

Original Article

Improving the mental health of rural New South Wales communities facing drought and other adversities

Craig Richard Hart,¹ Helen Louise Berry^{1,2} and Anne Maree Tonna¹

¹Centre for Rural and Remote Mental Health, School of Medicine and Public Health, The University of Newcastle, Newcastle, New South Wales, and ²Centre for Research and Action in Public Health, The University of Canberra, Canberra, Australian Capital Territory, Australia

Abstract

Objective: NSW has just experienced its worst drought in a century. As years passed with insufficient rain, drought-related mental health problems became evident on farms. Our objective is to describe how, in response, the Rural Adversity Mental Health Program was introduced in 2007 to raise awareness of drought-related mental health needs and help address these needs in rural and remote NSW. The program has since expanded to include other forms of rural adversity, including recent floods.

Setting: Rural NSW.

Design, participants, interventions: Designed around community development principles, health, local service networks and partner agencies collaborated to promote mental health, education and early intervention. Strategies included raising mental health literacy, organising community social events and disseminating drought-related information. Priority areas were Aboriginal communities, older farmers, young people, women, primary health care and substance use.

Results: Over 3000 people received mental health literacy training in the four years of operation from 2007 to 2010. Stakeholders collaborated to conduct hundreds of mental health-related events attended by thousands of people. A free rural mental health support telephone line provided crisis help and referral to rural mental health-related services.

Conclusion: Drought affected mental health in rural NSW. A community development model was accepted and considered effective in helping communities build capacity and resilience in the face of chronic drought-related hardship. Given the scale, complexity and significance of drought impacts and rural adjustment, and the threats posed by climate change, a long-term

approach to funding such programs would be appropriate.

KEY WORDS: climate change, health service, psychiatric, remote, rural adversity.

Introduction

The recent drought in the south-east was the worst in a century,¹ possibly linked to climate change-related drying across southern Australia.^{2,3} The impact on rural communities has been substantial, with the most socio-economically and geographically vulnerable in the community worst affected. Reduced income, increased debt, land degradation and loss of hope have led to 'mental health problems for some and to the tragedy of despair and suicide for a few' (p. 6).⁴ Although rain events during 2010 have moved most of NSW from drought to 'satisfactory' status (Fig. 1), providing some hope, full social and financial recovery from the effects of this drought will take some five years of consistently good rainfall.⁵

During prolonged drought, critical social resources within communities are depleted at a time when they are needed most. Recent reports have catalogued the distress caused by drought,⁶ which exacerbates other rural adversity. They note the need for integrated, long-term approaches to supporting drought-affected communities, farm families and other businesses and to invest in existing health and related services.^{6,7} The NSW Farmers Mental Health Blueprint (2006) articulated the need for a program to promote mental health, improve service access and coordination and link farming communities to more effective local responses to emerging mental health needs.

In response, in 2007, the NSW Government funded the Rural Adversity Mental Health Program (RAMHP) to help build individual, service provider and community capacity to cope with drought.⁸ Figure 2 (left hand side) shows how rural adversity might be linked to mental health: as climate variability increases (under pressure from global warming), so too do the number

Correspondence: Helen Louise Berry, Centre for Research and Action in Public Health, The University of Canberra, University Drive, Bruce ACT 2617, Australia. Email: helen.berry@canberra.edu.au

Accepted for publication 8 June 2011.

What is already known on this subject:

- Prolonged environmental stressors have adverse effects on the economic, social and cultural lives of rural communities and, thus, on rural mental health and well-being.
- The most recent drought profoundly affected rural individuals, families and communities. Despite recent flooding rains (which, in some areas, have themselves threatened rural livelihoods), climate science indicates that we can expect more prolonged, intense and frequent droughts.

and intensity of adverse weather events, such as droughts and floods. Over time, these events erode community economic and social resources, depleting social capital, which is strongly protective for mental health.⁹ This can, in turn, increase disadvantage and precipitate a decline in social support, both of which are associated with an increase in mental health problems.⁹ Finally, people with mental health problems tend to experience depleted personal resources and are, therefore, less likely to be able to cope with the impacts of adversity or participate in climate change mitigation and adaptation activities. In addition to this 'linear' cycle, each part of the cycle interacts with all other parts of the cycle and with underlying rural disadvantage (for simplicity, these complex interactions and feedbacks are not shown in Fig. 2). To design a program that would address these dynamics, we adopted a community development approach (Fig. 2, right hand side). This is because, by fostering inter-agency collaboration, innovation and the development of community-based capacity and ownership, this approach optimises the likelihood of sustained, post-intervention change.^{10,11}

Following the success of the initial program, additional funding extended it to June 2011 with a broader focus on mental health-related problems associated with climate change, drought and rural adversity. The scope was also refined to target priority groups (women, young people, older farmers, those with drug and alcohol problems and Indigenous communities) and to accommodate the role of general practice in rural and remote communities. Specialist program officers and consultant psychiatrists were employed to identify priority group issues and tailored strategies. This paper describes how the RAMHP evolved.

RAMHP 07-08

Funded by the NSW government and implemented in close collaboration with rural area health services,

What this study adds:

- The Rural Adversity Mental Health Program (RAMHP), a new, multifaceted rural mental health community development intervention, was accepted in communities as a mechanism for enhancing capacity and resilience during prolonged drought.
- The core program, which was targeted at all communities facing prolonged drought, was readily able to be adapted to the needs of specific groups, such as older farmers, Aboriginal people and school students.
- Responding effectively to the mental health implications of prolonged drought requires long-term interventions that can evolve as community needs change, including when drought breaks.

communities and agencies, the Centre for Rural and Remote Mental Health, University of Newcastle (the Centre), led a large-scale drought-mental health program in NSW (RAMHP). Consistent with evidence about mental health promotion and early intervention, the program was designed around community development principles and guided by a management group (including farming and community welfare organisations, rural mental health services, the Australian Centre for Agricultural Health and Safety, Industry and Investment NSW – formerly the NSW Department of Primary Industries – and rural financial counselling agencies).

The mental health promotion components of RAMHP included mental health first aid (MHFA) training for rural communities and front-line agencies working with farming households; community mental health and drought information forums to help reduce drought-related mental health stigma and increase understanding of mental health problems; and booklets for rural health and agricultural service providers providing brief information about how to locate services for clients seeking agricultural, financial and mental health assistance. In the first year (2007), 50 MHFA workshops were delivered to some 800 participants, while some 1900 people attended 17 'Tackling Tough Times' (farmers' mental health) community gatherings.

With the aim of improving early intervention for emerging mental health problems, six community mental health workers were appointed to establish and help coordinate, often in partnership with the Department of Primary Industry and other agencies, 15 local health, agricultural and financial services networks. The

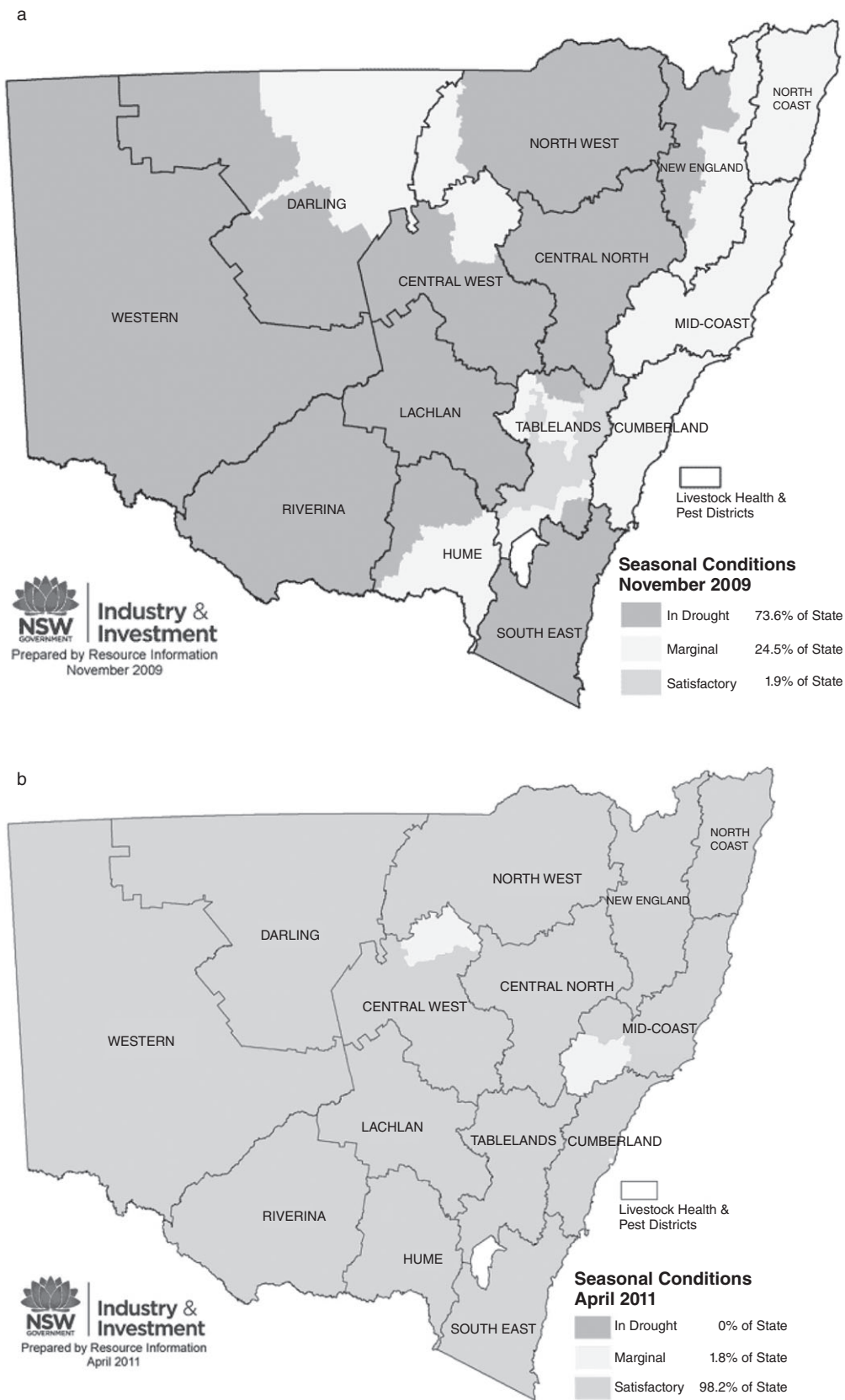


FIGURE 1: (a) NSW drought-declared areas, November 2009. (b) NSW drought-declared areas, April 2011.

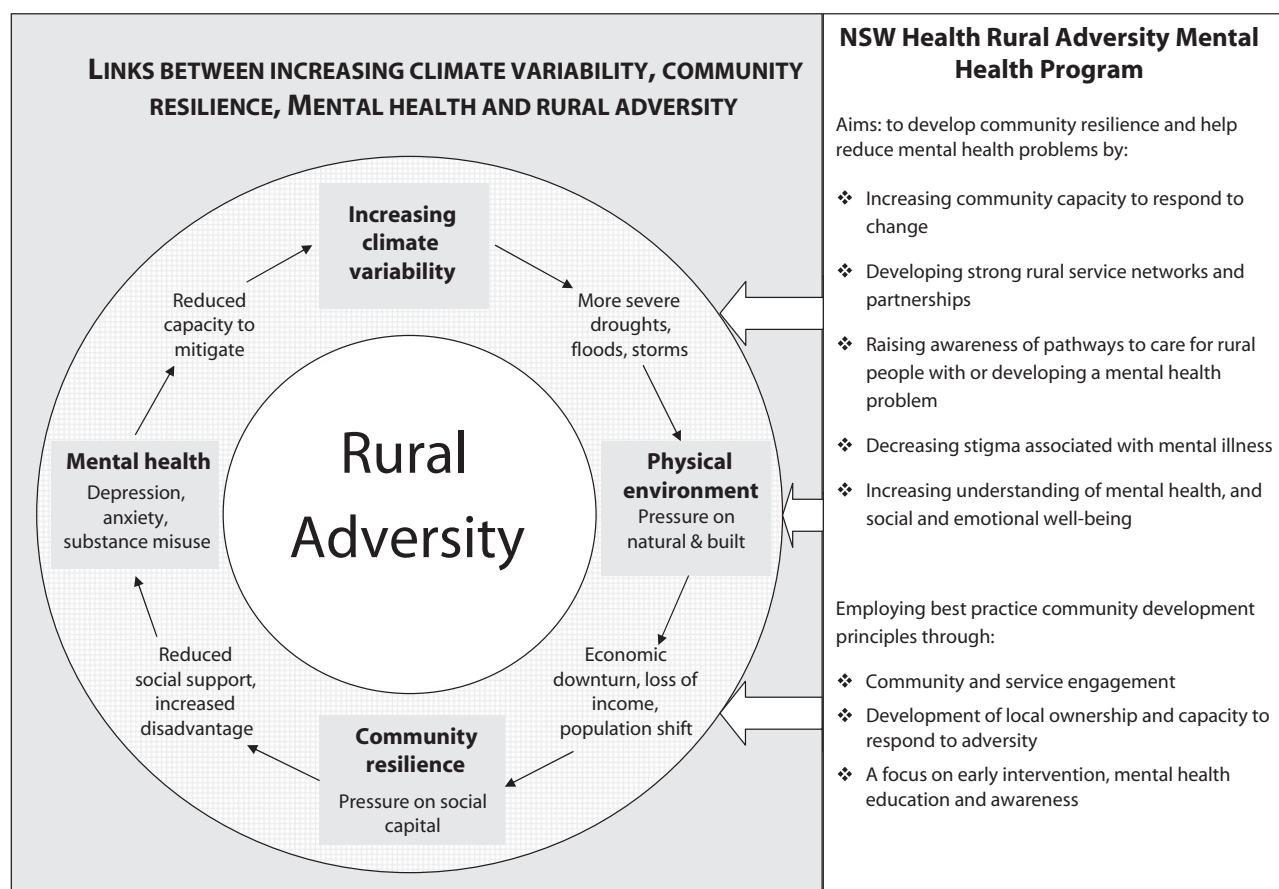


FIGURE 2: NSW Health Rural Adversity Mental Health Program (RAMHP) showing a proposed explanatory framework for how rural adversity interacts with the development and perpetuation of mental health problems (left hand side) and the aims and strategies employed in RAMHP (right hand side).

workers helped the networks plan local activities, identify pathways to care and improve responsiveness to emerging needs. A charge-free rural mental health telephone support line provided crisis help and referral to rural mental health-related services. It responded to over 270 calls from farmers, farming households and people working in drought-affected communities, while RAMHP workers had over 10 000 contacts with rural services and people directly involved in supporting rural communities.

Learning from RAMHP 07-08

With continuing drought, the NSW Minister for Health extended the Program's funding to June 2009. 'RAMHP 08-09' built on experience from its predecessor. Communities had found strategies aimed at building local resilience, increasing mental health literacy and reducing stigma useful. Our community capacity-building approach, promoting cross-agency partnerships with local, rurally based government and non-government health, mental health, agricultural and financial organi-

sations, was well accepted. Service networks had become the cornerstone of much drought-related planning, providing an effective vehicle for pooling resources and developing mutually beneficial relationships between organisations with similar and sometimes overlapping objectives. Experience had also shown that, where a strong service network already existed (such as health/welfare interagency meetings), it was better to partner with this network than to establish a new one.

Simultaneously, stakeholder and community feedback indicated: (i) Aboriginal communities, older farmers, women and young people needed supplementary strategies; (ii) substantial concern about a perceived drought-related increase in substance use; and (iii) a need to further engage general practitioners: primary health care settings were considered central to improving mental health care for drought-affected communities.

The new program's objectives were updated accordingly (Box 1). RAMHP 08-09 expanded its role in (i) helping service networks strengthen linkages with rural

BOX 1: *Rural Adversity Mental Health Program objectives 2008–2009*

RAMHP 08 has the following key objectives:

1. Identify the emerging **mental health needs of rural families** including young people, women and older farmers due to drought and environmental events. Develop, and where possible, implement and evaluate programs to address these needs.
2. Identify drought-related mental health needs of Aboriginal communities and any potential pilot programs to address these.
3. Improve early intervention strategies and pathways to mental health and drug and alcohol services for rural communities.
4. Improve mental health literacy and reduce the stigma associated with mental health problems.
5. Increase the participation of general practitioners in the improvement of mental health-related networks and services designed to assist rural communities adapt to drought and environmental change.
6. Enhance clinical leadership in the development of mental health-related outreach programs to drought-affected communities.
7. Document a long-term mental health strategy to assist the adaptation of rural and remote communities to drought and environmental adversity.

communities and maintain a focus on the mental health-related impacts of persistent drought and (ii) developing and delivering community activities in partnership with other drought-focused services for priority groups. These were supplemented by mental health information delivered in publications, presentations and other health education media. RAMHP 08-09 also included a further 50 MHFA training courses and support for service networks.

Aboriginal communities

Aboriginal health and well-being are closely connected to the land,¹² which is also an important source of employment for rural Aboriginal people.¹³ Despite substantial health disadvantage, little was known about the impact of drought on Aboriginal mental health. Community forums revealed multiple adverse impacts and also creative adaptive strategies.¹⁴

Older farmers

Older farmers in NSW, like their peers elsewhere,⁶ felt trapped on their properties as their farm succession

plans crumbled under intense and prolonged drought. Those who left faced alone the grief of watching the next generation struggle to maintain the family farm. Community forums provided a place for older farmers to articulate their experiences. From these and other consultations emerged the need to address the social and emotional facets of farm succession planning *and* legal and financial considerations.¹⁵

Women

Traditionally, women on farms are their families' caregivers and supporters.¹⁶ In consultative forums, like their peers around the country,⁶ women were beginning to face their own mental health challenges. Indeed, in RAMHP 07-08, women outnumbered men 2:1 as participants in MHFA training courses. A range of capacity and resilience-building activities for women were also conducted across rural NSW.

Young people

Drought affected children's mental health:¹⁷ young people were distressed about pressures on their families and needed assistance to strengthen their coping skills. Consultative forums held to help identify young people's concerns highlighted (i) the need for early identification and referral to mental health services and (ii) schools' significant part in this process. Teacher-MHFA training conducted by RAMHP across drought-affected communities focused on early identification and referral to appropriate services.¹⁸

Primary health care and substance use

With growing involvement of general practice in primary health care, we recognised a need to enhance links between rural general practitioners and mental health-related services. We had learned that a tailored strategy was required to engage general practitioners, nurses and allied health workers in general practice in RAMHP. Three pilot MHFA courses were conducted for general practice staff to raise awareness of drought-related mental health problems. We also employed consultant psychiatrists who presented information on drought and mental health to general practitioners, specialists and other health personnel.

Program delivery approach

Governance

We designed a program governance structure that reflected the collaborative nature of working arrange-

TABLE 1: *Locations of Drought Mental Health Assistance Program 2008–2009 consultative forums by priority groups*

Priority groups	Location of consultative forums				
Women and young people	Dubbo	Tamworth	Albury	Casino	Orange
Aboriginal communities	Albury	Tamworth	Dubbo	Lismore	Orange
Older farmers	Narrandera	Parkes	Tamworth	Wauchope	Orange

ments between NSW Health, the Centre and the four rural NSW Area Mental Health Services. Memoranda of understanding guided cross-organisational aspects of program implementation.

Consultation process: obtaining general and specific information

Throughout the program, local rural service provider networks, led by Program staff and other agencies, provided up-to-date information on *general* community needs. Two additional RAMHP workers were recruited within Area Health Services (eight in total) who implemented targeted activities to address these needs (details available⁵). To gain *specific* information on priority needs, we held community consultation forums across NSW. One statewide forum was held for each group at the Centre in Orange: older farmers, women and young people (combined) and Aboriginal communities. Local forums followed, several held in each rural Area Health Service (Table 1).

Implementation

Networks and community development

We supported our eight Area Health Services-based workers by recruiting one specialist project officer and one part-time consultant psychiatrist for each priority area. These staff resourced and advised the workers and developed statewide strategies for their respective priority areas.

Mental health first aid training

Mental health first aid training improves mental health literacy (and might help reduce stigma). MHFA courses targeted Aboriginal communities, teachers, general practice staff, youth workers, rural service providers and others across rural NSW.

Other activities

We ran a large number of other activities as suggested by the service networks and our community consultation process. Where possible, RAMHP supported other ser-

vices (Box 2). For example, we partnered with Industry and Investment NSW by introducing a mental health component into their 'Farm Family Gatherings'.

During 2009–2010, in response to stakeholder feedback about the wide range of factors now impacting rural communities, we used the broadened program scope to include the mental health impacts of drought, flood, fire, climate change and economic downturn under the heading of 'rural adversity'. The RAMHP continues to work in partnership with key agencies, providing such services as mental health education, service network support and rural community activities. The original service network model is being successfully applied to a range of adverse events, including the recent floods.

Discussion

Severe and prolonged drought undermined the economic viability of rural and remote NSW communities and, thereby, exerted pressure on their social fabric, as it did around the country.⁶ Consistent with the well-known indirect harm that financial, environmental and social stressors do to mental health,¹⁹ drought compromised mental health in rural NSW. As we designed and refined a drought mental health assistance program for rural NSW, we introduced specific strategies to help address the needs of older farmers, women, young people and Aboriginal communities. A focus on helping to integrate general practice into the drought response and awareness-raising about the perceived increase in alcohol use also featured in the 2008–2009 program.

Our community development model appears to have been well accepted and considered effective in helping communities build capacity and resilience in the face of drought-related prolonged stress and hardship and would likely be readily adapted to other rural adversities, such as floods. A weakness of our approach, one that we address in the next phase of the program, is that our evaluations of program effectiveness were based primarily on immediate feedback rather than on measuring medium-term outcomes. This is, in part, due to planning and financial limitations imposed by annual (rather than longer-term) program funding. But despite inevitable methodological limitations in evaluating the early years of RAMHP, the issues we identified in those years are

BOX 2: Examples of mental health-related activities in which Rural Adversity Mental Health Program partnered with established service providers

Men's Health Pit-Stop Programs

Usually conducted at local events (Agricultural Field Days), Pit-Stop programs provide convenient, speedy health-related screening, advice and information on cardiovascular health, diet, lifestyle, weight, alcohol consumption and mental health. Area Health Services and Divisions of General Practices provided support.

Women's Pamper Days

Designed to support women impacted by drought/climate change-related adversity, 'pamper days' provided free massages, make-up advice from beauty therapists, drumming classes, mental and physical health advice and other activities to promote well-being and increase social support and networking.

Blackdog Youth INSIGHT Programs

These programs provided information, activities and opportunities for young people to discuss mental health issues, such as anxiety and depression, in a youth-focused format. Drought-related youth mental health issues identified during these programs informed subsequent RAMHP activities in schools.

Fishing Coop Breakfasts

Monthly BBQ breakfasts were held at fishing cooperatives on the North Coast of NSW in response to environmental and market impacts on the fishing community. Men's Sheds, Centrelink, Uniting Church, TAFE, Area Mental Health, Department of Primary Industries, and other organisations participated.

Mate Helping Mate

Often conducted during field days and other similar activities, John Harper, a farmer and shearer, talked about depression from his experience. John's presentations struck a chord with his audiences, helping to de-stigmatise mental health issues with rural people across NSW.

consistent with the findings of recent Australian reviews⁶ and the well-known effects of prolonged hardship on mental health.¹⁹ In addition, our findings have informed the development of later iterations of the Program.

We know that many areas of policy (e.g. taxation, agricultural, economic and financial policy) have direct and indirect impacts on the health and well-being of rural communities.⁶ Evidence we have accrued suggests opportunities to dovetail multiple policy dimensions to try to limit the adverse impacts of drought and to

protect and promote mental health. Of vital importance, longer-term strategies are essential. Annual budget cycle-driven funding distorts program planning and implementation: potential and existing program staff are often unable to join or remain in the team in circumstances of uncertain program longevity; and loss of skills and corporate knowledge, and the time it takes to re-recruit and orient new staff, disrupt implementation and create financial inefficiencies.

Given the scale, complexity and significance of drought impacts and rural adjustment, and the threats posed by climate change, a medium- to longer-term approach to maintaining this program would be appropriate. This would allow proper strategic planning (and comprehensive evaluation) to be developed for such programs, as well as providing an environment conducive to attracting and retaining capable staff. The RAMHP provides an exemplar of how such programs can be effective.

Acknowledgements

The Rural Adversity Mental Health Program was funded by the NSW Government Department of Health to the NSW Centre for Rural and Remote Mental Health (The University of Newcastle Australia) in collaboration with the rural Area Mental Health Services of NSW (Greater Southern Area Mental Health Service; Greater Western Area Mental Health Service; Hunter New England Area Mental Health; North Coast Area Mental Health Service). The significant contribution made by the following organisations in supporting RAMHP activities is greatly appreciated (in alphabetical order): *beyondblue*; Centrelink; Country Women's Association; General Practice NSW Ltd; Indigenous Medical Services; Industry and Investment NSW (formerly NSW Department of Primary Industries); NSW Catchment Management Authority; NSW Farmers' Association; School Principals, Counsellors and staff across rural and remote NSW; TAFE NSW Western Institute; The Black Dog Institute; and The Mental Health, Drug and Alcohol Office, NSW Health. The Program was initiated by Professor Brian Kelly and led and managed by Associate Professor Paul Fanning, Anne Tonna and Craig Hart.

Author contributions

Hart 50%, Berry 40%, Tonna 10%.

References

- 1 Bureau of Meteorology. Annual Australian Climate Statement 2008. Issued 5th January 2009 Commonwealth of Australia, 2009.
- 2 Bi P, Parton KA. Effect of climate change on Australian rural and remote regions: what do we know and what do we need to know? *Australian Journal of Rural Health* 2008; 16: 2–4.

- 3 Nicholls N, Collins D. Observed climate change in Australia over the past century. *Energy and Environment* 2006; 17: 1–12.
- 4 Berry HL, Kelly BJ, Hanigan IC *et al.* *Rural Mental Health Impacts of Climate Change. Commissioned Report for the Garnaut Climate Change Review.* Canberra: The Australian National University, 2008.
- 5 Hart CR. *NSW Health Drought Mental Health Assistance Program. Report for the Funding Period July 2008–June 2009.* Orange, NSW: Centre for Rural and Remote Mental Health, The University of Newcastle, 2010.
- 6 Drought Policy Review Expert Social Panel. *It's about People: Changing Perspectives on Dryness – A Report to Government by An Expert Social Panel on Dryness.* Canberra: Commonwealth of Australia, 2008.
- 7 Gellatly C, Torbay R, Whan S. Rural and Regional Task Force, New South Wales Government. Report to the Premier. Sydney, 2008.
- 8 Tonna AM, Kelly B, Crockett J *et al.* Improving the mental health of drought-affected communities: an Australian model. *Rural Society* 2009; 19: 296–305.
- 9 Berry HL, Welsh JA. Social capital and health in Australia: an overview from the Household Income and Labour Dynamics in Australia Survey. *Social Science & Medicine* 2010; 70: 588–596.
- 10 Allan J, Ball P, Alston M. Developing sustainable models of rural health care: a community development approach. *Rural & Remote Health* 2007; 7: 818.
- 11 Kelly GJ, Steed JG. Communities coping with change: a conceptual model. *Journal of Community Psychology* 2004; 32: 201–216.
- 12 Burgess CP, Berry HL, Gunthorpe W, Baillie RS. Development and preliminary validation of the 'Caring for Country' questionnaire: measurement of an Indigenous Australian health determinant. *International Journal for Equity in Health* 2008; 7: 26. DOI: 10.1186/1475-9276-7-26.
- 13 Edwards B, Gray M, Hunter B. A sunburnt country: the economic and financial impact of drought on rural and regional families in Australia in an era of climate change. *Australian Journal of Labour Dynamics* 2009; 12: 109–131.
- 14 Rigby CW, Rosen A, Berry HL, Hart CR. If the land's sick, we're sick: the impact of prolonged drought on the social and emotional well-being of Aboriginal communities in rural New South Wales. *Australian Journal of Rural Health* 2011; 19: 249–254.
- 15 Polain JD, Berry HL, Hoskin JO. Rapid change, climate adversity and the next 'Big Dry': older farmers' mental health. *Australian Journal of Rural Health* 2011; 19: 239–243.
- 16 Alston M. 'I'd like to just walk out of here': Australian women's experience of drought. *Sociologia Ruralis* 2006; 46: 154–170.
- 17 Dean J, Stain HJ. The impact of drought on the emotional well-being of children and adolescents in rural and remote New South Wales. *The Journal of Rural Health* 2007; 23: 356–364.
- 18 Carnie T-L, Berry HL, Blinkhorn SA, Hart CR. In their own words: young people's mental health in drought-affected rural and remote NSW. *Australian Journal of Rural Health* 2011; 19: 244–248.
- 19 Berry HL, George E, Rodgers B, Butterworth P, Caldwell TM. Intergenerational transmission of reliance on income support: psychosocial factors and their measurement. In: Department of Families Community Services and Indigenous Affairs (FaCSIA), ed. *Social Policy Research Paper No 31.* Canberra: Commonwealth Government.