Health Workforce Shortage: A Global Crisis

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Citation

V Bhatt, S Giri, S Koirala. *Health Workforce Shortage: A Global Crisis*. The Internet Journal of World Health and Societal Politics. 2008 Volume 7 Number 1.

Abstract

There is a massive shortage of health workers globally but most intensely in developing countries. The dire shortage of health workers has considerably constrained achievement of health related millennium development goals. The reasons for shortage are multitude. Many countries in the world including developing countries as well as developed nations like UK and USA are not producing sufficient numbers of health workers. In developing countries like Sub-Saharan Africa, this is partly because of lack of medical school. Health workers are concentrated in urban areas and developed countries. Brain drain has devastating consequences in some of the donor countries. Substantial number of health workers leaves the health workforce prematurely. Population aging, increase in chronic diseases and conflicts are increasing the demand of health workforce. Efficient use of existing health workforce and task shifting are things that can be done as a short term response to this challenge whereas aggressive retention policies and increase in production of health workforce should be our long term strategies. Solving the problem of health workforce will require united effort of several national and international agencies.

THE GLOBAL SHORTAGE IN HEALTH WORKFORCE

Health workers are the cornerstone and drivers of health systems. And yet there is a massive
global shortage of health workers.1 More than 59 million health workers are working worldwide,
4.3 million short of the total needed.1 This ongoing shortage is most intensely felt in countries
that need them the most. For example, Sub-Saharan Africa bears more than 24% of the global
burden of disease, but has access to only 3% of the world's health workers.1 In recent years,
concerns about growing shortages of health professionals, in particular doctors and nurses, have
emerged even in the most developed of nations.2 For example, in UK, the shortage of qualified
medical staff is crippling the National Health Service.3 The dire shortage of health workers has
considerably constrained achievement of health related millennium development goals.1

REASONS FOR SHORTAGE IN HEALTH WORKFORCE

The reasons for shortage in health workforce are multitude including underproduction,
maldistribution of health workforce, health workforce exit and increase in demand of health care.

UNDERPRODUCTION OF HEALTH WORKFORCE

Many countries in the world with acute shortage of health workforce face a lack of medical
schools. For an instance, two thirds of sub-Saharan African countries have only one medical
school and some have none.1, 4 In these areas, most medical schools are in disarray, are
chronically under-funded, and academic research remains a luxury.5
On the other hand, the production of health workers is not sufficient even in countries like US,
UK and Canada. 3, 6, 7 And these countries rely heavily on foreign health workers. This is evident by the fact that the International Medical Graduate comprises of 25 % of total physician
population in the US. 8

HUMAN RESOURCE MALDISTRIBUTION AND MIGRATION

Maldistribution between urban and rural areas is a huge problem nearly in all countries. For
example, medical doctors and nurses in Bangladesh are concentrated in urban secondary and
tertiary hospitals, while 70% of the population lives in rural areas.9 Even in a developed country
like US, there is a drastic disparity in the percentage of

physician working in the rural areas.10
On top of this, migration of nurses and doctors to developed countries is crippling health systems in many poor sending-countries.11 By 2000, on average in the OECD countries, 11% of employed nurses and 18% of employed doctors were foreign-born. Caribbean countries and a number of African countries have particularly high emigration rates of doctors. For some of these countries this is combined with very low density of doctors in the home country, highlighting a very worrying situation for the health sector in these countries.2
Both push factors and pull factors are operating for this migration. The push factors include poor remuneration and facilities, limited career structures, poor intellectual stimulation, bad working conditions, the threat of violence, an oppressive political climate, persecution of intellectuals, and discrimination. Better remuneration, upgrading qualifications, gaining experience, a safer environment, family related matters are the important pull factors.12

HEALTH WORKFORCE EXIT

Substantial number of health workers leaves the health workforce because of poor health, death and retirement while some workers leave temporarily in order to attend advanced courses.1

HEALTH HAZARD AND VIOLENCE AGAINST HEALTH WORKERS

Increasing violence against health workers is prompting more and more health workers to quit their jobs.13 In Sweden, health sector is the occupation at the highest risk of violence.13 In the absence of appropriate safety guidelines, accidents and exposure to infectious diseases impose huge occupational threats. HIV/AIDS has rendered the health workplace a dangerous place in Sub-Saharan Africa. For example, from 1999 to 2005; Botswana lost 17% of its health workforce due to HIV/AIDS.1

REDUCTION IN DURATION OF SERVICE

Many doctors especially young doctors are working fewer hours and pacing greater emphasis on personal time. 7, 14 Physicians are working significantly less in European Countries as a result of European Working Time Directive.15 Likewise in US, ACGME regulates the duty hours of medical residents to protect them from overwork and promote patient safety. 16 In Canada, large proportion of doctors now report that they want more time for themselves or their families.
Further, in Canada, physician workforce has more elderly and female who work relatively less hours. 7 Also, earlier retirement trends are getting increasingly common among health workers in Canada. 7 In OECD countries, workforce ageing will decrease the supply of physicians as the "babyboom" generation of health workers reaches retirement age.2

INCREASE IN DEMAND OF HEALTH CARE

Increased consumption of health care services, increase in chronic diseases and conflicts and emergence of new diseases are placing additional demands on a health workforce. Conflict often also causes severe and long-lasting damage to the health workforce itself.1 Population growth, ageing population and advancement in technologies are other factors increasing the demand of health workforce.2, 7

STRATEGIES TO DEAL WITH THE CURRENT CRISIS

1. Efficient use of the existing health workforce: Improving management and supervision, writing clear job descriptions, "piggy-backed" services (addition of services to pre-existing means of delivery), continued medical education and in-job training have been shown to improve the performance of the workers.1, 17, 18

2. Task-shifting from highly skilled health workers to less skilled health workers. Countries like Brazil, Ethopia and Pakistan implementing successful models of task shifting are reaping improvements in the health status of their populations. For example, the government of Pakistan created the Lady Health Worker cadre in 1994. By 2005, there were 100,000 trained female community health workers providing essential primary healthcare services in the community. Evaluation found that the population served by Lady Health Workers had substantially better health indicators than the control population.9

3. Aggressive retention policies: Many countries must improve poor work environments, assure adequate supplies and facilities, and create monetary and non-financial

incentives to retain and motivate health workers.11 They must aim to provide a stimulating environment and a vibrant intellectual community for professional growth. In Thailand and Ireland, such attempts to improve domestic conditions has succeeded in effecting a brain gain.12 Other possible solutions for reducing brain drain include demanding compensation from departing professionals and delaying their departure through compulsory service.12 For example, in Nepal, students studying medicine in government scholarship must work for 2 years in government run hospitals after their graduation.19

Development of rural health infrastructure, financial incentives and social recognition to work in rural areas can assist in attracting and retaining health workers to rural areas.11 These strategies have been successfully applied in Thailand.20 Furthermore, in Thailand, recruitment of students from rural provinces, subsidized education and training in rural health facilities and hometown placement after graduation have contributed to the successful distribution of graduate doctors, nurses, and paramedics in rural health centers and district hospitals.20 In US also, medical school rural programs with the policy to enroll students from rural backgrounds and to provide extended rural clinical curriculum have been shown to produce a multifold increase in the rural physician supply.21

There should be flexible work arrangements and career tracks adapted to family life which may encourage women to enter health professions. Early retirements can be discouraged by providing incentives to work longer. Protection of health of health workers including access to effective HIV prevention and treatment is also extremely important. This will encourage their morality as well as reduce premature mortality and absenteeism from work. 1

4. Production of suitable health workforce: With the shortage of over four million, increased education and training of health workers is fundamental to resolving the crisis.9 This will need careful workforce planning and mobilization of financial, technical and human resources to train health workers. Workforce development has to be data-driven. It is vitally important to assess performance gaps in health worker performance which is invaluable in identifying the categories of workers needed to meet priority health care needs. 17

Many countries have skill imbalances. The skill mix depends too much on doctors and specialists. These countries must attempt to generate a workforce that more closely reflects the health needs of their populations especially through deploying middle level health workers.11 Middle level health workers including clinical officers, assistant medical officers, midwives, surgical technicians and physician assistants have proved to be very useful in many countries.22, 23 In US, there are more than 44000 physician assistants who work with physicians and perform many of the tasks previously done solely by their physician. These physician assistants have improved access to health care for populations in rural, inner city, and other medically underserved areas.22 Similarly, middle level health workers in many African Countries like Ghana, Zambia, Tanzania, Mozambique carry out tasks, internationally recognized as those of other professionals, including surgeries.23 Training middle level health workers whose qualifications are not recognized outside the country is not only more feasible but also addresses the issue of brain drain to some extent.12

Training and support of health workers would require large amount of investment.11 Assuming very rapid scaling up in which all the training is completed by 2015, the annual training costs range from a low of US$ 1.6 million per country per year to almost US$ 2 billion in a large country like India.1 This requires efficient utilization of fund. Funds have to be redirected from warfare and other activities and invested in development projects including human resource development and management. In this context, self financing medical colleges as in Nepal, can be an innovative step. These privately run colleges provide free medical education to 20 per cent of the student body who are selected by government on the basis of merit.24

In the context of developed countries, they should aim for educational self-sufficiency which would also reduce the pulling factors for international migration.11

5. National and international workforce strategies: Every nation, backed by appropriate international reinforcement, should work towards development of workforce strategies specific and appropriate for the need and situation of the country.11 Strategies have to be developed by every country to more actively engage communities and to secure intersectoral coordination in this process of planning and implementation. This will require political commitment and shared vision between all the involved stakeholders. 1 Thus, international partnership and cooperation between several national and multinational agencies and development partners would prove essential to solve this 'pandemic' situation.

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