



Health Sciences Australia

Australian Council of Pro Vice-Chancellors and Deans of Health

Submission to the Higher Education Base Funding Review Panel

March 2011

**Australian Council of Pro Vice-Chancellors and Deans of Health Sciences
Submission to the Higher Education Base Funding Review**

Organisation Australian Council of Pro Vice-Chancellors and Deans of Health Sciences

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Executive Summary

1. Allied Health cohorts within universities have trebled in the two decades between 1990 (54 498 students) and 2009 (152 137 students) *Source: (DEEWR Higher Education Statistics)*.
2. Allied health courses per EFTSL costs are not satisfactorily matched by the Cluster 5 funding. The shortfall is around 20% per EFTSL per annum, or approximately \$12-13,000 per student per undergraduate course. *Source: (4 Universities Report 2011)*
3. Factors impacting on cost escalations include:
 - Allied Health education requires intensive workplace integrated learning (WIL) to deliver work ready graduates; as an example a four year undergraduate degree in physiotherapy or occupational health course includes between 1000 and 1200 hours of WIL.
 - The tradition of pro- bono clinical supervision for allied health students has been replaced by an expectation of remuneration for time taken from service delivery to educate students. Clinical placements opportunities are under pressure as enrolment numbers grow. The current funding model cannot match these expectations for existing places.
4. The current funding model does not reflect the workload associated with small group teaching and learning. Practical skill training (with or without simulation) programs must be delivered to small groups and skill acquisition must be monitored and assessed. A considerable proportion of allied health education therefore occurs in small groups to ensure graduates are safe and competent to practice.
5. The required competencies of entry level practitioners are mandated by respective registration boards and these expectations are typically aligned with expectations of the health care system and patients.
6. Allied Health education is built on a strong education in science. This should be recognised and funding aligned with other science students who are not preparing for professional practice with comparable funding (Cluster 7).
7. Educating the numbers of allied health practitioners required in the national interest is currently limited by straining academic units reluctant to move into a more parlous financial situation. There is also the need to ensure that the needs of the national interest are met with respect to programs that attract small student enrolments such as orthoptics, prosthetics and orthotics.
8. The workforce demand for Allied Health workers is being met by rising student enrolments with some Allied Health heavy universities recording 3-5 % increase per annum in three years 2006-2009 *Source: (4 Universities Report 2011)*.

9. Allied Health education should occur in a research-active environment. The funding provided for allied health education results in very lean staffing in academic departments. Academics in are coping with this lean staffing by working unpaid hours to co-ordinate and teach courses and undertake scholarly research.

Recommendations

1. **That allied health as represented by the ACPDHS be moved to science based Cluster 7.**
2. **National pool of clinical placement funds with targeted funding for clinical placement only.**
3. **Investigate the introduction of a realistic funding mechanism (fixed plus marginal cost type formula) for small cohort disciplines that are of national significance.**
4. **Investigate the introduction of a realistic funding mechanism (fixed plus marginal cost type formula) for small cohort disciplines that are of regional and/or rural significance so they may continue to be provided in regional institutions.**
5. **Support the participation of low socio-economic status students through a pro-rata loading for institutions that take on these students possibly through the application of percentage bands.**
6. **Implement an underserved HECS reduction scheme to support students participating in courses of acute workforce shortage that are disciplines of national significance within the health system.**
7. **Provide financial support for students undertaking clinical placements especially when they are required to be away from their usual place of residence.**
8. **Provide tax deductions for organisations will to provide clinical placement to contribute to the training of allied health professional students thereby ensuring graduates are work ready and safe to practice.**

Introduction

The Australian Council of Pro Vice-Chancellors and Deans of Health Sciences (ACPDHS) is the peak representative body of those Australian universities that provide pre-professional education and training in allied health sciences. The ACPDHS (the Council) welcomes the opportunity to provide a submission to the Higher Education Base Funding Review (the Review).

The Council is a forum for representation, coordination and information sharing with the aim of strengthening the training of allied health practitioners in Australia to meet the needs of communities. With the ageing of the Australian population and the growth of chronic disease, the allied health professions will be critical to providing adequate and appropriate health care to the Australian population.

Membership of the Australian Council of Pro Vice-Chancellors and Deans of Health Sciences requires that a minimum of three of the disciplines listed in the first column are taught. The second column lists our member universities.

Table 1: Membership of ACPDHS

Disciplines offered a minimum of 3	Member Universities
Clinical exercise physiology/sport and exercise science	Canberra University
Medical laboratory science	Charles Sturt University
Nutrition and dietetics	Curtin University
Occupational therapy	Flinders University
Optometry	James Cook University
Orthoptics	Latrobe University
Pharmacy	Griffith University
Physiotherapy	Monash University
Podiatry	Newcastle University
Prosthetics and orthotics	Queensland University of Technology
Radiation technology	University of Queensland
Speech pathology	University of South Australia
	University of Sydney
	University of Tasmania
	University of Western Sydney

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ACPDHS is committed to ensuring that our member higher education institutions are able to continue to viably provide the breadth and depth of allied health education that is required and expected by the Australian public both now and in the future.

Chapter One: The allied health education environment

Expansion and shifts in the last thirty years

The significant expansion across higher education from the late 1980s to the mid 1990s also saw a substantive re-shaping of the higher education features of allied health. A number of the 'older' allied health professions were being taught in colleges of advanced education with many of them merging with universities. This was followed in the 1990s by the addition of completely new allied health professions. By the mid 1990's allied health was being taught at universities. Health student cohorts within individual universities have expanded from the traditional areas of Medicine, Dentistry and Pharmacy to include Nursing and a wide range of allied health courses (some of which have been around in smaller numbers for decades). In some cases health-heavy universities make up to half of the university's income. This shift within the make-up of individual universities is demonstration of the higher education demand of the health workforce, with further demand predicted to meet the needs of an aging population and increasing number of patients with chronic disease.

Nationalisation of Registration boards

Last year (2010) saw the establishment of the Australian Health Practitioner Regulation Agency (AHPRA). The agency is responsible for the registration and accreditation in the first instance of 10 health professions across Australia (of which four are allied health). Two more allied health professions are scheduled to meet national registration requirements by the middle of 2012.

Health Workforce Demands

The other important new feature for allied health education is the establishment of Health Workforce Australia (HWA). HWA is an initiative that arose out of the 2008 COAG and plays a central role in the area of work integrated learning for health professionals i.e. clinical placements.

The HWA has signalled in its *National Health Workforce Innovation and Reform Strategic Framework for Action - Background Paper (2011)* that the current production models are not sufficiently robust to deal with the future predicted demands for healthcare and Australia along with most OECD countries is facing on-going rising health costs that threaten to reach up to 20% of GDP in the foreseeable future. HWA proposes looking at new and more efficient ways to deal with health workforce demands and have commenced work in the area of clinical placements for allied health students.

There is also the growing demand of the health workforce and the broader Australian community's expectation that it will be well-served in terms of access to a high standard and range of allied health professionals regardless of where they reside.

Allied health education has responded to these shortages by increasing enrolments as well as increasing the number of courses; including post graduate options. But the aging population and consumer demand for high quality health services continues to maintain demand. Between 1995 and 2004 there was a steady increase in the number of allied health professionals (AHPs) being educated with a 59% increase in Occupational Therapy, 20% increase in Podiatry and 30% increase in Physiotherapy.

Despite more educational institutions offering allied health programs and intake quotas rising positions in courses remain highly sought after and competitive with low attrition rates. Furthermore workforce demand for AHPs continues to outstrip supply in most but not all disciplines. There are more significant workforce shortage issues in regional and remote parts of Australia which have 60% less practicing AHPs per 100 000 population than capital cities. *Source: Internet Journal of Allied Health Sciences and Practice (2004) vol2 no 2*

Within the Australian community there is a disparity in health service delivery and access between metropolitan areas and rural/regional areas. The knock-on impact of this is the need to persist in providing high quality allied health education in rural and regional Australia in order to service localised workforce demands.

In 2008, an Audit was undertaken by the Commonwealth Department of Health to identify the health workforce availability and distribution in a number of health disciplines across Australia. The report noted that “Many allied health professionals operate as private businesses and are based within major cities, with low numbers working in regional and remote areas.” *Source: (Commonwealth Department of Health and Ageing, 2008)*

Workforce shortages and mal-distribution have undesirable outcomes including poor access, unmet need, potentially poorer health outcomes for patients, overworked health professionals and expensive strategy responses to the shortages by government (*AIHW 2008*). Meeting these challenges necessitates consideration of numerous factors, including that:

- Demand for health services and the sector is set to grow substantially
- The clinical training system for allied health professionals in Australia, where both demand and costs are increasing, and where incremental policy responses have had a pernicious impact, is unsustainable
- There have been significant changes over time to teaching mode and pedagogies in course delivery
- Recruitment, remuneration and retention of clinical academic staff, including meeting enterprise bargaining agreements, are challenged by high student-staff ratios, large salary differentials with the health sector and poorly articulated training pathways
- There are significant price inflation differentials between the health workforce and the education workforce
- The effects of implementation of Free Trade Agreements by governments and mutual recognition arrangements by health professional bodies, as have been implemented in other countries, are as yet unknown.

An effective policy response needs to address these issues in recognition of their alignment with national priorities around building a knowledge economy, strengthening the health system.

Growth required in allied health professional numbers

Health care expenditure in Australia is predicted to grow at a faster rate than the nation's GDP (*National Health Workforce Taskforce, 2009: 3*). This is recognised to be a consequence of:

- The increasing demand for health care services
- The introduction of a diverse range of health service interventions
- The increasing cost of delivery of some services.

Health care spending on over 65 year olds is four times that of under 65 year olds; this is escalating as the older cohort continues to grow and live longer with high expectations for

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health care delivery. Much of that quality of life health care is provided by allied health so within the growing broad based demand for health care there is specific demand for our practitioners.

AHPs work across sectors other than health such as education, welfare, disability services aged/elderly care private practice and veterans' affairs, non government organisations and industry; so that demand comes from a range of quarters.

Chapter Two: The public benefit of allied health education

The principle that investment in higher education delivers benefits to the economy and to society, and the principle of equity of access for students from all socio-economic backgrounds, should continue to inform government investment in higher education. This chapter responds to the following questions.

Q1.1 Government investment in higher education has been justified in terms of delivering benefits to the economy, benefits to society and equity of access for students from all socio-economic backgrounds. Should these principles continue to be applied, and if so how should they be used to determine the appropriate level of government subsidy for the cost of universities' learning and teaching activities?

Q1.2 What principles should determine the appropriate balance of resources contributed by:

- Government;
- students; and
- other sources towards the cost of undergraduate and postgraduate education?

Q1.3 What other principles, if any, should influence the level and distribution of government subsidies for tuition costs in higher education?

Allied health education is of significant public benefit especially when it is responding to areas of national priority and shortage. For example, if particular courses are instrumental in addressing workforce undersupply or maldistribution (especially if they are delivered in a particular way), they should be identified as being of high public benefit. They also need to be funded in a way that ensures a viable future in every sense of the word which includes the opportunity for the development of academic careers within each of the specific disciplines.

Equity and participation rates

Over 90% of the current AHP workforce is female and less than 1% is Indigenous. Many of the disciplines have a tradition of being female occupations although in the last decade male participation rates have increased more dramatically than in the previous twenty years. Implications arise with a strongly female skewed workforce when it comes to maternity leave and childcare arrangements such as desire to work part-time thereby further reducing the quantum of the available skilled workforce. *Source: Internet Journal of Allied Health Sciences and Practice (2004) vol2 no 2*

In addition, the particular benefits of higher education for Indigenous Australians have been advocated in the community for many years. According to the Centre for Aboriginal Economic Policy Research (CAEPR) at ANU, the social rate of return for education is generally higher for Indigenous Australians than for non-Indigenous Australians, as improved education leads to better nutrition, better living conditions, better access to health services, and therefore a longer and healthier life (1996). However the representation of Indigenous professionals and trainees remains much lower than desirable.

The recent growth in graduate numbers has seen an expansion across the professions of total numbers compared with a decreasing number of experienced professionals as they approach retirement age. There is also a requirement for experienced teachers within allied health who can be hard to recruit due to competing professional opportunities; this situation becomes more acute away from metropolitan areas.

Geographical concerns

One way of addressing what is emerging as persistent and on-going demand for AHPs in rural and remote areas is to provide opportunities for regional training. There is a body of evidence that positive rural experiences for students through rural practicum placements and involvement in student rural health clubs generates interest in and increasing positive attitudes toward working in those communities. Thirty-four percent of the population reside in these communities.

The higher education sector, with its responsibility for training health professionals, plays a crucial role in addressing health workforce maldistribution. In order to ensure graduate retention in areas of workforce need, higher education providers need support to facilitate:

- Greater regionalisation of training delivery
- Ruralisation of curricula
- Targeted recruitment of rural and Indigenous students
- Repeated undergraduate exposures to rural and Indigenous health.

There is already ample evidence that graduates from regional universities are much more likely than metropolitan graduates to remain in the region where they were educated rather than move to larger, better-served metropolitan centres (Hsuey et al, 2004). A rural location of training, in combination with student exposure to rural content and practice throughout undergraduate training, increases the likelihood of rural careers after graduation (Worley et al, 2008; Dunbabin and Levitt, 2003), particularly when placements of longer duration facilitate student attachment to, and understanding of, life in rural centres (Denz-Penhey et al, 2005). Positively discriminating rural students in admission policy and processes means that, as a graduate, their regional affiliations are stronger.

The literature supports the positive effect of a 'rural pipeline' (Murray and Wronski, 2006) for redressing maldistribution of the health workforce. A particularly important component of the pipeline is the vertical integration of arrangements that support clinical training from student to graduate to post-graduate trainee - thereby creating defined training and career pathways in regional, rural and remote areas. They state

"We must strongly advocate the nexus between clinical training, research, sustaining health workforce, and health care quality and safety in a regionalised "teaching health system".

Investment in rural and regional education and training of health professionals has benefits beyond production of workforce: it builds community capacity and viability, enhances professional retention and supports quality and safety objectives. A growing number of experts and policy-makers agree that rural clinical placement and training 'should be seen as part of the package of government policies to recognise and address the mal-distribution of the health workforce and encourage students to choose a career in rural practice' (NRHA 2010: 3).

International fee-paying students

Universities should not be driven to over-charge and/or over-enrol international fee paying students to cover funding shortfalls. In many universities, the parlous state of funding across the range of fields of education has resulted in cross-subsidy of non-health areas from health revenue. For this and other reasons, health faculties have become increasingly reliant on income from fee-paying international students.

It is the belief of the Council that the wider public benefit is not best-served by offering large proportions of student places to fee-paying international students, as this increases the pressure on the clinical teaching capacity of the Australian health system. In general, scarce

clinical teaching capacity should be preserved for Australian undergraduates and graduates who will work in the Australian health system.

Public benefit of health professional programs

Assessment of the public benefit of health professional courses needs to consider numerous factors, including their contribution to areas of national policy importance, such as achieving equitable workforce distribution, and ensuring Australia's health security and biosecurity. Health professional courses, especially if they are targeted towards areas of national significance, are of significant public benefit.

As is recognised in the Consultation Paper, public benefit is difficult to quantify. The Council highlights the following complicating factors:

- Estimates need to be discipline-specific as there are some areas of critical and acute need
- Variation between regional and metropolitan areas makes it difficult to generalise public/private benefit across the nation
- Estimates need to be aware of systemic changes in the health workforce from a situation of general undersupply to that of maldistribution between rural, remote and metropolitan areas; this is further exacerbated by the growth in retiree populations away from major hospital and public health facilities
- Common overestimates about the earning capacity of AHP graduates can lead to higher-than-actual estimates of private benefit
- There are gender-based discrepancies in earning capacity this is particularly evident in the female-dominated AHPs where time is taken off for child care and thereby disrupts career paths

A further consideration in calculating a public/private benefit dichotomy is that allied health students are required to invest considerable personal resources in their course as a consequence of the requirement to undergo clinical placement – through paying for travel to, and accommodation on, placement (often in addition to paying rent for their usual place of residence), foregoing structured employment in their home town due to long periods spent away, and having to organise their family commitments and responsibilities (such as child care) around placements. These costs are increased for students who undertake their placements in rural and remote areas.

Of concern is that the level of workforce need in the community does not appear as a consideration in the literature on public rates of return. Quantitative estimates of the social benefits often utilise factors such as higher tax revenues accruing from graduates, rather than 'external spillovers' to human capital – such as higher participation in community affairs and egalitarian attitudes (Greenaway and Haynes 2007: 159-9). Using this narrow measure to assess the private rate of return of higher education in the UK, one study concluded that there is an 'excess' of private over social returns across the sector, and suggested that there be a funding system shift away from a situation where 'most benefits from higher education continue to be captured by individuals' (Greenaway and Haynes 2007: 159). This conclusion highlights the level of caution required in measuring public benefit: narrow interpretations of public benefit are liable to underestimate the actual public benefit of a course, which includes less tangible measures of benefit such as impacts on human capital or contribution to areas of national significance.

Recommendations

As noted above, contributions offered by allied health graduates need to be assessed against workforce need and the following needs to be taken into account:

- The ability of the health system to meet the growing allied health demands of an aging population requiring increasing collaborative health provision from a range of allied health professionals
- Ensuring disciplines that are in short supply have a sound educational future in terms of suitably qualified academics and students
- AHP education needs to meet the workforce needs of the 34% of the population residing outside urban centres (70% for Indigenous population)

In addition to building on this principle of public benefit to set base funding levels, a number of other policy initiatives could be pursued as long-term solutions to the problems of skill maldistribution in the Australian allied health professional workforce.

An underserved areas HECS reduction scheme

It can be argued that Australia's chronic professional workforce shortages in regional areas, especially (but not only) in health, mean that graduates in needed disciplines who are willing to work in a region where there are key shortages, should benefit via a reduction in their HECS debt, in recognition of the increased public benefit resulting from their career choice.

This policy would:

- Offer debt reduction incentives according to time spent in the region, possibly through bonding schemes such as the Bonded Medical Places scheme
- Be proportionate to the level of workforce maldistribution or shortage

A loan scheme for students

Provide students who are required to travel to undertake their course, such as for clinical placements (especially in rural/remote areas), with a HECS-like loan facility to cover the additional costs associated with this travel.

Tax deductions for clinical placement providers

Explore tax deductions for organisations willing to provide clinical placement opportunities that help to build capacity within the sector. Private practice owners are cautious about participating in clinical training however there are instances of students being able to observe in private practice. But in general the structure of their billing (time-based) does not provide an opportunity for clinical placement. Provision of an incentive could go part of the way to offset earnings that are diminished by the time it takes to supervise a student.

The knock on impact of the previous point is that private practice is not a significant employer of new graduates leaving the public health system to take up this role. Again the introduction of an incentive combined with the clinical placement incentive may offer a new pathway for recent graduates where previously one did not really exist.

Chapter Three: Allied health education course quality

This section explores the impact and links between course quality and funding. In responding to this the Council has brought together the questions in the Consultation document that seek consider this relationship. Those questions are listed below:

Q2.1 What are the best international measures of course quality that would provide appropriate benchmarks to inform judgments about the appropriate level of base funding for Australian universities?

Q2.2 What are the best international measures of student engagement that would provide appropriate benchmarks to inform judgements about the appropriate level of base funding for Australian universities?

Q2.3 Is there a system of higher education funding in another country that would be a useful benchmark model to inform Australia's review of base funding?

Q2.4 What is the connection between the level of base funding and quality outcomes?

The Australian public have come to expect access to a wide range of high quality allied health professionals. An aspect of this access is that there are sufficient numbers of students graduating to meet workforce demand and they continue to be of a suitably high quality.

There are a number of things to consider when looking at course quality and funding relationship in terms of allied health students. They include:

- The need for students to meet accreditation standards so they are able to practice
- Base funding that covers the costs to meet the above objective
- Recognition and the ability to pay competitive salaries to attract quality staff
- Recognition that teaching modes have changed dramatically and there are additional costs as they have been modernised
- Some allied health programs such as radio therapy require costly equipment
- Recognition that there may be a requirement in some instances to attract students to professions that are in short supply but are in the national interest to fill
- The cost of clinical placements (this is discussed in Chapter 5)

Structural, process and activity measures of course quality for health professional courses within Australia are provided by professional accrediting bodies which prescribe a set of standards (such as facilities, examination requirements and course components) deemed necessary for higher education providers to produce quality graduates.

The recent unification and expansion of registration boards has seen the establishment of the Australian Health Practitioner Regulation Agency (AHPRA). AHPRA is responsible for the registration and accreditation in the first instance of 10 health professions across Australia (of which four are allied health). Two more allied health professions are scheduled to meet national registration requirements by the middle of 2012. Physiotherapy, Optometry, Pharmacy and Podiatry are already within the umbrella of AHPRA; with Occupational Therapy and Medical Radiation due to join in mid 2012. This means that half of the disciplines represented by the Council are educating students who must meet the requirements of a national registration board in order to practice.

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Our members are concerned by the emergence of a narrow market ethos in health service management reforms over the last 15 years that has undermined partnerships between health professionals, health institutions and universities that are critical to patient-centred care. Health service executive management incentives to contain labour costs, to maximise throughput have not been balanced with incentives to invest in training, recruiting, retaining and developing people (and in particular, local health workforce). This has done little to encourage a culture of teamwork, ownership and reflective practice, all of which have suffered.

As the bedrock upon which a culture of maintenance of professional standards, reflective practice and continuous quality enhancement is built, clinical teaching by all practicing allied health professionals needs to be embedded in the health system, and how higher education institutions contribute to this should be a key measure of course quality.

Resourcing needs to facilitate the measures of quality outlined in the following table

Table 2: Measures of course quality, resources required and the risks of under-resourcing in the areas of teaching and learning and research

Measures of quality	Resourcing	Risks
<ul style="list-style-type: none"> • Successful accreditation of course; • Graduate attributes and competencies; • Work-readiness of graduates; • Employer satisfaction; • Student/graduate satisfaction with course; • Adequate training facilities, supervisor or student supports, and student accommodation, on placement; • Improved recruitment and retention rates of academic staff; • Graduate leadership capabilities; • Graduate adaptability to changing health workforce needs; • Retention of graduates in areas of workforce need; • Contribution to a teaching culture within workplace; • Engagement and retention of students from disadvantaged backgrounds; • Take up of professional development programs (e.g. postgraduate courses). 	<ul style="list-style-type: none"> • Variety of teaching modes allowed for; • Up-to-date teaching equipment; • Real costs of clinical training; • Reasonable salary levels for clinical academics; • Staff time available for research activities; • Policy measures to enhance equity and diversity of students; • Adequate student supports – especially for disadvantaged students and to allow for placement costs; • Funding commensurate with the new clinical training paradigm outside of public hospitals (for medicine and allied health). 	<ul style="list-style-type: none"> • Graduates not job ready; • Practitioners unsafe to practice; • Remedial training in the workforce entailing added costs to taxpayer; • Negative placement experience for students; • Opportunities to improve quality of care through education unrealised; • Persistent maldistribution of health professional workforce.

Research

Measures of quality	Resourcing	Risks
<ul style="list-style-type: none"> • Generation of research to underpin professional practice; • Research 	<ul style="list-style-type: none"> • Suitably qualified senior research staff employed; • Full-cost funding of research; • Staff have the time and funding to undertake high-quality research, publish it in 	<ul style="list-style-type: none"> • Little integration of current research into teaching (curriculum); • Student outcomes and experiences compromised. • Opportunities to improve quality of care through research unrealised;

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outcomes; • ERA results.	high-quality journals, and support its translation into practice.	<ul style="list-style-type: none">• No building of excellence in Australian research staff relevant in health professions;• Underpinning research around practice isn't progressed.
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(Adapted from Dodd, K. *Relationship between Education Quality and Resourcing: "At Risk Elements"* in the Submission to the Base Funding Review by JCU, La Trobe University, Sydney University and Curtin University, 2011)

Australia should benchmark only against education systems whose health professional graduates are as employable or more employable than our own in Australia and internationally. This is relatively easy to evaluate in many health disciplines, where the accrediting agencies often discriminate strongly on the basis of country of origin when they are determining requirements for immigrants to be free to practise. The national registration boards covering half of our disciplines currently enjoy this privilege and it is one factor that continues to attract quality students into our education programs.

There is some comparable data available on the international course funding for Physiotherapy and Occupational Therapy. Using suitably adjusted exchange rates and looking at similar funding models it was found that England and Scotland both had higher levels of government funding than Australia. Both these countries run programs that are typically four years.

Relationship between funding levels and quality

In the international literature, the relationship between course quality and funding levels are most often discussed through the prism of the negative impact of tight funding envelopes. There is a global trend in universities struggling to maintain crucial quality standards with fewer resources, forcing them to charge a higher student contribution and to diversify their funding base (for the United Kingdom and Wales, see Evans 2011; for the European Union see Haworth 2011; for the United States, see Ryan 2011). Across the European Union, there are serious concerns about the level of public funding available for teaching and research in higher education, and the impact this might have on quality (Haworth 2011). Various approaches have been discussed which might address this concern, including that universities further diversify their funding base, and that governments implement matched funding schemes whereby public funding comes to match money raised by the university from the private sector (such as is undertaken in some institutions in Canada, the US and New Zealand) (Haworth 2011). However, as wealthier institutions with wealthy stakeholders have more access to private funding sources, these initiatives would likely exacerbate inequities between higher education institutions in Australia.

Teaching mode

Levels of base funding are a key determinant of teaching mode. The allied disciplines all share intense teaching modes and laboratory time which are typically significantly more expensive than lecture style dominated teaching modes. The allied health disciplines all require:

- Work integrated learning
- Practical classes and assessment
- Small group teaching
- Field and clinical experience workshops
- Interaction with real staff
- Provision of feedback to individual students
- Supervised practice of all kinds.

These course components are crucial to ensuring course quality. Without these experiences, universities may still design exams which students can pass, but the course will not be delivering either quality student experiences or quality outcomes. In professional disciplines with rigorous accreditation requirements, moving to cheaper teaching modes may be impossible, leading to unsustainably high staff workloads.

Allied Health education relies on students developing competence in the use of complex and expensive equipment. This equipment has to be provided by the training institution and WIL must include access to authentic practice with these devices. Areas where technology is changing rapidly result in amplified course costs as university based programs stretch to provide up to date education and work ready graduates. Medical imaging is a very good example of the need for regular equipment upgrades but all allied health professional education programs are exposed to escalating infrastructure costs.

Staff recruitment

Universities should be able to pay academic staff competitive salaries comparative to those received by their counterparts in the public health system.

Experienced allied health academic staff with a combination of clinical and research skills are an important determinant of course quality. The growth in allied health education has put pressure on the sector to recruit and retain suitably qualified academic staff. Outside of large metropolitan universities the teaching opportunities are fairly small and therefore the career path structure is limited; but they remain difficult to fill.

There is a widely accepted disparity between the health sector remuneration for an experienced allied health professional and an academic one. It would be fair to say that working hours are less, conditions of service better and overall salary is 10-20% higher for middle to senior allied health professionals in the public system when compared with most academic allied health professionals.

The burden of producing able graduates now falls to unacceptably small numbers of dedicated staff working inappropriate numbers of unpaid hours to maintain desirable standards. Minimal, if any, time is left to pursue additional scholarly activity due to the unsustainable number of face to face teaching hours demanded by the requirements and complexity of courses. Similarly, there is very limited non-teaching time available in which to generate alternative sources of funding such as research grants, resulting in heavy reliance on base funding as the sole income source.

Staff with the expertise to teach undergraduate students are difficult to attract to university appointments with the limited budget available to deliver courses and the associated poor working conditions. Without a climate that attracts young, well educated practitioners to teaching, the academic workforce ages and expertise wears thin. Staff retention and satisfaction would be substantially improved by adequate staffing levels. These inequities would be overcome if all programs received funding based on workload and other costs required for delivery.

The alternative of private practice offers even larger remuneration rewards than the public health system and this is where much of the growth in allied health has occurred. Once again there is sufficient workforce demand in this area to offer employment to AHPs.

Finally there is the trend of an ageing health workforce, or a 'missing generation' of allied health academics, is recognised internationally, but universities, unlike the clinical service sector, have been unable to increase salaries to attract younger professionals. In the absence of a level of salary equilibration to public and private health sector salary levels, in

combination with increasingly high workloads, recruitment and retention of quality clinical academic staff is becoming an increasing challenge for universities.

Equipment

Another significant cost pressure in allied health courses is the need to provide expensive equipment costs to allow for adequate training. A key challenge for the allied health workforce is that rapid developments in technology and pharmaceuticals demand quick acquisition of necessary and relevant skills and knowledge (Queensland Health 2011). In the training environment, facilities that students use to learn need to reflect those that they will encounter as they move into the workforce. However, it is impossible to maintain up-to-date infrastructure with current funding levels, which remain inadequate despite the obvious problems associated with students learning with obsolete technologies.

Chapter Four: Student engagement and contribution

Student engagement is but one measure of course quality; what students want is to be work ready when they graduate and be suitably qualified to meet the accreditation standards required to practice in their profession. To achieve this universities need to adopt the appropriate modes of teaching, have access to a variety of clinical placement opportunities, have a highly qualified, enthusiastic and motivated teaching staff as well as up to date equipment. The panel has sought a response to the following questions on this topic:

Q5.1 Are there general principles that should determine the maximum contribution a student should make towards the cost of their education in a publicly funded higher education system?

Q5.2 In what circumstances should the level of students' contribution towards the cost of their courses be based on factors other than the cost of their tuition?

Q5.3 Should the basis for determining the level of contribution by the student towards the cost of their tuition be different at the postgraduate level?

Q3.3 What are the costs of engaging low SES students in undergraduate education? Should such costs be a factor in determining base funding? How might support for low SES students be maintained in the future?

Student contribution

Student contributions to their course, as a proportion of the total base funding per student place, has been steadily increasing since the mid 1990s despite the level of overall base funding increasing (Commonwealth of Australia 2010: 29).

There are four principles which should determine the maximum student contribution:

- Fees should not become a barrier to participation in higher education
- The cost of higher education should not be greater for students in areas of workforce need, especially where there is scope for substantial public benefit
- The proportion of student contribution should generally not exceed proportion of private benefit
- Calculations of private and public benefit need to consider regional and year-to-year variation in workforce needs of different disciplines.

In the health sciences disciplines represented by the Council there is a substantial requirement for clinical placement that is not directly funded therefore the burden of the associated costs falls upon the students. Regardless of the location of institutions the need to find sufficient clinical experience results in virtually all students undertaking blocks away from their normal residence. There is also the quality requirement that students are provided with a rotation in particular specialist areas e.g. neurology or cardio-thoracic. Such clinical placements may not be readily available and it is often necessary for students to travel in order to meet the requirements of their degree and their registration.

The use of the Rural Clinical School model has the benefit of providing clinical experience but it does necessitate travel and accommodation which are costs that must be borne by the student. The extent of the clinical placement requirements in health sciences creates a

greater financial burden on students when compared to other science students who are currently funded within Cluster 7 but do not face this requirement in their course work.

A global trend can be witnessed in universities struggling to maintain crucial quality standards within tight funding envelopes, forcing them to charge a higher student contribution. In the UK following the 2010 Comprehensive Spending Review, and in the wake of the global economic crisis, major budget cuts were made to higher education including a cut to universities' teaching budgets of up to 79% (O'Malley 2011). The Browne Review of October 2010 recommended that this funding loss be covered by student contributions. This foreshadows the situation in Australia, where, as resources become more limited, there are three financial options for universities:

- Lift caps on student contributions
- Increase government contributions
- Accept a reduction in graduate quality and "work-readiness" leaving employers to undertake a greater proportion of the training burden (this would be impractical for graduates needing to register in order to practice).

Removing price caps may be the only option if universities are to ensure they can confidently and safely deliver quality. The existence of price caps, combined with limits on government subsidy, inevitably means that the quality of programs is progressively compromised as course costs increase. Removal of caps may also allow students and their families to evaluate for themselves whether a more expensive provider offers an increase in private benefit which justifies the difference in price, and this would clarify differentiations between universities on the basis of price.

However, removing price caps may make higher education too expensive for some groups of prospective students. It would also create a significant price differential forcing up course fees for small cohort courses (some of which are of high public benefit and in short supply) and those courses being provided outside large metropolitan centres.

While the impacts of higher fees on student participation may be remedied with additional government support for those who require it through fee waivers, bursaries and loans (e.g. HECS), the preference is for the government contribution to increase in proportion to the real costs of course delivery.

Low socio-economic/Indigenous/remote student engagement

To increase the numbers participating in higher education we must look to members of groups currently under-represented within the system, that is, those disadvantaged by the circumstances of their birth: Indigenous people, people with low socio-economic status and those from regional and remote areas

(Bradley Review , 2008: xi)

People with low socio-economic status, Indigenous Australians and people from rural and remote Australia are under-represented within the higher education system. This is significant not only for the national goal of increasing participation in higher education generally, but for the achievement of equity. Poor educational outcomes are associated with poorer health and wage outcomes, which are key factors in the perpetuation of inter-generational disadvantage (Commonwealth of Australia 2010).

The Council supports any steps that will address inequities in participation rates in allied health education. This situation is more acute for small cohorts such as Indigenous patients living in remote communities who have high needs for allied health practitioners but very patchy or limited access. One way of addressing this need is to increase the number of

Indigenous allied health students who hopefully are pre-disposed to working within their own communities.

For Indigenous student engagement, Indigenous-specific investment (particularly mentoring and support for Indigenous students across the high school-university transition) and partnership with Aboriginal community organisations is required. With such community partnerships, regional accessibility and well-resourced programs for student support, it is possible to substantially increase the number of Indigenous students. A number of our member universities have made some progress in this area but it remains challenging.

The Council is equally committed to including students from low socio-economic status backgrounds. If the Government is committed to tackling these issues, universities which can demonstrate long term commitment to engaging higher proportions of low socio-economic students must be provided with additional resources and incentives to continue this engagement. In addition to the provision of financial support for access and participation, funding should consider the costs of retention of these students through to the successful completion of their course.

A characteristic of Australian universities is that they recruit most of their domestic students from their surrounding region, which means that the student profile tends to reflect that of the region (Moodie 2007). Most rural areas are less wealthy than metropolitan areas, with the Socio-Economic Indexes for Areas showing a general pattern of increasing disadvantage as population density declines (Welch 2000). As such, the rural universities provide more access to low socio-economic students (SES) than do most metropolitan universities (Moodie 2007).

To achieve comparable outcomes with their peers, low SES students:

- May require bridging programs
- Often have lower progression rates
- May require on-going mentoring programs and provision and management of groups to which they can affiliate.

In addition, people living in rural and remote areas comprise 34 per cent of Australia's population but only 17 per cent of tertiary student numbers. This under-representation indicates that rural residents are missing out on educational and career opportunities, which impacts adversely on their potential for prosperity, career choices and health and wellbeing (NRHA 2010). It is important therefore that the principles of improved equity and access for rural people are put into practice and, in addition, students from rural Australia studying in rural settings such as Rural Clinical Schools, University Departments of Rural Health and allied health degrees at rural campuses have the opportunity to receive clinical training in, or close to, their region of study (NRHA 2010). Income support during training is a critical issue for attracting and retaining rural students who often have to relocate to live in regional or urban centres. Mature age students with dependents are often in particular need of programs to assist with establishment in a distant population centre.

It is also important to note that the geographical location of a university and the dispersion of its campuses are key contributing costs in engaging and supporting students from rural, remote, Indigenous and low SES backgrounds. Provision of these services, along with teaching facilities, are spread across large and remote geographical distances, which entail substantial travel expenses to both the university in service delivery, and to students undergoing clinical placement. Placement in rural areas costs more because smaller and more geographically dispersed placement sites increase the costs per student to provide adequate training and supervision; there are fewer opportunities for economies of scale. However, it is in the national interest to encourage training in regional, rural and remote

locations for long-term workforce retention in these areas. (Note that placement costs are further discussed in Chapter 5).

Recommendations

The Council recommends that the engagement and support of low SES students be undertaken through:

- Creating a loading for enrolments of low SES students, based on bands with fixed percentages of these students. For example, universities which have either a 5-15% (band 1), 10-20% (band 2), or 20-25% (band 3) participation rate of low SES students would be eligible for funding according to which band they come under.
- Providing students who are required to travel to undertake their course, such as for clinical placements (especially in rural/remote areas), with a HECS-like loan facility that can draw upon to cover the additional costs associated with this travel. This is an important equity issue, as students from low SES backgrounds have less capacity to absorb these additional but substantial costs.

Chapter Five: Clinical Training (Work Integrated Learning)

There is wide variation in the terminology used to describe practice, or clinical placement, components of health science courses. Our members use 'work integrated learning', 'clinical training' and 'clinical placement' interchangeably to describe these components. This chapter looks at issues associated with clinical placement.

Q3.4 What additional costs are involved in the provision of work integrated learning and should these be considered in setting the level of base funding?

There are substantial costs associated with placements in the allied health professional courses that are significantly higher than for any other disciplines incorporating work integrated learning in their courses. These costs are increased for higher education providers who utilise a distributed clinical placement model, for example the Rural Clinical Schools which are attached to a number of our member universities including those based in large metropolitan capital cities. In addition smaller and more geographically dispersed placement sites increase the costs per student to provide adequate training and supervision, as there are fewer opportunities for economies of scale.

All allied health professional programs should be funded by the Commonwealth Government at a level that reflects the true cost of delivering up-to-date, relevant and high quality curricula. Given the importance of clinical training in developing practical skills, and the benefits of work ready health graduates, the significant additional costs associated with clinical training need to be properly considered in setting levels of base funding. In particular, the extra costs associated with clinical placement in rural and remote locations should be recognised and funded by the Australian Government across all clinical disciplines.

As the workforce demand for allied health professionals is increasing, higher student loads have led to increased demand for clinical placements where supervision and teaching either occurs pro bono within the health service provider or at universities' expense. Allied health clinical placements are more dispersed than their counterparts in Medicine or Nursing which are traditionally based in public hospitals. For example, in Pharmacy, a large proportion of placements are one-off in community pharmacies.

The importance of clinical training

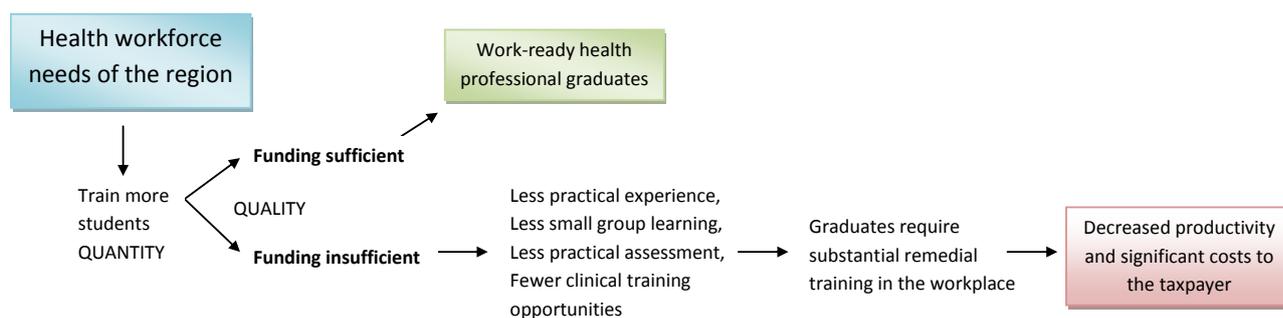
Clinical practice exposure in a context of care that is relevant to students' future practice is crucial to producing 'work-ready' graduates. The experiences gained in the clinical placement part of the course are strong determinants of later work place preferences by new graduates. This suggests that incorporating rural and remote areas in clinical placement options could help to ameliorate workforce shortages down the track. Clinical training in allied health degrees provides students with opportunities to incorporate theoretical knowledge into practical experiences, allowing them to develop clinical skills at a basic level prior to exposure to higher stake situations during their early clinical practice years.

However, practitioners have observed a trend within Australia towards less clinical training and less of 'expensive' foundation science within undergraduate health courses notably anatomy; which is a cornerstone subject of a number allied health professions.

This trend is particularly concerning as Australia’s health system traditionally operates on the principle that health professional training should occur within universities, rather than in the health system. Graduates who are less skilled require substantial remedial training in the workplace, which significantly impacts on productivity and has a higher cost to the community. Studies have shown that the additional costs for health services undertaking training roles in addition to clinical service activity are up to 30 per cent (Bendigo Health Care Group 2003).

In public teaching hospitals, given the imminent increase in health graduates, under-prepared graduates are likely to require more supervision, be a potential burden on hospital workload, and contribute to the educational resources strain already experienced in the health sector (Eley 2010b). The following figure shows that resourcing in the higher education sector needs to be sufficient in order to produce ‘work-ready’ graduates who are effective contributors to the workforce.

Figure 1: As the health sector grows, more resources are required to ensure quality



Policy environment

Recent initiatives such as the establishment of Health Workforce Australia (HWA), part of the \$1.6 billion health workforce package announced by COAG in November 2008, is an encouraging step towards expanding clinical training capacity for health and medical professionals. HWA has committed to \$359 million over three years to support growth in clinical training places, and a further \$70 million targeted at expanding training capacity with emphasis on new and underserved areas (HWA 2010). However, HWA’s initiatives only fund **new** places, while creating an expectation that potentially all clinical placements could provide payment to the placement provider.

By way of example if we are to use the HWA per diem rates recommended for clinical placements in the allied health professions of Physiotherapy, Occupational Therapy and Speech Therapy, they are \$85 per day. If every clinical placement day was charged back to the teaching institution at that rate it would add to say Physiotherapy or Occupational Therapy (with 1000-1200 hours of clinical placements) at least \$12,000 to the cost of educating each student. That estimate is based on a 7 hour day (HWA recommendation) for 1000 hours across a single course which amounts to 142 days. The HWA rates per diem rate runs the risk of becoming the price floor and there is evidence of that beginning to occur. This is contrary to the prevailing scenario for existing places where there is a mixture of paid and pro bono placements for students.

Other initiatives, such as the Allied Health Clinical Placement Scholarship Scheme (AHCPS), a Commonwealth initiative to support allied health and oral health students to undertake a clinical placement in a rural or remote Australian community during their degree, and the Commonwealth Rural Education Infrastructure Development (REID) pool allowing for the development of accommodation and facilities for training provision, are further positive initiatives. However, many of these initiatives are already oversubscribed, and they are subject to variation from year to year.

In general, one-off funding initiatives should not be used to compensate for broader inadequacies in the approach to funding clinical training at an integrated, holistic level. Whole-of-health-system engagement is required to build on a detailed understanding of the costs to universities and health providers of delivering clinical training outside the major urban teaching hospitals, and to ensure that the funding equitably meets the needs of the health professions.

The capacity of the private sector to facilitate clinical training is significantly underutilised. While the private sector needs to take some responsibility for training (given that it is a significant beneficiary of the trained staff who are almost entirely educated in the public system), the costs are not insignificant. In areas where there is a significant private sector professional workforce (such as physiotherapy and pharmacy), ways of engaging private sector professionals in teaching into both private and public sectors should be devised. The cost implications of utilising the private health system in clinical training needs to be considered and costed.

Costs to students

There are significant costs to students in undergoing clinical placement, particularly in rural and remote areas, and the level of support provided to students to undertake these placements vary between disciplines. These costs include:

- Travel costs - which are related to the extent of rurality or remoteness from the place of study
- Accommodation-over and above their expenses for accommodation in their usual place of residence
- Cost of earnings foregone

(NRHA 2010)

Discussions with a number of physiotherapy students based in capital cities but required to undertake clinical placement in regional parts of their respective states (or vice versa) indicated that a typical four week clinical placement was conservatively estimated to cost at least \$2000. Furthermore they undertook a number of these placements during their four year course. This was made up of travel to and from their home cost of around \$1000, there was rent to pay back home which was around \$500, then temporary accommodation which was at least another \$500; in addition there was the for-going of income from part-time work.

Recommendation

The Council recommends that students be provided with access to a HECS-like loan facility that they could draw upon should they need to cover the additional costs associated with clinical placements.

Chapter Six: Cost of allied health professional education

3.1 Do the current funding relativities reflect the relative cost of delivering undergraduate courses in particular disciplines? What, if any, relative weightings should be afforded to various discipline groups and why?

Q3.7 Should infrastructure investment continue to be supported by base funding?

Q3.8 What other factors, if any, should be taken into account in determining base funding for teaching and learning in higher education?

All health professional programs should be funded at a level that reflects the true cost of delivering up-to-date, relevant and high quality curricula, as well as the extra costs associated with clinical placement. Within the current funding model:

- The real costs of health professional course delivery are considerably higher than base funding levels
- The current funding relativities for each discipline cluster do not reflect the relative costs of each cluster.
- Allied health courses generally cost more per EFTSL than the cluster band 5 funding rate, with a 10% to 20% difference for some courses in the study.

Source: Submission to the Base Funding Review by JCU, La Trobe University, Sydney University and Curtin University, 2011

Current funding models are not based on the costs of course delivery. The Relative Funding Model has its basis in 1990 when many of the allied health courses having recently transferred to universities from the college of advanced education sector.

Since then there has been an:

- A shift in curricula to include more theoretical and empirical subject
- More use of laboratory based subjects
- An emphasis on small group learning
- Enhancement of WIL in academic and clinical setting
- Teaching has intensified but student to staff ratios are not as favourable as they have been in the past
- There has been an expansion of research and research training as required in the higher education sector
- Infrastructure requirements have changed reflecting the increasing importance of ICT as a tool for teaching and learning and there is also the increasing in simulation laboratories (which are very expensive)

Source: Submission to the Base Funding Review by JCU, La Trobe University, Sydney University and Curtin University, 2011

An important net result of these cumulative changes is that at the student interface with the academic unit is the prevalence of considerable inequity in the workload expected of academics. Labour intensive programs allied health professional education programs are typically well underfunded vis a vis the product expected by national accreditation bodies.

Academic units that conduct small group teaching to ensure competence in skills required for health service delivery are particularly disadvantaged. Weightings for courses should be based on a composite index that reflects the costs associated with staff time, equipment, workplace learning, administration and research. To use the example of Physiotherapy at Monash University, the first year of the program has approximately 23 hours of face to face education for students. Of these hours, some 12 hours (for anatomy, Physiotherapy practical skills, physiology, foundations of health, case based learning) are delivered in small groups, thereby amplifying the actual delivery time for the Monash program to 11 face to face large group and 12 x 4 hours of small group teaching (totalling 59 hours). For this, the program receives the same level of funding as other programs in the same band that have little or no small group teaching where academics might have to deliver 12 – 16 hours of teaching. This inequity is further exacerbated as the same pattern of intense education continues across 4 years of the degree program.

Teaching costs generally show an increasing trend for more advanced subjects compared with introductory subjects. This is particularly so where the advanced subjects involve clinical training provided by university staff, for example, in subjects where effective clinical teaching requires small groups and hence more teaching hours from the staff involved.

So amongst our members we see examples of this trend in small classes. But small class teaching is an essential feature of allied health education and is necessary to meet registration and safe levels of work readiness for graduates.

It is also important to take into account the higher than average retention rates for health science courses. Entry is competitive attracting a strong candidature base that generally stays the distance of the course. Although there is some movement between allied health courses within institutions and also from more general science based programs into allied health programs.

The burden of producing able graduates now falls to unacceptably small numbers of dedicated staff working inappropriate numbers of unpaid hours to maintain desirable standards. Minimal, if any, time is left to pursue additional scholarly activity due to the unsustainable number of face to face teaching hours demanded by the requirements and complexity of courses. Similarly, there is very limited non-teaching time available in which to generate alternative sources of funding such as research grants, resulting in heavy reliance on base funding as the sole income source.

Staff with the expertise to teach undergraduate students are difficult to attract to university appointments with the limited budget available to deliver courses and the associated comparatively inferior working conditions. Without a climate that attracts young, well educated practitioners to teaching, the academic workforce ages and expertise wears thin. Staff retention and satisfaction would be substantially improved by adequate staffing levels which could in turn be provided if base funding adequately covered the cost of delivering the courses.

These inequities would be overcome if all programs received funding based on workload and other costs required for delivery. At Monash a comprehensive course costing analysis undertaken in 2010 identified a significant net loss (overall and per EFTSL) to almost all health professional teaching departments in the FMNHS. This funding has been echoed in the costing analysis conducted by the four universities (JCU, Latrobe, Sydney and Curtin) all of which are allied health-heavy universities.

Consideration needs to be given to the high costs of remunerating workplace educators who support the students during compulsory units. Staff to student ratios are very high and staff suffer discrimination associated with being unable to reach research output targets required for contract renewal or promotion. These targets are standardised across all programs, so high workload programs amplify disadvantage for these staff: workload is higher and promotion is more difficult.

Cost of clinical training and clinical supervision

Clinical supervision and teaching is best provided in small groups as has been stated. This provides the best opportunity to maximise safety and competency.

For allied health, external provision of clinical training and clinical supervision is paid for by the University, but the costs are partially subsidised, via funds provided by State and (predominantly) Federal health agencies. There is the recently added threat of a price floor being introduced for clinical placement days as a result of per diem rates for new clinical places set by HWA.

Where shortfalls occur as they inevitably do universities are forced to make economic choices and cut costs, including costs associated with clinical training. Ultimately, whatever the source of funds, clinical training and clinical supervision is funded by the taxpayer. The impact of underfunding clinical disciplines means that universities have no choice but to reduce internal provision, resulting in shifting training costs from universities to the health system where they are likely to be more expensive. As recommended previously, a more systematic and coordinated approach to funding the external provision of clinical training and clinical supervision is necessary to ensure long-term sustainability of the training system.

Cohort and class sizes

We have already noted the importance and impact of small class sizes for allied health. Now we discuss the problem of providing small cohort courses which occurs in some regional institutions and where there are small numbers in a specialised discipline e.g. Prosthetics and Orthotics; Medical Imaging or Orthotics. Provision of both types of small courses is important for the wider public benefit it offers and the workforce demand it meets.

Teaching, administrative, and infrastructure costs of program delivery include both:

1. Fixed costs, which are incurred with the first student enrolled in the program. These include:

- The academic labour involved in curriculum development and maintenance, preparation of teaching materials, and program delivery to a small cohort;
- A quantum of administrative costs; and

- Required infrastructure including classroom and laboratory access and discipline-specific essential equipment;

2. Marginal costs associated with higher student load, initially incurred via staff interactions with students, assessment, and feedback, and accelerating as multiple groups must be handled for tutorial and practical classes and clinical supervision.

When enrolments are small, the fixed costs per EFTSL may be very high as has been noted by our members. This problem becomes more acute when difficulties are encountered in recruiting staff say for specialist disciplines or to teach outside metropolitan centres.

A fairer funding model would fund small degree cohorts on the basis of fixed and marginal costs of delivery, perhaps with a switch to simple per-capita funding if the program's enrolments grew past a sustainable level (generally a commencing load greater than about 50). Annual compact negotiations could determine: (a) whether proposed or existing small programs were sufficiently important to justify their costs; and (b) whether the disciplinary area they covered was appropriately regarded as distinct from other disciplines already offered.

We therefore recommend that the review committee investigate the feasibility of funding small student cohorts which are regionally or nationally important via a fixed + marginal cost formula.

Equipment and infrastructure costs

It has been suggested that the capacity to use "virtual" laboratory classes and simulation reduces the difference in costs between different disciplines. This is emphatically not the case for allied health disciplines as:

- Students training to be clinical practitioners need realistic experiences - and realistic simulated patients are vastly more expensive than real live humans. Because simulated patients need to be physical objects, not just two-dimensional pictures on a screen, they do not even provide much advantage in terms of increased teaching group size
- The equipment students learn to use needs to be reasonably close to the equipment they will use as beginning practitioners.

Allied health areas, which were once relatively low tech, are becoming more science-based and equipment-intensive every year, with consequent increases in cost. This is particularly so where advances in technology offer better health outcomes and lifestyle for patients (Prosthetics, Orthotics) and also in the area of medical imaging which is increasingly used in treatment as well as a wide range of diagnostic roles. Keeping up to date with authentic compatible equipment is a very expensive but necessary endeavour for allied health courses that rely heavily on the equipment in their day to day practice.

Additional administrative and engagement costs in health disciplines

Examination of workload patterns of academic staff (as well as employment of support staff within academic departments) indicate considerably more time spent on administrative tasks and professional engagement outside the University for staff in clinical disciplines than in

non-clinical disciplines. This reflects a number of additional tasks which these staff must undertake:

- The organisation and management of student placements with external health service providers. In allied health this is much more dispersed than say in nursing where large teaching hospitals play a significant role. Conversely allied health tends to rely upon many small providers across a large geographic area, and only a few large ones.
- Courses require clinical rotations in specific areas e.g. neurology and students generally have to travel from their usual residence to satisfy the course requirements.
- A very high level of necessary interaction between university academic staff and the health system, including the training and support of external clinicians supervising students on clinical placement.
- The requirement for regular program accreditation, and for maintenance of personal professional registration requirements.

Recommendations for cluster groupings and funding relativities

Both international comparisons and internal experience suggest that funding currently provided for allied health disciplines is insufficient and unsustainable into the future.

It is therefore recommended that all allied health disciplines be grouped in the science cluster (Cluster 7).

Chapter Seven: Resourcing for Scholarly Activity and postgraduate Coursework

Q3.5 What proportion of a higher education teacher's time should be spent on scholarly activity and how could the costs of scholarship be included in the base funding model?

Q3.6 Should any research activity continue to be supported by base funding?

Q4.1 Is there a higher relative cost for postgraduate coursework degrees? If so why is there a difference and what is the extent of the difference compared to an undergraduate degree in the same discipline?

Q4.2 Are there other factors that contribute to the costs of postgraduate coursework degrees that should be acknowledged in the base funding?

Scholarly activity

In practice, separation between teaching and research is impossible in science-based disciplines without seriously compromising student experiences and outcomes. Most science-based employment includes at least some elements of either research or the evaluation of research results: consequently, science-based teaching should include some research exposure, including mini-projects, research methodology and research evaluation. For most undergraduate Honours students in any discipline, a research thesis is the core component of their training and assessment, but staff that are not research active may be unable to teach this core element.

Research competence has historically been less critical for professional graduates. At present, most research grants, such as NHMRC, ARC and most research and development corporations, do not provide full-cost funding of research, so withdrawal of any research component from base funding would have detrimental consequences for the research activities of universities.

The possibility of developing a system that would fund research activity separately from the base funding could be explored if it were able to offer a reliable, continual resource. However, if this system were in the form of research block grants to universities based on historical research performance and capacity, this would negatively impact those institutions whose research program is still developing – potentially forcing some health disciplines in an institution into a teaching-only role. As one of the few recruitment incentives universities can offer, given the salary disparity between health academics and other health professionals, is the opportunity to develop research capabilities in those with interest and aptitude, such a system would further impact staff recruitment.

One solution might be to separate research support into:

- A core element, with all disciplines being expected to provide intellectual leadership, basic research training to undergraduate Honours level, and opportunities for those staff recruited for their research capacity to exercise this capacity; and
- A performance-based component.

Most health professionals need to undertake professional development to retain professional registration. Taking into account the requirements of professional accreditation, universities need to be resourced to offer clinical academic staff on average 20% per cent of workload for scholarship and research activity.

Infrastructure

Not only do health professional disciplines require extra funding for infrastructure than non-health disciplines owing to the variety of teaching modes and equipment required for effective teaching and learning, the current funding level for infrastructure is not sufficient to include the additional investment required for clinical training. A shift to regionalised clinical training is likely to require substantial investment in physical infrastructure, including student accommodation and teaching facilities.

Infrastructure costs are assumed to be covered through base funding via a benchmark allocation of 2.5% allocation of total operating grant. Increases to base funding for infrastructure in the health professional disciplines will ensure long-term investment, which is necessary as teaching space and infrastructure are a core requirements for teaching which should not be subject to variations in policy approach between governments over time.

Postgraduate coursework

Where postgraduate coursework degrees are actually the basic professional qualification (i.e. the first degree is treated as "general education" rather than as the basis for advanced work (e.g. some postgraduate pharmacy or allied health qualifications) there is no obvious reason why they should be any more or less expensive than a similar program taught as a first degree. This is particularly relevant to health programs.

Several of our member universities offer entry level professional health qualifications as post-graduate programs, usually at Masters level. For admission, they normally require that most of the basic science content of the equivalent undergraduate program has been completed within a first degree. Consequently, the postgraduate qualification can be shorter (even though the total length of time spent in the higher education system is longer and hence more expensive).

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