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Joint WHO/AAAH conference on *Getting committed health workers to underserved areas: a challenge for health systems*

23–25 November 2009

Hanoi, Viet Nam

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1. Introduction

The Joint AAAH/WHO Conference "Getting Committed Health Workers to Underserved Areas: A Challenge for Health Systems" was held from 23–25 November 2009 in Hanoi, Viet Nam. It was jointly organized by AAAH, the Ministry of Health of the Socialist Republic of Viet Nam, the World Health Organization (WHO) and the Global Health Workforce Alliance (GHWA), with financial support from the World Bank, the China Medical Board and the Rockefeller Foundation. After the close of the conference, the WHO expert group developing global recommendations on increasing access to health workers in remote and rural areas through improved retention continued to meet for another day (a report from that meeting is available at www.who.int/hrh/migration/full_expert_group_hanoi.pdf).

The three-day event was attended by more than 130 people (about 90 AAAH participants and 44 members of the WHO expert group) representing 41 countries, including 15 AAAH member countries and eight African countries. In addition to the plenary and parallel sessions, participants also had the opportunity to join a field trip to a medical school, a provincial hospital, a district hospital, a commune health centre, a district preventive health centre or a private hospital.

The objectives of the Joint Conference were to:

- describe the inequitable distribution of health workers within countries and the impact this is having on the health and well-being of people living in remote and rural areas;
- review the strategies being used to deploy and retain committed health workers in underserved areas, including policies and programmes related to selection and pre-service education, continuous education, recruitment, regulatory measures, financial and non-financial incentives, working and living conditions, management environment, and social and spiritual motivation;
- understand the factors that encourage or discourage health workers to go to and continue to work in underserved areas;
- learn and share experiences from different countries and regions concerning the distribution and retention of health workers in underserved areas, and to foster networking among partners; and
- discuss and refine a set of draft global recommendations, initiated by WHO, to support countries in formulating and implementing appropriate, comprehensive and feasible interventions that will support health workers to go to and continue to work in underserved areas for an adequate length of time to solve the shortage of health workers in these areas.

2. Main messages

This section provides a summary of the main points that emerged from the plenary sessions followed by highlights of each presentation. All the presentations can be downloaded at www.aaahrh.org/4th_conf_2009/conf_doc.php.

Globally, 50% of the world's population live in rural areas and yet only 38% of nurses and 24% of doctors are serving them. In parallel with in-country maldistribution are imbalances across nations, magnified by the migration of skilled personnel from poorer to richer countries.

The field of human resources for health (HRH) has long been neglected: under-researched, under-appreciated and under-financed. However, there are signs that this is changing as human resources are at the heart of the global effort to strengthen health systems and revitalize primary health care.

Governments all over the world struggle to get committed health workers to underserved areas. During the first plenary session a few experiences were shared. In Africa, several regional

committee resolutions have been adopted on the topic and many counties are in the process of developing and implementing national HRH strategies and rural retention schemes. Viet Nam is prioritizing HRH at the grassroots level in the development of its national health system, and Thailand is in the midst of its Strategic Plan for the Decade of National HRH Development, 2007–2016.

In terms of having adequate numbers of committed health workers in underserved areas there is no "one-size-fits-all" solution: country-specific policies, strategies and actions are needed. Nevertheless, some common elements emerged from the presentations. Effective rural retention policies require political commitment and leadership; a bundled set of interventions; multi-stakeholder and multisector engagement and participation at national, provincial and local levels from the planning process through to implementation and evaluation; a comprehensive and evidence-based HRH strategy that covers all cadres of health workers and is responsive to local needs and priorities; a mechanism for coordinating implementation; and an effective information management system.

In addition, the external environment (macroeconomics, labour market, public sector reforms, decentralization, etc.) poses both opportunities and threats which must be considered in policy formulation and implementation. For example, migration (both national and international) has a major impact on rural retention. The importation of foreign workers by some rich countries to cover their own disadvantaged populations creates problems in source countries. The WHO draft code of practice on the international recruitment of health personnel aims to ensure two rights: the rights of individual professionals to leave and the right of populations to access quality health-care services. But it also states that there should be a net positive effect on the health systems of poor countries.

Recognizing that better evidence will be needed for the review of the global recommendations in 2012, speakers and delegates called for countries and development partners to invest in research capacity and networks to generate the knowledge needed for evidence-based policy decisions.

The following priorities for international stakeholders were identified:

- agree on standardized methods and core indicators in order to facilitate monitoring and evaluation, exchanges of information and the sharing of experiences among countries;
- continue the work of the expert group and create task forces that bring together researchers and policy-makers to review specific gaps and ensure implementation as well as follow up on the results of implementation; and
- pilot and scale up the recommendations and provide countries with the technical support they need to implement a bundle of interventions specific to their own problems and priorities.

3. Opening remarks

Dr Nguyen Thi Xuven, Vice Minister of Health of Viet Nam, in her opening address to welcome the participants, spoke of Viet Nam's commitment to increasing the availability and quality of health services in remote and rural areas, where 75% of the population lives. As a result of measures already taken from 1997 to 2007, Viet Nam has succeeded in increasing the number of commune health centres with at least one doctor from 24% to 67%. However, challenges remain and various incentives are being used to increase numbers and improve services in underserved and remote communes still suffering from a serious shortage of medical doctors. The Government of Viet Nam considers people's health as the foundation of

social and economic development and health workers as one of the most precious resources in the delivery of health-care services. Medicines, equipment and other consumables are also important but will not result in improved health and well-being unless health workers are available.

Dr Mubashar Sheikh, Executive Director of the Global Health Workforce Alliance (GHWA), said the meeting had triple relevance for GHWA. First, the theme of this year's AAAH meeting relates to one of the six interconnected strategies of the Kampala Agenda for Action: "to assure adequate incentives and an enabling and safe environment for effective retention and equitable distribution of the health workforce." In this area GHWA's specific activities include participation in WHO evaluation studies in India, Mali and Senegal, establishing knowledge centres in Ethiopia and Malawi, and promoting the positive practice environment campaign to improve working conditions in all health-care facilities, including those in remote and rural areas. Second, the meeting is being held in Asia Pacific region where the deficit of health workers, in terms of sheer numbers, is greatest. And third, it is a chance to build relationships and associations with key partners all of whom share the same vision.

Dr Jean-Marc Olivé, WHO Representative in Viet Nam, said the objective of having 80% of commune health centres with at least one medical doctor is one of the most important targets of the Viet Nam Health Care Policy for the period 2001–2010. This is an ambitious target given how difficult it is for Viet Nam and all other countries to attract and retain doctors in rural areas. Policy-makers at the provincial level are trying to develop their own regulations to attract medical doctors and many assistant doctors have taken or are in the process of completing a four-year upgrade course to become fully fledged medical doctors. Some financial incentives have been offered in the form of different kinds of allowances (the rate varies by province).

Dr Toomas Palu, Lead Health Specialist for the World Bank in Viet Nam, said human capital is important to move a country from a least-developed to middle-income rating and further. Health is an important part of human capital and health systems matter for achieving health goals. HRH is an important determinant of health system performance. This is all widely recognized by countries and has gained traction within the development community in recent years. For example, the GAVI Alliance, the Global Fund and the World Bank have committed to one common health system funding platform. He also said that HRH and rural retention of health workers should not be looked at in isolation and due consideration must be given to factors outside the health sector that have an impact on health systems such as macroeconomic conditions, labour market opportunities and external reforms.

Dr Suwit Wibulpolprasert, Chairperson of the AAAH Steering Committee, traced the AAAH's history and growth to date, noting it was born from the need for a network to build collective capacity and leadership to solve the HRH crisis in each country in the region. Networks are not easy to start and sustain, and their success or failure is entirely dependent on demand from members. The increasing participation at the AAAH annual meetings – from 50 delegates at the first meeting in 2006 to more than 150 in 2009 – shows that the AAAH network is working and getting stronger by the year. He also noted that AAAH is a good example of how the two WHO regional offices can work together. He stressed that committed health workers are the most important factor in retention – one committed health worker is better than 10 noncommitted ones.

4. Keynote address

Dr Lincoln Chen, President of the China Medical Board, gave the keynote address on the conference theme. Below are some of the highlights of his speech, the full text of which is available at www.aaahrh.org/4th_conf_2009/conf_doc.php.

He began by making three points. First, it is never repetitive to underscore the huge importance of access to skilled and motivated health workers for achieving good health, equitably shared. Despite an upsurge in rhetoric, human resources remain a neglected, under-appreciated, and under-financed engine for health improvement. Shortage is a key constraint, but the shortages are often due to – or exacerbated by – severe maldistribution.

Second, although maldistribution is a commonly shared problem in all countries, each country is also unique. All market-based economies have labour markets where professionals and other workers have occupational mobility, and most prefer to live and work in urban areas. There is nothing wrong with these personal and professional preferences. What need fixing are the biased institutions, inequitable policies and perverse public subsidies that worsen health imbalance and inequity.

From a menu of strategies each country may chose options that suit its situation. The approach cannot be "one size fits all." But the approach also cannot be "any size will do". To craft successful policies for specific national contexts, the sharing of experiences is invaluable.

In parallel with in-country maldistribution are imbalances across nations. This global inequity is magnified by the migration of skilled personnel from poorer to richer countries. Maldistribution within and across countries can be seen as an inter-linked continuum. Ironically, the importation of foreign workers in some rich countries like the United States of America (USA) is due to its desire to cover its own disadvantaged populations.

Third, what to do is mostly known, the challenge is how to successfully implement the interventions in specific contexts. The WHO expert group has developed four categories of strategies: education, regulation, financial incentives, and management and social systems support. These are based on the commonly accepted framework of "push–pull" factors. Workforce strategies aim to dampen the "push" out of and to enhance the "pull" into remote and rural areas.

Implementing a bundled set of strategies will require strong political commitment to engage stakeholders, incentivize the key actors, overcome vested interests, and address "the bigger picture" issues of human resources, health systems, social determinants, and multisectoral and multi-stakeholder engagement.

Dr Chen emphasized the importance of getting the skill-mix right – just producing more health workers is not the answer – and the need for better research and monitoring and evaluation.

5. Plenary session 1: Situation, factors and recommendations on getting committed health workers to underserved areas

Dr Jean-Marc Braichet noted that the international migration of health workers is much more publicized than the migration of health workers within countries. These two types of migration call for responses that are complementary, but different, and that is why WHO is developing two major and complementary projects: the WHO code of practice on the international recruitment of health personnel and the programme to improve the retention of health workers in rural and remote areas. The health worker rural retention programme is built on three main strategic pillars: building the evidence base on effective retention strategies; supporting countries to evaluate and adapt retention strategies; and developing and disseminating global

recommendations on increasing access to health workers in remote and rural areas through improved retention. He reviewed progress in developing the recommendations throughout 2009 and the next steps moving forward, and he highlighted the objectives for the meeting.

Dr Manuel M. Dayrit spoke about the international recruitment code, which aims to protect the interests of developing countries while balancing the rights of individuals to migrate and the right of populations to a functioning health system powered by motivated, skilled and supported health workers. A draft code will be deliberated by Member States during the World Health Assembly (WHA) in May 2010. The process was both technical (evidence gathering and studying situations and provisions of other existing codes such as the Commonwealth code) and political (not isolated from other global decision-making processes). It was also a sociological process in that there was a notable change from the acrimonious response the subject received when first proposed in the WHA in 2004 to a point where there is consensus that a common agenda is needed to find common solutions. A weak health system anywhere in the world is a threat to all countries, even to those with the strongest health systems.

Dr Magdalena Awases spoke about the situation in the sub-Saharan African region where several countries have strategies to improve retention of health workers. Zambia has a retention scheme that provides incentives (hardship allowances, rehabilitation of housing, vehicle loans, etc.) to health workers in remote areas. Uganda has implemented some pull strategies such as improving remuneration of health workers and ensuring timely payment of salaries, recruiting additional health workers through health service and district commissions, and providing staff accommodation at health centres. Kenya, the United Republic of Tanzania and Zimbabwe are providing hardship allowances (car allowances, overtime pay, stipends, top-up salaries, etc.) to staff in hard-to-reach areas. Malawi's successful Emergency HRH Plan includes measures for training and retention. Ethiopia is using a combination of financial incentives (scarce skills allowances, rural bonuses, on-call allowances) and non-financial allowances (housing, availability of equipment and supplies) to motivate doctors and nurses to stay and work in rural areas. However, the sustainability of strategies is limited by often unstable political and economic conditions, over-reliance on donor rather than domestic funding, uneven retention strategies across cadres and poor management decision-making. What's more, incentive schemes can remain in draft format for years before being approved and not all approved packages are ever fully implemented.

Dr Toomas Palu presented a summary of HRH studies in East Asia and the Pacific. He said the evidence base for HRH retention policies still needs to be strengthened and encouraged AAAH members to push the research agenda. HRH imbalances and shortages are often mentioned together but they are not the same. Thailand is using multiple strategies including financial and non-financial incentives, compulsory service and local recruitment. Indonesia found that special bonuses for remote areas significantly increased health workers' willingness to be deployed to remote locations. After instituting guaranteed public sector employment, Viet Nam saw a significant increase in doctors staying in commune health centres for at least five years. Several conclusions can be drawn from the studies. Quality certification, accreditation and licensing of health workers need strengthening especially in the context of decentralization and private practice. The implications of prevalent dual practice need further studies – should it be banned, discouraged or integrated? In terms of education and training, the studies show a low level of investment in medical training continues to be problematic in many East Asian countries, and is linked to quality issues; the importance of reforming curricula to gear health workers towards rural service is often neglected as is exposure to rural practice during training; and nursing and midwifery education needs special attention, particularly since nurses have high retention rates.

Mr Le Quang Cuong gave an overview of the HRH situation at the grassroots level in Viet Nam and the health policy to address HRH challenges in these areas. HRH at the grassroots level is a priority of health system strengthening in Viet Nam. The plan is to have 15 979 health staff for preventive care (including 11 877 at the district level) and 9199 health staff for curative care at the district level by the end of 2010. Salary and merit awards for health staff working in disadvantaged and mountainous areas have been implemented (following the Thai model). Two of the most important constraints are weaknesses in health workforce planning and management and the inadequacy of the information management system for HRH. An example of the latter is a large number of health staff in remote and rural areas are not integrated in the reporting system for human resources. Among her recommendations: develop a formal mechanism of information exchange within the country to improve coordination between training institutions and health organizations/employers; update curricula; share experiences with other countries; and build capacity for HRH management.

Dr Mongkol Na-Songkha presented the strategic plan for the decade of national HRH development in Thailand, 2007–2016. This comprehensive HRH strategy covers the spectrum from production through to distribution and retention not only of conventional health professionals, but also other groups such as volunteers and indigenous medicine practitioners. The most important element of the Thai approach is that it is a bottom-up approach: the planning, development, implementation and evaluation of the HRH plan are being by local experts in response to local needs. The five components of Thailand's HRH strategy are:

1. developing overall management and coordination mechanisms;
2. reorienting the production and development of health workers to focus on generalists rather than specialists and to produce more health promotion workers (other aspects include the application of rural recruitment, local training and hometown placement);
3. reorienting management to achieve equitable distribution, retention and job satisfaction;
4. investing in knowledge generation and knowledge management, including research capacity, research networks and HRH information systems strengthening;
5. promoting and empowering Thai indigenous healers and civil society.

6. Plenary session 2: Contextual factors affecting HRH in underserved areas

6.1 Introduction of the WHO draft recommendations

Dr Carmen Dolea gave an overview of why WHO is producing global recommendations on improving retention of health workers in remote and rural areas and described the process and the product. WHO recommendations are different from policy options because they imply that a course of action needs to be taken and that progress can be measured against a set baseline. The process for producing the recommendations on rural retention has followed the Guidelines Review Committee's (GRC) eight-step approach. The GRC was set up in 2008 to ensure all WHO guidelines are evidence-based and to increase transparency about the judgements that have been used in their formulation. The GRC has set standards for reporting, processes and use of evidence. Such a systematic, explicit and transparent approach should help protect against errors, resolve disagreements, facilitate critical appraisal and communicate information.

The key research and policy questions the recommendations address are:

1. What are the factors that influence the choice of practice location for different categories of health workers?
2. How effective are different strategies in increasing access to health workers in remote and rural areas?
3. How should different retention strategies be designed and implemented for maximum success?
4. What criteria should be used in selecting the most appropriate interventions for different contexts?
5. How can the results and the impact of the various retention strategies be measured and monitored?

The table below provides a summary of the draft recommendations.

One of the difficulties has been that a lot of country experiences have not yet been published, or they have only been published in local journals that are not indexed. WHO has tried to get out as much evidence as possible from the grey literature, and is very open to further contributions. One conclusion from its global review on published and unpublished studies is that context issues are not often described or assessed in the literature, which is why WHO is encouraging more case studies. The rural retention recommendations will be reviewed and revised three years after they are published and this will be an opportunity to feed in new evidence and to identify new research priorities.

The dearth of published studies compared with the decades of experience with rural retention strategies will only begin to shift when more funding becomes available for these types of studies (including multi-country studies). At the moment it is very difficult to find funding for evaluations and for prospective country studies to address the key issues that were presented at this meeting.

Category of intervention	Examples
Education and continuous professional development interventions	Preferential recruitment of students with a rural background
	Medical and other health professions schools located in rural area
	Clinical rotation in rural areas during medial or health-related studies
	Changes in curricula to reflect rural health issues
	Continuous professional development (CPD), including career paths
Regulatory interventions	Compulsory service in a rural area, alone or with incentives
	Scholarships in exchange of rural service (bonding)
	Producing new types of cadres (task shifting, substitution, mid-level workers)
Financial incentives	Rural or remoteness allowances, including other indirect financial incentives (housing, transport, children's schooling, etc.)
	Financial support for young doctors to open private practices in rural areas
	Performance-related pay
Management, workplace environment, social support	Improved working and living conditions
	HR management system, including improved supervision
	Reduce feeling of isolation through professional support networks, specialist outreach programmes and telemedicine
	Social recognition measures

6.2 Monitoring and evaluation framework for retention interventions

Prof. Luis Huicho explained why an M&E conceptual framework was needed and presented the proposed M&E framework including key questions and indicators. Many countries have developed strategies to attract and retain qualified health workers in underserved areas, but there is only scarce and weak evidence on their successes or failures. The few available evaluations rarely facilitate the transfer or comparison of lessons or the measuring of results. Because policy-makers need to know whether interventions work or not, why they work and in which context, it is important to have information about the effects of HRH interventions and about the factors that made the intervention succeed or fail.

The proposed M&E conceptual framework takes into account the many challenges and is based on a system's approach that differentiates between inputs, outputs, outcomes and impact. It combines different frameworks that can help at different stages of the policy development cycle. It aims to guide thinking in evaluating an intervention from its design phase through to its results and to guide the monitoring of interventions through a focus on the routine collection of a set of indicators, applicable to the specific context. The conceptual framework needs to be tested extensively in various contexts and will be refined through further inputs from different sources. There are ongoing plans for applying it in a number of countries that are designing and implementing attraction and retention strategies in underserved areas. Efforts will also be made to ensure the evaluation tool is user-friendly and hopefully it will help to address a neglected area of research and draw attention to the importance of evaluating the impact of public health interventions.

6.3 Costing the retention interventions

Dr Pascal Zurn noted that to date very few studies have analysed the associated implementation costs of retention strategies. In some ways, this is surprising because information about costing is important to convince policy-makers of the feasibility of retention strategies and because costing should be part of evaluation. WHO is undertaking pilots of costing policy interventions in countries and is planning a guide to costing policy interventions related to rural retention to accompany the recommendations. It has been suggested that part of a costing exercise should include the cost of not doing an intervention, for example, the cost of high turnover versus the cost of the retention strategy. In terms of who is financing the interventions and how, a number of stakeholders are involved (international partnerships, multilateral and bilateral agencies, ministries, NGOs, communities, etc.) using a number of different funding streams (domestic tax revenues, deficit financing, social insurance, official development assistance, out-of-pocket payments, etc.). Stakeholders vary country-by-country and according to context.

Assessing whether financing can be secured in the medium to long term to pay for the intervention is another important consideration. Financial sustainability and predictability depends on fiscal space, sources of financing and the willingness of donors to commit funds for the medium term. Two other important considerations are the share of the health budget devoted to HRH expenditure and the share of HRH expenditure devoted to retention schemes. Sustainability of financing depends on governments and development partners harmonizing their policies. Most governments in countries with the severest HRH shortages cannot afford to educate, train and employ the health workers needed in underserved areas and therefore implementing retention strategies will require considerable external financial support for some years to come.

7. Summary of outputs and feedback from six parallel sessions

Each of the six three-hour parallel sessions followed a similar format. The first part was devoted to country presentations and the second part gave participants a chance to comment on the WHO draft recommendations. In the plenary session on the third day, just before the close of the conference, chief rapporteur **Dr Viroj Tangcharoensathien** presented a summary of each parallel session, which was followed by a brief discussion.

7.1 Education interventions

Virtually all countries – rich and poor – have education interventions aimed at retaining heath workers in remote and rural areas. A few examples were presented in this session. Nepal has adopted a social accountability framework for medical education that is aimed at addressing priority health issues and responding to community needs. Some of Thailand's recruitment methods favour students from rural backgrounds who tend to have a better attitude towards rural practice and are more likely to want to work in rural areas after graduation. Certain recruitment approaches in Viet Nam favour students from rural backgrounds and some programmes are available to health workers to upgrade training to a higher cadre level. Education interventions in the USA include recruiting students from rural backgrounds, loan forgiveness programmes and providing support to rural practitioners. In South Africa one university has adopted a rural pipeline approach that starts with selecting the right students, moves on to providing the most appropriate undergraduate and postgraduate training, and follows through to providing effective support to rural health workers.

Participants agreed on the draft WHO recommendations and suggested the following additions: involve the community in selecting students for medical school and other health professions; consider making rural medicine a specialty for postgraduate training; provide academic opportunities for rural practitioners; expose students to rural practice in their early years of medical education; and consider training programmes for non-physician cadres. In addition, WHO should propose a research agenda and develop a research tool kit to strengthen the evidence, particularly in developing countries.

Overall, countries need stronger regulatory frameworks, better quality high schools especially in disadvantage areas and more qualified faculty and teachers in provincial/state level training institutes. Interministerial collaboration is vital. Telemedicine is expensive and, if recommended, must address affordability issues. More consideration should be given to the unintended consequences of the recommendations and, as stated in several plenary and parallel sessions, effective monitoring and evaluations systems are needed to monitor progress.

7.2 Regulatory interventions

In the country presentations participants learned that health workers in China are willing to work in rural health centres provided that working conditions and salary are satisfactory. In Viet Nam, Project 1816, which the MOH approved in 2008, is rotating qualified staff members working in high-level hospitals to lower-level hospitals in order to enhance treatment capacity, reduce overload in central hospitals and transfer skills and training to strengthen clinical competencies. More research and case studies are needed in Pacific Island countries where rural service has yet to be made mandatory. Meanwhile, in South Africa the policy of one-year compulsory community service as a pre-requisite for professional licensure is regarded as a good recruitment strategy, but a poor retention strategy.

Comments on the WHO recommendations included the need to define "regulatory" as a spectrum of measures – not only legislation but also various governmental instruments such as policies and guidelines. It was proposed that the first recommendation be rephrased to read: "As a recruitment measure, compulsory service can be introduced in order to improve geographical (rural) distribution of the health workforce *(in the short term)*". Public–private

partnerships need further elaboration as dual practice can be an incentive to work in rural and underserved areas. The third recommendation is probably best split in two: scope of practice and the creation of new cadres more likely to serve in rural areas, with acknowledgement of the strong linkages between education and regulation and differentiating between education initiatives, such as clinical rotations as part of the curriculum and compulsory rural service.

Overall there was a consensus to support all the recommendations in this section, but participants expressed the need to investigate how to implement compulsory measures. The precise wording is not important as countries will adapt the recommendations according to their contexts. The degree of compulsion and compliance varies according to political and societal context. Other suggestions included linking compulsory service to licensing and engaging other sectors, in particular education, finance, labour, civil society and professional associations. Strong political leadership is required as is more research. Nigeria, the Philippines and the United Republic of Tanzania are among the countries with many decades of experience with compulsory service. These and other country experiences with regulation need to be documented, monitored and evaluated.

7.3 Financial interventions

The common message that emerged from the three country presentations in this session was that financial incentives work well when combined with other interventions. In Viet Nam the package includes working conditions, career advancement and in-service training. A study in Thailand indicates that higher salaries, better opportunities for specialist training, faster career promotion and less overtime work will determine a doctor's decision to work in a rural hospital. A study in Zambia found that a package of comprehensive incentives was important (financial incentives, better housing, vehicle loans, improved work conditions etc.) but the impact varied across cadres. In countries where donors are involved in providing financial incentives, harmonization of policies and practices is essential both at national and district levels.

Concerns were raised about the strength of the evidence and the sustainability of implementing the recommendations as worded in low-income countries. The second recommendation was felt to be too narrow as it focuses only on doctors in general and in particular on unemployed and young doctors and there were different points of view about the feasibility and role of private rural practice. It was suggested that this recommendation could highlight contractual arrangement to hold non-state providers accountable. Participants felt uncomfortable on the term "low governance level" in the third recommendation and suggested replacing it with "In countries where there is a lack of transparency and confidence in the health system…" They also wanted to include a statement that the monitoring of quality of care and performance should be done by communities and not by donors. In addition, any pay-for-performance scheme should not only consider quantitative but also qualitative indicators that take into consideration the expectations of the population.

The recommendations on financial incentives are sensitive and must be very carefully written and cautiously implemented. It was agreed that this section (the recommendations and commentaries) needs to be revised and the evidence strengthened as much as possible. Demand-side interventions could be taken into account in order to improve access to care. Financial incentives must be combined with other interventions that reflect the spiritual dimension and other intrinsic factors underpinned by sufficient resources and long-term sustainability, and take into account management capacity.

7.4 Working environment and management

The country presentations covered a wide range of issues related to the working environment and management: living conditions in Bangladesh; Japanese management models to improve job satisfaction and potentially retention in Sri Lanka; bottom-up management approaches and involvement of communities in Japan; and bundled interventions in Mali that include a rural doctors association, contracting mechanisms, involvement of local communities and community medicine as a speciality.

The consensus was that all the proposed WHO recommendations require clarification, rewording and restructuring around the following themes: HR management systems at national/local level, including delivery/supportive supervision (e.g. job descriptions and performance appraisals defined at national level and applied locally); work and living environment, which need two separate recommendations; professional support (e.g. associations of rural practitioners); and community support for families of heath-care providers. The recommendation on service delivery depends on whether the ultimate goal of the recommendations is to increase access to health services or to health workers.

Several management challenges are common to many countries, especially those with the most severe shortage of health workers. Vertical disease programmes that pull staff away from rural areas, gaps in M&E and costing, and lack of HR management capacity especially among managers of rural providers are a few examples. More broadly, the tendency of governments and development partners to focus only on infrastructure improvement will not solve some of the fundamental HR challenges.

7.5 Social and spiritual motivation

A case study in Bangladesh found many demotivating factors among health workers serving in rural areas, but also concluded that some simple recommendations (e.g. taking oaths of service regularly, improving entertainment facilities, etc.) could have a positive impact. India and Sri Lanka highlighted the need for bundled approaches that build confidence in and motivation of health workers. Thailand said duty plus brain plus heart and soul equals continuous quality improvement and a happy health workforce. The Thai presentation also noted the importance of engaging with the media and strengthening civil society and communities.

As for the WHO recommendations, the consensus was that the draft does not sufficiently reflect some important dimensions of retention and that more examples of intrinsic factors and social and spiritual motivation need to be included. Participants acknowledged that a recommendation on how to best motivate rural health workers is perhaps the hardest challenge for the document. A few mentioned Maslow's hierarchy and said that incentives are actually the lowest "pull factor" in terms of motivation and that other important social dimensions and motivation factors need to be investigated.

Several recommendations were suggested including:

- creating awards and ceremonies at local, national and international levels;
- developing a social contract with the community to help foster strong sense of belonging and accountability;
- providing supportive supervision;
- addressing issues related to gender;
- improving not only the social but also the formal recognition of rural health service;
- addressing the faith dimension of motivation by engaging with faith-based organizations that provide health services in rural communities.

7.6 External factors affecting retention in underserved areas

External factors can have both positive and negative impacts on rural retention. For example, civil unrest and rising house prices in urban areas may attract people to work in rural areas. Public sector reform, health sector reform, public–private partnerships and decentralization are examples of factors that can positively or negatively affect the availability of health workers in rural areas. Access to the Internet can minimize professional isolation. This parallel session focused on three main concerns: what information is needed for the identification and analysis of important external factors; how to accommodate these external factors in the selection of bundles; and how to monitor their impact.

A presentation on Cambodia's public service reform highlighted the opportunity to enhance the quality of public services, including health services and the challenge of the brain drain of civil servants. Speakers from Indonesia, the Lao People's Democratic Republic and Thailand agreed that decentralization brought opportunities to improve working conditions, rural recruitment, flexibility in hiring health staff, incentives and management. At the same time there are a number of challenges to overcome such as governance of local administrative organizations (LAOs) and different levels of capacity in terms of financial administration and HR management. The United Republic of Tanzania's experience highlights the importance of having retention initiatives as one part of a HRH strategic plan, which is in turn one part of a national multisectoral health plan.

The session drew five conclusions. First, external effects should be taken into account when developing policies to improve retention in underserved areas. Second, these effects provide both opportunities and threats to retention strategies, which may change over time. Third, decentralization is a major external factor impacting on working conditions, career opportunities, recruitment and financing. Fourth, the impact of decentralization will depend on the rationale behind the policy (ideology vs. public health concerns), how it is implemented and the technical capacity and resources of local government units. And fifth, the state of the economy will have an impact on a country's ability to fund retention strategies.

Annex 1: The parallel sessions

Parallel session 1: Education interventions

Country presentations

Towards meeting health-care challenges in rural Nepal

Presented by Dr Arjun Karki

Some 80% of Nepal's population live in rural areas where health services are inaccessible and health workers are lacking. For example, the doctor to population ratio is 1:850 in Kathmandu, 1:30 000 in hill areas and 1:>100 000 in mountainous regions. Health workers are reluctant to take up positions in Government health services in remote and rural areas because of poor working conditions. The dual objectives of the National Health Policy and Plan 1997–2017 are to improve the health status of the most vulnerable and to provide the appropriate numbers, distribution and types of technically competent and socially responsible health personnel for quality health care throughout the country, particularly in underserved areas. Innovative and equitable medical education (including careful student selection, scholarships, early exposure to rural practice, effective pedagogical methods, committed faculty, enlighten leadership and international collaboration) is one of three strategies being pursued to address the urban–rural divide in Nepal. The Patan Academy of Health Sciences is one example of a school that is implementing this strategy. The other two strategies are effective in-service support and systems rectification.

First-year medical students in Thailand: rural attitudes and preferred workplaces upon graduation

Presented by Miss Kamolnat Muangyim

In Thailand, medical students are recruited and selected in one of three ways: the national entrance examination, quota systems and the Rural Doctor Program (RDP). Since 1974 each medical school has been responsible for its own quota system, which provides preferential admission to talented rural students living in the same region as the medical school. In 1995 the Government endorsed a programme to increase the production of rural doctors. The RDP, a collaborative programme between the Ministry of Public Health and the Ministry of Education, is based on rural recruitment, local training and home town placement. In May 2007 a study was undertaken to compare and identify factors determining rural attitude and preferred workplace upon graduation among the first-year medical students recruited by each of the three different mechanisms. Of the 1011 medical students from six eligible medical schools who completed the survey (97.8% response rate), researchers found that students recruited through quota systems and the RDP had a higher regard for rural practice and were more likely to express a preference to work in public health facilities after graduation.

Training health workers for disadvantaged areas in Viet Nam

Presented by Mr Tran Duc Thuan

In Viet Nam, as in many other countries, health workers migrate from the public to the private sector and also from rural to urban areas. As a result there is a significant imbalance of health workers between geographic regions, especially in ethnic minority areas. To redress this imbalance the Ministry of Health is using three strategies that favour the enrolment of students from ethnic minorities and disadvantaged areas.

- Nominative enrolment (mainly for ethnic minorities: no entry exam, one year further education before entering medical school, support through a scholarship programme, and obligation to return home after graduation).

- Bonus scores for entrance exam (mainly for students from rural areas: entry examination, a bonus at the examination if they are from a rural area, and no obligation to return home after graduation).
- Enrolment by address: entry exam required and commitment by local government.

Strategies to improve the quality of health workers include setting competency standards for each profession and specialization, training health workers to a higher level ("upward" task shifting, for example from nurse to doctor), developing new programmes, reforming curricula and upgrading teaching institutions.

Strategies for addressing geographic maldistribution of physicians in the USA

Presented by Dr Jordan Cohen

Physicians in the USA shun rural areas because of professional isolation, limited opportunities for working spouses, too few "good" schools for their children and inadequate cultural outlets. Another contributing factor is that rural practice is less rewarding financially. Strategies for recruiting rural physicians include:

- recruiting medical students from rural areas in the hope that they will return to practice in these areas after graduation;
- including meaningful educational experiences for students in rural settings, for example a rotation in a rural practice;
- establishing loan forgiveness programmes such as tuition fees for medical school;
- providing support for rural practitioners such as telemedicine, respite periods and financial incentives.

Training rural health professionals in South Africa

Presented by Prof. Ian Couper

The University of Witwatersrand is using the concept of a "rural pipeline" to improve recruitment and retention of health workers in rural and remote areas of South Africa. The first step is selecting the right students: students from rural areas are five times more likely to work in a rural area than students from urban areas. The Wits Initiative for Rural Health Education (WIRHE), established in 2003, has pilot sites in two provinces. A scholarship scheme involves student selection at the district level through village committees, mentoring, community service and year-for-year contracts. The next step is focused on ensuring students have sufficient exposure to rural practice during their undergraduate training. The third step is creating opportunities for postgraduate training, for example, through distance programmes, district-based family medicine training and specialist training at regional hospitals. The final step is providing support to rural health workers, for example, with specialist visits, academic links, district learning centres and appropriate skills training. The University is planning to offer a Master of Rural Health starting in 2010, and, in the future, a Master of Primary Care Nursing and a postgraduate diploma in rural medicine.

Comments related to the WHO draft recommendations

- Although developing countries have considerable experience with educational interventions—in some cases over several decades—most programmes have not been documented or evaluated.
- Because the evidence for the recommendations is low, research should be part of the implementation and WHO should develop a "research kit" on how to design better quality research in this field.
- Students should be exposed to rural practice as early as possible to help improve their motivation to work in rural areas and to gain the respect of the people living in these areas.

- Addressing the shortage of health workers in rural areas requires collaboration across many ministries and sectors, as well as with the institutions and regulatory bodies that issue licenses and credentials for graduates and practitioners.
- Family medicine and rural medicine should be recognized specialties, and countries should consider producing special cadres for rural areas.
- The quality of high schools in rural areas is as important as the quality of medical schools (both for creating good applicants and for providing incentives for health workers who are looking for a good education for their children).
- Think about the availability of faculty to teach students in rural medical schools.
- Provide academic opportunities for health workers in rural areas.

Parallel session 2: Regulatory interventions

Country presentations

A national pilot project recruiting and retaining licensed doctors in township health centres in China

Presented by Ms Ma Dafei

In January 2008 China launched a five-year project to recruit 10 000 licensed doctors to township health centres (THCs) in poor and remote areas. The central Government has committed financial support for salaries and is encouraging local governments to provide extra financial allowances. Before launching the project, a study was conducted to better understand licensed doctors' perceptions and willingness to work in THCs. The study subjects were unregistered licensed doctors (UrLDs), including licensed assistant doctors, who had passed the licensing examination but were not registered with a health authority. In many cases low salaries in health centres had led them to take jobs outside of the health sector. Of the 911 UrLDs who were interviewed through a structured telephone survey in January 2007, 70% said they would be happy to work in rural areas. The most important factors that would influence their decision were adequate salary, stable job, recognition by the local community, and opportunities for training and promotion. Although there was no significant gender difference, the younger they were and the lower their education background, the more likely they were to want to work in THCs. Monitoring and evaluation have been part of the project from the beginning and data from selected provinces have already reviewed twice and recommendations made to the local governments.

Rotating health workers to lower levels of the health system in Viet Nam

Presented by Cao Hung Thai

In recent years there has been a dramatic decline in the number of doctors working in Viet Nam's more rural provinces, and in some provinces the number of doctors dropped by 50% between 2004 and 2007. In 2008, the Government began to rotate qualified health staff in high-level hospitals to lower-level hospitals throughout the country. Each staff rotation is for a maximum of three months but many split their service into one- to two-week instalments. Financial incentives are used and the local government or provincial hospital provides accommodation. Although these short-term placements only account for 2–3% of total workforce at the district level, their value is that they improve quality and capacity of local staff. The aims of Project 1816 are to enhance treatment in lower-level hospitals, reduce overload in national-level hospitals, transfer technology and provide training. The overarching goal is to improve medical treatment in communities and ensure equity in health services. One year after it was launched nearly 60 hospitals have assigned 1846 qualified health staff to support 189 lower-level hospitals in 57 provinces, transferred 608 techniques, conducted 295 training courses for almost 12 000 trainees and provided treatment to 70 434 patients.

The next steps are to develop a uniform procedure to transfer techniques from high-level to lower-level hospitals, develop legislation to support Project 1816, enhance monitoring and evaluation and adopt a regular support system.

Regulatory frameworks in 15 Pacific Island countries

Presented by Associate Prof. John Hall

The Human Resources for Health (HRH) Knowledge Hub is one of four knowledge hubs established by AusAID in April 2008 to contribute high-quality evidence for policy decisions related to strengthening health systems at country, regional and global levels. From December 2008 to March 2009 the HRH Knowledge Hub with and on behalf of the Pacific Human Resources for Health Alliance (PHRHA) mapped 15 Pacific Island Countries in order to provide baseline data on HRH in each country and to identify gaps in HRH information. Among other things, the mapping exercise looked at regulatory frameworks to improve recruitment and retention. It found no compulsory rural service after graduation (Fiji has compulsory service for one year, but no bonding), no preferential selection of rural candidates for medicine or nursing and no evidence that either would make a difference. In addition, there was little awareness of the Pacific Code of Practice, which relates to health worker recruitment. Papua New Guinea is looking at developing a "rural practitioner" cadre and is in the midst of discussing whether it should be a nonregistrable or registrable degree. Samoa has legislation regarding continuous professional development (CPD) and countries are exploring the need for a regional approach to CPD for the maintenance of professional standards. Such an approach could be linked to registration renewal. Although regulation is not the answer on its own, it could be part of an HRH retention package that includes incentives (financial, housing, career path, etc).

Compulsory service for health professionals in South Africa

Presented by Prof. Steve Reid

In 1998 South Africa adopted legislation that requires all medical school graduates work for 12 months in a public sector institution before they can be registered to practice in the country. The emphasis is on community service, not training. Uptake rates are around 93% but only 25% of compulsory service placements are in rural areas and rural provinces are not filling all their compulsory service posts. Retention rates are generally low (<10%) but some provinces do get 20–25% (retention was judged as remaining in public service for an extra six months in an area of need). Several conclusions can be drawn from South Africa's experience with compulsory service, including:

- on its own, compulsory service is a good recruitment strategy but a poor retention strategy;
- it is questionable as to whether compulsory service is currently achieving its objectives in terms of staffing underserved areas;
- retention rates vary significantly according to the university of origin;
- orientation, mentoring, support and good HR management are crucial to retention;
- much higher retention rates have been achieved when compulsory service is complemented by other strategies such as bonded loans and financial incentives.

Comments related to the WHO draft recommendations

Regulatory B1: Should compulsory service be put in place?

- In many developing countries newly graduated health workers must do a mandatory first posting at the subdistrict level or below, in some cases for at least two years, before they can be fully qualified to work in either the public or private health sector.

- Nigeria and the United Republic of Tanzania have over 40 years of experience using compulsory service and South Africa has more than 10 years. The former Soviet Union had compulsory service for many years. In all cases the majority of doctors go back to their home towns in urban areas as soon as the compulsory service is completed.
- This recommendation should be more specific and include examples. It is a strategy for recruitment, not retention and so the recommendation should say "as a recruitment measure" instead of "short-term measure".
- Temporary location in rural areas as part of training is not relevant to retention as stated.
- Suggest to add a placement component to this recommendation because there can be a lot of resistance to deployment if a post is not ensured. If compulsory service is connected to real jobs with real pay, then graduates are more willing to go to a rural area.
- Explain that there is a spectrum to regulation – law is the highest level, but regulation could also be an executive directive, a policy or a guideline within the Ministry of Health.
- Compulsory service depends on the political climate and the Government in power. Indonesia had compulsory service (one to three years) from 1974 until 1998 when, as part of a new wave of decentralization, the policy was changed to a voluntary one. But it is not working and the health minister is now trying to go back to compulsory service with more flexible requirements of six months to one year.
- Formal evaluation is lacking even though several countries have decades of experience with compulsory service regulations because it has not been perceived as a research priority, funding has rarely been available for evaluating regulation, and Government regulatory bodies have not been keen to participate. It should be a legal requirement that any new legislation is evaluated and funding made available for this purpose.
- Prospective studies need to be planned now so that when the recommendations are revised in three years there will be more evidence.

Regulatory B2: Associating compulsory service with employment and education leading to retention

- Retention is a long-term issue involving multiple sectors with large resource implications. It needs a national champion such as a former Minister who is well positioned to secure these resources. Iconic people acting as advocates can capture attention and support.
- The MOH needs to engage with ministries of finance, employment, education, etc, as well as with professional associations, districts, communities and civil society.
- One promising programme for village doctors is a four-year masters degree that combines employment and training in community health management.
- The Philippines has a programme that recruits promising students from rural high schools who want to become health-care providers and are committed to working in their villages after graduation. Community representatives select the students, the Government pays for their education and a social contract ties the students to service for life. So far there is an 85% retention rate although only three regional schools have adopted the programme.

Regulatory B3: Changes in scope of practice

- There are two issues – one is the issue of provision of quality care by existing professionals and the other is the issue of task shifting and bringing down some of the more repetitive tasks to another cadre. The consensus among participants was that B3 should be two separate recommendations and should include examples.

- "Scope of practice" needs to be explained. If it simply means shifting curative tasks further down the line then suggest taking a broader view. The bigger picture is the integration of personal care into a broader public health approach.
- This recommendation is going to run into problems with professional groups but we need to be focused on the end goal of having health professionals in remote and rural areas.
- Discuss the role of public–private partnerships and consider making a recommendation related to private practice in rural areas.
- Countries should build on what they have already done. Do not recommend creating a new system with even more cadres of health workers.

Parallel session 3: Financial incentives

Country presentations

Factors discouraging and retaining doctors to work in underserved areas of Viet Nam

Presented by Mrs Nguyen Bach Ngoc

A survey was carried out in Viet Nam to identify the factors that influence doctors' decision to work in commune health centres (CHCs). A semi-structured questionnaire focusing on working conditions, education and work satisfaction was given to 42 doctors in 18 randomly chosen CHCs in three poor and remote provinces. Among the findings: 83% of doctors were local people, the average age was 41 years old with 12 years work experience, and more than 90% had been upgraded from medical assistants. The most significant discouraging factors reported were the lack of opportunities for career advancement (80.6%), a poor regulatory system (74.2%), poor working conditions (71%), and low salaries and allowances (64.5%). Among the specific problems were old buildings and old equipment, lack of trained health workers to use some of the newer instruments and equipment, lack of in-service training, and no facility support for further education. The survey shows that financial incentives are not the most significant factor influencing a doctor's decision to stay in or leave a job in a CHC. It also points to the possibility of a further shortage of doctors in CHCs in the future, due to a shortage of medical assistants to be upgraded.

What makes doctors choose to work in rural areas of Thailand?

Presented by Dr Nonglak Pagaiya

In an attempt to better understand the factors that influence doctors' job choices and preferences, a discrete choice experiment (DCE) in 2008 surveyed 255 medical students in years two to six (129, 89 and 37 medical students in high-, middle- and low-income provinces, respectively). The self-administered questionnaire included seven job attributes: monthly income, opportunity for specialty training, hospital size, hospital location, overtime work per month, case consultant provision, and intention to stay for at least two years. The conclusions drawn from the DCE include:

- the existing policy is not likely to attract the majority of doctors to rural practice;
- rural facilities will be more attractive than urban facilities when there are higher salaries, specialty training, faster promotion, smaller hospitals and less overtime work;
- a package of incentives comprising financial and non-financial measures (including hardship allowances) is important and works well when used in combination with other interventions such as faster career promotion.

Health worker retention schemes in Zambia

Presented by Mr Hilary Mwale

The objective of this case study, which was based on literature reviews and key informant interviews, was to better understand the factors affecting health worker retention in rural and remote areas. Existing rural retention schemes including incentives such as monthly stipends, housing rehabilitation, vehicle loans and facility incentives seem to be having a positive impact. A mid-term review of a programme for doctors which started in 2003 found that of 88 doctors who completed a three-year contract, 65% renewed for a second three-year term and 35% went for postgraduate training. One of the most significant lessons is that the lack of a comprehensive multisectoral policy and implementation plan to improve rural and remote areas is the greatest negative factor. In addition, failure to harmonize various funding sources brings about inequity in health worker earnings, delays the scale up of a retention scheme to other cadres and alienates those not yet on it.

Comments related to the WHO draft recommendations

- The recommendations on financial incentives must be implemented together with other interventions that reflect spiritual and other intrinsic factors and take into account the Government's capacity to manage.
- The recommendations on financial incentives are sensitive, should be supported by as much evidence as possible, and must be carefully written and cautiously implemented.
- This section needs to cover remote areas, the private sector and professions other than doctors.
- Important to integrate and emphasize the "bundling of incentives".
- Estimating the opportunity costs for health workers in remote and rural areas is a challenge but important to include.
- The reference to "pay for performance" needs to address the expectations of the population and the quality of the health services provided, and not just the quantity of services provided.
- One suggestion is to have a "social contract" as part of the incentive package.
- C1 may be difficult for low-income countries to sustain.
- C2 should be totally revised. Evidence from two countries is not enough to generalize. This recommendation is too narrow as it focuses only on unemployed and young doctors.
- Different points of view were expressed about whether or not private rural practice creates inequities.
- C2 could highlight contractual arrangements to hold non-state providers accountable, taking into account the specific context of each country.
- Participants felt uncomfortable with the phrase "low governance level" in C3 and suggested it be replaced with "in countries where there is a lack of transparency and confidence in the health system".
- Monitoring performance and quality should be done by the community and not by outside donors.

Parallel session 4: Working environment and management systems

Country presentations

Designing an incentive scheme for deploying and retaining public-sector health workers in rural and remote areas of Bangladesh

Presented by Dr Ahmed Al-Kabir

This exploratory study was undertaken to understand the factors that affect the migration and non-retention of health workers in rural areas and to suggest some specific recommendations. Through key informant interviews, focus group discussions and rapid employee satisfaction assessments, the researchers found that, among other things, poor working conditions in rural health facilities act as a deterrent to accepting jobs in these areas. Other suggestions to improve the situation include: better accommodation with adequate electricity and water supply; more opportunities for promotions, advancement, higher education, training and scholarships for those working in remote areas; good schooling for health workers' children; and better medical coverage for their families. Respondents also suggested the mandatory rural posting of fresh graduates for a minimum of two to three years, as well as salary differentials of between 30% and 300% for those working in rural areas. The long-term solution lies in the overall socioeconomic development of hard-to-reach areas through special development programmes and an integrated multisectoral effort.

Japanese management strategy enhances rural health worker job satisfaction in Sri Lanka

Presented by Dr Udaya Ratnayake

A descriptive cross-sectional study was designed to identify job satisfaction factors for health workers in hospitals and, based on that, to assess the impact of a management strategy on the levels of job satisfaction. The study compared the levels of job satisfaction at 3, 6 and 12 months in four district hospitals and four preventive care health facilities in which a Japanese-style management strategy (comprising 5S, Kaizen and Quality Circles) had been introduced. The elements of 5S are: sort out and discard unnecessary items or information; set or systematically organize materials; clean the working environment; standardize procedures; and sustain previous steps. Kaizen and Quality Circles are about motivation, team work, team building, problem solving and training employees to deliver the best to their customers. The study found that following the introduction of this management approach, levels of job satisfaction improved as did patient satisfaction. As a result of the study, the Ministry of Health issued a circular to disseminate the approach to all health institutions in Sri Lanka.

Task shifting or task transformation: who cares management?

Presented by Prof. Masamine Jimba

This presentation highlighted the importance of empowering communities and managing the implementation of task shifting at the community level using a community management model for water wells in rural Viet Nam as an example. The model is built on the basic principles participation, control over decision-making, ownership and cost sharing. Task shifting should involve not only medical skills but management skills and shifts in power. "Who cares management" calls for dual supervision of efforts to improve access to health workers from those who care the most about the impact of the interventions: communities and project leaders. Villagers – who are the users of community health services – are well suited to collect information, raise awareness and promote behaviour change. At the same time, top-down leadership from committed and engaged politicians and high-level policy-makers is essential to drive forward the planning and implementation of strategies to improve health workforce management.

Bringing doctors to rural areas in Mali

Presented by Dr Salif Samake

This presentation described a programme in Mali that has been running for 10 years and that has already placed more than 100 unemployed young doctors in rural areas. The programme consists of a combination of measures and incentives, including community medicine education and training; support for the installation of a rural practice such as equipment, solar panels, electric generators and medical kits; and access to continuous professional development and professional networking through a national association of rural physicians.

Comments related to the WHO draft recommendations

- In general the delegates agreed on the content but suggested to restructure and re-word the recommendations around different themes.
- There is a need to strengthen HR management systems at the national level and at the same time to improve management competencies at the local level including the ability to provide technical and supportive supervision. Related to this, it was suggested that job descriptions and performance appraisal mechanisms be defined and agreed at the national level and applied locally.
- Environment is related both to working environment (which can be addressed by health authorities) and to living conditions and quality of life issues (which need to be addressed by local communities and other sectors).
- Professional support is critical to reduce feelings of professional isolation. The recommendations should support the development and strengthening of organizations of rural practitioners, which can provide status, increase awareness and have a better impact than traditional types of professional associations, such as councils of physicians, nurses or public health providers.
- Community support for families as well as active community participation is important for reducing the feeling of social isolation.
- As far as the organization of service delivery is concerned, if the main goal is to increase access to care (as opposed to increase access to health workers) then other approaches should be considered, such as different delivery service models, mobile teams, flying in teams etc. However, these can be outside of the remit of HRH interventions.

Parallel session 5: Social and spiritual motivation

Country presentations

Revitalizing health for all: developing a comprehensive primary health care model for Bangladesh

Presented by Mr Taufique Joarder

This presentation reported the results from a survey of health-care providers working in upazila health complexes (UHC) in Bangladesh. UHCs are found at the subdistrict level and have 30–50 beds. As part of a new primary health care delivery system that is being developed more posts have been created for doctors and nurses in UHCs, but at present many remain vacant. Lower cadres are more interested and more likely to stay in rural areas. Doctors are frustrated with the amount of administrative work their jobs require. Among all cadres there is disappointment over Government bureaucracy, lack of community involvement, cultural mismatches and lack of security. RAs want timely pay increments consistent with other Government cadres and security against undue pressure from local political thugs. Medical assistants want nothing but the upgrading of their professional designation. One suggestion

was to create a separate public health cadre in the Government service instead of engaging clinically trained physicians for administrative activities. Other suggestions included entertainment, improved transportation, increased manpower, overtime payment and oath taking (in Bangladesh doctors do not have to take an oath after graduation).

Motivation of health-care workers to combat child mortality in tribal areas: lessons from India

Presented by Dr Sudha Ramani

This case study set out to understand disillusionment in the health workforce, illustrate the detrimental effects of a demotivated workforce on health-care access, and consequently, on child survival, and suggest mechanisms to develop self-confidence and stimulate the workforce. Two interventions are being used to fill vacancies. The first is that if doctors commit to a rural posting for two years and complete it, they are given 30% more weightage in postgraduate entrance examinations. The second is that extra health personnel are deployed temporarily from other areas to serve in rural areas from June–September (this is compulsory). Posting young doctors to rural areas works in filling up vacancies, but doctors are inexperienced and unhappy with living in a rural setting. People living in these communities sense the doctors are demotivated and in turn do not access health services. In short, merely bringing health workers to rural areas does not solve the problem. Social motivators (an adapted Maslow's hierarchy) are also needed. Mechanisms that can be used to develop self-confidence and motivate the health workforce in rural areas include special awards given to popular health workers, local competitions, the media, confidence building workshops and technical refresher courses.

Retaining family health workers in rural communities in Sri Lanka

Presented by Dr A. Pubudu De Silva

Formal training of grassroots-level health workers (PHMs) in Sri Lanka dates back to 1932. The training is focused on developing qualified health workers for rural settings where 72% of Sri Lankans live. Health-care services are free at the point of delivery in Government-owned facilities. The Government invites applications for the PHM training programme and at the same time spells out the conditions to retain them in rural settings. There is flexibility on education qualifications for applicants who commit to seek employment in their home village. PHMs learn about health issues pertaining to maternal and child health and graduates are able to function at a higher capacity than some community health workers in other developing countries. The curriculum provides competency and confidence which in turn leads to recognition in the rural communities. Continuous professional development reaches most PHMs in most rural areas, which helps to retain them in the rural settings. Bonding schemes, allowances, transportation and housing are also part of the retention package. The role of PHMs in providing primary health care paved the way for improvements in national health indices. This led to demographic, epidemiological and nutrition transitions and now the PHM training curricula need extensive revision to reflect new challenges that have emerged.

Comments related to the WHO draft recommendations

- Incentives can be used to attract health workers to rural areas but they are the lowest form of a pull factor. Internal motivating factors are more important.
- Social recognition measures such as annual awards should be developed at the national, regional and global levels as these can improve motivation of health workers in rural areas and thus contribute to high retention rates.
- Awards have a role to play but it is something else, an inner sense of happiness or fulfilment, that makes a health worker want to move to a remote or difficult area. People who want to become doctors, nurses, midwives, etc., already have a service orientation and a desire to serve humanity.

- Duty + brain = routine job**;** duty + brain + heart = continuous quality improvement and happiness. Having staff members who are passionate about their work and working environment is important.
- In Thailand members of the Rural Doctor Society are involved in formulating policies and social advocacy, and they also help to build a strong social spirit among new medical graduates.
- Supportive supervision from a good supervisor is important for motivation.
- It is possible to have a good and fulfilling career in rural areas, without having to go to urban areas. It is absolutely possible to do specialty training in rural areas.
- How to develop a sense of serving a community? Community participation is always talked about but it rarely happens. In-service training should include community-based experiential learning.
- Strong social contracts are one way to ensure that health workers are involved with the community and have a sense of accountability.
- In many developing countries faith-based organizations are training health workers for rural areas. Community health worker programmes in Papua New Guinea are all run by churches, which also operate 50% of health services in the country. A collaborative approach working with communities has improved indicators at local level. In Viet Nam, most doctors in rural areas are military doctors and retirees. These groups need to be brought into the recommendations.
- Fairness and respect are linked to simple things such as salaries being paid on time. It sends the message to health workers that management and Government are working for them even from a distance and that the system is treating them fairly.
- Use of local language in local rural areas is essential for health workers to gain the respect of and belongingness to that community.
- Communities need to be empowered to be involved in the decision-making process.
- Politicians need to be engaged to make rural medicine a recognized specialty and the raise the status of rural health workers.
- Social and community support are important for retention of health workers but so too is the role of local government in setting policies related to infrastructure and incentives.

Parallel session 6: External factors affecting HRH in underserved areas

Overview

Presented by Mr Tim Martineau

External factors may influence the WHO recommendations both in positive and negative ways. For example, the financial crisis in the 1990s reduced investment in medical tourism in Thailand which led to a greater supply of doctors available to work in rural areas. Being prepared for the opportunities and challenges from various external factors requires environmental scanning and strategic planning. This presentation looked at what the possible impact of external factors might be and provided some examples. Some of these factors will have a direct impact on health worker behaviour. For example, civil unrest, as was the case in Nepal until recently, deters health workers from working in more exposed rural areas. The rising price of housing in urban areas may attract someone whose children have left home to work in rural areas. The impact of some of these factors may be mitigated or enhanced by a management response. For example, the employer may provide some protection for health

workers and family members or management might take advantage of the change in house prices and actively encourage older health workers to relocate to rural areas. In relation to retention strategies, the environment is anything outside the planning circle. Relevant changes in other health systems components might include improved communication systems, which might reduce professional isolation. Relevant changes in the labour market might include the rapid expansion of externally funded NGOs, exacerbating the shortage of staff, hitting the rural areas hardest. Other factors include changes in the broader environment such as donor funding and decentralization.

Country presentations

Council of Administrative Reform shapes public-service delivery and civil service in Cambodia

Presented by H.E. Paul Pidou

Cambodia is improving the quality and delivery of public services including health-care by focusing on performance, accountability, motivation and discipline. Innovative performance-based instruments such as Special Operation Agencies (SOAs) and the Performance Management and Accountability System (PMAS) are being used to transform the administration and the civil service into effective service providers and trusted development partners. SOAs are an integral part of each ministry and have a precisely defined mandate and operational autonomy within a pre-approved plan and budget. They systematically monitor and report on performance and accountability, as well as transparency in management and operations. In the health sector, 30 SOAs have been set up in eight provincial referral hospitals and 22 district health offices covering 16 district referral hospitals, 285 health centres, and 65 health posts. The PMAS is a management tool to assign and monitor work through measurable results and can be used alongside performance incentives. PMAS is a participatory process and a cornerstone to demand-driven capacity development and behaviour change.

Indonesia: Viewing decentralization as an opportunity to improve the availability of health workers in underserved areas

Presented by Anna Kurniati

Implementation of the 1999 decentralization policy in Indonesia has, among other things, shifted responsibility for employing public sector health workers from the central level to district level governments. In some districts with shortages of certain types of health professionals, difficulties in recruiting health workers have been answered through opening of new health workforce education institutions, provision of scholarships, and provision of financial incentives in return for service in underserved areas for certain periods of time. However, disparity in financial capacity and geographical location has created favourable and non-favourable areas to health workers. Another consequence of decentralization has been the breakdown of the health personnel information system as decision-makers at the local level think they are no longer obligated to send data to the upper level. These were among the conclusions of an assessment of the impacts of Indonesia’s decentralization policy. A desk study was performed from relevant published materials and literature was reviewed from databases of the Ministry of Health. A clear understanding of the implementation of this policy and its impact is critical to face tomorrow challenges to improve health workforce distribution in underserved areas.

Improving availability and retention of health workers in remote and underserviced areas in the Lao People's Democratic Republic

Presented by Chantakat Paphassarang

The recently formulated Lao National Policy on Human Resource for Health puts great emphasis on providing and retaining health workers in remote and underserved areas. The Ministry of Health (MOH) is expected to base staff distribution primarily on the public health needs of its population. To this end, the MOH endeavours to fill in gaps in the provision of

qualified health workers, particularly female health workers in remote and underserved areas by initiating evidence-based practices. From 2005–2008 employed staff increased by 976 of which 63% were female (547 staff) and 56% were employed at either the district level (75 staff) or at health centres (472 staff). Measures have been taken to decentralize training of health workers to the provinces in order to promote recruitment and retention of staff closer to their home and cultural settings. Further efforts are being made to provide bridging courses, upgrade staff and provide various incentives to attract health workers to remote areas. This presentation highlighted the Lao People's Democratic Republic efforts to improve availability of staff in remote areas and to provide data that demonstrate current achievements and further challenges that need to be addressed.

A case study of health decentralization reform in Thailand

Presented by Sutayut Osornprasop

This presentation summarized a paper that analysed the effects that the devolution of health centres has had on the health workforce in rural areas of Thailand. Although less than 1% of health centres (28 out of 10 000) had devolved as of November 2009, the devolution of health centres in most sites visited was producing early positive results in human resource aspects, including the number of health workers. This qualitative study indicates some positive dynamics in HR management including: increased motivation and freedom to reward good performance and penalize poor performance; and the use flexible ways of obtaining doctor, dentist, nurse practitioner services in devolved health centres. However, the devolution model cannot be replicated everywhere as not all health centres would be devolved with the same positive results. It is estimated that only 10–20% of health centres may be transferred to a local administrative organization (LAO) over time (given continued implementation of the current guidelines for voluntary devolution). The unwillingness of a large share of health centre staff to transfer to LAOs is one binding constraint and some MOPH staff are concerned about job mobility. Nevertheless, given that an average MOPH health centre is staffed by only three workers, the devolution of health centres initiative presents a viable alternative for some rural communities in Thailand to improve their own HRH status, with significant potential to benefit the health of people in these communities.

The United republic of Tanzania’s experience with retention of health workers

Presented by Dr Martins Ovberedjo

Findings informed by field visits, periodic district reports and a desk review of key national and programme documents were presented. In 2008 the Government adopted a policy of direct recruitment by districts, complemented by ongoing recruitment at the central level and increased salaries and allowances for health workers. In 2009 there was a review of public pay policy, private sector payment of salaries, and public–private interventions to address the problem of retention of health workers (pay for performance). The Health Workforce Initiative (2007–09) took practical steps to address the high attrition of health workers. Health workers received structured orientation prior to deployment and drop outs were tracked through exit interviews; more incentives were implemented related to both the work environment (equipment, IT support, communication, transport) and the living environment (allowance, renovation, building of low-cost housing). The Initiative also provided career development and training on the job, supportive supervision and a relocation allowance.

Comments related to the WHO draft recommendations

- External factors should be taken into account when developing policies to improve the retention of health workers in underserved areas.
- External factors can be opportunities or threats to retention strategies, and are likely to change over time.
- Decentralization is a major external factor impacting on working conditions, career opportunities, recruitment and salaries.

- The impact of decentralization will depend on the rationale behind the policy (ideology vs. public health concern), how the policy is implemented, resource availability and the technical capacity of local government.
- The economy will have an impact on the ability of Government to fund their retention strategies.

Annex 2: Provisional programme

1. General objectives of the conference

This Conference aims to gain an in-depth understanding of the current situation and strategies to tackle the problems of inequitable distribution of health workforces, especially those in the underserved areas. It will also discuss and refine a set of draft global recommendations, initiated by WHO, to support countries in formulating and implementing appropriate, comprehensive and feasible interventions to get committed health workers to underserved areas. These draft recommendations will be further refined by the WHO expert group, with a view to launch the final recommendations in spring 2010. This conference will also allow more intensive networking and capacity building of institutes and researchers and policy-makers interested in the area of human resources for health.

2. Specific objectives

- To describe the current situation regarding the distribution of committed health workforces to underserved areas, including selection and pre-service education, continuous education, recruitment, regulatory measures, financial and non-financial incentives, working and living conditions, management environment, and social and spiritual motivation.
- To understand the factors which encourage or discourage health workforces to go and continue to work in the underserved areas.
- To learn experiences from different countries/continents concerning the distribution and retention of health workers in underserved areas, and to foster networking among partners.
- To discuss a set of draft WHO recommendations for appropriate retention strategies that will support health workers in remote and rural areas.

3. Pre-conference activities

Sunday 22 November 2009

Time	Content	Moderator
0900–1800	**Side meeting** on Framework for Country Collaboration and Actions	GHWA
1700–1900	**Registration** for the conference	Viet Nam host AAAH Secretariat WHO Secretariat

4. Program of the conference

In order to achieve the conference objectives, the conference is tentatively structured in such a way as to allow all participants to:

- understand and learn from presentations on the overall picture of the issue;
- expose participants to field trips which will provide a good insight into real issues affecting health workers in Viet Nam and contribute to the discussion in parallel sessions;
- Share country experiences through oral or poster presentations; and
- actively participate in discussions during the sessions.

Monday 23 November 2009

Time	Content	Moderator
0800–0830	**Registration**	
0830–1000	Opening address welcome participants by the Minister of Health of Viet Nam, Dr Nguyen Quoc Trieu	
	Short addresses (5 minutes each) by: • Dr Mubashar Sheikh, the Executive Director of GHWA • Dr Toomas Palu, Lead Health Specialist Country Sector Coordinator, Human Development, the World Bank • Dr Jean-Marc Olivé, Representative of WHO Country Office, Viet Nam • Dr Suwit Wibulpolprasert, Chairperson of AAAH Steering Committee	Viet Nam host
	Keynote address on the conference theme by Dr Lincoln Chen, President of the China Medical Board	
1000–1030	*Coffee break*	
1030–1200	**Plenary session** Situation, factors and recommendations on "Getting committed health workers to the underserved areas" • Introduction to the WHO programme, presentation on the global situation and the work of the expert group by Dr Jean-Marc Braichet • Introduction to a WHO Code of practice on the international recruitment of health personnel by Dr Manuel M. Dayrit • Regional situation and solutions: WHO Africa by Dr Magdalena Awases • Human Resources in Health in Asia and Pacific: Summary of HRH Studies by Dr Toomas Palu • Overview HRH situation and health policy to address HRH challenge in Viet Nam by Prof. Le Quang Cuong • Pursuing the National HRH Strategic Plan to its Full Implementation by Dr Mongkol Na-Songkha • Q&A and discussion	Dr Mushtaque Chowdhury
1200–1300	*Lunch*	
1300 onward	**Field trip** – options as follows: 1. A medical school (there are several programmes to recruit students from ethnic minorities or rural areas) 2. Provincial hospital 3. District hospital (recent policies in Viet Nam on "financial incentives and rotation of the health workforce") 4. Commune health centre 5. District preventive health centre 6. Private hospital	
1900 onward	*Welcome dinner*	

Tuesday 24 November 2009

Time	Content		
0800–0900	**Plenary session: contextual factors affecting HRH in underserved areas** • Introduction of WHO draft recommendations by Dr Carmen Dolea • Monitoring and evaluation framework for retention interventions by Prof. Luis Huicho • Costing the retention interventions by Dr Pascal Zurn • Q&A and discussion Moderator: Dr Ezekiel Nukuro		
0930–1000	*Coffee break*		
1000–1300	**Parallel session 1 Education interventions** Country presentations • Towards meeting the health care challenges of rural **Nepal** by Dr Arjun Karki • First-year medical students in **Thailand**: rural attitudes and preferred workplace upon graduation by Miss Kamolnat Muangyim • Training and policy training health staff for disadvantaged areas in **Viet Nam** by Dr Tran duc Thuan • US Strategies for Addressing Geographic Maldistribution of Physicians by Dr Jordan Cohen • Training professionals for rural health care – developing the pipeline in **South Africa** by Prof. Ian Couper • Q&A and discussion WHO recommendations • WHO expert group presentation by Dr Ray Pong • Open discussion Moderator: Dr Manuel M. Dayrit Comoderator: Dr Kim Webber	**Parallel session 2 Regulatory interventions** Country presentations • A national pilot project of recruiting and retaining licensed doctors in township health centres in **China**: Supportive Evidence from the Unregistered Licensed Doctors Survey by Hong Zhang • Presentation on Project 1816 on Rotation health workers to lower level of health care system in **Viet Nam** by Cao Hung Thai • The role and function of regulatory interventions to retain health workers in the Asia and Pacific Regions by Assistant Prof. John Hall • **South Africa** by Prof. Steve Reid • Q&A and discussion WHO recommendations • WHO expert group presentation by Seble Frehywot • Open discussion Moderator: Dr Myint Htwe Comoderator: Prof. James Buchan	**Parallel session 3 Financial interventions** Country presentations • Factors discouraging and retaining medical doctors to work in underserved areas of **Viet Nam** by Mrs Nguyen Bach Ngoc • What makes doctors choose to work in rural area of **Thailand**: Discrete Choice Experiment to elicit doctors' job choices by Dr Nonglak Pagaiya • Human resources for health innovations in **Zambia**: a case study on the rural retention scheme in Zambia by Mr Hilary Mwale, Solomon Kagulula and Mrs Mwansa Nkowane • Q&A and discussion WHO recommendations • WHO expert group presentation by Mr Aly Sy / Mr Marko Vujicic • Open discussion Moderator: Assistant Prof. Pham Le Tuan Comoderator: Mr Eric de Roodenbeke

1300–1400	*Lunch*		
Time	**Content**		
1400–1700	**Parallel session 4 Working environment and management system** Country presentations • Designing an incentive system for the deployment and retention of public sector health workers in rural and remote areas Bangladesh by Dr Ahmed Al-Kabir • Enhancement of rural health worker job satisfaction through introducing 5S, Kaizen and Quality Circle concepts in Sri Lanka by Dr Udaya Ratnayake • 'Task shifting or task transformation: who cares management?' by Prof. Masamine Jimba • Mali by Dr Salif Samake • Q&A and discussion WHO recommendations • WHO expert group presentation by Prof. James Buchan • Open discussion	**Parallel session 5 Social and spiritual motivation** Country presentations • Revitalizing health for all: Developing a Comprehensive Primary Health Care model for **Bangladesh** by Mr Taufique Joarder • Motivation of healthcare workers to combat child mortality in tribal areas: Lessons from **India** by Dr Sudha Ramani • A case study on the education and training of family health workers to retain in rural communities in **Sri Lanka** by Dr A. Pubudu De Silva • Q&A and discussion WHO recommendations • WHO expert group presentation by Dr Pawit Vanichanon • Open discussion	**Parallel session 6 External factors that affect HRH in the underserved areas** Country presentations • Viewing decentralization as an opportunity: in improving availability of health workers in underserved areas **Indonesia** by Anna Kurniati • Improving availability and retention of health workers in remote and underserviced areas: The **Lao People's Democratic Republic** experience by Chantakat Paphassarang • A Case Study of Health Decentralization Reform in Thailand by Sutayut Osornprasop, the WB • **Tanzania** by Dr Martins Ovberedjo • Q&A and discussion WHO recommendations • WHO expert group presentation by Mr Tim Martineau • Open discussion
	Moderator: Dr Sarath Samarage Comoderator: Dr Grace Allen-Young	Moderator: Dr Junhua Zhang Comoderator: Dr Kim Webber	Moderator: Dr Toomas Palu Comoderator: Dr T. Sundararaman (TBC)
1800	*Outside dinner*		
2000	*Traditional performance: Vietnamese Water Puppets*		

Wednesday 25 November 2009

Time	Content	Moderator
0830–1030	• Summary of the outputs and feedback from the previous day's parallel sessions 10–15 mins presentation by lead rapporteur • Open discussion	Dr Suwit Wibulpolprasert Dr Manuel M. Dayrit
1030–1100	*Coffee break*	
1100–1230	AAAH – lessons learnt from the past, the present and the way forward by • AAAH secretariat – Ms Pen Suwannarat • AAAH members • Comments from GHWA, WHO, WB, etc.	Dr Suwit Wibulpolprasert Dr Manuel M. Dayrit
1230–1300	*Closure of the meeting*	*Viet Nam host*
1300–1400	*Lunch*	

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