The health workforce: current challenges

© World Health Organization 2004

All rights reserved. Publications of the World Health Organization can be obtained from Marketing and Dissemination, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel: +41 22 791 2476; fax: +41 22 791 4857; email: bookorders@who.int). Requests for permission to reproduce or translate WHO publications—whether for sale or for noncommercial distribution—should be addressed to Publications, at the above address (fax: +41 22 791 4806; email: 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.

The World Health Organization does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Printed in Switzerland
The health workforce: current challenges

Contents

Introduction......................................................................................................................... 1
A global overview .............................................................................................................. 2
Recruitment and retention of health personnel................................................................. 5
Managing health workforce migration............................................................................. 8
Information on HRH.......................................................................................................... 10
Attaining the Millennium Development Goals: the case for integrated human resources planning ................................................................................................................. 13
Introduction

The World Health Organization (WHO) works to support Member States in strengthening their capacity to plan, educate and manage their health workforce so that health services can meet health needs. The role of WHO includes building international consensus, formulating norms and standards based on evidence and best practices, and providing technical guidance. The work is led by countries and carried out through close collaboration within WHO and with regional counterparts and multilateral and bilateral agencies and NGOs. WHO created the Department of Human Resources for Health as a focal point for addressing HRH issues.

Through integrated action with partners and stakeholders, WHO supports Member States in addressing health sector interventions and processes related to the health workforce. Towards this end, WHO designs, implements and monitors appropriate HRH priority strategies and interventions in line with country processes and programmes to meet health needs.

<table>
<thead>
<tr>
<th>Health sector interventions and processes in countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>• National development plan</td>
</tr>
<tr>
<td>• PRSP</td>
</tr>
<tr>
<td>• MTEF</td>
</tr>
<tr>
<td>• Public sector reform</td>
</tr>
<tr>
<td>• Civil service reform</td>
</tr>
<tr>
<td>• SWApS</td>
</tr>
<tr>
<td>• Health investment plan (CMIH)</td>
</tr>
<tr>
<td>• Health policy</td>
</tr>
<tr>
<td>• Health system information</td>
</tr>
<tr>
<td>• Child survival</td>
</tr>
<tr>
<td>• MPR</td>
</tr>
<tr>
<td>• HIV/AIDS</td>
</tr>
<tr>
<td>• Malaria</td>
</tr>
<tr>
<td>• TB</td>
</tr>
<tr>
<td>• Others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HRH priority strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• HRH policy</td>
</tr>
<tr>
<td>• Health labour market</td>
</tr>
<tr>
<td>• Education/ Training</td>
</tr>
<tr>
<td>• Recruitment</td>
</tr>
<tr>
<td>• Retention</td>
</tr>
<tr>
<td>• Migration</td>
</tr>
<tr>
<td>• Regulation</td>
</tr>
<tr>
<td>• Incentives</td>
</tr>
<tr>
<td>• Distribution/ Equity</td>
</tr>
</tbody>
</table>

This document is intended to be neither comprehensive nor definitive. Instead, it briefly describes HRH-related issues common to many countries and proposes ways to address them. It gives examples of strategies applied successfully in specific local contexts, as well as of constraints and challenges often encountered. The authors hope it will contribute towards understanding and effective positive action in ensuring to countries the health workforce they need.
**A global overview**

**Challenges for today’s health workforce**

Human resources for health (HRH) are a costly and crucial input for health systems: they account for a large proportion of health sector budgets and have been consistently identified as a major constraint to scaling up priority health interventions and to attaining the Millennium Development Goals (MDGs). It is therefore essential for policy-makers and managers to ensure that a health workforce sufficient in numbers, well educated and trained and adequately deployed, managed and motivated is available to provide services of good quality.

The economic and policy environment is very different today from that of 25 years ago. Traditional models in which the government directly recruits, trains and deploys health professionals no longer reflect the reality of most developing countries. Most countries have undergone decentralization and reforms of the civil service and the health sector. The health care roles of nongovernmental organizations and private providers have greatly expanded. Furthermore, all countries are now part of the global marketplace for health professionals, and the effects of the demand–supply imbalance will only increase as trade in health services increases. Accordingly, new models for health workforce strengthening must be developed and evaluated.

The most crucial issue facing health systems is failure in the labour markets in countries, whose manifestations range from absolute shortage of health personnel – often exacerbated by migration – to underemployment to oversupply. Although this crisis is greatest in developing countries, particularly in sub-Saharan Africa, it affects all nations. It severely constrains the response to the AIDS treatment emergency and the development of health systems driven by primary health care, even as AIDS reduces the available workforce.

**Words of advice**

Policies to tackle the complex issues in HRH should be:

- country-led
- based on best evidence, to ensure optimal chances of success in HRH development
- formulated according to the specific needs of the country
- realistic and acceptable to the country’s culture, values and socioeconomic development
- flexible in order to enable adaptation to changing circumstances
- developed with input from all stakeholders
- built on existing information and policy processes in the country.
Checklist for action

☑ Assess the human resources for health issues and challenges

A. Supply factors:
   • shortages: absolute and qualitative
   • migration: internal and external
   • gender and equity
   • matching education and practice with needs

B. Demand factors:
   • motivation
   • incentives
   • working conditions
   • impact of specific diseases or risk factors on health workers

C. Policy development and implementation:
   • weak information systems for HRH
   • lack of capacity and tools at national and subnational level for analysis and implementation
   • paucity of research in low-income countries, especially on workable solutions
   • lack of congruence between external and internal stakeholders

☑ Develop investment plans and HRH policies and plans that focus on:
   • Strengthening education and training institutions
   • Developing institutional capacity to formulate and implement policies and strategies
   • Developing the regulatory systems
   • Building networks that share best practices and support implementation
   • Promoting research in human resources

☑ Implement policies and strategies
   • Implementation with all those affected by the changes
   • Promote innovative approaches
   • Effectively manage the changes

☑ Monitor and evaluate
   • Develop indicators for continuous monitoring
   • Design evaluation plans with national staff.

Successful strategies

The Observatory of Human Resources in Health Sector Reforms

The Observatory is a cooperative initiative promoted by the Pan American Health Organization/WHO Regional Office for the Americas. Its goals are to produce and share knowledge among the countries of the region to support human resources policy decisions and improve workforce development in the health services sector.

The initiative supports the creation of national inter-institutional groups to collect information on the stock of human resources for health and to analyse imbalances and trends, to prioritize an agenda of issues to be tackled and to advise on long-term and medium-term policy development. Nineteen countries participate in the initiative, with different emphases and priorities according to national concerns. The networking efforts are geared to making the country experiences applicable in other contexts, through construction of databases and dissemination of lessons learnt.

The main lessons to date are as follows:

• The Observatory is a way to improve the stewardship role of ministries of health in human resources.
• The inter-institutional Observatory groups can help maintain the human resources agenda during changes of government.
• There is a need to integrate key stakeholders – universities, ministries of health and professional associations – even though there may be substantial conflicts between them.
• Evidence must be developed from reliable and stable statistical sources (for example, the International Labour Organization and household surveys).
• New approaches should be found to use the information in shaping policies (for example, to improve geographical distribution and to correct public–private imbalances).

General information about the network and its meetings, as well as useful links, can be found in Spanish at [http://www.campusvirtualsp.org/observatorio/espl/index.html]. This web site is now being translated into English.
Developing policy options: creating a skilled workforce for tomorrow

Strategies to address health workforce challenges require multilevel actions with different timeframes to ensure implementation.

At national level:
- Effectively strengthen national HR information systems.
- Establish mechanisms to allow for dialogue and cooperation between different ministries and the public and private sector.
- Closely align to the needs of the country the way in which development partners engage in HRH activities in the country.

At international levels:
- Consider the implications of macroeconomic policies that have an impact on the national health workforce.
- Consider the implications of the global market for skilled health workers.
Policy interventions can be designed at various levels and with various time-frames.

Education:
- develop a plan to improve education and training capacity and management practices
- develop and implement on-the-job training to upgrade skills
- expand opportunities for management training and for improving management practices
- foster health leadership through such initiatives as the WHO Fellowship Programme

Labour market:
- analyse the labour market, relative wages and supply trends so as to be able to design appropriate recruitment, retention and wage policies
- develop long-term plans for achieving appropriate mixes of skills and geographical distribution of health care professionals
- contract with the private sector and nongovernmental organizations

Recruitment and retention:
- develop pay and non-pay incentive packages to improve staff recruitment and retention
- improve working conditions, including better distribution of drugs and other essential medical supplies.
- design and implement safety guidelines, clinical protocols, and anti-discrimination policies to improve working conditions
- introduce flexible new contract opportunities for part-time work

Investments and partnerships:
- coordinate donor contributions to workforce development;
- build extensive partnerships with civil society.
- develop strategies for strengthening the relationship between public and private providers and financing.

Contact:
Orvill Adams, Director, Department of Human Resources for Health;
Telephone: +41 22 791 2889; Email: adamso@who.int

Mario R. Dal Poz, Coordinator, Policy, Evidence and Tools; Department of Human Resources for Health
Telephone: +41 22 791 3599; Email: dalpozm@who.int

Claudia Stein, Coordinator, Leadership, Management and Fellowships; Department of Human Resources for Health
Telephone: +41 22 791 3234; Email: steinc@who.int

Barbara Stilwell, Coordinator, Performance Improvement and Education; Department of Human Resources for Health
Telephone: +41 22 791 4701; Email: stilwellb@who.int
Recruitment and retention of health personnel

Why are recruitment and retention of health personnel important?

Attracting and keeping the right staff are key challenges for policy-makers because the performance and quality of a health system ultimately depend on the quality and motivation of human resources for health (HRH). Recruitment and retention problems may lead to shortages of health personnel, which are currently reported by developed and developing countries alike.

Shortages can be either absolute or relative. An absolute shortage means there is a simple lack of qualified staff, now and for the near future, given the current output of health training institutions. A relative shortage may be expressed as imbalances in the geographical, gender or specialty distribution of health workers.

Shortages can have adverse consequences for the health system, such as increased waiting time for medical procedures, closure of hospital wards and lower quality and productivity. It is therefore essential for policy-makers to have a good understanding of recruitment, retention and motivation issues. In particular, it is important to identify factors affecting labour participation, choice of location and decision to stay or leave. It is useful to see how recruitment is carried out in various countries, and what legal and administrative mechanisms and instruments are used by governments or health managers to affect these functions.

Words of advice

- With key stakeholders in the country, discuss recruitment, retention and motivation issues.
- Conduct an initial assessment of recruitment, retention and motivation issues to identify the scope and key factors of the problem.
- Review existing policies dealing with recruitment, retention and motivation.
- Develop evidence-based policies to improve recruitment, retention and motivation.
- Incorporate contextual issues such as health care reform, civil service reform, decentralization, system-wide approaches (SWAps) and poverty-reduction strategies (PRSPs).
- Identify conditions that support or constrain successful implementation of policies.
Checklist for action

☑ Identify recruitment and retention problems. For example:
  • Profession/specialty imbalance
  • Gender imbalance
  • Geographical imbalance

☑ Identify indicators to assess recruitment, retention and motivation problems. For example:
  • Vacancy rate
  • Turnover rate
  • Staff surveys
  • Absenteeism rates

☑ Identify the target group(s). For example:
  • Students
  • Unemployed health workers
  • Health workers employed outside the health sector
  • Health workers in the health sector

☑ Consider the policy options to improve recruitment, retention and motivation of the target groups. For example:
  • Monetary incentives (e.g. level and mode of remuneration, bonus, pension, allowances, etc.)
  • Support for professional development (e.g. career development, support for training, etc.)
  • Improved work environment (e.g. safety guidelines, flexible working hours, holidays, etc.)
  • Regulatory interventions (e.g. compulsory service in a region or institution)
  • Educational interventions (e.g. subsidize students; impose quotas for students (rural students, minority, etc.); expose students to rural practice during education; adapt the curriculum content)
  • Developing infrastructure and social integration (e.g. transportation, housing, schools, job opportunities for spouse, etc.)

Successful strategies

"Magnet hospitals"

Some hospitals have attracted attention, as they are more successful in retaining health workforce staff. They have been designated as "magnet hospitals".

Those hospitals have characteristics that are influential in retaining and recruiting nurses, such as a high level of autonomy of nurses, opportunities for professional career development and a positive nurse-physician relationship. The keys to magnet organizations are participative management style, strong professional development and flexible working practices. Research shows superior outcomes for those hospitals such as lower risk-adjusted hospital mortality, higher patient satisfaction, higher ratings of quality of care, lower rates of nurse burnout and higher rates of nurse job satisfaction.

Constraints and challenges
Understanding what motivates health providers and developing adequate policies to improve health care delivery are crucial to address recruitment and retention issues successfully. It is also important to account for the changes occurring in the health workforce today, ranging from demographic and technological changes to new work–life balance models.

Developing policy options: the case of geographical imbalance

<table>
<thead>
<tr>
<th>Factors influencing the decision to stay or leave</th>
<th>Policies to address geographical imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of opportunities for continuous training</td>
<td>1.  Financial incentives</td>
</tr>
<tr>
<td>Lack of appropriate skills</td>
<td>(level and mode of remuneration, allowances, etc.)</td>
</tr>
<tr>
<td>Poor remuneration</td>
<td>2.  Professional development</td>
</tr>
<tr>
<td>Poor working conditions</td>
<td>(career development, support for training, etc.)</td>
</tr>
<tr>
<td>Lack of clear career profiles</td>
<td>3.  Working environment</td>
</tr>
<tr>
<td>Lack of private sector work opportunities</td>
<td>(Flexible working hours, work autonomy, improved management, etc.)</td>
</tr>
<tr>
<td>Dissatisfaction with the workload</td>
<td>4.  Education</td>
</tr>
<tr>
<td>Lack of management support</td>
<td>(opportunities for continuous education, rural recruitment, scholarship, etc.)</td>
</tr>
<tr>
<td>Burnout</td>
<td>5.  Infrastructure and social integration</td>
</tr>
<tr>
<td>Lack of schooling for children</td>
<td>(transportation, housing, schools, job opportunities for spouse)</td>
</tr>
<tr>
<td>Lack of job opportunities for spouse</td>
<td></td>
</tr>
<tr>
<td>Poor transportation</td>
<td></td>
</tr>
<tr>
<td>Lack of amenities</td>
<td></td>
</tr>
<tr>
<td>Social unrest</td>
<td></td>
</tr>
</tbody>
</table>

Further information sources


Contact:
Carmen Dolea, Department of Human Resources for Health
Telephone: +41 22 791 45 40; E-mail: doleac@who.int
Pascal Zum, Department of Human Resources for Health
Telephone: +41 22 791 37 75; E-mail: zum@who.int
Managing health workforce migration

Why is this important?

Insufficient human resources for health (HRH) in developing countries has been identified as one of the main constraints limiting progress of such initiatives as 3 by 5 and the Millennium Development Goals (MDGs). In several of these countries, large outflows of health care providers – particularly nurses – are often seen as the key factor hampering the rapid scaling up of HRH capacity. Moreover, as trade barriers continue to come down, the forces of globalization are acting to increase the movement of all types of professionals throughout the world, health care being no exception. As a result, migration flows are expected to increase and countries are searching for solutions to manage effectively the migration of health care providers.

<table>
<thead>
<tr>
<th>Checklist for action</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Identify or establish sources of accurate information on:</td>
</tr>
<tr>
<td>• the number of health care providers entering from abroad</td>
</tr>
<tr>
<td>• the number of health care providers leaving</td>
</tr>
<tr>
<td>☑ Examine employment and career-development options for health care workers, with a view to encouraging them to remain in the country.</td>
</tr>
<tr>
<td>☑ Consider establishing agreements with other countries to address the movement of health care providers.</td>
</tr>
<tr>
<td>☑ Consider recruiting health care workers from abroad, and address barriers that might prevent this.</td>
</tr>
<tr>
<td>☑ Monitor migration-management policies and review experiences from other countries so that lessons can be learnt.</td>
</tr>
</tbody>
</table>

Successful strategies

Some countries have for many years deliberately trained more health care providers than can be absorbed into the domestic health care system. These countries are taking advantage of the global labour market and are capitalizing on their high-quality training programmes and the shortages of health care providers in other countries. The Philippines has about 418 nurses per 100,000 population (compared to about 497 in the United Kingdom) and has for many years been a major source of migrant nurses for several countries experiencing shortages. Over 10,000 trained nurses left the Philippines in 2002 to work abroad, most going to Saudi Arabia and the United Kingdom. Remittance levels back to the Philippines reached 9% of GDP in 2001.

Other countries are actively recruiting health care providers in the diaspora in order to benefit from the skills and training these providers receive abroad. A project in Ghana, for example, aims to bring expatriate Ghanaian professionals back to Ghana for short stays during which they can transfer their skills. Some countries have signed agreements for short-term exchange programmes whereby health care providers have the opportunity to work abroad for several years.

Common constraints

Restrictive licensing criteria might make it difficult for health care providers from abroad to find employment. This is sometimes a barrier to foreign recruitment. International agreements such as the World Trade Organization's General Agreement on Trade in Services (GATS) govern the movement of persons providing services. Migration policy in the health care sectors must conform to these agreements. Some countries have drafted ethical recruitment guidelines, stipulating that health care providers from certain countries will not be recruited. Such agreements are often voluntary and difficult to enforce, however.
Developing policy options: the way forward

Migration cannot be stopped. Furthermore, factors beyond the health care sector such as living conditions, the political situation and access to education are just as important as wages and working conditions in influencing migration. As a result, countries should focus on developing solutions to manage the migration of health care providers, recognizing that this could be an integral part of increasing their human resources for health capacity. These solutions include the following.

Train new types of providers
- Cadres with high levels of training are most likely to migrate.
- Cadres with skills specific to domestic needs are less likely to migrate.

Train for export
- Some countries have unused education capacity and are well-positioned to profit from training providers to work in countries with shortages.
- Not all those who intend to migrate after graduation actually do.

Recruit from abroad
- Foreign health care providers may be willing to work for wages and under working conditions that are unattractive to the domestic workforce.
- Foreign health care providers may also temporarily relieve shortages, since increasing domestic training capacity takes time.

Develop exchange programmes through bilateral agreements
- Negotiate fixed-length contracts with employers abroad so that staff can acquire skills and training that might not be available domestically.
- Agree upon mutually recognized qualifications and licensing criteria.

Harness the diaspora
- Develop exchange programmes that enable expatriates to return to their country of birth to work or to train local providers for short periods.

Look beyond pay
- Salary increases are likely to be only a temporary solution.
- To make the health care sector more attractive to employees, consider broader incentive packages that address living conditions.

Further information sources

Contact:
Marko Vujicic, Department of Human Resources for Health
Telephone: +41 22 791 2383, Email: vujicicm@who.int
Information on HRH

General issues

The importance of sound empirical evidence for informed policy decision-making and the monitoring of progress towards achieving development of human resources for health and health systems is widely recognized. Given the diversity of types of health workers, their skill levels and educational experience, defining and classifying HRH precisely can help policymakers and planners to better appreciate the significance of stocks and flows of health personnel. The following map shows the stock of HRH per 100,000 population around the world.

Stock of Physicians per 100,000 population in WHO Member States
(WHO latest estimates, around 2000)

Legend
- less than 17
- 17 - 43
- 44 - 81
- 82 - 126
- 127 - 180

Human Resources for Health

Words of advice

- Include HRH information as part of a general Health Information System.
- Involve various stakeholders – such as professional associations, national offices of statistics and ministries – in the process of gathering HRH information.
- Use a standardized template – such as the International Standard Classification of Occupations 1988 – for collecting, organizing and storing the data.
- Present the information in clear and simple language to policy-makers, health managers and the general public.
- Develop the capacity to allow HRH information to be used to support policy decisions. For instance, information on geographical distribution is useful for deployment policies, since it gives insights on inequitable access to care.
Checklist for action

☑ Assess the current status of HRH information. Does it offer adequate coverage, including the private sector and the main HRH categories?
☑ Identify potential needs for information.
☑ Identify potential sources of information. Start with your country’s administrative records.
☑ Describe the HRH situation according to needs and available data. Focus on level and distribution of the HRH.
☑ Strengthen your HRH information system by designating a focal point to coordinate its activities.
☑ Create a network of HRH information providers at national and subnational level.
☑ Ensure the continuity of the process by developing a monitoring and evaluation system.

Potential data sources

No single data source can reflect the growing complexity of HRH issues. Rather, a variety of instruments – each with its own strengths and limitations – can be exploited to produce different types of statistics. The most common sources are:

- routinely reported data
- censuses – demographic and other
- labour force and other household surveys
- health facility surveys
- professional associations/councils
- WHO Global Database on HRH.

Potential indicators

In order to facilitate analysis of the information collected, basic indicators will help you keep track of your health workforce. These include:

- the stock of health personnel
- public/private distribution
- unemployment
- migration
- remuneration and incentives
- geographical distribution
- education and training.

Examples of policy options to strengthen HRH information

- Advocate the inclusion of HRH information in a Health Information System.
- Promote the use of international standard classifications.
- Strengthen skills and mechanisms for the use of HRH information for policy decisions.
- Develop an HRH evidence network.
Common constraints regarding HRH information

- Fragmented data and information
- Limited quality and comparability
- Lack of consistency in data collection
- Limited public dissemination
- Inadequate use to support policy-making
- Lack of consistency in classification of occupations.

Successful strategies for collecting and using HRH information

- Observatory of HRH developed by the Pan American Health Organization/WHO Regional Office for the Americas (available now in Spanish and soon in English) [http://www.campusvirtualsp.org/observatorio/esp/index.html]
- AFRISTAT: makes data available on the stock of health workers for some African countries.
- Facility and provider surveys conducted in some countries.
- WHO Regional Office for Africa’s study on migration conducted in six countries.

Further information sources


Contact:
Khattoum Diallo, Department of Human Resources for Health
Telephone: +41 22 791 1404; Email: diallok@who.int

Andrea Pantoja. Department of Human Resources for Health
Telephone: +41 22 791 3225; Email: pantojaa@who.int
Attaining the Millennium Development Goals: the case for integrated human resources planning

General issues

Planning human resources for health (HRH) is a complex process. It must consider the technical aspects related to estimating the number, skills and distribution of health personnel to meet population health needs. It must also take account of the political implications, values and choices that health policy and decision-makers must make within given resource limitations. In the context of attaining the Millennium Development Goals (MDGs), human resources represent the most crucial constraint; therefore it is important for health planners and decision-makers to identify the human resources required to meet them.

---

**Words of advice**

- In designing approaches to attaining targets such as the MDGs, seek consensus among all actors in the increasingly diversified health systems.

- Strong leadership and coordination by the national government will help orient all national health activities towards attaining the MDGs.

---

**Checklist for action**

- ☑ Develop an inventory of all MDG-related priority health programmes and their targets.
- ☑ Identify all members of the health workforce currently working towards MDG targets, making sure that as much as possible all providers of care (public and private) are included.
- ☑ Encourage stakeholders now concentrating on health needs of specific target groups of the MDGs (such as mothers and children and persons living with HIV/AIDS) to consider ways to contribute towards attaining other MDGs.

---

**An approach to attaining the MDGs while providing better health services**

One approach to enhancing the capacity of the health workforce while providing services more efficiently is to look at how tasks are distributed. In many health systems, the professional category determines the tasks: for example, only doctors give injections and only pharmacists fill prescriptions.

But from the differences between countries in how tasks are distributed, it is clear that there is considerable room for change in distributing tasks. Such a redistribution can result in better services that are better provided, as well as expanded and upgraded knowledge and skills for the health workforce. And as shown by the TB/DOTS strategy, community members – with appropriate training and supervision – can perform routine adherence and follow-up tasks, thus freeing health personnel to provide other services.

The procedure for distributing health care tasks – whether new or existing – will likely include some or all of the following steps.
• Identify the needs for services, based on the incidence and prevalence of health problems, demographic characteristics of the population and the targets set forth by the MDGs.

• Identify the interventions required to deliver these services, at each level of care, based on the strategies proposed by various programmes.

• Identify the tasks and skills required to deliver those specific interventions, using a functional job analysis.

• Estimate the time requirements for each intervention, at each level of care, based on programme expert opinion; express time requirements in full-time equivalents (FTEs).

• Identify possible overlap/synergies between skills and possible time savings effected by combining various skills; build in productivity.

• Estimate adjusted full-time equivalents.

Contact:
Mario Dal Poz, Coordinator; Policy, Evidence and Tools; Department of Human Resources for Health
Telephone: +41 22 791 3599; Email: dalpozm@who.int

Norbert Dreesch, Department of Human Resources for Health
Telephone: +41 22 791 4449; Email: dreesch@who.int

Integrated cross-cutting HRH planning for priority health interventions
<table>
<thead>
<tr>
<th>WHO regional offices</th>
<th>Department focal points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AFRO</strong></td>
<td>Dr R. Chatora</td>
</tr>
<tr>
<td>Regional Office for Africa</td>
<td>Email: <a href="mailto:chatorar@afro.who.int">chatorar@afro.who.int</a></td>
</tr>
<tr>
<td><strong>AMRO</strong></td>
<td>Dr D. Lopez-Acuña</td>
</tr>
<tr>
<td>Regional Office for the Americas</td>
<td>Email: <a href="mailto:lopezdan@paho.org">lopezdan@paho.org</a></td>
</tr>
<tr>
<td><strong>SEARO</strong></td>
<td>Dr M. Islam</td>
</tr>
<tr>
<td>Regional Office for South-East Asia</td>
<td>Email: <a href="mailto:islammm@whosea.org">islammm@whosea.org</a></td>
</tr>
<tr>
<td><strong>EURO</strong></td>
<td>Dr A. Dumitrescu</td>
</tr>
<tr>
<td>Regional Office for Europe</td>
<td>Email: <a href="mailto:adu@who.dk">adu@who.dk</a></td>
</tr>
<tr>
<td><strong>EMRO</strong></td>
<td>Dr B. Sabri</td>
</tr>
<tr>
<td>Regional Office for the Eastern Mediterranean</td>
<td>Email: <a href="mailto:sabrib@emro.who.int">sabrib@emro.who.int</a></td>
</tr>
<tr>
<td><strong>WP similarity</strong></td>
<td>Dr S. Nyunt-u</td>
</tr>
<tr>
<td>Regional Office for the Western Pacific</td>
<td>Email: <a href="mailto:nyuntus@wpro.who.int">nyuntus@wpro.who.int</a></td>
</tr>
</tbody>
</table>