Policy Document

Medical Schools and Medical Student Numbers

Position Statement

AMSA believes that:

1. Stricter regulations on both numbers of medical students and the inception of new medical programs is essential to ensuring good quality clinical training, and integral in promoting a sustainable workforce that has access to sufficient quality clinical training opportunities beyond medical school.
2. Increasing medical student numbers, particularly in metropolitan medical schools, in the absence of providing postgraduate training pathways in rural and remote areas is ineffective in addressing medical workforce shortages in rural and remote areas.
3. The limited supply of vocational and pre-vocational training positions, along with the increasing trend towards sub-specialisation, is being exacerbated by the increasing graduate output, placing additional strain on an already overburdened training pipeline.
4. The funding of increased Commonwealth Supported Places (CSPs) and/or new medical schools should only occur with evidence-based workforce modelling that demonstrates both workforce mal-distributions, either geographic or within medical specialties, and a projected benefit to the workforce from increased medical student graduate numbers.
5. The funding of increased CSPs and/or new medical schools should never be used by governments for political benefit.
6. The considerable government investment made in the establishment of new medical schools could be better utilised in the funding of alternative health and workforce services, including postgraduate training pathways in rural and remote areas.
7. Domestic full fee paying and international medical student admissions are key historical contributors to large increases in medical student numbers outside of adequate workforce modelling, and efforts to restrict increases in medical student numbers will require legislative and policy reform in these areas

Policy

AMSA calls upon:

1. The Federal Government to:
    a. Refrain from establishing new medical schools or increasing medical student numbers, without:
        i. Consultation of the relevant bodies, including AMSA, state and/or territory health departments;
        ii. Creating evidence-based workforce modelling that demonstrates a current or future workforce maldistribution that

AUSTRALIAN MEDICAL STUDENTS' ASSOCIATION

Head Office
42 Macquarie Street,
Barton ACT 2600

Postal Address
PO Box 6099
Kingston ACT 2604

ABN 67 079 544 513

Email info@amsa.org.au
Web www.amsa.org.au
Twitter @yourAMSA

can be alleviated by increasing medical schools or medical student numbers;
    iii. Modelling these changes to ensure such plans do not exacerbate existing bottlenecks in the medical training pipeline, including in the vocational training space;
    iv. Providing a commensurate increase in federally funded specialty training positions.
  b. Support:
    i. Implementation of key recommendations of the National Medical Workforce Strategy, including:
      1. A national medical workforce data strategy to conduct research into the distribution of the medical workforce;
      2. Evidence-based, regular national health workforce modelling;
      3. A joint medical workforce planning and governance body.
    ii. Studies investigating the effects of increases to medical students numbers and/or medical schools on the quality of clinical placements;
    iii. Reinstate the previous federally legislative ban preventing the creation of domestic full-fee places in public universities;
  c. Amend the Higher Education Support Act 2008 to extend the above ban to private universities to limit the creation of further domestic full-fee places;
  d. Undertake legislative change to impose a limitation on international medical student intake into postgraduate medical schools;
  e. Match any increase in CSP funding with increased JDTP funding should it be predicted that an increase in CSP medical graduates displace international medical students from public hospital internship positions.
2. Australian State and Territory Governments to:
  a. Match internship positions with medical student numbers.
3. The Australian Medical Council to:
  a. Ensure the accreditation and approval of new medical schools occur after proper consultation with the relevant stakeholders in order to safeguard the quality of clinical placements and uphold the standard of medical graduates;
  b. Investigate the effects of increases in medical students numbers and/or medical schools on the quality of clinical placements.
4. Australian Medical Schools to:
  a. Advocate for the reallocation of their medical places if it is evidenced to be beneficial towards improving workforce mal-distribution;
  b. Refrain from lobbying the Federal Government for an increase in their CSP funding without prior future workforce modelling to support this;
  c. Not prioritise the economic incentives and benefits of increasing student numbers to institutions over the potential implications such changes could have on graduate quality and workforce planning;
  d. Amend the models of their training of medical students to address workforce challenges over developing new medical schools and reallocation of places.
5. All stakeholders in medical education and training to:

a. Engage in data sharing to support evidence-based, up-to-date workforce modelling to inform future changes into student numbers.

Background

The Australian Medical Students' Association (AMSA) is the peak representative body for medical students in Australia. AMSA is concerned about the future training and employment opportunities for Medical Graduates due to the ongoing addition of more medical schools and medical student places. AMSA advocates for evidence-based modelling and wide consultation with all concerned stakeholders before more medical schools and further Commonwealth Supported Places (CSPs) are established.

Regulation of Medical School Enrolment

Categories of Medical School Enrolment

There are four categories of enrolment for medical students. CSPs (comprising bonded and non-bonded medical places), Domestic Full-Fee Paying (DFFP), and International full-fee paying. CSPs are regulated by the Australian government and also subsidised significantly, but are only offered to Australian and New Zealand nationals. These numbers are regulated based on a multitude of factors, including workforce demand. The bonded places aim to reduce various geographical workforce shortages by having a return of service period where doctors work in areas of need. The number of full-fee postgraduate places are not currently regulated by the government. This is problematic when increases in medical student numbers occur without appropriate workforce demands to match them [1].

Current data on different places

In 2020, 3845 students commenced their degrees; 3217 were domestic and 628 were international. 2908 were CSPs, 308 were DFFP places and 628 were international full-fee paying places. There were a total of 1953 female and 1891 male commencing medical students in 2020. Student commencement numbers have remained steady following a plateau in 2011 after the medical student boom of 2006-10. It is worth noting that there were 95 more first years in 2020 compared to 2019. It is projected that 3903 students will commence their degrees in 2021 [1].

The total number of CSP enrolments have remained the same between 2019-2020; however, there was a 2% increase in domestic full-fee paying places in 2020 compared to 2017 data. This can be attributed to the new medical school at Macquarie University, where all students are full-fee paying. The proportion of international students has remained very similar between 2019-2020, with only a marginal increase of 0.2% despite the COVID-19 pandemic [1]. This increase in international student enrolment is a concern as the high fees paid by international students are viewed as a supplementary financial resource for universities. The ethical implications of this should be taken into consideration and a policy point regarding this would be beneficial [1].

Increasing medical schools

With the establishment of Charles Sturt School of Rural Health there are now a total of 23 medical schools in Australia [2]. Opening up new medical schools comes at a significant cost to the government and the health sector. The Curtin University Medical School had an estimated cost of $49 million dollars [3]. Given the current oversupplies of medical students, continued government investment in the establishment of new medical schools represents a misuse of federal funds and a poor investment in health.

The Australian Health Workforce

The projected oversupply of medical graduates and simultaneous maldistribution of doctors in rural areas is a major concern for the Australian medical workforce, which are affected by medical student numbers and medical schools [4].

Rural Workforce Maldistribution

Over the past 10 years, governments have attempted to fix current and projected workforce maldistributions by increasing medical student numbers [4,5]. While this is an ostensible solution to the shortage of doctors in rural and remote areas, it is ineffective in the short and medium term [6]. In the shortest time course, it takes a minimum of 8 years for a commencing medical student to complete fellowship training, with several longer degrees and training pathways combining to greater timespans. There is great delay between increasing student numbers and any change in workforce distribution being discernible [4].

Long term, there is little evidence that increasing medical student numbers will have a positive impact on workforce distribution and may even be of detriment to underserved rural areas. Currently, international medical graduates (IMGs) represent 25% of the health workforce in Australia but comprise a disproportionate part of the rural and remote medical workforce [7]. The increase in domestic medical students is projected to decrease the number of immigrating doctors, with a magnified negative impact on rural populations. Without any additional workforce planning or additional incentives for doctors to work rurally, this crude increase in graduates does little to alleviate rural health disadvantage [4].

Internships and Increased Medical Student Numbers

In order to receive full registration as a medical practitioner in Australia, medical graduates must complete a one-year internship [4]. Internship positions are guaranteed by the government to medical students those with CSPs [8]. International full-fee paying graduates are not guaranteed internship positions by the government, however any shortfall in public hospital internships for these graduates is covered by the Junior Doctor Training Program Private Hospital Stream, which allows them to become accredited in the private hospital setting [9]. DFFP students are not guaranteed an internship offer after graduation [8]. Without legislation and policy regulating postgraduate DFFP admissions, nor assuring the provision of internships for DFFP graduates, increasing DFFP student numbers comes at the risk of graduating doctors who are unable to obtain an internship in Australia. Government policy perspectives need to be altered to mitigate the imbalanced distribution of medical graduates and the predicted potential oversupply of approximately 7000 doctors by 2030, which leaves medical graduates unable to practise and productively contribute to the workforce [2]. Similarly, any increase in medical graduates will overburden training opportunities further down the pipeline, as there is greater competition for limited positions amongst doctors who have to train for longer before they attain their fellowship [4].

Specialist Training Program

The Specialist Training Program (STP) is a federally funded program which aims to increase specialist training opportunities beyond metropolitan areas. This is a fiscal alternative to opening new medical schools and addresses rural workforce maldistribution and the overburdened pipeline [10]. The STP aims to contribute to improving the distribution of the medical workforce and expanding the training capacity of specialists beyond metropolitan Australia by working with 13 specialist medical colleges [10].

National Medical Workforce Strategy

The National Medical Workforce Strategy (NMWS) was developed in 2020 and aims to guide long-term medical workforce planning in Australia, through a collaborative approach with multiple stakeholders. Among other issues, the NMWS aims to address the geographic workforce maldistribution as well as the oversupply of doctors along the training pipeline [11].

Reallocation of CSPs

Reallocation of CSPs to new rurally located medical schools and medical school campuses is one approach to alleviate rural doctor maldistribution [12], with the newest schemes being the Murray Darling Medical Schools Network (MDMSN) [12,13] and the Regional Medical Pathway [14].

Murray Darling Medical Schools Network

The first round of redistributed CSPs went towards the establishment of the MDMSN. The Federal Government is re-allocating up to 60 current medical Commonwealth Supported Places, including Bonded Medical Places, every three years, [15] plus five newly created CSP positions [16], a factor not discussed or made public in the planning stages of the MDMSN.

The MDMSN was created based on the philosophy of regional and rural medical education being the best way to keep eventual doctors staying regional and rural, with medical degrees being delivered completely from regional and rural communities. The concept has been touted as a regional and rural 'end to end' [13] medical education experience.

A 2020 study shows that domestic graduates are not drawn to rural internships, and the uptake of local graduates to the expanding rural workforce is sub-optimal [17]. A positive correlation between having an immersion of regional and rural area as a medical student in placements and electing to become a rural intern has been proven [18], with this rural intern decision being independent of the medical student's background, former rural interest before placement, and their status as a bonded medical placement student or not [19]. The logic of the MDMSN is reliant on this exposure factor, with the belief that longer regional and rural placements positively influence the medical students' views of regional and rural medicine [20]. Thus, having a full medical education in regional and rural areas will increase the distribution of medical graduates towards regional and rural areas, addressing the current maldistributed medical workforce [20].

However, the MDMSN is not seen as a solution to the maldistribution of medical doctors within Australia by many. The Medical Deans advocate for the implementation of regionally based specialist training, termed a 'flipped' modality from the current status quo of the Federal Government focusing on medical school places with no consideration of medical graduates [21]. There is also contention from the University of Newcastle and the University of New England, whose Joint Medical Program offers a similar regionally based medical education experience, claiming to offer what the MDMSN already does [22], and therefore don't believe in the loss of their places for a concept they already implement. There has not been any modelling on the MDMSN, with the possibility that reallocation of these CSPs will not actually increase the rural workforce [23]. However, this scheme backed by the Federal Government does allow for more lobbying of extra CSPs by the MDMSN institutions and opens up the pathway of more full-fee paying medical school positions to be implemented to compensate for the loss of numbers at established medical schools [23].

Table 1: Institutions participating in the MDMSN

MDMSN Institution and program	Year Started	Location
University of Melbourne/La Trobe: Combined Bachelor of Medical Science (Medical) and MD	2019, first medical cohort in 2022 [24]	Shepparton, Vic
Charles Sturt University/Western Sydney University: Joint Program in Medicine MD	2021	Orange, NSW
University of New South Wales: Bachelor of Medical Studies/MD	2021	Wagga Wagga, NSW [25]
The University of Sydney: MD	2022	Dubbo, NSW
Monash University: Bachelor of Medical Science/MD	2021, first medical cohort in 2024 [26]	Bendigo and Mildura, Vic

Regional Medical Pathway

The Regional Medical Pathway was established through a Round Table discussion involving the stakeholders of Central Queensland University, the University of Queensland, the Commonwealth Department of Health and international experts on medical programs in regional areas [27]**.** The program involves an undergraduate degree facilitated by Central Queensland University and an MD through the University of Queensland, with the modelling of student numbers coming from reallocation of 40 University of Queensland MD enrolments [24]. Similar to the philosophy of the MDMSN, the Regional Medical Pathway is an end-to-end regional medical program based in Rockhampton, Bundaberg, and Hervey Bay.

Nonetheless, this does not mean there has not been a request for new CSPs for the Regional Medical Pathway, with the plan between CQU and UQ to reach 240 medical students in the Pathway by 2026 [28], far beyond the current numbers being allocated. Furthermore, CQU initially proposed to deliver their own postgraduate medical degree over partnering with UQ [29], highlighting the desire for institutions to open up their own medical schools even if the numbers are not necessary, evidenced by the fact the Regional Medical Pathway has not created any more CSPs or reallocated CSPs from anywhere other than UQ.

Impacts on Medical Education

Successive governments and professional bodies, involved with the decision making of matters concerning rural health, have consistently failed to recognize the downstream effects of increasing medical schools and student numbers on the quality of clinical placements. Growth in medical student numbers may harm factors inherent to effective clinical learning, such as quality supervision, increased participation in the workplace and sufficient opportunities to practice procedures and skills [30].

The rise in the number of medical students over time, has not been complemented by proportional increases to medical educators and clinical placement opportunities [30]. The consequences of this mismatch include increased student-teacher ratios and less individualised attention for students [31, 32]. Additionally, learning opportunities, such as opportunities to practice procedural skills, may be limited in clinical settings. With a growing student populous, these opportunities would have to be shared amongst a greater cohort, reducing individual student exposure [31].

Most concerningly, opening new medical schools, without proper research and planning, dilutes the quality of medical education due to the redirection of teaching resources. Past studies have expressed concerns regarding the capacity for medical student training in clinical settings and the associated resource burdens, such as a shortage of supervising clinicians [32]. The redirection of both clinical and non-clinical staff, as well as teaching resources, to newly established medical schools, only adds further strain to this situation and compromises the quality of medical education and placements.

References

1. MDANZ. Student Statistics Report: 2019 – 2020. 2021.
2. Australian Government Department of Education. Discussion Paper-redistribution pool of medical places [online] Available from: https://www.dese.gov.au/download/4680/discussion-paper-redistribution-pool-medical-places-including-assessment-framework/7011/document/docx
3. Worsley R. Med school hits back at claims it's 'unwanted' [Internet]. AusDoc.PLUS. 2021 [cited 14 February 2021]. Available from: https://www.ausdoc.com.au/news/med-school-hits-back-claims-its-unwanted
4. Health Workforce Australia. Australia's future health workforce: doctors. Canberra, ACT: Department of Health; 2014. Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/F3F2910B39DF55FDCA257D94007862F9/%24File/AFHW%20-%20Doctors%20report.pdf
5. Scott A. ANZ-Melbourne Institute health sector report: the future of the medical workforce. Melbourne, Victoria: Melbourne Institute of Applied Economic and Social Research; 2019. Available from: https://melbourneinstitute.unimelb.edu.au/__data/assets/pdf_file/0008/3069548/ANZ-MI-Health-Sector-Report-Future.pdf
6. Moore M, Burgis-Kasthala S, Barnard A, Hall S, Marks S. Rural clinical school students do come back: But it may take time. Australian journal of general practice. 2018;47(11):812-814.
7. O'Sullivan B, Russell DJ, McGrail MR, Scott A. Reviewing reliance on overseas trained doctors in rural Australia and planning for self-sufficiency: applying 10 years' MABEL evidence. Human Resources for Health. 2019;17(1):8
8. Hays R, Lockhart K, Teo E, Smith J, Waynforth D. Full medical program fees and medical student career intention. Medical Journal of Australia. 2015;202(1):46-49.
9. Australian Government Department of Health. Junior Doctor Training Program Private Hospital Stream. Canberra; 2020.
10. Australian Government Department of Health. Specialty Training Program. Canberra; 2020.
11. Australian Government Department of Health. National Medical Workforce Strategy. Canberra; 2020.
12. Australian Institute of Health and Welfare. 2021. Rural & remote health, Summary - Australian Institute of Health and Welfare. [online] Available from: https://www.aihw.gov.au/reports/rural-remote-australians/rural-remote-health/contents/summary
13. Australian Government Department of Health. Stronger Rural Health Strategy. The Murray-Darling Medical Schools Network. [Online] Available from:

https://www1.health.gov.au/internet/main/publishing.nsf/Content/2AC3C992D0CA1E2BCA2582D30078AA80/$File/Murray-Darling-Medical-Schools-Network.pdf
14. New rural medical students welcomed.[Online] Available from: https://www.latrobe.edu.au/news/articles/2019/release/new-rural-medical-students-welcomed
15. McGrail MR, O'Sullivan BG, Russell DJ, Rahman M. Exploring preference for, and uptake of, rural medical internships, a key issue for supporting rural training pathways. BMC Health Services Research. 2020;20(1):930.
16. Uni Partnership to Train 'Homegrown' Doctors in Regional Queensland. [Online]. Available from: https://www.cqu.edu.au/cquninews/stories/general-category/2020-general/uni-partnership-to-train-homegrown-doctors-in-regional-qld
17. Office of the Vice-Chancellor Charles Sturt University. Redistribution pool of medical Commonwealth supported places dates 25/10/2019. [Online]. Available from: https://www.dese.gov.au/system/files/documents/document-file/2020-12/csu.pdf
18. Australian Government Department of Education, Skills and Employment. Budget 2020-21: Higher Education, Research and International. Available from: https://www.dese.gov.au/about-us/corporate-reporting/budget/budget-2020-21#section-higher-education-research-and-international
19. O'Sullivan B, McGrail M, Russell D, Walker J, Chambers H, Major L, et al. Duration and setting of rural immersion during the medical degree relates to rural work outcomes. Medical Education. 2018;52(8):803-15.
20. Farmer J, Kenny A, McKinstry C, Huysmans RD. A scoping review of the association between rural medical education and rural practice location. Hum Resour Health. 2015;13:27.
21. Girr J, Seal A, Barnard A, Cheek C, Garne D, Greenhill J, et al. The Australian Rural Clinical School (RCS) program supports rural medical workforce: evidence from a cross-sectional study of 12 RCSs. Rural Remote Health. 2019;19(1):4971.
22. Medical Deans Australia and New Zealand, Group of Eight Deans of Medical Faculties Group. Assessment of the Distribution of Medical School Places in Australia.[Online] Available from: https://medicaldeans.org.au/md/2018/07/201702-MDANZ_Go8_Final_Submission_Medical_School_Places_Assessment.pdf
23. The JMP (University of Newcastle and University of New England). Submission on the 'Department of Education Discussion paper- redistribution of medical places' dated 23th September 2019. [Online]. Available from: https://www.dese.gov.au/system/files/documents/document-file/2020-12/une_and_uon_jmp.pdf
24. AMSA Rural Health. 2018-19 Budget: Rural Health in Focus. [Media Release] (10/5/2018) [Online]. Available from: https://parlinfo.aph.gov.au/parlInfo/download/media/pressrel/5957550/upload_binary/5957550.pdf;fileType=application%2Fpdf?fbclid=IwAR0cQAacAJVhajYN0wjVLEQe1_KgcgqwwX0gw_7dS985vx29VxLj9odKHbs#search=%22media/pressrel/5957550%22
25. Murray Darling Medical School. [Online] Available from: https://committee4wagga.com.au/murray-darling-medical-school
26. $7.8 million supports 30 extra rural medical students each year. (21/2/19) [Online] Available from: https://www.monash.edu/medicine/news/latest/2019-articles/$7.8-million-supports-30-extra-rural-medical-students-each-year
27. CQUni Welcomes Roundtable on Proposed Medical Program. [Online]. Available from: https://www.cqu.edu.au/cquninews/stories/general-category/2019/cquni-welcomes-roundtable-on-proposed-medical-program
28. RACGP newsGP. Medical student body resistant to newly proposed program. [Online]. Available from: https://www1.racgp.org.au/newsgp/professional/medical-student-body-resistant-to-newly-proposed-p

29. MiVision. Proposed Rural Queensland Medical School Attracts Opposition. [Online]. Available from: https://www.mivision.com.au/2018/03/proposed-rural-queensland-medical-school-attracts-opposition/
30. Kandiah D. Perception of educational value in clinical rotations by medical students. Advances in Medical Education and Practice [Internet]. 2017 [cited 12 February 2021];Volume 8:149-162. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5308474/
31. Quality Clinical Placements Policy [Internet]. 2016 [cited 12 February 2021]. Available from: https://www.amsa.org.au/sites/amsa.org.au/files/Quality%20Clinical%20Placements%20%282016%29.pdf
32. Gordon J. ABC of learning and teaching in medicine: One to one teaching and feedback. BMJ [Internet]. 2003 [cited 10 February 2021];326(7388):543-545. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1125426/

Policy Details

Name: Medical Schools and Medical Student Numbers

Category: E – Medical Workforce

History: Reviewed and Adopted as an amalgamation of *Increased Student Numbers* and *New Medical Schools*, Council 1, 2021
Orkojeet Banerji, Ragavi Jayejumar, Varshini Chandrasekar, Jonathan Greenberg, Tanmay Gupta, Ally Yates, Fergus Stafford (Policy Officer)
Increased Student Numbers
Reviewed and Adopted, Council 1, 2019
Fergus Stafford, Stephanie Li, Bridget Rodkin, Audilia Sujana, Elizabeth Suo, Daniel Zuo (Policy Officer)
Reviewed and Adopted, Council 1, 2015
Reviewed and Adopted, Council 1, 2011
Adopted, Council 1, 2007
New Medical Schools
Adopted, Council 3, 2017
A. Bisiani, C. Dines Muntaner, M. Wei, J. Basser, M. Kim, C. Sheehy, P. Macintosh-Evans (Policy Officer)