# The ORANGE Declaration on Rural and Remote Mental Health Research – supporting evidence V1.0

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## Introduction

This paper provides supporting evidence from the literature that underpins the thinking and rationale behind the Orange Declaration of rural and remote mental health research. It should be regarded as a work in progress and will be revised as new evidence comes to light. The Orange Declaration on rural and remote mental health can be found at https://onlinelibrary.wiley.com/doi/10.1111/ajr.12560 and it is free access at least until 30 December 2019

The Orange Declaration as published is not fully referenced so as to emphasise the elements and their collective importance. We welcome any responses with supporting evidence that we can consider for inclusion, please send these to hazel.dalton@newcastle.edu.au.

The Declaration does not directly address the social, emotional and cultural wellbeing of Aboriginal and Torres Strait Islander peoples in rural and remote Australia. There is great complexity and variability in the nexus of problematic rural mental health services and Aboriginal social, emotional and cultural wellbeing. In this first phase, we focus research on the general issues of rural mental health and aim to work towards improving our partnerships with researchers, communities and services with a special interest and expertise in Aboriginal social and emotional wellbeing. The National Aboriginal and Torres Strait Islander Leadership in Mental Health group have released key policy documents to guide this, including the Proud Spirit Declaration and the Health in Culture – Policy Concordance (1, 2). Furthermore the Lowitja Institute has produced an excellent reflection on service reform needs for Aboriginal and Torres Strait Islander people, including a 'best of both worlds' approach with well-resourced culturally safe mental health services and healing measures (3).

Our short review of evidence is organised around the ten themes that comprise the declaration. Each theme is of importance and we believe all need to be addressed to make progress in addressing rural mental health and wellbeing.

## Themes

### 1. Contextual variance – one size does not fit all

Rural communities are diverse and this variation encompasses environmental, economic, and social capital, or the absence thereof (4). These differences impact on the amenity or attractiveness of communities and the ability to attract and retain a resident population

including but not limited to a rural health workforce (5). Rural and remote communities are often subject to environmental adversities such as bushfire, flood and drought which may be associated with economic and social adversity and contribute to social fragmentation and mental ill health (6). Such adversities may be subject to slow or rapid onset and the consequences for mental health and wellbeing may arise immediately but often emerge over many years. Contextual variability is not unique to rural places and there is a growing argument for place-based care (7). Policies and services devised in metropolitan settings often find a poor, thin and patchy fit in rural areas.

## 2. Consistently poor rural health outcomes

Rural communities experience a similar prevalence of mental health problems to the rest of Australia, however the outcomes are poorer and data suggests there may be significant under treatment (8-10). Indeed access may be compounded by poor mental health literacy and recognition of illness, with a third of rural people with diagnosable illness reportedly not recognising their illness or seeking help (11, 12). There are clear disparities and problems with mental health service provision in rural and remote Australia (13-15).

## 3. Connecting policy, people and place

Australian rural mental health services differ in their design, stability, and efficiency (16). Mapping of rural mental health services in Australia and overseas has shown that services components differ, the balance of short-term and project-based versus permanent services varies and not surprisingly the efficiency of services varies widely.

The National Mental Health Service Planning Framework (NMHSPF) provides a comprehensive model of the mental health services required to meet population needs, and is designed to help plan, coordinate and resource mental health services (17, see page 3). The approach is based on epidemiology, service types, staffing profiles and funding profiles informs a tool that can be used to produce resource and workforce estimates for a given population. Further work (2018-2021) is underway recognising that the care profiles of the NMHSPF must take better account of the needs of special populations including: Aboriginal and Torres Strait islander populations, people living in rural and remote areas, culturally and linguistically diverse groups, forensic populations and youth groups (17, see page 6).

One approach to the variability of needs and services is the use of local co-design approaches (18-21).

## 4. Service versus people-centred approaches

The Obsessive Hope Disorder report concluded that *"mental health services in Australia are neither planned on the basis of need (that is to respond to the population's mental health needs) nor based on evidence of what works best"* (22). Recent developments in epidemiology show that comorbidity is common, commences at earlier ages, that psychological and social co-morbidities increase the burden of disease and adversely impact on the most vulnerable community members (23). We also know that people with psychological conditions die 10 or more years earlier from, often untreated, physical conditions (24-26). The Australian Burden of Disease Study highlights the significance of mental ill-health and notes that between 2011-2015 the health-adjusted life expectancy in Australia decreased for both males and females in the lowest socio-economic quintile while it stayed the same or increased for the higher groups (27). The report noted that the total burden of disease for Australia would be 4.3% lower if all remoteness areas had the same burden as the major cities.

The importance of person-centred care was recognised in the 2014 Geneva Declaration on Person and People-centred Integrated Health Care for All (28). The authors note the

importance of an understanding of health services as a complex system rather than a series of disjointed activities. In 2015 the World Health Organisation published its Global Strategy on Person-Centred and Integrated Care similarly promoting the importance of population-focussed systemic and integrated care (29).

## 5. Funding and investment

The Federal Government Medical Benefits Schedule (MBS) provides a list of procedures and subsidies which can be claimed by a patient for scheduled procedures (30). A major review is taking place examining the appropriateness of these subsidies to ensure that the procedures are effective and the rebates appropriate (31). Availability of the services covered depends on the location of practitioners and access is influenced by the extent to which gap payments act to suppress demand (32). The inequitable distribution of medical and allied mental health providers means that access to services is unequal and that the lowest social economic quintile have relatively poor access to services (33).

The Australian Burden of Disease study shows that the share of the burden of disease experienced by the lowest socio-economic quintile increased between 2010-2015 while that borne by the wealthier quintiles remained the same or fell (27). Stability of Federal funding is also a key issue as many rural services are delivered by NGOs on 12-month contracts. This affects both stability, and efficiency and was recognised by the 2018 Federal Senate Community Affairs References Committee inquiry into the "Accessibility and quality of mental health services in rural and remote Australia" which recommended that the practice of awarding short-term contracts should be addressed, and that activity-based funding should be replaced in rural and remote settings (15, recommendation 5, 6.27, and recommendation 7, 6.34).

## 6. System level fragmentation and service instability

The National Review of Mental Health Programmes and Services in 2014 concluded that "the overall impact of a poorly planned and badly integrated system is a massive drain on people's wellbeing and participation in the community – on jobs, on families, and on Australia's productivity and economic growth"(34). The Government's response to this conclusion was to entrust Primary Health Networks with the development of Regional Plans (35, 36) and to emphasise the importance of stepped care approaches in which a hierarchy of services re mapped to severity of individual needs and services are stepped up or down according to changes in needs or individual service outcomes (37-40). These plans are currently being developed and their impact is yet to be seen.

## 7. Care provision – scope, scale and emphasis

The National Review of Mental Health Programmes and Services (2014) noted that the "greatest level of funding goes into high-cost areas such as acute care, the criminal justice system and disability support, indicating that the system has failed to prevent avoidable complications in people's lives" (34, page 40). Meadows (2019) notes that in two decades, expenditure on mental health services has doubled, when adjusted for inflation, but that the prevalence of psychological distress and mental disorders has not changed (33). In November 2018 The Federal Treasurer asked the Productivity Commission to examine mental health services and investments in Australia. One element of the (ongoing) inquiry was to "assess whether the current investment in mental health is delivering value for money and the best outcomes for individuals, their families, society and the economy" (41, page iv). An obvious conclusion from these sources is that the focus on downstream activities is expensive and might not represent the best value for money.

The National Review of Mental Health Programmes and Services (2014) recommended nine broad strategic directions. Number 5 (page 17) was to “promote the wellbeing and mental health of the Australian community, beginning with a healthy start to life”. The economic case for prevention and early intervention is well established. Prevention and early intervention such as school and workplace interventions, initiatives for people with long term physical health problems, for those that self-harm and are suicidal, and programs to address loneliness and debt problems may reduce the incidence of mental health problems in individuals or promote mental health and wellbeing (42). A number of papers address the challenge of incorporating metal health care in primary care in including two major reviews (43, 44). Arango (2018) and others note that while not all the evidence is in, available treatments have had little impact on the burden of mental ill-health and that we should introduce and test some universal initiatives to prevent mental illness and promote wellbeing (45-48). Enticott (2016) notices that rurality, remoteness and socio-economic deprivation are associated with higher burdens of mental disorder and distress and they propose a “Whole of Government” approach to address socioeconomic disadvantage and to address the inequities in treatment provision (49).

## 8. Workforce capacity, capability and sustainability

The mental health workforce in rural areas faces serious recruitment and retention challenges (50). Key factors influencing retention include a perception that mental health work is unattractive, the fragmented structure and administration of the mental health system, unstable employment and limited training opportunities that frequently result in job dissatisfaction (51-53). Levels of staff turnover are particularly high in early career mental health care professionals in part to the need to navigate the additional professional and personal challenges related to working in rural locations (54).

There is growing evidence that the immersive rural learning experience in undergraduate medical education has improved recruitment of general practitioners to rural areas (55-60). This could be adapted to build capacity in rural mental health building on the experience of providing inter-professional learning in these programs (61, 62). The capacity of the mental health workforce could also be strengthened through ‘grow-your-own’ and ‘skills escalation’ strategies for existing rural residents such as training of community members as peer support workers, retraining general nurses as mental health nurses, and upskilling the primary healthcare workforce (63-67).

## 9. Technology – component or solution

Telehealth and technology-supports for mental health provision are well supported in the literature (68-71). Factors associated with successful and sustainable services include vision, ownership, adaptability, and efficiency (72). Local adaptation and ownership is critical if telehealth is to function as an adjunct not a substitute for rural local services and support.

Other studies identify that digital technology and telehealth can and should be employed to support the local workforce (73, 74), but that technological innovation alone is not sufficient to ensure successful adoption. Consideration must be given to patterns of clinical practice and the readiness of organisational cultures (75).

The range of digital mental health supports holds much promise, but has not been uniformly adopted, and is still hampered by the digital divide, both internet connectivity and equity issues (76). There are good examples of digital support such as apps, e-clinics, and online forums that have been successfully adopted in rural Australia (77-81).

To offer rural residents true choice and to improve access services must be recommended and supported by trusted local sources (e.g. 82, 83-86), and consistent education and local promotion will be needed.

### 10. Data, research, evaluation, and organisational continuous learning

The use of data for policy making, service management, evaluation and research is hampered by the use of different terms in different settings to describe similar activities and the lack of common units of analysis in service assessment that may allow comparisons like-with across localities (14).

It is important to consider what data is collected and how it is used (87-89). The definitions of regional, rural and remote can oversimplify important distinctions or group communities with very different characteristics (90-92). Important epidemiological studies have underreported rural needs because of the cost of data collection in rural and remote locations (93). Cross-sectional surveys cannot describe trends or demonstrate service stability or reliability. Considerable attention, rightly, has been paid to the size and distribution of the rural mental health workforce, the number of beds, occasions of service, waiting times, expenditure and other input variables but this is not combined or analysed to better understand the efficiency of the rural mental health system or its integration with health and social care services (94). Other data which may be of value includes evidence on social fragmentation and isolation (95).

There is now an internationally accepted methodology for the mapping of mental health systems (16) which can form the basis of a decision support methodology for service management and improvement (96). This method has been used to map rural services in NSW and Western Australia and internationally enabling questions to be addressed about the range, design and efficiency of service systems and associated morbidity.

## References


1. National Aboriginal and Torres Strait Islander Leadership in Mental Health (NATSILMH). Gayaa Dhuwi (Proud Spirit) Declaration 2015 [Available from: https://natsilmh.org.au/sites/default/files/gayaa_dhuwi_declaration_A4.pdf.
2. National Aboriginal and Torres Strait Islander Leadership in Mental Health (NATSILMH). Health in Culture – Policy Concordance 2018 [Available from: https://natsilmh.org.au/sites/default/files/NATSILMH%20Health%20in%20Culture%20Policy%20Concordance.pdf.
3. The Lowitja Institute. Journeys to healing and strong wellbeing: a project conducted by the Lowitja Institute foir the National Mental Health Commission. Melborne, VIC: Lowitja Institute; 2018.
4. Bourke L, Humphreys JS, Wakerman J, Taylor J. From 'problem-describing' to 'problem-solving': challenging the 'deficit' view of remote and rural health. Aust J Rural Health. 2010;18(5):205-9.
5. McGrail MR, Wingrove PM, Petterson SM, Humphreys JS, Russell DJ, Bazemore AW. Measuring the attractiveness of rural communities in accounting for differences of rural primary care workforce supply. Rural Remote Health. 2017;17(2):3925.
6. Hazell T, Dalton H, Caton T, Perkins D. Rural Suicide and its Prevention: a CRRMH position paper. . Orange NSW, Australia: Centre for Rural and Remote Mental Health, University of Newcastle; 2017. 44 p. [Available from: https://www.crrmh.com.au/content/uploads/RuralSuicidePreventionPaper_2017_WEB_FINAL.pdf
7. Ham C, Alderwick H. Place-based systems of care: a way forward for the NHS in Rngland. London, UK; 2015.
8. Slade T, Johnston A, Oakley Browne MA, Andrews G, Whiteford H. 2007 National Survey of Mental Health and Wellbeing: methods and key findings. The Australian and New Zealand journal of psychiatry. 2009;43(7):594-605.

9. Australian Bureau of Statistics. National survey of mental health and wellbeing: Summary of results. Canberra: Australian Government; 2007.
10. Garvan Research Foundation. Medical research and rural health: Garvan report 2015. . Darlinghurst; 2015.
11. Handley TE, Kay-Lambkin FJ, Inder KJ, Lewin TJ, Attia JR, Fuller J, et al. Self-reported contacts for mental health problems by rural residents: predicted service needs, facilitators and barriers. Bmc Psychiatry. 2014;14.
12. Handley TE, Lewin TJ, Perkins D, Kelly B. Self-recognition of mental health problems in a rural Australian sample. Australian Journal of Rural Health. 2018;26(3):173-80.
13. Bishop L, Ransom A, Laverty M. Health care access, mental health and preventive health: health priority survey findings for people in the bush. Barton, ACT: Royal Flying Doctor Service of Australia; 2017.
14. Bishop L, Ransom A, Laverty M, Gale L. Mental health in rural and remote communities. Barton, ACT: Royal Flying Doctor Service of Australia; 2017.
15. The Senate: Community Affairs References Committee [AU]. Accessibility and quality of mental health services in rural and remote Australia. . Senate Inquiry Report. Canberra: Commonwealth of Australia 2018 4 December 2018. Report No.: 9781760108601.
16. van Spijker B, Salinas-Perez JA, Mendoza J, Bell T, Bagheri N, Furst MA, et al. Service availability and capacity in rural mental health in Australia: analysing gaps using an integrated mental health atlas. Australian and New Zealand Journal of Psychiatry. 2019; https://doi.org/10.1177/0004867419857809.
17. National Mental Health Service Planning Framework. Introduction to the NMHSPF - Population Based Planning for Mental Health 2019 [Version 1 - January 2019:[Available from: https://nmhspf.org.au/wp-content/uploads/2019/01/Introduction-to-the-National-Mental-Health-Service-Planning-Framework_2019.pdf
18. Fitzpatrick SJ, Perkins D, Handley T, Brown D, Luland T, Corvan E. Coordinating Mental and Physical Health Care in Rural Australia: An Integrated Model for Primary Care Settings. Int J Integr Care. 2018;18(2):19.
19. Fitzpatrick SJ, Perkins D, Luland T, Brown D, Corvan E. The effect of context in rural mental health care: Understanding integrated services in a small town. Health Place. 2017;45:70-6.
20. Perkins D, Hamilton M, Saurman E, Luland T, Alpren C, Lyle D. GP Clinic: promoting access to primary health care for mental health service clients. Aust J Rural Health. 2010;18(6):217-22.
21. Halseth G, Markey S, Ryser L. Service provision and rural sustainability: infrastructure and innovation. Abingdon: Routledge; 2019.
22. Mendoza JA, Rosenberg S, Elson A, Gilbert Y, Long P, Wilson K, et al. Obsessive hope disorder : reflections on 30 years of mental health reform in Australia and visions for the future: [ConNetica Consulting]; 2013.
23. Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. Lancet. 2012;380(9836):37-43.
24. National Mental Health Commission. Equally Well Consensus Statement: Improving the physical health and wellbeing of people living with mental illness in Australia. Sydney: NMHC; 2016.
25. Roberts R. Equally Well. Physical health and mental illness. Aust J Rural Health. 2017;25(6):324-5.
26. Roberts R. The physical health of people living with mental illness: A narrative literature review. . NSW; 2019.
27. Australian Institute of Health and Welfare. Australian Burden of Disease Study: impact and causes of illness and death in Australia 2015. Canberra; 2019.
28. Cloninger CR, Salvador-Carulla L, Kirmayer LJ, Schwartz MA, Appleyard J, Goodwin N, et al. A Time for Action on Health Inequities: Foundations of the 2014 Geneva Declaration on Person- and People-centered Integrated Health Care for All. Int J Pers Cent Med. 2014;4(2):69-89.
29. World Health Organization. WHO global strategy on people-centred and integrated health services - Interim report. Geneva, Switzerland; 2015.
30. Department of Health. MBS Online - Medicare Benefits Schedule (MBS) Canberra: Australian Government; 2019 [Available from: http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Home.
31. Department of Health. Medicare Benefits Schedule (MBS) Review Canberra: Australian Government; 2019 [Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/MBSReviewTaskforce.

32. Enticott JC, Lin E, Shawyer F, Russell G, Inder B, Patten S, et al. Prevalence of psychological distress: How do Australia and Canada compare? The Australian and New Zealand journal of psychiatry. 2018;52(3):227-38.
33. Meadows GN, Enticott JC, Inder B, Russell GM, Gurr R. Better access to mental health care and the failure of the Medicare principle of universality. The Medical journal of Australia. 2015;202(4):190-4.
34. National Mental Health Commission. The National Review of Mental Health Programmes and Services. . Sydney, Australia; 2014.
35. Department of Health. Australian Government Response to Contributing Lives, Thriving Communities – Review of Mental Health Programmes and Services. Canberra: Commonwealth of Australia; 2015. p. 28.
36. Department of Health. The Fifth National Mental Health and Suicide Prevention Plan. In: Health Do, editor. Canberra: Australian Government; 2017.
37. Bower P, Gilbody S. Stepped care in psychological therapies: access, effectiveness and efficiency. Narrative literature review. Br J Psychiatry. 2005;186:11-7.
38. Perkins D. Stepped Care, System Architecture and Mental Health Services in Australia. International Journal of Integrated Care. 2016;16(3):1-4.
39. Fuller JD, Perkins D, Parker S, Holdsworth L, Kelly B, Roberts R, et al. Effectiveness of service linkages in primary mental health care: a narrative review part 1. BMC Health Serv Res. 2011;11:72.
40. Fuller JD, Perkins D, Parker S, Holdsworth L, Kelly B, Roberts R, et al. Building effective service linkages in primary mental health care: a narrative review part 2. BMC Health Serv Res. 2011;11:66.
41. Productivity Commission. The Social and Economic Benefits of Improving Mental Health - Issues Paper. Canberra; 2019.
42. McDaid D, Park A-l, Knapp M. Commissioning Cost-Effective Services for Promotion of Mental Health and Wellbeing and Prevention of Mental Ill-Health. London, UK: Public Health; 2017.
43. Ferenchick EK, Ramanuj P, Pincus HA. Depression in primary care: part 1-screening and diagnosis. BMJ. 2019;365:l794.
44. Ramanuj P, Ferenchick EK, Pincus HA. Depression in primary care: part 2-management. BMJ. 2019;365:l835.
45. Arango C, Diaz-Caneja CM, McGorry PD, Rapoport J, Sommer IE, Vorstman JA, et al. Preventive strategies for mental health. The lancet Psychiatry. 2018;5(7):591-604.
46. Jorm AF. Why hasn't the mental health of Australians improved? The need for a national prevention strategy. The Australian and New Zealand journal of psychiatry. 2014;48(9):795-801.
47. Mulder R, Rucklidge J, Wilkinson S. Why has increased provision of psychiatric treatment not reduced the prevalence of mental disorder? Australian & New Zealand Journal of Psychiatry. 2017;51(12):1176-7.
48. Mental Health Australia, KPMG. Investing to Save: The Economic Benefits for Australia of Investment in Mental Health Reform. Australia; 2018.
49. Enticott JC, Meadows GN, Shawyer F, Inder B, Patten S. Mental disorders and distress: Associations with demographics, remoteness and socioeconomic deprivation of area of residence across Australia. The Australian and New Zealand journal of psychiatry. 2016;50(12):1169-79.
50. Ridoutt L, PIlbeam V, Perkins D. Final report on workforce requirements in support of the 2014 National Review of Mental Health Programs and Services. : National Mental Health Commission; 2014.
51. Cosgrave C, Hussain R, Maple M. Retention challenge facing Australia's rural community mental health services: Service managers' perspectives. Aust J Rural Health. 2015;23(5):272-6.
52. Sutton KP, Maybery D, Moore T. Creating a sustainable and effective mental health workforce for Gippsland, Victoria: solutions and directions for strategic planning. Rural Remote Health. 2011;11(1):1585.
53. Moore T, Sutton K, Maybery D. Rural mental health workforce difficulties: a management perspective. Rural Remote Health. 2010;10(3):1519.
54. Cosgrave C, Maple M, Hussain R. Work challenges negatively affecting the job satisfaction of early career community mental health professionals working in rural Australia: findings from a qualitative study. The Journal of Mental Health Training, Education, and Practice. 2018;13(3):173-86.
55. 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.
56. McGrail MR, O'Sullivan BG, Russell DJ. Rural training pathways: the return rate of doctors to work in the same region as their basic medical training. Hum Resour Health. 2018;16(1):56.

57. O'Sullivan BG, McGrail MR, Russell D, Chambers H, Major L. A review of characteristics and outcomes of Australia's undergraduate medical education rural immersion programs. Hum Resour Health. 2018;16(1):8.
58. Walker L, Cross M, Barnett T. Mapping the interprofessional education landscape for students on rural clinical placements: an integrative literature review. Rural Remote Health. 2018;18(2):4336.
59. Johnson GE, Wright FC, Foster K. The impact of rural outreach programs on medical students' future rural intentions and working locations: a systematic review. BMC Med Educ. 2018;18(1):196.
60. McGirr 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.
61. Perkins D, Larsen K, Lyle D, Burns P. Securing and retaining a mental health workforce in Far Western New South Wales. Aust J Rural Health. 2007;15(2):94-8.
62. Perkins DA, Roberts R, Sanders T, Rosen A. Far West Area Health Service mental health integration project: model for rural Australia? Aust J Rural Health. 2006;14(3):105-10.
63. Keynejad RC, Dua T, Barbui C, Thornicroft G. WHO Mental Health Gap Action Programme (mhGAP) Intervention Guide: a systematic review of evidence from low and middle-income countries. Evidence Based Mental Health. 2018;21(1):30.
64. World Health Organization. mhGAP: Mental Health Gap Action Programme: Scaling Up Care for Mental, Neurological and Substance Use Disorders. Geneva; 2008.
65. Chambers R. Career Planning for Everyone in the NHS: The Toolkit. 2005 (through 2018). London: CRC Press; 2018.
66. Australian Institute of Tropical Health & Medicine. From the WOMB: women act for mums and bubs. 2018 [Available from: [https://www.aithm.jcu.edu.au/from-the-womb-women-act-for-mums-and-bubs/].
67. Whiteside M, Tsey K, Cadet-James Y, McCalman J. The Family Wellbeing Empowerment Approach. Carlton, VIC: Springer; 2014.
68. Fortney JC, Pyne JM, Turner EE, Farris KM, Normoyle TM, Avery MD, et al. Telepsychiatry integration of mental health services into rural primary care settings. International review of psychiatry (Abingdon, England). 2015;27(6):525-39.
69. Hilty DM, Chan S, Hwang T, Wong A, Bauer AM. Advances in mobile mental health: opportunities and implications for the spectrum of e-mental health services. mHealth. 2017;3:34.
70. Langarizadeh M, Tabatabaei MS, Tavakol K, Naghipour M, Rostami A, Moghbeli F. Telemental Health Care, an Effective Alternative to Conventional Mental Care: a Systematic Review. Acta informatica medica : AIM : journal of the Society for Medical Informatics of Bosnia & Herzegovina : casopis Drustva za medicinsku informatiku BiH. 2017;25(4):240-6.
71. Rathbone AL, Prescott J. The Use of Mobile Apps and SMS Messaging as Physical and Mental Health Interventions: Systematic Review. J Med Internet Res. 2017;19(8):e295.
72. Bradford NK, Caffery LJ, Smith AC. Telehealth services in rural and remote Australia: a systematic review of models of care and factors influencing success and sustainability. Rural Remote Health. 2016;16(4):4268.
73. Procter N, Ferguson M, Backhouse J, Cother I, Jackson A, Murison J, et al. Face to face, person to person: Skills and attributes deployed by rural mental health clinicians when engaging with consumers. Aust J Rural Health. 2015;23(6):352-8.
74. Sinclair C, Holloway K, Riley G, Auret K. Online mental health resources in rural Australia: clinician perceptions of acceptability. J Med Internet Res. 2013;15(9):e193.
75. Newman L, Bidargaddi N, Schrader G. Service providers' experiences of using a telehealth network 12 months after digitisation of a large Australian rural mental health service. International journal of medical informatics. 2016;94:8-20.
76. Thomas J, Barraket J, Wilson C, Ewing S, Tucker J, Rennie E. Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 20172017.
77. Titov N, Dear BF, Staples LG, Bennett-Levy J, Klein B, Rapee RM, et al. The first 30 months of the MindSpot Clinic: Evaluation of a national e-mental health service against project objectives. The Australian and New Zealand journal of psychiatry. 2017;51(12):1227-39.
78. Calear AL, Christensen H, Mackinnon A, Griffiths KM. Adherence to the MoodGYM program: outcomes and predictors for an adolescent school-based population. J Affect Disord. 2013;147(1-3):338-44.
79. Smith-Merry J, Goggin G, Campbell A, McKenzie K, Ridout B, Baylosis C. Social Connection and Online Engagement: Insights From Interviews With Users of a Mental Health Online Forum. JMIR mental health. 2019;6(3):e11084.

80. McCosker A. Engaging mental health online: Insights from beyondblue's forum influencers. New Media & Society. 2018;20(12):4748-64.
81. McCosker A, Hartup M. Turning to online peer forums for suicide and self-harm support: 'It does help having you guys'. Melbourne: Swinburne Social Innovation Research Institute & Beyond Blue; 2018.
82. Department of Health. Head to Health Canberra: Australian Government; 2019 [Available from: https://headtohealth.gov.au/.
83. Fuller J, Broadbent J. Mental health referral role of rural financial counsellors. Aust J Rural Health. 2006;14(2):79-85.
84. Centre for Rural and Remote Mental Health. RAMHP Annual Report 2018. Orange: University of Newcastle; 2019.
85. Wallace C, Farmer J, McCosker A. Community boundary spanners as an addition to the health workforce to reach marginalised people: a scoping review of the literature. Human Resources for Health. 2018;16(1):46.
86. Auckland S, Mond J, Kent.K., Hoang H. Health and Resilient Communities Evaluation: Final Report.: University of Tasmania Centre for Rural Health; 2018.
87. Fernandez A, Sturmberg J, Lukersmith S, Madden R, Torkfar G, Colagiuri R, et al. Evidence-based medicine: is it a bridge too far? Health research policy and systems. 2015;13:66.
88. Lukersmith S, Hopman K, Vine K, Krahe L, McColl A. A new framing approach in guideline development to manage different sources of knowledge. Journal of evaluation in clinical practice. 2017;23(1):66-72.
89. Salvador-Carulla L, Lukersmith S, Sullivan W. From the EBM pyramid to the Greek temple: a new conceptual approach to Guidelines as implementation tools in mental health. Epidemiol Psychiatr Sci. 2017;26(2):105-14.
90. Roufeil L, Battye K. Effective regional, rural and remote family and relationships service delivery. In: Studies AIoF, editor. Canberra: Australian Government; 2008. p. 12.
91. Australian institute of Health and Welfare. Rural, regional and remote health: a guide to remoteness classifications. . Canberra: AIHW; 2004.
92. Department of Health. Modified Monash Model: Australian Government; 2015 [updated 12 June 2018. Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/modified-monash-model.
93. Kelly BJ, Stain HJ, Coleman C, Perkins D, Fragar L, Fuller J, et al. Mental health and well-being within rural communities: the Australian rural mental health study. Aust J Rural Health. 2010;18(1):16-24.
94. Productivity Commission. Shifting the Dial: 5 Year Productivity Review Canberra, Australia; 2017.
95. Bagheri N, Batterham PJ, Salvador-Carulla L, Chen Y, Page A, Calear AL, et al. Development of the Australian neighborhood social fragmentation index and its association with spatial variation in depression across communities. Soc Psychiatry Psychiatr Epidemiol. 2019.
96. Garcia-Alonso CR, Almeda N, Salinas-Perez JA, Gutierrez-Colosia MR, Uriarte-Uriarte JJ, Salvador-Carulla L. A decision support system for assessing management interventions in a mental health ecosystem: The case of Bizkaia (Basque Country, Spain). PLoS One. 2019;14(2):e0212179.