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Policy Document

Bonded Medical Schemes (2023)

Position Statement

AMSA believes that:

1. Rural and remote Australia requires an adequate supply of doctors to deliver equitable health services, and maintaining sufficient staffing in these areas remains an ongoing challenge.
2. Despite the Bonded Medical Program (BMP) being introduced to address the rural doctor shortage, the most recent evidence suggests that very few graduates of the BMP complete their return of service obligation, and even fewer graduates continue to work in rural or remote areas following completion of their return of service obligation period.
3. A thorough assessment of the BMP is needed to determine whether this program is achieving its goal of effectively addressing the rural doctor shortage.
4. Based on this assessment, the BMP should either be amended or replaced by evidence-based initiatives that more effectively increase rural health workforce retention.

Policy Points

AMSA calls upon:

1. The Australian Government to:
 - a. Continue the Community Affairs Senate Inquiry to formally assess the Bonded Medical Program's (BMP) efficacy in addressing the rural workforce shortage, by using an independent reviewer to evaluate:
 - i. The number of students and graduates have completed their return of service obligation (RoSO), intend to complete their RoSO, or have withdrawn from their RoSO;
 - ii. How many BMP graduates who have completed their RoSO continued to and are currently practising rurally, as well as their motivations to do so;
 - iii. The reasons graduates have withdrawn from the BMP;
 - iv. The potential harms associated with the BMP, including its financial implications for students;
 - b. Continually monitor and undertake evidence-based reviews of the retention of rural health practitioners from graduates of the BMP;
 - c. Remove the BMP if the Senate Inquiry shows that the BMP has not been successful in achieving its goal of providing more doctors in areas of workforce shortage, particularly in regional, rural and remote Australia;

- d. If the BMP is removed, reallocate funding towards evidence-based initiatives which have been proven to increase the rural workforce retention, such as:
 - i. Recruiting students from rural backgrounds;
 - ii. Funding extended longitudinal rural clinical placements;
 - e. Provide support to other stakeholders, including but not limited to medical schools, Rural Clinical Schools, Regional Hubs, Rural Workforce Agencies and the National Rural Health Student Network (NRHSN), to implement support strategies which increase participant retention, ensuring that these stakeholders are involved in any decisions regarding the BMP, and continually work to connect students with these stakeholders;
 - f. Reduce the financial penalty for students that withdraw from the BMP during their medical degree to the Higher Education Contribution Scheme (HECS) equivalent which would be applicable upon their agreement not to re-enrol in a medical course for a minimum period of time, barring withdrawal for any reasons under the special consideration component of the contract;
 - g. Ensure that groups marginalised by the health system, including but not limited to LGBTQIASB+ people and culturally and linguistically diverse people, are not negatively impacted by any changes to the BMP, and ensure these groups are continuously involved in all relevant discussions;
 - h. Allow more flexibility for the completion of RoSO on either side of fellowship in relation to speciality training, particularly for specialities which are challenging to practise rurally;
 - i. Offer financial and logistical support to graduates who are working rurally to complete their RoSO, ensuring that this support is consistent across state and territory health departments, regional hospital and health services, and for graduates completing locum work;
 - j. Improve transparency as to how BMP places are allocated, to all students, including undergraduate, provisional and postgraduate entry students at the earliest possible time;
 - k. Fund support services for students undertaking the BMP;
 - l. Streamline and clarify the criteria and process for applying for special consideration when graduates cannot complete their RoSO due to unforeseen or extreme circumstances.
2. Australian Medical Council and Australian Medical Association to:
 - a. Provide support and career planning advice to BMP graduates in conjunction with the stakeholders listed in 1.e., to make it more achievable for them to complete their RoSO;
 - b. Advocate for a formal assessment of the efficacy of the BMP.
 3. Speciality colleges to:
 - a. Provide graduates with flexibility needed to complete their RoSO throughout speciality training and following fellowship;

- b. Explore opportunities for specialist training in rural and regional areas, and support rurally based career paths.
4. Rural Workforce Agencies and Regional Hubs to:
- a. Facilitate a BMP Student Network in every state and territory, and connect these Student Networks to medical schools within their respective states and territories;
 - b. Provide up-to-date information regarding the predicted workforce gaps to students and graduates;
 - c. Increase organisational awareness of the BMP, including but not limited to the designation of staff with specific knowledge who are able to provide case-assistance to students and graduates;
5. Australian Medical Schools to:
- a. Suggest that prospective BMP students seek legal advice, and provide students with referrals to legal aid;
 - b. Provide a transparent explanation of how BMP places are allocated, to all students, including undergraduate, provisional and postgraduate entry students at the earliest possible time, including prior to enrollments for provisional entry programs;
 - c. Connect students with their respective state and territory Rural Workforce Agencies and Regional Hubs;
 - d. Employ an adequately trained and resourced career advisor, to provide guidance to BMP students in relation to how to complete their RoSO.
6. Australian Medical Student Association to:
- a. Formally collect data and assess medical student perspectives of the BMP, including an anonymous survey of why students elected for a BMP place, and how many BMP students intend to fulfil their RoSO after graduation;
 - b. Advocate for the improvement and reform of, or the cessation of the BMP in line with the results of a formal assessment of the BMP's efficacy.
7. The National Rural Health Student Network (NRHSN) to:
- a. Formally collect data and assess medical student perspectives of the BMP, including an assessment of why students elected for a BMP place, and how many BMP students intend to fulfil their RoSO after graduation;
 - b. Create a national student network for BMP students, with the goals of:
 - i. Connecting students;
 - ii. Providing opportunities for peer support;
 - iii. Providing students with information about the BMP;
 - iv. Connecting students with support services including but not limited to Rural Health Workforce Agencies and Regional Hubs;
 - c. Advocate for the cessation or improvement and reform of the BMP, in line with the results of a formal assessment of the BMP's efficacy.

8. Medical student societies and student-lead rural health clubs to:
 - a. Provide students with information about the BMP, and connect them with support services such as Rural Workforce Agencies and career advisors within the School of Medicine;
 - b. Collect data on student perspectives on the BMP during medical school and relay this information to relevant bodies, including AMSA.

Background

Glossary of Terms

Acronym	Full title
RoSO	Return of Service Obligation
BMP	Bonded Medical Program
CSP	Commonwealth Supported Place
AMSA	Australian Medical Student Association
AMC	Australian Medical Council
AMA	Australian Medical Association
NRHSN	National Rural Health Student Network
ASGS	Australian Statistical Geography Standard
DPA	Distribution Priority Areas
MMM	Modified Monash Model
DWS	Districts of Workforce Shortage
MRBS	Medical Rural Bonded Scholarship
GP	General Practitioner

History of the BMP

The Bonded Medical Program (BMP) is a rural health workforce strategy established by the Australian Government. The BMP aims to increase the provision of doctors to areas of workforce shortage. As outlined in Figure 1, this program is the second significant attempt by the government to effectively improve rural medical workforce numbers. [1, 2] Critically, bonding medical students is an unproven method. Despite existing in various forms for over 20 years, the effectiveness of the BMP at improving rural workforce numbers is largely unproven. The first attempt to address the rural workforce shortage was the now defunct Medical Rural Bonded Scholarship (MRBS) established in 2001, which provided students with \$20,000 annually in return for a six-year rural

return of service obligation (RoSO). Failure to complete the RoSO incurred a twelve year Medicare ban for practitioners. Failure to complete RoSO also meant paying back all debts owed to the Commonwealth, including the MRBS and university fees. A total of 1,515 scholarships were given, and 23 MRBS recipients have completed their RoSO according to the latest data from 2017. 232 MRBS participants were currently completing their RoSO, with 102 having withdrawn from the program, and 1,158 yet to complete their RoSO. However, the MRBS was phased out in 2015. The second attempt was the BMP scheme, introduced in 2004. In this nascent version of the BMP, 25% of Commonwealth Supported Places (CSPs) in Australian medical programs were bonded. Bonded places came with a six-year RoSO, less the previously provided scholarship. These students were also not subject to the same MRBS Medicare bans. [2] Reservations about the program were raised at the time, with the National Rural Health Alliance concerned about both the effectiveness and equity of bonding without additional financial incentives. [3] Notwithstanding, the BMP remained in place, and underwent several revisions. Some major revisions to the BMP included reducing the RoSO to twelve months, and increasing the number of BMPs to 28.5% of CSPs in 2015. In 2019, the RoSO was further increased to three years.

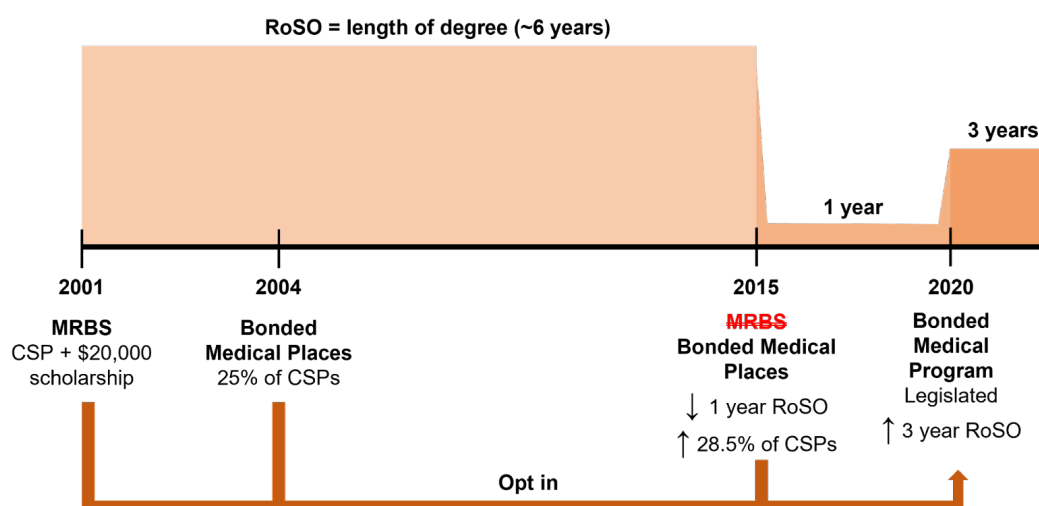


Figure 1. Timeline of the medical student-related schemes introduced by the Australian Government to address the rural workforce shortage since 2001.

As of 2020, participants from these initial legacy initiatives (MRBS and the BMP scheme) have had the option to opt into the new legislated BMP, with their original contractual conditions. This change represents a streamlining of the previous individual contracts between students and government.[2] The BMP is currently governed by legislation under the *Health Insurance Act 1973 (Cth)* (hereafter referred to as “the Act”) and the *Health Insurance (Bonded Medical Program) Rule 2020 (Cth)*. The Act maintains that “bonded participants [are] to complete a RoSO in return for a Commonwealth funded place in a course of study in medicine at an Australian university, which is provided as a benefit to bonded participants as students.” [4,5]

Major changes in 2020 saw MRBS participants' twelve year Medicare ban halved to six years. Additional changes in 2020 included further considerations and flexibility for extenuating circumstances, such as bonded individuals or their families requiring tertiary medical services. [2,5,6] However, there are still many problems with the BMP program for students. The effectiveness of the BMP to address rural doctor shortages is still undetermined, and the question of whether this program is a beneficial investment for the Federal Government remains.

Rationale for the BMP

Australians in rural and remote areas experience worse health outcomes than their major city counterparts.[9,11] Rural and remotely located Australians have a lower life expectancy, a higher rate of potentially avoidable deaths, a higher rate of hospitalisation, a higher rate of preventable hospitalisations, a higher disease burden, generally higher mortality rates and higher rates of many chronic diseases including asthma, diabetes and arthritis. [9] As a result, Australians living in rural and remote areas have a relatively greater need for healthcare when compared to their metropolitan counterparts, but demonstrably less access to health services. The BMP was introduced to encourage the recruitment and retention of doctors as part of the Stronger Rural Health Strategy, a ten-year strategy starting from 2018-2019 targeting a need for a well-distributed health workforce in Australia to cover these rural and remote areas. [8]

As of 2022, according to the Australian Statistical Geography Standard (ASGS), approximately seven million people, or 28% of the Australian population, live in regional, remote and very remote areas. In the remote and very remote areas, where 1.9% of the population lives, the differences in health outcomes and access are the greatest. For example, the rate of disease burden in remote and very remote areas is 1.4 times higher than in major cities, with an increased burden of both fatal and non-fatal disease. [9]

There are stark disparities in mortality rate and life expectancy, in major cities compared to rural and remote areas. In 2020, age-standardised mortality rates were approximately 1.3 times higher for males and 1.5 times higher for females in very remote areas compared to metropolitan areas. Between 2018 and 2020, people living in Greater Sydney were found to have a life expectancy 2.8 years more than the rest of NSW. The difference is most pronounced in the Northern Territory, with a 7.4 year life expectancy difference between Greater Darwin and the rest of the state. [9]

Primary health services are regarded by the WHO as the “most inclusive, equitable and cost-effective way to achieve universal health coverage.” [13] However, a Royal Flying Doctor Service report from 2022 found that 44,930 Australians in remote and very remote Australia had no access to primary healthcare services within a 60 minute



driving radius of their homes, 57,899 patients had no access to general practitioner (GP) services and 118,943 Australians did not have access to general dental care. [12] Due to the distance to health care services, seeking healthcare can be very difficult for rural and remote patients. The cost of travel and potential accommodation required to seek medical care can make healthcare inaccessible for rural and remote patients. The time away from work, loved ones, land and culture can also be inherently stressful for many rural and remotely located patients. Overall, primary care generally becomes less accessible for patients as their remoteness increases. [9]

Higher rates of hospitalisation and potentially preventable hospitalisation in remote and very remote areas demonstrate a need for effective health infrastructure, public health campaigns and most importantly, a suitable health workforce in these areas. People living in very remote areas were hospitalised at almost twice the rate of major cities, and people living in remote areas were hospitalised at 1.4 times the rate of major cities. The rate of potentially preventable hospitalisations was 2.6 times higher in very remote areas than major cities, and 1.8 times higher in remote areas than major cities. [9]

Potentially avoidable deaths are deaths before the age of 75, which could have been prevented through timely and appropriate medical care. [10] The rate of potentially avoidable deaths was three times higher for very remotely located females compared to females in major cities, and two times higher for very remotely located males than males in major cities. [9] This disparity reflects a systemic problem in healthcare for patients in very remote areas.

Remote and very remote areas also lack specialists and allied health practitioners.[9] For example, there are more than five and a half times more specialists per person in major cities than very remote areas. There are also only around half of the number of specialists per person in outer regional areas compared to major cities. Only GPs, nurses and midwives are generally at higher full-time prevalence in more remote areas. [9] However, this statistic does not take into account the specific geographic accessibility of services and the working patterns of these individuals.

The Stronger Rural Health Strategy, introduced in 2018-2019, aims to alleviate the aforementioned inequities in rural and remote health. This ten-year strategy aims to deliver 3,000 more doctors and 3,000 more nurses to districts of workforce shortage (DWS) by 2028. Overall, the Stronger Rural Health Strategy is designed “to build a sustainable, high-quality health workforce that is distributed across the country according to community need.” [8]

The Stronger Rural Health Strategy has three key major themes, including:

1. Teaching;
2. Training;
3. Recruitment and Retainment.

The “teaching” component of the Stronger Rural Health Strategy was addressed via establishment of the Murray-Darling Schools Network. The “training” priority was addressed by introducing the Junior Doctors Training Program, in addition to changing the Medicare billing structure and making it easier for non-residents and temporary residents that are not vocationally recognised to practise and train in general practice in rural and remote areas. These measures collectively incentivise non-vocationally recognised doctors to train in general practice in regional areas. The “recruitment and retainment” part of the Stronger Rural Health Strategy was addressed by numerous measures, including the establishment of the BMP. By encouraging fulfilment of RoSO, the BMP aims to mitigate existing health inequities by increasing the supply of medical specialists practising in DWS. The BMP also aims to increase the number of interns, residents and registrars practising in Monash Modified Model (MMM) 2-7 locations. [7]

Overview of the Current BMP:

Under the current structure of the BMP, students are offered a CSP at an Australian medical school in return for a commitment to work in eligible rural and remote areas for 3 years once they have graduated as outlined under the *Health Insurance Act 1973 (Cth)*. [2] As of 2016, the number of students under the BMP was increased from 25% to 28.5% of all first year CSPs, matching the proportion of Australians living in rural and remote areas. Graduates are required to complete their RoSO within 18 years of the day they complete their university medical degree. BMP participants’ RoSO must be completed within one of the Distribution Priority Areas (DPA) for GPs, DWS for Specialists other than GPs, or a MMM 2-7 area. [2]

Participants of the BMP may complete up to 18 months of their 3 years of RoSO prior to attaining Fellowship, and complete the remaining 18 months after attaining Fellowship. Alternatively, participants may choose to complete all 3 years of their RoSO after they have attained their Fellowship. [2] However, if Fellowship is not attained within 12 years after the completion of the medical degree, graduates will be required to complete all outstanding RoSO within the final 6 years of the required 18 year RoSO period time frame. [2]

In order to encourage graduates to work in rural and remote areas, participants who work full-time for the first 24 months of their RoSO in locations classified as MMM 4-7 get a 6 months RoSO discount. Participants can fulfil their RoSO on a full-time (minimum of 35 hours per week), part-time (minimum of 20 hours per week) or daily

basis (maximum of 20 hours per week). [2] Eligible work that contributes to RoSO includes on-call positions, medicare billed service positions, outreach positions delivering fly-in/fly-out services and telehealth services from an eligible location and delivered to an eligible location. [2] Additional locations become available upon commencement of vocational training in a medical specialty or attainment of Fellowship such as DPA for GP and DWS for Specialists other than GPs. [2] In order to accommodate for participants' changing circumstances, when participants or their family member has a medical condition that prevents them from completing their RoSO, they can apply to have an extension to complete their RoSO by submitting a request. [14] If a participant wishes to withdraw from the BMP after the completion of their degree, they are required to confirm this via the online BMP portal - the Bonded Return of Service Record (BRoSS) Record. [1] The conditions and penalties for withdrawal are outlined Appendix 2.

Effectiveness of the BMP

The BMP scheme has not been reviewed since 2017, rendering the effectiveness of the BMP in its current state questionable. The lack of data supporting the BMP program is a fundamental problem with the BMP presently. A more thorough assessment into whether the BMP is achieving its stated aims is warranted, with balanced consideration of the BMP's underlying problems. AMSA does not stand alone in its stance on the BMP, as medical organisations such as the Australian Medical Association (AMA), the Medical Deans Australia and New Zealand and ACRRM have called for an urgent review and evaluation of the BMP to assess whether it is meeting its objectives. [15-18] Since its inception, the BMP and its predecessors had 13,521 participants - 597 (4.4%) have completed their RoSO, 779 (5.7%) have withdrawn from the BMP, and 12,145 remain active participants of the scheme. Over half (6904; 56.8%) of active BMP participants are still studying. [19] The most recent assessment of the BMP, conducted in 2017, suggested that the BMP has not been effective in achieving its objectives of recruiting or engaging future rural health practitioners. [20] Between 2001 and 2017, only 32 participants had completed their RoSO, 518 practitioners had withdrawn from the program, and 151 were yet to complete their RoSO. [21] This attrition rate of 94% is extremely high compared to other schemes that aim to increase rural workforce numbers such as the John Flynn Placement Program (JFPP), which was a rural placement scholarship program for medical students that had a withdrawal rate of only 5% when it was ceased. [21] It should be noted that unlike the BMP, the JFPP was a voluntary scheme, possibly explaining its lower attrition rate. Despite its low withdrawal rate, the JFPP was recently abolished.

The consequences of withdrawing from the BMP are severe. If the withdrawal is during the course of study, participants are liable to repay the government's contribution to their medical studies, including interest, on top of usual HECs debt. [22] If the withdrawal is after the completion of studies, participants will be liable to pay 100% of the Government's contribution to their studies, less a pro rata amount based on any proportion of RoSO completed.

There are various reasons for the high BMP attrition rates, including the fact that some students who opt in to BMP do not intend to practise rurally in the future in the first place, and instead accept the BMP's obligations out of desperation to achieve their dream of studying medicine. [22] The limitation of career ambitions such as specialty training and family options regarding employment and education can also hinder participants' ability to complete their RoSO.

Major Issues Associated with the BMP.

Lack of Data Justifying Continuation of the BMP

The BMP was reviewed in 2013 as part of the Australian Government's *Health Workforce Programs Review*. [23] This review found that there was a lack of evidence that the bonded programs which had been implemented up until the time of review had resulted in long term improvements in rural life. Another review, conducted in 2020, raised concerns about the BMP, with a focus on the fact that the BMP is only supported by low quality evidence.[24] This report concluded that "little can be ascertained in terms of the effectiveness" of BMPs. Consequently, the Community Affairs References Committee recommended that the Department of Health conduct a "comprehensive and holistic review of the Stronger Rural Health Strategy", with "performance benchmarks...established to assess the effectiveness of the overall strategy and its programs".[20] Such a review of the Stronger Rural Health Strategy, including the BMP, is yet to be completed by the Department of Health.

The lack of data supporting the BMP is a fundamental problem with the BMP presently. A more thorough assessment of whether the BMP is achieving its stated aims is warranted, with balanced consideration of the BMP's underlying problems.

Challenges in Completing RoSO

There are numerous potential barriers to completing RoSO. Most students are young and without children at the time of signing the BMP contract, with undergraduate medicine students commencing at an average of 18 years old, and some postgraduate medicine students enrolling at as young as 20 years old. [25] Such students may

genuinely believe that completion of RoSO is achievable at the time of signing. However, fifty per-cent of the RoSO is required after fellowship. Participants' life circumstances are very likely to change during the near-decade it takes to complete medical school, internship and fellowship. For instance, BMP participants may start a family with someone that cannot move to a rural area without losing their job. Alternatively, BMP participants may become carers for unwell family members, or require care for complex medical conditions themselves. Moving to a remote area, with lower access to specialist medical care for themselves and their families, may be a difficult decision for such practitioners. Additionally, some specialities are very difficult or impossible to practice rurally due to a lack of support staff and specialised equipment. Overall, life circumstances become more complicated as BMP participants get older, and some specialties are impossible to practise rurally. Many people therefore cannot fulfil their RoSO within the allocated 18 years. The high BMP attrition rate is unlikely to change, until the structure of the BMP is redesigned to be more accommodating, with a more realistically achievable RoSO.

Questionable Capacity to Consent to the Financial Risks of the BMP Contract

One of the requirements of the BMP contract is that the student must pay a lot of money out of pocket, on top of their HECS debt, if they discontinue studying medicine after the census date of their second year of study. [26,27] Specifically, students that decide medicine is not for them and withdraw from their course are liable for repayment amounts of ~\$28 000 per year of medical school attendance, in addition to their normal HECS debt, as a penalty for not fulfilling their RoSO (Appendix 2). Students consent to this financial risk upon signing the BMP contract. However, students' capacity to consent to this financial risk is questionable.

Minors generally display limited contractual capacity and therefore may not be capable of entering legally binding agreements. [28] Many current BMP participants accept their bonded places as minors, which brings into question whether their place in the BMP is voidable. It is recommended that upon reaching the age of 18, a participant's agreement to the BMP is explicitly re-affirmed in terms of obligations and breach of contract consequences, to ensure fuller validity of the contract. Many other issues also arise from considering the contractual elements of consideration and consent, but these issues are likewise present in non-minors for the same decision.

There are some additional ethical issues associated with BMP contract acceptance, which may persist even in adult students after the census date of the second year of medical school. For instance, acceptance of the BMP contract may be influenced by parental coercion. Alternatively, participants may accept bonded places without a meaningful understanding of the medical field, and/or the long-term implications or extent of their obligations. Such students may only realise medicine is not for them

during their clinical years, which typically begin in third year, after the cut-off for withdrawing from the BMP without financial penalty. The financial penalty associated with BMP withdrawal inequitably imposes restrictions on students' freedom to pursue alternate university courses or employment. The substantial debt resulting from withdrawing from a bonded place could also potentially have long term mental health and lifestyle implications, although there is a lack of research into this area. Further research, considering these potential harms to students that opt in to the BMP, should be conducted.

Overall, many students sign the BMP contract without adequate exposure to the medical field. These students may have a limited understanding of the level of commitment that being a medical student and/or doctor involves. These students' decision to expose themselves to the financial risk of owing the government a significant amount of money (Appendix 2) in the event that they do not enjoy medicine or encounter severe hardship and drop out in clinical years is not necessarily fully informed. [21] The fact that many medical students have questionable capacity to consent to the financial risks of participation in the BMP at the time of application is one of the major ethical issues associated with the BMP. One potential means of addressing this risk of harm to students is to waive financial penalties for BMP students that withdraw from their degree before graduation, as they derive no medical qualification, employment or significant benefit compared to their peers and incur substantial and acute financial risk.

Low Accessibility of Information on the BMP

Aside from resources on the Australian Government website, there are limited resources for students considering the BMP. The Australian Government website should link interested students to existing resources such as: university information sessions on the BMP, Rural Health Workforce websites, which offer contacts for prospective students to discuss the BMP with; and social support networks and forums for opportunities to ask questions of bonded students and doctors, such as the nation-wide NRHSN and local connections such as the Rural Support Pro in New South Wales. [32- 34] Students should also be linked to free or heavily subsidised legal services, to better understand the legal and financial implications of the BMP and therefore make an informed decision about the program.

Existing BMP students are, anecdotally, also unaware of the support and information available to them. The Rural Doctors Association of Australia and the associated member-based organisations in each state and territory offer support to rural doctors and students with some offering BMP-specific support. Additionally, there are Rural Workforce Agencies in each state and territory, as detailed in Appendix 1.

These resources are not well known by medical students, but offer a wealth of information, placements, contacts and grants to BMP students. [35]

Eligibility Criteria

A rural background is not included in the BMP eligibility criteria, despite the scheme's aim being to address rural workforce shortage and improve rural healthcare outcomes. Students simply need to be an Australian citizen or permanent resident, and fulfil the prerequisites for a medical degree at an Australian university. [27] The BMP is opt-in, to increase its availability. However, the opt-in model of BMP applications is not without its drawbacks. As explored earlier, the percentage of people who complete their RoSO is very low for many reasons. One of these is likely that people without a rural background are not connected to rural communities and are therefore less likely to become rural doctors. [36] Given that the purpose of the BMP is to address the rural workforce shortage and healthcare disadvantage in rural communities, the BMP criteria do not necessarily select for students who are strongly connected to rural communities and therefore more likely to become rural doctors and fulfil their RoSO in the first instance. [37] Overall, the BMP is not selecting for interested students as effectively as it could.

Underlying Motives in Signing the BMP Contract

BMP contracts are generally offered to lower ranked medical school applicants. [38] There is therefore a perception that many students sign the BMP contract out of desperation to achieve their dream of getting into their desired medical school, intending to "buy out" of the BMP contract as soon as they have attained Fellowship. [22] Such a decision is likely to be easier for those from high socioeconomic backgrounds, who may have less fear of the financial penalties of not completing their RoSO. There is no data on how common this motive in accepting the BMP contract is. There is also no data on whether BMP acceptance is more common in high socioeconomic groups. Further research is necessary to elucidate whether students' initial motives in signing the BMP contract are a contributing factor to the low rate of RoSO completion.

Higher Difficulty for Marginalised Groups to Meet RoSO

Groups that may experience particular difficulty in meeting their RoSO are ethnoculturally diverse practitioners, LGBTQIASB+ individuals and birthing people of reproductive age.

Racism, including social exclusion, pressure to abandon one's culture and assimilate into Anglo-Celtic society, have been extensively documented in regional areas with

lower education levels and a lack of multiculturalism. [39-40] People of colour may therefore struggle to feel accepted in regional areas, making it difficult to live there for the entire obligated length of service.

Similarly, LGBTQIASB+ people have been known to struggle with establishing connectedness with other members of the LGBTQIASB+ community when living rurally. [41] This lack of community connectedness, combined with the minority stress exacerbated by the lack of anonymity in rural areas, can increase the risk of depressive symptoms in LGBTQIASB+ individuals. [42-43] LGBTQIASB+ practitioners may therefore struggle with meeting their RoSO.

Finally, practitioners may struggle balancing their reproductive health goals with their RoSO. Namely, the average student commences medical school at 22.1 years old in Australia. [44] The average medical student may therefore become a consultant at a minimum of 30 years old. For people that want to have children, being expected to complete their RoSO during their early thirties may be unrealistic for many practitioners, especially those that may require the support of metro-located families to effectively balance their clinical obligations with the work of raising young children. [45-46] The reproductive health implications of completing their RoSO may make participation in the BMP more difficult for many practitioners.

Overall, people from diverse cultural backgrounds, LGBTQIASB+ individuals, and birthing people of reproductive age may experience increased difficulty in meeting their RoSO. These minority groups are therefore disproportionately at risk of the potential financial penalties associated with participation in a BMP contract. These difficulties are discussed further in AMSA's *Rural and Remote Health Policy* (2022).

Alternative Alternatives to the BMP

To date, there has been no official investigation into the ability of the BMP to improve the recruitment and/or retention of doctors in rural and remote communities, and therefore no evidence to inform whether the BMP should be continued or ceased. Going forward, it is essential to conduct a proper, comprehensive study of the BMP and its outcomes to make this decision in the future. Until then, it is necessary to consider evidence-based alternatives to the BMP.

Research has repeatedly demonstrated strong evidence for the following strategies to enhance rural retention:

1. Selecting students from rural backgrounds to become health professionals;

2. Rural and remote exposure during medical school and subsequent training;
3. Integrating rural medicine, including general medicine, outreach health promotion, clinical reasoning and skills in low-resource settings, into the medical school curriculum; and
4. Removing barriers for further professional qualifications within the rural setting. [47, 48, 49]
5. Programs and initiatives to engage rural high school students to start them on a pathway to medicine. [37]

AMSA's stance on a variety of alternative initiatives is further developed in the *Rural Health in the Medical Curriculum* (2021), *Rural Clinical Schools* (2021) and *Rural Training Pathways* (2020) Policies.

RAMUS:

One alternative to the BMP has been the Rural Australia Medical Undergraduate Scholarship (RAMUS), which provides a \$10,000 per annum stipend to undergraduate medical students from rural backgrounds, and facilitates mentor relationships with practising rural doctors. RAMUS has been administered by the National Rural Health Alliance with federal government funding since 2000, supporting over 2,200 students to date. There is significant evidence that medical students from rural backgrounds are more likely to work rurally, and tracking of RAMUS scholars shows that, as of 2019, 35% of graduates return to rural work - a rate several times higher than their metropolitan counterparts. Importantly, these students have not been bonded and, inevitably, some choose to work in metropolitan areas [50]. The addition of 744 rural doctors into the workforce as a result of the RAMUS scholarship is demonstrably higher than the 32 BMP participants who had completed their RoSO as of 2017, some of whom may not have stayed after RoSO completion. Further investigations into the BMP's long-term retention are needed. A more effective model of rural workforce growth has been demonstrated in the RAMUS, with a significant procurement of rural doctors, though amendments for provision in postgraduate universities would be needed. The fact that the federal government funds RAMUS also suggests it would be an appropriate alternative to the BMP from a fiscal perspective. [50]

Rural and Remote Exposure during Medical Training:

Extended rural placements in Australia and globally have already been demonstrated to be highly effective in rural workforce retention. [51]

Rural Clinical Schools (RCSs) were introduced by the Australian Government in 2002 to increase the rural doctor workforce, based on global evidence that existed even at that

time. [53] The Government funds participating universities to train 25% of their medical graduates for at least one academic year in a rural setting. Such training programs are often referred to as longitudinal integrated clerkship (LIC) years. [52, 53] Currently, RCSs already supply the majority of the graduate rural workforce. [52]

In 2021, a study involving 10 medical schools across New South Wales, Victoria, Queensland, Western Australia, Tasmania and the Australian Capital Territory found that, compared to metropolitan-origin students without RCS placement, rural-origin students with RCS placement were 3.6 times more likely to practise regionally and 4.8 times more likely to practise rurally 8 years following graduation. Meanwhile, RCS metropolitan-origin students were 2.4 more likely to practise regionally and 2.7 times more likely to practise rurally than metro students not involved in an RCS placement. [51] This study also demonstrated that extended rural placement synergistically improved the likelihood of future rural practice in students who were already of rural origin. [51] In fact, some studies indicated that RCS exposure may even be necessary to 'convert' students with initial intentions for rural medicine, to actual rural practice. [54]

The RCS of Western Australia (RCSWA) also provides promising data on the efficacy of RCSs. An assessment in 2014 found that metropolitan participants of the 12-month program were four times more likely to be working rurally up to 10 years after graduation, compared to their peers who had not participated in the RCSWA. In fact, rates of rural practice in metropolitan-origin students that participated in the RCSWA were on par with rural-origin students who did not engage in the program. Metropolitan-origin students that completed the RCSWA also had higher rates of rural practise post-graduation than students of metropolitan-background that applied for but were not selected for participation in the RCSWA. This data suggests that RCSWA, rather than the students' intentions alone, was primarily responsible for this rural workforce outcome. [53]

Deakin University also conducted a study in 2020 of three of its five RCSs, two of which offer two-year clerkship programs at a regional hospital (RA 2), and one which offers a 12-month LIC across nine smaller rural sites (RA 2 and 3). This study found that rural practice in postgraduate years one to eight was 2.08 and 1.99 times more likely in these groups of graduates, respectively, compared to graduates placed in metropolitan clinical schools. [52]

Other—albeit smaller—studies have also produced similar results, such as those conducted on Flinders University's Parallel Rural Community Curriculum (PRCC) program and those of the University of Queensland's RCS. North American literature has also supported the influence of extended rural placement on the likelihood of future rural practice. Retrospective studies of rural GPs have also demonstrated an association between rural undergraduate experiences and later rural practice. [53]



Shorter blocks of rural placement have also been found to be successful, as demonstrated by the now-discontinued John Flynn Placement Program (JFPP). The JFPP was another initiative aimed to increase the number of rural and remote doctors. Selected medical students undertook a total of eight weeks of placement with a rural doctor at some point over their four years of study. This program allowed students to have consistent exposure to not only rural medicine, but also a rural community and its health services. Data shows that the JFPP doubled the number of students who intended to practise specifically as rural GPs between the first and last years of its program, with interest in rural general practice rising from 9% to 20%. This review of the JFPP also found that 65% of its student participants intended to work rurally post-graduation. The study found that 51% of JFPP participants did not have a rural origin background. The JFPP also seemed to recruit more students from metropolitan-based medical schools. Thus, the authors concluded that the JFPP may have been able to recruit students who would not otherwise have considered rural practice. Overall, this study suggested that “meaningful continuity relationships with rural mentors” could be a significant contributor to converting metropolitan students to rural careers, a finding which apparently has also evolved in other research. [55]

Overall, there is a growing body of evidence suggesting that the strategy of rural and remote recruitment should move away from mandatory RoSO programs—such as the BMP—towards investing in a range of rural placement programs such as extended LICs, as seen in RCSs, and regular spaced exposures to rural practice, such as the JFPP. AMSA’s stance on alternative initiatives is further developed in the *Rural Health in the Medical Curriculum* (2021), *Rural Clinical Schools* (2021) and *Rural Training Pathways* (2020) Policies.

In the meantime, changes should be made to the current BMP program to better facilitate students and graduates currently within the program, and promote the recruitment of students likely to continue working in rural and remote areas.

Rural and Remote High School Interventions

Rural background has repeatedly been shown to be one of the strongest predictors of doctors working rurally and remotely longer term. Consequently, a potential means of addressing workforce shortages may be to recruit more medical students from rural backgrounds. [51] An important part of this strategy may be engaging high school students, as to generate and support interests in medicine. [56]

High school is an important time for students to start exploring different professions. Most students make their career choice and start thinking about pathways to their desired career, such as university, between Years 10-12. [57] However, research shows that Australian students living regionally and remotely are less than half as likely as those from urban areas to attain a university qualification. [58] Major barriers for rural

and remote students considering tertiary education include relocation expenses and the ongoing emotional and financial cost of living independently at an early age. Additionally, the limited exposure to varied careers, and the common lack of other family members who have experienced university, can preclude students from considering university altogether. [57] This issue is compounded by the fact that rural and remote students often lack confidence in their academic ability to attain a university degree. [57]

Therefore, high school interventions to engage rural and remote students with medicine should aim to expose them to the medical field, inform them of the pathways to the degree, and help them build the confidence to pursue it. [59] Though dozens of high school programs have been carried out in Australia over the past two decades, no studies have been done to assess whether rural recruitment of students into medicine was effective. However, information regarding the opinions of the attendees or hosts of these programs and similar programs can help inform what aspects are positively received.

For example, the ACT University Experience Program (now ceased) invited 50 students to travel to Canberra to experience university and city-life, and attend lectures and workshops across a number of disciplines. This initiative was reported to give its students a greater understanding of university, and of living in a city, in addition to increasing their confidence in engaging with university and moving away from home. [59] In 2022, the *Aspire2Health* program, run as single events across 12 regional and rural high schools in Queensland by Rural Medical Education Australia (RMEA), found an increase in the number of students motivated to pursue a career in health from 73% to 84%. *Aspire2Health* also received feedback that it should include more practical activities and representation by a greater number of different health professionals. [49] RMEA also runs the *Considering Medicine Program*, and the USQ *Beyond Year 10 Camp* program, to engage students with medicine [60]. The University of Queensland runs other rural clinical school programs such as *Medicine @ UQ*, *Dr4aDay* and *A Taste of Medicine (ATOM)*. [61] James Cook University runs its own *Heroes in Health* program in Townsville, Mackay and Rockhampton to help students explore medical, nursing and allied health careers. [62]

One study in the United States evaluated the use of pipeline programs to medicine – programs that promote and prepare students for health careers – for students from underrepresented and disadvantaged backgrounds, including rural origin. One program, the Area Health Education Centre (AHEC) program, involved improving students' awareness of health careers, supporting the development of their academic and communication skills, fostered mentoring relationships with health professionals, offering research opportunities and helping students with applying to medicine. These interventions were positively correlated with improved standardised test scores,

college enrolment, pursuit of a health science major, entering medical school and entry into a primary care specialty and rural practice. [63] An interview conducted with directors of other programs also found a strong consensus regarding hands-on activities, such as shadowing health professionals, and mentorships (with both healthcare students and professionals) as key strategies to encourage students to pursue health careers. [63]

Both locally and overseas, high school interventions—particularly pipeline programs—have shown promise in recruiting students of rural origin to medicine. Due consideration should be given to establishing more of these programs in Australia, potentially in collaboration with the federal or state governments.

Conclusion

In summary, rural and remote patients experience severely inequitable health outcomes. These lower health outcomes may be driven by the shortage of doctors practising rurally, which makes healthcare less accessible for rural and remote patients. The BMP was introduced to address this issue. Currently, 28% of Commonwealth supported medical students are BMP participants. Bonded students' contractual obligations include a sizable financial penalty if they do not complete their three year RoSO. Many students and doctors struggle to meet their RoSO for reasons outside of their control, resulting in an estimated BMP attrition rate of 94%. A comprehensive review of the efficacy of the BMP, with balanced consideration of its various ethical issues and potential alternatives, should be conducted in the interests of student welfare and the health of rural communities.

Appendix 1: Rural Workforce Agencies by state/territory

ACT	N/A
NSW	New South Wales Rural Doctors Network
NT	Northern Territory Primary Health Network (NT PHN)
QLD	Health Workforce Queensland
SA	Rural Doctors Workforce Agency (RDWA)
Tas	HR Plus
VIC	Rural Workforce Agency Victoria
WA	Rural Health West
National	Rural Health Workforce Australia (RHWA)

Appendix 2: Repayment of Commonwealth contribution amount for withdrawal from the BMP

Upon breach of BMP conditions or withdrawal from the program, the amount a former participant pays is based on the following formula: [4]

$$\frac{\text{incomplete RoSO (months)}}{\text{total RoSO (months)}} \times \text{total repayment amount (\$)}$$

Total repayment amount is defined as “the Commonwealth contribution amount for a place in medicine for each year of study completed, and for any parts of a year commenced, but not completed.” (5, section 17) Interest on overdue repayment amounts is calculated on the basis of the unpaid principal amount after the invoice due date, at 15% per annum, on a daily basis and is not compounded. (5, section 18)

In 2023, the Commonwealth contribution amount for medical courses was \$28,196 (AA3). The Commonwealth contribution amount for each year changes according to that year’s indexation and is always increasing (42, section 198-5, section 198-10).

Note that the Commonwealth contribution amount is separate from the maximum student contribution amount, which was \$11,800 for medical courses in 2023, payable upfront or via HECS-HELP. (43, see funding cluster 4)

For example, the total repayment for a person after completing a five year bonded medical course and who fulfils none of their RoSO is at least \$140,980, given they commence their course in 2023. If a person, in a similar situation, completes half of their RoSO (18 months), their repayment is halved to at least \$70,490. If a bonded student drops out after their fourth year of medical school, with no chance to complete their RoSO, they would be subject to at least \$112,784 in repayments. These figures do not take into account indexation and are assumed at 2023 Commonwealth contribution rates.

If a medical student withdraws prior to the census date of their second year of study they will not be required to make any repayments. However, you they will still be required to pay student contribution amount for the first year of enrollment. [1]

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