WHO/EIP/OSD/03.2
Distr.: Unrestricted
English only

Human resources & National health systems

shaping the agenda for action

Final report

Department of Health Service Provision
Evidence and Information for Policy
World Health Organization
Geneva
December 2002

Acknowledgements

Reviewing global human resources for health issues can be meaningful only if programmes review existing and emerging problems with an open mind. We are therefore indebted to our colleagues at WHO who undertook to delve into the human resource implications of their programmatic goals, sharing their ongoing efforts or undertaking specific studies for the meeting. While it is not possible to mention all, the contributions of Robert Scherpbier (IMCI), Karen Bergstrom (STB), James Banda, Mohammadou Cham, Elil Renganathan (CDS), Helga Fogstad (MPR), and Charles Gilks and Basil Vareldzis (HIV) and their colleagues in their respective departments are most gratefully acknowledged. Their frank and open assessments of opportunities and HR constraints led to fruitful discussions and the creation of one of the background papers for the meeting. This collaborative effort provided an essential element for building consensus around the issues presented.

Special thanks go to those who kindly agreed to prepare presentations and serve as panelists and chairs of programme sessions.

The success of the meeting did, of course, rest in the hands of all participants. We gratefully acknowledge the high-calibre contributions and efforts of all members of the meeting to commit to a common perception of problems in HR development and ways to address them in a concerted effort.

Finally, we thank Professor James Buchan for having served as rapporteur and for providing a succinct overview of findings and challenges at the end of the meeting.

The financial support of the governments of Canada and Ireland to facilitate the participation and sharing of knowledge of a number of colleagues from developing countries is gratefully acknowledged.

Human resources and national health systems: shaping the agenda for action

© World Health Organization, 2003

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.

Contents

Acknowledgements i

Preface iii

1. Introduction 1

2. Conceptual framework 1

3. An agenda for action 2

4. Four priority areas for action 3

   4.1 HIV/AIDS 3

   4.2 Incentives and motivation 4

   4.3 Imbalances 4

   4.4 Migration 5

   5. Advocacy 5

6. Strategies for action 6

   6.1 Observatory on HRH 6

   6.2 A new approach to HRH planning and management 6

   6.3 Changing structures of the workforce 7

   6.4 Evidence for policy development 7

   6.5 Reviewing education for health professionals 8

   6.6 Building capacity in HR 9

   6.7 HRH and global partnerships 9

7. Moving ahead, working together 9

Annex 1. List of participants 10

Annex 2. Programme of work 16

Annex 3. List of background documents 18

Preface

At the beginning of the third millennium, health systems and services continue to seek a balanced way to deliver high-quality care and concentrate on the needs of the poor. This challenge is reflected in the goals set by the United Nations Millennium Summit in September 2000. Six of the eight goals relate directly or indirectly to health development to attack the direct consequences of poverty. These goals are concerned with health outcomes of the poor, but to a large extent they need the support and intervention of human resources. These human resources must be technically skilled to deliver the needed preventive and curative service when and where needed.

One of the most essential components of the health system, human resources for health (HRH), are increasingly recognized as a crucial element if health systems and health services are to improve. During the recent World Health Organization regional committee meetings, ministers of health from many countries strongly identified HRH as a significant and confounding constraint to achieving their health policies.

The highest decision-making body of WHO, the World Health Assembly, has also identified HRH as a major challenge to health development. In 2002, the Fifty-fifth World Health Assembly asked the Secretariat "to accelerate development of an action plan to address the ethical recruitment and distribution of skilled health care personnel, and the need for sound national policies and strategies for the training and management of human resources for health."

A broader group of governments, providers in the public and private sector and civil society have increasingly advocated scaling up major health interventions as a way to achieve the Millennium Development Goals. This same broader constituency is also becoming aware that the means to deliver these health interventions are not present in many of the countries most in need. While concerted efforts have been made to improve access to medicines for developing countries, this has not been the case for human resources.

New pressures have emerged during the last decades. Health gains and increased longevity in developed countries attract a substantial number of health workers from developing countries to look after the increasing long-term and other care needs of ageing populations. Skills and numbers of health workers are not optimally distributed, both geographically and between different professions in countries. Educational models persist for training to provide health skills that no longer match the health needs of the populations to be served, in particular the poor. Moreover, the increasing toll of HIV/AIDS is directly affecting service capacity and staff in terms of morbidity, prolonged absence, mortality and low morale among those remaining in the services, who face an ever-increasing workload in high-burden countries.

This scenario is typical of many countries whose health and HRH systems are at a crossroads in their development. The workshop provided an opportunity for ministries of health, multilateral and bilateral international agencies, foundations, nongovernmental organizations, professional organizations and researchers to contribute to developing an HRH framework for policies; to validate and expand on HR questions now faced by policy-makers; and to examine the evidence required for policy decisions.

1. Introduction

Human resources for health (HRH) are increasingly recognized as crucial to the improvement of health systems. A broad group of governments, providers in the public and private sector and representatives of civil society have increasingly advocated scaling up major health interventions as a way to achieve the Millennium Development Goals. This same group is also aware that the means to deliver these health interventions are not adequate in many of the countries most in need. While concerted efforts have been made to improve access to medicines for developing countries, this has not been the case for human resources (HR).

Some 60 participants from ministries of health, multilateral and bilateral international agencies, foundations, nongovernmental organizations (NGOs) and professional organizations discussed and debated a range of issues in order to contribute to the objectives of this workshop, which were to:

- further the development of an HRH framework for policies;
- identify policy questions and agree upon an agenda for development of policy options;
- identify gaps in evidence and priorities for obtaining evidence on which to base policy;
- build capacity and partnership for action at country level.

The workshop was structured to focus on the HRH needs of countries and was formatted to encourage wide participation and discussion.

Who are human resources for health?

Human resources for health can be defined as the stock of all individuals engaged in promoting, protecting or improving the health of populations. This includes the formal health care sector – private for-profit and not-for-profit systems and the public sector – and different domains of health systems, such as personal curative and preventive care, non-personal public health interventions, health promotion and disease prevention. It also includes the informal health care sector, including traditional healers and volunteer and community carers.

Workers who are not uniquely in the health labour market are also linked to health systems work. These include economists, researchers and managers, as well as drivers, cleaners, cooks and clerical staff. Market pressures on these cadres of workers will be different from those for health professionals, but they are nonetheless important to the functioning and quality of the health care system.

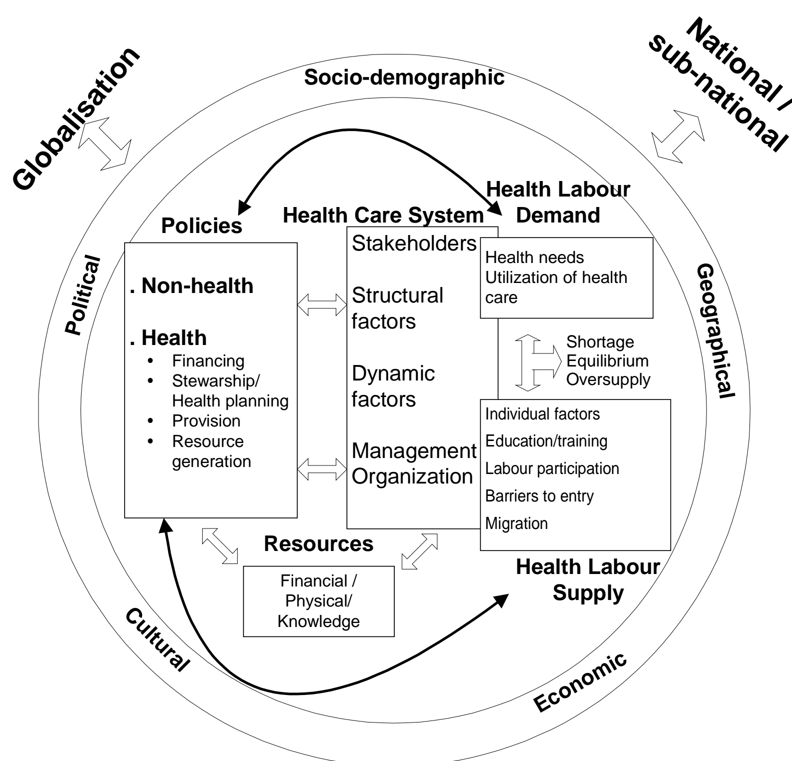
2. Conceptual framework

Figure 1 represents a conceptual framework that accounts for the key elements identified by a previous technical consultation[1] and reviewed at this workshop. Participants endorsed the importance of placing health workforce issues in a broad perspective that takes account of the influence of globalization and national and subnational factors. They proposed that cultural influences be added to the framework in addition to those of political, sociodemographic, economic and geographical factors on health workforce issues.

[1] World Health Organization. Technical consultation on imbalances in the health workforce. Ottawa, Ontario, Canada, 10–12 March 2002. [http://www.who.int/health-services-delivery/imbalances/report.pdf]

This framework is based on the premise, endorsed in this workshop, that population health should drive the planning, actions and management of the health system. Using this approach, one critical issue is to link human resources for health with outcomes of the health system. The importance of demonstrating this link to policy-makers was highlighted by participants: evidence can be used in advocacy at the national level for HRH capacity strengthening.

Figure 1. HRH conceptual framework



3. An agenda for action

The workshop highlighted four HRH priorities and seven strategies for action that should guide WHO's work with partners. It was stressed that there are both long-term and short-term needs in HRH development that must be addressed urgently. It was demonstrated that most countries, especially those least developed, face a major and immediate HRH crisis that, if not resolved in the short term, will prevent the delivery of effective interventions for priority health problems The impact of HIV/AIDS in sub-Saharan Africa and elsewhere was identified as perhaps the most critical of these priority problems.

The participants stressed that action is required now not only to address the four priority issues, but also to begin the complex process of meeting long-term HRH needs by continuing to develop strategies and approaches to improve recruitment, retention and distribution of health personnel.

The WHO Framework for HRH policy development provided the basis for identification of an initial list of eight policy priorities, out of which participants agreed on four as essential to begin to address in the next 12 months. The eight priorities for action were recognized as closely linked, and action in any one of the areas would be likely to influence the others. For this reason the four priority areas selected did not necessarily exclude the others from action or influence.

None of the priority areas are new to the HRH agenda; their selection highlights the continuing need for advocacy for HRH issues. Although HRH issues are now high on the agenda of most health agencies, including WHO, it is appreciated that many other health issues are competing for attention at global, regional and national levels. Maintaining the current prominence of HRH will require strong evidence-based advocacy by all partners, and especially WHO. It is equally important that this continued prominence is associated with improvements in HR performance through policy action and practice interventions, and does not lead to a view that HR is "too difficult to address". Advocacy is required at the international level, within WHO itself and above all at the national level. Advocacy will be reinforced by the further development of the knowledge base on which effective policy options can be based.

4. Four priority areas for action

4.1 HIV/AIDS

The effects of HIV/AIDS on the health workforce, especially in Africa, will be significant and enduring. In both the formal and informal sectors women are the main component of the health care workforce, and recent figures show that in Africa twice as many young women as young men are infected with the virus[2] (UNAIDS Epidemic Update 2002).

The net effect on the current stock of health workers will be negative, resulting in a decline in numbers. In the informal sector, where women carers also predominate, the same decline will be evident. The need for workforce planning adjustment is obvious.

The workforce will be depleted as health workers are absent because they are ill, or ultimately die from the disease, and the surviving workforce will face an added burden as they care for additional numbers of people with HIV/AIDS. OSD is seeking more evidence in order to estimate and model the current and future impact of HIV/AIDS on the workforce and on the health care workload.

Within the next year, documenting the numbers of health workers affected and developing practicable strategies for treating those infected will be a priority. Strategies to be explored will include testing and counselling, as well as ensuring the availability of treatment. WHO has an important advocacy role in promoting the treatment of health workers. In the longer term, health promotion initiatives are vital to educate and support health workers in maintaining low-risk behaviours.

The contribution of the informal, nongovernmental sector in caring for persons living with HIV/AIDS is becoming increasingly important as home care initiatives are strengthened. Creating working partnerships with communities is vital, so that informal carers can be supported and offered appropriate training. While such partnerships must be sustained at country level, WHO has a role in both the long term and the short term in promoting good practice in this area between regions and countries. In addition, a more systematic approach is required to collecting data about informal carers and how they support the formal sector. This should include data about the costs of home care, the toll on women and families, especially in terms of agricultural output and other sources of family income, and the contribution made to the formal sector by those in the informal sector.

---

[2] UNAIDS epidemic update. December 2002. [http://www.who.int/hiv/facts/epiupdate2002_en.doc]

4.2 Incentives and motivation

Country presentations reminded participants that, at the most basic level, health workers require a sufficient salary to be able to afford a reasonable standard of living for themselves and their families. In some countries salaries are lower for public sector workers than for those in the private sector with comparable qualifications and responsibilities. WHO has an advocacy role at international, regional and country level to push for fair salaries for health workers and to develop mechanisms and guidelines to help countries pay and monitor salaries accurately and in a timely fashion. At the same time it is important to study the impact of different salary structures and allowances on the recruitment, retention and distribution of staff.

WHO will work with development partners to structure their contribution to health systems development, evaluate the impact of their interventions and ensure a match with other strategies such as SWAps (sector-wide approaches) and PRSPs (Poverty Reduction Strategy Papers).

Motivation can also be improved through non-monetary rewards, such as time off, opportunities for study and positive feedback from supervisors. Non-monetary incentives can also be in the form of social (crusading) spirit, which can be built through multiple activities such as formal and informal education, social movements, positive recognition and rewarding of outstanding cases, and strengthening of civil society.

In both the long and short term, WHO is developing the evidence base and can offer technical support in developing and instituting appropriate packages of incentives to suit different country contexts. WHO has an important role in collecting and disseminating information on good practice.

Adequate systems and indicators to monitor and evaluate non-monetary incentive schemes are crucial to a better understanding of the effects of incentives packages. Supporting the development of these systems must be integral to HRH management at country level. WHO is working with countries to develop, use and publicize work in this area.

4.3 Imbalances

Workforce imbalances may be of several types: geographical, where health workers are concentrated in urban areas; between the public and private health care systems, where health workers put more time into the private system at the expense of adequate coverage by the public system; gender imbalances; or skill-mix imbalance, where there are too many or too few of a particular type of worker. Within the next year WHO will put increasing emphasis on addressing geographical imbalances, developing strategies that will include incentives, strengthening local community involvement and improving communication between rural and urban areas. This will require a greater understanding of local government and devolved structures.

Correcting imbalances depends on two factors: being able to identify the imbalance through having adequate data collection mechanisms for HRH, and understanding how incentives influence imbalances in order to introduce change effectively. Work on developing data collection and analysis techniques for evidence, and on incentive structures, can be applied in this priority area.

Within the next year WHO will work with countries to develop planning capacities, including methods of data collection and use, to map imbalances regionally and at country level. Specific information on the impact of different mixes of skills is important to help countries plan their HR strategies more effectively, and WHO has a role in publicizing good practice in this area.

4.4 Migration

In many countries migration of health workers remains an urgent problem. The evidence suggests that health workers migrate internationally because of poor working conditions and salaries, and to improve their education and have better prospects for promotion in the future. Health workers also migrate internally from rural to urban areas, and between states, to seek better conditions for themselves and their families.

WHO is already committed to a programme of work in migration, including collecting evidence and exploring the effects of incentives, and work on this will continue for the next year. Incentives that influence the movement of HRH can foster better deployment and retention, and work on incentives is important in managing migration. It is an area where better evidence is vital: more knowledge is required about the flows and trajectories of migrant health workers, and whether and when they are likely to return to their home country.

The remittances that migrants send back to their home country are often an important part of the country's foreign trade, but these must be set against the loss to the country of its investment in the education of the health worker and the loss of human capital from the workforce. Work is already under way on developing a costing model for countries to use. WHO also has an important role in working with partners, such as the Commonwealth Secretariat, International Organization for Migration and International Labour Organisation, to assess recruitment methods and to promote evidence-based ethical recruitment practices.

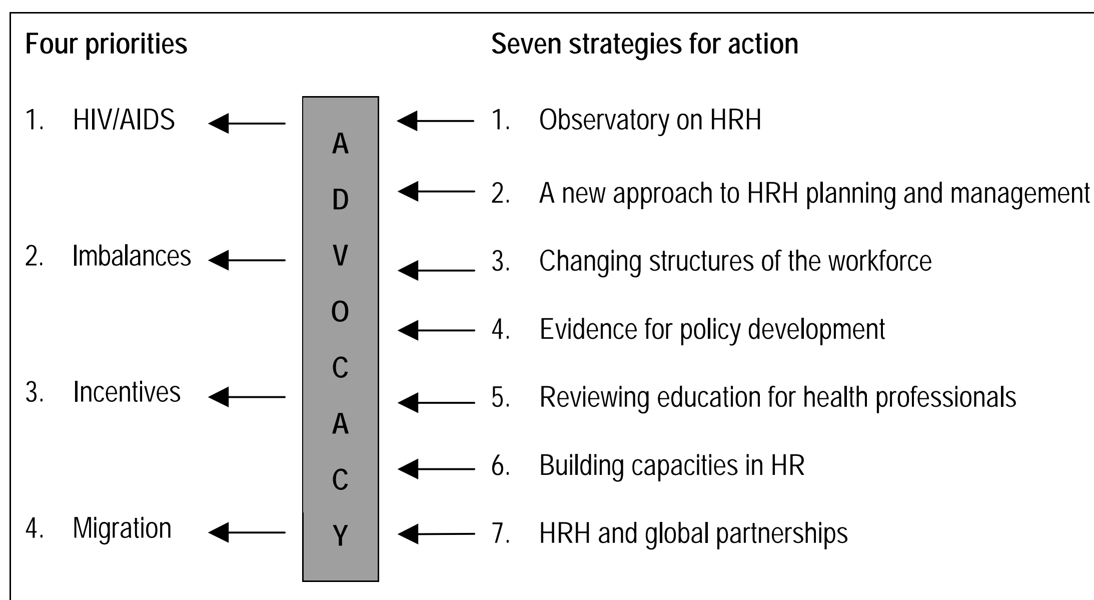
5. Advocacy

Advocacy was identified by the participants as a cross-cutting theme in HRH policy development, both as a priority area and as a possible strategy for action. WHO's role as advocate for HR issues at a number of levels was strongly endorsed. Global health now has many public-private partnerships, with billions of dollars being disbursed. To deliver these global initiatives demands functioning health systems with adequately deployed HR, and WHO is in a key position to advocate attention to HR strengthening and capacity building. At an international level, WHO must ally itself with a range of global health initiatives such as Roll Back Malaria; the Global Alliance for Vaccines and Immunization (GAVI); the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria; the Bretton Woods institutions; and other global development partners. Negotiations for trade in health services, including the movement of people, are currently on the agenda of the World Trade Organization, and WHO advocacy is crucial to driving ethical recruitment policies for health professionals from developing countries.

At both international and regional levels WHO must be an advocate for HR with NGOs, including professional bodies, at national level with governments, and with the private health sector. WHO must also create networks between partners to strengthen and sustain commitment to HR. The workshop emphasized the political nature of HRH and stressed that strategies should be identified to raise HR high on the political agenda of countries.

Underlying the work in HR advocacy must be the overarching commitment to work with countries and partners to meet the Millennium Development Goals. Substantial funds are likely to be available for country support through these global initiatives and partnerships. WHO, through its technical support mechanisms, should be instrumental in formulating country projects with sufficient emphasis on HR needs to develop the infrastructure of their health systems and their human capital.

Figure 2. Priority areas and strategies for action in HRH



6. Strategies for action

Seven key strategies for action were identified by participants (Fig. 2). Each of them will influence interventions on the four priority areas: the role of the observatory on HRH; taking a new approach to HRH planning and management; changing structures of the workforce; evidence for policy development; reviewing educational processes and content for health professionals; building WHO's interregional and national capacity; and working with partners.

6.1 Observatory on HRH

The system of building national capacity to analyse and use in-country institutions to collect data on HRH and monitor changes over time has been tested and evaluated in the Americas by the Pan American Health Organization (PAHO). Participants heard about examples from Brazil, Ecuador and El Salvador that showed how the observatory can be an effective tool for building national capacity in HR management.

Though widely tested in PAHO, there are few in-country observatories in other regions. Participants suggested that WHO, through closer collaboration between its regions and use of collaborating centres, test more widely the use of observatories. AFRO expressed specific interest in this initiative, to help to develop data on HR and capacity to manage HR issues.

6.2 A new approach to HRH planning and management

The participation of technical programmes in the workshop was a reminder that countries are being asked to implement, scale up, improve and monitor their services in response to global health initiatives on a range of topics from the prevention of health-risking behaviours through surveillance for diseases to integrated care programmes for adults and children. The potential ongoing tension between vertical disease control programmes and horizontal infrastructure development was acknowledged in the meeting.

For many countries, improving interventions on a large scale is impossible both because of the low stocks of health workers and because little attention is traditionally paid to developing country capacity to plan and manage HR changes in response to changing priorities.

Given the prominent concern, the example of HIV/AIDS as an outcome-oriented programme emphasized the strong link between HR needs and intended programmatic impact. It is important to note that while HIV/AIDS stood out as an important example, this link must be very actively incorporated in all outcome-oriented programmes at a very early planning and implementation stage. This was evidenced by the contributions from major WHO programmes in background paper 2 and underlined by a number of speakers. At both the level of WHO and in country programming activities, this essential link needs continued collaborative efforts in order to reach ambitious programmatic goals.

A new approach in HRH development is required at country level, alongside health interventions programmes. In essence, the new approach includes three stages:

Assessing the need for the intervention and the mechanism of delivery: Before introducing any new programme into a country, an HR assessment is required, which should include information on numbers, types and location of health workers and ease of access to a training facility. A systems assessment should accompany this stage to review the environment for change – the needs for equipment, drugs and strengthened infrastructure.

Implementing the change: There is a growing realization that change must be planned and directed. This means having a clear and realistic vision of where the change will lead and the steps required to achieve the goal, all of which must be based on the initial assessment.

Management: Strengthening management processes is an essential strategy in developing HRH. This is how the performance of the health system can be improved so that its capacity to deliver more and better services is increased. The view of the meeting was that the importance of management had been underestimated, and that it had been confused at times with administration. Educational support and professional development for managers is an urgent first step, required in many countries.

6.3 Changing structures of the workforce

Shortages in many countries of health care professionals mean that new approaches to organizing teams of staff are required; traditional role boundaries may be a hindrance. Skills that have been the province of physicians may become common practice for nurses, while some nursing roles may be taken over by health care assistants. The contribution of informal carers is likely to become more important, and they will have to be considered members of the health care team.

More data are needed on the outcomes of care from teams possessing varied skills, in order to identify both effectiveness and efficiency. WHO will support professional organizations to work together to look at issues of competences and identify core competences that cross professional boundaries or lie outside them.

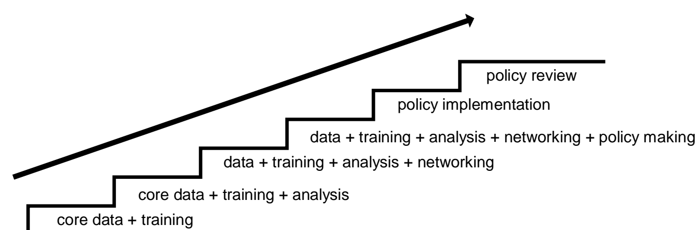
6.4 Evidence for policy development

The need for more evidence to inform HRH policies was apparent in all discussions of specific issues. WHO and other agencies have begun to fill the evidence gaps by using a variety of existing data sets. Existing data sets have recognized limitations, including HR classification problems. There is an urgent need for new sources of evidence, including the development of good HRH practices, to inform policy decisions at the national level. Both quantitative and

qualitative research methods will be needed to answer research questions; replicable approaches will be developed to ensure comparability of data. There is a need to establish a clearing house for research and analysis and to ensure completion of the feedback loop between research, policy, programmes and evaluation.

Participants recognized an urgent need to improve the capacity of national health systems to gather, analyse and use data on HR. In order to support capacity strengthening in this area a stepped approach was recommended, which begins at the simplest level of intervention and builds to the more complex. In order to undertake this gradual programme (shown in Fig. 3) it is proposed that collaborating centres work with national planning staff where necessary to consolidate and improve skill levels.

Figure 3. Steps to capacity development in using data



6.5 Reviewing education for health professionals

The meeting pointed to many of the current constraints facing HRH. Among other factors, the meeting noted the contributing role of education. In many countries educational models have not kept pace with changing demography and health conditions, all of which should influence the curriculum content in educational delivery models in health care. Poverty, violence and environmental conditions may impose constraints on the way health workers practise effectively, and ways of taking these factors into account in practice must become part of education and professional development.

WHO's Department of Health Service Provision (OSD) is currently undertaking an educational strategy review and will work with partners, especially regional offices, to complete this within 2003. WHO will facilitate the sharing of past and current experiences and strategies in education by establishing a collaborative working group, which will communicate by electronic mail, telephone and video conference and meet early in 2003. The aim will be to learn from proven good practices, and to brainstorm new standards, current needs, appropriate quality assessment and curriculum improvement, and then to propose new strategies in the field of education of HRH. A reflection on a framework of education of HRH as a direct contributor to the achievement of the desired health objectives put forward by the Global Millennium Goals will be undertaken. The agreed-on framework will be elaborated and proposed.

A short-term activity is proposed by WHO pertaining to the global standards for medical education put forward by the World Federation for Medical Education (WFME). These standards are to be submitted for endorsement at the March 2003 meeting of the WFME in Copenhagen, and WHO is examining them with a view to their implications for countries.

Other education-related activities taking place in WHO include a feasibility study into establishing a system of accreditation for health professionals' educational institutions, and a review of public health education in collaboration with partners in Africa.

6.6 Building capacity in HR

Working with national authorities to develop a range of competences to promote the visibility and demonstrate the importance of HR is vital in keeping HR issues at the forefront of national planning and management. It was suggested that relevant competences for HR staff include evidence gathering and use, advocacy strategies, and monitoring and evaluation of HR strategies. Building capacity at national level in HR development is vital, and WHO is committed to supporting this process with other partners.

WHO is producing a set of knowledge instruments, including research and policy briefs, to support capacity development in HR both within and outside WHO. Networks will be established and encouraged to share research methods and findings and implementation strategies. Within WHO awareness of HR issues within programmes will be strengthened through workshops and consultancies.

6.7 HRH and global partnerships

Global partnerships require human resources to deliver the needed health services for many emerging initiatives. The meeting strongly endorsed the need for WHO to work with global partnerships to promote and coordinate innovative approaches to HR development.

7. Moving ahead, working together

The presentations and discussions during the workshop provided many useful suggestions on the focus of work for the short-to-medium term. A range of immediate and longer-term actions are proposed for each priority area.

To deliver on its agenda, WHO will build its HRH capacity at headquarters and in the regions and countries and promote and support the development of national institutional capacities. This will be a joint process with the countries in order to build the evidence base and develop skills to analyse and negotiate HRH issues. This process has individual and institutional dimensions, and both should be strengthened through training, information dissemination and the exchange of good practices.

"Working together" appeared during the workshop as a permanent request, not only for WHO, but also for other members of the HRH-strengthening community, including technical programmes, governments, professions, donors and multilateral agencies. This process will ensure the more efficient use of existing and forthcoming resources and will require a systematic dialogue among all stakeholders. WHO is committed to building mechanisms to make collaboration a reality. Given the complexities of the tasks that lie ahead, no entity will be able to provide single-institution based leadership. But it is hoped that each partner will provide its expertise to the continuously evolving process of analysis and identification of solutions, with each partner involved in open dialogue. WHO/OSD is committed to putting its resources into this task and continuing to provide the platform for the development of guiding materials, norms and standards in this respect.

Investment will be made in the development of interconnected networks to strengthen the links among evidence providers, decision-makers, researchers and professional organizations.

Annex 1. List of participants

Temporary advisers

Dr Abul Fateh Mohammad Abdullah, Assistant Secretary, WHO-I Section, Ministry of Health and Family Welfare, Bangladesh Secretariat, Dhaka 1000, People's Republic of Bangladesh. Tel: 88 02 861 3697; fax:88 02 861 9077; E-mail: aneek@accesstel.net.

Professor Saidou Badiane, Conseiller Technique No. 1, Ministère de la Santé, de l'Hygiène et de la Prévention, Boîte postale 15173, Dakar Fann, Senegal. Tel: 221 821 67 13; fax: 221 822 26 90; E-mail: sbbadiane@sentoo.sn.

Ms Frances Brebner, Director, Health Resource Planning and Research, Department of Health, Private Mail Bag, Apia, Samoa. Tel: 685 24 496; fax: 685 23 483; E-mail: brebner@samoa.ws.

Professor James Buchan, Faculty of Social Sciences and Health Care, Queen Margaret University College, Clerwood Terrace, Edinburgh EH12 8TS, UK. Tel: (direct line) +44 131 317 3600; +44 131 317 3602; fax: +44 131 317 3605; E-mail: JBuchan@qmuc.ac.uk.

Dr Mark Butler, Director of Human Resources, Scottish Executive Health Department, St Andrews House, Regent Road, Edinburgh EH1 3DF, UK. Tel: +44 131 244 2036; fax: +44 131 244 2042; Mark.Butler@scotland.gsi.gov.uk

Ms Laurence Codjia, Deputy Director, Institut Supérieur de la Santé, CESAG, Avenue du Général de Gaulle & Malick Sy, BP 3802 Dakar, Senegal. Tel: +221 839 73 60; fax: +221 821 3215; E-mail: laurence.codjia@cesag.sn.

Dr Doumagoum M. Daugla, Director, Centre de Support en Santé internationale, Swiss Tropical Institute, B.P. 972, N'Djamena, Chad. Tel: 235 52 30 74; fax: 235 52 37 22; E-mail: cssiitsn@intnet.td.

Dr Stanley de Silva, Deputy Director General of Health Services (Education, Training and Research), Ministry of Health, Nutrition and Welfare; "Suwasiripaya"; 385, Deans Road; Colombo 10, Sri Lanka. Tel: 94 1 69 22 13; fax: 94 1 67 91 62; E-mail: sodesilva@hotmail.com.

Mrs Thecla W. Kohi, Dean, Faculty of Nursing, Muhimbili University College of Health Sciences, P.O. Box 65004, Dar es Salaam, Tanzania. Tel: 255 22 215 0302-6; fax: 255 22 215 3506; E-mail: tkohi@muchs.ac.tz.

Dr Peter M. Ndumbe, Dean, Faculty of Medicine, University of Yaounde 1, Melen Street, BP 8445, Yaounde, Cameroon. Tel/Fax: 237-231 12 24 (alternate fax 237-231 27 33); E-mail: pndumbe@yahoo.com and pndumbe@iccnet.cm.

Dra. Emilia Noormahomed, Dean, Faculty of Medicine, Eduardo Mondlane University, POBox 257, Maputo, Mozambique. Tel: 258 1 32 52 27; fax: 258 1 32 52 55; E-mail: eraul@teledata.mz or eraul@health.uem.mz.

Dr Galina Perfiljeva, Dean, Masters Programme in Nursing Management, Moscow Medical Academy, Bolshaya Pirogovskaya street, 2/6, 119881 Moscow, Russian Federation. Tel: +7095 426 84 54; fax: +7095 248 02 23; E-mail: galina.perfiljeva@mtu-net.ru or perfiljeva@mail.ru.

Professor David Sanders, Director, School of Public Health, University of Western Cape, P Bag X17, Bellville, South Africa 7535. Tel: 27 21 959 2132; fax: 27 21 959 2872; E-mail: dsanders@uwc.ac.za.

Dr Paulo Henrique D'Angelo Seixas, Technical Director, Human Resources Policy Coordination, Ministério da Saúde, Esplanada dos Ministérios, Bloco G, Ed. Sede, Sala 727, 78059-900 Brasília DF, Brazil. Tel: 55 61 315 2846; fax: 55 61 315 2862; E-mail: paulo.seixas@saude.gov.br.

Professor Fred Wabwire-Mangen, Director, Institute of Public Health, Makerere University, PO. Box 7072, Kampala, Uganda. Tel: 256 41 532207; fax: 256 41 531807; E-mail: fwabwire@imul.com.

Dr Suwit Wibulpolprasert, Deputy Permanent Secretary, Ministry of Public Health, Tiwanond Road, Nonthaburi 11000, Thailand. Tel : +66 2 590 1122 ; fax: +66 2 591 8513; suwit@health.moph.go.th.

Dr Kaspar Wyss, Project Manager, Public Health Specialist, Swiss Centre for International Health, Socinstrasse 57, P.O. Box, 4002 Basel, Switzerland. Tel: 41 61 284 81 40; fax: 41 61 271 86 54; E-mail: kaspar.wyss@unibas.ch.

Nongovernmental organizations

International Confederation of Midwives (ICM)

Ms Petra ten Hoope-Bender, Secretary General, International Confederation of Midwives, Eisenhowerlaan 138, 2517 KN The Hague, The Netherlands. Tel: + 31 70 306 0520; fax: + 31 70 355 5651; E-mail: p.tenhoope@internationalmidwives.org.

International Council of Nurses (ICN)

Mrs Judith A. Oulton, Chief Executive Officer, International Council of Nurses, 3 Place Jean Marteau, 1201 Geneva, Switzerland. Tel: + 41 22 908 0100; fax: + 41 22 908 0101; E-mail: oulton@icn.ch.

International Hospital Federation (IHF)

Professor Per-Gunnar Svensson, Director General, International Hospital Federation, Immeuble JB SAY, 13, Chemin du Levant, 01210 Ferney-Voltaire, France. Tel: +33 450 42 6000; fax: +33 450 42 6001; E-mail: pergunnar@ihf-fih.org.

International Pharmaceutical Federation (FIP)

A.J.M. Hoek, MSc, Pharmacist, General Secretary and Chief Executive Officer, International Pharmaceutical Federation (FIP), Andries Bickerweg 5, PO Box 84200, 2508 AE The Hague, The Netherlands. Tel: +31 70 302 1970; fax: +31 70 302 1999; E-mail: hoek@fip.org.

Mr Prafull D. Sheth, Professional Secretary, SEARPHARM Forum (WHO/FIP Forum of National Pharmaceutical Associations of South-East Asia), E 256 Greater Kailash-1, New Delhi-110 048, India. Tel: 91 11 643 4507; fax: 91 11 648 9858; E-mail: pdsheth@hotmail.com.

The Network: Community Partnerships for Health through Innovative Education, Service and Research

Dr Gerard Majoor, Chairman, The Network: Community Partnerships for Health through Innovative Education, Service and Research, Maastricht University, P.O.Box 616, 6200 MD Maastricht, The Netherlands. Tel: 31 43-388 1816; fax: 31 43-388 4142; E-mail: Secretariat-Network@network.unimaas.nl.

World Confederation for Physical Therapy (WCPT)

Ms Nancy McKay, Executive Committee Member, World Confederation for Physical Therapy, 980 Hay Crescent, Bathurst NB E2A 3Z2, Canada. Tel: +1 506 548 9510; fax: +1 506 547 1089; E-mail: nemckay@nb.aibn.com.

World Medical Association (WMA)

Dr Delon Human, Secretary General, World Medical Association, B.P. 63, 01212 Ferney-Voltaire Cedex, France. Tel: 33 450 40 75 75; fax: 33 450 40 59 37; E-mail: delon@wma.net.

Mrs Emma Viaud, Chief Operating Officer, World Medical Association, B.P. 63, 01212 Ferney-Voltaire Cedex, France. Tel: 33 450 40 75 75; fax: 33 450 40 59 37; E-mail: emma@wma.net.

United Nations agencies and bilateral/multilateral agencies

Bertelsmann Foundation

Dr Sophia Schlette MPH, Project Director, International Health Policy Network, Health Programme, Economics Department, Bertelsmann Foundation, Carl-Bertelsmann-St. 256, D-33111 Gütersloh, Germany. Tel: +49 5241 818 1216; fax: +49 5241 816 81216; E-mail: Sophia.Schlette@bertelsmann.de.

Commonwealth Secretariat

Dr Rosemarie Paul, Deputy Director/Head, Health Section, Social Transformation Programmes Division, Commonwealth Secretariat, Marlborough House, Pall Mall, London SW1Y 5HX, UK. Tel: +44 (0)20 7747 6290; fax: +44 (0)20 7747 6287; E-mail: r.paul@commonwealth.int.

Department for International Development (DFID)

Mr Martin Taylor, Health and Population Department, UK Department for International Development (DFID), 1 Palace Street, London SW1E 5HE, UK. Tel: +44(0) 20 7023-0319; fax: +44(0) 20 7023 0174; E-mail: M-Taylor@dfid.gov.uk.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)

Dr Wolfhard Hammer MPH, Senior Planning Officer, OE 4320, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Postfach 5180, 65726 Eschborn, Germany.Tel: + 49 6196 79-1576; fax + 49 6196 79-801576; E-mail: wolfhard.hammer@gtz.de.

Global Alliance for Vaccines and Immunization (GAVI)

Ms Karen Caines, Consultant, Global Alliance for Vaccines and Immunization (GAVI), Mill Farm, Church Road, Brasted TN16 1HZ, UK. Tel: 44 1959 564 478; fax: 44 1959 564 820; E-mail: karen@caines.demon.co.uk.

Dr Bo Stenson, Principal Officer, Global Alliance for Vaccines and Immunization (GAVI), c/o UNICEF, Palais des Nations, 1211 Geneva 10, Switzerland. Tel: 41 22 909 50 60; Fax: 41 22 909 59 31; E-mail: bstenson@unicef.org.

International Labour Office (ILO)

Mr William Ratteree, Education Sector Specialist, International Labour Office (ILO), 4 route des Morillons, 1211 Geneva 22, Switzerland. Tel: +41 22 799 71 43; fax: +41 22 799 70 46; E-mail: ratteree@ilo.org.

International Organization for Migration (IOM)

Dr Akram A. Eltom MPH, Migration Health Program Development Officer, Migration Health Services Division (MHS), International Organization for Migration (IOM), Case postale 71, 1211 Geneva 19, Switzerland. Tel: 41 22 717 92 93; fax: 41 22 798 61 50; E-mail: aeltom@iom.int.

Joint United Nations Programme on HIV/AIDS (UNAIDS)

Ms Susan Lucas, Consultant, Human Capacity Development, 5 Kelross Road, London N5 2QS, UK. Tel: +44 20 7226 9517; fax: +44 20 7503 6746; E-mail: lucases@cix.co.uk.

Dr Rik Peeperkorn, Associate Director, Department of Country and Regional Support, UNAIDS, 20 Avenue Appia, 1211 Geneva 27, Switzerland. Tel: +41 22 791 13 66; fax: +41 22 791 47 46; E-mail: peeperkornr@unaids.org.

Organisation for Economic Co-operation and Development (OECD)

Dr Steven Simoens, Economist, Human Resources for Health Care, Health Policy Unit - Social Policy Division, Directorate for Employment, Labour and Social Affairs, Organisation for Economic Co-operation and Development (OECD), 2 rue André-Pascal, 75775 Paris Cedex 16, France. Tel: 33 1 45 24 92 49; fax 33 1 45 24 90 98; E-mail: Steven.SIMOENS@oecd.org.

Rockefeller Foundation

Dr Vasant Narasimhan, Consultant, Rockefeller Foundation, Research Fellow, Harvard University, Eliot Building Rm. 105, 79 JFK Street, Cambridge, MA 02138, USA. : +617 270 3568; fax: +617 384 9397; E-mail: vasant_narasimhan@ksg.harvard.edu.

Swedish International Development Cooperation Agency (SIDA)

Mr Martin Ejerfeldt, Programme Officer, Health Services & Systems Team, Health Division, Swedish International Development Cooperation Agency (SIDA), Sveavägen 20, 105 25 Stockholm, Sweden. Tel: +46 (0)8 698 50 47; fax: 46 8 698 56 47; E-mail: martin.ejerfeldt@sida.se.

World Bank

Professor Gilles Dussault, Senior Health Specialist (Policy),World Bank Institute,1818 H Street, NW, (MSN - J2-200), Washington, D.C. 20433, USA. Tel: 1 (202) 473-8709; fax: 1 (202) 614-1137, E-mail: gdussault@worldbank.org.

Dr Demissie Habte, African Region Human Development Department, World Bank Institute,1818 H Street, NW, (MSN - J2-200), Washington, D.C. 20433, USA. Tel: 1 (202) 458-5997; fax: 1 (202) 614-1137; E-mail: dhabte@worldbank.org.

Observers

Dr Gijs Elzinga, Deputy Director-General Public Health, National Institute for Public Health & The Environment, P.O. Box 1, 3720 BA Bilthoven, The Netherlands. Tel: +31 30 274 2345; fax. +31 30 274 4411; E-mail: Gijs.Elzinga@rivm.nl.

Dr Piya Hanvoravongchai, Researcher, International Health Policy Program – Thailand**,** Health Systems Reform Office Building, Sataranasuk 6 Road, Ministry of Public Health, Nonthaburi 11000, Thailand. Tel: +66 2 590 2396; fax: +66 2 590 2385; E-mail: piya@hsrint.hsri.or.th.

Mr Eivind Hoffmann, Senior Statistican, Bureau of Statistics, International Labour Office, 4 route des Morillons, 1211 Geneva 22, Switzerland. Tel: +41 22 799 80 76; fax: + 41 22 799 69 57; E-mail: hoffmann@ilo.org.

Mr Ingo Imhoff, Junior Expert, International Cooperation and Programmes, Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Dag-Hammarskjöld-Weg 1-5, Postfach 5180, 65726 Eschborn, Germany. Tel: +49 6196 79 1447; fax: +49 6196 79 7512; E-mail: ingo.imhoff@gtz.de.

Mr Alan Leather, Deputy General Secretary, Public Services International, 45 Avenue Voltaire, BP 9, 01211 Ferney-Voltaire Cedex, France. Tel: +33 450 40 64 64; fax: +33 450 40 73 20; E-mail: Alan.Leather@world-psi.org.

Professor Nelson Sewankambo, Dean, Faculty of Medicine, Makerere University, Mulago Hospital and Complex, Mulago Hill Road, Kampala, Uganda. Tel: 256 41 530 020-21; fax: 256 41 530 022; E-mail: sewankam@infocom.co.ug.

Ms Christiane Wiskow, MPH, Consultant, International Public Health, La Guinchère – Publier, 74500 Evian, France. Tel: +33 450 73 46 40; E-mail: cwiskow@cario.fr.

WHO regional offices

Dr Ghanim Alsheikh, Regional Adviser, Human Resources Development, World Health Organization, Regional Office for the Eastern Mediterranean, WHO Post Office 7608, Nasr City, Cairo 11371, Egypt. Tel : 202 276 5316; fax: 202 276 5416; E-mail: alsheikhg@emro.who.int.

Dr Pedro Brito, Coordinator, Human Resources Development Program, World Health Organization, Regional Office for the Americas/Pan American Sanitary Bureau, 525, 23rd Street N.W., Washington, DC 20037, USA. Tel: 1 202 974 3295; fax: 1 202 974 3612; E-mail: britoped@paho.org.

Dr P.T. Jayawickramarajah, Coordinator/Scientist, Health Systems, World Health Organization, Regional Office for South-East Asia, World Health House, Indraprastha Estate, Mahatma Gandhi Road, New Delhi-110002, India. Tel: 91 11 337 0804; fax: 91 11 653 4961; E-mail: jayawickramarajahp@whosea.org.

Ms Jennifer Nyoni, Regional Adviser, Human Resources Management (HRM), World Health Organization, Regional Office for Africa , PO Box No. 6, Brazzaville, Congo. Tel: 1 321 95 39 236; fax: 1 321 95 39 511; E-mail: nyonij@afro.who.int.

WHO headquarters

Mrs Karin Bergstrom, Stop Tuberculosis. Tel: +41 22 791 47 15; E-mail: bergstromk@who.int.

Mrs Helga Fogstad, Making Pregnancy Safer. Tel: +41 22 791 25 28; E-mail: fogstadh@who.int.

Ms Tracey Goodman, Vaccines and Biologicals. Tel: +41 22 791 29 47; E-mail: goodmant@who.int.

Dr Robert Scherpbier, Child and Adolescent Health and Development. Tel: +41 22 791 26 93; E-mail: scherpbierr@who.int.

Ms Della Sherratt, Making Pregnancy Safer. Tel: +41 22 791 33 58; E-mail: sherrattd@who.int.

Dr Basil Vareldzis, HIV Department. Tel: + 41 22 791 46 70; E-mail: vareldzisb@who.int.

WHO headquarters secretariat

Dr Christopher Murray, Executive Director, Evidence and Information for Policy. Tel: +41 22 791 24 18; E-mail: murrayc@who.int.

Department of Health Service Provision

Mr Orvill Adams, Director. Tel: + 41 22 791 28 89; fax: + 41 22 791 47 47; E-mail: adamso@who.int.

Dr Naeema Al-Gasseer, Senior Scientist for Nursing & Midwifery. Tel: +41 22 791 23 25; fax: + 41 22 791 4747; E-mail: algasseern@who.int.

Human Resources for Health, Department of Health Service Provision

Dr Mario Dal Poz, Coordinator a.i. Tel: + 41 22 791 35 99; fax: + 41 22 791 4747; E-mail: dalpozm@who.int.

Dr Robert Beaglehole, Scientist. Tel: +41 22 791 25 08; fax: + 41 22 791 4747; E-mail: beagleholer@who.int.

Ms Janet Clevenstine, Technical Officer. Tel: +41 22 791 25 09; fax: + 41 22 791 4747; E-mail: clevenstinej@who.int.

Dr Khassoum Diallo, Statistician. Tel: +41 22 791 14 04; fax: + 41 22 791 4747; E-mail: diallok@who.int.

Dr Carmen Dolea, Medical Officer. Tel: +41 22 791 45 40; fax: + 41 22 791 4747; E-mail: doleac@who.int.

Mr Norbert Dreesch, Technical Officer. Tel: +41 22 791 44 49; fax: + 41 22 791 4747; E-mail: dreeschn@who.int.

Dr Saad Ghosn, Scientist. Tel: +41 22 791 16 39; fax: + 41 22 791 4747; E-mail: ghosns@who.int.

Dr Alexander Goubarev, Scientist. Tel: +41 22 791 25 05; fax: + 41 22 791 4747; E-mail: goubareva@who.int.

Mr Hugo Mercer, Scientist. Tel: +41 22 791 37 49; fax: + 41 22 791 4747; E-mail: mercerh@who.int.

Mrs Barbara Stilwell, Scientist. Tel: +41 22 791 47 01; fax: + 41 22 791 4747; E-mail: stilwellb@who.int.

Dr Pascal Zurn, Health Economist. Tel: + 41 22 791 37 76; fax: + (41 22) 791 4747; E-mail: zurnp@who.int.

Health Facilities and Services Provision, Department of Health Service Provision

Dr Neeru Gupta, Technical Officer. Tel: +41 22 791 23 82; fax: + 41 22 791 4747; E-mail: guptan@who.int.

WHO administrative staff

Mrs Nadine Buzzetti, Department of Health Service Provision. Tel: + 41 22 791 25 51; fax: + 41 22 791 4747; E-mail: buzzettin@who.int.

Annex 2. Programme of work

Monday 2 December 2002

08:00	Registration
08:30	Welcome address
	Christopher J.L. Murray, Executive Director, Evidence and Information for Policy, WHO, Geneva
	Orvill Adams, Director, Department of Health Service Provision (OSD), WHO, Geneva
08:45	Session I – HRH opportunities and constraints in selected countries: What is being done? What are the limits?
	• Evolution of Strategies for Inequitable Distribution of Doctors in Thailand: Four Decades of Experiences, Suwit Wibulpolprasert M.D., Deputy Permanent Secretary, MoPH, Thailand
	• Human Resource Availability and Requirements in Chad. Kaspar Wyss, Swiss Centre for International Health, Swiss Tropical Institute, Basel
	• Country Case Study: Human Resources for Botswana's National AIDS Treatment Program. Vasant Narasimhan, Research Fellow, Harvard University Consultant, Rockefeller Foundation
09:30	Discussions
10.30	Coffee break
11.00	Session I (continued) – Comments:
	• Laurence Codjia, CESAG
	• Rosemarie Paul, Commonwelth Secretariat
	• Abdul Mohammad Abdullah, Ministry of Health, Bangladesh
11:30	Discussions
12.30	Lunch
14.00	Session II – Migration: What do we know? What do we need to know for policy and action? Barbara Stilwell, WHO/EIP/OSD/HRH
	Comments**:** Jennifer Nyoni**,** WHO/AFRO
	Discussions
15.30	Coffee break
16.00	Session III – A proposed framework for HRH policy development. Orvill Adams, Director, WHO/EIP/OSD
16.30	Discussions
18.00	Closing of the day

Tuesday, 3 December 2002

08.30	Session III (continued) – Perspectives on the framework. Working groups: What are the key policy issues for human resources for health?
10.30	Coffee break
11.00	Session IV – Policy questions - are these the priorities? Panel: • Agency: Martin Ejerfeldt, SIDA • Country: Emilia Noormahomed, Ministry of Health, Mozambique • Country: Paulo Seixas, Brazil • Programme: Robert W. Scherpbier, WHO/FCH/CAH • Profession: Petra ten Hoope-Bender, ICM
12.30	Lunch
14.00	Session V – Evidence needed for policy decisions. Panel and discussions: • Khassoum Diallo, WHO/EIP/OSD/HRH • Steven Simoens, OECD • Pedro Brito, WHO/PAHO
15.30	Coffee break
16.00	Session VI – Round table on HRH development strategies: • Martin Taylor, DFID • Vasant Narasimhan, Rockefeller Foundation • Wolfhard Hammer, GTZ • Susan Lucas, UNAIDS • Gilles Dussault, WBI Discussions
18.00	Closing of the day

Wednesday, 4 December 2002

08.30	Session VII – Shaping the agenda. Rapporteur presentation: James Buchan
09:00	Working groups: Identify four HRH policy areas on which WHO should concentrate its work in the short term
10.30	Coffee break
11.00	Session VII (continued) – Plenary
12.30	Closing session: Orvill Adams, Director, WHO/EIP/OSD

Annex 3. List of background documents

1. Human resources for health: developing policy options for change
2. Planning human resources for health for priority health needs in countries
3. Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges
4. Methods and materials to monitor and evaluate human resources for health
5. WHO's work in human resources for health
6. Workshop on global health workforce strategy. Annecy, France, 9–12 December 2000
7. Technical consultation on imbalances in the health workforce (WHO/EIP/OSD/02.3)