JCU Response to the Department of Education Discussion Paper: Establishing a Redistribution Pool of Medical Places

James Cook University welcomes the opportunity to comment on the Department of Education discussion paper on the number and distribution of medical school places.

In so doing, we will address the following:

- an outline of the headline policy issues in medical workforce supply and distribution
- the JCU experience in producing medical graduates who actually do go on to serve regional and remote communities
- a response to the specific proposed distribution options
- outline priorities for action in addressing regional and remote community needs for medical workforce.

Policy context for medical education:

1. *Australia has plenty of medical practitioners, yet persistent regional shortages of doctors necessitate ongoing importation of medical labour*

    - Australia reached an all-time record of 3.7 doctors in clinical practice per 1000 population in 2017, higher than the OECD average (3.5 doctors per 1000 people) and considerably more than comparable Anglo-American countries such as New Zealand (3.3 per 1000), the United Kingdom (2.8 per 1000), Canada (2.7 per 1000) and the United States (2.6 per 1000)
    - Behind the average national figures, there is an underlying geographic maldistribution in Australia, with 4.1 clinicians per 1000 people practising in major cities as against 2.8 per 1000 in regional and remote areas in 2017
    - Considering only domestic medical graduates, there were 2.7 doctors per 1000 in major cities in 2017, but only 1.6 per 1000 in regional and remote locations in 2017
    - As a consequence of Australia's internationally unprecedented expansion in domestic medical school places since the early 2000s, the nation now has among the highest rates of medical graduate production in the OECD, with graduate output running at 15.5 per 100,000 per year in 2017
    - In contrast, comparable medical graduate figures for New Zealand, the UK, Canada and the USA are 9.1, 12.9, 7.7 and 7.8 per 100,000 per year respectively
    - Along with high levels of domestic medical graduate production, there continue to be high levels of importation of medical labour to fill vacancies in the regions (running at 2000-3000 medical practitioners imported each year, or around 10 per 100,000 per year)
    - Consequently, the stock of Australia's medical workforce is still growing rapidly at 4% per annum, with the clinician workforce in Australia rising by 12,697 from 79,342 in 2013 to 92,039 in 2017.

2. *Reliance on international recruitment as a quasi-permanent 'temporary fix' for rural medical workforce tends to compound the problem, because of rapid labour movement into major cities*

    - Despite the fact that regional labour shortage is the primary policy challenge, 77% of the net medical workforce growth from 2013 to 2017 actually went into major cities

- Growth in the stock of domestic Australian medical graduates is even more highly concentrated in urban locations, with major cities accounting for 79% of the increase over the period
- However, of equal concern is the fact that 73% of the increase in the stock of international medical graduates (IMGs) also went into major cities, notwithstanding the fundamental purpose of international labour recruitment.

3. *The ever-increasing supply of domestic and internationally trained doctors in major cities represent a threat to the sustainability and quality of the Australian healthcare system, given that expenditures by governments, insurers and individuals are predominantly driven by the provision of medical services*

    - Public and private hospital services in Australia are mostly funded as payments for services provided – either as fees for clinical services (private) or clinical activity-based funding (public)
    - Similarly, ambulatory care services provided by GPs and consultant specialists are funded by Medicare, patient payments and/or private insurance for medical services provided
    - The excess of medical labour supply is a major driver in rising health care expenditure, with national expenditure growth well in excess of that which might be accounted for by population ageing, population growth, new technology or health-sector inflation
    - At 3.8 per 1000 people in 2016, hospital bed numbers in Australia are considerably higher than bed supply in Canada (2.5 per 1000), New Zealand (2.7 per 1000), UK (2.5 per 1000) and the USA (2.8 per 1000)
    - On a population basis, public hospital beds numbers are holding more or less steady against population (-0.2/1000, 2013 to 2017) and yet the density of doctors providing clinical services to those beds is growing rapidly, with the specialist-in-training workforce growing at 3.7% per annum, the hospital non-specialist workforce at 3.7% and the consultant specialist workforce overall at 3.8%
    - Similarly, GP workforce supply is growing rapidly – annual growth in the number of doctors working in general practice was 3.8% over the 2013-2017 period (4.1% in major cities, 2.9% in regional/remote locations)
    - GPs who are international medical graduates (IMGs) are responsible for the greater part of Medicare expenditure on GP services in regional/remote locations since 2012/13 and now also in major cities (since 2016/17). IMG Medicare GP billing has been growing at a compound rate of 11% for a decade
    - This collision between an excess of metropolitan medical labour, activity-based healthcare financing arrangements and an ageing population with increasing multi-morbidity is a major risk to quality, affordability and access to healthcare in Australia in the years to come.

4. *It is clear from this analysis that the single most important challenge for medical workforce is to achieve a geographic distribution of willing Australian medical graduates with an appropriate skills and specialty mix. This is important for city and country alike. This is the very challenge that JCU has been so successful at meeting.*

The JCU experience

JCU is Australia's most successful university in producing medical graduates who go on to work in regional and remote locations, by far. JCU are one of a handful of universities worldwide that are achieving this level of rural medical workforce outcomes.

To achieve this, JCU has systematically applied the evidence for what it takes to produce rural doctors:

- Around 70% of domestic students admitted to JCU's medical school have a regional and remote background
- JCU's medical program is an entirely regionally located 'end-to-end' medical program
- Every student undertakes at least 20 weeks of clinical placement in small rural and remote communities, and some considerably more in long 'integrated' rural terms
- Seventy-five percent of over 1600 JCU medical graduates since 2005 have gone on to work in regional and remote locations for 12 months or more
- Just under half of JCU's graduates pursue careers in general practice, one third of those in rural generalist medicine
- Graduate tracking research demonstrates that over 900 JCU graduates are currently serving rural, remote and regional communities (around 62%).

Feedback on proposed options for re-distribution of medical school places

JCU's feedback is in line with the Medical Deans Australia and New Zealand commentary on the three 'options for managing the distribution process for the 2021 round'. JCU does not support any of the three identified options.

In summary:

- ***Option A proposes a 2.03% national contribution of CSPs in order to allocate 32 places to Charles Sturt University (CSU) with the remaining 28 places to be made available to other universities via a competitive bidding pool.*** Under this option, universities that are currently performing well in producing rural workforce outcomes (notably JCU) *would still be required to develop a competitive bid to retain CSPs*. This bid would be appraised in some unspecified process against unspecified criteria. The outcome for JCU would be either *the loss of places,* or, at best, *maintaining current places* subject to acceptance of the bid. Potential perverse outcomes of this approach include places going to those institutions that have no track record of achievement in producing rural workforce on the basis that they have proposed 'new and innovative medical education initiatives. It would also be an administrative impost.
- ***Option B has the same 32 places allocated to CSU with the remaining 28 places to be distributed based on the proportion of clinical training that occurs in non-metropolitan locations.*** This is a unidimensional approach to rural medical workforce production that is not supported by the evidence. The literature strongly favours a comprehensive approach to rural medical workforce – encompassing admissions policy, location of schools away from major cities and well-aligned regionally-based post graduate training pathways, and, to a lesser extent, rural placements, rural curriculum and return of service obligations. In spite of JCU being Australia's most successful university in producing rural practitioners, the University would at best retain its current CSP allocation.
- ***Option C allocates 32 places to CSU with the remaining 28 places to be being available to those universities that undertake to establish regionally based 'end-to-end' medical programs.*** Again, this option focuses solely on one aspect of policy – that of an end-to-end training – without regard to other key factors. The experience and outcomes of existing 'end-to-end' medical programs in Australia is actually quite mixed - and an evaluation of those programs might help inform future investments in the 'package' that represents an effective end-to-end medical training model (of which JCU is currently the national exemplar).

Other considerations:

- While it is rarely measured, the 'hidden curriculum' in large metropolitan health professional schools (and associated teaching hospitals) is thought to be a critical factor in shaping students'

career choices, professional aspirations and professional identity. Hidden curriculum (the unstated and often unintended learning around role-modelling, values, culture and perspectives) may be manifestly incompatible with rural or primary care career aspirations. There is published evidence in Australia showing that even some of the most powerful of drivers of rural career choice (eg: rural background) can be entirely negated by an institutional learning experience.

- After more than 20 years of Commonwealth investment in rural medical education initiatives and 15 years of rapid expansion in medical school places as strategies to improve regional medical workforce supply, there needs to be much greater focus on performance and accountability for outcomes. Investing in institutions with proven capability and commitment to produce rural workforce is rational public policy. The Canadian Post-MD Education Registry (CAPER) is as an example of an established national repository for statistical information on postgraduate medical education and ongoing practice location following specialist training (https://caper.ca/postgraduate-medical-education/census-interactive-maps/2015-exits-two-year-practice)

Priority policy actions

General approach

- As indicated, the pressing policy priority in medical workforce is to achieve an appropriate geographic distribution and skills mix of domestic medical graduates: the 'right people, in the right place, with the right skills, working in the right models of care'
- The policy conundrum of having a worsening medical workforce oversupply in the cities co-existing with shortages in the regions and selected specialties requires a nuanced and nationally coordinated policy response
- The supply of medical and health workforce is best considered to be a 'complex adaptive system' (as is healthcare more broadly). More often than not, simple unidimensional policy interventions will result in perverse outcomes. Planning and policy approaches that recognise complexity exist and should be applied
- The Council of Australian Governments (COAG) Health Council is overseeing development of a National Medical Workforce Plan and this is an opportunity to build agreement on the issues involved and develop complementary policy approaches between jurisdictions, universities, health service providers and colleges
- For instance, unless the models of care, staffing and rostering practices of large metropolitan hospitals are addressed (a jurisdictional issue), the public hospital system will continue to overproduce metropolitan-based specialists (for example in emergency medicine and anaesthetics) simply as a by-product of the over-reliance on trainees to meet service needs
- The review of the Rural Health Multidisciplinary Training program (RHMT) that is also currently underway may clarify evidence of effective approaches and inform policy responses to the number and distribution of medical school places
- JCU is also advocating for an independent review of the Australian General Practice Training Program, a $310m annual investment in GP workforce production that has been in place since 2001, but lacks explicit policy objectives and has not been evaluated for impact and value
- Policy subtleties and politics aside, the most logical policy response for government would be to undertake a large-scale redistribution of medical school places from universities based in major cities to well-designed, regionally based, medical programs
- To get some sense of the scale of this, were the current New Zealand national rate of production of medical graduates (9.1 per 100,000 per year) to be applied to the populations of major cities in Australia, no more than 1,300 commencing medical school places would be available in capital cities, theoretically leaving the balance of 1,700 existing CSPs available for transfer to regionally-based programs.

- Some of the broader reforms needed in health care systems and health workforce are summarised in the World Health Organisation's 'Workforce 2030' report, including the following:

    - *'Radical reforms are also needed in service delivery [to meet] a growing demand for integrated, people-centred, community-based health services and personalised long-term care'*
    - *'Shifting away from health systems organized around clinical professional specialities and treatment in hospitals towards systems designed for prevention and primary care can help meet these challenges and address inefficiencies'*
    - *'Critical to ensuring equitable deployment of health workers are the selection of trainees from, and delivery of training in, rural and underserved areas'*
    - *'The social mission of health education institutions represents an opportunity to nurture in health workers … public service ethics, professional values and social accountability attitudes'.*

Recommended actions

- Government should take a pragmatic approach to finding the 32 additional places that have been committed for CSU, either as a re-allocation from metropolitan New South Wales medical programs or as additional CSPs
- Defer a further decision on CSP re-distribution pending the outcomes of the National Medical Workforce Plan, the review of Rural Health Multidisciplinary Training program and (ideally) the Australian General Practice Training program
- Use, and make fully transparent, graduate geographic outcomes data by educational institution and specialty
- Contemplate substantial transfer of metropolitan-based CSPs to regionally-based programs, or the creation of new additional CSPs for regionally-based programs, thereby applying the evidence for what works in producing rural medical workforce.