ADDRESSING THE HRH CRISIS IN COUNTRIES: HOW FAR HAVE WE GONE? WHAT CAN WE EXPECT TO ACHIEVE BY 2015?

Manuel M. Dayrit[1,a,b], Carmen Dolea[2,a,c], Norbert Dreesch[3,b]

ABSTRACT

The World Health Report 2006 identified 57 countries world-wide whose health worker to population density fell below a critical threshold of 2.3 per 1,000 population. This meant that below this critical threshold, a country could not provide the basic health services to its population, defined here as 80% immunization coverage and 80% skilled birth attendance at delivery. Of the 57 countries, 36 are located in Africa.This article reviews the progress countries have made in addressing their health workforce crisis. It cites 3 of the most recent global studies and the indicators used to measure progress. It also features the experiences of 8 countries, namely Malawi, Peru, Ethiopia, Brazil, Thailand, Philippines, Zambia, Mali. Their situations provide a diverse picture of country efforts, challenges, and successes. The article asks the question of whether the target of 25% reduction in the number of crisis countries can be achieved by 2015. This was a goal set by the World Health Assembly in 2008. While the authors wish to remain optimistic about the striving towards this target, their optimism must be matched by an adequate level of investment in countries on HRH development. The next four years will show how much will really be achieved.

Key words: *Health resources; World Health Organisation; Milenium development goals (source: MeSH NLM).*

INTRODUCTION

In January 2011, the Second Global Forum on Human Resources for Health was held in Bangkok, Thailand. Entitled “Reviewing Progress, Renewing Commitment”, it convened over 1,000 participants of the global HRH community three years after the first forum in Kampala, Uganda.

At the final plenary session, a note of impatience was struck. Delegates made the recommendation that the third global HRH meeting should not be convened unless there was clear evidence of progress in addressing the HRH crisis in countries. Delegates urged that stronger leadership and more drastic measures be undertaken to solve the crisis [(1)].

Indeed, it had been five years since the World Health Report 2006 had identified 57 countries to be in HRH crisis. This meant that they fell below a critical threshold of 2.3 health workers per 1,000 population. Countries below this threshold had difficulty ensuring 80% attendance of a skilled birth attendant at delivery as well as 80% coverage for child immunizations [(2)].

But even prior to this report, in May 2004, the World Health Assembly had already called for action to mitigate the negative effects of the international migration of health workers through resolution WHA57.19 [(3)]. And in December of that year, the Joint Learning Initiative which brought together various experts and advocates in the field, issued a report calling for global attention to the HRH crisis in countries [(4)].

In May 2010, the 63rd World Health Assembly through resolution WHA63.16 adopted the WHO Code of Practice for the International Recruitment of Health Personnel [(5)]. The work on Code development had been at a standstill until the Kampala Forum ignited progress. The adoption of the WHO Code was an international milestone. WHO Director-General Margaret Chan referred to it as “a gift to public health” [(6)]. But as this article will show, WHA resolutions and the Code only represent the vision and aspiration of Ministers and planners in high places. Turning these into reality in countries is where the true victory lies.

To date, none of the 57 countries in HRH crisis have risen out of it.

[1] Director, Department of Human Resources for Health, World Health Organization.
[2] Technical Officer, Department of Human Resources for Health, World Health Organization.
[3] Human Resources Adviser, Sub-region of the Andes, PAHO-WHO.
[a] MD; [b] MSc; [c] MPH.

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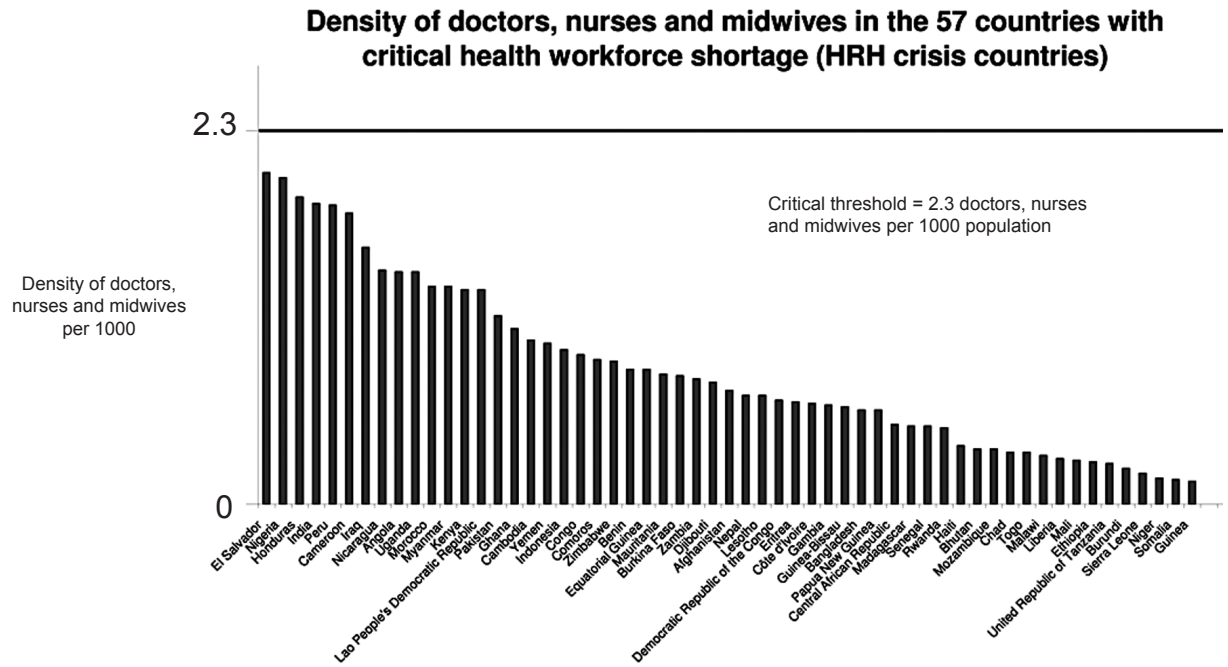


Figure 1. Density of doctors, nurses and midwives in the 57 countries with critical health workforce shortage.
Source: World Health Organization, Geneva 2011. Department of Human Resources for Health. Analysis based on data from the Global Atlas of the Health Workforce. Available online at: http://apps.who.int/globalatlas/default.asp

This article will review some of the work in countries and will provide some observations of where global and national efforts are making headway or falling short.

ADDRESSING THE HRH CRISIS IN COUNTRIES. SETTING OUR TARGETS.

The global community has been good at setting targets. The MDGs are a case in point. There have been other resolutions calling for urgent action on the HRH crisis. In May 2006, WHA59.23 called for a rapid scaling up health workforce production particularly in crisis countries [7].
Also, in May 21, 2007, WHA60.11 endorsed the Medium-Term Strategic Plan 2008-2013 [8]. One of the targets in this 5-year plan was the "reduction of 25% in the number of countries facing critical health workforce shortages, and an increase in the equitable distribution of the workforce" [9]. This target envisioned that at least 14 countries would lift themselves out of their HRH crisis by 2013.

In declaring this target, the MTSP summarized the obstacles that needed to be overcome. These included: 1) limited production capacity in many developing countries as a result of years of underinvestment in health education institutions; 2) the geographical imbalance in the distribution of health workers with abundance in urban areas and a shortage in remote and rural areas; 3) the migration from poor countries to developed countries [10].

In order to develop an effective health workforce for any specific context, a country had to solve a number of issues: 1) effective planning which encompassed many sectors, including health, education, and finance as well as the public and private sectors; 2) developing a strong knowledge base as a starting point for planning; 3) sustaining investments in order to build capacity in a country's its key public and private institutions over short term and the long term and 4) the building of a critical mass of leaders and managers to guide the process.

Having been part of the technical team that proposed this target, the author (MMD) recalls that the target was set with great optimism for the future. The optimism stemmed from the increasing activities in countries to address health workforce issues, and what seemed to be a growing momentum in the initiatives to strengthen health systems. A Global Health Workforce Alliance (GHWA) had been established in 2006 to strengthen global advocacy. Representatives of development agencies and international institutions were included among the members of the GHWA Board and there was great enthusiasm for providing support to countries for their HRH development) [11].

However, MTSP 2008-2013 also made assumptions and identified risks in the long journey towards the targets. Two assumptions were notable: 1) that governance and strategic planning would improve across all government sectors including health; 2) that changes would be made in the financing channels and modus operandi of external partners, in line with the Paris Declaration on Aid Effectiveness. Two risks needed to be offset: 1) the insufficiency of international and national investment to meet the increasing demand in the area of health workforce development and 2) the global market forces favoring migration from countries already lacking sufficient health workers [10].

How have countries fared since MTSP 2008-2013 was adopted? There have been three surveys done to assess the progress in countries on HRH development, the third being the interim assessment of MTSP 2008-2013. In sum, these surveys give us an idea of what has actually been undertaken by countries in HRH development (1 survey) and also how countries perceive their efforts (2 surveys).

MEASURING PROGRESS IN COUNTRIES

WHO desk review [12]**.** To get an overall pictures of where efforts were being placed, WHO worked with the Royal Tropical Institute, Amsterdam to undertake a desk review between June and December 2009 to survey practices, policies and plans in the 57 crisis countries. The desk review inventoried secondary data from various sources, including MoH documents, reports to donors like GAVI and the Global Fund. While there were no baselines, the review did provide a picture of HRH efforts in countries at that point in time.

National planning for HRH and costing of HRH plans -- 45 (79%) out of 57 countries had developed HRH plans. Of these 45, 32 (71%) had an implementation budget but only 25 (55%) of the plans were being implemented.

The top 5 issues highlighted in the HRH plans with strategies to address them were: 1) pre-service education 2) in-service education 3) educational targets referring to the number of health workers to be trained 4) career development and 5) incentives, usually related to payment, housing and transport.

The desk review showed that 51 (89%) out of the 57 countries had an HRH department in the ministry of health. The actual functioning of these departments and their contribution to overall country HRH planning could not be ascertained.

Finally, 14 (25%) of the 57 countries had a national HRH observatory which acted as a mechanism for collecting and analyzing data on HRH as well as convening stakeholders to review this information to set policy.

Global Health Workforce Alliance survey [13]. In preparation for the Second Global Forum on HRH in Bangkok, a survey was undertaken by the Global Health Workforce Alliance in July 2010 to inquire about the progress on the Agenda for Global Action set forth in Kampala. Focal persons in the ministries of health were asked to fill in a questionnaire online or by email. Responses were gathered for 51 out of the 57 countries surveyed.

Forty-seven questions were asked covering 9 indicators of HRH development. Responses were confined to yes/no. The consolidated scores for the 9 indicators were as follows: 1) HRH planning (69%); 2) Intersectoral coordination mechanism (56%); 3) Mechanism to inform policy-making (43%); 4) Well functioning HRH information system (70%); 5) Programmes to increase production of health workforce (75%); 6) Strategies to retain workforce in underserved areas (67%) 7) Policies to favor in-country retention (56%); 8) additional investment in health workforce (71%); 9) Additional investment from partners (76%).

The scores provided some idea of how respondents perceived the progress of HRH work in the crisis countries but limitations of the methodology preclude any validation of the actual situation in countries. The limitations included: the lack of baseline information, the reliance on self-reported results, and the limitations of the questionnaire itself. Thus, while a country may have an HRH plan, the survey does not reveal its content or quality or how well it is being implemented. Similarly, the existence of an observatory does not assure data quality nor its level of functionality. And responses on investment say little about what it is for and how much.

Medium-Term Strategic Plan 2008–2013 Interim Assessment [14]. The third survey was conducted from November 2010 to March 2011. While this survey polled countries on the 11 technical strategic objectives covering the totality of WHO's diverse concerns, it provided specific information of how countries viewed the progress of work on HRH. These 11 strategic objectives covered areas including the communicable diseases, chronic noncommunicable diseases, emergencies and disasters, social and economic determinants of health to name a few. HRH was included in the strategic objective involving health systems and services.

A selected national focal point coordinated the completion of the questionnaire within a country. A total of 105 countries responded out of 193 for a 54% response rate. Responses were classified along a 5-point scale where 1 = significant regression; 2 = some regression; 3 = no change; 4 = some progress; and 5 = significant progress. On the target "reduction in critical health workforce shortages and an increase in the equitable distribution of the workforce", the composite score was 3.68

The survey also asked: "Which system components would you consider to be the priority for further development from now until the end of 2013?" The responses were: health financing 20%; **health workforce 20%**; policy framework 17%; service delivery 16%; leadership and governance 14%; health information systems 11%; medical products and technologies 2%.

What can we learn from these three studies? At best, we have objective information of the presence of plans and planning mechanisms in a good number of HRH crisis countries. We also have subjective information about how countries perceive the progress of efforts based on the responses of a selected focal point. The responses suggest that work is ongoing in strengthening HRH particularly with regards the development of country plans. There is some information on the direction that the plans are taking, for example towards strengthening pre-service education. Furthermore, the studies inform us that 20% of countries consider HRH to be a priority over the next couple of years but also that there are a variety of other competing concerns that demand attention. The studies do not tell us if investments follow the planning and whether these are adequate and realistic.

A better understanding of progress in countries can be acquired by looking at the situation in specific countries themselves. The following eight have been selected because they help illustrate a particular point.

Malawi -- to show success of a 5-year emergency programme to rescue a failing national health workforce (2005-2010)

Peru -- to show how the reform of the mandatory rural service system resulted in an increase in HRH density and contributed to a decrease in maternal mortality over a 3-year period (2006-2009)

Ethiopia -- to show the gains from a government-led health extension worker programme which has demonstrated impressive health outcomes after only 5 years (2005-2010)

Brazil -- to show a sustained effort since the 1980s to build a critical mass of family health teams which have improved services and health outcomes in remote rural underserved areas

Thailand -- to show the success of a multi-sectoral and multi-disciplinary effort which has been ongoing since the 1970s to ensure equity in the distribution of health workers and health services throughout the country

Philippines -- to show the outcomes and challenges of a private sector, market driven model in terms of responding to domestic need and international demand for nurses

Zambia -- to show how early efforts in providing incentive schemes for doctors have increased their retention in the rural areas

Mali -- to show how efforts of an NGO have demonstrated effective retention of physicians over a period of 15 years.

COUNTRY EXAMPLES

MALAWI

What does it take to get a country out of HRH crisis? Malawi is one of the 57 HRH crisis countries. From 2004-2009, government and international partners collaborated on an emergency HR response to lift the country out of HRH crisis. This programme was evaluated in 2010. The findings were as follows [15].

The programme deployed a strategy to improve the incentives for recruitment and retention of Malawian healthcare staff, expand domestic training capacity by over 50% overall, and utilize international volunteer doctors and nurse tutors to fill critical posts while more Malawians were being trained.

The interventions were huge and the results were impressive. Of the 5-year direct investment of USD 95.6M about 36% went into a 52% taxed salary top-up for 11 professional cadres. As a result, health worker numbers increased significantly. Physicians in particular grew from 43 in 2004 to 265 in 2009, representing a 516% increase; nurses who historically had huge losses to out-migration posted a 39% increase in the same period.

As training capacity increased for various cadres and retention in their posts improved with financial and other incentives, the health worker to population density rose from 0.87 per thousand population in 2004 to 1.44 per

thousand by 2009, representing a 83% increase. This increase outpaced population growth of 10% over the same period thereby showing a net gain. However, the new levels of health worker density still fell below the African region average (1.91 per 1,000) and the world average (6.23 per 1,000) showing how deep a crisis Malawi was in.

The gains in HRH density produced a tangible impact on health services -- 49% increase in out-patient services; 7% increase in ante-natal care; 15% increase in safe deliveries; 10% increase in child immunizations and an 18% increase in the provision of nevirapine to prevent maternal-to-child transmission of HIV. All these services were estimated to have saved 13,187 lives.

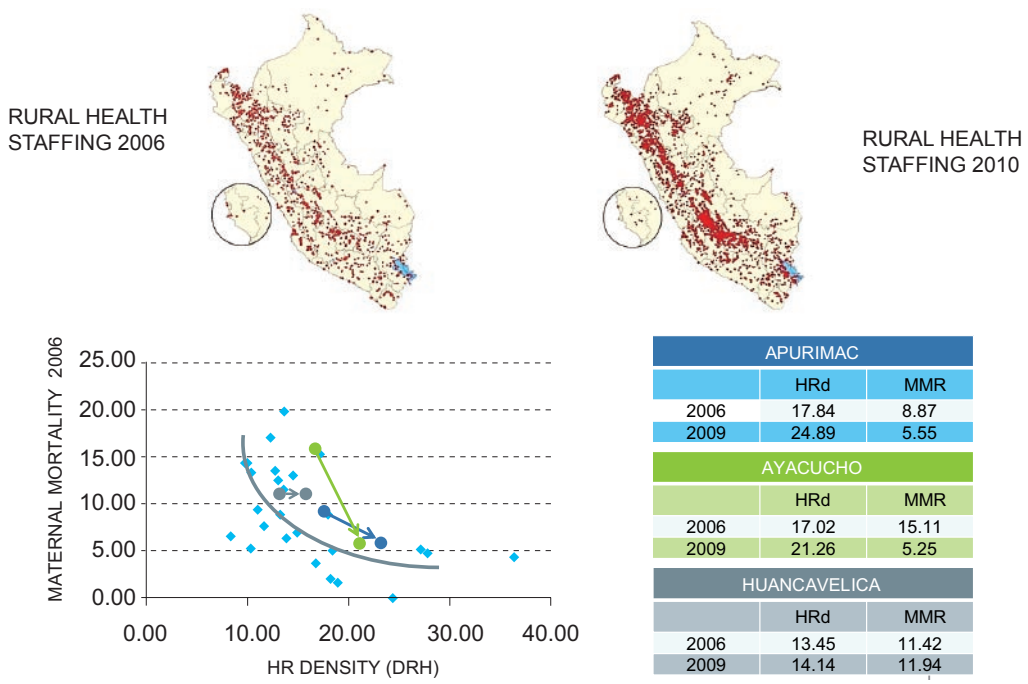
Looking towards the future, 3 costed scenarios have been forecast. The first scenario which simply maintains the gains over the last 6 years will mean investments of USD 43.5M over the next 5 years. The second scenario which posts an additional 9-13% increase in staff numbers will need USD 59.4M over the next 5 years. While the third scenario which shows a 5% loss of workers over the next 5 years will cost USD 42.1M.

PERU

Peru is one of the few Latin-American countries which was designated in the World Health Report 2006 as being in HRH crisis. Over the past decade and more, the country lost more than 1,400 medical doctors to migration every year [16]. But the country took a number of decisive steps at addressing the crisis at various levels. At the national level, services dealing with personnel administration and human resources policy, planning and information development were put under a unified directorate. At the same time, an HRH Observatory was integrated to increase the quantity and quality of HRH information for decision-making and policy development. Thus stewardship of the entire HR development system was strengthened.

The concept of Family Health Teams was developed with far-reaching reforms at the level of curricula development and team organization with distinct tasks assigned to doctors, nurses and other team members. One of the promising interventions was strengthening the mandatory service for newly graduated staff (SERUM) who have to serve rural and marginalized populations. Some measurable results have already been demonstrated through a reduction in maternal mortality in some parts of the country as a result of the reorientation of the programme.

As can be seen clearly from the graph, increase in HRH density led to visible results in the reduction of maternal mortality in two provinces: Apurimac: minus 22% and



APURIMAC		
	HRd	MMR
2006	17.84	8.87
2009	24.89	5.55

AYACUCHO		
	HRd	MMR
2006	17.02	15.11
2009	21.26	5.25

HUANCAVELICA		
	HRd	MMR
2006	13.45	11.42
2009	14.14	11.94

Figure 2. Correlation between density of health workers in rural areas and maternal mortality ratio in Peru.
Source: (17).

Ayacucho: minus 65%) whereas it remained stable in Huancavelica where HR density only saw a comparatively small increase. This study shows that a reorientation of the HR distribution system with a few incentives can impact the health outcomes of a country rapidly even when resources do not increase significantly [17].

ETHIOPIA

Ethiopia has produced 32,000 health extension workers since 2005 passing them through a 1 year course before deployment in remote health posts. These workers were supervised by a clinical officer who was based in a health center.

In 2009, an impact evaluation of the health extension programme was conducted [18] . The study which covered 3095 households from both programme and non-programme villages showed that programme areas had a significantly higher proportion of children vaccinated against tuberculosis, polio, diphtheria-pertussis-tetanus, and measles. Use of insecticide-treated bednets for malaria protection were also significantly higher in programme villages.

Where the programme has shown no impact so far is in prenatal and postnatal care services. It appears that pregnant mothers still prefer to go to their grandmothers and other traditional birth attendants rather than entrust themselves to the care of the health extension workers. Health extension workers have the opportunity to go for further training and eventually become family doctors after a certain number of years. Five years since the start of this programme, less than 1% of these health extension workers have dropped out (personal communication, Gebrekidan Mesfin, WHO country office, Ethiopia).

BRAZIL

In the late 1980s it was recognized that Brazil's system of specialized, urban-centered, hospital-based medical care was failing to meet the needs of the many families who could not afford, or could not access, services. At the same time, a shortage of vocational schools had led to more than 200,000 workers taking on nursing and technical functions, without the qualifications required by law. In 1988, the government decentralized the national health system with the goal of achieving universal access to primary health care for all citizens. To meet the human resource needs of the new system, the Ministry of Health adopted a strategy of training family health teams to provide care for the country's entire population (The Family Health Program). Each team, which looks after 2000 to 3500 families, is composed of one physician, one nurse and up to six health aides, such as auxiliary nurses, community health workers and other technical support workers [19].

The government aimed to ultimately establish 40,000 family health teams throughout the country by 2010. To achieve this, the government budgeted more than $700 million between 2000 and 2009. By 2007, approximately 25,000 health teams covered about 60% of the Brazilian population.

In an evaluation, the municipalities that were eight years into the programme showed impressive reduction in mortality rates for infants, children under-5 years, adults 15 to 59 years, and persons over 59 years. Compared to the national averages (1993), the reduced rates for the above mentioned age groups were 20%, 25%, 8.5% and 2.7% [20].

In addition, the evaluation found impact on human capital, expressed as returns on improved labor, children's education and fertility. After eight years of exposure to the programme, the communities experience a 6.8% increase in the labor supply of adults, a 4.5% rise in the school enrolment of children up to age 17 and a 4.6% reduction in the probability that women aged between 18 and 55 give birth within 21 months after their previous pregnancy [20].

THAILAND

Thailand has one of the longest experiences with addressing the challenge of rural retention. For the last 40 years, Thailand has put in place an integrated approach to address this issue, which included recruitment of students with rural background, and training them closer to the communities, a model called "local training and home-town placement" of nurses and doctors. In addition, mandatory government bonding was initiated in the 1970s and both financial and non-financial incentives were provided for doctors in rural practice. Furthermore the social movement of the rural doctors association strongly advocated for the importance of rural health and other issues of public health importance. All these developments combined to reduce the difference in the density of doctors between Bangkok and the poorest north-east region from 21 times in 1979 to 9.4 times in 2000 [21]. Despite these efforts, retention of doctors in rural areas beyond the bonding period remains a challenge, as new developments such as medical tourism attract physicians towards urban practice and specialization training.

PHILIPPINES

The Philippines has a very strong private sector, market-driven educational system which has produced

thousands of nurses every year. Production comes from 517 nursing schools many of which were set up to respond to the local demand for nursing education. In 2007 alone, almost 60,000 licensed nurses were produced. The challenges the country faces are several fold: first is regulating the excessive production of nurses and to ensure the quality of the graduates; second is providing enough jobs for them, whether locally or overseas; third is attracting them to work in the remote and rural areas, and fourth is establishing mechanisms for experienced nurses who have worked abroad to return and continue their careers when they return.

Overseas employment has invariably been the reason why young students turn to nursing. In 2000, an estimated 163, 756 Filipino nurses were working abroad, of which 110, 774 (67%) were working in OECD countries. In 2000, 7683 nurses emigrated and by 2009, almost twice the number (13,014) left the country for overseas employment. Reasons for migration have been economic. A nurse earns USD 5000 a month in the US or the UK, almost 50 to 100 times what she would earn in Manila (USD 58-115 per month) [22].

In 2008, in response to the excessive number of unemployed nurses, the government launched the NARS program (Nurses Assigned in Rural Service). The goals of the program were to address the unemployment as well as provide nurses to the poorest municipalities of the country. To start, 1,000 poor areas were identified where 5 selected nurses would be deployed for a period of year. This period would serve as a time of practical training in the field after which the opportunity for employment could follow. The program pays the nurse-trainee a monthly salary of 8,000 pesos (USD 180). Supervision of the nurses is undertaken by the Department of Health. The evaluation of the program is ongoing [23].

In 2009, an estimated 400 000 licensed nurses in the Philippines were not employed in the nursing profession [22].

ZAMBIA

In 2003, to address the issue of shortages and maldistribution of health workers in underserved areas, in 2003 the Government of the Republic of Zambia in partnership with the Royal Netherlands Government started to pilot the Zambian Health Workers Retention Scheme (ZHWRS) for health professionals. The scheme was conceived initially to replace the Dutch doctors working under the bilateral agreement between Zambia and the Netherlands. Funding for this scheme came at first from the government of the Netherlands. The scheme provides financial incentives in the form of a hardship allowance, school fees, loans facility for a car or a house, and assistance with post-graduate training at the end of the three-year contract. A mid-term review in 2005 and subsequent assessment of the pilot showed that 88 doctors were retained for the 3 year contract period, and 65% renewed for a second 3 year term. As a result, many districts have now been staffed with a Zambian doctor for the first time ever. The average monthly cost of the scheme per doctor is between €500 – 550 (US$652 to 717) [24]. The scheme has now been expanded to include other types of health workers, and additional donors are supporting the scheme, through the common basket financing mechanism, set up by the Ministry of Health [25].

MALI

More than 100 doctors have been supported to set up a practice in rural and remote areas, through a programme piloted by the NGO, Sante Sud, France during a period of more than 15 years. The programme targeted young unemployed urban doctors. It offered an installation kit containing, for example, medical equipment, solar panels and sometimes even a motorbike, Specific training in community medicine and membership in a professional association helped reduce feelings of isolation and strengthen members' capacity to engage in collective bargaining. These doctors were paid by a combination of public-private partnership and community-based contracts, facilitated by the country's decentralization policy. An evaluation of this programme conducted by WHO in 2008 found that on average, these physicians stayed longer in their posts (4.5 years) compared with doctors who were not supported by this package (2.5 years). Some doctors stayed for more than 10 years [26]. One of these young doctors was recently honored during the Second Global Forum on Human Resources for Health with the Special Recognition Award for his commitment to serve his rural community.

WHAT LESSONS CAN WE DERIVE WHICH WILL HELP IN ELIMINATING THE CRISIS IN COUNTRIES.

The lessons from the countries show that with good planning, the correct strategies, and enough resources, it is possible to reverse the HRH crisis in a country over a few years. This is shown by the examples of Malawi, Peru, and Ethiopia. The lessons from Brazil and Thailand show what needs to be done so that a country does not get into a crisis in the first place -- political will, adequate investments, and effective management over the long term. The lesson of the Philippines shows that a large production of health workers will not necessarily provide

services to the underserved population unless there are effective strategies to attract and maintain health workers in rural areas. In this regard, the lessons of Mali and Zambia are encouraging as these countries show success in present efforts to attract and retain doctors in the rural areas.

To address the HRH crisis in any country, the fundamentals of the HRH work cycle remain (see figure 3).

1) the entry circle. Ensure the adequate production of health workers in the numbers and types needed by the population. Pay attention to the quality of education of health workers and to the relevance of health worker education to the needs of the population. The challenges in this area have to do with linking education with practice and the jobs available when students graduate. The education and labor market for health workers are not easily regulated and imbalances between the supply of graduates and the demand for them often persist.

2) the circle of the existing health workforce. Jobs which provide health workers with a sense of purpose and service, adequate compensation for livelihood, challenges to surmount, a career track to pursue, recognition for their work, and peers and mentors to emulate will attract and retain health workers. All these should be taken into consideration in designing the jobs and opportunities particularly in remote and rural areas. In this regard, comprehensive strategies are more effective than single interventions. Sustainability is crucial and time for steady capability building is necessary.

To address the huge challenge of attracting and retaining health workers in rural areas, WHO issued in 2010 global policy recommendations for improving access to competent health workers in remote and rural areas [27]. These guidelines were based on the varied experiences of countries as well as a thorough and systematic process of reviewing the evidence. WHO is now working with partners to implement these guidelines in countries.

3) the circle of exit. Health workers can be lost for various reasons including to retirement, illness, death and migration. All these factors can be managed and planned for to some extent. The adoption of the WHO Code of Practice for the International Recruitment of health personnel is not only an ethical code which discourages recruitment from countries in HRH crisis. It is also a guide towards addressing the fundamentals of production and retention and health workers. But in itself, the WHO Code is not a panacea.

The effective governance of HRH development is critical for keeping the work cycle in fine balance. Therefore,

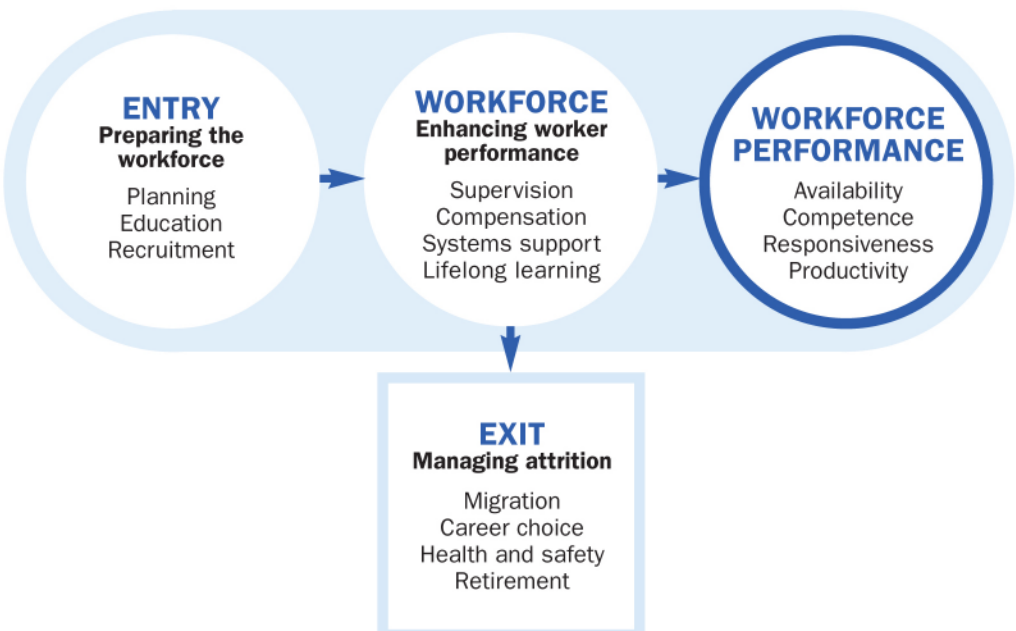


Figure 3. The health workforce cycle.
Source: (2)

persons who are competent to plan, and manage are needed in countries -- in government, educational institutions, and health service facilities. Furthermore, organizing data for planning and policymaking is a priority. In poor countries where domestic resources are inadequate to provide appropriate investments, the international donor community needs to provide effective and sustained support [28].

CONCLUSION

This article has shown progress in global and country efforts over the last five to seven years. It has presented selected countries whose examples are instructive in terms of tackling HRH challenges. These countries have made remarkable strides towards addressing their health workforce shortages and imbalances. Continuing documentation, evaluation of experiences and sharing of these lessons can act as a stimulus to all countries to learn from these and other examples.

Concluding thoughts: Global targets help set the pace, but internal processes in countries largely determine whether these targets can be reached. Countries progress at their own pace. The presence of investments influence the pace of progress. For the poorest countries which lack the resources to change things on their own, adequate and sustained resources from partners and external agencies coupled with political will and effective management internally, are necessary to achieve real progress.

Many challenges remain. In the face of them, should we give up on the idea of a 25% reduction of countries in HRH crisis by 2015? Perhaps not yet -- as some countries have shown that much can be achieved in a few years. Also, in the 64th World Health Assembly in May 2011, Member States adopted resolution WHA64.6 on health workforce strengthening [29]. The resolution affirms the priority that Member States put on human resources for health. This allows us to be optimistic. Let us see what the ongoing efforts in HRH development will bring in the next four years.

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All authors have participated in the conception, drafting and critical review of the manuscript, and have approved the final version of the article.

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Corresponding author: *Manuel M. Dayrit*
Address: World Health Organization, 20 avenue Appia, 1211 Geneva 27, Switzerland
Phone: +41227912428
E-mail: dayritm@who.int