

# COMMISSIONING THE EDUCATION OF HEALTHCARE PROFESSIONALS: A REVIEW OF INTERNATIONAL TRENDS AND APPROACHES

Background paper for the HRH Hub series  
on 'Evidence and Policy Options' for  
healthcare education and training in  
Pacific Island countries

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# ACRONYMS

<b>AMC</b>	Australian Medical Council
<b>AusAID</b>	Australian Agency for International Development
<b>CMNHS</b>	College of Medicine, Nursing & Health Sciences
<b>FNU</b>	Fiji National University
<b>FSMed</b>	Fiji School of Medicine
<b>HEE</b>	Health Education England
<b>MPET</b>	Multi Professional Education and Training
<b>NGO</b>	non-government organisation
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OUM</b>	Oceania University of Medicine
<b>PIC</b>	Pacific Island country
<b>PICT</b>	Pacific Island Countries and Territories
<b>PSC</b>	Public Service Commission
<b>QSSN</b>	Queen Salote School of Nursing
<b>SMHS</b>	School of Medicine and Health Sciences
<b>UPNG</b>	University of Papua New Guinea
<b>UPSM</b>	Umanand Prasad School of Medicine
<b>WHO</b>	World Health Organization

## ***A note about the use of acronyms in this publication***

Acronyms are used in both the singular and the plural, e.g. NGO (singular) and NGOs (plural).

Acronyms are also used throughout the references and citations to shorten some organisations with long names.

# SUMMARY

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**Commissioning** is used to describe the scheme and processes by which education and training programs (and in particular the numbers of students/trainees involved in those programs) are funded and allocated to education and healthcare training organisations. Commissioning activities include the allocation of scholarships and subsidies and self-funding schemes and typically involve some type of formal quality assurance of the education and training provided.

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This paper reviews international approaches to commissioning and how to determine and control the number of places available on educational programs for doctors, nurses and midwives. These approaches are currently undergoing significant change in many international settings. This active state of flux provides learning opportunities for the Pacific Island countries (PICs), as innovations are currently being developed, tested and refined. Key points are summarised below.

The commissioning of education is a fundamental part of workforce planning for healthcare provision and aims to align the education and training market with the demand and supply of the health workforce, in contrast to *laissez-faire* market principles. It is informed by health labour market analysis and supports the effective and efficient management of the workforce for long-term self-sufficiency and to manage labour mobility.

It is subject to a number of influences and models vary between countries, primarily based on whether the healthcare education and health system is publicly funded or not. Commissioning models seek to maximise the public investment in education, training, labour participation and workforce supply.

Pacific countries currently have mixed models of determining the number of available places, and resources for, healthcare education and training with inherent inefficiencies if not closely linked with workforce planning.

PICs are now at the stage to commence identifying the fiscal space within the whole of government accounts to fund sustained increase in health staff. The introduction of a commissioning policy closely tied with projected population health care needs and national workforce planning is recommended for all PICs.

# INTRODUCTION

## Workforce planning

Educational commissioning is a fundamental aspect of workforce planning. We therefore summarise some basic principles and issues in workforce planning as well as those with relevance to the Pacific. Recent detailed reviews are available.

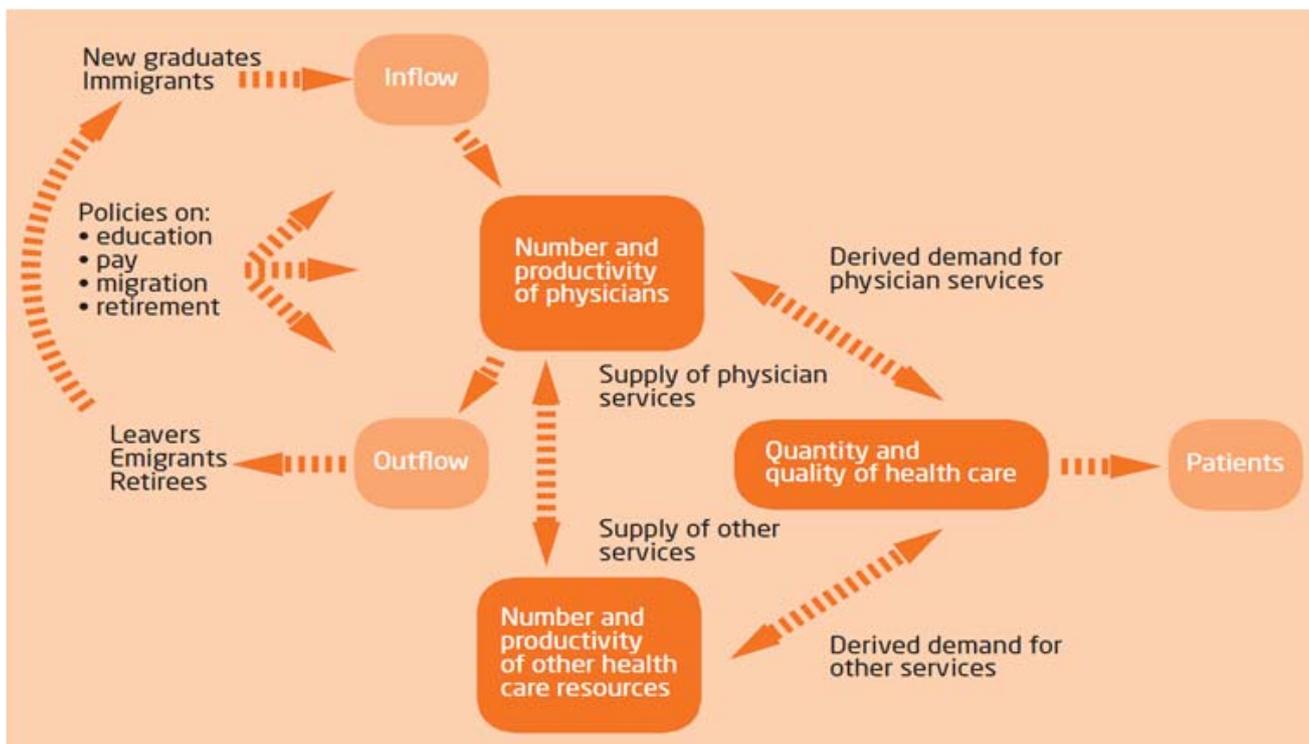
*“The vast majority of countries in the world do not have an explicit human resources for health strategy. Typically, if there is any policy focus it is on establishing training numbers and related costs, rather than developing a comprehensive strategy covering compensation, working conditions, recruitment and retention issues.” [1].*

In the Organisation for Economic Co-operation and Development (OECD) countries, the health and social care workforce accounts for, on average, 10% of all persons employed [2]. The effective management

of this workforce is an enormous and critically important challenge. This is compounded by a significant lag time and cost required to respond to any change in demand – e.g. to fully train a doctor to specialist qualification takes approximately 10 years. Nurses can be trained in less time (between 3-5 years) and can then (if required) go on to train as advanced practitioners, fulfilling many of the roles of doctors, allowing more flexibility in deployment.

Many OECD countries have substantial net immigration, forming up to and over 20% of the workforce [3]. There is a stated preference for self-sufficiency in healthcare workforce production (as expressed in the World Health Organization’s (WHO) Global Code of Practice on the International Recruitment of Health Personnel [4]) but some countries are finding it difficult to maintain self-sufficiency despite identifying the barriers to doing so [5].

**FIGURE 1. FACTORS AFFECTING HEALTHCARE WORKFORCE PLANNING**



Source: Imison et al. (2009) [6] adapted from original source Simoens and Hurst (2006) [3]<sup>1</sup>.

<sup>1</sup>Further information: [http://www.kingsfund.org.uk/publications/nhs\\_workforce.html](http://www.kingsfund.org.uk/publications/nhs_workforce.html)

Most western countries tightly manage healthcare education and workforce, although with limitations described throughout this paper. One notable exception is the United States, where market forces play a much more significant role in healthcare generally, and where the national approach to workforce planning has been described as '*laissez-faire*' [6].

What is clear from the evidence is that (particularly for publicly funded education, training and health workforce systems) specific alignment needs to be made between the commissioning of health education places, the numbers of registered professionals required in the workforce and the implementation of targeted schemes to meet short term need or to address specific service needs. This requires a 'whole workforce' approach.

## **Workforce planning issues of particular relevance to the Pacific region**

### **Rural and remote health**

Across the Pacific region, in common with many other countries such as Canada, Australia and New Zealand, an acute shortage of rural and regional doctors [7] exists, with regional hospitals struggling to fill vacancies and attract new graduates [8, 9]. A number of specific policies and programs exist in Australia aimed at achieving an equitably distributed medical workforce, regardless of location. These include:

- The Bonded Medical Places scheme;
- The Medical Rural Bonded Scholarship scheme;
- The General Practice Rural Incentives Program;
- The 5-year Overseas Trained Doctors Scheme;
- Medicare provider number restrictions for overseas trained doctors.

As part of the solution to provide appropriate healthcare to rural and remote areas, the role of all healthcare practitioners is changing from specialist to generalist and this is also reflected in commissioning policies as well as educational and political approaches.

### **The United States and Caribbean medical schools**

The Caribbean currently has 55 medical schools [10], for a population of ~39,000,000. There are two

principal types of medical school in the Caribbean – 'Regional' and 'Offshore'. Regional schools train graduates for the geographical site in which they are located (and the wider Caribbean). These are described in more detail in the companion paper in this series *Accreditation and Licensing of Healthcare Professionals*.

Offshore schools are essentially satellite campuses for medical schools located in the USA, training a mixture of (largely) US-citizen and foreign students for subsequent entry into the American physician workforce. Between 1996 and 2005, these schools contributed 19,436 doctors to the US workforce [11], although concerns are consistently expressed about the educational standard to which these doctors are trained, reflected in subsequent academic under-performance [12].

These schools normally offer only the basic science component of medical education in the Caribbean itself (i.e. two years of education leading to United States Medical Licensing Examination part 1), with subsequent clinical training occurring in the US. Thus Caribbean schools enter partnership agreements with clinical sites in the US, which may cause difficulties and controversies integrating with clinical placements for students at US-based schools [13].

The offshore schools generally run at lower cost than schools physically located in the US and thus generate greater revenue, making them attractive to 'for-profit' education companies such as DeVry, which has recently acquired the American University of the Caribbean School of Medicine [14]. The local economic benefits of offshore medical schools, generated largely through the import of a relatively affluent student and teacher population, has also seen governments actively recruit offshore medical schools and offer tax and other incentives for their establishment.

The current situation in the Caribbean has caused many in the field of medical education to question the emergence and potential impact of so-called 'for profit' medical education, a principle which contradicts that proposed by Flexner in 1910 and is in contrast to the model currently used in the majority of the western world [15].

# INTERNATIONAL EVIDENCE AND TRENDS

## Commissioning of medical education – common principles

One approach to commissioning medical students and doctors, adopted by many OECD countries, is to set clear and dynamic limits (a closed number or

*numerus clausus*) on the available medical school intakes, both at country and individual medical school levels (see Table 1 below for individual policies). These are typically tied to intern (junior doctor) training posts.

**TABLE 1. OVERVIEW OF HOW DIFFERENT COUNTRIES REGULATE INTAKE INTO MEDICAL SCHOOL**

Country	Cap?*	Medical Student commissioning policy (2006**)
Australia	Yes	Medical school intake is capped by the national government through the funding of university places. Cap applies to domestic medical students only.
Austria	No	Government does not restrict the number of medical students.
Belgium	Yes	Government determines the numbers, which are allocated to 60% Flemish-speaking and 40% French-speaking students.
Canada	Yes	Places in medical school are limited.
France	Yes	France has employed a <i>numerus clausus</i> for admission in the second year of undergraduate medical school since 1971. The number has varied between approximately 3000 and 5000 due to over- or under-supply.
Germany	No	The government does not restrict the number of students admitted to medical school. Intake is determined by the number of places available at medical schools.
Ireland	Yes	Government determines the number of places, but colleges have discretion to take in more students.
Japan	Yes	Numbers are controlled by government and have varied between approximately 4000 and 9000 in the last generation.
South Korea	No	No explicit policy about constraining or expanding the number of medical school admissions.
Netherlands	Yes	Medical school intake is subject to a <i>numerus clausus</i> .
New Zealand	Yes	Enrolment into medical school is capped at 285 nationally.
Norway	Yes	Enrolment into medical school is limited to 594.
Spain	Yes	Medical school intake is agreed by government and universities.
Sweden	Yes	Medical school intake is controlled by government and has varied between 431 and 1026 since 1960.
Switzerland	No	The government does not restrict the number of students admitted to medical school.
United Kingdom	Yes	Numbers are controlled by government and have varied between approximately 4000 and 6000.
United States	No	The US federal government does not impose any limitation on the number of medical school enrolments, although it does invest in medical education.

Source: Adapted from Simoens and Hurst 2006.

\* 'Yes' means some sort of cap is imposed directly or indirectly by government (rather than the market).

\*\* Many of the figures have obviously changed since 2006, although the basic policies remain largely unchanged.

Because most countries fund medical education from public funds, it is vital to ensure that public investment is maximised. The *numerus clausus* exists therefore to control both medical intake and graduates to:

- Restrict medical intake to the most academically able, and more recently to students whom the school believes will make good doctors;
- Control the total number of doctors in the medical workforce for cost reasons;
- Ensure that all domestic graduates are able to obtain a postgraduate training post in their home country; and
- Balance the high cost of training medical students with other public expenditure.

### Postgraduate training places

New healthcare graduates are generally recruited into the workforce directly from graduation, although education continues throughout the career. Training places are allocated to healthcare providers depending on regional and national need in particular areas of healthcare. Thus the commissioning of postgraduate training places is also a fundamental part of workforce planning and has its own geographical and specialty needs which may not be aligned with those of undergraduate education or the individual graduate.

Health Workforce Australia is undertaking a review of postgraduate training [16] which will ultimately lead to a 'medical workforce scenario' tool which accommodates these and other factors. This work is ongoing and changes to the commissioning of postgraduate places are likely to result, with knock-on effects for Pacific Island Countries and Territories (PICT). Postgraduate medical education in Canada has been undergoing a similar review [17].

### Commissioning of nursing and midwifery education – common principles

There is a general, world-wide, chronic shortage of nurses and midwives, even in the most developed countries [2] and this fact dominates all analyses of workforce planning and educational commissioning for nurses/midwives. Nevertheless, in most developed countries, commissioning of the nursing and midwifery workforce is moving in the same

direction as that of the medical workforce, carried out at regional or federal basis, tied to regional workforce requirements. In Australia and New Zealand, health workforce organisations are also moving towards commissioning student numbers. Critically for PICs, both these countries are heavily reliant on immigration to maintain their nursing/midwifery workforce [6,7].

Australia, in particular, is currently engaged in an extensive review of its entire healthcare workforce [18] and has identified nursing as a future area of potential crisis with a projected shortfall of 109,000 nurses (27% fewer than required) by 2025, although the midwifery workforce is not expected to suffer such shortages [8]. The commissioning of nurse education is obviously fundamental to tackling this problem.

An emerging principle in nurse education, relevant to commissioning, is the role of the 'Advanced Practitioner'. These are professionals from 'non-medical' backgrounds (usually nursing) who have received additional training to perform advanced roles. (For a full description of these see the companion paper in this series *Extended and expanded roles of health practitioners*).

### The costs and sources of funds for educating healthcare professionals

The cost of training healthcare professionals varies widely depending on the profession. Recently updated (2011) estimates from the UK are shown in Table 2 (page 8). It can be seen that the costs of training a doctor to Foundation Officer 1 are 3.7 times the cost of training a nurse.

Specific data from other countries are not easily available but it is estimated that the cost of training a doctor in the USA is approximately 1 million US dollars [10]. Training doctors in 'western' countries is clearly expensive.

In contrast the estimated cost (in 2003) for training a doctor in Uganda is 25,000 US dollars [19] and in Malawi (in 2006) 53,385 US dollars<sup>2</sup>. It is therefore also clear that recruiting doctors from overseas saves enormous amounts of money for countries like the US, Australia and the UK, and this is reflected by

<sup>2</sup>Further information : <http://www.equinetafrica.org/bibl/docs/CBP12HRpanulo.pdf>

the high percentage of overseas trained doctors in these countries. In contrast the economic costs are enormous to countries that lose a significant number of educated professionals to western countries.

Higher financial rewards and the quality of life available in these countries are the most significant drivers of emigration. A related complication to government funding of education is the subsequent

loss of graduates to private practice within the same country, where, again, the financial rewards are likely to be greater.

*“There is little benefit in educating adequate numbers of doctors or nurses, and then seeing them migrate to other countries because the labour market cannot integrate them, or because working conditions are not attractive enough” [1].*

**TABLE 2. TRAINING COSTS OF VARIOUS HEALTHCARE PROFESSIONALS IN THE UK IN 2011**

	Pre-registration			Post-graduate training	Total
	Tuition £	Living expenses/lost production costs £	Clinical placement £	Tuition and replacement costs £	Total investment £
<b>Scientific and professional</b>					
Physiotherapist	£24,441	35,472	Not known	NA	59,913
Occupational therapist	£24,441	35,472	Not known	NA	59,913
Speech and language therapist	£24,441	35,472	Not known	NA	59,913
Dietician	£24,441	35,472	Not known	NA	59,913
Radiographer	£24,441	35,472	Not known	NA	59,913
Hospital pharmacist	£25,536	46,505	11,381	NA	83,422
Community pharmacist	£25,536	46,505	25,307	NA	97,348
<b>Nurses</b>					
Nursing degree	£23,151	47,296	0 <sup>3</sup>	NA	70,447
<b>Doctors</b>					
Foundation officer 1	£55,987	£57,166	£147,791	£0	£260,944
Foundation officer 2	£55,987	£57,166	£141,496	£31,231	£292,175
Registrar group	£55,987	£57,166	£141,496	£73,664	£334,608
Associate specialist	£55,987	£57,166	£141,496	£113,609	£374,553
GP	£55,987	£57,166	£141,496	£227,786	£488,730
Consultants	£55,987	£57,166	£141,496	£293,514	£554,458
<b>Social workers</b>					
Social work degree	£14,156	£36,822	£6,474	NA	£57,452

<sup>1</sup>Netten, A, Knight, J, Dennett, J, Cooley, R & Slight, A 1998 *Development of a Ready Reckoner for Staff Costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>2</sup>Provided by the Department of Health and the Higher Education Funding Council for England (HEFCE) 2011.

<sup>3</sup>Currently the benefits obtained from the placements are assumed to be equivalent to the costs of providing the placement.

Source: Extracted from Curtis L. (ed) Unit Costs of Health and Social Care 2011<sup>3</sup>

<sup>3</sup>Curtis L.(ed) Unit Costs of Health and Social Care 2011. [internet] 2011. [cited August 03 2012]  
Available from: <http://www.pssru.ac.uk/archive/pdf/uc/uc2011/uc2011.pdf>

## Physical resources

University-based learning space requirements for healthcare education include lecture theatres, small group teaching rooms, seminar rooms, laboratories, clinical skills laboratories, libraries and facilities for e-learning. Depending on choices made on how anatomy will be learned, an anatomy dissection laboratory may also be required although these are being replaced by expensive simulation techniques [20].

Universities use a variety of ways to ensure that students can learn and practise practical skills before they reach real patients, through simulation, models and mannequins, role play, peer learning and e-learning. Any program will require that students have good access to learning through these methods and that they are available for postgraduate and continuing education.

However, the main context in which health professionals learn their practice is with patients in clinical settings and any commissioning system must take account of the ability for the education provider to provide high quality health education. This can be very difficult when clinical teaching is offered on a goodwill basis, when clinical teachers are unrewarded for their educational role and are not trained in clinical teaching skills. Establishing robust quality assurance mechanisms for monitoring clinical teaching is therefore essential.

## Management systems and resources

The management and quality assurance systems required for the education of health professionals are usually more demanding than those required to run many other university-based education programs, as they require a good relationship with clinical placement providers and regulatory bodies. The Australian Medical Council (AMC) 'Standards' for undergraduate medical education [20] specify that clearly defined governance procedures, processes and structures are in place, both for internal governance and with external stakeholders.

## Who pays? – Student fees

A number of different models exist through which undergraduate tuition fees of healthcare professionals are funded; most countries operate a mix of the various models. These are described below and are represented on a scale from fully publicly funded

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... the main context in which health professionals learn their practice is with patients in clinical settings and **any commissioning system must take account of the ability for the education provider to provide high quality health education.**

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to fully privately funded. This area is undergoing significant review and change internationally.

### *State/taxpayer funds*

This is a common model partly operated by many western countries, in partnership with private funding. In general, the costs of educating healthcare professionals are borne by government via public funds. The distribution of these funds is then to education providers, often via healthcare providers.

### *Aid/development agencies*

Most OECD countries contribute to international aid and development agencies. These agencies will often support the costs of educating healthcare professionals for low/middle income countries.

### *Scholarships and bursaries*

Generally, these are awards made to individual students to fund their studies and possibly some living costs. They do not normally have to be repaid. Scholarships are awarded on the basis of academic achievement, while bursaries are awarded on the basis of financial need. Both may target specific student groups (e.g. under-represented ethnic minorities) or a specific healthcare need (e.g. to study a certain specialty). Examples of bodies that award them include governments, the military, charities and aid agencies.

The awards may be 'bonded', meaning that, by accepting the award, the awardee is entering into an arrangement where they agree to return to a particular geographical location and/or specialty after completing their education.

### **Loans**

These are usually available at very low interest rates with very long repayment terms. The financial institution making the loan is usually government-backed to a large extent and the award of a loan is usually contingent on the applicant having been awarded a place on the educational course.

### **Private funding**

In most western countries it is currently fairly uncommon for students to be able to pay their own tuition fees outright, although the USA is an exception to this principle.

### **Who pays? – Institutional costs**

Like tuition fees, there is a mix of private and public funding for institutional costs associated with the education of healthcare professionals, with the latter being the predominant model but there is a global shift towards a greater contribution from private funding sources.

### **Government/public funding**

Government funding for healthcare education, particularly medical education, is typically higher than funding for other students, reflecting the longer course of study, the need to cover a wider range of subjects, the need for supporting and offsetting costs to clinical providers and research departments, and the high salary requirements for clinical educators and resources.

In most countries with publicly funded healthcare and healthcare education, government funding to support healthcare education is provided to tertiary education organisations based on student numbers. Some countries provide both per capita funding for each student (typically on entry, sometimes on exit, i.e. based on graduate outputs) and a block grant to the university/college for capital expenditure. However, very few countries provide funding direct to clinical education providers; with the UK being a notable exception.

### **Private Funding**

Education of healthcare professionals is supported by a number of means including private funds and this reflects the current picture in international higher education generally. These include outright

'for-profit' systems, common in the United States, where tuition fees are significantly higher and form the bulk of institutional income, supported by private endowments and grants, as well as returns on investments and profit making activities, such as the rental of facilities [21].

### **Governance in health workforce planning and commissioning**

Workforce planning for healthcare is currently in a state of change, driven by increases in the international mobility of the workforce as well as financial considerations, the latter being exacerbated by the world-wide economic crisis which began in 2008. Many countries are responding by establishing independent bodies, with links to government, which maintain oversight of workforce planning and collect high quality data to inform that planning. This process is far from complete, but the ongoing development may be of relevance to PICs.

The United Kingdom has, after several reviews and false starts [22-24] established 'Health Education England' (HEE) which will have responsibility (from April 2013) for the entire healthcare workforce. The purpose of HEE will be "to ensure that the health workforce has just the right skills, behaviours and training, available in the right numbers, to support the delivery of excellent healthcare and health improvement." As part of this, HEE will be responsible for allocating and distributing the Multi Professional Education and Training (MPET) budget.

As described earlier, a significant issue in workforce planning is the availability of quality data. In this regard HEE will be significantly aided by the recent (2009) creation of the Centre for Workforce Intelligence [25], whose role is to provide the long-term intelligence and forecasting to organisations like HEE.

Similar processes are underway in Australia, with the establishing of the National Clinical Education and Training Agency and, in New Zealand, with the Clinical Training Agency Board [6], although these are not as far advanced as those in the United Kingdom.

# COMMISSIONING OF HEALTHCARE EDUCATION IN THE PACIFIC

Health professional training institutions of the Pacific, their roles as national, regional or sub-regional providers and the sources of student fees revenues are listed in Table 3 (page 12).

The commissioning of the education of health care professionals in the Pacific is undergoing a number of significant changes. These include the establishment of new universities in both the public and private sectors, the acceptance of a large number of international scholarship offers for medical education, the move towards training for specific competencies, particularly in nursing and midwifery; all occurring in an environment of low workforce planning capacity.

The companion papers in this series provide information on the international trends and approaches to medical education, the accreditation of programs and the licensing and regulation of health professional in PICs and for the Pacific region. (See companion papers in this series at [www.hrhub.unsw.edu.au](http://www.hrhub.unsw.edu.au)). Underlying all of these issues are those of workforce planning: commissioning educational programs and providing scholarship opportunities to create the workforce for addressing the changing health needs of Pacific populations.

Scholarships for undergraduate or postgraduate studies awarded by the Ministries of Health in the region are obtained from various sources, as in the example of Fiji: the Ministry of Health (sponsoring its own staff), the Fijian Affairs Board, Public Service Commission (PSC), Australian Agency for International Development (AusAID) and other donors, WHO, and from relatively new organisations serving a regional purpose such as the Pacific Eye Institute.

Our findings suggest that there is little evidence of education and training being related to the population needs or an informed labour market analysis.

The two most significant changes that have occurred in PICs is the introduction of private sector medical education providers and the large increase in the number of international scholarship offers. This appears to have moved away from a previously conservative approach of *numerus clausus* towards an apparent disconnect between workforce planning and commissioning and a more *laissez-faire* approach to obtaining doctors, with the potential to compromise quality and raising the issues of program

accreditation, internships, licensing and regulation addressed in the companion papers of this series.

**Nursing:** Most nursing schools are publically funded, whether through a ministry of health or education, or a university (e.g. Fiji School of Nursing at Fiji National University (FNU) and, recently, the Solomon Islands University now incorporating the Solomon Islands College of Higher Education's nursing programs); or by having a large proportion of their students funded through public sector scholarships, awarded according to secondary school results.

To address issues related to the geography of the nation, Kiribati protects places for students from outlying Islands where there is a need. In Fiji, the Ministry of Health provides 120 scholarships for local students per annum and the Fiji School of Nursing reserves a minimum of 10 places per annum for regional students. Queen Salote School of Nursing (QSSN) in Tonga offers a small number of places to private students, some sponsored by churches and others paying fees to continue study after failing a year. These students are not considered public sector employees and do not qualify for automatic appointment to the public service. There are no privately funded nursing students in Vanuatu or Kiribati nursing schools.

**Allied Health Sciences** training is provided both formally and informally. The College of Medicine, Nursing and Health Sciences (CMNHS) at FNU offers formal courses for health scientists in: pharmacy, physiotherapy, medical imaging and laboratory technology. The School of Medicine and Health Sciences (SMHS) at the University of Papua New Guinea (UPNG) offers courses in pharmacy, medical imaging and laboratory technology. Health sciences courses in CMNHS have a relatively high proportion of private fee paying students as few scholarships are available.

Most dental assistants, pharmacy assistants, laboratory, environmental health and health promotion staff are trained 'on-the-job' as few public or donor-provided scholarships are available.

Historically, in some PICs (e.g. Tonga) informally trained staff have outnumbered those formally trained. There are some imbalances in the deployment of health scientists and laboratory technicians in the region; a surplus is produced in Fiji,

**TABLE 3. HEALTH PROFESSIONAL TRAINING INSTITUTIONS OF THE PACIFIC, THEIR ROLES AS NATIONAL, REGIONAL OR SUB-REGIONAL PROVIDERS AND THE SOURCES OF STUDENT FEES REVENUES**

		<b>Sector established</b> (public, private or faith based)	<b>National or Regional Role</b>	<b>Sources of student funding</b>
<b>Nursing</b>				
Cook Islands	Cook Islands School of Nursing	Public	National	Predominantly public scholarships.
Federated States of Micronesia	College of Micronesia (Nursing)	Public	National	Predominantly public scholarships.
Fiji	Fiji National University (FNU), College of Medicine, Nursing & Health Sciences (CMNHS)	Public	National and Regional	Predominantly public scholarships (incl. international and donor). Some private fee paying.
Fiji	TISI Sangam School of Nursing in Labasa	FB*	National	Public and FB support.
Kiribati	Kiribati School of Nursing	Public	National	Predominantly public scholarships.
Palau	Palau Community College	Public	National	Predominantly public scholarships.
Tonga	The Queen Salote School of Nursing (QSSN)	Public	National	Predominantly public scholarships.
Marshall Islands	College of the Marshall Islands	Public	National	Predominantly public scholarships.
Solomon Islands	Helena Goldie College of Nursing	FB	National	Public and FB support.
Solomon Islands	Solomon Islands National University (previously Solomon Island College of Higher Education)	Public	National (recent sub-regional support to Vanuatu)	Predominantly public scholarships.
Papua New Guinea	UPNG School of Medicine and Health Sciences (SMHS) UPNG (post basic nursing)	Public	National and Regional	Predominantly public scholarships (incl. international and donor).
Papua New Guinea	Pacific Adventist University	FB	National	Public and FB support.
Papua New Guinea	Divine Word University post-basic program	FB	National	Public and FB support.
Papua New Guinea	Lutheran School of Nursing	FB	National	Public and FB support.
Papua New Guinea	Sopas Adventist School of Nursing	FB	National	Public and FB support.

		<b>Sector established</b> (public, private or faith based)	<b>National or Regional Role</b>	<b>Sources of student funding</b>
<b>Nursing (cont.)</b>				
Papua New Guinea	St Barnabas School of Nursing	FB	National	Public and FB support.
Papua New Guinea	St Marys School of Nursing	FB	National	Public and FB support.
Papua New Guinea	Lae School of Nursing	FB	National	Public and FB support.
Papua New Guinea	Madang Lutheran School of Nursing	FB	National	Public and FB support.
Papua New Guinea	Nazarene College of Nursing	FB	National	Public and FB support.
Papua New Guinea	Mendi School of Nursing	Public	National	Public.
Papua New Guinea	Goroka College of Nursing	Public	National	Public.
Vanuatu	Vanuatu College of Nursing Education	Public	National	Predominantly public scholarships.
Vanuatu	Vanuatu Health Training Institute post-basic nursing programs	Public	National	Predominantly public scholarships.
<b>Allied Health Sciences</b>				
Fiji	FNU College of Medicine, Nursing & Health Sciences	Public	National and Regional	Predominantly private fee paying.
Papua New Guinea	UPNG School of Medicine and Health Sciences	Public	National and Regional	Predominantly public scholarships (incl. international). Some private fee paying.
Papua New Guinea	Divine Word University	FB	National	Public and FB support.
Solomon Islands	Solomon Islands National University	Public	National	Predominantly public scholarships.
Samoa	National University of Samoa	Public	National	Predominantly public scholarships (incl. international). Some private fee paying.
Federated States of Micronesia	College of Micronesia (Public Health)	Public	Sub Regional	Predominantly public scholarships.
Papua New Guinea	University of Goroka (health education and health teaching)	Public	National	Predominantly public scholarships.

		<b>Sector established</b> (public, private or faith based)	<b>National or Regional Role</b>	<b>Sources of student funding</b>
<b>Dental</b>				
Fiji	FNU College of Medicine, Nursing & Health Sciences	Public	National and Regional	Predominantly private fee paying.
Papua New Guinea	UPNG School of Medicine and Health Sciences	Public	National and Regional	Predominantly public scholarships (incl. international and donor).
<b>Medical</b>				
Fiji	FNU College of Medicine, Nursing & Health Sciences	Public	National and Regional	Predominantly public scholarships (incl. international and donor). Some private fee paying.
Papua New Guinea	UPNG School of Medicine and Health Sciences	Public	National and Regional	Predominantly public scholarships (incl. international and donor).
Fiji	University of Fiji Umanand Prasad School of Medicine (UPSM)	Private	National and Regional	Predominantly private fee paying (some national and international scholarships).
Samoa	Oceania University of Medicine (OUM)	Private – now public/private partnership	National and Regional	Mixed private fees (incl. international) and national scholarships.
Fiji	The Pacific Eye Institute (Postgraduate Eye Care)	Private (NGO*)	National and Regional	Predominantly public scholarships (incl. international and donor).
Palau	Palau Area Health Education Center (Postgraduate – General Practice)	Public	National	Predominantly public scholarships (incl. donor).

\* FB = faith-based. NGO = non-government organisation

Source: Human Resources for Health Country profiles (unpublished)

many of whom emigrate, while there are shortages in the Solomon Islands, Vanuatu and elsewhere.

**Dentistry** in the Pacific is only available at UPNG or the Fiji National University, both of which offer bachelors for dental surgery. FNU offers courses in dental hygiene, dental therapy and dental technology. UPNG SMHS closed its Bachelor Dental Science program in the 1990s, due to difficulties in maintaining staff and deteriorating infrastructure and equipment, but recommenced in 2003 with AusAID support. During the period of its closure several cohorts of PNG students were funded to study at the then Fiji School of Medicine (FSMed). SMHS also offers a course in dental therapy.

**Medicine:** The two major issues identified above are most relevant to medical education.

*The Private Sector:* The introduction of the private sector medical schools has been a response to the limited number of places in the two public sector medical schools of the region, FSMed and the SMHS.

The Oceania School of Medicine (OUM) in Samoa, in addition to training public sector funded students, has attracted fee paying international students

although not in sufficient numbers to sustain it as a private university. OUM is now obtaining public sector funding support. (See companion paper on *Medical Education*).

The majority of current OUM students are drawn from the domestic Samoan market. There were no Pacific regional students enrolled from 2006-12; although students from the United States, Australia and New Zealand have enrolled and, to date, comprise the majority of OUM's 34 graduates. Non-Samoan graduates generally enter a medical workforce outside the Pacific by completing the necessary internship and/or licensure examinations.

The UPSM in Lautoka Fiji began in 2008 with a single private funder but is now managed by the TISI Sangam, a faith-based organisation. The initial intake was of full fee-paying students, however government has since provided scholarships for 27% of UPSM's student body. Between 2009 and 2012, 135 students enrolled in UPSM's medical program of which 37 have received PSC scholarships. The Solomon Islands has funded 7 of their students to study at UPSM through public sector scholarships, in addition to the 90+ Solomon Islanders studying in Cuba.

**TABLE 4. FIJI: PUBLIC SERVICE COMMISSION SCHOLARSHIPS FOR MEDICAL STUDY 2007-12**

	2007		2008		2009		2010		2011		2012	
	M	F	M	F	M	F	M	F	M	F	M	F
FNU	45	48	40	48	30	51	28	43	27	39	17	34
<b>Total</b>	93		88		81		71		66		51	
UPSM	-	-	-	-	1	8	1	8	1	8	2	8
<b>Total</b>	-		-		9		9		9		10	

Source: Fiji National University and Umanand Prasad School of Medicine.

*International medical training:* The *Escuela Latino-Americana de Medicina* (ELAM; Latin American School of Medicine) in Cuba currently has 191 medical students from 8 PICs: Fiji (7), Kiribati (31), Nauru (7), Palau (6), Solomon Islands (90), Tonga (6), Tuvalu (19) and Vanuatu (25).

The first batch of 18 I-Kiribati students will graduate in mid-2013, followed by 23 Solomon Islanders and one Nauruan in mid-2014. The first batch of 10 students from Tuvalu will graduate in 2015, along with 16 from Vanuatu. These students' medical education is funded by a Cuban government scholarship. Students also receive travel support (return fares) and a subsistence allowance from their home country.

In addition to students studying medicine in Cuba, Fiji has accepted offers of undergraduate medical scholarships from Georgia. Applications for these programs are selected in Cuba and Georgia respectively; the PSC having facilitated the process of advertisement, collection and forwarding applications.

Many postgraduate educational opportunities are provided by a wide range of regional and international donors. The extent of PICs nationals studying in undergraduate medical programs overseas has been difficult to determine, signifying some disconnection between commissioning and workforce planning. (See the companion paper on Pacific Internships for numbers of Pacific nationals in medical training overseas).

# POLICY IMPLICATIONS FOR THE PACIFIC

Based on the international trends, context-specific options need to be developed in PICs in relation to the following:

1. The introduction of a commissioning policy closely tied with projected population health care needs and national workforce planning – based on defined models of care and roles for different cadres of health worker – is strongly recommended for all PICs.
2. National workforce planning should be a collaborative activity between the national planning office, ministry of health, the public sector employer, the ministry of finance and donors.
3. It is recommended that the acceptance of donor-funded scholarships should be determined by health needs, workforce gaps and the ability to sustain recurrent costs (as defined in an actively managed national health workforce plan), rather than by diplomatic considerations that are disconnected from workforce planning.
4. PICs are now at the stage to commence identifying the fiscal space within the whole of government accounts to fund the sustained increases in the number of medical salaries, and associated equipment, housing, and laboratory and pharmaceutical support.
5. Workforce planners should consider the adverse potential for generating imbalances in the workforce arising from uncoordinated commissioning (especially where that is biased towards just a single cadre within the overall health workforce).
6. PICs would benefit from conducting population health outcome studies related to their mix and availability of health professionals, with a view to identifying the workforce mix needed to achieve health outcomes, and to inform future commissioning decisions.
7. If no commissioning model is used, mechanisms need to exist to fund training providers alternatively (e.g. private student fees) and to cap entry to training or employment at different stages (e.g. through licensing) based on population needs.

# CONCLUSIONS

The Pacific countries currently have a mixed model of determining the number of available places and resources for healthcare education and training. The mixed model has inherent inefficiencies unless it is closely tied with workforce planning.

Institutions need to invest in facilities and commit to having resources and staff for their programs over periods of years, while the vagaries of national economies and labour market dynamics complicate the ability to project both needs and production. Nevertheless, there is a need for planning coherence among ministries of health and the central government agencies for national planning, public sector employment and finance.

The two most important changes occurring in the Pacific region are the introduction of the private sector into health professions training and the large number of scholarships available for medical study in international medical schools.

The expansion of the private sector in the region will be limited by the size of the market, which in most PICs other than PNG, will remain quite small. Other limiting factors will be the capacity of the public sector to provide sufficient clinical training opportunities in hospitals, and then to absorb graduates into internships and into employment.

The acceptance of large numbers of international scholarships for medical education may present an apparent saving in training costs and an opportunity to fill vacant post at the junior level, but the large influx of new medical graduates will require an increase in funding for internship programs and a significant increase in recurrent expenditure. PICs are now at the stage to commence identifying the fiscal space within the whole of government accounts to fund this sustained increase.

The introduction of a commissioning policy closely tied with projected population health care needs and national workforce planning is recommended for all PICs, in order to avoid pendulum swings of over-supply and under-supply and their associated service quality and cost implications.

The potential for a multi-country or regional commissioning policy could potentially be a cost-effective way of collectively utilising donor support to address specific needs. As examples arising from this series of papers; the costs of sustaining clinical

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**The introduction of a commissioning policy closely tied with projected population health care needs and national workforce planning is recommended for all PICs, in order to avoid pendulum swings of over-supply and under-supply and their associated service quality and cost implications.**

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supervision for a Central Pacific medical internship program (see companion paper on *Internships*); a system of specialist staff rotations, or a deployable pool of skilled health professionals willing to work in areas of skills need across the region.

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# APPENDICES

## APPENDIX 1. DEFINITIONS

These definitions relate to **the context of this report** and are derived from the multiple definitions used by different healthcare systems in different countries.

**Accreditation** is a process designed to confirm the educational quality of new, developing and established education and training programs. It is usually carried out by peer/third party review against established standards/outcomes.

**Advanced practitioners** are health professionals (often nurses, but can be from a range of professions or subject disciplines) who have been trained in and granted registration in an extended or discrete scope of practice. Countries use various names for such practitioners (whose roles may vary according to locality and service need) including: nurse consultants/practitioners; physician, surgical or anaesthetic assistants/associates and clinical officers.

**Approval** for programs is sought via accreditation. Decisions to approve (or not) an educational program are often taken by a different body to the one which has carried out the accreditation process.

**Assessment** refers to a determination of student/learner performance/competence, often via examinations.

**Bonded/Bonding** is an arrangement where trainees/students agree to return to a particular geographical location and/or specialty after completing their education in return for financial assistance with the cost of their education or other benefits.

**Commissioning** is used to describe the scheme and processes by which education and training programs (and in particular the numbers of students/trainees involved in those programs) are funded and allocated to education and healthcare training organisations. Commissioning activities include the allocation of scholarships and subsidies and self-funding schemes and typically involve some type of formal quality assurance of the education and training provided.

**Continuous professional development** (CPD) is the process by which fully qualified professionals demonstrate that they are maintaining and updating their education and clinical competence. It usually involves completion of a specified number of

accredited activities over a fixed recurring time period (e.g. 1-5 years).

**Competency:** A broad composite statement, derived from professional practice, which describes a framework of skills, knowledge, attitudes, psychosocial and psychomotor elements.

**Credentialing** is the process of reviewing and confirming the qualifications and profile of a healthcare professional, for example when they apply for positions in different institutions or countries. It is particularly important in countries with regional registration systems.

**Curriculum:** The totality of the education program, that is coherent in structure, processes and outcome and that links theory and practice in the professional education of a doctor, nurse or of a midwife.

**Family Medicine** refers largely to Primary Care - 'going to see a doctor'. It is largely synonymous with 'General Practice' in the United Kingdom and Ireland.

**Family Medicine Practitioners** are medical practitioners who work primarily in the community/primary care/family medicine and provide care to individual patients and families. In some countries these are known as **GPs (General Practitioners)**. This is seen as a specialty in its own right, requires specific training and is different from the role of a general physician/generalist.

**Hub and Spoke** refers to a scheme in which one organisation acts as a management or coordinating centre for a number of other related organisations or activities. One example is a primary care (family medicine) training centre that has responsibility for coordinating and monitoring the training activities of a number of other practices.

**Licensing** generally involves conferring upon an individual a licence to practise their particular healthcare profession. Many countries do not distinguish between licensing and registration (below) and both may be partial/temporary/conditional in certain circumstances (for instance, newly qualified professionals in some countries).

**Local:** Applicable to individual Pacific Islands, Countries and Territories (PICT).

**Numerus Clausus** (*closed number*) is a system of regulating student numbers (usually medical students) wherein a fixed number of places are available each year, usually determined by the government and based upon future workforce planning. The opposite form of student number regulation is a **free market**, wherein there is no regulation of student numbers – graduates compete for jobs and universities compete for students (and funding, from students and/or government).

**Postgraduate** refers, in the context of the education of healthcare professionals, to education which occurs after initial registration with/licensing from a professional body. This is sometimes termed postqualifying education.

**Regional:** Applicable to all PICT across the Pacific region.

**Registration** generally refers to the actual process of enrolling with a professional regulatory body following graduation from an accredited program. Many countries do not distinguish between registration and licensing, but some do and a licence to practise may be issued by a separate authority, particularly in countries where the processes are managed at a regional level. Both licensing and registration may be partial/temporary/conditional under certain circumstances (for instance, newly qualified professionals in some countries).

**Revalidation** refers to the renewal of a licence to practise. Many countries have some sort of regular renewal or re-registration, generally every few years (although the term revalidation is one most commonly associated with the UK currently).

**Specialty/Specialist** refers to the latter stages of postgraduate training, generally for doctors, where they attain their final career status (e.g. surgeon, psychiatrist).

**Standard:** A definition or statement for evaluating performance and results established by evidence and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the requisite degree of compliance in a given context.

**Undergraduate** refers, in the context of the education of healthcare professionals, to education which occurs before, and usually leads to, registration with/licensing from a professional body/regulator. This is sometimes termed prequalifying or basic education. Students engaged in undergraduate education of this sort may already have a previous degree (and so are graduates, but will always be referred to here as undergraduate not postgraduate students).

## **THE KNOWLEDGE HUBS FOR HEALTH INITIATIVE**

The Human Resources for Health Knowledge Hub is one of four hubs established by AusAID in 2008 as part of the Australian Government's commitment to meeting the Millennium Development Goals and improving health in the Asia and Pacific regions.

All four Hubs share the common goal of expanding the expertise and knowledge base in order to help inform and guide health policy.

### **Human Resource for Health Knowledge Hub**

*University of New South Wales*

Some of the key thematic areas for this Hub include governance, leadership and management; maternal, newborn and child health workforce; public health emergencies; and migration.

[www.hrhhub.unsw.edu.au](http://www.hrhhub.unsw.edu.au)

### **Health Information Systems Knowledge Hub**

*University of Queensland*

Aims to facilitate the development and integration of health information systems in the broader health system strengthening agenda as well as increase local capacity to ensure that cost-effective, timely, reliable and relevant information is available, and used, to better inform health development policies.

[www.uq.edu.au/hishub](http://www.uq.edu.au/hishub)

### **Health Finance and Health Policy Knowledge Hub**

*The Nossal Institute for Global Health (University of Melbourne)*

Aims to support regional, national and international partners to develop effective evidence-informed national policy-making, particularly in the field of health finance and health systems. Key thematic areas for this Hub include comparative analysis of health finance interventions and health system outcomes; the role of non-state providers of health care; and health policy development in the Pacific.

[www.ni.unimelb.edu.au](http://www.ni.unimelb.edu.au)

### **Compass: Women's and Children's Health Knowledge Hub**

*Compass is a partnership between the Centre for International Child Health, University of Melbourne, Menzies School of Health Research and Burnet Institute's Centre for International Health.*

Aims to enhance the quality and effectiveness of WCH interventions and focuses on supporting the Millennium Development Goals 4 and 5 – improved maternal and child health and universal access to reproductive health. Key thematic areas for this Hub include regional strategies for child survival; strengthening health systems for maternal and newborn health; adolescent reproductive health; and nutrition.

[www.wchknowledgehub.com.au](http://www.wchknowledgehub.com.au)

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