanzania reported very good progress in most HRH domains, having a costed and evidence-based HRH plan, an inclusive coordination structure, and increased investment of both domestic and international resources in the production, deployment and retention of its health workforce. Information systems are the main area requiring additional attention and support.

© istock Photo

Country description

| Continent	Africa
Population (in thousands)[1]	42 484
Gross national income per capita ($)[2]	1 300
Adult literacy rate (%)[1]	72.3
Life expectancy at birth (years)[1]	53
Infant mortality rate (per 1,000 live birth)[1]	67
Under-5 mortality rate (per 1,000 live birth)[1]	103
Maternal mortality ratio (per 100,000 live birth)[1]	790
Per capita total expenditure on health (PPP int. $)[1]	63
Government expenditure on health as percentage of total health expenditure[1]	65.8
Government expenditure on health as percentage of total govt. expenditure[1]	18.4
Hospital beds (per 10,000 population)[1]	9
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	2.5
Density of physicians (per 10,000 population)[3]	0.1
Density of nurses and midwives (per 10,000 population)[3]	2.4

PPP int. $, international dollar purchasing power parity.
Source:
. [1] WHO: Global Health Observatory;
. [2] World Bank: Data;
. [3] WHO: Global Atlas of the Health Workforce

■ Urban
■ Rural

Density per 10.000 population

Physicians: 0.4 / 0.04
Nurses and Midwives: 2.6 / 1.2

Score for individual AGA progress indicators

Indicator	Progress in percentage
HRH planning	100
Intersectoral coordination mechanism	100
Mechanism to inform policy-making	100
Well functioning HRH information system	68
Programmes to increase production of health workforce	86
Strategies to retain workforce in underserved areas	88
Policies to favour in-country retention	80
Additional investment in health workforce	80
Additional investment from partners	100
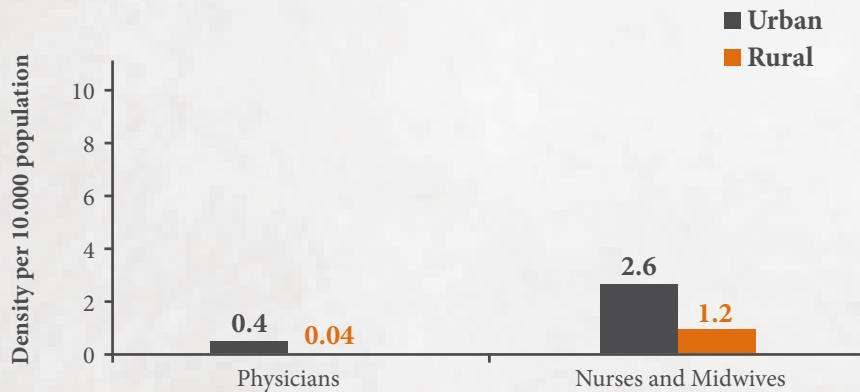
Yemen

Yemen reported good progress in scaling up health worker education, in securing donor support and establishing an HRH information system. It could make further progress by developing a costed and evidence-based HRH plan, an intersectoral coordination mechanism and by bolstering its strategies to retain staff in underserved areas.

© Dreamstime Photo

Country description

Continent	Asia
Population (in thousands)[1]	22 917
Gross national income per capita ($)[2]	2 220
Adult literacy rate (%)[1]	58.9
Life expectancy at birth (years)[1]	64
Infant mortality rate (per 1,000 live birth)[1]	53
Under-5 mortality rate (per 1,000 live birth)[1]	69
Maternal mortality ratio (per 100,000 live birth)[1]	210
Per capita total expenditure on health (PPP int. $)[1]	104
Government expenditure on health as percentage of total health expenditure[1]	39.6
Government expenditure on health as percentage of total govt. expenditure[1]	4.5
Hospital beds (per 10,000 population)[1]	7
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	9.9
Density of physicians (per 10,000 population)[3]	3.3
Density of nurses and midwives (per 10,000 population)[3]	6.6

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ National average
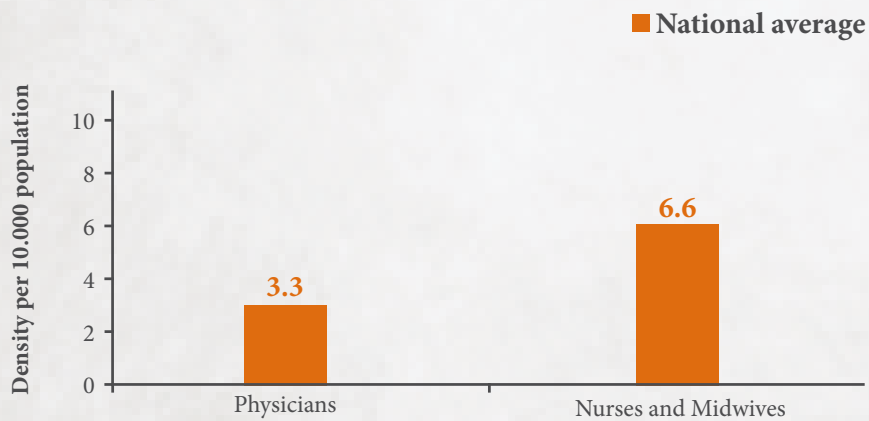
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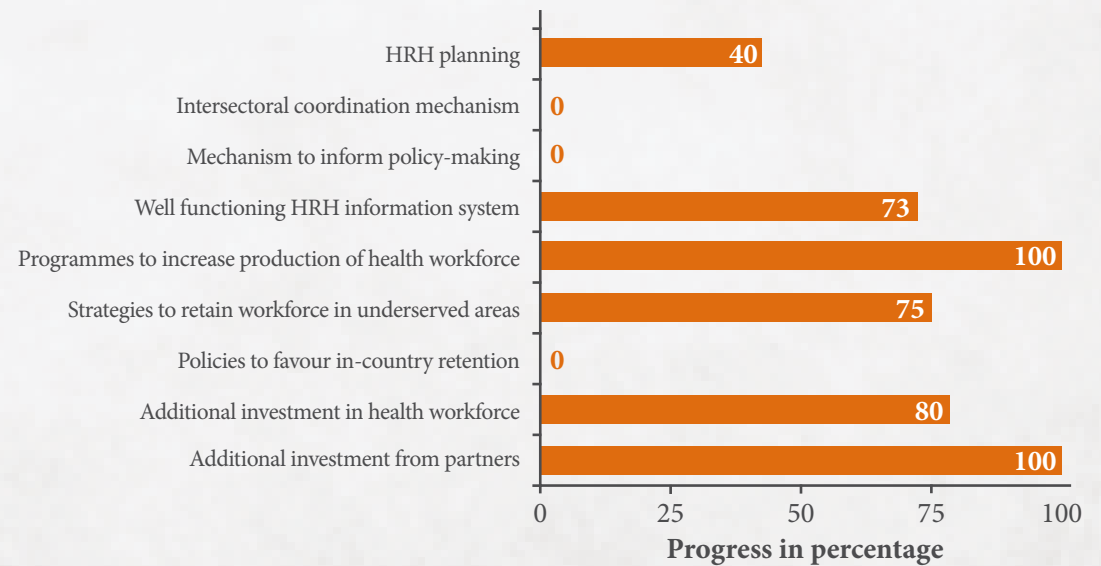
Zambia

Zambia reported very good performance against most indicators, including its HRH plan, coordination structures, mechanisms to inform policy-making, and strategies to scale up the production, deployment and retention of health workers. Its main area requiring further improvement is in relation to HRH information systems.

Country description

Continent	Africa
Population (in thousands)[1]	12 620
Gross national income per capita ($)[2]	1 230
Adult literacy rate (%)[1]	70.6
Life expectancy at birth (years)[1]	48
Infant mortality rate (per 1,000 live birth)[1]	29
Under-5 mortality rate (per 1,000 live birth)[1]	148
Maternal mortality ratio (per 100,000 live birth)[1]	470
Per capita total expenditure on health (PPP int. $)[1]	79
Government expenditure on health as percentage of total health expenditure[1]	57.7
Government expenditure on health as percentage of total govt. expenditure[1]	14.5
Hospital beds (per 10,000 population)[1]	19
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	7.7
Density of physicians (per 10,000 population)[3]	0.6
Density of nurses and midwives (per 10,000 population)[3]	7.1

PPP int. $, international dollar purchasing power parity.
Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

■ National average
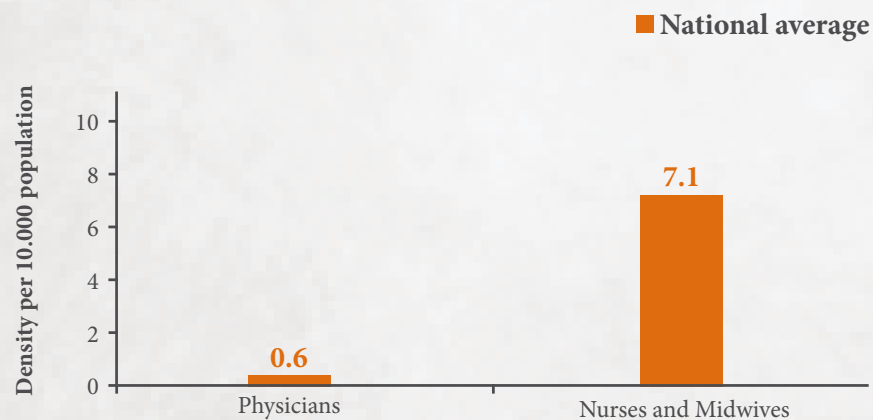
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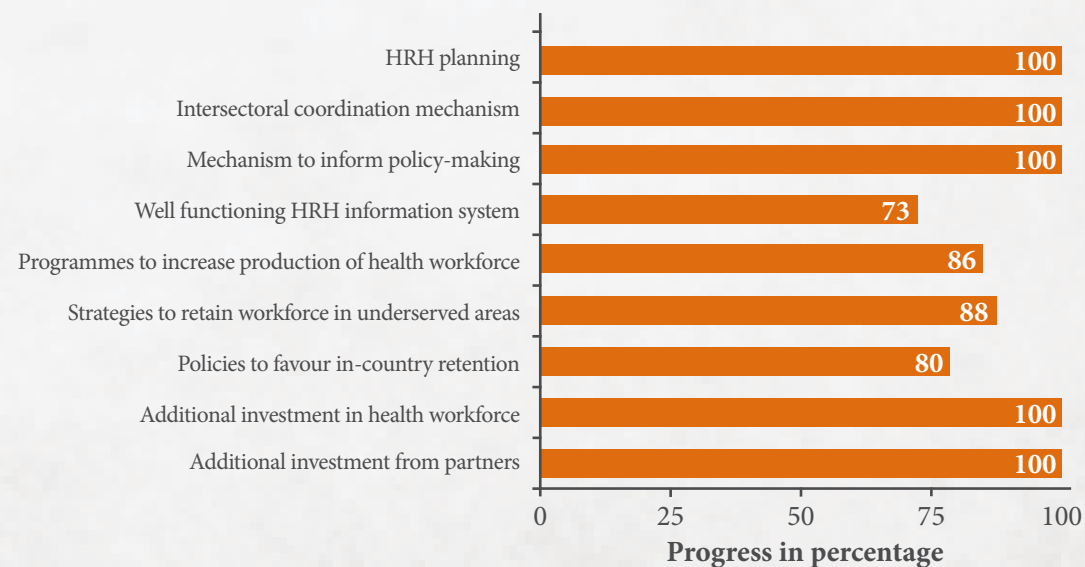
Zimbabwe

Zimbabwe reported good performance on most of the indicators, including its HRH planning and coordination. The main areas requiring further attention are the development of a mechanism for informing policy-making, the scaling up of health worker education, and strategies to favour rural retention.

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Country description

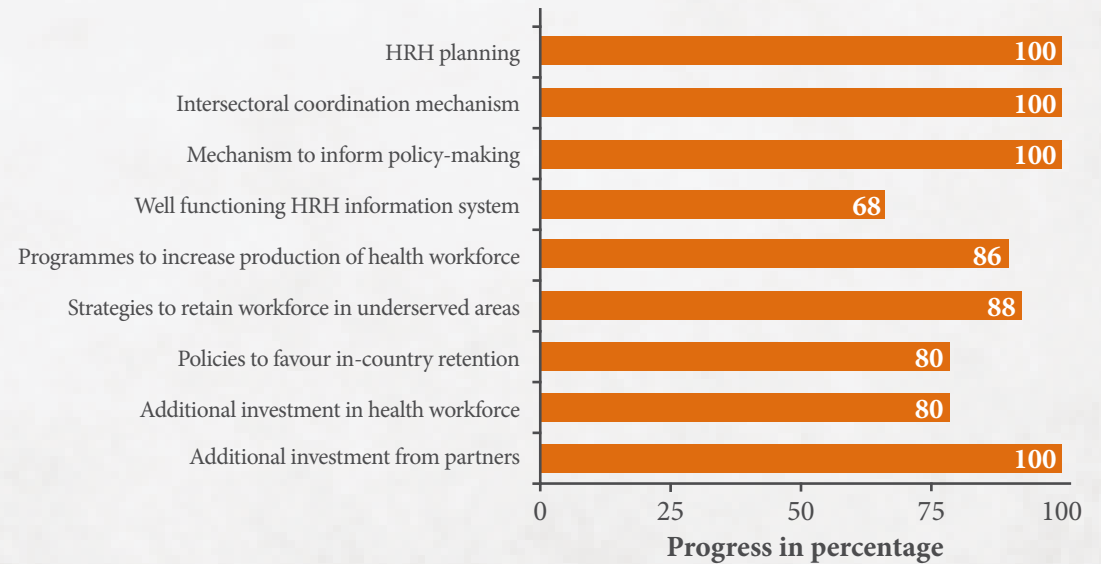| Continent	Africa
Population (in thousands)[1]	12 463
Gross national income per capita ($)[2]	NA
Adult literacy rate (%)[1]	91.2
Life expectancy at birth (years)[1]	42
Infant mortality rate (per 1,000 live birth)[1]	62
Under-5 mortality rate (per 1,000 live birth)[1]	96
Maternal mortality ratio (per 100,000 live birth)[1]	790
Per capita total expenditure on health (PPP int. $)[1]	20
Government expenditure on health as percentage of total health expenditure[1]	46.3
Government expenditure on health as percentage of total govt. expenditure[1]	8.9
Hospital beds (per 10,000 population)[1]	30
HRH (physicians, nurses and midwives) density (per 10,000 population)[3]	8.8
Density of physicians (per 10,000 population)[3]	1.6
Density of nurses and midwives (per 10,000 population)[3]	7.2

PPP int. $, international dollar purchasing power parity.

Source:
- [1] WHO: Global Health Observatory;
- [2] World Bank: Data;
- [3] WHO: Global Atlas of the Health Workforce

Score for individual AGA progress indicators

■ **National average**
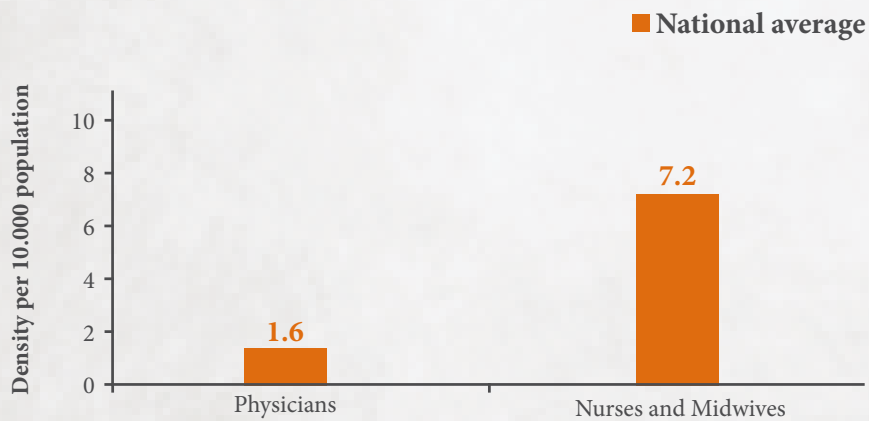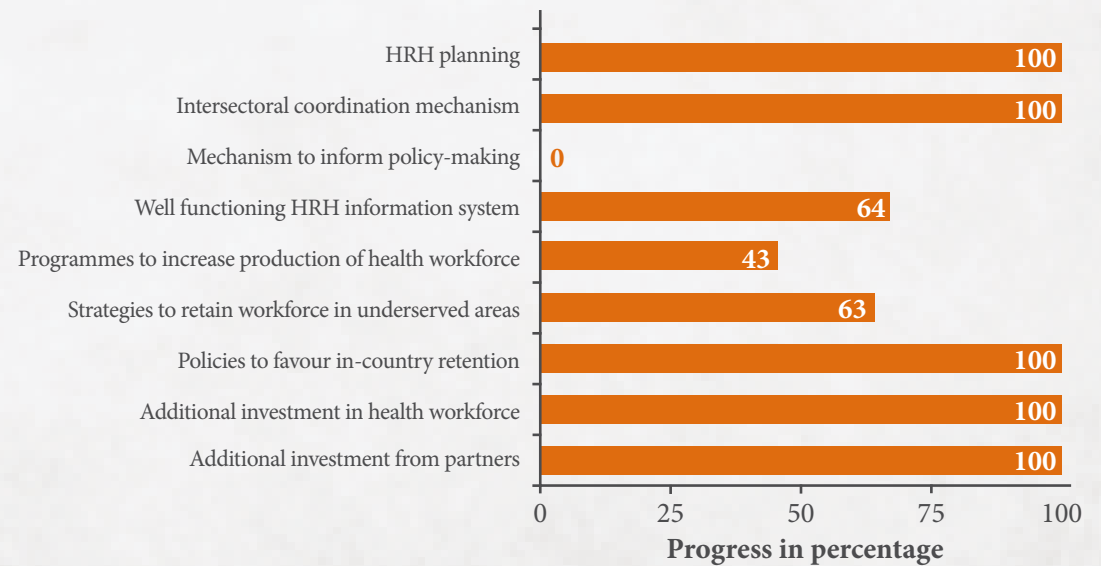
References

- Action for Global Health (2010) "Health workers urgently needed to reach the Health MDGs", Briefing Paper, September.
- Alliance (Global Health Workforce Alliance) (2008a) "The Kampala Declaration and Agenda for Global Action", Geneva: WHO.
- Alliance (Global Health Workforce Alliance) (2008b) "Scaling up, Saving Lives", Task Force for Scaling up Education and Training for Health Workers. Geneva: WHO.
- Alliance (Global Health Workforce Alliance) (2009a) "Financing and economic aspects of health workforce scale-up and improvement: framework paper", Task Force for Human Resources and Health Financing. Geneva: WHO.
- Alliance (Global Health Workforce Alliance) (2009b) "Resource Requirement Tool" Task Force for Human Resources and Health Financing. Geneva: WHO, GHWA. http://www.who.int/workforcealliance/knowledge/publications/taskforces/ftfproducts/en/index.html
- Alliance (Global Health Workforce Alliance) (2010) Global experience of community health workers for delivery of health-related Millennium Development Goals. Geneva. Anand, S. and Bärnighausen, T. (2004) "Human resources and health outcomes: cross-country econometric study", Lancet, 364: 1603–09.
- Anand, S. and Bärnighausen, T. (2007) "Health workers and vaccination coverage in developing countries: an econometric analysis", Lancet, 369: 1277–85.
- Blaauw, D., Erasmus, E., Pagaiya, N., Tangcharoensathein, V., Mullei, K., Mudhune, S., Goodman, C., English, M., and Lagard, M. (2010) "Policy interventions that attract nurses to rural areas: a multicountry discrete choice experiment", Bulletin of the World Health Organization, 88: 350-356.
- Bossert, T.J. and Ono, T. (2010) Finding Affordable Health Workforce Targets In Low-Income Nations. Health Affairs, 29(7): 1376-82.
- DFID/USAID (2010) "Taking Forward Action on Human Resources for Health in Ethiopia, Kenya, Mozambique and Zambia: Synthesis and Measures of Success". Available at www.who.int
- EU (2008) "Green Paper on the European Workforce for Health", COM/2008/0725, Brussels, 10 December.
- Gupta, N. (2010) "Identifying and integrating potential data sources of a comprehensive health workforce information system", Department of Human Resources for Health. Geneva: WHO.
- High Level Task Force on International Innovative Financing for Health Systems (2009). Report of Working Group 1: Constraints to Scaling Up and Costs.
- Huicho, L. et al. (2010) Increasing access to health workers in underserved areas: a conceptual framework for measuring results, Bulletin of the World Health Organization, 88(5): 321–400.
- International Health Partnership (2010) "Taking Forward Action on Human Resources for Health in Ethiopia, Kenya, Mozambique and Zambia: Synthesis and Measures of Success", IHP+ briefing note, January.
- International Health Partnership (2007) "A Global Compact for Achieving the Health Millennium Development Goals" London, UK.
- Jack, W. (2008) "Health labor market institutions and incentives in Ethiopia", Berkeley Global Health Workforce Conference, Berkeley, CA.
- Joint Learning Initiative (2004) Human Resources for Health: Overcoming the Crisis. Cambridge, MA: Harvard University Press.
- Lehmann U (2008). Mid-level health workers. The state of the evidence on programmes, activities, costs and impact on health outcomes. A literature review. Department of Human Resources for Health: Geneva. http://www.who.int/hrh/MLHW_review_2008.pdf (Accessed 30 July 2010)
- Management Sciences for Health (2010) Evaluation of Malawi's Emergency Human Resources Programme. Department for International Development. Cambridge, USA

- OECD (2010) "International migration of health workers: improving international co-operation to address the global health workforce crisis", Policy brief, February. Paris: OECD/WHO.
- O'Neil, M (2008) Human resource leadership: the key to improved results in health. Human Resources for Health, 6:10doi:10.1186/1478-4491-6-10
- Pallangyo, A. and Bunge, C. (2010) "Managing the Critical Human Resource Gap: Health Worker Information Systems and Standards", Health Metrics Network
- PEPFAR (2009) "Guidance for PEPFAR Partnership Frameworks and Partnership Framework Implementation Plans", Version 2.0. September.
- Preker, A.S., Vujicic, M., Dukhan, Y., Ly, C., Beciu, H. and Materu, P.N. (2007) Scaling Up Health Education: Opportunities and challenges for Africa. Geneva: Global Health Workforce Alliance Task Force on Scaling Up Health Education.
- Shiffbauer, J., O'Brien, J., Timmons, B., and Kiarie, W. (2008) The role of leadership in HRH development in challenging public health settings Human Resources for Health, 6:23 doi:10.1186/1478-4491-6-23.
- UN (2010a) "Access for all to skilled, motivated and supported health workers", Background paper for the Global Strategy for Women's and Children's Health, September, UN Secretary General, New York.
- UN (2010b) "Global Strategy for Women's and Children's Health", September, UN Secretary General, New York.
- UN (2010c) "Financial estimates in the Global Strategy", Background Paper for the Global Strategy for Women's and Children's Health, New York, September.
- USAID (2001) "US Congressional Aid Budget Justification FY 2002: program, performance and prospects – the global health pillar". Washington, DC: USAID.
- WHO (2007) Maternal mortality in 2005: estimates developed by WHO, UNICEF, UNFPA and the World Bank. Geneva: WHO.
- WHO (2006a) "World Health Report 2006: Working Together for Health", WHO Library.
- WHO (2006b) "Fifty-ninth World Health Assembly Rapid Scaling up of Health Workforce Production", World health Assembly Resolution WHA59.23. WHO, Geneva.
- WHO (2008a) "Spotlight on statistics – A fact file on health workforce statistics", 3 March.
- WHO (2008b) "Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines", World Health Report. Geneva: WHO.
- WHO (2009) "Handbook on monitoring and evaluation of human resources for health: with special applications for low- and middle-income countries" WHO Library, produced in collaboration with USAID and the World Bank.
- WHO (2009 b) "Monitoring of the achievement of the health-related Millennium Development Goals", WHA63.15.
- WHO (2010a, forthcoming) "Human Resources for Health Tracking Survey: Policies and practices of countries that are experiencing a crisis in human resources for health". Geneva: WHO.
- WHO (2010b) "Global Code of Practice on the International Recruitment of Health Personnel". Geneva: WHO. Available at http://who.int/hrh/migration/code/full_text/en
- WHO (2010c) "Increased access to health workers in remote and rural areas through improved retention." Available at http://www.who.int/hr/retention/guidelines/en/index.html
- WHO/PMNCH (2009) "Maternal, newborn and child health network for Asia and the Pacific. Investing in maternal, newborn and child health – the case for Asia and the Pacific". Geneva: WHO.

Annex A: Summary of responses to the questionnaire

Table A.1   Summary of responses to the survey questionnaire

Questions	Findings n (%); N=51
Q1 Is there a national Human Resources for Health (HRH) policy OR strategy, OR plan?	44 (86%)
Q2 Have the HRH situation analysis OR HRH report OR HRH related information been used or are currently being used for developing the national HRH policy, strategy, or plan?	43 (84%)
Q3 Has the national HRH policy, strategy, or plan been costed, i.e., it includes HRH program/projects, together with an estimated budget for implementing the plan? Detailed below:	
Q3.1 The national HRH policy, strategy, or plan includes HRH program/projects, but not yet any estimated budget or financial planning	36 (71%)
Q3.2 The national HRH policy, strategy, or plan includes HRH program/projects, together with an estimated budget or financial planning	25 (49%)
Q4 Is the plan being implemented?	29 (57%)
Q5 Is there a national committee in charge of HRH coordination?	33 (65%)
Q6 If yes, are representatives of the following groups included in this national committee:	
Q 6.1 Any of the following public agencies, beside the MOH, is represented at the national HRH committee: MOE, public administration, civil service agencies, or other public agencies; (Answer "yes" if at least one non-MOH representative is represented)	28 (55%)
Q 6.2 Any of the following non-public sector are represented at the national HRH committee: private for profit, private not for profit, community based organizations, faith based organizations, etc; (Answer "yes" if at least one of the above institutions is represented)	24 (47%)
Q 6.3 Either one of external partners such as bilateral or multilateral organizations are represented in the national HRH committee. (Answer "yes" if either one of said organizations is present)	29 (57%)
Q7 Is there a national mechanism, e.g., a HRH Observatory with processes or tools that bring together data users, producers and different stakeholders for evidence-based policy dialogue, sharing information and monitoring or management of the health workforce?	22 (43%)
Q8 Do HRH statistics, at least for public sector, exist on the following issues	
Q8.1 Number of physicians/doctors	49 (96%)
Q8.2 Number of nurses	50 (98%)
Q8.3 Number of midwives	48 (94%)
Q8.4 Number of community health workers	31 (61%)

Questions	Findings n (%); N=51	
Q9 Are HRH statistics regularly updated, i.e., number of times measured in past 3 years, i.e., since 2008?	**1-2 times**	**3 or more times**
Q9.1 Number of physicians/doctors	27 (53%)	19 (37%)
Q9.2 Number of nurses	28 (55%)	19 (37%)
Q9.3 Number of midwives	26 (51%)	19 (37%)
Q9.4 Number of community health workers	21 (41%)	9 (18%)
Q10 Have these statistics been analyzed on the following aspects?		
Q10.1 based on the employment status	41 (80%)	
Q10.2 based on geographical distribution or by areas, i.e., rural and urban	44 (86%)	
Q10.3 based on the migration to other countries	10 (20%)	
Q11 Since 2008, has the country increased training enrolment numbers for the following categories?		
Q11.1 Physicians	47 (92%)	
Q11.2 Nurses	47(92%)	
Q11.3 Midwives	45(88%)	
Q11.4 Community health workers	31 (61%)	
Q12 Since 2008, has there been increased in number of international scholarships from any international agencies or from your government for physicians and nurses to study at both undergraduate and graduate levels?	32 (63%)	
Q13 Since 2008, has the country set up new medical schools or nursing schools?	32 (63%)	
Q14 Have curriculums been developed/ adjusted in response to country health needs during the past 2 years?	35 (69%)	
Q15 Has the country implemented strategies OR approaches for attracting and retaining the health workforce in unders erved areas?	32 (63%)	
Q16 Do you have more vacancies in the public sector either because new facilities have been built, due to retirement or to health workers of the following categories leaving the country, or for any other reasons:		
Q16.1 Physicians	42 (82%)	
Q16.2 Nurses	39 (76%)	
Q16.3 Midwives	38 (75%)	
Q16.4 Community health workers	20(39%)	
Q17 Since 2008, has staffing level in private hospitals increased?	25 (49%)	

Questions	Findings n (%); N=51
Q18 Has there been an increase in the number of new hospitals and health centres in the country?	
Q18.1 in urban areas	41 (80%)
Q18.2 in rural areas	36 (71%)
Q19 Since 2008, has there been an adjustment in salary scale, increase in allowance or increase in benefits for health workers in remote or hardship areas?	32 (63%)
Q20 Since 2008, has there been an improvement in career development for the following categories:	
Q20.1 Physicians	35 (69%)
Q20.2 Nurses	31 (61%)
Q20.3 Midwives	27 (53%)
Q20.4 Community health workers	18 (35%)
Q21 Since 2008, has there been an increase in the number of recruitments in the public sector for the following categories:	
Q21.1 Physicians	41 (80%)
Q21.2 Nurses	42 (82%)
Q21.3 Midwives	39 (76%)
Q21.4 Community health workers	27 (53%)
Q22 Since 2008, has there been an improvement in workplace environment?	33 (65%)
Q23 Is there donor support for implementing the HRH plan or part of the plan?	39 (76%)

Annex B: Country scores, across the nine progress indicators

Table B.1 Country scores, across the nine progress indicators (%)

Country	HRH plan	Coordination mechanism	Inform policy making	Information system	Production of workforce	Workforce in underserved areas	In-country retention	Additional investment	Donor support
Afghanistan	40	0	0	73	86	75	100	100	100
Angola	60	0	0	55	100	75	60	100	100
Bangladesh	60	100	0	73	100	100	0	100	0
Benin	100	0	100	73	43	88	60	20	0
Bhutan	40	0	100	77	71	75	80	80	100
Burkina Faso	100	100	100	50	86	50	80	80	100
Burundi	100	0	0	59	57	38	60	60	100
Cambodia	80	50	100	73	71	75	80	60	100
Cameroon	40	100	100	45	71	75	20	40	0
Central African Republic	20	100	100	50	43	50	0	0	100
Chad	-	-	-	-	-	-	-	-	-
Comoros	80	0	100	73	57	100	40	60	100
Congo	100	25	0	36	14	25	20	60	100
Cote d'Ivoire	80	100	100	91	86	100	100	80	100
Democratic Republic of the Congo	60	100	0	59	57	25	60	60	0
Djibouti	40	0	0	86	71	50	0	100	100
El Salvador	100	75	100	82	71	0	0	80	0
Equatorial Guinea	20	0	0	73	71	100	100	100	100
Eritrea	100	0	0	95	43	75	20	80	100
Ethiopia	100	75	100	59	86	38	60	80	100

Country	HRH plan	Coordination mechanism	Inform policy making	Information system	Production of workforce	Workforce in underserved areas	In-country retention	Additional investment	Donor support
Gambia	80	0	0	91	71	75	100	100	100
Ghana	80	100	100	59	71	63	60	60	100
Guinea	80	0	0	0	57	88	20	0	100
Guinea-Bissau	80	75	0	95	71	88	80	60	100
Haiti	20	0	0	82	57	13	40	0	100
Honduras	-	-	-	-	-	-	-	-	-
India	40	0	0	77	100	75	20	80	0
Indonesia	40	25	0	82	57	75	20	80	100
Iraq	60	100	100	59	71	50	60	80	100
Kenya	80	100	100	68	100	100	100	100	100
Lao People's Democratic Republic	100	75	100	73	100	63	100	100	100
Lesotho	100	100	0	73	57	50	60	20	100
Liberia	60	100	100	73	100	88	100	100	100
Madagascar	-	-	-	-	-	-	-	-	-
Malawi	100	100	0	91	86	75	100	100	100
Mali	100	100	0	73	71	25	100	80	0
Mauritania	100	100	100	91	71	38	0	60	0
Morocco	-	-	-	-	-	-	-	-	-
Mozambique	100	50	0	73	86	100	80	80	100
Myanmar	100	75	0	91	86	63	80	100	100
Nepal	0	0	0	64	86	50	0	0	0
Nicaragua	-	-	-	-	-	-	-	-	-
Niger	20	100	0	86	100	75	60	40	100
Nigeria	100	100	100	82	86	88	100	80	100

Country	HRH plan	Coordination mechanism	Inform policy making	Information system	Production of workforce	Workforce in underserved areas	In-country retention	Additional investment	Donor support
Pakistan	40	0	0	73	71	38	0	40	100
Papua New Guinea	40	100	0	59	86	50	80	100	100
Peru	40	50	100	45	57	75	0	0	0
Rwanda	100	75	100	86	100	75	40	100	100
Senegal	20	0	0	73	86	75	80	100	0
Sierra Leone	-	-	-	-	-	-	-	-	-
Somalia	0	0	0	27	86	75	0	80	0
Togo	100	100	0	73	86	75	100	100	100
Uganda	100	100	100	68	86	88	80	100	100
United Republic of Tanzania	100	100	100	68	86	88	80	80	100
Yemen	40	0	0	73	100	75	0	80	100
Zambia	100	100	100	73	86	88	80	100	100
Zimbabwe	100	100	0	64	43	63	100	100	100

Annex C: Study methods

C.1   Design

The Technical Working Group (TWG) drew up a set of indicators with the objective of capturing process changes at the country level on each of the KD/AGA areas.

C.2   Data collection

Survey

A structured questionnaire containing 47 questions covering nine progress indicators grouped under the six AGA strategies was sent to the HRH focal points in 57 countries by email in July 2010. They were requested to complete the questionnaire online or to return the completed questionnaire by email. Questionnaires were completed in English, French, Spanish and Portuguese.

The survey included questions about the current status of implementation of the AGA strategies in these countries. The Alliance took the lead in collecting the questionnaires from the countries and Oxford Policy Management (OPM) also supported the process. In some of the countries, there was some initial difficulty in identifying the appropriate respondent and the WHO country offices stepped in with their support in this process.

A series of consistency checks was run in order to identify internal inconsistencies between responses (see Table C.1 below). External consistency in relation to a complementary study based on a survey done in 2009 was also checked. Where inconsistencies were found or there was a lack of clarity in response, respondents were contacted to correct the inconsistencies or to clarify their responses.

The survey data were analysed in STATA and descriptive statistics were generated. In addition some cross tabulations were generated with the survey results and other related data (notably, those few indicators which were overlapping between the 2009 study based on document review and this current survey).

Case stories

The Alliance invited the submission of case stories that illustrate the progress of the AGA in the priority countries, in order to complement the quantitative findings of the survey with a qualitative analysis. This was open to everyone and was publically advertised.

The case studies were scored and some excerpts were taken from the best case stories for inclusion in this report. Scoring was based on the following five criteria:

1. covering one or more AGA themes;
2. demonstrating success in tackling obstacles to AGA goals;
3. showing promise of sustainability;
4. being recent (post-2006);
5. having a good narrative structure;

Each of these criteria was considered to be equally important. One point was given for meeting each criterion. In the final choice, consideration was also given to selecting case stories from all of the regions.

Method for the preparing the country briefs

Secondary data sources used for the country briefs are described in chapter 8.

With regards to performance against the AGA progress indicators, the questionnaire included 47 questions contributing to 9 composite indicators. In most cases the questions related to dichotomous 'yes-no' variables (e.g. Q1: Is there a national HRH policy?). The 'yes' answers indicated progress while the 'no' answer indicated no progress in that specific indicator. A few indicators were not dichotomous (e.g. Q9: Are the HRH statistics regularly updated? three or more times? 1-2 times?) and responses were gathered using an ordinal scale.

A quantifiable scoring method was adopted to measure the progress of each country in a single index. There were 43 dichotomous variables and the 'yes' responses were given '1' and 'no' or blank fields were given '0' points. In the 4 ordinal variables points were allocated as 0, 0.5 and 1. Individual indicators were scored and the results were expressed in percentages. For example if there were 5 variables included in an indicator and a country had 3 'yes' responses, 60% marks were given.

C.3   Internal consistency checks

Table C.1 Internal consistency checks

Primary variable		Matching variable		Comments on indicated inconsistency
Question	Response	Question	Response	
1	No	3.1	Yes	No plan but HRH plan includes programme
1	No	3.2	Yes	No plan but HRH plan includes budget
1	No	4	Yes	No plan but plan being implemented
1	No	23	Yes	No plan but donor support to implement plan
5	No	6.1	Yes	No committee but non-MoH members
5	No	6.2	Yes	No committee but non-MoH members
5	No	6.3	Yes	No committee but non-MoH members
8.1	No	9.1	3, 1 - 2 times	No statistics but statistics updated, physicians
8.2	No	9.2	3, 1 - 2 times	No statistics but statistics updated, nurses
8.3	No	9.3	3, 1 - 2 times	No statistics but statistics updated, midwives
8.4	No	9.4	3, 1 - 2 times	No statistics but statistics updated, CHWs
8.1-8.4	No to all	10.1	Yes	No statistics but statistics analysed, employment
8.1-8.4	No to all	10.2	Yes	No statistics but statistics analysed, geographical distribution
8.1-8.4	No to all	10.3	Yes	No statistics but statistics analysed, migration

To resolve any inconsistencies, the primary variable was considered correct and the matching variable was corrected accordingly.

C.4   Questionnaire

Questionnaire for Monitoring and Evaluation the Implementation of the Kampala Declaration and Agenda for Global Action

Country Name:

Name of Person Answering:

Title of Person:

Organization/Affiliation:

Date of interview:

AGA1. Building coherent national and global leadership for health workforce solutions
Progress Indicator: (1) Number of countries that have developed costed and evidence-based HRH plans.

Questions	Yes	No	Remarks
Q1 Is there a national Human Resources for Health (HRH) policy OR strategy, OR plan[7] ?			Draft Completed
Q2 Have the HRH situation analysis OR HRH report OR HRH related in formation been used or are currently being used for developing the nation al HRH policy, strategy, or plan?			☐ ☐

Q3 Has the national HRH policy, strategy, or plan been costed, i.e., it includes HRH program/projects, together with an estimated budget for implement ing the plan.? Detailed below:
    Q3.1 The national HRH policy, strategy, or plan includes HRH pro-gram/projects, but not yet any estimated budget or financial planning
    Q3.2 The national HRH policy, strategy, or plan includes HRH pro-gram/projects, together with an estimated budget or financial planning			

Q4 Is the plan being implemented?			

[7] In each country, this may be names differently, e.g. , National HRH Policy, National HRH Strategic Plan, National HRH Plan or National HRH Strategies.

Progress Indicator: (2) Number of countries with an intersectoral coordination mechanism for involving relevant stakeholders in HRH development

Questions	Yes	No	Remarks
Q5 Is there a national committee in charge of HRH coordination?			
Q6 If yes, are representatives of the following groups included in this national committee: **Q 6.1** Any of the following public agencies, beside the MOH, is represented at the national HRH committee: MOE, public administration, civil service agencies, or other public agencies; (Answer "yes" if at least one non-MOH representative is represented) **Q 6.2** Any of the following non-public sector are represented at the national HRH committee: private for profit, private not for profit, community based organizations, faith based organizations, etc; (Answer "yes" if at least one of the above institutions is represented) **Q 6.3** Either one of external partners such as bilateral or multilateral organizations are represented in the national HRH committee. (Answer "yes" if either one of said organizations is present)			

AGA 2. Ensuring capacity for an informed response based on evidence and joint learning

Progress Indicator (3) Number of countries with a national mechanism (e.g. HRH observatory) with processes, tools or mechanisms for HRH data users and producers to inform policy making and management of the health workforce

Questions	Yes	No	Remarks
Q7 Is there a national mechanism, e.g., a HRH Observatory with processes or tools that bring together data users, producers and different stakeholders for evidence-based policy dialogue, sharing information and monitoring or management of the health workforce?			

Progress Indicator (4) Number of countries which have a well functioning HRH information system

Questions	Yes	No	Remarks
Q8 Do HRH statistics, at least for the public sector, exist on the following issues: 　**Q8.1** Number of physicians/doctors 　**Q8.2** Number of nurses 　**Q8.3** Number of midwives 　**Q8.4** Number of community health workers*			

*Community health workers are known by many different names in different countries. Community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers.

Questions	3 or more	1-2 times	No data	Remarks
Q9 Are HRH statistics regularly updated, i.e., number of times measured in past 3 years, i.e., since 2008? 　**Q9.1** Number of doctors 　**Q9.2** Number of nurses 　**Q9.3** Number of midwives 　**Q9.4** Number of community health workers				

Questions	Yes	No	Remarks
Q10 Have these statistics been analyzed on the following aspects? 　**Q10.1** based on the employment status 　**Q10.2** based on geographical distribution or by areas, i.e., rural and urban 　**Q10.3** based on the migration to other countries			

Progress Indicator (5) Number of countries having implemented programs to increase the production of doctors, nurses/ midwives and/or community health workers

Questions	Yes	No	Remarks

Q11 Since 2008, has the country increased training enrolment numbers for the following categories?
    Q11.1 Physicians
    Q11.2 Nurses
    Q11.3 Midwives
    Q11.4 Community health workers			

Q12 Since 2008, has there been increased in number of international scholar ships from any international agencies or from your government for phy sicians and nurses to study at both undergraduate and graduate levels?			
Q13 Since 2008, has the country set up new medical schools or nursing schools?			
Q14 Have curriculums been developed/ adjusted in response to country health needs during the past 2 years?			

AGA 4. Retaining an effective, responsive and equitably distributed health workforce

Progress Indicator (6) Number of countries implementing strategies/approaches for attracting and retaining the health workforce in underserved areas

Questions	Yes	No	Remarks
Q15 Has the country implemented strategies OR approaches for attracting and retaining the health workforce in underserved areas?			

Q16 Do you have more vacancies in the public sector either because new fa cilities have been built, due to retirement or to health workers of the fol lowing categories leaving the country, or for any other reasons:
    Q16.1 Physicians
    Q16.2 Nurses
    Q16.3 Midwives
    Q16.4 Community health workers			

Q17 Since 2008, has staffing level in private hospitals increased?			

Q18 Has there been an increase in the number of new hospitals and health centres in the country?
        Q18.1 in urban areas
        Q18.2 in rural areas			

AGA 5 Managing the pressures of the international health workforce market and its impact
Progress Indicator (7) Adoption of a Code for International Recruitment of Health Personnel

Questions	Yes	No	Remarks
Q19 Since 2008, has there been an adjustment in salary scale, increase in allowance or increase in benefits for health workers in remote or hardship areas?			

Q20 Since 2008, has there been an improvement in career development for the following categories:
  Q20.1 Physicians
  Q20.2 Nurses
  Q20.3 Midwives
  Q20.4 Community health workers			

AGA 6 Securing additional and more productive investment in the health workforce
Progress Indicator (8) Number of countries in which budgetary allocations for community health workers as a proportion of the health sector budget has increased

Questions	Yes	No	Remarks

Q21 Since 2008, has there been an increase in the number of recruitments in the public sector for the following categories:
  Q21.1 Physicians
  Q21.2 Nurses
  Q21.3 Midwives
  Q21.4 Community health workers			

Q22 Since 2008, has there been an improvement in workplace environment?			

Progress Indicator (9) Number of countries that have received additional investment from multilateral and bilateral partners for the implementation of HRH plans

Questions	Yes	No	Remarks
Q23 Is there donor support for implementing the HRH plan or part of the plan?			

Launched in 2006, the Global Health Workforce Alliance is a partnership dedicated to identifying and coordinating solutions to the health workforce crisis. It brings together a variety of actors, including national governments, civil society, finance institutions, workers, international agencies, academic institutions and professional associations. The Alliance is hosted by the World Health Organization.

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