

Future Trends for Human Resources for Health in the Asia Pacific Region

Graham Roberts^a
John Dewdney^a

^aHuman Resources for Health Knowledge Hub, School of Public Health and Community Medicine, University of New South Wales. **Corresponding author:** g.roberts@unsw.edu.au

Introduction

Forecasting the trends in human resource for health and identifying their driving forces in the Asia Pacific region is subject to the huge diversity of its country members; across all World Bank classifications of economies, ranging from the most to the least populous countries in the world, with diverse health systems ranging from bare essential to universal coverage and situated across vastly differing geographical areas. The resultant epidemiological and health systems differences require the description of several projected scenarios for the future production, development and management of human resources for the health.

Concurrent epidemiological, demographic and climate changes occurring in the region will require larger health systems with significantly enhanced workforce capacity for noncommunicable disease prevention, the provision of home-based care to ageing populations, the use of technological innovations and in cross-sectoral engagement for community development to reduce the potential impacts of climate change and deteriorating environments due to urbanisation and industrialisation.

Observable trends in health workforce availability forecast a continuing need to attract and retain health workers in rural and remote areas, to identify the potential benefits of labour market mobility and regional agreements, to create systems that ensure the quality of health professional production appropriate to emerging health needs, and to concurrently strengthen policy, management and governance capacity at national levels and in decentralised health systems.

The increasing prevalence of noncommunicable diseases has overwhelmed current health service capacity for promoting risk reduction and disease prevention and now requires significant changes to the training and roles of primary health care and community level workers, or the creation of new cadres. The significantly increased involvement of the private sector in health worker production and health service delivery will require new governance systems and policy analysts for the regulation of both graduates and service providers, and for avoiding the potential skews in the health workforce that may arise from medical tourism.

Forecasted trends:

1. The volume of demand and the utilisation of health services will increase due to population growth, population ageing and as the proportion of the middle class increases.

This trend forecasts the need for significant increases in health worker training places, more jobs at all levels, larger HR budgets and either more health facilities or alternative service delivery modes. Population projections¹ indicate that the world's population will increase to almost 9 billion by 2050, that the majority of growth will occur in the world's least developed countries, that the proportion of the Asian population aged 50 and over will double over the next 50 years and the proportion of the aged population (60 and over) will double from 11% to 22% by 2050. It is estimated that by 2030 two thirds (66%) of the world's middle class will be living in the Asia Pacific region.² These changes have major implications for the size and nature of the health sector, its staffing requirements and for the roles they will perform. The production of increased numbers of health professionals will, in Asia, be increasingly provided through private sector institutions funded by private fee-paying students, while in the Pacific the financial incentive for providers will be limited by small populations and small markets. Global, regional and sub-regional professional labour market mobility will increase, although with a migratory bias towards the wealthier countries.

2. Urbanisation continues to increase and contributes to the increased volume of demand for health services in urban areas and the depletion of staff numbers in rural areas.

The countries of Asia and the Pacific are experiencing rapid urbanisation as populations seek educational and employment opportunities, stimulation and economic security. The health impacts of rapid urbanisation in the region will increase and will include the communicable disease impacts arising from poor sanitation, poor water supply, housing and waste disposal and the longer term social determinants of health of poor diets, unemployment, lack of recreational time and space, social alienation, drug abuse and urban crime. As the economies of the region improve the benefits will not be universally distributed, so in those countries that do not achieve a measure of universal coverage two-tiered health systems will consolidate; for those who can pay

and for those who cannot, and health professionals will be attracted to work in the better funded services, including those that may provide services catering to medical tourism. The rise of the middle class increases the ability to pay for services and also to pursue litigation, requiring continued improvements in the quality of services and the availability of treatment options, including high cost technology and pharmaceuticals. As urbanisation applies also to health workers, it can be anticipated that the deployment of health professionals to rural and remote areas of the region will require the implementation of effective incentivising systems, such as salary supplements, the provision of housing and security and policy adjustments to retirement age.

3. As a consequence of urbanisation and increasing industrial pollution, public health conditions will deteriorate and require investment in environmental health monitoring, infrastructure development and new high level staff to be involved in public health advocacy for environmental protection.

The health sector response to deteriorating environmental health conditions will increasingly require environmental health staff to engage in cross-sectoral approaches and partnerships at all levels including laboratory, field workers and labourers, and to engage in knowledge translation and health advocacy at high levels. This will require a transformation of environmental health staff training from being the preparation of staff for local inspectorates to include higher level qualifications in technical, legal and policy areas, and a career structure that allows cross-sectoral mobility.

4. Management capacity is stretched as health systems management units increase in number and technical sophistication and as decentralisation, devolution and privatisation occur.

A combination of factors will test health service management capacity, including population growth, decentralised administration to local officials and devolved responsibilities to local government, as more communities and management units require management and advocacy capacity, while inadequate production of specialist health service managers and a reliance on clinicians to serve as both clinicians and managers will continue. Several countries in the region have decentralised the management of health services to local officials or have devolved responsibilities for all but referral hospitals to local governments (Papua New Guinea, Philippines, Indonesia and the Solomon Islands). Decentralisation is driven by the dual concerns for local representation and management efficiency, although its implementation has achieved variable outcomes. Devolution of budgets and responsibilities to local governments necessitates the additional management skill of advocacy for the health sector in competition with others. The HRH Hub has identified weaknesses in

management capacity, particularly in financial and human resource management, at the provincial and district levels and has raised concerns related to the preparation for the role of the district health manager. While larger countries of the region have the potential to diversity into public sector management specialties, including higher level qualifications in leadership and management, those with small populations and economies will continue to rely on generalist managers or clinicians, thereby limiting the capacity to develop innovative specialist health sector management policy. Concurrently, conditions of employment and weak systems for managing the clinical supervision of recent graduates posted to rural areas will need to be significantly strengthened to support rural retention. Pacific countries with smaller staffing resources may need to consider pooling high level expertise into a central administrative advisory group.

5. Health professionals' roles change as epidemiological transitions quicken pace as populations age and economies expand.

The region is predicted to experience continuing increases in the prevalence of noncommunicable diseases, the incidence of injury and traffic accidents and the adverse public health effects of climate change. These changes are driven by economic growth, global trade, dietary change, and global warming and are unlikely to be reversed. The epidemiological trend towards non-communicable diseases will quicken as a function of population ageing. Worldwide, NCDs currently represent 43 per cent of the burden of disease and are expected to be responsible for 60 per cent of the disease burden and 73 per cent of all deaths by 2020.³ Accident and injury rates will increase due to increasing reliance on motorised transport and activity in the construction industry, both of which will increase pace, for the central human resource for health question is whether to modify the roles of existing cadres, or to identify roles for new cadres, such as NCD prevention personnel. To address noncommunicable diseases and multiple morbidities in older people requires a different set of skills than for responding to the health needs of younger populations, specifically in chronic disease care (e.g. for diabetes), counselling on risk factors and behaviours, mental health support and to provide as much of the service as possible in patients' homes. Staff will increasingly be involved in the early detection of disease, chronic disease care and rehabilitation, while also maintaining services for younger populations. It seems unlikely that without the advent of a major disaster, war or the emergence of an unchecked pandemic that the increase in the region's population will be reversed in the next 4 decades or that the factors of ageing and economic growth will alter from current predictions.

6. Newly emerging pandemic diseases pose the threat of significant mortality in the region and require increased and vigilant surveillance, access to vaccinations and a human resource response.

The Asia Pacific region presents the world's greatest risk for emerging diseases, as evidenced by Sudden Acute Respiratory Syndrome (SARS) and avian influenza (H1N1). Achieving effective pandemic preparedness commences with acceptance of the International Health Regulations and surveillance systems, and staff able to interpret and respond to reports of increased incidence. Preparedness and response will require animal health cadres (veterinarians and vet assistants), epidemiologist and disease control specialists as well as medical and nursing staff. Access to vaccination by countries that are non-producers will require health advocacy to be effective in high levels of departments of foreign affairs. For example, in the Asia Pacific region the WHO prequalified H1N1 vaccine is produced only by Australia, India and Korea.⁴ There is some potential for an international agency, such as WHO, to negotiate and oversee the distribution of vaccines to non-producing countries.

7. The private sector increases its investment in health professions training, requiring improvements in systems for the international accreditation of educational programmes and for the licensing of graduates by national or international authorities.

Graduates from private universities or colleges will seek license to practice their new profession from national authorities. As has occurred in Cambodia and Indonesia it can be anticipated that all graduates of medical schools (public or private) will be required to pass a national examination prior to licensure to practice. Concurrently, graduates of an increasingly diverse range of international health professions programmes will seek employment in countries other than the ones in which they were trained. International scholarship offers, provided for diplomatic reasons with little reference to national health workforce plans will contribute to this trend, unless rationalised, and will place pressure on national licensing authorities to endorse graduates for professional practice and on public sector employers to provide employment opportunities. While current developments proceed, the institutions involved in funding, training and licensing health professionals will be challenged to maximise the positive benefits of change, including international mobility, while minimising the adverse risks that are inevitably inherent in policy reform.

8. Professional labour market mobility increases as regional trade and diplomatic agreements are extended to include the professional workforce.

It can be anticipated that the Asia Pacific region will emulate the European Union and the Caribbean Community to create or extend regional agreements,

such as the ASEAN countries adopting the ASEAN Economic Community Framework by 2020 to allow free movement of doctors, nurses and other professionals, and as Pacific countries move towards formalising regional professional mobility by adopting common systems of program accreditation and the licensing and regulation of graduates. While professional mobility offers the potential to address skills shortages, if left to market forces, it is unlikely that the problems of retaining staff in rural and remote areas will be addressed. Accordingly, the regulation of market mobility to and in countries will require policy strategies to overcome the potential for the pooling of excess staff in urban centres.

9. An increase in the use of telemedicine, remote diagnostics and on-line learning.

The impacts of geography and distance from health services apply to most areas of the Pacific region and to the remote areas of Asia. The potential for new and emerging technological innovations to overcome distance will develop into the provision of remote diagnostics and treatment support from centrally based specialist to clinicians in the field, epidemiological mapping of health needs and staff deployment leading to the reduction of staffing inequalities within countries, and access to on-line learning for health professionals. The use of such technologies will increase the demand for specialist consultations and services and will need to be incorporated into health worker training programs. A cadre of information technicians will be required to support their application and maintenance.

10. As health systems grow in response to increasing need and demand it will become increasingly important to conduct research in the area of human resources for health, in order to identify feasible and cost-effective methods of service provision.

As the human resource is the most costly recurrent item in most health service budgets, the need for competent research into identifying effective health staffing policy and interventions will increase in urgency. The development of an HRH research capacity will depend also on the quality of information generated by the health system, so it could be anticipated that the development of research capacity will contribute to strengthening health information systems. The development of cadre capable of identifying trends, conducting research and proposing evidence informed policy will increasingly be of critical importance to cost containment, efficiency and service effectiveness.

References

1. United Nations, Department of Economic and Social Affairs, Population Division (2011), *World Population Prospects 2010*, New York

2. UNDP. Human Development Report 2013. *The rise of the South: Human Progress in a Diverse World*, United Nations Development Program 2013.
 3. WHO. *WHO NCD Surveillance strategy*. [cited 19/08/13]; Available from: http://www.who.int/ncd_surveillance/strategy/en/index.html
 4. WHO *Prequalified Vaccines, revised 22nd May 2013*, (accessed 22 August 2013) http://www.who.int/immunization_standards/vaccine_quality/PQ_vaccine_list_en/en/index.html
-

“The greatest part of our happiness or misery depends on our dispositions and not our circumstances”

Martha Washington