



National Plan for Health Human Resources Development (NPHHRD)

2008–2015

Human Resources for Health Observer

Issue n° 6



# Policies and practices of countries that are experiencing a crisis in human resources for health: tracking survey



Translational Islamic Studies at Alghamla  
Ministry of Health

National Policy On Human Resources Development for Health



World Health Organization

WHO Library Cataloguing-in-Publication Data

Policies and practices of countries that are experiencing a crisis in human resources for health: tracking survey /  
by Ankie van den Broek... [et al].

**(Human Resources for Health Observer, 6)**

1.Health personnel - organization and administration. 2.Health manpower - trends. 3.Health planning - organization and administration. 4.Data collection. 5.Health policy. I.Broek, Ankie van den. II.Gedik, F. Gülin. III. Dal Poz, Mario R. IV.Dieleman, Marjolein. V.World Health Organization. VI.Series.

ISBN 978 92 4 150082 1

(NLM classification: W 76)

**© World Health Organization 2010**

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: [bookorders@who.int](mailto:bookorders@who.int)). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: [permissions@who.int](mailto:permissions@who.int)).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Design: Atelier-Rasmussen / Geneva  
Printed in France / December 2010

**Policies and practices of countries  
that are experiencing a crisis  
in human resources for health:  
tracking survey**

## Contents

Acronyms	ii
Acknowledgements	iii
Executive summary	iv
Introduction	1
<b>1. Methodology</b>	<b>2</b>
1.1 Study design and testing phase	2
1.2 Searching for information	2
1.3 Processing and analysing the data	2
1.4 Limitations	2
<b>2. Findings</b>	<b>3</b>
2.1 Strategic directions	3
2.2 Leadership/governance capacity within the ministry of health	6
2.3 Partnership	7
2.4 Commitment (investment)	9
2.5 Progress in the implementation of the Kampala Declaration	10
<b>3. Policy discussion</b>	<b>12</b>
<b>Annex 1. Survey research template</b>	<b>13</b>
<b>Annex 2. Documents and web sites reviewed for the human resources for health tracking survey</b>	<b>17</b>
<b>Annex 3. Tables presenting qualitative and quantitative data from the HRH tracking survey</b>	<b>34</b>
A. Strategic directions	34
Table 1 HRH policies and plans, and their comprehensiveness	34
Table 2 Top five topics found in HRH plans	34
Table 3 Content of the HRH plans	35
Table 4 Content of the HRH plans: implementation and M&E of the programme	35
B. Leadership/governance capacity	35
Table 5 Existence of HRH management units and their capacity	35
C. Partnerships	36
Table 6 Participation with stakeholders	36
Table 7 The presence of a SWAp mechanism	36
D. Commitment	37
Table 8 Commitment of national governments and the international donor community to implementation of the plan	37

## Figures

Figure 2.1	Number of countries with a HRH plan and experiencing a HRH crisis, in WHO regions	3
Figure 2.2	Percentage of top five issues addressed in HRH plans of surveyed countries	4
Figure 2.3	Number of HRH plans that address the various types of incentives in surveyed countries	4
Figure 2.4	Proportion of countries where M&E of the programme is foreseen compared to the evidence that the HRH plan is implemented, in WHO regions and globally	5
Figure 2.5	Proportion of countries that developed HRH plans with stakeholders from the public sector, in WHO regions and globally	8
Figure 2.6	Involvement of private sector stakeholders in the development of HRH plans, in WHO regions and globally	8
Figure 2.7	Proportion of countries that developed HRH plans with various stakeholders from the international community, in WHO regions and globally	8
Figure 2.8	Proportion of costed HRH plans that receive donor funding compared to the commitment of countries to increase their budget allocation from national funds, in WHO regions and globally	9
Figure 2.9	Proportion of the type of HRH activities supported by development partners, in WHO regions and globally	10
Figure 2.10	Proportion of surveyed countries that have a costed HRH plan developed in participation with various stakeholders	11

---

## Table

Table 1	List of countries with critical deficit of health workforce	1
---------	---	---

## Acronyms

<b>AFR</b>	WHO African Region
<b>AFRO</b>	WHO Africa Regional Office
<b>AMR</b>	WHO Region of the Americas
<b>AMRO</b>	WHO Regional Office for the Americas
<b>BLDP</b>	Bilateral development partner
<b>CCM</b>	Country coordinating mechanism
<b>CCS</b>	Country Cooperation Strategy (WHO)
<b>CSO</b>	Civil society organization
<b>EMR</b>	WHO Eastern Mediterranean Region
<b>EMRO</b>	WHO Regional Office for the Eastern Mediterranean
<b>GAVI</b>	Global Alliance for Vaccines and Immunization
<b>GFATM</b>	Global Fund to Fight AIDS, Tuberculosis and Malaria
<b>GHI</b>	Global health initiative
<b>GHWA</b>	Global Health Workforce Alliance
<b>HR</b>	Human resources
<b>HRH</b>	Human resources for health
<b>KD</b>	Kampala Declaration
<b>KIT</b>	Koninklijk Instituut voor de Tropen (Royal Tropical Institute), Amsterdam
<b>MLDP</b>	Multilateral development partner
<b>MoH</b>	Ministry of health
<b>M&amp;E</b>	Monitoring and evaluation
<b>MTEF</b>	Medium-term expenditure framework
<b>NGO</b>	Nongovernmental organization
<b>PAHO</b>	Pan American Health Organization
<b>PFP</b>	Private for-profit
<b>PNP</b>	Private non-profit
<b>PRSP</b>	Poverty Reduction Strategy Paper (WHO)
<b>SEAR</b>	WHO South-East Asia Region
<b>SEARO</b>	WHO Regional Office for South-East Asia
<b>SWAp</b>	Sector-wide approach
<b>WHO</b>	World Health Organization
<b>WPR</b>	WHO Western Pacific Region
<b>WPRO</b>	WHO Regional Office for the Western Pacific

## Acknowledgements

This paper was written by Ankie van den Broek<sup>a</sup>, Gulin Gedik<sup>b</sup>, Mario Dal Poz<sup>b</sup>, and Marjolein Dieleman<sup>a</sup>.

The survey and the template were designed by Mario Dal Poz and Gulin Gedik. Muhammed Afzal and George Melville contributed to their further elaboration. Thanks are extended to Walid Abubaker<sup>c</sup>, Adam Ahmat<sup>d</sup>, Jim Buchan<sup>e</sup>, Delanyo Dovlo<sup>f</sup>, Marjolein Dieleman, Gilles Dussault<sup>g</sup>, Rodel Nodora<sup>h</sup>, Felix Rigoli<sup>i</sup> and Ankie van den Broek, for their very useful and constructive comments on the draft template.

The review of documents was undertaken at the WHO Collaborating Centre for Human Resources for Health, the Royal Tropical Institute, Amsterdam, the Netherlands, by a review team comprising of Gisele Atanga, Silvia de Weerd, Joachim Y. Doua, Ingrid Mijlof, Elanor Ochodo, Aziza Syawash, Remco van de Pas, Seriana van den Berg and Marie Veraart-Van Wezel under the leadership of Ankie van den Broek and Marjolein Dieleman who also performed the analysis. The finalization of the country findings was ensured by Walid Abubaker, Adam Ahmat, Muzaherul Huq<sup>j</sup>, Ezekiel Nukuro<sup>h</sup>, Jennifer Nyoni<sup>d</sup> and Felix Rigoli who reviewed and validated the country reviews from their respective regions. The template for data entry and analysis was created in DataCol by Teena Kunjumen<sup>b</sup>.

Waranya Teokul of the GHWA also used the database to analyse and track progress towards the attainment of the objectives of the Kampala Declaration, as reflected in this paper.

Thanks are also extended to Adam Ahmat, Hirotsugu Aiga<sup>k</sup>, Jim Buchan, Gilles Dussault and Jennifer Nyoni for reviewing the draft paper and providing perceptive comments.

The funding for the survey was provided by the GHWA and WHO.

Funding support of European Union is acknowledged for the publication of this paper as part of the project of '*Strengthening health workforce development and tackling the critical shortage of health workers*' (SANTE/2008/153-644).

---

<sup>a</sup> WHO Collaborating Centre for Human Resources for Health, the Royal Tropical Institute, Amsterdam, the Netherlands.

<sup>b</sup> World Health Organization Department of Human Resources for Health (HRH), Geneva, Switzerland.

<sup>c</sup> World Health Organization Regional Office for Eastern Mediterranean.

<sup>d</sup> World Health Organization Regional Office for Africa.

<sup>e</sup> Queen Margaret University, Edinburgh, United Kingdom.

<sup>f</sup> World Health Organization Department of Health Policy, Development and Services, Geneva, Switzerland.

<sup>g</sup> Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Portugal.

<sup>h</sup> World Health Organization Regional Office for Western Pacific.

<sup>i</sup> World Health Organization Regional Office for Americas.

<sup>j</sup> World Health Organization Regional Office for South East Asia.

<sup>k</sup> Global Health Workforce Alliance.

## Executive summary

In 2006, The World Health Report<sup>1</sup> identified 57 countries with critical shortages of skilled health workers. Two years' later, the Kampala Declaration of the First Global Forum on Human Resources for Health (March 2008)<sup>2</sup> recognized the need for immediate action to resolve the accelerating crisis in the global health workforce and called on countries to take urgent, effective action to address human resources for health (HRH) challenges, and on the international community to support the countries in this endeavour.

The human resources for health crisis has now become a priority issue and, in the majority of the countries surveyed, policies and plans are being developed to address it. Documentation on HRH policies and plans, on the existence and capacity of governing and management bodies, and on implementation can improve our understanding of the status of implementation and the effect of these policies and practices on the HRH situation.

This desk review of HRH policies and practices in the 57 countries took place between June and December 2009. Human resources for health policies and plans, evaluation reports and other HRH-related documents of these countries were reviewed, entered into a database and categorized according to four dimensions: strategic directions, governance and leadership, partnerships and commitment.

The majority of countries (45 out of 57) were found to have HRH plans, but there is evidence that only 55% of them are being implemented. This slow implementation seems to imply that countries face major operational challenges.

The plans showed a variety of strategies to address HRH problems. Worldwide, education receives the most attention in national health policies and plans, while issues such as supervision and performance management are addressed relatively infrequently. The monitoring and evaluation (M&E) of implementation was addressed in 53% of the plans.

The assessment of leadership and governance capacity in the ministries of health proved difficult due to the lack of documentation. Although 90% of the countries reviewed have a HRH unit, it has not been possible to extract information on their functions and capacity. However, increasing numbers of national HRH observatories are emerging as mechanisms

to strengthen information, and evidence-based participatory policy dialogue and decision-making.

Partnerships are important for the development and implementation of HRH plans. Countries that have mechanisms within their ministries of health to coordinate stakeholders' activities and policies are more likely to have a HRH plan. However, no information was found to confirm that implementation benefited from these partnerships.

In general, plans are developed in concert with various stakeholders. However, it was found that the involvement of the private sector, an important sector for the delivery of health care, is lower than that of the international donor community. This is mainly due to the low proportion of countries in the WHO African Region (AFR) that involve the private sector in the development of the plans. It was not possible to analyse the reasons for this low level of participation, as such information is not included in the HRH plans.

Government commitment to address the HRH crisis was assessed by counting the number of HRH plans that mentioned that the investment of the national government would be appropriate, or at least increased, to enable the plan's implementation. This was the case in only 42% of the countries. The fact that such a low proportion of the countries foresaw increased investment in HRH, when 71% of the plans had a budget, further explains why successful implementation of the plans appears to be so difficult.

Although there are no clearly defined indicators to monitor the action espoused in the Kampala Declaration, progress can be assessed on the basis of some pointers in each of its articles. It is proposed that the tracking survey and database set up for this survey be utilized to monitor the follow-up of the declaration at country, regional or global levels. This report, therefore, provides some highlights and a baseline for further monitoring of the Kampala Declaration.

The tracking survey has provided an overview of the current situation in terms of policies, plans, capacities and processes in countries with a critical health workforce deficit. Although limited in scope due to being based on secondary data, it has provided a better understanding of some of the critical issues.

<sup>1</sup> *World Health Report 2006 – working together for health*. Geneva, World Health Organization, 2006 ([http://www.who.int/whr/2006/whr06\\_en.pdf](http://www.who.int/whr/2006/whr06_en.pdf), accessed 2 November 2010).

<sup>2</sup> *Health workers for all and all for health workers: the Kampala declaration and agenda for global action*. First Global Forum on Human Resources for Health, Kampala, 2–7 March 2008. Global Health Workforce Alliance, 2008 ([http://www.who.int/workforcealliance/forum/2\\_declaration\\_final.pdf](http://www.who.int/workforcealliance/forum/2_declaration_final.pdf), accessed 2 November 2010).



## Introduction

In drawing attention to the growing crisis in the health workforce and related challenges, the World Health Report 2006<sup>1</sup> underlined the chronic deficit of well-trained health workers worldwide, both in terms of insufficient numbers of clinically and otherwise skilled health workers, and the necessary administrative and logistics staff at all system levels.

There are 57 countries identified with a critical deficit of skilled health workers (Table 1). The Kampala Declaration of the First Global Forum on Human Resources for Health (March 2008)<sup>2</sup> recognized the need for immediate action to resolve the accelerating crisis in the global health workforce, and called on countries to take urgent effective action to address human resources for health (HRH) challenges, and on the international community to support the countries in this endeavour.

Of the 57 countries, 36 are in the WHO African Region (AFR), 5 in the WHO Region of the Americas (AMR), 7 in the WHO Eastern Mediterranean Region (EMR), 6 in the WHO South-East Asia Region (SEAR), and 3 in the WHO Western Pacific Region (WPR). Thus, 63% of the countries included in the review are from AFR while 12% are from SEAR, 11% from EMR, 9% from AMR and 5% from WPR. This should be taken into consideration in the interpretation of the distribution of findings.

In order to understand and monitor the progress in developing and implementing HRH policies in the countries experiencing a critical deficit in the health workforce, this desk study set out to collate essential information by reviewing all relevant docu-

ments, rather than by overloading these countries' ministries of health with extra work.

The scope of the study focuses on four dimensions, which are considered essential in developing a strong health workforce and in enabling progress to be monitored:

1. strategic directions, such as HRH policies, including the education of health workers and the establishment of HRH management systems;
2. leadership/governance capacity for HRH;
3. partnerships that include the participation of different stakeholders in policy processes and their response to HRH challenges;
4. commitment to HRH which is explored through investment in and financing of HRH.

Each dimension is presented with detailed findings followed by discussion of the implications. Following the presentation of the results, highlights are used as a baseline for the monitoring of progress towards the objectives in the Kampala Declaration (KD).

After the initial analysis, it emerged that more issues could be explored with further analysis of the database that was setup as a result of the survey, using Datacol®, which covers information on all the dimensions explored in the survey template.

It is expected that this publication will contribute to stimulating the debate on HRH policies and practices at international level, and within the countries concerned.

Table 1 List of countries with critical deficit of health workforce

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

# 1

## Methodology

This study performed a stocktaking exercise to document the actions taken in the 57 countries undergoing a health workforce crisis, which yielded an enormous amount of information. In the majority of the countries reviewed, national strategic health policies or plans and/or specific human resources for health plans were found. For some of the countries, evaluation reports were available which gave insight into how the implementation of these policies and plans is progressing.

### 1.1 Study design and testing phase

A survey outline and an initial survey template were developed. These documents were shared with WHO regional offices and some HRH experts. Based on their comments, the draft survey template was elaborated. Following the development of the template, some feedback was received from reviewers, and a testing phase and discussions were held before it was finalized.

Nine countries were selected on three continents: Angola, El Salvador, Haiti, Indonesia, Lesotho, Malawi, Mali, Papua New Guinea and Yemen. The testing phase provided a set of search strategies comprising a list of 'do's' and 'don'ts', and Internet web sites to facilitate the work (for the final survey template, see Annex 1).

### 1.2 Searching for information

The search procedure was sometimes complicated by the need to avoid giving extra work to the ministries of health, but the information identified in the search was often only available in ministry of health (MoH) offices.

The procedure for retrieving relevant data comprised the following steps:

1. searching for the WHO Country Cooperation Strategies (CCS) – if they exist, they are always available on the Internet;
2. collecting proposals and documents from the Global Alliance for Vaccines and Immunization (GAVI) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM) Rounds 5–8;
3. searching MoH or government web sites – not all MoH have web sites and, when they have, they are not always written in Arabic, English, French, Portuguese or Spanish (the languages of the research team); generally, the documents could not be downloaded from the MoH web sites and were, therefore, collected from WHO regional and country offices, consultants, etc.;
4. consulting the World Bank web site;

5. if the questions in the survey template were still not answered, searching Google using the following key words:

- 'health national plan' and country
- 'human resources for health' and country
- 'strategic health plan' and country
- 'health policy' and country
- 'workload study health' and country
- 'donor coordination' and country
- 'health workers' and country
- 'health evaluation' and country.

Annex 2 provides a list of the principal documents reviewed for the survey.

### 1.3 Processing and analysing the data

All data were entered into the templates, which were then sent to the WHO regional offices for comments and validation of the information. These data were entered into a database using DataCol©. The scope of this database is such that it enables detailed country data entry, which is very useful when searching for information on an individual country.

The analysis of data on country actions addressing the HRH crisis was performed for four components – strategic directions, leadership/governance capacity, partnerships and commitment (Annex 3). Proxy indicators were developed so that current progress in each country could be assessed within these four components.

In total, the policies, where available, and practices of 57 countries were documented and reviewed. A policy review was carried out for 45 countries with separate HRH plans. A review of practices (implementation, monitoring, evaluation, participation in planning, establishment of HRH units, etc.) was carried out for all 57 countries, if documents reporting on these issues were available.

### 1.4 Limitations

Although the majority of the HRH plans were obtained, this study nevertheless had certain limitations.

- It was often not possible to access monitoring and evaluation (M&E) reports to verify if plans were being implemented.
- Several components can, in reality, only be assessed on site or through interviews in the countries, e.g. the capacity of the HRH units within the MoH. Even an

on-site check by the WHO regional offices could not provide all this information.

- There are various interpretations for several concepts that were used in the survey, such as 'skills mix', 'scope of practice' and 'mobility of staff'. In the literature, as in the national policy and strategic plans of the various countries, the interpretation of these concepts can also differ. In the survey, some concepts are, therefore, self-defined and assessed based on the definitions used by the countries in the available documents.
- Interpretation of the global analysis has its limitations. This review provides tables and graphs in which data are given proportionately. One could question the validity of these regional comparisons because of the variation in the number of countries affected per region (see Table 1). The data collected are qualitative as well as quantitative. Most of the analysis was carried out by calculating percentages of policies and activities, but in some cases the report includes descriptive findings.

## 2

### Findings

#### 2.1 Strategic directions

This first section of the survey template investigated the existence of a HRH plan and its 'strategic direction'. For this analysis, it was decided that a country had a separate HRH plan if there was evidence of the existence of a:

- separate plan for HRH
- separate chapter devoted to HRH in the national health plan
- separate plan in a general national HR plan.

If a country had a HRH plan, it was reviewed on the strategic directions chosen. Consequently, this part of the analysis covers only the findings of the countries that have a national HRH plan.

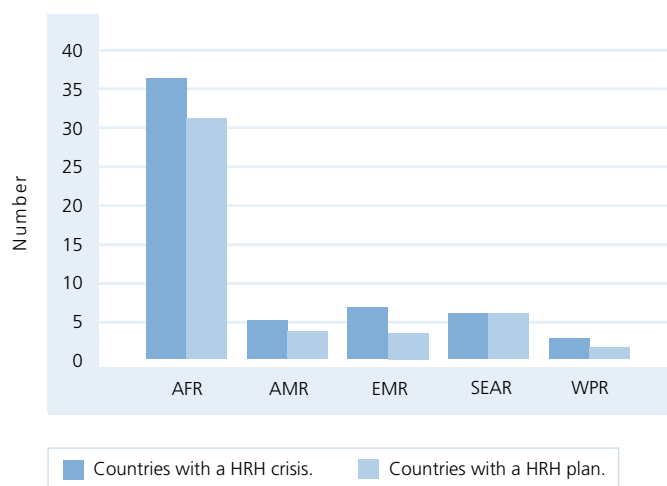
#### The availability of a national HRH policy/plan

As many as 45 of the 57 countries have a national HRH plan (79%) (AFR 31, AMR 3, EMR 3, SEAR 6, WPR 2) (Figure 2.1). For a few countries, there is evidence that HRH plans are planned or are currently being developed (Djibouti, Honduras, Papua New Guinea and Zimbabwe). There is no information on when these plans will be finished and these countries are not considered in this survey as having a HRH plan.

#### Integration of the HRH plan to national plans and policies

The linkage to the national health policy was chosen as the proxy indicator for the integration of the HRH plans into national poli-

Figure 2.1 Number of countries with a HRH plan and experiencing a HRH crisis, in WHO regions



cies and plans. Globally, 40 out of 45 (89%) of the HRH plans are integrated into the national health plans. In EMR, SEAR and WPR all plans are integrated into the national health policies. Only five of the countries that have a national HRH plan were not linked to the national health plan (4 in AFR and 1 in AMR).

#### The development of the plan

In some countries, the results of various types of studies focusing on different aspects of HRH contributed to the development of the HRH plans. Globally, this was found for 16 out of 45 (36%) countries.

#### Content of the plan

For all regions, the review identified the 'top five' issues highlighted in the HRH plans with strategies to address them (Figure 2.2). The top five issues addressed in the 45 HRH plans, and the proportion of countries that included the issue are shown here:

1. pre-service education
2. in-service education
3. educational targets<sup>3</sup>
4. career development
5. incentives<sup>4</sup>.

This top-five list varies per region and it was observed that:

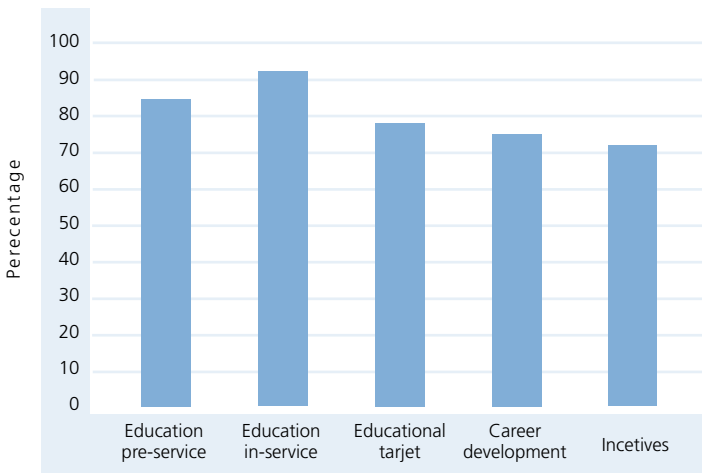
- pre-service education and in-service education are dominant in the HRH plans in all WHO regions;

<sup>3</sup> Educational target refers to the inclusion of the number of health workers that have to be trained.

<sup>4</sup> The kinds of incentives were not pre-defined in the template. This question was answered with a 'yes' if the national HRH plans used this terminology. The comments informed us that incentives would often be related to payment, housing and transport.

- the development of a HRH information system is within the top five issues in all regions except for SEAR, however, when development of a HRH information system is not mentioned, it may indicate that those countries already have a functioning information system;
- the workplace environment is only found in the top five in WPR;
- the top five issues in WPR countries do not vary – all issues in the top five are mentioned in all countries;
- supervision, performance management and mobility of staff do not appear in the top five in any region.

Figure 2.2 Percentage of top five issues addressed in HRH plans of surveyed countries



**Education**

Education (in-service and pre-service combined) seems to be the most frequently cited strategy to increase the quantity and quality of the health workforce. Globally, 39 out of 45 countries (87%) addressed both aspects of education in their HRH plans.

**Recruitment**

The proportion of plans that address both processes and targets for the recruitment of health workers is globally 23 out of 45 countries (51%). Recruitment is less often addressed in plans in AFR with only 14 out of 36 countries (39%) doing so.

Only the Liberian national plan referred to recruitment and the international market:

Guidelines for hiring expatriate health professionals will be produced by the Ministry.  
 Many experts will have to be procured from the international market, due to lack of skills on national market (preferable senior experts for long term)....

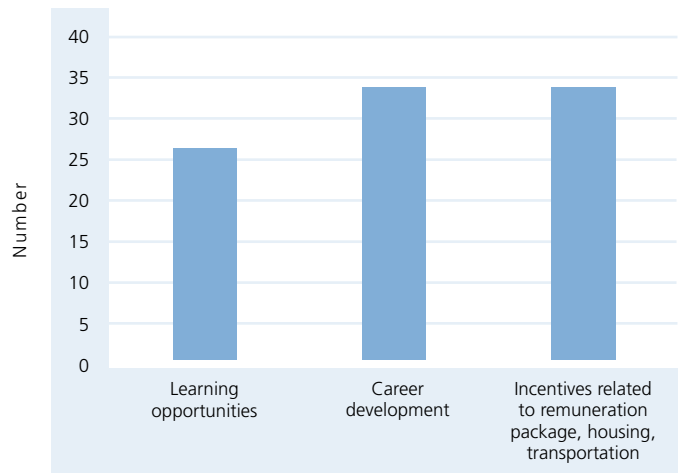
**Incentives**

In HRH plans, incentives refer to a remuneration package, housing and transport. These three types of incentives are addressed regularly in the HRH plans. However, learning

opportunities and career development are items that can also be regarded as incentives for staff (Figure 2.3) and are included as such in this analysis:

- incentives related to payment, housing and transport are in the global top five in 34 out of 45 countries (76%);
- career development appears in the global top five in 35 out of 45 countries (78%), in 3 countries in AMR, and in 2 countries in WPR;
- learning opportunities are not in the global top five in 27 out of 45 countries (60%). However in AFR, learning opportunities are in the top five in 23 out of 31 countries (74%).

Figure 2.3 Number of HRH plans that address the various types of incentives in surveyed countries



**Deployment and distribution**

Deployment and distribution of staff is addressed in 30 out of 45 countries (67%) of the plans globally.

**Skills mix**

Government efforts to determine the appropriate health worker skills mix are difficult to assess. The assessment was made by reviewing how many countries discuss an appropriate skills mix in their HRH plans, either discussing appropriate skills mix or establishing mechanisms to identify appropriate skills mix. Globally, this is 24 out of 45 countries (53%). In SEAR, it is 5 out of 6 countries (83%).

**HRH information system**

Inclusion of the development of a HRH information system in HRH plans is globally quite high at 30 out of 45 countries (67%). All countries in AMR, EMR and WPR, address the development of a HRH information system in their plans.

**HRH needs projections**

With regard to projections for HRH needs, it was found that, globally, 35 out of 45 countries (78%) included some projections in their plans, at least for some categories of the health workforce. However, only 17 of these 35 cover the

needs of the private sector. In AMR, EMR and WPR, private sector needs were found in all of the projections. In AFR, 10 of the countries that made these projections included the needs of the private sector, while in SEAR, only 1 country included the private sector.

Regarding the inclusion or exclusion of the private sector in the projections, it was observed that 6 of the countries (5 in AFR and 1 in SEAR) that excluded the private sector from their projections, argued that there was too little information available from the private sector to do so. In 1 country (Lesotho), it was explicitly mentioned that the private non-profit (PNP) sector (faith-based nongovernmental organizations (NGOs)) was included but the private for-profit (PFP) sector was excluded.

In all countries where the HRH needs projections included the private sector's needs, it was not clear if all the private services in the country were taken into account.

### Decentralized systems and HRH management

Globally, 28 out of 45 countries (64%) mentioned decentralized HRH management in the HRH plans. In WPR, decentralization was never mentioned in the HRH plans. However, from the review of the documents, it was not always clear if the countries with a HRH plan had a decentralized health system. If not, there was certainly no need to address decentralized management of HRH in their plans. Furthermore, decentralization has been assessed based on the information provided in the national strategic health plans and policies of the countries surveyed and, as such, it is a self-defined concept of the country.

### Monitoring and evaluation of a HRH plan

The monitoring and evaluation of HRH plans in this survey was appropriately addressed when:

- indicators for monitoring were included in the HRH plan;
- an evaluation of the HRH plan was included in the plan.

From the countries that have a HRH plan, only 24 out of 45 countries (53%) addressed the monitoring and evaluation of HRH plans according to the above-mentioned criteria. There is wide variation in the number of countries per region (for example, AFR 20, EMR 1, SEAR 1, WPR 2 and none in AMR).

### Implementation of the HRH plan

Evidence that the plans are being implemented was found globally for 25 out of 45 countries (55%). For 7 countries (AFR 5, AMR 1, EMR 1), evidence was found that the plans are not being implemented. For one third of the other

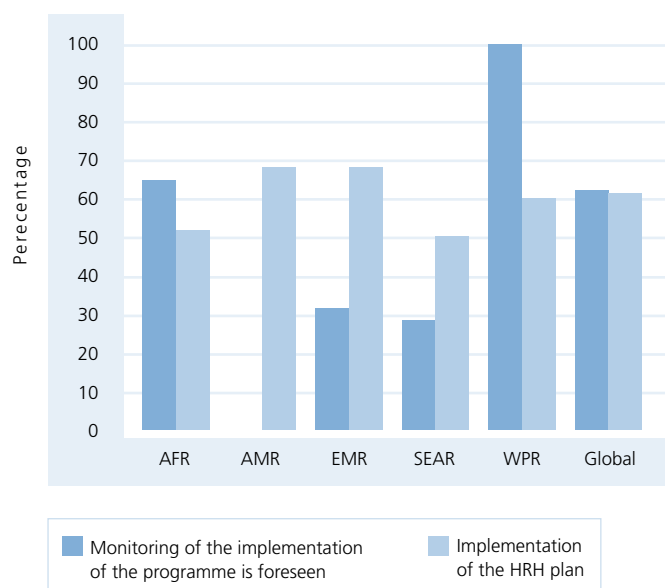
countries, there were no reports or articles found to confirm that implementation was being carried out. Explanations for non-implementation included: the current unsafe/war situation in the country (Guinea-Bissau); financial constraints (Iraq); and slow process because of the involvement of intersectoral actors (Nicaragua).

### Monitoring, evaluation and implementation of the HRH plan

When the proportion of countries that have a monitoring and evaluation system for the HRH plan and that implemented the plan was reviewed, only 14 out of 45 countries (31%) met these criteria. The highest proportion was found in 11 countries in AFR.

The inclusion of a monitoring and evaluation mechanism in the HRH plan seems not to be a factor that influences the implementation of the programme. In AMR, EMR and SEAR, the proportion of HRH plans implemented was higher than the proportion of countries that had included a M&E mechanism in their plans (Figure 2.4). The survey did not provide information about the quality of the implementation.

Figure 2.4 Proportion of countries where M&E of the programme is foreseen compared to the evidence that the HRH plan is implemented, in WHO regions and globally



### Implications

The more frequently addressed strategy in the HRH plans to mitigate the HRH crisis is education (both pre-service education and in-service training courses) followed by recruitment policies and incentive schemes. Other strategies to strengthen the performance of the health workforce, such as skills mix, career development, workplace improvement and deployment policies, are addressed in a smaller number of plans.

Education was the most frequently cited strategy to improve on performance over other strategies and is common to national HRH plans, and to development partners. Frequently, development partners' support is directed at pre-service training (70%) and in-service training (74%). This part of the analysis includes HRH plans and documents relating to donor programmes, which are separate from national plans. This survey does not show whether this donor preference for education influences the strategic directions of national HRH plans, or whether donors decide to support it because the countries include it in their plans.

Although the majority of the plans cover HRH projections (35 out of 45 countries), these projections were limited to the public sector's HRH requirements for nearly half of these plans (18 out of 35 countries). This means that in only 30% (18 out of 57 countries) is there evidence to suggest that public and private needs for HRH were taken into account when planning for future HRH requirements. There is no reason to think that ministries of health in HRH crisis countries intentionally exclude the private sector, but information on the needs of the private sector with respect to HRH is not always available/known to the ministries. Not including an important part of the health providers' needs in projections limits the development of effective strategies to improve the use of all HRH in the country.

Human resources for health plans mainly address the challenges of the health workforce that is already in the system (education, deployment, retention), but they rarely focus on strategies to increase the number of human resources by exploring the possibilities in (international or national) labour markets.

The availability of national HRH plans is just a first step in successfully addressing the HRH crisis. The implementation of HRH plans (partially) could only be confirmed in 55% of the countries. The reason for non-implementation is only given in a few cases. Non-implementation can be related to the low attention paid to vital aspects needed to operationalize the plan. As much as 71% of the HRH plans were accompanied by an implementation budget, 53% of which included an M&E system to follow up on implementation.

## 2.2 Leadership/governance capacity within the ministry of health

The second section of the survey template addresses leadership and governance capacities of a country with respect to HRH. There is more information available for those countries with a national HRH plan, but on certain aspects it was possible to include information on those countries that do not have one.

**Existence of a HRH unit within the ministry of health**  
Globally, 89% of the countries surveyed have a HRH department in the ministry of health (51 out of 57 countries).

Globally, 42 out of 45 countries (91%) have both a HRH plan and a separate unit for HRH within the MoH. The variation between the regions is small. In AMR, EMR and WPR, all countries that have a HRH plan also have a HRH unit. In the majority of cases, the functions and capacity of these units could not be assessed because the requisite information (number/qualification of staff, office space, Internet access, availability of computers and software) was seldom provided in the available documents. Only one evaluation was found (*Fast evaluation of the health system of Benin (USAID), 2007*) that discussed the capacity of the HRH unit. Any information on capacity that was available was not found in official documentation, but was provided by WHO regional offices (e.g. in Iraq, the number of staff is 35). However, information on the functions and background of the staff is limited.

For most of the countries, the documents and HRH plans did not provide a great deal of information on the place of the HRH unit within the organizational structure or on the units' reporting responsibilities. Moreover, it was not clear whether these units coordinate their activities with human resources departments in other ministries. In Afghanistan, HRH is recognized as an important part of the Ministry of Public Health (MOPH). There is a General Directorate for HRH that reports directly to the Deputy Minister of Administrative Affairs of the Ministry of Health.

### Human resources for health observatory<sup>5</sup>

The survey found that 14 out of 57 countries (25%) have a national HRH observatory (or a similar mechanism). The observatories are mostly found in countries in AMR (4 out of 5 countries). According to the WHO Regional Office for Africa, the establishment of a national observatory for HRH is under way in many countries (Angola, Côte d'Ivoire, Guinea Bissau, Malawi, Mozambique, Niger, Nigeria and Zimbabwe).

### Implications

Governance and leadership capacity was assessed in this analysis by identifying:

<sup>5</sup> The Human Resources for Health Observatory is a cooperative initiative among the countries and partners to produce, analyse and share information and knowledge necessary for: (i) integrating human resources in the health policy agenda; and (2) improving the development of evidence-based policies on human resources. The national level HRH observatories bring together different stakeholders at country level, including all relevant ministries, institutions, professional associations, academia and development partners. It creates a forum for policy dialogue, which is guided by evidence and information that allows the researchers, information producers and decision-makers to interact with each other.

- whether a HRH unit exists in the MoH;
- the place of the HRH unit in the organizational structure;
- whether a HRH observatory, as a mechanism for stakeholders' involvement and policy dialogue, exists in a country.

For some of these issues, the assessment was difficult because this information is not always included in the HRH plans or other country documents. In general, HRH units do exist in the MoH, but their capacity and functioning, and exact place in the organization, cannot be assessed by reading the plans and reports. This puts limits on the determination of the role of HRH units in HRH planning and policy development; the possibility that these units contribute to strategic planning; and on their authority to coordinate HRH actions. These issues warrant a separate study.

Human resources for health information systems to support evidence and information-based policy-making are under development in the majority of the countries with a HRH plan. However, it was not possible to identify how many countries already have a HRH information system, as there was no clear reference to this issue in most of the countries' documentation. It is highly likely that almost all the countries have at least payroll information, but there was no information on how they use it. For this reason, it was difficult to determine whether policy and management decisions are taken with the guidance of such an information system.

National observatories on HRH have proven that they can be effective mechanisms to strengthen evidence and information-based policy dialogue and decision-making<sup>6</sup>. Initiated in AMR in 1999, most countries now have a national HRH observatory. The Africa Health Workforce Observatory and the Eastern Mediterranean Region Observatory on Human Resources for Health were established in the 2000s. The establishment of observatories is 'in process' in many regions and countries. In SEAR, the regional HRH observatory is soon to be launched.

It could be argued that the survey did not provide enough information on the countries' governance and leadership capacity, but provided more on the management structure within the MoH. However, governance capacity can also be assessed by examining the way the HRH crisis is addressed, for example, the development of sound HRH plans can be a result of leadership/governance capacity, but the implementation of the plans may be a better way of measuring this capacity.

<sup>6</sup> Gedik G et al. Chapter 12: Getting information and evidence into policy-making and practice: strategies and mechanisms. In: Dal Poz M et al, eds. *Handbook on monitoring and evaluation of human resources for health*. Geneva, World Health Organization, 2009.

## 2.3 Partnerships

The third section of the survey template addresses 'partnerships'. These partnerships are reflected in two main elements.

1. The involvement of various stakeholders in the development of a HRH plan. This part of the analysis discusses the findings for the countries that have a plan. However, it should be noted that there might be other possibilities and ways of involving stakeholders.
2. The availability of a coordination mechanism for various stakeholders in the MoH. This part of the analysis includes countries without a plan.

### Involvement of stakeholders in the development of the HRH plan

The various stakeholders are divided into three categories:

- the public sector – ministry of education (ministry of finance or public service commission or civil service commission);
- the private sector – private for-profit (PFP) and private non-profit (PNP);
- multilateral development partners (MLDPs), bilateral development partners (BLDPs) or a global health initiative (GHI).

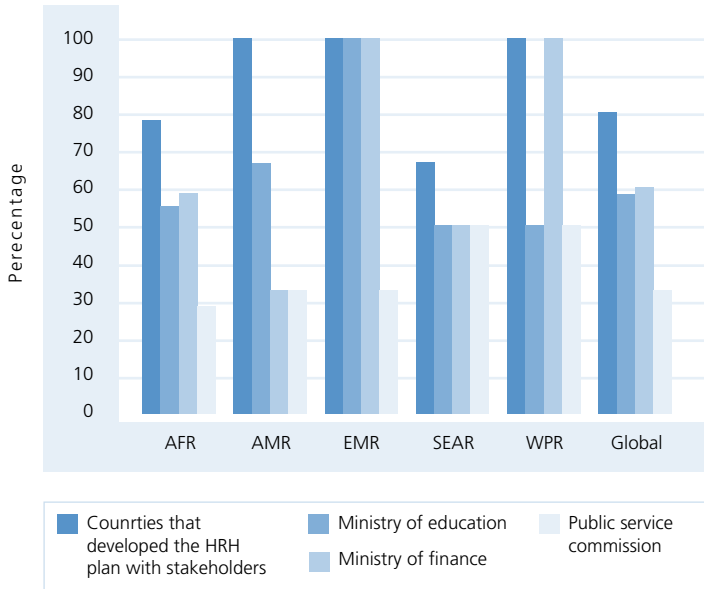
It appears that 36 out of 45 countries (80%) developed their HRH plans with stakeholders from at least two of the three categories. This percentage may be higher because, in some of the documents reviewed, the page with acknowledgements for the HRH plan was missing (e.g. the Gambia).

The involvement of the public sector is highest at 36 out of 45 countries (80%). The participation of public service commissions/ministries of labour, etc. is lowest at 15 out of 45 countries (33%), globally (Figure 2.5).

The private sector is involved in the development of the HRH plans in 21 out of 45 countries (47%) (Figure 2.6). The private education sector contributes mostly to this in 18 out of 45 countries (40%). In EMR and SEAR, the private sector has been involved in the HRH plans of all countries. In AFR, the involvement of the private education sector is particularly low at 9 out of 31 countries (29%).

The involvement of local faith-based NGOs is only documented in Anglophone Africa (6 out of 13 countries) and in WPR 1 out of 2 countries (the Lao People's Democratic Republic). In the 6 African countries, this involvement is probably due to existing umbrella organizations for Christian health organizations.

Figure 2.5 Proportion of countries that developed HRH plans with stakeholders from the public sector, in WHO regions and globally



There was involvement of professional associations in 18 out of 45 countries (40%). This aspect shows a wide variation in the regions with high proportions of involvement in AMR (100%) and WPR (67%). There is also variation in the involvement of local NGOs in the different regions. International nongovernmental organizations (INGOs) and civil society organizations (CSOs) are hardly involved in the development of HRH plans.

The review of the international donor community's involvement in the development of the HRH plans in all regions revealed that MLDPs are involved in 26 out of 45 countries (58%), BLDPs are involved in 24 out of 45 countries (53%), and GHI in 7 out of 45 (16%), the lowest rate (Figure 2.7).

Figure 2.7 Proportion of countries that developed HRH plans with various stakeholders from the international community, in WHO regions and globally

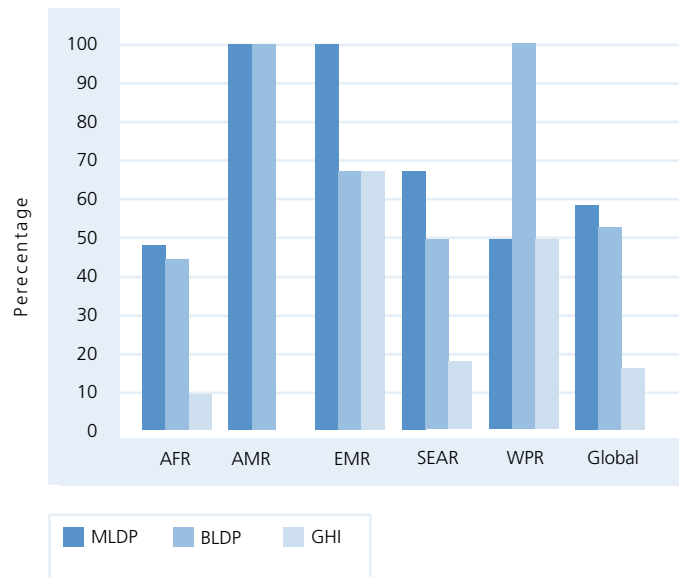
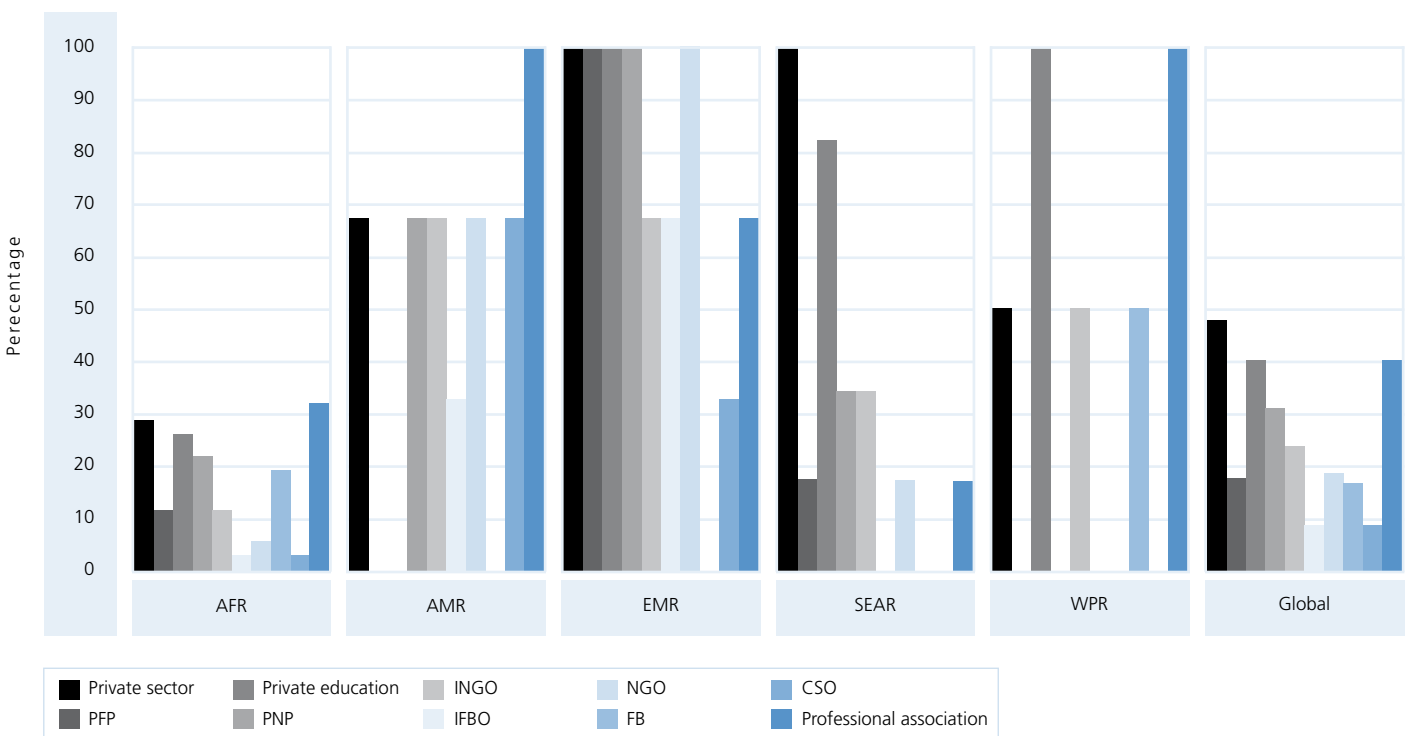


Figure 2.6 Involvement of private sector stakeholders in the development of HRH plans, in WHO regions and globally





The data show that, globally, only 6 countries (13%) have a HRH plan where no coordination mechanism (SWAp) is in place; all 6 countries are located in Africa. If countries have a coordination mechanism within their MoH, they often also have a HRH plan, which was the case in 38 out of 45 (84%) of the countries with a separate HRH plan.

### Implications

Partnerships are important for the development and implementation of the HRH plans. Countries that have mechanisms in place within the MoH to coordinate stakeholders' activities and policies are more likely to have a HRH plan. However, there is no information on the implementation benefits from such partnerships.

In general, plans are developed with a variety of stakeholders. Involvement of the private sector, an important sector for the delivery of health care, is lower than the involvement of the international donor community. This is mainly due to the low proportion of countries in AFR that involve the private sector in the development of the plans. It was not possible to analyse the reasons for this, as they are neither documented in the HRH plans nor in other documents.

## 2.4 Commitment (investment)

The fourth section of the survey template addresses 'commitment', which examines the investment that stakeholders make to support the realization of the HRH plans. In this section, the interests of donors to invest in diverse HRH activities that are not part of a national HRH plan (e.g. GAFTM) are part of the analysis.

### Costing the HRH plan

Globally, 32 out of 45 countries (71%) with HRH plans include an implementation budget, but this varies between regions. For example, in EMR, only 1 country (Iraq) was found while all WPR countries made a budget for the HRH plan.

Even in those plans that include a budget, not all costs are covered. For example, the plans in the Gambia and Ghana only included a budget for education activities while in Niger the budget covers education and recruitment costs. Salary costs are not always reflected in the plans, probably because these are paid from the budgets of other ministries (i.e. finance, public services, etc.).

### Appropriate or increased allocation from national resources

Globally, appropriate or increased allocation from national resources to implement the plans is low at 17 out of 45 countries (38%). This is lower than the proportion of plans that are costed. Countries in AFR pay most attention to this

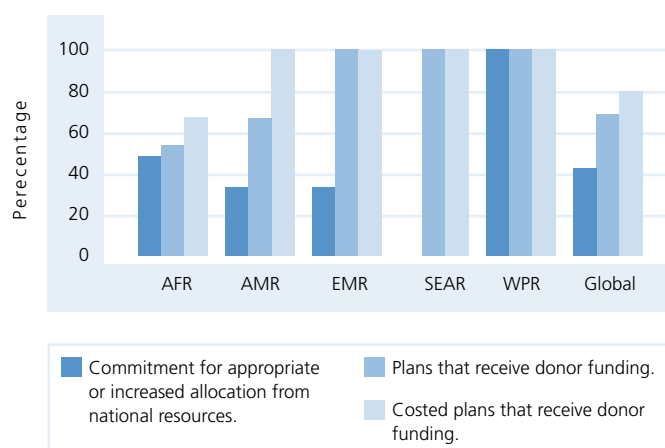
with 15 out of 31 countries (48%) planning to invest in the implementation of the plan.

### Donor commitment to the plan

Overall, 29 out of 45 countries (64%) receive donor funding for the plans. The lowest proportion of countries that receive donor funding is in AFR at 17 out of 31 countries (55%).

It was found that costed plans are more likely to receive donor funding, and the review showed that, globally, 23 out of 32 countries (72%) received such funding. In AFR, fewer countries receive donor funding for their HRH plans, although 15 out of 31 countries (48%) commit themselves in the plans to increase their budgets, a high percentage when compared to the other regions (Figure 2.8).

Figure 2.8 Proportion of costed HRH plans that receive donor funding compared to the commitment of countries to increase their budget allocation from national funds, in WHO regions and globally



### Type of HRH development activities supported by the international donors

For this part of the analysis the national HRH plan and documentation from donor agencies were reviewed. In this case, the countries without a national HRH plan but receiving donor funding for HRH activities were included in the analysis.

Out of the 57 countries, the international donors' support the following activities:

- pre-service education in 40 countries (70%);
- in-service training in 42 countries (74%);
- development of HRH policies and plans in 33 countries (58%);

- HRH information system in 29 countries (51%);
- incentives in 23 countries (40%);
- recruitment (mainly salary support but, in some cases, also support for recruitment mechanisms) in 19 countries (33%).

The variation between regions is small. It seems that donors are quite consistent in their preferences for supporting HRH (Figure 2.9). However, it should be noted that reference is made to the number of countries that received some kind of support, but the magnitude of the support is not mentioned.

Figure 2.9 Proportion of the type of HRH activities supported by development partners, in WHO regions and globally



**Donors that support HRH activities**

The percentage of donors that support HRH activities was not analysed as it was reported in the documents reviewed that funding is regularly given through basket funding. For this reason, it is not possible to provide a comprehensive list of the most important donors.

**Implications**

The countries' commitment to addressing the HRH crisis was assessed by counting the number of HRH plans that mentioned that the investment of the national government would be appropriate or at least increased to enable the plan's implementation. This was the case for only 40% of them. The fact that such a low proportion of the countries foresaw increased investment in HRH, when 71% of the plans had a budget, further explains why successful implementation of the plans is so difficult.

The analysis revealed that the financial commitment of the international donor community is higher for the budgeted HRH plans (71%) as compared to all the plans that receive donor funding (64%), demonstrating that donors pay attention to the budgets of HRH plans.

It was not possible to analyse what proportion of public health expenditure or gross domestic product (GDP) is used or reserved for HRH because of a lack of information in the documents reviewed.

**2.5 Progress in the implementation of the Kampala Declaration**

As mentioned earlier in this report, the First Global Forum on Human Resources for Health was held in March 2008 with the participation of governments, multilateral, bilateral and academic institutions, civil society, the private sector, and health workers' professional associations and unions. The Kampala Declaration expresses the commitment of governments and the international community to mitigate the global HRH crisis, especially in the 57 countries that were declared to be in "crisis".

The database resulting from the tracking survey can be of assistance in monitoring the follow-up of the Kampala Declaration at country, regional and global level. The declaration comprises of 12 action articles. However, some of the articles under the Kampala Declaration (KD) cannot be tracked at country level, such as KD 7 ("accelerate negotiations for a code of practice on international recruitment of health personnel") and KD 12 (charging the Secretariat, "to re-convene this Forum"). Article 8 (calling on countries to, "work collectively to address current and anticipated global health workforce shortages") is also difficult to monitor through country-level activities.

Even though there were articles to capture issues such as regulation and education investment, KD 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.”) could not be assessed due to the lack of information. This is quite significant and implies a gap in practices in these areas, especially on accreditation and regulation.

Leadership and management as highlighted in KD 5 (“Governments, civil society, private sector, and professional organizations to strengthen leadership and management capacity at all levels.”) have always been difficult areas to monitor. Some proxy indicators need to be identified. In the case of HRH, the capacity and roles of HRH units can be used as one of the proxy indicators, as in KD 1.

Although there are no clearly defined indicators to follow up on the implementation of the Kampala Declaration, progress can be assessed on the basis of some indications in each of the articles. This section provides some highlights and a baseline for further monitoring of the Kampala Declaration, based on the findings of the tracking survey.

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

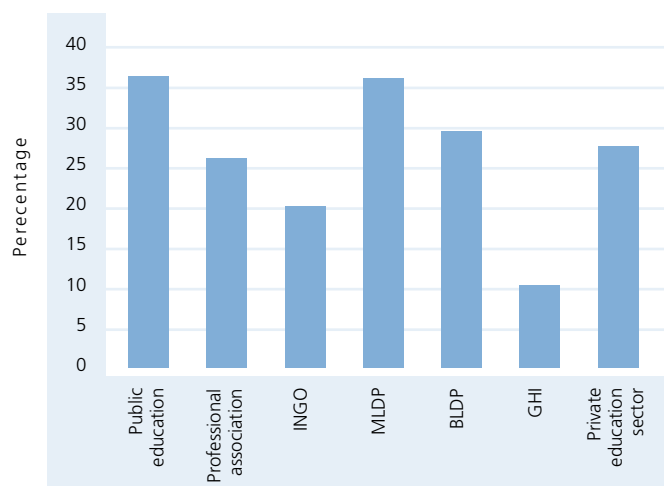
The existence of HRH plans and strategies, and HRH units/departments, were considered as proxies to provide some indicators. Out of 45 countries that have HRH plans, 41 (91%) of them have other public agencies, development partners or private agencies participating in HRH planning. Overall, there are 55 countries that have at least one of the following four characteristics: a HRH plan, a HRH unit, stakeholder involvement or the plan implemented.

A costed HRH plan developed in participation with the public sector was found in 25 countries out of a total of 57 crisis countries (44%), and multilateral development partner involvement was tracked in 23 out of the 57 countries (40%) of the total crisis countries. For all other partners, this percentage was even lower.

However, the reasons for the low result in respect to countries that have costed HRH plans developed by relevant stakeholder vary per region. In EMR, a low proportion of countries have costed their HRH plans (Figure 2.10). In AFR, a low proportion of countries have developed plans with the participation of the private sector.

**KD 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”.

Figure 2.10 Proportion of surveyed countries that have a costed HRH plan developed in participation with various stakeholders



For this KD, the number of countries with a HRH coordination mechanism and with coordinated national action plans was considered. The review showed that 29 countries received donor support, at least for part of the plan. Out of the 45 countries with national HRH plans, 28 of them (62%) received support from donors to develop HRH policies and plans. Out of the 57 countries with a HRH crisis, 48 of them (84%) received donor support for HRH activities, such as pre-service and in-service training, recruitment, incentive schemes and HRH information systems. Although they did not have HRH plans, 10 countries (17%) received support for their HRH activities.

**KD 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.”

The review explored the contents of the plan, but these questions address health workers in general and are not specific to community health workers, middle-level health workers or to a specialized health workforce. There are 24 countries that have policies or plans addressing skills mix. In all, 42 countries reported having pre-service education as part of the plan and 31 countries reported having recruitment targets.

**KD 6.** “Government to assure adequate incentives and an enabling and safe working environment for effective retention and equitable distribution of health workforce.” Enacting measures conducive to an equitable distribution of the health workforce, and attracting and retaining health workers in rural areas, in particular, is a challenge faced by many countries. By using incentives and work environment combined as an alternative to retention issues, data from the tracking survey showed that only 6 countries fully implemented KD

6 by involving stakeholders in the planning process, and applying retention and equitable distribution approaches. Data from the tracking survey indicated that 6 countries, namely, Afghanistan, Ghana, Malawi, Peru, Rwanda and Zambia are implementing plans that cover incentives, working environments, deployment and distribution of health workforce.

**KD 9.** “Governments to increase their own financing of the health workforce, with international institutions relaxing the macroeconomic constraints of their doing so.”

The number of countries in which budgetary allocations have increased for HRH as a proportion of the health sector budget is used as a proxy for this KD. There is scarce information on HRH financing at the country level and also on relaxing macroeconomic constraints. The findings of the tracking survey show that there are 17 countries that have committed to increasing allocations from national resources or have strategies to do so.

**KD 10.** “Multilateral and bilateral development partners to provide dependable, sustained and adequate financial support and immediately to fulfill existing pledges concerning health and development.”

This KD reflects global commitment to health and development in general. There are 30 countries that receive support from multilateral and/or bilateral partners for the implementation of HRH plans.

**KD 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.”

The tracking survey enquired whether HRH statistics were regularly updated. The responses revealed that there are 17 countries with regularly updated HRH statistics, and 14 countries with national HRH observatories or similar mechanisms, which bring together different stakeholders for evidence-based policy dialogue, information sharing and monitoring. Human resources for health information systems are part of the function of the HRH units in 22 countries, and 13 countries address HRH information in their HRH plans.

## 3

### Policy discussion

The tracking survey has provided an overview of the current situation in terms of HRH policies, plans, capacities and processes in countries with critical health workforce deficits. Although it has been limited by drawing solely on secondary data, it has, nevertheless, contributed to a better understanding of some of the crucial issues.

The findings show that the majority of the countries with a HRH crisis (45 out of 57) developed plans to address it. They generally pay more attention to the planning of straightforward HRH activities (education, incentives, etc.) than to aspects related to the potential to implement the plan successfully (monitoring, evaluation and financing).

In the countries with a HRH crisis, there is an understanding that HRH is a priority in strengthening health systems and health service delivery, but the low implementation rate of these plans, and the lack of attention being paid to monitoring and evaluation, and to financing are signs of weak government capacity – politically, technically and administratively – to address the HRH crisis.

The survey also suggests the importance of strengthening HRH information systems, which is a mostly neglected area. Improved HRH information collection can also enable better monitoring of HRH development. The tracking survey provided a baseline to this end, but the challenge ahead is to ensure that mechanisms for the continuous monitoring of progress are in place. The database developed through this survey could be used for further analysis.

However, the major challenge lies with implementation. A more thorough understanding of the underlying reasons hampering implementation is critical. This is most likely due to insufficient commitment and inadequate capacity, which remains to be further documented. Thus, these are the critical intervention areas for immediate action.

As pointed out, this tracking survey is based on a desk review of secondary data sources. Health workforce observatories are working with countries to develop HRH country profiles to provide more detailed analyses of the human resources for health situation in the countries. These will be regularly updated and will provide an opportunity to monitor progress at country level.

The World Health Organization and other agencies are also undertaking studies to further explore some of the issues and develop strategies to address the challenges. The assessment of capacity within HRH units and departments is an example of this. The need for increased investment in human resources for health is very clear and there is an ongoing global effort to draw attention to issues related to aid effectiveness and ensure that investment in HRH accelerates the implementation of plans and strategies.

## Annex 1. Survey research template

Template for review

Country name:

Papers reviewed:

- 1.
- 2.
- 3.
- ...

Questions	Findings	Remarks (if any)	Source and web link (if available)
<b>1. STRATEGIC DIRECTION</b>			
<b>1.1 National HRH policy, strategy, plan</b>			
1. Is there a national development policy/strategy/plan for Human Resources for Health (HRH)?	Yes ( ) No ( )		
(a) A Separate HRH plan			
(b) A separate chapter devoted to HRH in the national health plan			
(c) A separate plan in a national general HR plan			
2. IF NO, is there recognition of the HRH issues and an expressed intention/commitment to develop a HRH development plan?	Yes ( ) No ( )		
IF YES,			
3. Is the current plan the first HRH policy/strategy/plan?	Yes ( ) No ( )		
4. What is the period covered by current the plan?	.....		
5. Is it linked to an overall national development plan?	Yes ( ) No ( )		
6. Is it linked to a PRSP?	Yes ( ) No ( )		
7. Is it linked to a national health policy	Yes ( ) No ( )		
8. Is the plan being implemented?	Yes ( ) No ( )		
<b>Contents</b>			
9. Does the policy/strategy/plan include projections of the HRH needs for providers of services	Yes ( ) No ( )		
10. Do the projections cover the public, private for profit and non-profit sectors?	Yes ( ) No ( )		
11. Is the policy/strategy/plan linked to macroeconomic context of the country (i.e. MTEF, PRSP, recruitment ceilings, etc.)?	Yes ( ) No ( )		
12. Does the policy/strategy/plan address issues of:			
(a) education: pre-service	Yes ( ) No ( )		
(b) education: in-service	Yes ( ) No ( )		
(c) educational targets (number of health workers to be trained)	Yes ( ) No ( )		
(d) recruitment processes	Yes ( ) No ( )		

Questions	Findings	Remarks (if any)	Source and web link (if available)
(e) recruitment targets (number of workers	Yes ( ) No ( )		
(f) deployment and distribution	Yes ( ) No ( )		
(g) skill mix	Yes ( ) No ( )		
(h) remuneration	Yes ( ) No ( )		
(i) incentives	Yes ( ) No ( )		
(j) supervision	Yes ( ) No ( )		
(k) learning opportunities	Yes ( ) No ( )		
(l) workplace environment	Yes ( ) No ( )		
(m) career development	Yes ( ) No ( )		
(n) performance management	Yes ( ) No ( )		
(o) mobility of staff	Yes ( ) No ( )		
(p) scope of practice	Yes ( ) No ( )		
(q) regulation	Yes ( ) No ( )		
(r) HRH information	Yes ( ) No ( )		
Other			
13. In decentralized systems, does the policy/strategy/plan address decentralization of decision-making on HRH issues, e.g. management functions such as payroll, promotion, discipline?	Yes ( ) No ( ) If yes, what type of studies: .....		
14. Have workload and other studies been performed to address rectifying HRH imbalances between levels of care and the urban rural environment?	Yes ( ) No ( )		
<b>Monitoring and evaluation mechanisms</b>			
15. Is there a monitoring and evaluation mechanism to document the implementation of the policy/strategy/plan?	Yes ( ) No ( )		
16. Is there a national plan for monitoring and evaluation of national HRH strategic objectives?	Yes ( ) No ( )		
17. Are there regularly updated HRH statistics?	Yes ( ) No ( )		
18. What are the sources of HRH data, i.e. administrative data, facility survey, population census, etc?	Sources within and outside the health sector Sources of the MoH only Sources not explicitly specified Please further specify .....		
<b>2. LEADERSHIP AND GOVERNANCE CAPACITIES</b>			
<b>2.1 HRH Governance capacity in MoH</b>			
19. Is there a HRH department/unit/team in the MoH responsible for developing, implementing and monitoring HRH strategies?	Yes ( ) No ( )		
20. If yes, what are the functions of the department/unit/team?			
HRH policy development	Yes ( ) No ( )		
HRH planning	Yes ( ) No ( )		
Personnel administration	Yes ( ) No ( )		
Training and development	Yes ( ) No ( )		

Questions	Findings	Remarks (if any)	Source and web link (if available)
HRH information system	Yes ( ) No ( )		
Research, studies, documentation	Yes ( ) No ( )		
Monitoring and evaluation	Yes ( ) No ( )		
Other			
21. What is capacity of the HRH unit, in terms of staffing and, if the information is available, what are their qualifications?	No. of staff .....		
a. Adequate office space	Yes ( ) No ( )		
b. Adequate computers, relevant software	Yes ( ) No ( )		
c. Internet access	Yes ( ) No ( )		
d. Others	Please specify .....		
22. What is the level of the HRH unit in the organizational chart of the MoH?	Please explain:		
23. Who does the unit report to?	Please explain:		
24. Are there other HRH units in other sectors (i.e. defence, etc. or "national planning commission" or civil service office may have a cross-sector HR offices which influence health)?	Yes ( ) No ( ) If yes, please specify		
25. If yes, is there any relation of these units to the HRH unit in MoH?	Yes ( ) No ( ) If yes, please specify .....		
26. Is there a national HRH observatory or a similar mechanism bringing together different stakeholders for evidence based policy dialogue, sharing information and monitoring?	Yes ( ) No ( ) In process ( ) Please specify .....		
<b>3. PARTNERSHIP</b>			
<b>3.1 Stakeholders coordination</b>			
27. Is a SWAp or other coordinating mechanism or body in the health sector (donor coordination, interdepartmental coordination, etc.)?	Yes ( ) No ( ) If yes, please specify .....		
28. Have various stakeholders (public, private, NGO, CSO, international) been involved in the process of creating the HRH policy/strategy/plan?	Yes ( ) No ( ) If yes, please specify .....		
<b>Public sector</b>			
Ministry of education	Yes ( ) No ( )		
Ministry of finance	Yes ( ) No ( )		
Ministry/commission of public service	Yes ( ) No ( )		
Others	If yes, please specify .....		
<b>Nongovernmental participation</b>			
Private for profit sector	Yes ( ) No ( )		
Private education sector (training schools, universities)	Yes ( ) No ( )		
Private non-profit			
International secular NGO	Yes ( ) No ( ) If yes, please specify .....		
International faith-based	Yes ( ) No ( ) If yes, please specify .....		

Questions	Findings	Remarks (if any)	Source and web link (if available)
National (secular) NGO	Yes ( ) No ( )		
Faith-based NGO	Yes ( ) No ( )		
CSO	Yes ( ) No ( ) If yes, please specify .....		
Professional associations	Yes ( ) No ( ) If yes, please specify .....		
Multilateral development partners	Yes ( ) No ( ) If yes, please specify .....		
Bilateral development partners	Yes ( ) No ( ) If yes, please specify .....		
Global Health Initiatives and Foundations	Yes ( ) No ( ) If yes, please specify .....		
29. Has the Plan been approved at inter-ministerial level (Education, Finance, Public Service, MoH)?	Yes ( ) No ( )		
<b>4. COMMITMENT (INVESTMENT )</b>			
<b>4.1 Investment on HRH</b>			
30. Has the policy/strategy/plan been costed?	Yes ( ) No ( )		
31. Is there an investment plan for training and education?	Yes ( ) No ( )		
32. Is there a commitment or strategy for appropriate or increased allocation from national resources?	Yes ( ) No ( )		
33. What is HRH expenditure as % of public health expenditure?			
34. What is HRH expenditure as % of GDP			
<b>4.2 Partnership and international support</b>			
35. Has the donor commitment been ensured, at least for part of the plan?	Yes ( ) No ( )		
36. List the main international and bilateral partners which support HRH development	Please specify .....		
37. How much of the donor support is allocated to HRH?	In US\$		
38. What percentage of total aid to health this above amount represents?			
39. What types of HRH development activities are supported by the development partners (i.e. policy / plan development, in-service training, preservice training, recruitment, incentive schemes, etc.)?			
(a) policy & plan development	Yes ( ) No ( )		
(b) pre-service training	Yes ( ) No ( )		
(c) in-service training	Yes ( ) No ( )		
(d) recruitment	Yes ( ) No ( )		
(e) incentive schemes	Yes ( ) No ( )		
(f) HRH information systems	Yes ( ) No ( )		



## Annex 2. Documents and web sites reviewed for the human resources for health tracking survey

### Afghanistan

Ministry of Public Health. *A basic package of health services for Afghanistan, 2005/1384*. Kabul, 2005 ([http://www.msh.org/afghanistan/pdf/Afghanistan\\_BPHS\\_2005\\_1384.pdf](http://www.msh.org/afghanistan/pdf/Afghanistan_BPHS_2005_1384.pdf), accessed 10 November 2010).

Ministry of Public Health. *National health policy 2005–2009 and national health strategy 2005–2006. A policy and strategy to accelerate implementation*. Kabul, 2005 ([http://www.moph.gov.af/en/downloads/Policy\\_2005\\_2009.pdf](http://www.moph.gov.af/en/downloads/Policy_2005_2009.pdf), accessed 10 November 2010).

International Monetary Fund. *Islamic Republic of Afghanistan: poverty reduction strategy paper*. Washington, DC, 2008.

General Directorate of Human Resources/Johns Hopkins University/Indian Institute of Health Management Research. *Capacity building and learning needs assessment*, Kabul, 2006.

World Health Organization. *Country cooperation strategy for the Islamic Republic of Afghanistan and WHO, 2005–2009*. Geneva, 2005 (first draft).

World Health Organization. *Health system review in Afghanistan: challenges and the way forward, mission report, July 9–18, 2006*. Geneva, 2006.

Ministry of Public Health. *Human resource policy, 2006*. Kabul, 2006.

Islamic Republic of Afghanistan. *Afghanistan national development strategy: health and nutrition sector strategy 2007/2008–2012/2013*. Kabul. Date of submission: 20 February 2008.

Transitional Islamic Government of Afghanistan. Ministry of Health, Human Resources Department. *National policy on human resources development for health*. Kabul, 2003.

Salary Policy Working Group GCMU/MoPH, SCA, IAM, AHDS and USAID/MSH: *National salary policy for non-governmental organizations and Ministry of Health strengthening mechanism working in the Afghan health sector. Revised version of original policy, October 2005*.

WHO Regional Office for the Eastern Mediterranean. *Report of the health system review mission – Afghanistan: challenges and the way forward*. Cairo, 2006.

Ministry of Public Health. *The essential package of hospital services for Afghanistan, 2005*. Kabul, 2005.

### Angola

WHO Regional Office for Africa. *WHO country cooperation strategy: Angola 2002–2005*. Brazzaville, 2002 ([http://www.who.int/countries/en/cooperation\\_strategy\\_ago\\_en.pdf](http://www.who.int/countries/en/cooperation_strategy_ago_en.pdf), accessed 10 November 2010).

Connor C, Rajkotia Y, Ya-Shin Lin, Figueiredo P. *Angola health system assessment*. Washington, DC, *Partners for Health Reformplus*, September 2005.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 8 proposal: expansion and consolidation of the response to HIV and AIDS and contribution to an Angola tuberculosis free Angola*. Geneva, 2008.

Ministério da Saúde. *Política nacional de saúde, 2009*. Luanda, 2009.

### Bangladesh

Ministry of Health and Family Welfare. *Bangladesh health, nutrition and population sector (HNPSP). Annual programme review (APR): technical reports on stewardship, service delivery and support systems by the independent review team (IRT), 10th May Dhaka, 2009*.

Ministry of Health and Family Welfare. *Health workforce strategy 2008*. Dhaka, 2008.

Ministry of Health and Family Welfare. *Bangladesh health, nutrition and population sector (HNPSP): 2nd revised 2003–2011 programme implementation plan (RPIP), Aug 2008*. Dhaka, 2008.

People's Republic of Bangladesh. Ministry of Health and Family Welfare. *National health policy – an update, August 2008*. Dhaka, 2008.

Asia Pacific Action Alliance on Human Resources for Health (AAAH). *Report of Third Conference on Globalisation and its Implications for Health Care and Human Resources for Health, Colombo/Kandy, 12–15 October 2008*.

Asia Pacific Action Alliance on Human Resources for Health (AAAH). *Work plan for 2008–2009*. Nonthaburi, Thailand, 2008.

People's Republic of Bangladesh. Draft national health policy 2009. Dhaka, 2009.

Ministry of Health & Welfare. *Bangladesh health workforce strategy, September 2008*. Dhaka, 2008.

### Web sites

Brac University, James P. Grant School of Public Health.  
*Publications*: <http://www.bracuniversity.ac.bd/I&S/sph/publications/reports.bhw.htm>, accessed 10 November 2010.

Government of the People's Republic of Bangladesh, Directorate General of Health Services, Dhaka: <http://www.dghs.gov.bd/>, accessed 10 November 2010.

Government of the People's Republic of Bangladesh. Ministry of Health and Family Welfare, Dhaka: <http://www.mohfw.gov.bd/>, accessed 10 November 2010.

### Benin

Ministère de la Santé. *Avant projet du document de politique du secteur sante periode (PNS) 2007–2016*. Cotonou, 2006.

WHO Regional Office for Africa. *Stratégie de coopération de l'OMS avec les pays, 2009–2013*: Bénin. Brazzaville, 2009.

Adeya GA et al. *Rapid evaluation of the health system of Benin, April 2006*. Washington, DC, U.S. Agency for International Development, 2007 (Management Sciences for Health, Measure Evaluation and Quality Assurance Project).

### Web site

Ministère de la Santé. Accueil: <http://www.ministeresantebenin.com>, accessed 10 November 2010.

### Bhutan

Ministry of Health. *Health ninth five year plan 2002–2007*. Thimphu (<http://www.health.gov.bt/plans.php>, accessed 27 November 2010).

Ministry of Health. *Health tenth five year plan 2008–2013*. Thimphu (<http://www.health.gov.bt/plans.php>, accessed 27 November 2010).

WHO Regional Office for South-East Asia. *Country health system profiles Bhutan – trends in HRD indicators (2002–2003)*. New Delhi, 2010 ([http://www.searo.who.int/en/Section313/Section1517\\_10767.htm](http://www.searo.who.int/en/Section313/Section1517_10767.htm), accessed 10 November 2010).

### Web sites

WHO Regional Office for South-East Asia. Country health system profile Bhutan. New Delhi: [http://www.searo.who.int/EN/Section313/Section1517\\_10768.htm](http://www.searo.who.int/EN/Section313/Section1517_10768.htm), accessed 10 November 2010.

Ministry of Health. Health news and other important events: <http://www.health.gov.bt/>, accessed 10 November 2010.

World Health Organization Global Health Observatory, Geneva: <http://www.who.int/gho/en/>, accessed 10 November 2010.

Ministry of Foreign Affairs of Denmark, Liaison Office of Denmark, Social sector support programme – Bhutan. Thimphu, 2010: <http://www.missionthimphu.um.dk/en/menu/DevelopmentAid/ToTheSocialSector/>, accessed 10 November 2010.

### Burkina Faso

Ministère de la Santé. *Plan national de développement sanitaire (PNDS) 2001–2010*. Ouagadougou, 2001.

Ministère de la Santé. *Plan national de développement sanitaire 2006–2010, version validée mars 2007*. Ouagadougou, 2007.

WHO Regional Office for Africa. *Stratégie de coopération de L'OMS avec les pays 2002–2005 : Burkina Faso*. Brazzaville, 2002.

Zoubga A, Damiba P, Claver P, Batabe CM. Etude sur le renforcement des capacités au Burkina Faso : secteur de la santé. Ouagadougou, Centre d'analyse des Politiques Economiques et Sociales (CAPES), Burkina Faso, 2003 (<http://www.capes.bf/IMG/pdf/Sante-2.pdf>, accessed 27 November 2010).

Ministère de la Santé. *Document de politique sanitaire nationale (PSN)*. Ouagadougou, 2000.

Ministère de la Santé. *Indicateurs de suivi et d'évaluation du PNDS, Octobre 2007*. Ouagadougou, 2007.

Ministère de la Santé. *Programme d'actions prioritaires de mise en oeuvre du CSLP : version provisoire, mars 2009*. Ouagadougou, 2009.

Feinglass E. *Implementing a sector-wide approach to health development in Burkina Faso: a case. Written under the supervision of Dr. Marc Mitchell (Harvard University) and Dr. Gaston Sorgho (World Bank)*. [http://info.worldbank.org/etools/docs/library/99169/CD\\_CC/precourse/CCFY04CDRom/Week2/3Wednesday/S2%20Burkina%20Faso/Implementing-SWAP.pdf](http://info.worldbank.org/etools/docs/library/99169/CD_CC/precourse/CCFY04CDRom/Week2/3Wednesday/S2%20Burkina%20Faso/Implementing-SWAP.pdf), accessed 18 November 2010).

Ministère de la Santé. *Document de politique sanitaire nationale*. Ouagadougou, 2009.

### Web sites

Ministère de la Santé. Actualité: <http://www.sante.gov.bf/SiteSante/index.jsp>, accessed 10 November 2010.

World Bank. Resources: <http://www.worldbank.org>, accessed 10 November 2010.

### **Burundi**

Global Alliance for Vaccines and Immunisation (GAVI). *Formulaire pour les propositions du Burundi en vue d'un soutien au renforcement du système de santé*. Geneva, 2006.

Direction Générale des Ressources. *Processus d'élaboration de la politique et du plan de développement des ressources humaines*. Bujumbura, 2008.

Ministère de la Santé Publique, Global Alliance on Vaccines and Immunisation, United Nations Children's Fund, World Health Organization. *Proposition du Burundi en vue d'un soutien au renforcement du système de santé*. Bujumbura, 2006.

Ministère de la Santé Publique. *Plan national développement sanitaire – 2006–2010*. Bujumbura, 2005.

International Health Partnership Burundi (IHP). *Stock taking report prepared for the Inter-Regional Country Health Sector Teams Meeting Lusaka, Zambia, 28 February – 1 March 2008* ([http://www.internationalhealthpartnership.net/pdf/02\\_BURUNDI%20TSR\\_EN\\_FINAL.pdf](http://www.internationalhealthpartnership.net/pdf/02_BURUNDI%20TSR_EN_FINAL.pdf)), accessed 10 November 2010.

### **Cambodia**

Ministry of Health. *Health strategic plan (HSP2) 2008–2015. Accountability, efficiency, quality, equity*. Phnom Penh, 2008.

Asia Pacific Action Alliance on Human Resources for Health (AAAH). *Cambodia progress report on HRH development activities. Third Conference on Globalisation and its Implications for Health Care and Human Resources for Health, Colombo, 12–15 October 2008, Colombo/Kandy, Sri Lanka, 13–15 October 2008*.

Asia Pacific Action Alliance on Human Resources for Health (AAAH). *Work plan 2008–2009*. Nonthaburi, Thailand, 2008 ([http://www.aaahrh.org/documents/gov\\_doc.php](http://www.aaahrh.org/documents/gov_doc.php), accessed 10 November 2010).

Engelbrecht M. *Survey on health in Cambodia*. Report prepared for PRISMA, ICCO and Woord en Daad, 2007 ([http://www.prismaweb.org/algemeen/topics/algemeen/documentatie/cambodia\\_health\\_sept\\_2007.pdf](http://www.prismaweb.org/algemeen/topics/algemeen/documentatie/cambodia_health_sept_2007.pdf), accessed 10 November 2010).

Ministry of Health Human Resources for Health Department. *National policies and strategies for human resources for health 2006–2010*. Phnom Penh, April 2006.

### **Web sites**

UK Department for International Development. Media room. Case studies. Donors working together for better health in Cambodia: <http://www.dfid.gov.uk/Media-Room/Case-Studies/2007/Donors-working-together-for-better-health-in-Cambodia/>, 14 November 2010.

World Bank. Resources: <http://web.worldbank.org/>, accessed 14 November 2010.

### **Cameroon**

World Bank. *Health sector support investment project*. Washington, DC, 2008.

Ministry of Public Health. Expanded Programme on Immunization, Central Technical Group. *A comprehensive multiyear plan 2007–2011 on the expanded programme on immunization*. Yaoundé, October 2006.

Ministry of Public Health. *Health sector strategy 2001–2015*, Yaoundé, 2009.

United Nation Population Fund. *Country program document for Cameroon (2008–2012)*. New York, NY, 2007.

Windisch R, Wyss K, Prytherch H. Cross-country review of strategies of the German development cooperation to strengthen human resources. *Human Resources for Health*, 2009, 7:46 (<http://www.human-resources-health.com/content/7/1/46>, accessed 10 November 2010).

### **Central African Republic**

Institute of Tropical Medicine. *Analyse des stratégies de renforcement des ressources humaines du ministère de la sante publique et de la population*. Bangui, March 2002.

Ministère de la Santé Publique et de la Population. *Plan national de développement sanitaire (PNDS) 2007–2015*. Bangui, 2007?

Ministère de la Santé Publique et de la Population. *Projet de politique nationale de santé (PNS)*. Bangui, 2004.

Ministère de la Sante Publique et de la Population. *Projet d'appui à la stratégie de renforcement du système de sante de la République centrafricaine (RSS)*. Bangui, undated.

Global Alliance for Vaccines and Immunisation (GAVI). *Renforcement des systèmes de santé (RSS)*. Geneva, 2007.

Ministere de l'economie, du plan et de la coopération internationale. *Stratégie de réduction d la pauvreté (PRSP) 2008–2010*. Bangui, 2007 (version 7).

## Chad

WHO Regional Office for Africa. Stratégie OMS de coopération de l'OMS avec les pays : Tchad 2002–2006. Brazzaville, undated.

Gupta N, Dal Poz MR. Assessment of human resources for health using cross-national comparison of facility surveys in six countries. *Human Resources for Health*, 2009, 7:22. doi: 10.1186/1478-4491-7-22

## Comores

WHO Regional Office for Africa. Stratégie de coopération de l'OMS avec les pays: Union des Comores, 2005–2009. Brazzaville, undated.

International Monetary Fund. *Union of the Comoros: interim poverty reduction strategy paper*. Washington, DC, 2006.

Ministère des Affaires Sociales et des Reformes Administratives. *Plan de viabilité financière du programme de vaccination 2004–2011*. Moroni, 2004.

Ministère de la Santé Publique et de la Condition Féminine. *Evaluation de la réforme du système de santé (synthèse – avec l'appui financier du projet III)*. Moroni, 2001 (<http://www.comores-online.com/mwezinet/sante/images/evaluation.pdf>, accessed 11 November 2010).

World Bank. *Population and human resources development project*. Washington, DC, 1993.

Elmendorf AE, Larusso K. *Human resources for health and World Bank operations in Africa: a review of experience*. World Bank. Human Development Sector Africa Region, 2006 (Working Paper Series No. 110; [http://siteresources.worldbank.org/INTAFRICA/Resources/no\\_110.pdf](http://siteresources.worldbank.org/INTAFRICA/Resources/no_110.pdf), accessed 11 November 2010).

Ministère de la Santé Publique. *Plan national de développement sanitaire (PNDS) perspectives an 2010*. Moroni, 1993.

Ministère de la Santé Publique. *Politique nationale de santé (PNS)*. Moroni, 2004.

République Fédérale Isiahique des Comores. *Arrêté no. 93–007 du 19 avril 1993 fixant l'organisation de la super-structure du Ministère de la santé et des Populations*. Moroni, 1993 (<http://www.comores-online.com/mwezinet/sante/textes/ministere.htm>, accessed 11 November 2010).

## Congo

World Bank. *Congo health sector services development project*. Washington, DC, 2008.

United Nations Development Programme. Evaluation Office. *Assessment of development results: Republic of the Congo – evaluation of UNDP contribution*. New York, NY, 2008 ([http://www.undp.org/evaluation/documents/ADR/ADR\\_Reports/Congo/CongoADR-English.pdf](http://www.undp.org/evaluation/documents/ADR/ADR_Reports/Congo/CongoADR-English.pdf), accessed 11 November 2010).

Republic of Congo. National Poverty Reduction Committee. Permanent Technical Secretariat. *Interim poverty reduction strategy paper (I-PRSP) of the Congo*. Brazzaville, 2004.

## Web sites

Africa Health Workforce Observatory. HRH country profiles: <http://www.hrh-observatory.afro.who.int/en/hrh-country-profiles/profile-by-country.html>, accessed 11 November 2010.

Congo-Site Portail: [http://www.congo-siteportail.info/La-Republique-du-Congo-lance-son-programme-de-developpement-des-services-de-sante\\_a3786.html](http://www.congo-siteportail.info/La-Republique-du-Congo-lance-son-programme-de-developpement-des-services-de-sante_a3786.html), accessed 11 November 2010.

## Côte d'Ivoire

WHO Regional Office for Africa. *Stratégie OMS de coopération avec la République de la Côte d'Ivoire, 2004–2007*. Brazzaville, 2004 ([http://www.who.int/countryfocus/cooperation\\_strategy/countries/ccs\\_civ\\_final\\_fr.pdf](http://www.who.int/countryfocus/cooperation_strategy/countries/ccs_civ_final_fr.pdf), accessed 11 November 2010).

Butera D et al. *Evaluation des ressources humaines pour la santé en Côte d'Ivoire*. U.S. Agency for International Development, Washington, DC, 2005 ([http://pdf.usaid.gov/pdf\\_docs/Pnade225.pdf](http://pdf.usaid.gov/pdf_docs/Pnade225.pdf), accessed 11 November 2010).

U.S. Agency for International Development. *Using facts to improve health worker allocation in Côte d'Ivoire*. Washington, DC, April 2009 (Health System 20/20 Policy Brief; <http://www.healthsystems2020.org/content/resource/detail/2272/>, accessed 11 November 2010).

Ministère de la Santé et de l'Hygiène Publique. *Plan national du développement sanitaire (PNDS) 2008–2012*. Abidjan, 2008.

## Web site

HealthSystems20/20. Where we work. Cote d'Ivoire: [http://www.healthsystems2020.org/section/where\\_we\\_work/cotedivoire](http://www.healthsystems2020.org/section/where_we_work/cotedivoire), accessed 14 November 2010

## Democratic Republic of Congo

Ministry of Health. Soumission à l'Alliance mondiale pour les vaccins et la vaccination: Appui au renforcement du système de santé en République Démocratique du Congo. Health systems strengthening (HSS: plan intérimaire de mise en

œuvre de la stratégie de renforcement du système de santé 2007–2009. October 2006 (annex to Global Alliance for Vaccines and Immunisation (GAVI) HSS proposal round 1).

United Nations. Executive Board of the United Nations Development Programme/United Nations Population Fund. *Document de programme de pays pour la République Démocratique du Congo, 2008–2012*. New York, NY, 2007 (DP/CPD/DRC/2; [http://www.cd.undp.org/downloads/DRC\\_CPD\\_2008\\_2012.pdf](http://www.cd.undp.org/downloads/DRC_CPD_2008_2012.pdf), accessed 11 November 2010).

Ministère de la Santé. Secrétariat général. *Les stratégies de réforme du secteur de la santé en RDC*. 2005. Kinshasa, 2006. (<http://www.nyankunde.org/SRSS%20VERSION%20FINALE.pdf>) accessed 14 November 2010

United Nations Development Programme. *Plan d'action du programme de pays entre le Gouvernement de la République Démocratique du Congo et le Programme des Nations Unies pour le Développement 2008–2012*. New York, NY, undated ([http://www.cd.undp.org/mediafile/CPAP\\_DRC%202008%202012.pdf](http://www.cd.undp.org/mediafile/CPAP_DRC%202008%202012.pdf), accessed 11 November 2010).

Ministry of Health. *Financial sustainability plan of the Expanded Programme on Immunization. Submitted on 7 February 2005 to the Global Alliance for Vaccines and Immunization (GAVI) and the Global Vaccine Fund*. Kinshasa, 2005 ([http://www.who.int/immunization\\_financing/countries/cod/congodr\\_fsp.pdf](http://www.who.int/immunization_financing/countries/cod/congodr_fsp.pdf), accessed 11 November 2010).

## Djibouti

Ministère de la Santé. *Plan national de développement sanitaire (PNDS) 2008–2012*. Djibouti, 2008.

WHO Regional Office for the Eastern Mediterranean. *Country cooperation strategy for WHO and Djibouti 2006–2011*. Cairo, 2006 (EM/ARD/020/E/R).

World Health Organization Eastern Mediterranean Regional Health System Observatory. *Health system profiles: Djibouti*. Cairo, 2006.

Republic of Djibouti, International Monetary Fund. *Djibouti: poverty reduction strategy paper*. Washington, DC, 2004.

World Bank. Middle East and North Africa Region. Country Management Unit. *International development association country assistance strategy for the Republic of Djibouti*. Washington, DC, 2009 (Report No. 4727-DJ).

World Bank. Human Development Sector. Middle East and North Africa Region. *Project appraisal document: health sector development programme (HSDP)*. Washington, DC, April 2002.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 8 proposal support for a program to scale up and strengthen Djibouti tuberculosis and malaria control*. Geneva, 2008.

## Web sites

Agence Djiboutienne d'information: <http://www.adi.dj>, accessed 15 November 2010.

Organisation mondiale de la santé. Bureau régional de la Méditerranée orientale. Bureau du Représentant à Djibouti. Accueil: <http://www.emro.who.int/djibouti>, accessed 15 November 2010.

## El Salvador

Ministerio de Salud. *Desafíos de la gestión de los recursos humanos en salud (2006–2015) avances*. San Salvador, 2006.

Grupo Intersectorial para el desarrollo de los recursos Humanos en Salud. *Observatorio de recursos humanos en la reforma del sector Salud. Conjunto de datos básicos sobre recursos humanos en salud 2001, El Salvador*. San Salvador, 2002.

Sistema Nacional de Salud. *Política Nacional de Salud*. San Salvador, 2008.

Ministerio de Salud Pública y Asistencia Social. Dirección de Planificación de los Servicios de Salud. Gerencia de Información en Salud. *Indicadores*. San Salvador, 2008.

Instituto de Salvadoreño de Seguro Social. *Estructura organizativa*. San Salvador, 2010 ([http://www.iss.gov.sv/index.php?option=com\\_content&view=article&id=46&Itemid=81](http://www.iss.gov.sv/index.php?option=com_content&view=article&id=46&Itemid=81), accessed 11 November 2010).

Instituto de Salvadoreño de Seguro Social [online database in Spanish]. San Salvador (<http://iss.gov.sv/principal.asp>, accessed 15 November 2010).

Pan American Health Organization. *Estrategia de cooperación (OPS/OMS) – El Salvador 2006–2011*. San Salvador, undated.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. *External evaluation of BACKUP initiative (= GFATM round 2 evaluation)*. Eschborn, undated.

Inter-American Development Bank. *Regional project to develop human resources for health. Operational plans*. Washington, DC, 2007.

## Web sites

Ministerio de Salud: <http://www.salud.gov.sv/> accessed 15 November 2010.

Sistema de la Integración Centroamericana: <http://www.sica.int/>, accessed 15 November 2010.

### Equatorial Guinea

African Development Bank Group. *Health systems development support, 2010*. Tunis-Belvédère, 2008 (<http://www.afdb.org/en/projects-operations/project-portfolio/project/p-gq-ibe-002/>, accessed 11 November 2010).

Ministère de la Santé et du Bien-être Social, WHO Regional Office for Africa. *Stratégie de coopération de l'OMS avec les pays – Guinée Equatoriale 2002–2005*. Brazzaville, undated.

République de Guinée Equatoriale, Joint United Nations Programme on HIV/AIDS, European Union. *Plan stratégique nationale pour la lutte contre le VIH / SIDA (2001–2005)*. Malabo, undated. ([http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---ilo\\_aids/documents/legal-document/wcms\\_126849.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legal-document/wcms_126849.pdf), accessed 12 November 2010).

African Development Bank Group, Département Régional Centre (Orce) Bureau Régional de Libreville. *République de Guinée Equatoriale, document de stratégie-pays (DSP): 2008–2012*. Libreville, undated.

### Eritrea

WHO Regional Office for Africa. *WHO country cooperation strategy 2008–2013: Eritrea*. Brazzaville, 2009.

Ministry of Health. Research and Human Resource Development Department. *Human resources strategy for the health sector in Eritrea: 2006–2010*. Asmara, 2005.

Government of the State of Eritrea. *Interim poverty reduction strategy paper Eritrea (I-PRSP)*. Asmara, April 2004

Ministry of Health. *State of Eritrea: MOH application for GAVI Alliance HSS grant, September 2007*. Asmara, 2007.

Ghebregiorgis F, Karsten L. *Human resource management in Eritrea: current and future trends*. Groningen, University of Groningen, 2006 (CDS Research Report No. 24).

### Ethiopia

Federal Ministry of Health, Planning and programming department. *Health sector development plan III (HSDP) 2005/06–2009/10 (draft)*. Addis Ababa, 2005.

World Health Organization, Global Health Workforce Alliance Task Force on Scaling Up Education and Training for Health Workers. *Country case study: Ethiopia's human resources for health programme*. Geneva, undated.

Federal Ministry of Health. *Health sector development plan, HSDP III, 2005/06–2010/11, mid-term review, volume 1*. Addis Ababa, 2008.

Federal Ministry of Health, International Health Partnership. *The current status of health plans and strategies in Ethiopia: a taking stock report*. Addis Ababa, 2008.

Federal Ministry of Health. *Annual performance report of health sector development plan (HSDP) III 2007–2008, EFY 2000*. Addis Ababa, undated.

Federal Ministry of Health. *Compact between the Government of Ethiopia and the development partners on scaling up for reaching the health MDGs*. Addis Ababa, 2008.

### Web site

Federal Ministry of Health: <http://www.moh.gov.et>, accessed 15 November 2010.

### Gambia

Department of State for Health and Social Welfare. *Human resources for health, 15-year human resource plans and training schedules for the health sector of the Gambia – 2005–2020*. Banjul, 2005.

WHO Regional Office for Africa. *WHO country cooperation strategy: Republic of the Gambia – 2002–2005*. Brazzaville, undated.

### Web site

NewGambia. Celebrating fifteen years of development (1994–2009): <http://www.Newgambia.gm/Health2.htm>, accessed 15 November 2010.

### Ghana

Ministry of Health. *Creating wealth through health. The health sector programme of work: 2007–2011*. Accra, 2007.

Ministry of Health. *Human resource policies and strategies for the health sector 2007–2011*. Accra, 2007.

Management Sciences for Health (MSH). Management and Leadership Program (M&L). *Human resources analysis for Ghana health services*. Cambridge, MA, U.S. Agency for International Development, 2002 (requested by U.S. Agency for International Development, Ghana).

WHO Regional Office for Africa. *WHO country cooperation strategy 2008–2011: Ghana*. Brazzaville, 2009.

Global Alliance for Vaccines and Immunisation (GAVI). *Health system strengthening (HSS) proposal (round 4)*. Geneva. October 2007.

### Web site

Ministry of Health. About MOH: [http://www.moh-ghana.org/about\\_US/about\\_Moh.aspx](http://www.moh-ghana.org/about_US/about_Moh.aspx), accessed 16 November 2010.

### Guinea

Ministère de la Santé Publique. Plan stratégique de développement sanitaire 2003–2012. Conakry, 2003.

Ministry of the Economy, Finances and Planning. *Poverty reduction strategy paper – PRSP-2 (2007–2010)*. Conakry, 2007.

Ministry of State for Economic Development, Ministry of Economy and Finance, Permanent Secretariat for the Poverty Reduction Strategy. *Third progress report on the poverty reduction strategy paper*. Conakry, 2006.

WHO Regional Office for Africa. *Stratégie de coopération de L'OMS avec les pays 2004–2007 : Guinée*. Brazzaville, undated.

### Guinea-Bissau

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Proposal round 8: contributing to the reduction of disease burden in Guinea Bissau through improving management of essential medicines and products at regional and community levels and strengthening quantity and quality of health workers at peripheral health centers*. Geneva, 2008.

Global Alliance for Vaccines and Immunisation (GAVI). *Project information document, national health development plan support, second phase*. Geneva, 2007.

Ministry of Social Solidarity, Reinsertion of Combatants and Fight Against Poverty, Secretariat of State of Employment and Fight against Poverty. *National poverty reduction strategy paper (interim)*. Bissau, 2000.

Ministério da Saúde. *Plano de desenvolvimento dos recursos humanos da saúde (PDRHS)*. Bissau, 1997.

International Security Information Service, Europe. European Union security sector reform missions: the case of Guinea-Bissau. *European Security Review*, May 2008, No. 38.

### Web site

World Bank. Countries. Guinea-Bissau: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/GUINEABISEXTN/0,,menuPK:356675~pagePK:141159~piPK:141110~theSitePK:356669,00.html>, accessed 27 November 2010.

### Haiti

Pan American Health Organization. Division of Health Systems and Services Development. *Haiti: profile of the health services system (2nd edition, July 2003)*. Washington, DC, undated.

Ministère de la Santé Publique et de la Population. *Plan stratégique du secteur de la santé pour la réforme*. Port-au-Prince, 2004.

Programme National de Lutte contre le VIH/Sida. *Rapport national de suivi de la déclaration d'engagement sur le VIH/SIDA (UNGASS) Haïti 2007*. Port-au-Prince, 2008.

Knebel E et al. Developing a competency-based curriculum in HIV for nursing schools in Haiti. *Human Resources for Health*, 2008, 6:17. doi: 10.1186/1478-4491-6-17

Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). *Round 5 proposal: rapid expansion of HIV treatment services in Haiti*, Geneva, 2005.

### Honduras

Inter-American Development Bank. *Regional project to develop human resources for health. Operational plans*. Washington, DC, 2007.

Secretaría de Salud. *Honduras: plan nacional de salud 2021*. Tegucigalpa, 2005.

Pan American Health Organization. *Human resources for health profiles in Central America*. Washington, DC, 2006.

Pan American Health Organization. *Desafíos nacionales taller plan decenal RRHH*. Washington, DC, 2006.

Pan American Health Organization. *Agenda de salud de Centroamérica y República Dominicana 2009–2018. Aprobada en la XXIX Reunión Ordinaria del Consejo de Ministros de Salud del Sistema de la Integración Centroamericana, Tegucigalpa, 30 y 31 de Enero de 2009*. Washington, DC, 2009.

Pan American Health Organization. *Estrategia de cooperación técnica OPS/OMS: Honduras 2006–2010*. Washington, DC, 2005.

Global Alliance for Vaccines and Immunisation (GAVI). *Health system strengthening (HSS) proposal: Honduras*. Geneva, 2007.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Proposal round 8: breaking down the walls:*

a community response to HIV in vulnerable populations and expansion of the Stop TB Strategy and improvement of the capacity for response of health services in vulnerable areas of Honduras. Geneva, 2008.

#### Web sites

Sistema de la Integración Centroamericana: <http://www.sica.int/>, accessed 15 November 2010.

Secetaria de Salud: <http://www.salud.gob.hn/>, accessed 27 November 2010.

#### India

Ministry of Health & Family Welfare. Directorate of Health Services. Central Bureau of Health Intelligence, WHO Country Office for India. *Managing human resources for health in India – a case study of Gujarat & Madhya Pradesh, 2007*. New Delhi, 2007 ([http://www.whoindia.org/EN/Section2/Section404\\_1512.htm](http://www.whoindia.org/EN/Section2/Section404_1512.htm), accessed 14 November 2010).

Ministry of Health & Family Welfare. *National health policy, 2002 (India)*. New Delhi, undated.

Ministry of Health & Family Welfare. *The National Rural Health Mission (2005–2012). Mission document*. New Delhi, undated (<http://www.mohfw.nic.in/NRHM/Documents/RHM%20Mission%20Document.pdf>, accessed 15 November 2010).

WHO Regional Office for South-East Asia. *Country cooperation strategy 2006–2011*. New Delhi, undated.

Planning Commission. *Tenth five year plan 2002–07*. New Delhi, 2002.

National Rural Health Mission. Ministry of Health & Family Welfare, WHO Country Office for India, UK Department for International Development (DFID). *Human resources and management of health systems. Proceedings of workshop, October 16–18, 2008. Puducherry, 2008* ([http://www.whoindia.org/LinkFiles/Human\\_Resources\\_HR\\_meeting\\_Pondicherry.pdf](http://www.whoindia.org/LinkFiles/Human_Resources_HR_meeting_Pondicherry.pdf), accessed 14 November 2010).

Satpathy SK, Venkatesh S. Human resources for health in India's National Rural Health Mission: dimension and challenges. *Regional Health Forum*, 2006, 10:29–37.

#### Web sites

Ministry of Health & Family Welfare. Population growth paper: <http://mohfw.nic.in/natpp.pdf>, accessed 15 November 2010.

National Family Health Survey, India [online database]: <http://www.nfhsindia.org/nfhs3.html>, accessed 15 November 2010.

Planning Commission. Eleventh five year plan (2007–2012): <http://planningcommission.nic.in/plans/planrel/11thf.htm>, accessed 15 November 2010.

#### Indonesia

World Bank Office. *Indonesia's doctors, midwives and nurses: current stock, increasing needs, future challenges and options, 2009*. Jakarta, 2009.

WHO Country Office for Indonesia. *WHO country coordination strategy 2007–2011*: Indonesia. Jakarta, 2008.

Department of Health of the Republic of Indonesia. *Strategic plan for the department of health 2005–2009*. Jakarta, 2005.

Departemen Kesehatan R.I. *Indikator Indonesia Sehat 2010 dan pedoman penetapan indikator provinsi sehat dan kabupaten/kota sehat*. Jakarta, 2003 (<http://www.litbang.depkes.go.id/download/is2010/indikator.pdf>, accessed 14 November 2010).

Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). *Round 8 proposals: Indonesia response to HIV: government and civil society partnership in 12 provinces*. Geneva, 2008.

Global Alliance for Vaccines and Immunisation (GAVI). *Round 5 proposals for health systems strengthening, Indonesia*. Geneva, 2008.

Departemen Kesehatan R.I. Badan PPSDM Kesehatan. *Info Singkat. Pengembangan dan pemberdayaan sumber daya manusia kesehatan Indonesia tahun 2007*. Jakarta, 2007.

Heywood P, Harahap N. Human resources for health at the district level in Indonesia: the smoke and mirrors of decentralization. *Human Resources for Health*, 2009, 7:6. doi: 10.1186/1478-4491-7-6

#### Web site

Kementerian Kesehatan Republik Indonesia: <http://www.depkes.go.id/>, accessed 15 November 2010.

#### Iraq

Ministry of Health. *Short and medium-term strategies (2004–2007)*. Unpublished draft document. April 2004 (cited in the GFATM round 6 proposal: strengthening TB control in Iraq particularly among poor and vulnerable populations).

Ministry of Health-Iraq, Coalition Provisional Authority, World Health Organization. *National strategy and plan of action for nursing and midwifery development in Iraq 2003–2008*. Baghdad, 2003.



WHO Regional Office for the Eastern Mediterranean. *Country cooperation strategy for WHO and Iraq, 2005–2010*. Cairo, 2006.

World Bank, World Health Organization. *United Nations/World Bank joint Iraq needs assessment, 2003*. Washington, DC, and Geneva, 2003.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). Round 6 proposal: strengthening TB control in Iraq particularly among poor and vulnerable populations. Geneva, 2006.

#### Web site

WHO Country Office in Iraq. Information centre: <http://www.emro.who.int/iraq/Information.htm>, accessed 15 November 2010.

#### Kenya

Ministry of Public Health and Sanitation. *National human resources for health strategic plan 2009–2012 (draft)*. Nairobi, 2009.

Ministry of Public Health and Sanitation. *Health sector human resources for health strategic plan 2007/08–2009/10 (draft)*. Nairobi, 2008.

Ministry of Health. *Reversing the trends. The second national health sector strategic plan II – 2005–2010 (NHSSP II)*. Nairobi, 2005.

Global Alliance for Vaccines and Immunisation (GAVI). *Proposal for health systems support*. Geneva, 2006.

Campbell J, Stilwell B. *Kenya: taking forward action on human resources for health (HRH) with DFID/IOGAC and other partners*. NP, 2008.

Adano U. Health worker recruitment and deployment process in Kenya: an emergency hiring program. *Human Resources for Health*, 2008, 6:19. doi: 10.1186/1478-4491-6-19.

Mbindyo PM et al. Developing a tool to measure health worker motivation in district hospitals in Kenya. *Human Resources for Health*, 2009, 7:40 doi: 10.1186/1478-4491-7-40

#### Lao People's Democratic Republic

Committee for Planning and Investment. *National socio-economic development plan (2006–2010)*. Vientiane, 2006.

Lao People's Democratic Republic. *Executive summary of sixth five-year health sector development plan\_(2006–2010)*. Vientiane, undated (unofficial translation).

Ministry of Health, Japan International Cooperation Agency (JICA). *Study on the improvement of health and medical services in the Lao People's Democratic Republic. Lao health master planning study. Final report*. Tokyo, 2002.

Lao People's Democratic Republic. *National growth and poverty eradication strategy (NGPES)*. Vientiane, 2004.

Thome J-M, Pholsena S. Lao People's Democratic Republic: health financing reform and challenges in expanding the current social protection schemes (Chapter III). In: ESCAP, eds. *Promoting sustainable strategies to improve access to health care in the Asian and Pacific Region*. Bangkok, 2009.

Tibi C. *Education and public sector MTEF in Lao PDR: progress achieved, limitations and prospects*. May 2006.

Jönsson K et al. Health systems research in Lao PDR: capacity development for getting research into policy and practice. *Health Research Policy and Systems*, 2007, 5:11. doi: 10.1186/1478-4505-5-11

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 7 proposals: reducing the TB burden in Lao PDR, October 2008–2013*. Geneva, 2007.

#### Lesotho

Ministry of Health and Social Welfare. *Human resources development and strategic plan 2005–2025 (Lesotho)*. Maseru, 2002.

Ministry of Health and Social Welfare. *Emergency human resources plan for health*. Maseru, 2007.

*Report: review of the emergency human resources plan (EHRP) of the Ministry of Health and Social Welfare, draft*.

Ministry of Health and Social Welfare. *Human resources retention strategy*. Maseru, undated.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 8 proposal: stepping up universal access: a multi-sectoral partnership response to HIV at the community level (HSS, Action 1.2: strengthening the health workforce for service delivery)*. Geneva, 2008.

Makoe L et al. *A study report: maximising human resources at district level in Malawi and Lesotho*. Global Health, Trinity College Dublin, Faculty of Health Sciences, National University of Lesotho, Dept. of Human Resources & Dept of Planning, Ministry of Health and Social Welfare. Maseru, September 2008.

## Liberia

Ministry of Health & Social Welfare. *National health policy 2007. National health plan 2007–2011*. Monrovia, undated.

WHO Regional Office for Africa. *WHO country cooperation strategy 2008–2011: Liberia*. Brazzaville, 2009.

Global Alliance for Vaccines and Immunisation (GAVI). *Health systems strengthening (HSS) proposals 2007–2010*. Geneva, 2007.

Ministry of Health & Social Welfare. *National health and social welfare plan (2007–2011). Second draft (April 9, 2007)*. Monrovia, 2007.

Ministry of Health & Social Welfare. *Rapid assessment of the health situation in Liberia*. Monrovia, 2006.

Ministry of Health & Social Welfare. *Human resources review*. Monrovia, 2008.

### Web sites

Ministry of Health & Social Welfare: <http://liberiamohsw.org/>, accessed 27 November 2010.

USAID sub-Saharan Africa. Liberia overview: [http://www.usaid.gov/locations/sub-saharan\\_africa/countries/liberia/](http://www.usaid.gov/locations/sub-saharan_africa/countries/liberia/), accessed 16 November 2010.

World Bank. Liberia gets assistance for its health system reconstruction: <http://go.worldbank.org/4LM2USZ1H0>, accessed 16 November 2010.

## Madagascar

Dubois CA, Boivin S, Albert L. *Elaboration du plan de développement des ressources humaines pour le secteur santé – Madagascar : rapport final*. Montreal, Unité de Santé Internationale, 2007.

Ministère de la Santé. *Plan de développement des ressources humaines pour le secteur santé (PDRH) : rapport préliminaire*. Antananarivo, 2006.

Ministère de la Santé du Planning Familiale et de Protection Social. *Plan de développement du secteur santé (PDSS) 2007–2011*. Antananarivo, undated.

The World Bank. *Madagascar: sustainable health system development project (SHSDP) 2007–2009*. Washington, DC, 2007 (Report No: 38898 - MG April).

Ministère de la Santé du Planning Familiale et de la Protection Social. *Madagascar: cadre de dépense à moyen terme (CDMT) secteur santé 2006–2008*. Antananarivo, 2006.

WHO Regional Office for Africa. *Stratégie de coopération de l'OMS avec les pays 2004–2007: Madagascar*. Brazzaville, 2004.

International Monetary Fund. *Madagascar MAP progress report 2008*, Washington, DC, January 2009.

World Bank. *Country assistance strategy for the Republic of Madagascar for FY 2007–2011*. Washington, DC, 2007.

World Bank. *Sustainable health system development programme (HSDP) phase 2 project information document (PID)*. Washington, DC, 2008 (Report No. AB3694).

Ministry of Health. *Health SWAp project information document*. Antananarivo, 2007.

### Web site

Ministère de la Santé Publique: <http://www.sante.gov.mg>, accessed 27 November 2010.

## Malawi

Ministry of Health. Department of Planning. *Joint programme of work for a health sector wide approach (SWAp) 2004–2010*. Lilongwe, 2004.

Global Alliance for Vaccines and Immunisation (GAVI). *Alliance health system applications*. Geneva, 2007.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. *Human resources, capacity development assessment report, Malawi health Swap*. Eschborn, 2007.

Ministry of Health. *A 6-year emergency pre-service training plan*. Lilongwe, November 2001/July 2002.

Ministry of Health. *Proposed 6-year human resource relief programme for the Malawi health sector retention, deployment and recruitment*. Lilongwe, 2004.

WHO Regional Office for Africa. *WHO country cooperation strategy: Malawi – 2005–2009*. Brazzaville, 2005.

World Health Organization, Global Health Workforce Alliance. *Country case study: Malawi's Emergency Human Resource Programme: GHWA task force for scaling up training and education for health workers*. Geneva, 2008.

Ministry of Health and Population. *Malawi essential health package 2002/3 FY plan of action: "Reaching an EHP implementation plan"*. Lilongwe, Essential Health Package Working Group, 2002.

### Web site

Global Resource Center – Malawi: <http://www.hrhresource-center.org/taxonomy/term/151>, accessed 16 November 2010.

### Mali

Ministère de la Santé. *Programme de développement socio-sanitaire 2005–2009 (PRODESS II) « Composante sante »*. Bamako, 2004.

WHO Regional Office for Africa. *Stratégie de coopération de l'OMS avec les pays : République du Mali 2003–2007*. Brazzaville, 2002.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *HIV/AIDS proposals rounds 8: strengthening of the fight against HIV and AIDS in Mali for universal access to prevention, treatment, care and support: an integrated and decentralized approach in community-based health care*. Geneva, 2008.

van Dormael M et al. Appropriate training and retention of community doctors in rural areas: case study from Mali. *Human Resources for Health*, 2008 6:25.

Scaling up for better health (IHP+). *International Health Partnership*, Issue No. 6, 2008 ([http://www.who.int/healthsystems/strategy/IHP\\_update6\\_12Mar.pdf](http://www.who.int/healthsystems/strategy/IHP_update6_12Mar.pdf), accessed 14 November 2010).

### Web site

Ministère de la Santé: <http://www.sante.gov.ml>, accessed 27 November 2010.

### Mauritania

Ministère de la Santé et des Affaires Sociales. *Plan stratégique de développement des ressources humaines 2006–2015*. Nouakchott, 2006.

République Islamique de Mauritanie. *Cadre stratégique nationale de lutte contre les IST/VIH SIDA, 2003–2007*. Nouakchott, 2002.

Ministère Islamique de Mauritanie. *Cadre stratégique de lutte contre la pauvreté (CSLP) 2001–2015*. Nouakchott, 2001.

### Morocco

Ministère de la Santé. *Santé vision 2020*. Rabat, 2007 (<http://www.sante.gov.ma/Vision/Sante-Vision%202020.pdf>, accessed 14 November 2010).

WHO Regional Office for the Eastern Mediterranean. *Stratégie de coopération OMS – Maroc 2004–2007*. Cairo, undated.

African Development Bank Group. Operations Evaluation Department. *Morocco: review of the Bank's assistance to the health sector*. Tunis-Belvédère, 2005.

International Bank for Reconstruction and Development. Middle East and North Africa Region. *Country assistance strategy progress report for the Kingdom of Morocco for the period FY06–09*. Washington, DC, 2007.

### Web sites

Eastern Mediterranean Region Observatory on Human Resources for Health. Country information – Morocco: [http://www.emro.who.int/hrh-obs/country\\_information\\_mor.htm](http://www.emro.who.int/hrh-obs/country_information_mor.htm), accessed 16 November 2010.

Organisation mondiale de la Santé. Bureau du Représentant au Maroc. OMS-Maroc: <http://www.emro.who.int/morocco/oms-rabat/>, accessed 16 November 2010.

Ministère de la Santé: <http://srvweb.sante.gov.ma/Pages/Accueil.aspx>, accessed 16 November 2010.

### Mozambique

Ministério da Saúde. Direcção de Recursos Humanos. *Plano estratégico dos recursos humanos 2005–2010*. Maputo, 2004.

Ministério da Saúde. *Plano estratégico do sector Saúde 2007–2012*. Maputo, undated.

Ministry of Health. National Directorate of Human Resources. *Sufficient and competent health workers for expanded and improved health services for the Mozambican people*. Maputo, 2008 (<http://www.who.int/countries/moz/events/29102008/en/index.html>, accessed 14 November 2010).

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Country coordinating mechanism (CCM), proposal round 8: strengthening health systems and communities through government-civil society partnerships in Mozambique*. Geneva, 2008.

Republic of Mozambique. *Country strategy paper and national indicative programme for the period of 2008–2013*. Maputo, 2008.

Campbell J, Stilwell B. *Mozambique: taking forward action on human resources for health (HRH) with DFID/OGAC and other partners. Final Report*. Washington DC, and London, US Agency for International Development, UK Department for International Development, 2008.

**Web site**

World Health Organization – Mozambique: <http://www.who.int/countries/moz/en>, accessed 16 November 2010.

**Myanmar**

Ministry of Health. National Health Committee. *Health policy, plans and legislation*. Yangon, undated. <http://www.moh.gov.mm/file/health%20policy%20plans%20and%20legislation1.pdf>, accessed 14 November 2010.

Ministry of Health. *Myanmar Health Vision 2030 – 30-year long-term health plan (2001–02 to 2030–31)*. Yangon, 2001.

Union of Myanmar. *Educational development special four year plan (2000–2004)*. Yangon, 2000.

WHO Country Office for Myanmar. *WHO country cooperation strategy 2008–2011: Myanmar*. Yangon, 2008.

Than-Tun-Sein, Maung-Maung-Win, Nilar-Tin. *Coverage and skill mix balance of human resources for health in Myanmar*. Yangon, undated.

WHO Regional Office for South-East Asia. *WHO Regional Workshop on Health Systems Strengthening – an Integrated Approach, 2006: final report, New Delhi, 27–29 September 2006*. New Delhi, 2007.

WHO Regional Office for South-East Asia. *Revitalizing primary health care country experience: Myanmar*. New Delhi, undated.

WHO Regional Office for South-East Asia. *Myanmar: country health system profile*. New Delhi, undated.

**Web sites**

WHO Country Office for Myanmar: <http://www.who-myanmar.org/EN/Section5.htm>, accessed 16 November 2010.

Ministry of Health: <http://www.moh.gov.mm>, accessed 27 November 2010.

World Bank. Myanmar: <http://www.worldbank.org/mm>, accessed 16 November 2010.

**Nepal**

Ministry of Health and Population. *Nepal strategic plan for human resources for health 2003–2017*. Kathmandu, 2004.

Ministry of Health and Population. *Health sector strategy – an agenda for reform*. Kathmandu, 2004.

Ministry of Health and Population. *Nepal health sector programme – implementation plan*. Kathmandu, 2004.

WHO Country Office for Nepal. *WHO country cooperation strategy 2006–2011: Nepal*. Kathmandu, 2007.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 8 HIV proposals: Nepal*. Geneva, 2008.

Hornby P, Ghimire R. *Policies for the development and deployment of medical specialists in Nepal*. A Complimentary Report in the Strategic Plan for Human resources for Health 2003-2017 Kathmandu, Government of Nepal Health Ministry, HSSP-GTZ, 2003:17

**Web sites**

Marie Stopes International. Nepal: [http://www.mariestopes.org/Countries\\_we\\_work\\_in/Countries/Nepal.aspx](http://www.mariestopes.org/Countries_we_work_in/Countries/Nepal.aspx), accessed 16 November 2010.

Government of Nepal: <http://www.nepal.gov.np/>, accessed 27 November 2010.

WHO Regional Office for South-East Asia. Programme, planning and coordination, Nepal: <http://www.searo.who.int/en/Section1430/Section1433/Section1626.htm>, accessed 16 November 2010.

**Nicaragua**

*Gobierno de reconciliación y unidad nacional. Política nacional de salud de Nicaragua 2007–2015*. Managua 2007.

Republic of Nicaragua. *National health plan 2004–2015*. Managua, 2005.

Pan American Health Organization. *Desafíos nacionales taller plan decenal RRHH*. Washington, DC, 2006.

Ministerio de Salud. División General de Recursos Humanos. *Gestión de recursos humanos. Manual de procedimientos de desarrollo de los recursos humanos*. Managua, 2006.

Pan American Health Organization. *Human resources for health profiles in Central America*. Washington, DC, 2006.

Pan American Health Organization, WHO Regional Office for the Americas. *Estrategía de cooperación con el país – Nicaragua, 2004–2008*. Washington, DC, 2005.

Inter-American Development Bank. *Regional project to develop human resources for health. Operational plans*. Washington, DC, 2007.

**Web sites**

Ministerio de Salud. Organigrama de la División General de Recursos Humanos: [http://www.minsa.gob.ni/bns/rr\\_hh/organigrama.html](http://www.minsa.gob.ni/bns/rr_hh/organigrama.html), accessed 16 November 2010.

Ministerio de Salud. Organigrama 2009: [http://www.minsa.gob.ni/institucion/images/organigrama\\_2009\\_grande.jpg](http://www.minsa.gob.ni/institucion/images/organigrama_2009_grande.jpg), accessed 16 November 2010.

Ministerio de Salud. Observatorio de los Recursos Humanos de la Salud en Nicaragua [online database]: <http://www.minsa.gob.ni/bns/observatorio/indice.html>, accessed 16 November 2010.

## Niger

World Health Organization. *Stratégie de coopération de l'OMS avec les pays: République du Niger, 2004–2007*. Geneva, undated.

Ministère de la Santé Publique et de la Lutte Contre les Endemies. *Plan de développement Sanitaire (PDS) 2005–2009*. Niamey, undated.

Ministère de la Santé et de la Lutte Contre les Endemies. *Guide du suivi et d'évaluation du plan de développement sanitaire 2005–2010*. Niamey, undated.

Cabinet du Premier Ministre. Secrétariat Permanent du DSRP. *Stratégie de réduction de la pauvreté (2002–2015). Document de synthèse pour le forum*. Niamey, 2002.

Agence Française de Développement. *Fonds commun pour une amorce d'harmonisation dans un environnement fragile (étude de cas)*. Paris, 2008.

## Nigeria

WHO Regional Office for Africa. *WHO country cooperation strategy 2008–2013: Nigeria*. Brazzaville, 2009.

Ministry of Health. *National human resources for health strategic plan, 2008–2012*. Abuja, 2007 (<http://www.docstoc.com/does/4026583/federal-republic-of-nigeria-national-human-resources-for-health-strategic>, accessed 15 November 2010).

Ministry of Health. *National health plan, 1998–2010*. Abuja, undated.

World Bank. *Project paper of a proposed additional financing in the amount of SDR 57.5 million (US\$ 90 million equivalent) to the Federal Republic of Nigeria for a second health systems development project, September 2008*. Washington, DC, undated.

## Web sites

WHO Africa Region: Nigeria – human resources for health: <http://who.int/countries/nga/areas/resources/en/index.html>, accessed 16 November 2010.

WHO Statistical Information System [online database]: [http://apps.who.int/whosis/data/Search.jsp?countries=\[Location\].Members](http://apps.who.int/whosis/data/Search.jsp?countries=[Location].Members), accessed 16 November 2010.

## Pakistan

Ministry of Health. *National health policy 2001 – the way forward: agenda for health sector reform*. Islamabad, 2001.

Ministry of Health. *Human Resource Development (Health Services Academy - HSA, Community-Oriented Medical Education - COME & College of Physicians and Surgeons Pakistan - CPSP)*. Islamabad, 2008.

Planning Commission. *Ten-year perspective development plan 2001–2011. 2001*. (<http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN018851.pdf>) accessed 20 November 2010

Higher Education Commission (2005). *Medium Term Development Framework 2005–2010*. Islamabad, undated.

World Health Organization. Global Health Observatory. *Country health profile. Pakistan: health profile*. Geneva, undated. (<http://www.who.int/gho/countries/pak.pdf>, accessed 16 November 2010).

UK Department for International Development. *Maternal health strategy reducing maternal deaths: evidence and action. Third progress report*. London, 2008.

WHO Regional Office for the Eastern Mediterranean. *Country cooperation strategy for WHO and Pakistan 2005–2009: Pakistan*. Cairo, 2006.

World Health Organization, United Nations Children Fund, UK Department of International Development, World Bank. *Report of the health system review commission – Pakistan*. Islamabad, 2007.

Global Alliance for Vaccines and Immunisation (GAVI). *Guidelines for GAVI Alliance Health System Strengthening (HSS) applications*. Geneva, 2007.

Ministry of Health. *Annual report – national program for FP & PHC: August 2005–September 2006*. Islamabad, 2006.

Ministry of Health. *National programme for family planning and primary health care. "The Lady Health Workers Programme", 2003–2008*. Islamabad, 2003.

Dussault G, Franceschini MC. Not enough there, too many here: understanding geographical imbalances in the distribution of the health workforce. *Human Resources for Health*, 2006, 4:12. doi: 10.1186/1478-4491-4-12

Zaidi A. Urban bias in health facilities in Pakistan. *Social Science and Medicine*, 1985, 20:473–482.

Zaidi A. Why medical students will not practice in rural areas: evidence from a survey. *Social Science and Medicine*, 1996, 22:527–533.

#### Web sites

WHO Country Office in Pakistan. *Health Information System (HMIS) Programme*; <http://www.whopak.org/HIS.htm>, accessed 16 November 2010.

Government of Pakistan Planning Commission: <http://www.planningcommission.gov.pk/>, accessed 16 November 2010.

#### Papua New Guinea

World Bank. *Strategic directions for human development in Papua New Guinea*. Washington, DC, 2007 (Directions in Development, Human Development 40924).

Ministry of Health. *National health plan 2001–2010*. Port Moresby, undated.

Department of Treasury. *Budget, vol. 1. Chapter 7. Sectoral policies*. Port Moresby, 2010.

New Zealand Agency for International Development/ Government of Papua New Guinea. *Country programme strategy 2008–2018*. Wellington and Port Moresby, 2008 (<http://www.nzaid.govt.nz/library/docs/nzaid-png-strategy-2008-2018.pdf>, accessed 15 November 2010).

National Aids Council. *The Papua New Guinea national strategic plan on HIV/AIDS 2006–2010*. Port Moresby, 2006 (<http://www.adi.org.au/upload/National%20Strategic%20Plan%202006-2010%20-%20PNG%20Natiional%20AIDS%20Council.pdf>, accessed 14 December 2010).

Bolger J, Mandie-Filer A, Hauck V. *Papua New Guinea's health sector. A review of capacity, change and performance issues. Case study prepared for the project "Capacity, Change and Performance"*. Maastricht, European Centre for Development Policy Management, 2005:16 (Discussion Paper No. 57F).

WHO Regional Office for the Western Pacific. *WHO country cooperation strategy Papua New Guinea 2007–2011*. Manila, undated.

Papua New Guinea Sustainable Development Program Ltd. *Pre program assessment for health in Western Province*. Port Moresby, 2006 (<http://www.adi.org.au/upload/WP%20Health%20Pre-Program%20Assessment%20PNGSDP.pdf>, accessed 15 November 2010).

Asian Development Bank. *Technical assistance completion report. Health sector support*. Manila, 2006.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 6 proposal: expanding and implementing the Stop TB Strategy in Papua New Guinea*. Geneva, 2006.

WHO Regional Office for the Western Pacific. *Informal consultation on human resources for health for Pacific Island countries, Suva, Fiji, 10–12 December 2007. Summary report (final draft: 28 January 2008)*. Manila, 2008.

van den Broek A. *Consultancy report on human resources for health and faith-based service providers in Papua New Guinea*. Port Moresby, 2007.

#### Peru

Alvarez RS. *Lineamientos de política nacional para el desarrollo de los recursos humanos en salud*. 2005.

Alvarez RS. *Lineamientos de política nacional para el desarrollo de los recursos humanos en salud*. 2009 (updated slide presentation of HRH plan).

Ministerio de Salud. Dirección General De Políticas, Regulación Y Gestión Del Desarrollo De Recursos Humanos. *Plan para una década del desarrollo de los recursos humanos de salud, 2006–2015*. Lima, 2006.

Ministerio de Salud. Observatorio Nacional de Recursos Humanos en Salud. *Perú respondiendo a los desafíos de la década de los recursos humanos en salud*. Lima, 2007.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GATM). *Round 8 proposals: making a difference: promoting a wide ranging integral response to tuberculosis in Peru*. Geneva, 2008.

#### Web sites

Ministerio de Salud. Organigrama: (<http://www.presidencia.gob.pe/normas/estructura.pdf>, accessed 15 November 2010).

Observatorio Nacional de Recursos Humanos en Salud: <http://www.minsa.gob.pe/dggdrh/observatorio/index.html>, accessed 16 November 2010.

Coordinadora nacional multisectorial en Salud (CONAMUSA): <http://www.conamusa.org.pe/>, accessed 16 November 2010.

Foro de la Sociedad Civil en Salud: <http://www.forsalud.org.pe/documentos.html>, accessed 16 November 2010.

Ministerio de Salud: <http://www.minsa.gob.pe/>, accessed 27 November 2010.

## Rwanda

Ministry of Health. *Rwanda human resources for health strategic plan 2006–2010*. Kigali, undated.

Ministry of Health. *Rwanda health sector strategic plan 2005–2009*. Kigali, undated.

Ministry of Health, WHO Regional Office for Africa. *WHO country cooperation strategy 2009–2013: Rwanda*. Brazzaville, 2009.

Ministry of Health. *Rwanda Health Sector Strategic Plan 2005–2009 medium term report (MTR) (HSSP) I evaluation report, by the External Evaluation Team*. Kigali, June–July 2008.

### Web site

Ministry of Health: <http://www.moh.gov.rw/>, accessed 27 November 2010.

## Senegal

WHO Regional Office for Africa. *Stratégie OMS de coopération avec les pays – République du Sénégal: 2002–2006*. Brazzaville, 2002?

Ministère de la Santé Publique et de l'Action Sociale. *Plan national de développement sanitaire et social du Sénégal (1998–2007)*. Dakar, 1997.

Japan International Cooperation Agency. *Project for the development in human resources in health, Republic of Senegal*. Tokyo, 2001? (<http://www.jica.go.jp/project/senegal/6421060E0/english/02/index.html>, accessed 15 November 2010).

Evaluation du plan national de développement sanitaire. *Le Quotidien*, 4 juillet 2009.

Sall FL. Reform of health system financing in Senegal, 2004–2008. *African Health Monitor*, January–June 2005.

### Web site

Ministère de la Santé et de la Prévention: <http://www.sante.gouv.sn/>, accessed 15 November 2010.

## Sierra Leone

Ministry of Health and Sanitation. *Sierra Leone human resources for health development plan 2006–2010*. Freetown, 2006.

Ministry of Health and Sanitation. *Human resources for health policy in Sierra Leone for the Ministry of Health and Sanitation*. Freetown, 2006.

Sandi AA. *Human resources capacity challenges in the health sector in Sierra Leone*. Freetown, Ministry of Health and Sanitation. Human Resources, undated.

WHO Regional Office for Africa. *WHO country cooperation strategy 2008–2013: Sierra Leone*. Brazzaville, 2009.

World Health Organization. *World Health Report 2006 – working together for health*. Geneva, 2006.

### Web sites

Ministry of Health and Sanitation. Organogram: <http://www.health.sl/drwebsite/publish/organogram.shtml>, accessed 15 November 2010.

Ministry of Health and Sanitation. Human Resources. Information on primary health programs: [http://www.health.sl/drwebsite/publish/page\\_320.shtml](http://www.health.sl/drwebsite/publish/page_320.shtml), accessed 15 November 2010.

WHO Statistical Information System [online database]: <http://apps.who.int/whosis/data/Search.jsp?countries>, accessed 15 November 2010.

## Somalia

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 8 for Somalia. Part 4B health system strengthening*. Geneva, undated.

Liverpool Associates in Tropical Health. *Health systems strengthening in Somaliland with a focus on increasing human resources for health capacity, 2007–2009*, Liverpool, undated (prepared for UK Department for International Development; [http://www.lath.com/dbimsgs/file/attachments/Health%20System%20Strengthening%20Somaliland%202007-2009\(2\).pdf](http://www.lath.com/dbimsgs/file/attachments/Health%20System%20Strengthening%20Somaliland%202007-2009(2).pdf), accessed 15 November 2010).

El-Jardali F et al. Human resources for health planning and management in the Eastern Mediterranean region: facts, gaps and forward thinking for research and policy. *Human Resources for Health*, 2007, 5:9. doi 10.1186/1478-4491-5-9

Leather A et al. Working together to rebuild health care in post-conflict Somaliland. *Lancet*, 2006, 368:1119–1125.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). *Round 8 final application: Halting and reversing the spread and reducing the impact of HIV in the three Somali zones of Somaliland, Puntland and South Central*. Geneva, 2008.

## Togo

WHO Regional Office for Africa. *Stratégie de coopération de l'OMS avec les pays 2004–2007: Togo*. Brazzaville, undated.

Togolese Republic. *Full poverty reduction strategy paper 2009–2011*. Lomé, 2009 (final version).

## Uganda

Ministry of Health. *Uganda human resources for health strategic plan 2005–2020*. Kampala, undated.

Global Alliance for vaccines and immunisation (GAVI). *Health system strengthening in Uganda*. Geneva, 2007.

Ministry of Health. *Annual health sector performance report. Financial year 2007/2008*. Kampala, 2008.

WHO Regional Office for Africa. *Meeting report of the Africa Health Workforce Observatory*, Arusha, 26–29 September 2006. Brazzaville, 2006.

Ministry of Health. *Uganda human resources for health strategic plan 2005–2020: supplement 2009. A health workforce crisis in Uganda: time for real action – final draft*. Kampala, 2009.

Republic of Uganda. *Joint assistance strategy for the Republic of Uganda (2005–2009)*. Kampala, undated.

## Web sites

Ministry of Public Service: <http://www.publicservice.go.ug>, accessed 27 November 2010.

World Health Organization. Uganda: <http://www.who.int/countries/uga/en/>, accessed 27 November 2010.

## United Republic of Tanzania

Ministry of Health and Social Welfare. *Human resources for health strategic plan 2008–2013*. Dar es Salaam, 2008.

Ministry of Health and Social Welfare. *Health sector strategic plan III July 2009–June 2015. “Partnership for Delivering the MDGs”*. Dar es Salaam, 2009.

Ministry of Health. *Health sector strategic plan (HSSP) (July 2003–June 2008). “Reforms towards delivering quality health services and clients satisfaction”*. Dar es Salaam, 2003.

UK Department of International Development. Health Resource Centre. *International health partnership (IHP+). Country health sector teams. Background literature review, final draft*. London, 2008.

Smithson P. *Current arrangements for performance measurement and reporting (in the health sector). Phase 1 report (commissioned by NORAD and the Ministry of Health and Social Welfare)*. 2007 (unpublished).

Maestad O. *Human resources for health in Tanzania: challenges, policy options and knowledge gaps*. Bergen, Chr. Michelsen Institute (CMI), 2006.

## Web sites

Ministry of Health and Social Welfare downloads: <http://www.moh.go.tz/details.php?value=Plans>, accessed 15 November 2010.

Africa Health Workforce Observators. Progress so far: [http://www.who.int/workforcealliance/forum/Adam\\_Ahmat\\_WHO\\_AFRO.pdf](http://www.who.int/workforcealliance/forum/Adam_Ahmat_WHO_AFRO.pdf), accessed 15 November 2010.

## Yemen

Ministry of Public Health and Population. *National health strategy draft 2009*. Sana’a, undated.

Ministry of Public Health and Population. *Third five-year health development plan (2006–2010)*. Sana’a, undated.

Ministry of Public Health and Population. *Second five-year development plan (2001–2005)*. Sana’a, undated.

Ministry of Public Health. *Health sector reform: strategy for reform*. Sana’a, 2000.

WHO Regional Office for the Eastern Mediterranean. Regional Health Systems Observatory. *Health system profile – Yemen*. Cairo, 2006.

Republic of Yemen. *Poverty reduction strategy paper (PRSP), 2003–2005*. Sana’a, 2002 (unofficial translation from the original text in Arabic).

Ministry of Planning and International Cooperation. *Socio-economic development plan for poverty reduction (2006–2010)*. Sana’a, 2008.

WHO Regional Office for the Eastern Mediterranean. *Country cooperation strategy for WHO and the Republic of Yemen, 2002–2007*. Cairo, 2003.

## Zambia

Zambia. Ministry of Health. *Human resources for health strategic plan (2006–2010)*. Lusaka, 2005.

Koot J, Martineau T. *Mid term review: Zambian health workers retention scheme (ZHWS) 2003–2004*. Amsterdam and Liverpool, 2005.

Schatz JJ. Zambia’s health-worker crisis. *Lancet*, 2008, 371:638–639. doi: 10.1016/S0140-6736(08)60287-1



Bowa K. Zambia's health work-worker crisis. *Lancet*, 2008, 371:1577–1578. doi: 10.1016/S0140-6736(08)60686-8

Centre for Health, Science & Social Research (CHESSORE). *Human resources for the delivery of health services in Zambia: external influences and domestic policies and practices. A case study of four districts in Zambia*. Lusaka, 2008.

Global Fund to Fight AIDS, Tuberculosis and Malaria (GAFTM). *Round 8 proposals: caling-up prevention and impact mitigation and strengthening health systems, Zambia*. Geneva, 2008.

### **Zimbabwe**

WHO Regional Office for Africa. *Country cooperation strategy: Republic of Zimbabwe, 2004–2007*. Brazzaville, undated.

Mudyarabikwa O, Mbengwa A. *Distribution of public sector health workers in Zimbabwe: a challenge for equity in health*. Harare, 2006 (Equinet Discussion Paper No. 34).

Loewenson R, Masotya M. *Equity watch: assessing progress towards equity in health – Zimbabwe*. Harare, Regional Network for Equity in Health in East and South Africa (EQUINET), Training Support Centre (TARSC), 2009.

WHO Regional Office for Africa. Africa Health Workforce Observatory. *Meeting of the Africa Health Workforce Observatory, Arusha, 26-29 September 2006*. Brazzaville (28/9/2006).

### Annex 3. Tables presenting qualitative and quantitative data from the HRH tracking survey

#### A. strategic directions

Table 1 HRH policies and plans, and their comprehensiveness

Strategic directions Whether there are HRH policies and plans and their comprehensiveness	AFR	AMR	EMR	SEAR	WPR	Global
<b>Total number of countries</b>	36	5	7	6	3	57
Countries with separate HRH plans	31	3	3	6	2	45
Plans well integrated into national policies	27	2	3	6	2	40
HRH plan includes projections of the HRH needs	25	3	3	3	1	35
Projections cover the public/PFP/PNP sector	10	3	3	1	1	18

Table 2 Top five topics found in HRH plans

Strategic directions The top five for topics found in the HRH plans	AFR	AMR	EMR	SEAR	WPR	Global	Global*
<b>Total number of countries with a HRH plan</b>	31	3	3	6	2	45	–
(a) Pre-service education	29	3	3	5	2	42	42
(b) In-service education	25	3	3	5	2	38	38
(c) Educational targets	–	–	3	5	2	32	32
(d) Recruitment processes	–	–	3	5	–	–	24
(e) Recruitment targets	–	–	3	–	2	–	31
(f) Deployment and distribution	–	–	3	–	2	–	31
(g) Skill mix	–	–	–	5	–	–	24
(h) Remuneration	–	–	–	–	2	–	31
(i) Incentives	25	–	–	–	2	34	34
(j) Supervision	–	–	–	–	–	–	24
(k) Learning opportunities	23	–	–	–	–	–	27
(l) Workplace environment	–	–	–	–	2	–	24
(m) Career development	23	3	–	–	2	35	35
(n) Performance management	–	–	–	–	–	–	25
(o) Mobility of staff	–	–	–	–	–	–	19
(p) Regulation	–	3	–	–	–	–	14
(q) HRH information	–	3	3	–	2	–	30
<b>Other issues addressed in the plans</b>							
Projection of HRH needs are included in the HRH plan	25	3	3	3	1	35	–
HRH projections cover the public/ PFP/PNP sector	10	3	3	1	1	18	–
Decentralization	21	2	2	3	–	28	–

\* The last column reflects the total number of countries that mentioned the strategic direction in its HRH plan.

Table 3 Content of the HRH plans

Strategic directions The scaling up of health worker education and training	AFR	AMR	EMR	SEAR	WPR	Global
<b>Total number of countries with a HRH plan</b>	31	3	3	6	2	45
Plans that cover the education (pre- and in-service) of health workers	25	3	3	6	2	39
<b>Working conditions to improve retention</b>						
Plans that cover processes and targets for recruitment of health workers	14	2	3	4	–	23
Plans that include remuneration of health workers	21	2	2	2	1	28
Plans that address skill mix/scope of practice	17	1	1	5	–	24
Deployment and distribution of staff are included in the plan	20	2	3	4	2	31
Incentive schemes addressed are included in the plan	23	2	2	3	2	32
The workplace environment is addressed in the plan	17	1	2	2	2	24

Table 4 Content of the HRH plans: implementation and M&amp;E of the programme

Strategic directions Implementation and M&E of the programme	AFR	AMR	EMR	SEAR	WPR	Global
<b>Total number of countries</b>	36	5	7	6	3	57
<b>Total number of countries with a HRH plan</b>	31	3	3	6	2	45
Implementation of the HRH plan	17	2	2	3	1	25
Monitoring of the implementation of the programme is foreseen	20	–	1	1	2	24
A plan, implemented together with a mechanism for M&E and a national plan for evaluation	11	–	–	1	2	14
HRH plans are (partially) developed on the basis of national studies	11	1	1	2	1	16

## B. Leadership/governance capacity

Table 5 Existence of HRH management units and their capacity

Leadership/governance capacity Existence of HRH management units and their capacity	AFR	AMR	EMR	SEAR	WPR	Global
<b>Total number of countries</b>	36	5	7	6	3	57
Countries with a HRH unit	33	4	6	5	3	51
Countries with a national HRH observatory	8	4	2	–	–	14
<b>Total number of countries with a HRH plan</b>	31	3	3	6	2	45
Countries with a HRH plan and a HRH unit	29	3	3	5	2	42
HRH plans are (partially) developed on the basis of national studies	11	1	1	2	1	16

## C. Partnerships

Table 6 Participation with stakeholders

Stakeholders	AFR	AMR	EMR	SEAR	WPR	Global
<b>Number of countries with a HRH plan</b>	31	3	3	6	2	45
<b>Stakeholders involved in the planning of the HRH plan:</b>						
Public sector:	24	3	3	4	2	36
- ministry of education	17	2	3	3	1	26
- ministry of finance	18	1	3	3	2	27
- ministry of labour/public service commission	9	1	1	3	1	15
Private sector:	9	2	3	6	1	21
- private for-profit sector	4	–	3	1	–	8
- private education sector	8	–	3	5	2	18
- private non-profit sector	7	2	3	2	–	14
- International nongovernmental organizations	4	2	2	2	1	11
- international faith-based organizations	1	1	2	0	–	4
- nongovernmental organizations	2	2	3	1	–	8
- local faith-based organizations	6	–	–	–	1	7
- civil society organizations	1	–	–	–	1	2
- professional associations	10	3	2	1	2	18
Multinational development partners	15	3	3	4	1	26
Bilateral development partners	14	3	2	3	2	24
Global health initiatives	3	–	2	1	1	7
<b>Countries that have developed the plan with various stakeholders</b>	25	3	3	3	2	36

Table 7 The presence of a SWAp mechanism

Context	AFR	AMR	EMR	SEAR	WPR	Global
<b>Number of countries with a HRH plan</b>	31	3	3	6	2	45
<b>Number of countries with a separate HRH plan that has a SWAp mechanism</b>	24	3	3	6	2	38

## D. Commitment

Table 8 Commitment of national governments and the international donor community to implementation of the plan

Investment in HRH interventions	AFR	AMR	EMR	SEAR	WPR	Global
<b>Number of countries with a HRH plan</b>	31	3	3	6	2	45
Countries with a separate costed HRH plan	23	2	1	4	2	32
Commitment for appropriate or increased allocation from national resources	15	1	1	–	–	17
Plans that receive donor funding	17	2	3	5	2	29
Costed plans that receive donor funding	15	2	0	4	2	23

Type of HRH activities supported by development partners	AFR	AMR	EMR	SEAR	WPR	Global
Total number of countries	36	5	7	6	3	57
Pre-service training	22	3	6	6	3	40
In-service training	26	5	6	3	2	42
Recruitment	11	–	5	2	1	19
Policy and plan development	21	2	6	3	1	33
Incentives	13	2	5	2	1	23
HRH information	17	4	5	1	2	29

In order to understand and monitor the progress in developing and implementing HRH policies in the 57 countries experiencing a critical deficit in the health workforce, this tracking survey provides an overview of the current situation in terms of HRH policies, plans, capacities and processes. The scope of the study focuses on four dimensions, which are considered essential in developing a strong health workforce and in enabling progress to be monitored: strategic directions, governance and leadership, partnership and commitment. It contributes to a better understanding of some of the crucial issues and it is expected that this publication will contribute to stimulating the debate on HRH policies and practices at international level, and within the countries concerned.

---

### About Human Resources for Health Observer

The WHO-supported regional health workforce observatories are cooperative mechanisms, through which health workforce stakeholders share experiences, information and evidence to inform and strengthen policy decision-making. The Human Resources for Health Observer series makes available

the latest findings and research from different observatories to the widest possible audience. The series covers a wide range of technical issues, in a variety of formats, including case studies, reports of consultations, surveys, and analysis. In cases where information has been produced in local languages, an English translation - or digest - will be made available.

---

This publication is available on the Internet at:  
<http://www.who.int/hrh/resources/observer/en/>

