

DOC on Campus: a general practice initiative for early intervention and detection of mental health problems in a rural Australian secondary school and male student participation

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Abstract

This paper explores the uptake of a Doctor on Campus (DOC) early detection and intervention program for mental health issues by South Australian rural male adolescent secondary school students.

In 2004 a local medical centre and high school started piloting a community partnership model involving private allied health practitioners, along with support from the local Division of General Practice and Department of Education. This article describes an initiative where health and education services were combined to achieve an improved wellbeing outcome for adolescents in a rural community.

As research has pointed out Australian male adolescents have a higher suicide rate than female adolescents. Furthermore Australian rural male adolescent have a higher risk of suicide than their metropolitan male counterparts. (Bourke 2003, Boyd 2006) Australian rural male adolescents internalise and externalise mental health more than female adolescents and are less likely to seek help than their metropolitan peers. This paper discusses the importance of early detection and intervention to improve health and wellbeing and associated economic benefits to society. Doctor on Campus is an alternative service delivery which has been shown to have ready acceptance by the rural male secondary school community.

Introduction

The aim of this paper is to review the acceptance of an early intervention and detection program called Doctor on Campus (DOC) in male adolescents in a rural high school community in South Australia.

The 'Doc on Campus' (DOC) program began in May 2004 in a regional high school with approximately 700 students. Since its inception, over 162 secondary students have accessed the program, seeking support in a range of mental health issues. Of those 162 students 54 (34%) were male.

Being located in a rural community, the 'DOC' team have formally and informally followed the progress of some of the young people who have been part of the program and reported that a significant number of

male 'troubled' adolescents have been able to effectively re-connect with learning and with life in our community (Doley et al 2008).¹

The program has also been seen to effectively promote male adolescent health and well being through the development of closer working relationships between health services and young people in the community via the local secondary school. This school based approach is in line with earlier studies on early intervention programs and policies, highlighting the need for a closer relationship between health and educational services. (Sawyer et al 1992, O'Hanlon 2002).

Adolescent mental health prevalence and the costs to community

Emotional and behavioural problems among children and young people are widespread. Incidence rates of mental health problems and illness, including those likely to continue into adulthood, elevate in the 12-25 year age group (Commonwealth Department of Health & Aged Care, 2000a). Sawyer et al. (2000) reported a 19% national prevalence rate of mental health problems for adolescents aged 13-17 years. Anxiety and depression are the most common mental health problems for people aged 12-17 years.

Each year in Australia around 100,000 young people experience anxiety or depression.

The anecdotal evidence that mental health issues often start in adolescence is supported by medical research. A depressive episode is experienced by twenty per cent of adolescents by age 18 years.

...longitudinal data indicates that an episode of depression is a substantial risk factor for subsequent episodes, both within adolescence and into adulthood. This increased vulnerability is likely to reflect the adverse impact of depressive episodes on neurobiological and cognitive development, as well as on emotional, social, and occupational functioning. These data indicate the public health significance of adolescent depressive syndromes, and the need to intervene effectively and early in adolescents who suffer from these disorders. ...Recognition of depressive disorders within the primary care services and the school setting is therefore an important focus. (Harrington R, Clark A, Prevention and early intervention for depression in adolescence and early adult life. EUR Arch Psychiatry Clin Neurosci, 1998. 248: 32-45. Allen NB, Hetrick SE, Simmons JG, Hickie IB, Early intervention for depressive disorders in young people: the opportunity and the (lack of) evidence, MJA 2007; 187 (7 Suppl): S15-17.)

The World Bank and World Health Organisation Burden of Disease project (Murray & Lopez 1996) found in established market economies such as Australia that mental disorders account for around 22 per cent of all disability adjusted life years lost (DALY). While this partly reflects the reduced impact of physical disorders, it also reflects the early onset and disabling nature of many mental disorders (Andrews et al. 1999). Mental disorders are at their most prevalent during adolescence and young adulthood, and account for 55 per cent of the disease burden among those aged 15-24 years (Commonwealth 2004).

¹ In May 2004 in discussion with the local school chaplain the school councilor realised that support services were hard to access (overburdened Child and Adolescent Mental Health Services =CAHMS) at the high school for adolescents who had mental health issues. Furthermore, quite a few adolescents presented in a crisis to our emergency room who could have been seen earlier and such crises prevented. The school counselors agreed they needed further early intervention support on campus. The "Doc on Campus" initiative was formed with sponsorship of the local medical centre, and the support of the school and extra commitment of one local GP. This involved one consulting session per fortnight located on the high school campus.

In 2006 the Division of General Practice utilised existing funding (MAHS program) to finance a psychologist on campus for two sessions a week. The school based early intervention program involves three main steps, including:

1. Referral to the GP initiated by the school counselor (essential to avoid overloading of the system) and parental consent if the student is under the age of 14 years
2. The student is reviewed by the GP who organises referrals to a psychologist and/or psychiatrist as required
3. The provision of services through a psychologist and/or psychiatrist are implemented and funded through a Mental Health Plan or More Allied Health (MAHS) Program via the Division of General Practice

Studies by the World Health Organisation point out that depression alone is the leading cause of disability as measured by YLDs—years lived with disability—and the 4th leading contributor to the global burden of disease DALYs (Disability Adjusted Life Years—a measure of a total length of time that a specific illness is disabling to an individual over their life span) in 2000. By the year 2020, depression is projected to reach 2nd place of the ranking of DALYs calculated for all ages, both sexes. Today, depression is already the 2nd cause of DALYs in the age category 15-44 years for both sexes combined. (WHO, 2009)

The effect of a mental disorder in late adolescence or early adulthood may seriously impede and disrupt a young person's growth and development, and erode quality of life. It can affect a young person's confidence, create unwanted dependence on families, strain social and family relationships, seriously disrupt education and career paths, and hinder social development, at a time of life when these life elements are crucially important. The effects may be life long, and the costs—financial, social and health wise—of failing to provide effective early intervention, treatment and secondary prevention are significant. (Commonwealth 2004).

These statistics should make early detection and treatment a priority for every community and government as it has the potential to positively impact on patient's lives, and at the same time decrease disease burden and costs to society.

Adolescents accessing mental health care

Over 60% of young people experiencing anxiety or depression don't seek professional help (Mental Health Council of Australia, 2000).

Moreover, Sawyer et al. (2000) found that only 25% of young people with significant mental health problems attended a service. O'Hanlon et al. (2002 p147) noted that school based counselling was the most frequently used service by adolescents and that therefore "early intervention in the education sector has great potential." Significantly, only 8% reached a child and adolescent mental health service.

Remschmidt et al (2005) pointed out that "school-based consultation services for child mental health are not regularly employed in both the developing and developed world to the degree possible. This gap leads to a failure to reach children who otherwise might be helped to avoid many of the problems associated with school drop-out and other significant consequences."

Due to the high prevalence of mental disorders in adolescents early intervention for young people is a priority and evidence for its effectiveness is emerging (McGorry, & Jackson, 1999; Kessing 2008).

In Australia, over \$2 billion is allocated to mental health services, however most services are directed towards adults (O'Hanlon, et. al. 2002, 134). Public resource allocation is also seen as a crucial factor for the successful implementation of early intervention programs, along with developing professional partnerships across disciplines (O'Hanlon, et. al. 2002, 140, Commonwealth 2004).

Relevant service factors that promote youth-friendliness include: accessibility, flexibility, positive communication, respect, emotional safety, transparency, alliance, advocacy, persistence, and accountability (Stacey, 1999; 2001; Stacey et al., 2002; Wright & Martin, 1998 , Commonwealth 2004).

To better address these issues, alternative service delivery models and appropriate funding must be considered to ensure young people with emerging mental health problems, and living in rural communities, are able to readily access local specialist therapeutic services for accurate assessment.

Web based cognitive behaviour therapy tools have shown some scope for prevention and early intervention in male adolescents. The recent preliminary findings of MoodGYM in the YouthMood project

(Calear et al 2009) were positive and included significantly greater reductions in anxiety in the intervention condition at post-intervention and six-month follow-up, and significantly greater reductions in depressive symptoms for male adolescent participants aged 12-17 in the intervention condition at post-intervention and six-month follow-up. The MoodGYM program was embedded into the school curriculum and was presented in subject areas such as physical education, pastoral care, health and religious education.

Rural adolescent mental health

Boyd et al. (2006, 1) note that the "...mental health of adolescents in rural Australia has received little research attention." The data available on adolescent rural mental health also indicates that death rates due to suicide among males between the ages of 15 and 24 tends to increase with the level of remoteness, with the suicide rates in remote areas being twice that of capital cities. (2006, 3) Similarly, previous research indicates that there are significant barriers contributing to reluctance among adolescents in rural communities in seeking professional assistance in mental health. A lack of knowledge of mental health services in rural Australia is noted here (2006, 4), and, there is also an acknowledged lack of health professionals in rural areas with specialist mental health training. (Boyd et al 2006, 5; Sawyer et al. 2000).

Recent Australian research has been addressing the unique issues facing rural adolescents with mental health issues. Aisbett et al 2007 describe how the lack of reliable transport to and from the mental health service affected the utilisation of the service by rural youth. Other issues raised by adolescents were the lack of qualified professionals in their region who specialise in child and adolescent mental health and frustration at long waiting lists and the lack of an after-hours service. "Results also revealed that rural gossip networks and social visibility within rural communities compounded the experience of stigma and social exclusion for these young people. Furthermore, participants explained how these experiences negatively impacted on their utilisation of the mental health service and their progress towards recovery." Quine (2003) suggests that the tough stoic male image plays a significant role in rural adolescent males' willingness in seeking help. Parents reported the following reasons for not accessing mental health services for their adolescent child: too expensive, parents felt they could manage the issues themselves, they did ask for help but did not get it, and, waiting times were too long. Only a minority of parents were worried about the stigma of obtaining help (Sawyer et al.2000).

Role of general practitioners

Boyd et.al (2007) highlights the role of the General Practitioner (GP) in mental health detection and management in regional Australia, often in the absence of local specialist services. A GP or family doctor is acknowledged at a practical level as taking a major responsibility for "coordinating assessment and management" of mental health. (Swanston et al 2000: 22). The confidentiality related to the role of the GP can play a significant role in addressing issues of adolescent mental health.

The DOC Program—a school perspective

The aim of the DOC program has been to provide an alternate student friendly service for early detection and intervention which would contribute to student health and well being and hopefully decrease the incidence of mental health issues in adulthood. A need for a high school based early intervention program for mental health issues was identified after school counsellors at the regional study school became confronted with an increased rate of students with "complex emotional health and wellbeing issues—

depression, anxiety, self harm/suicidal tendencies, drug/alcohol issues, anger, grief, eating disorders, sexual management etc.”(School Principal) Like schools elsewhere, rural or city, large or small, this site struggled to manage a case-load of needy students whose challenges reflected the real trends in adolescent life today.

The DOC program began in 2004 based around the provision of health services on the campus of a rural high school with around 700 students. It provided students with easy, affordable and confidential access to mental health care, based upon a belief in the value of early intervention. From the outset DOC took a whole-client approach that saw consults with students with mental health issues look at broader elements of life and lifestyle—such as diet, exercise, sleep and managing lifestyle balance—as a key to achieving improved wellbeing. The school regards the successful implementation and operation of the DOC program as having been crucial to student well-being and ongoing mental health outcomes for students at the school.

Prior to DOC, traditional referral processes to medical and community health options did not meet the needs of students, either due to waiting lists, or the fact that students did not relate to traditional referral processes, often feeling embarrassed or uncomfortable seeing a doctor in a surgery, or being worried regarding the issue of confidentiality. This was particularly true for adolescent boys concerned about the ‘stigma [and] tough stoic male image’ (Quine 2003).

Having a GP on campus has allowed counsellors to directly refer students with elevated needs to the GP easily, efficiently, and on site. The DOC model developed a collaborative, student friendly and demonstrably effective approach to mental health and well-being. Keys to its success lie in the quality of medical advice available, and the involvement of counsellors, parents, and where necessary, teachers, in developing individualised support plans for students in need.

DOC intervention starts with an initial 45 minute consult based on case-notes prepared by school counsellors. This has proven to be a critical element in the DOC program as it allows the doctor to have some crucial insights into the students' issues and to develop a practitioner-student supportive relationship that leads to improved outcomes. For students this reduces the stress of having to “tell their story again”, especially if the content is challenging. The overwhelming majority of students who have been referred to DOC have been able to effectively re-engage with learning and with life. In the process, they have been introduced to self-management skills that will serve them well through to their adult lives.

A major concern of the school counsellors that has been addressed by the DOC program centres on the expectation among students of a level of support in mental health issues that is often beyond the level of training of school counsellors to deliver. It is crucial to understand that it is often the school counsellor who is the first to know that a student is in genuine trouble. Often, following a heartfelt discussion with a student and some troubling disclosures, a common question by a counsellor would be “...so who else knows about this?” At this point the school counsellor is faced with a genuine challenge in managing the needs of the young person. Today, in this school under the DOC program, the counselling team can speedily access professional assistance, where necessary, and in the process enhance the likelihood of a positive outcome for the adolescent client.

Qualitative evaluation of the DOC program based on consultation with both present and past students, parents, and teachers, sees the DOC initiative exceeding expected objectives and outcomes. Elevated outcomes for students have been profound and measurable. The feedback from students has been excellent, and there has also been significant acknowledgment of the benefits of the program from both parents, and teaching staff. In particular, the school counselling personnel no longer faces the impediments to early intervention that was previously a common experience.

The identification of the need for on-campus psychological support for students with elevated needs, and the inclusion of a social worker with mental health training and consulting psychologists have reinforced the positive outcomes of DOC program. The psychologists contribute directly to the case-conference process. The positive outcomes of the broader program are evident when a 16 year old male student makes an appointment with the school counsellor and comments that: "I've been getting really angry again of late and that's not good—can you book an appointment for me with ... [the psychologist]".

Consultation with counsellors and school leaders from other schools, not surprisingly, reveals a strong demand for the DOC program to be available beyond the project school. However, support of Departments of Education/Health, at a state or commonwealth level, and policies that can address the financial impost on GP services in delivering a program such as DOC is necessary for such initiatives to be extended and implemented in other rural schools.

The DOC program could be of considerable benefit in the overall strategies planned to manage mental health issues in our communities, particularly those in regional centres and rural areas. The Principal of the DOC school has concluded that "the DOC partnership between medical practitioners and schools which promotes positive wellbeing for adolescents and fosters early intervention in mental health issues is one that would have a profound impact in schools and regions across Australia."

A GP perspective

As stated earlier, the need for a high school based early detection and intervention program had been identified after an increased rate of self-harming behaviour and mental health issues was noted in the local high school student population prior to the commencement of the program. Up to May 2004 students could be brought or referred to the local medical centre by the school counsellor for assessment and treatment. Treatment was especially fraught with difficulties, often because of the time intensive nature of the initial assessment in a very busy clinic setting. Students would rarely attend a follow up appointment, in many instances related to the social barriers and stigma associated with isolation in a rural community. Referrals on to the local Child and Adolescent Mental Health Services were also subsequently difficult because of long waiting times caused by a high case load.

The 'Doc On Campus' model was initiated by a local female GP, in cooperation with the local school.² The DOC program is a privately subsidised initiative where a GP consults regularly at the regional secondary school in the Student Services area for one session a fortnight, seeing students who have presented to counsellors with issues relating to adolescent mental health.

Currently the initial appointment for assessment and formulation of a treatment plan is 45-60 minutes. An example of one day in the DOC program can be illustrated in the following typical schedule:

- Senior male student, self-referral with the student and his girlfriend following a series of emotional episodes at home. Admits to suicidal ideation and some self harm (cutting). New Client—45mins. Case notes provided by the counsellor to the GP from an interview with the student.
- Junior male student, referred to counsellor by mother following self-harming incident at home. Student/mother both agree to a DOC referral. Counsellor provides case-notes.

² Rural Remote and Metropolitan Classification 5 = rural area with a population < 10,000

- Senior male student, ongoing follow up re significant mental health risk factors as per case management plan, following input from parents, and recommendations from consulting Psychiatrist. 30mins.
- Senior female student, following grief related family tragedy—referral from family via school counsellor. New client—45mins. Case notes by school counsellor.
- Junior female student, referral by a GP. New client—45 mins. Case notes by referring GP.
- Junior female student, re-referral request by Social Worker/Psychologist via school counsellor. Meeting with Social Worker/Psychologist to determine case management matter for post sexually-related trauma. 15mins.

If appropriate a student mental health plan is generated for clients and a referral to the on campus visiting psychologist is organised utilising More Allied Health Services (MAHS) funding by the local Division of General Practice. Students are usually reviewed 4-12 weeks later with 30-45 minutes being allocated for follow up appointments depending on the complexity of the health related issues. All students are bulk billed. Any financial shortfall of the program is supported by the other members of the local GP clinic and extra time commitment on the part of the GP involved in the DOC program.

The support for the program by the local GP's is founded on a commitment to the principle that all young people, in spite of disadvantage related to regional isolation or socio-economic position, should have access and support to health services. Akin to universal education, such services are seen as essential pathways to better mental health outcomes in adolescence, and hopefully improved mental health and well being, apart from increased academic success at school. However during the assessment process not only mental health problems were detected, a range of significant medical condition e.g. sleep apnoea, hypothyroidism, primary testosterone deficiency, anaemia, vitamin D deficiency were suspected in some of the students and confirmed with diagnostic tests.

In 2006 the program was expanded through the support of the Division of General Practice who assigned a MAHS (More Allied Health Services) Psychologist to consult one session per week at the local secondary school to support the DOC initiative following its success as an intervention tool with students. Students, where appropriate, were referred on to the psychologist for counselling by utilising the Better Outcomes in Mental Health Care (BOIMHC) Medicare mental health plan item number.

The direct provision of focused psychological interventions within a comprehensive school-based student support system provides a unique opportunity to work with young people with emerging mental health problems. McGorry and Jackson (1999) argue that the duration of untreated mental health problems is one of the best predictors of poor outcome. DOC provides an early assessment process for young people who have displayed emotional, behaviour or learning problems to be assessed for possible mental health problems. The identification of risk features is critical to an effective early intervention program, along with the ability to assess underlying medical issues.

Psychological and social interventions are the approaches of choice prior to considering medication when working with young people (Commonwealth Department of Health and Aged Care, 2000b). Cognitive behavioural therapy is the most common therapeutic intervention used by DOC, as it provides a model which can be understood by young people and one in which they become pro-active in their own therapy. It also has a strong evidence base and is shown to be effective across the range of common presentations in young people (Compton et al 2004). Interventions are commonly brief (~4-sessions) due to the early referral, positive engagement, effective specialist intervention and high attendance rate. Family involvement is also encouraged, where appropriate, to encourage a mutual understanding of the mental health issue and intervention. Student consent to case conferences is also commonly given to allow

school counsellors, GP and therapists, to share professional opinions and develop a consistent management plan to support the young person within their school environment.

While the program has expanded significantly over the past five years there is also a need for ongoing longer term evaluation of the program through follow up of students who have accessed the program and may have completed their formal education.

Research and evaluation of the DOC program

Over the last 5 years 162 adolescents aged 12 to 19 years have utilised DOC. Of those 108 (66%) were female and 54 (34%) were male. Important to note is that there has been a steady increase in male adolescents participating in the program. Initially male adolescent student participation in 2004 was 25% which has steadily increased to 52% in 2008 and is currently about 45%.

In 2008 two of the three school counsellors were male (all the other years the ratio male to female school counsellors has been 1:2) which might have been an encouraging factor for young males accessing help.

The increased participation of males in the program is significant. As pointed out earlier rural males have an increased risk of suicide. Of the 16 male adolescents who newly accessed DOC in 2008 a significant amount of students presented with anger management issues. On further assessment depressive illness, grief and attention deficit disorder were commonly diagnosed as coexisting significant mental health issues giving rise to the expression of anger. Other very common presentations and reason for referral from the school counsellors were anxiety, grief and depressive symptoms, in some cases leading to self harm and suicide attempt. Reasons for grief were sudden parental deaths or other significant family issues. The 15 female students seen mainly presented with depressive symptoms, self harm and anxiety disorder with one case of possible early psychosis.

The male student age group ranged from 13-17 years of age with the majority of students being aged 14-15 years. A significant amount of students volunteered a family history of mental health issues and a background of parental separation. Sawyer et al (2000) found an association of parental separation and increased risk of mental health problems in adolescents.

The observed increase in the percentage of male adolescents seeking help could be interpreted as a trust in the service and its commitment to maintain confidentiality whenever possible. The exceptions to the right of confidentiality such as if the patient is at a high suicidal risk, is suffering from physical or sexual abuse or has homicidal plans are pointed out clearly at the start of a new patient relationship.

This commitment to confidentiality and access to a "neutral" consulting room was identified as a significant factor in the high level of participation among the students attending the DOC service. Being located on campus in a student friendly area has been crucial in engaging adolescents.

In May 2009 DOC program will have been operating for five years. All providers of the program have witnessed some significant improvements in a majority of adolescents who were enrolled in the program. This improvement has been quantified by the evaluation made by the participating psychologist. Furthermore the rural location of the school has made it possible to informally maintain contact with some participants.

After an initial six month trial, and five years of successful ongoing operation, the Doctor on Campus initiative has proved itself as a worthy model of early intervention in adolescent mental health. With support from the Departments of Education and Health, this program could be effectively replicated in other rural communities as a model for building effective relationships between teachers and health practitioners. The

partnership approach to early intervention in adolescent wellbeing developed in this rural secondary school has great potential in schools and regions across Australia.

All providers are aware of the fact that long term follow up would be ideal to assess the long term benefits and cost effectiveness of this program. Ideally more research funding for this important area would be an outcome.

As adolescent mental health consultations are time intensive appropriate remuneration by the Australian health system, specifically Medicare, would be crucial to make consulting at a high school financially viable. Rural and remote adolescents are especially disadvantaged in access to health services, and at a higher risk of suicide. Incentives would enhance the provision of mental health services to rural communities and attract service providers into what is identified as disadvantaged areas of health provision. Changes in health policy to attract service providers to rural communities would "share the load" for rural GPs.

Conclusions

The purpose of this paper has been to highlight the positive uptake of an on Campus based early detection and intervention service for mental health for adolescent high school students, the issues accessing mental adolescent health services in rural areas and the importance of funding early detection and intervention models.

The steady increase of male adolescent participation rate in DOC of up to 52% in 2008 is most likely a reflection of trust in the confidentiality and professionalism of the service developed over the past five years, and the availability of male school counsellors and a male psychologist which most male adolescents selected as the preferred contact during the referral process. The fact that the assessing GP was female was not reported as a hindrance in seeking help.

This increase in participation among male students is crucial given the higher male rural suicide rates (Bourke 2003), and the increased tendencies for rural adolescent males to internalise and externalise mental health problems and the increased prevalence of conduct disorder and co morbidities (Sawyer et al.2000). Also boys (both rural and urban) have more difficulties communicating their health concerns to health professionals and peers, particularly on mental health issues (Kappahn et al 1999, Marcell et al 2002 Quine et al 2003).

The findings also highlight that male adolescents are as willing to seek help when youth friendly mental health services are provided. Sawyer et al. (2000) found that the preferred accessed service for 13-17 year old young people with mental health problems is counselling at school.

A key to the success of the DOC program is the high level of cooperation between all members of the project team. All providers in the program, including the general practice clinic, school counsellors, psychologists, social workers, and the school principal are highly committed and passionate about the program. The longitudinal follow up of many individual young people who have accessed the services demonstrates very positive results for the majority of students who presented with a mental health issue.

Mental disorders among youth people have correspondingly impacts on educational achievement, and increased levels of unemployment. (McGorry et al 2007) McGorry et al (2007) conclude that mental disorders are a crucial factor in limiting a person's economic and social participation in the community, and any improvement in mental health increases this level of participation and decreases welfare dependency.

Capacity building towards early intervention is identified as a significant issue (O'Hanlon, et al 2002, 138-9).

To improve rural adolescent health there are some significant conclusions:

- Financial support is required to enable programs such as DOC to be successfully extended to other communities
- There is a need for economic and other infrastructure incentives for allied health professionals to consult within rural schools, or by extending telemedicine services
- The difficult rural medical workforce issues require alternative models for detection and early intervention for mental health in a school setting
- A need to improve the level of support and increase levels of knowledge on adolescent mental health for rural school counsellors and GP's .
- The departments of Health and Ageing and Education need to work together to develop common strategies to effectively increase prevention of and manage mental health issues in school settings

The DOC approach is not the only recommended response to systemic and structural issues that impede the provision and accessibility of young rural people to mental health therapy. However, it does indicate the direction in which rural youth mental health services could head in order for more effective, responsive and appropriate services to be routinely available.

Providing effective, accessible and appropriate health care to young people is not only a short term imperative, but also a long term investment in the health and prosperity of the Australian community and should be a high priority for changes in health policy.

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