WHY IS IT AN EMERGING ISSUE?

All countries face challenges in securing an adequate health work force [1]. Increasing health care needs from growing and globally aging populations aggravates the deficits and makes it tempting to try to recruit health providers from abroad. A lack of health providers may undermine an entire health system, especially in countries with a critical shortage.

THE HEALTH WORKER CRISIS

The foundation of any health system is the providers working in it.

By Michael Schriver and Per Kallestrup

CRITICAL SHORTAGE

In 2006, WHO estimated a global shortage of 4,3 million health workers, of which 2,4 million are doctors, nurses or midwives [2]. In 57 countries this shortage is so critical it constrains the delivery of basic health care services. Most of these countries are in Sub-Saharan Africa, where health systems must respond to high population growth rates as well as an increasing double burden of infectious disease and non-communicable disease, not to mention injuries and a large, hidden burden of mental health problems [3].

Health systems in Sub-Saharan Africa serve 10% of the world's population and carry 25% of the global burden of disease. Yet, they only have 1% of the global number of health professionals (see figure 1).

The picture is reversed in Western health systems, e.g North America serving 5% of the global population and

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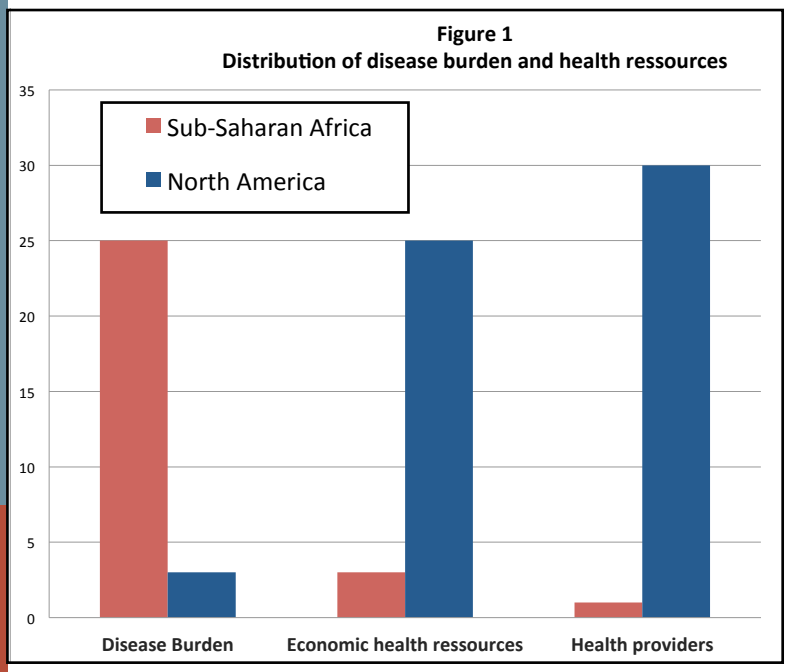
carrying 3% of the global disease burden, but employing 30% of the global number of health workers [4].



The global shortage of health providers has been discussed for decades. But the severity of this structural problem is growing exponentially with increasing health care demands, and insufficient production of health professionals.

A recent estimate suggested that the current global deficit of doctors, nurses and midwives is 7.2 million, and with today's population growth and supply of health workers this deficit will grow to 12.9 million in 2035 [5].

INTERDEPENDENCY IN HEALTH

The extreme global contrasts in care availability may jeopardize citizens in countries all over the world, as the health of a population is not a closed system. Disease management and prevention as well as health promotion in one country is influenced by the effectiveness of health systems in other countries [4].

For example, infectious diseases such as SARS and influenza that may spread pandemically, must be dealt with in an international cooperation. The Ebola outbreak in Western Africa has caused cases of secondary contraction within the United States and Spain. Polio eradication has been unsuccessful due to pockets of the disease in countries or regions where the health system is fragile and inadequate.

Furthermore, non-communicable diseases, drug abuse and injuries are associated with lifestyle and environmental factors, that again are affected by global trends. Poverty, social ills and lack of access to education and health care may contribute to a downward spiral leading to crime and

conflicts, which again may influence surrounding countries [6].

MIGRATION – PUSHES, PULLS AND CONSEQUENCES

Public health facilities, in particular in rural areas where the majority of populations in low-income countries live, are typically characterized by poor living and working conditions such as little or defect work equipment, large work burdens, little or no postgraduate training, low and irregular salary, inadequate or non-existing staff accommodation, inefficient administration and few educational or occupational possibilities for the rest of the family.

Additionally, political instability, corruption and crime as well as psychosocial challenges of the HIV/AIDS epidemic are all factors that tend to push health workers to look for other opportunities [2]. Migration itself is not the root problem, but a symptom of such.

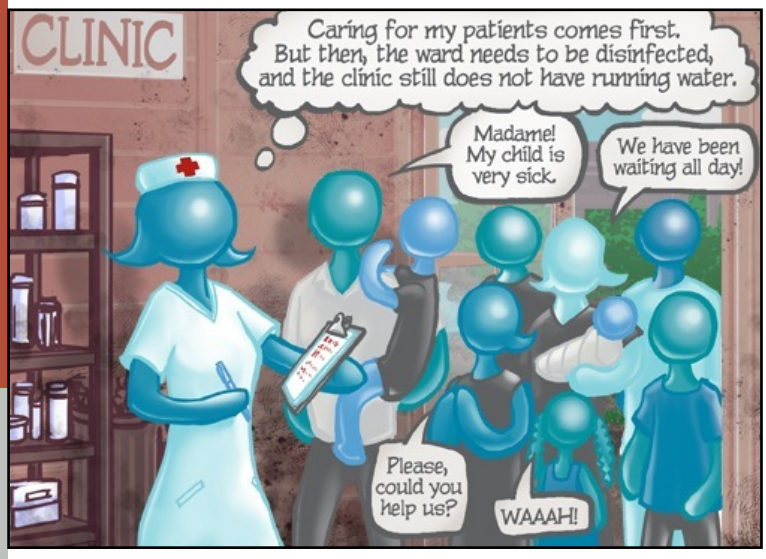


Illustration of an overburdened work situation, developed by © Capacity*Plus*.

Source: Capacity*Plus:* Ensuring a Positive Practice Environment: Occupational Safety and Health for Health Worker Productivity.

Knowledge of better conditions may act as pull-factors attracting health workers to urban facilities, the private sector, and more rarely to other countries or continents. Thus, the larger part of the migration of health workers is from under-served, rural communities where the needs for health care are highest [1,2,7].

International migration is natural, and a fundamental human right. At the same time it may have consequences for the country providing the education of a migrated professional.

According to OECD more than 50% of the best educated health professionals in some low-income countries choose to migrate [1]. For instance, 60% of Ghanaian doctors who graduated in the 1980s had emigrated by 1999 [8], and by the year 2000, Zambia's public health system employed 50

of the 600 doctors educated in the country [9]. In Europe, worries have been expressed that central and eastern European countries will lose health workers to Western Europe [8]. A cost analysis of nine Sub-Saharan countries estimated an overall loss of returns from educational investment of US$ 2.17 billion for all doctors having migrated the country they graduated in [11].

But migration may have benefits for the country of origin. In the Philippines remittances from health professionals working abroad make up 10% of the GNP, and there are revenue advantages put in place to attract the professionals to return home – carrying new skills developed abroad [2]. It is thus important not only to look at "*brain drain*" but total "*brain circulation*" when evaluating migration effects. Still, it is doubtful whether positive consequences of migration can outweigh the detrimental effect migration may have, especially to countries in critical shortage.

In spite of the contrast described, high-income countries are also experiencing a real shortage of health staff relative to the standards of care offered and demanded. This creates an impetus to recruit health workers from abroad. For example, in the UK and New Zealand almost a third of the medical doctors graduated outside the country [1]. In 2002, 23% of all physicians in the US had graduated abroad, and 64% of them were from Sub-Saharan Africa. Ten medical schools in four countries (Ethiopia, Nigeria, Ghana, South Africa) had produced 79% of these African physicians [12]. In Denmark, the number of specialist physicians who graduated outside Europe quadrupled from 42 in 2000 to 175 in 2009 [13].

Practices of active recruitment of health workers from abroad, including from countries in critical shortage such as Ghana, Nigeria, Ethiopia and 54 other countries, has been going on for decades in Europe and North America in order to fill shortage gaps. In this way, one country's shortage of health providers may expose another country's inability to create attractive conditions for their health work force.

New ethical guidelines from WHO warns against active recruitment from countries in critical shortage of health providers, and emphasizes the need for other solutions to the shortage problem [14]. This requires countries to plan themselves for an adequate internal development of the health work force and higher retention, which is a complex and expensive task if quality of service is to be maintained.

SOLUTIONS TO THE EQUATION: GLOBAL AND LOCAL RESPONSES

Getting the right skills in sufficient amounts to provide the right service at the right place is a complicated equation to solve. A 10% rise in the intake of medical students would produce only a 2% increase in the supply of doctors after 10 years due to a time lag between decision-making and outcome [7].

Waiting area of an Out-Patient-Department in Rwanda.

Photo credit: Per Kallestrup

Thus, long-term planning of the health work force is necessary. Countries must monitor who and how many enter and leave the health work force, and make due estimates of future needs for health care in the population, and the capacities required to meet them. This may guide necessary expansion of the intake in health education as a strategy to increase the entry of new providers. By favoring applicants from rural areas for medical and nursing schools, the chance of recruiting and retaining them in rural health facilities after graduation is further increased [15].

Another common strategy is expressed in the concepts of task shifting and skill mixing. These entail innovative development of the existing health workforce to fit current needs of the population. For instance, non-physician surgical staff performs caesarean sections in Mozambique [16]; and in many African countries consultations are primarily led by nurses [17]. Helped by community case algorithms, community health workers can manage a major

part of the child disease burden, and may accompany laboring women to a health facility as well as carry out preventive work in the community. Even though such frontline cadre may receive only very basic health education, great potential has been shown in reducing child mortality and morbidity [18].

But health services are only as effective as the persons responsible for delivering them. Service delivery in general and task shifting in particular requires adequate training, shifting of skills and collaborative practice of care to be effective. The entire health education enterprise must (be transformed to) rotate around producing health professionals who can deliver what the health system demands in order to meet population needs for health care [19]. This may require curricula change, interprofessional training at pre-graduate level and early development of critical thinking skills.

e-learning is an important educational tool, and a promising ingredient for schools aiming to increase their intake of health science students. The evidence concerning its effect on health worker retention in low-income countries seems currently anecdotal or narrative, and some countries may not feasibly rely on the required technical infrastructure [20].

A broad-based consultation process to collate evidence in support of a global strategy on the crisis of human resources for health is being led by the Global Health Workforce Alliance. Hosted by WHO, the Alliance is working with several partners, including UN agencies, the World Bank, national governments, health care professional associations, civil society, academia etc., [21]. By May 2016, the global strategy should be ready for consideration by WHO member countries.

THE HEALTH WORKER CRISIS

- No country is exempt from the shortage of health workers.
- There is a need for global cooperation to guide local responses to the health worker crisis.

ALL COUNTRIES SHOULD:

- Monitor and plan the health work force closely.
- Develop attractive living and working conditions in areas where health care demands are highest.
- Follow the new ethical code by avoiding active recruitment of health workers from countries in critical shortage.

CONCLUSION

The health worker crisis is a global problem that requires global cooperation to guide appropriate local responses. All

sectors and health professions should be involved in the development and implementation of solutions.

Universal health coverage is an overarching aim in health development work and requires a health worker accessible for everyone, everywhere. Active participation is needed from all countries to enable health systems globally to respond appropriately to health care needs of the population.

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