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Submission to the Strategic Review of Health and Medical Research (the McKeon Review)

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This Submission is based on the views of the National Rural Health Alliance but may not reflect the full or particular views of all of its Member Bodies.

Submission to the Strategic Review of Health and Medical Research

(the McKeon Review)

Executive Summary

Introduction

The Strategic Review of Health and Medical Research is an important opportunity to assess the relationship between that body of scientific endeavour and the national interest. The National Rural Health Alliance is particularly concerned to ensure that the national research effort reflects international developments in scientific understanding of the very broad determinants of health status. To be effective, health and medical research must therefore improve our understanding of the great significance of the social determinants of health (education and employment; food and drink; and access to infrastructure such as safe housing, adequate services, amenities, public transport and affordable high speed broadband) and our national capacity to manage their impact on health and wellbeing. And it must do this while maintaining its leadership in basic discovery and biomedical research.

A very specific interest of the Alliance is the extent to which the national research sector is sensible of the needs of all Australians no matter where they live, whatever their cultural background or language and their health situation. Seven million people, one third of the population, live outside major cities in Australia. Overall they have higher rates of health risk factors, poorer access to health services and worse health outcomes than city people.

Health research has a key role to play in reducing these deficits and improving health equity between rural and city areas. The rural and remote health research sector has rapidly built a good reputation for the relevance of its work and the national and international contribution it is making to understandings about rural health and wellbeing. The close personal and environmental relationship between research problem and researcher improves the effectiveness of the research. The lived rural experiences can contribute to rural research *in situ.* Industries and institutions that are 'rural' are more committed to support the search for applied results.

The obverse of these positive reasons for building rural and remote health research capacity is that rural people feel alienated by research which is about them but not around them. If one third of the research effort is not in rural areas it contributes to their perceived inequity.

A key purpose of this Submission is therefore to ensure that Australia's national health and medical research effort includes the range of strategic planning and funding mechanisms necessary for the challenges of funding and conducting rural and remote health research to be met, and the findings incorporated into healthcare policies and programs. Apart from anything else, this will make it likely that rural areas, unencumbered by some of the institutional and professional constraints common in areas of large and close populations, continue to be an important incubator for effective health service and workforce innovations.

The Submission seeks to draw on the strengths of the current health and medical research infrastructure in rural and remote communities and identify opportunities for further development of this valuable national and international resource.

Addressing the Review's terms of reference

Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?

Historically, Australia has made an internationally competitive contribution to the biomedical advances of the 20th century. As a nation we are well placed to build upon this strength and contribute to the social, economic and environmental challenges to health, as we seek to overcome the health inequalities Australia and the world faces in the 21st century.

University Departments of Rural Health (UDRHs) and Rural Clinical Schools (RCSs) were established in the 1990s to provide local training opportunities for rural and remote students as a strategy to combat health workforce shortages outside the major cities. Their location in rural, regional and remote areas provides unique opportunities for research to address poor rural health outcomes at community level in ways that are relevant to the health professional and health service patterns of those communities, often quite different from urban environments. Recognition of research as an explicit and funded component of the national UDRH and RCS programs, in addition to teaching and health professional training, would contribute strongly to research capacity. These institutions, and the health service providers they engage with in their clinical teaching and networks, are significant employers in their local regions, thus contributing to community sustainability and regional capacity.

Australia's rural and remote health research community has a demonstrated record of developing flexible solutions to healthcare challenges for people in very constrained circumstances and very remote locations. This has given that community the capacity to contribute to meeting similar challenges in developing countries. Additional investments in Australia's rural health research will undoubtedly contribute to improved global health.

How might health and medical research be best managed and funded in Australia?

The Alliance supports collaborative approaches to the design, funding and adoption of health and medical research in Australia that involve the users of research, including industry and non-government organisations as well as the communities they serve. The move to longer term collaborative funding arrangements is welcome, but rural and remote partners must be embraced to ensure that the health advances are applicable and equitable across rural and remote settings. Collaborative research opportunities must be better publicised among policy and advocacy groups, health service industry providers and others outside the research sector to ensure their contributions (including in-kind) inform the research program from the beginning.

The mining and other primary industries exclusively located in rural and especially remote areas are significant users of rural and remote health services. Apportioning part of the mining tax and/or enhanced philanthropic funding from mining companies to targeted health service evaluation and improvement activities would help to ensure sustainable, accessible and effective health services for their own staff and for local people. Transparent administration of any strategic funding for health and medical research is needed to ensure fair allocation and appropriate spending.

Improved monitoring of the impact of investments in health and medical research in terms of health and economic returns, not simply publication outputs, is fundamental to improving strategic management and funding. The Alliance believes that performance monitoring for improvement in health outcomes by remoteness in response to evidence-based health system

interventions is an important part of this equation. For example, the Council of Australian Governments (COAG) Reform Council monitors progress measures, outputs and performance indicators under the National Healthcare Agreement and related COAG Partnership Agreements, including by remoteness.

The Alliance is promoting the development of a national rural health plan for a more coordinated and planned approach to addressing rural health inequities, to complement the rural health strategic framework that the Australian Health Ministers Council is expected to launch in April 2012.

What are the health and medical research strategic directions and priorities and how might we meet them?

Priority for health and medical research that addresses critical challenges for rural and remote health should be set so as to meet the national and international policy commitments to social inclusion and improving health outcomes for people who live in rural and remote communities.

Rural and remote healthcare settings provide a range of successful examples of community participation in health services research that enhances the quality of the research and its uptake within the community. The overall poorer health outcomes experienced by people living in rural and remote communities and Aboriginal and Torres Strait Islander people suggest that policies and service models built on metropolitan assumptions are not delivering appropriate results for rural communities.

Research funding mechanisms are needed in which rural health research is assessed for quality, value and relevance by appropriately qualified panels of peers, including population health and health services researchers, policy makers and community representatives.

More directed funding approaches are necessary as well as competitive funding rounds. For example, government priorities for health improvement and social inclusion should be reflected in the research that is commissioned by agencies such as Health Workforce Australia and the Australian National Preventive Health Agency, which were established to increase understanding of the sources of health inequities in Australia and to contribute to meaningful health care reform.

The 3rd Rural and Remote Health Scientific Symposium, to be held in Adelaide 19-21 June 2012, is designed to contribute to excellence in rural and remote health research that will inform strategic health policy and health service challenges in rural and remote Australia. The Symposium will develop collaborative research proposals to address three critical challenges for rural health and wellbeing: the impact of changing rural demography on community and regional sustainability; community functioning and mental health of weather-related disasters and other and adversities in rural and remote Australia; and the impact of culture on rural health and health services.

The Alliance would welcome the opportunity to convene a rural and remote health consultation with representatives of the Strategic Review Panel in association with the Symposium as it will be difficult for many rural and remote health researchers to attend the public hearings in the city.

How can we optimise translation or health and medical research into better health and wellbeing?

At least some test or lead implementation sites for major Commonwealth investments in health such as broadband applications, eHealth records, quality improvement collectives and the like should occur in challenging rural and remote situations. These settings should include a combination of challenges such as: high turnover of health professionals; fluctuating populations due to work practices, seasonal industries, tourism; high proportions of Aboriginal and Torres Strait Islander people; disaster affected areas and so on, where there are not likely to be 'early adopters' to win competitive funding rounds.

Rural and remote health researchers, with their experience in working with local health services, need to be involved in local planning and evaluation to ensure robust and credible methodology and reporting. Designing e-health implementation programs and solutions that complement usual work practices in rural and remote settings will be fundamental to success. In this way, health services in areas of high need but with limited resources can effectively contribute good quality health data. The commercial providers of technology will gain experience and knowledge through the implementations that will be of national and global commercial value to them as they will be able to make claims about their successes. These claims will be strengthened by a more robust and valid process. The government and project team, the local health services and the researchers should all share credit for the implementation and be in a position to benefit from advising on and sharing the knowledge and experience that has been gained along the way.

Conclusion

The Alliance is pleased to contribute to the Strategic Review of Health and Medical Research. Our Submission canvasses very briefly the extraordinary breadth of the determinants of health status, the particular health needs of rural people, the contribution to meeting needs that can be made by the national health research effort, and the great capacity of the rural and remote research body within the national team.

With a fair degree of recognition and support, the rural health research community will play a leading role in providing the evidence required to meet the unique challenges of rural and remote health, including through the transformation of health service delivery and adoption of new technologies.

Submission to the Strategic Review of Health and Medical Research

(the McKeon Review)

Introduction

The National Rural Health Alliance is comprised of 33 Member Bodies, each a national body in its own right, representing rural and remote health professionals, service providers, consumers, educators, researchers and Indigenous health organisations (see Attachment 1).

The vision of the Alliance is good health and wellbeing for people living in rural and remote Australia. Its particular goal is equal health for all Australians by 2020.

A more strategic approach to health and medical research is a fundamental part of closing the rural-metropolitan health gap. Accordingly, the Alliance is involved with health and medical research at a number of levels nationally, such as promoting excellence in rural and remote health and medical research through publication of the Australian Journal of Rural Health, as well as sharing experiences with translating research findings and linking health policy with health service delivery in rural and remote communities through the biennial National Rural Health Conference. The Alliance also engages with improvements to the national data collections such as the Australian Institute of Health and Welfare and with agencies that are in a position to act powerfully on the basis of good research results, or to commission research to fill knowledge gaps, such as the Australian National Preventive Health Agency and Health Workforce Australia. The rural and remote health research community in Australia is a key part of the Alliance's network and constituency.

Seven million people, one third of the population, live outside major cities in Australia. Overall they have higher rates of health risk factors, poorer access to health services and worse health outcomes than city people.[1] It has been estimated that overall life expectancy, the most fundamental measure of human health, is up to four years lower in rural, regional and remote areas than it is in Australia's major cities. Put another way, this results in 4,600 premature deaths per year in rural and remote Australia. It has been estimated that a white man born in the Central Darling Shire in Far West New South Wales could expect 11 years less life than one born in Mosman in Sydney. These differences are not due only to the higher proportion of Indigenous people in more remote areas. Living in rural and remote areas in Australia is itself a risk factor.

The Council of Australian Governments (COAG) objective for social inclusion and Indigenous health in the National Healthcare Agreement 2011[2] reconfirmed the desired policy outcome set in 2008:

> *"Indigenous Australians and those living in rural and remote areas or on low incomes achieve health outcomes comparable to the broader population."*

The Strategic Review of Health and Medical Research in Australia is an important opportunity to re-focus on the broader health, social and economic needs of all Australians, no matter where they live. Thereby, health and medical research will also become better

[1] National Rural Health Alliance, 2010. Measuring the metropolitan- rural inequity. Fact Sheet 23. http://nrha.ruralhealth.org.au/cms/uploads/factsheets/Fact-Sheet-23-rural-inequity.pdf viewed 23 March 2012.
[2] Council of Australia Governments, 2011. National Healthcare Agreement 2011. http://www.coag.gov.au/docs/national_healthcare_agreement_2011.pdf

integrated with the economic, social and environmental challenges and opportunities for the sustainable development of our nation.

Addressing the Review's terms of reference

Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector? (Terms of Reference 1 and 6)

TOR 1. The need for Australia to build and retain internationally competitive capacity across the research spectrum, from basic discovery research through clinical translation to public health and health services research.

Historically, Australia has made an internationally competitive contribution to the biomedical advances of the 20th century. As a nation we are well placed to build upon this strength and contribute to the social, economic and environmental challenges to health as well, as we seek to overcome the health inequalities we face along with the rest of the world in the 21st century.

Australia has made a good start through the social inclusion objective in the National Healthcare Agreement discussed above, with a 'social determinants' approach to reducing health inequities. Policy directions have been set accordingly:

- Reduce gaps in health outcomes arising from disparities in socio-economic status
- Develop innovative evidence-based models of care for Indigenous Australians
- Improve health services for rural Australia and disadvantaged populations including the homeless
- Link health into broader activities designed to redress disadvantage.

Australia is not unique in taking this approach. For example, work is underway in the United Kingdom to tackle social inequalities so as to reduce health inequalities, based on the 'social determinants' approach to preventing ill health.[3]

Integrating social (including health) and environmental issues into economic decisions is vital to sustainable global development according to a 2012 Report from the United Nations Secretary General's High Level Panel on Global Sustainability. [4] The Panel's long term vision is to eradicate poverty, reduce inequality, make growth inclusive and production and consumption more sustainable, while combating climate change and respecting a range of other planet boundaries. The Panel found that

> *"the time is ripe for broader and bolder intergovernmental efforts to strengthen the interface between science and policy and to define, through science, the economic, social and environmental consequences of decisions."*

Australia is internationally recognised for its capacity to address the challenges of harsh environmental conditions and large distances. For example, Australian researchers are well known for their national and international contributions to dry climate agriculture, improving water quality and management and to food security. Iconic health service models such as the Royal Flying Doctor Service and remote area nursing are internationally recognised.

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[3] Marmot Review (2010), *Fair Society, Healthy Lives*. http://www.instituteofhealthequity.org/

[4] United Nations Secretary General's High Level Panel on Global Sustainability, 2012. *Resilient People, Resilient Planet: a future worth choosing*

Australia's investment in technological advancements such as the National Broadband Network, telehealth and e-health is being monitored by the international community.

Given the strong links between social determinants (education and employment; and access to infrastructure such as safe housing, adequate services and amenities, public transport and affordable high speed broadband) and the health of our population, health and medical research must continue to expand beyond basic discovery and biomedical research.

The expertise and international recognition of rural and remote health research in Australia, encompassing health services, population health and public health research, is already established, despite the tendency for traditional research funding mechanisms to favour more basic research. In part this is due to the higher proportions of people outside major cities who are socio-economically disadvantaged, for example through lower incomes (45 per cent on concession cards compared with 30 per cent in major cities)[5], and lower levels of education and employment. Rural and remote health researchers have gained considerable experience in evidence-based transformation of health services in consultation with local communities in their efforts to tackle and reduce associated health inequalities.

Throughout this submission, the Alliance will draw on opportunities for Australia to build on the solid health and medical research infrastructure that currently exists in rural and remote communities and to invest in further development of this invaluable national and international resource so as to harness latent research capacity.

TOR 6. Strategies to attract, develop and retain a skilled research workforce which is capable of meeting future challenges and opportunities.

Current strategies to attract and retain a skilled health and medical research workforce in rural and remote communities build on investment in University Departments of Rural Health (UDRHs) and Rural Clinical Schools (RCSs) commencing in the 1990s. These institutions were established to provide local training opportunities for rural and remote students to combat health workforce shortages outside the major cities. There is now clear evidence of their success in this regard.[6]

However, the ongoing viability of the UDRHs and RCSs is dependent on maintaining academic excellence through attracting and retaining excellent health and medical researchers and high calibre teaching staff. Their location in rural, regional and remote areas provides unique opportunities for research to address poor rural health outcomes at community level and in ways that are relevant to the health professional and health service patterns of those communities, often quite different from urban environments. Yet rural research groups face major difficulties in the recruitment and retention of skilled staff. Some are making major investments in "growing their own" through post-graduate and post-doctoral programs.

The development and retention of this rural and remote health research workforce needs to be valued and underpinned with consistent funding avenues if we are to address the problems of rural and remote ill health. Recognising research as an explicit and funded component of the

[5] AIHW, 2011. Australian health expenditure by remoteness. A comparison of remote, regional and city health expenditure. http://www.aihw.gov.au/publication-detail/?id=6442475421&tab=2

[6] For example, Walker JH, DeWitt DE, Pallant JF, Cunningham CE, 2012. Rural origin plus a rural clinical school placement is a significant predictor of medical students' intentions to practice rurally: a multi-university study. Rural and Remote Health 12: 1908. http://www.rrh.org.au/publishedarticles/article_print_1908.pdf

national UDRH program, in addition to the recognised role of the UDRHs in teaching and health professional training, would be a helpful development in this regard.

After all, rural and remote training institutions provide much more than opportunities for training health professionals in rural communities. The institutions themselves and the health service providers they engage in clinical teaching are significant employers in their local regions, thus contributing to community sustainability and regional capacity in addition to the graduating health workforce. The rural research groups also provide opportunities for members of the skilled health research workforce in rural and remote communities to maintain their skills and professional networks through participation in evidence-based development and implementation of health service improvements and new service delivery models that suit the local community. Some research groups also offer training opportunities to visiting postgraduate research students in health service improvement research, thereby extending networks and building further interest in the region.

The Australian Rural Health Education Network, a member of the National Rural Health Alliance and the peak body for the 11 University Departments of Rural Health in every State and the Northern Territory, is providing a separate submission to the McKeon Review.

How might health and medical research be best managed and funded in Australia? (Terms of Reference 2, 3 and 7)

TOR 2. Current expenditure on, and support for, health and medical research in Australia by governments at all levels, industry, non-government organisations and philanthropy; including relevant comparisons internationally.

There is a widely recognised dearth of rigorous evaluation data with respect to rural and remote health programs funded by the States and the Commonwealth[7]. The information generated through enhanced evaluation data may be relevant to metropolitan as well as rural and remote and low and middle income countries internationally and is necessary to underpin a more strategic approach to health and medical research in Australia.

The Alliance supports collaborative approaches to the design, funding and adoption of health and medical research in Australia that involve the users of research, including industry and non-government organisations as well as the communities they serve. Conducting and implementing high quality research that translates into health policy and practice requires extended collaborations that must go beyond a focus on single, short term project funding.

The shift to partnership centres and longer term funding models such as Cooperative Research Centres, Australian Research Council Linkage Grants, National Health and Medical Research Council Partnerships for Better Health, is helping to expand the focus beyond investigator-driven research to include more strategic policy and service led research. Philanthropic research funding and gestures of good corporate citizenship from industry sectors provide further opportunities for research that is integrated with social (including health), environmental and economic issues, and is thus more likely to contribute to sustainable development and long term health gains.

However, these high level research partnerships must embrace rural and remote partners, to ensure that the health advances are applicable and equitable across rural and remote settings.

[7] Wakerman J & Humphreys JS. 2011 Sustainable primary health care services in rural and remote areas: Innovation and evidence. Aust. J. Rural Health 19, 118–124.

It has taken over 10 years for the research capacity embedded in rural and regional communities to develop and mature through the UDRH program. This is no different from the development of metropolitan research capacity but rural researchers have started later. Rural researchers also face cultural challenges in relating to the communities they serve and must overcome practical difficulties in conducting their work that do not exist for those undertaking basic research.

Rural and remote communities have a particular need for research to underpin health service transformations that make best use of the health resources and facilities available locally and are tailored to meet community needs. At present, this type of research remains largely underfunded and piecemeal, which in turn means that policy makers are less engaged and if they do hear about the work, inclined to regard it as local and difficult to scale up or to apply more systematically. The Australian Primary Health Care Research Institute (APHCRI) Centres of Research Excellence program is a promising development offering funding for 4 years to address questions of relevance to policy and practice, such as the Centre of Excellence for research in accessible and equitable primary health service provision in rural and remote Australia.[8]

The Alliance is keen to see better promotion of collaborative research opportunities and outcomes among the non-research community. At present, not-for-profit organisations, policy and advocacy groups, health service industry providers and others outside the research sector may well become late partners in the collaborative process, possibly through being known to one of the lead research investigators, rather than truly being part of the collaboration from the beginning. There are many potential collaborators that may never hear about opportunities for collaborative research, and whose capacity to provide useful in-kind contributions is not recognised.

TOR 3. Opportunities to improve coordination and leverage additional national and international support for Australian health and medical research through private sector support and philanthropy, and opportunities for more efficient use, administration and monitoring of investments and the health and economic returns; including relevant comparisons internationally.

Rural and remote health services service the mining and other primary industries exclusively located in rural and especially remote areas. Apportioning part of the mining tax and/or enhanced philanthropic funding from mining companies targeting health service evaluation and improvement activities would help to ensure sustainable, accessible and effective health services for these industries, as well as provide a means for the industries to contribute to health care for their own staff and to more sustainable health services for local people. For example, the Royalties for Regions program is a Western Australian state government plan that focuses on building communities in regional areas through six policy objectives: building capacity in regional communities; retaining benefits in regional communities; improving services to regional communities; attaining sustainability; expanding opportunity and growing prosperity.

However, transparent administration of any strategic funding for health and medical research is needed to ensure fair allocation and appropriate spending, along with monitoring the

[8] Australian Primary Health Care Research Institute. Centres of Research Excellence. http://aphcri.anu.edu.au/research-program/centres-research-excellence

strategic investments to take into account the true impact of the research in terms of health and economic returns, not simply publication outputs.

The Alliance believes that performance monitoring for improvement in health outcomes by remoteness in response to evidence-based health system interventions is an important part of this equation. For example, progress measures, outputs and performance indicators for the social inclusion objective in the National Healthcare Agreement are now being monitored through the COAG Reform Council, with the Baseline Report for 2008-09 and the 2009-10 report already available.[9] These include age-standardised mortality, access to services by type of service compared to need, teenage birth rate, hospitalisation for injury and poisoning, children's hearing loss and Indigenous Australians in the workforce. In addition to these selected indicators, the COAG Reform Council report aims to present data for all indicators by Indigenous status, socio-economic status, and remoteness, to allow analysis of health services and outcomes for these different population groups compared to the broader population, subject to data availability. In this context the Alliance would like to see a greater investment in rural analysis of the national health data collections including through the Australian Bureau of Statistics and the Australian Institute of Health and Welfare.

In the near future the National Health Performance Authority will commence Healthy Communities reports that monitor the impact of Medicare Locals in identifying and addressing health care gaps, presumably through key performance indicators and health outcomes. It would seem that these measures should also assist with monitoring the returns on investments in health and medical research in terms of health outcomes and health service improvements over time. Once again, analysis by remoteness as well as by State or region will be important to ensure equality of health outcomes across the region rather than focused on a regional centre.

The Alliance is promoting the development of a national rural health plan for a more coordinated and planned approach to addressing rural health inequities, to complement the rural health strategic framework that the Australian Health Ministers Council is expected to launch in April 2012. In this context, the results of quality rural and remote health research will inform policy changes and health service improvements tailored to address the determinants of rural and remote health status and improve the effectiveness of health services for people who live in rural and remote communities. The success of the implementation of evidence-based programs and health interventions will be monitored within the evaluation framework for the rural health plan over time.

TOR 7. Examine the institutional arrangements and governance of the health and medical research sector, including strategies to enhance community and consumer participation. This will include comparison of the NHMRC to relevant international jurisdictions.

Rural and remote healthcare settings provide a range of successful examples of community participation in health services research that enhances the quality of the research and its uptake within the community.

For example, NHMRC-funded Indigenous research capacity building over the past decade has begun to show some success. This has entailed attention to structural issues in how

[9] COAG Reform Council. National Healthcare Agreement: Performance report for 2009–10 and National Healthcare Agreement: Baseline performance report 2008–09 as well as other reports on progress with healthcare reforms. http://www.coagreformcouncil.gov.au/reports/healthcare.cfm

grants are assessed, governance requirements for involving the community in the research from the early design phase onwards, targeted calls for research, as well as setting targets or quotas for directed funding.

In addition, the Australian Journal of Rural Health[10] publishes many examples of high quality rural and remote health research, on subjects including but not limited to Indigenous health. Much of the research through the UDRHs and the RCSs is based on community development principles. The biennial National Rural Health Conference in 2011 also provided many good examples and success stories of community involvement in health service improvement in rural and remote communities[11]. However the extent to which the NHMRC and CHF *Statement on Consumer and Community Participation in Health and Medical Research*[12] or international approaches to consumer and community participation such as INVOLVE in the UK[13] are known or applied within rural and remote research networks is not clear.

Yet the overall poorer health outcomes experienced by people living in rural and remote communities and Aboriginal and Torres Strait Islander people suggest that policies and service models built on metropolitan assumptions are not delivering appropriate results for rural communities.

Addressing rural and remote health needs is a complex and potentially expensive exercise as evidenced by attempts to provide equitable workforce though incentives, training initiatives, 'fly-in fly-out' services, and other approaches. Policy often moves in incremental steps and the implications of such steps are seldom evaluated. Complex problems are likely to require sophisticated solutions and broad standardised one-size-fits-all solutions may prove counterproductive. For example, achieving behavioural change at individual, household and community levels is challenging and will require new and innovative approaches within rigorous research and evaluation frameworks.

Population health research and health services research, both of which are likely to have more immediate impact on rural and remote health outcomes than biomedical research, are *applied* rather than *basic* disciplines. They employ broader social scientific approaches such as qualitative and mixed method research, intervention studies and evaluations and approaches built on new understandings of complex problems and solutions. Rural and remote populations are by definition different and small, and in many cases research will have to address the problems of small numbers and make use of innovative approaches and research methods.

Population and health services research proposals need to be assessed by appropriate experts rather than biomedical scientists. Funding mechanisms are needed in which rural health research is assessed for quality, value and relevance by appropriately qualified panels of peers, policy makers and community representatives. More directed funding approaches may be necessary as well as competitive funding rounds, to ensure continuity of core research

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[10] Australian Journal of Rural Health. For example, see selected papers from the current issue and the 'Top Cited Papers since 2010' at http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291440-1584

[11] 11th National Rural Health Conference 2011. The Heart of a Healthy Nation. Plenary and concurrent papers. http://11nrhc.ruralhealth.org.au/plenary-and-concurrent-papers

[12] NHMRC, 2002. Statement on Consumer and Community Participation in Health and Medical Research. NHMRC and CHF, 2002. http://www.nhmrc.gov.au/guidelines/publications/r22-r23-r33-r34

[13] INVOLVE Supporting public involvement in NHS, public health and social care research http://www.conres.co.uk/index.asp

capacity in a range of rural and remote settings. For example, a funded research position in a remote setting can underpin links with health service providers and build their capacity to participate in more evidence-based service delivery, at the same time as providing them with a trusted link to incoming health service researchers. The local research team will also provide invaluable knowledge and understanding to evaluation of health system interventions in the local settings, as well as support for incoming students and researchers.

What are the health and medical research strategic directions and priorities and how might we meet them? (Terms of Reference 5, 12 and 13)

TOR 5. Likely future developments in health and medical research, both in Australia and internationally.

In responding to this question and TOR 5, the Alliance is drawing on the planning for the 3rd Rural and Remote Health Scientific Symposium, to be held in Adelaide 19-21 June 2012.[14] The Symposium Steering Group, consisting of leading rural and remote health researchers, considered the strategic directions and priorities for rural and remote health and research in developing the purpose for the Symposium.

The Symposium purpose is to contribute to excellence in rural and remote health research that will inform strategic health policy and health service challenges in rural and remote Australia.

The Steering Group also identified three critical challenges for rural health and wellbeing:

- the impact of changing rural demography on community and regional sustainability and on rural health and wellbeing;
- community functioning and mental health of weather-related disasters and other and adversities in rural and remote Australia; and
- the impact of culture on rural health and health services.

At the Symposium, rural and remote health researchers and key collaborators will consider evidence on these three strategic topics. Knowledge gaps and the priorities for future research will be identified and groups will develop collaborative research proposals that draw on the strengths and experiences of rural communities and health services. Progress will be made towards a better understanding of excellence in rural health research and the groundwork will be laid for the development of well-informed and effective policies.

The Symposium outcomes will be three major research proposals that address these critical challenges for rural health and wellbeing. The proposals will be nationally competitive and relevant to communities, healthcare providers and policy makers in the context of the national health reform program.

The Alliance, with the support of the other Symposium organisers and the participants, would be pleased to provide further information about the Symposium to the Review Panel, including further comments on how we might meet the strategic research directions that will be under discussion.

[14] The biennial Rural and Remote Health Scientific Symposium is managed collaboratively by the Australian Primary Health Care Research Institute (APHCRI), the Primary Health Care Research and Information Service (PHCRIS), the Australian Rural Health Education Network (ARHEN) and the National Rural Health Alliance (NRHA). http://nrha.org.au/3rrhss/

TOR 12. The degree of alignment between Australia's health and medical research activities and the determinants of good health, the nation's burden of disease profile and national health priorities, in particular 'closing the gap' between Indigenous and non Indigenous Australians.

The proportion of Aboriginal and Torres Strait Islander people in the population increases with remoteness and the Alliance is strongly supportive of the imperative to address the parlous state of Indigenous health.

However, the importance of a solid evidence base in relation to improving the (relatively poor) health and wellbeing of the seven million Australians living in rural and remote areas continues to be a national priority.

Effective and integrated primary care is a significant contributor to better health outcomes, but workforce shortages prevent its delivery in many rural and remote areas. Recent publications from the Alliance[15] and the Australian Institute of Health and Welfare (AIHW)[16] show an annual shortfall in health care for country people of more than 25 million services and a health care deficit in regional and remote areas of at least $2.1 billion in 2006-07, the latest year for which data on expenditure by rurality was available. Adding the Medicare, PBS and 'other primary care' deficits results in a conservative estimate of $2.46 billion for the rural primary care deficit for the year 2006-07, largely attributable to poorer access to health professionals. (In this analysis the rurality category related to where the person lives, not where the service occurred.)

This underspend on primary care (doctors, dentists, pharmacies) contributed to the need for an extra $830 million to be spent on acute (hospital) care for people from rural and remote areas. The Alliance estimates this to represent some 60,000 extra acute care hospital episodes. A fairer share of public expenditure on health promotion, primary care and early intervention in rural areas would reduce acute care episodes and keep people out of hospital.

Research on how best to develop rural primary care and re-design health services to better meet the needs of this large and significant population of people with high health needs remains a top strategic priority for the nation. It is therefore disappointing that the priority for rural and remote health research identified by the Wills Review, which was also identified as a critical health issue for improvement in the NHMRC Strategic Plan for 2003-06, seems to have faded to a bland statement that "In all we do, we will consider how it: prevents illness, affects all parts of the health system; serves particular needs of rural and remote Australians; impacts on Indigenous health; influences socio-economic determinants of health; improves health literacy of patients and carers; contributes to international best practice." The objective to support collaborative research on issues of benefit to rural and regional communities was also dropped from the ARC Linkage Grant Funding Rules for the round commencing in 2011.

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[15] NRHA, 2011. Australia's health system needs re-balancing: a report on the shortage of primary care services in rural and remote areas. http://nrha.ruralhealth.org.au/cms/uploads/publications/nrha-final-full-complementary-report.pdf
(See also NRHA Fact Sheet 27. The extent of the rural and remote health deficit. March 2011.)

[16] AIHW, 2011. Australian health expenditure by remoteness. http://www.aihw.gov.au/publication-detail/?id=6442475421

Priority for health and medical research that addresses critical challenges for rural and remote health should once again be set to meet the national and international policy commitments to social inclusion and improving health outcomes for people who live in rural and remote communities. The health inequalities faced by one third of the Australian population must not be bypassed. A range of strategic planning and funding mechanisms should be established to ensure that the challenges of funding and conducting rural and remote health research are met and the findings are incorporated into healthcare.

One such mechanism would be through ensuring that government priorities for health improvement and social inclusion are reflected in the research that is commissioned by the agencies established to undertake health reform. For example, Health Workforce Australia has a role in improving health workforce distribution - including to rural and remote communities - and is undertaking research, data collection and consultation to inform its advice.

The Australian National Preventive Health Agency includes a rural focus in its strategic plan, but it is yet to be seen whether this will flow through into investment in rural and remote health research.

Mainstream health promotion campaigns are generally designed for metropolitan areas. The fact that these may be less effective in rural and remote areas was clearly illustrated during the decade to 2004-2005 when smoking rates fell significantly in metropolitan areas but increased or remained the same in rural and remote areas. What this means now is that the greatest health gains, both for individuals and nationally, are to be made through successful health promotion in rural and remote areas.

Research is needed to understand and address underlying causes of risk behaviours in rural areas and to engage local communities in program design. This will require greater allocation of resources in areas where the health need is greater and where there is less access to healthcare professionals, supporting infrastructure and communication. There is also a need for a stronger focus on the health needs of Aboriginal and Torres Strait Islander people. Research and implementation strategies could include partnering with local organisations, training the local health workforce in preventive health, creating messages that are relevant for rural and remote communities, using communications channels most accessible in rural Australia, and placing messages in accessible locations (for example local grocery stores, sports events, agricultural shows).

TOR 13. Opportunities for Australia’s health and medical research activities to assist in combating some of the major barriers to improved health globally, especially in the developing world.

Australia's rural and remote health research community has a demonstrated record of developing flexible solutions to healthcare challenges for people in very constrained circumstances and very remote locations. This has given that community the capacity to contribute to meeting similar challenges in developing countries. Additional investments in Australia's rural health research will undoubtedly contribute to improved global health.

How can we optimise translation of health and medical research into better health and wellbeing? (Terms of Reference 4, 8, 9, 10 and 11)

The Alliance is concerned that the wording of this question tends to separate the conduct of research from the reporting of results from the use of that research. Strategic health and medical research is not about researchers completing research then trying to sell their findings to policy makers, service providers and clinicians.

Research that leads to better health and wellbeing is much more likely to be the result of extended partnerships between researcher, policy makers and clinicians. While opportunities for researchers, policy makers/managers and clinicians to meet, or even to work in each other's organisations and learn to cross organisational boundaries, carry costs which must be carefully monitored, effective research translation relies on good understanding and involvement of all of the partners.

TOR 4. The relationship between business and the research sector, including opportunities to improve Australia's capacity to capitalise on its investment in health and medical research through commercialisation and strategies for realising returns on Commonwealth investments in health and medical research where gains result from commercialisation.

To fully realise the benefits of new knowledge gained through research efforts, particularly for challenging rural and remote settings, there needs to be a close and ongoing relationship between the funders of research (whether from the public or private sectors), policymakers and the businesses and communities in those settings. For example, rural and remote health researchers need to be involved in the local planning and evaluation based on their experience in working with local health services, to ensure robust results and credible reporting.

Health care must remain centred on the person or people needing the care, and face-to-face interactions with healthcare providers must not be bypassed by commercial interests in the research effort or hijacked by technological possibilities. However, the Alliance believes that commercial and technological partners will provide better solutions and support for implementation where they understand the situations in which their solutions will need to work and the people who will be involved 'on the ground'.

It is too easy to develop 'the answer' in a metropolitan setting which simply does not translate to the rural and remote health services that are often seen as most likely to benefit or where the health needs are highest. At least some test or lead implementation sites for major Commonwealth investments in health such as broadband applications, eHealth records, quality improvement collectives and the like should occur in challenging rural and remote situations. The development and implementation of electronic health records in the Northern Territory is one such example, which has grown from community collaborations over a number of years. However, other challenging rural and remote settings may include various combinations of fluctuating populations and one-time patients due to fly-in fly-out work practices, seasonal local industries or tourism and high proportions of Aboriginal and Torres Strait Islander people. These challenging settings might also have a high turnover of health professionals on short term postings, or no 'early adopter' to lead a change. There may well be health workforce shortages or gaps, administrative tasks carried out by a range of different staff with different skills and experiences, no local access to technical advice, out-dated infrastructure, and unreliable phone or internet connections. Such test sites would need to be targeted according to need rather than through a competitive process.

The commercial providers of the technology will gain experience and knowledge through the implementations in challenging situations that will be of national and global commercial value to them as they will be able to make claims about their successes. These claims will be strengthened by a more robust and valid process.

The government and project team, the local health services and the researchers should all share credit for the implementation and be in a position to benefit from advising on and sharing the knowledge and experience that has been gained along the way.

TOR 8. Opportunities to improve national and international collaboration between education, research, clinical and other public health related sectors to support the rapid translation of research outcomes into improved health policies and practices. This will include relevant international comparisons.

Rural and remote health researchers are particularly focussed on knowledge translation, delivering outputs that are directly relevant to service providers, policymakers and educators.

Over the past 15 years a rural and remote academic infrastructure has been developed across Australia which is leading the world. The UDRHs & RCSs, together with regional universities, have developed undergraduate and postgraduate educational programs to better prepare and shore up the rural and remote health workforce. Assisted by programs such as the Primary Health Care Research Evaluation and Development (PHCRED) Strategy, rural and remote health researchers have also been able to develop research capacity and expand activity that compares well to rural research output internationally.[17] For example, two national APHCRI CREs have a significant or exclusive rural and remote focus (CRE in Primary Health Care Microsystems and the CRE in Rural and Remote Primary Health Care).

However, there is still a way to go. Rural and remote health research capacity remains limited compared to its metropolitan counterpart. At present, much of the capacity building required occurs through alliances with metropolitan research colleagues and institutions. Learning about the academies and societies that help to sustain and support research capacity and develop opportunities for collaboration can be a challenge from a remote place. While the number of rural grants without a metropolitan investigator is still few, this number is growing as a legacy of investment of time and energy over the years.

For scholarships to work as a way of building capacity, supervisors are needed; but at present lack of tenure/lack of continuity is a greater issue for rural researchers and their postgraduate students than in metropolitan areas. The rural operations are smaller and performance is predominantly related to educational commitments with smaller student numbers, which means there is less capacity within the institutions to cover anyone who does not win a grant in the short term, as would happen in a larger institution. Most rural and remote health researchers will need a balance of funding from competitive funding rounds and more targeted research to maintain their positions.

Further development of rural and remote health and medical research and education capacity will benefit the bush - and the cities too.

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[17] McLean R, Mendis K, Harris B, Canalese J 2007 Retrospective bibliometric review of rural health research: Australia's contribution and other trends. Rural and Remote Health 7: 767.

TOR 9. Ways in which the broader health reform process can be leveraged to improve research and translation opportunities in preventative health and in the primary, aged and acute care sectors, including through expanded clinical networks, as well as ways in which research can contribute to the design and optimal implementation of these health reforms.

Health and medical researchers who understand and are operating in the rural and remote environment are best placed to carry out research to leverage health reforms in their areas. This includes:

1. research that is most effectively carried out in rural areas;
2. health services research that looks to developing appropriate models of service delivery and accompanying policy, rather than transposing often inappropriate metropolitan models to rural areas; and
3. research that addresses the underlying social and economic determinants of health.

All of these types of rural health research are characterised by strong partnerships with service providers and community organisations, and very much rooted in the communities in which the rural health researchers live. Deprivation is a great driver for innovation, which means that in a reform environment, for example, with respect to workforce innovation, rural service providers and researchers have much to offer. However there is still a need to build scholarly and research capacity in rural areas so that intellectual efforts are running in parallel to and complementing clinical and policy efforts.

In the competitive tendering processes or calls for expression of interest that are often used for implementation of new health programs, rural health services will struggle to come up with substantial financial contributions to partnership proposals with researchers. Targeted funding within a collaborative research framework may provide a better environment for introducing health reforms within a supportive research framework in these more challenging rural and remote health service settings. Certainly rural and remote health institutions should be well-placed to develop evaluation frameworks and conduct evaluations for the impact of health reforms. They specialise in good relationships with local communities and work within a quality improvement framework. Requirements for the evaluation of policy and service developments and for the publication of evaluation research would enable a more informed process of policy and service development and in the long term might enable better investments in rural and remote health.

Another mechanism would be to ensure that the implementation and evaluation of large scale national health projects, such as the eHealth record, MBS items for telehealth, where rural benefits are claimed, include specific formative evaluation at rural and remote health service level to ascertain and optimise rural impact. Many of the large consultancies contracted to undertake national evaluations do not have this expertise. They are most unlikely to have embedded local research capacity in a range of rural and remote areas across the country. Requirements to commission this research expertise may need to be built into contractual arrangements and timeframes.

TOR 10. Ways in which health and medical research interacts, and should interact, with other Government health policies and programs; including health technology assessments and the pharmaceutical and medical services assessment processes.

Health technology assessments and the pharmaceutical and medical services assessment processes should better interact with Government health policies and programs to improve

rural and remote health outcomes. Ongoing monitoring of new MBS items, utilisation of new medicines and devices and adverse events need to be analysed by remoteness, to detect any significant differences in uptake and impacts in rural areas.

We need to start to pick up much earlier the health services that are less accessible to or less used by rural people (eg cataract surgery, cancer treatment), where rural outcomes following hospitalisation may be worse (eg post-discharge stroke rehabilitation), where clinical benefits of well-established pharmaceutical, medical and surgical interventions seem to be less effective (cardiovascular disease, diabetes etc).

TOR 11. Ways in which the Commonwealth's e-health reforms can be leveraged to improve research and translation opportunities, including the availability, linkage and quality of data.

Commissioning early adoption sites for high need areas within a supportive and responsive evaluation framework where the 'early adopter' model for change management is not likely to work will be important to achieve translation in these areas. (See also the response to TOR 4 under this question.)

Designing e-health implementation programs and solutions that complement usual work practices in rural and remote settings are fundamental to success. In this way, health services in areas of high need but with limited resources, can effectively contribute good quality health data.

Better engagement of the rural and remote health research sector in designing education, training and support programs for e-health implementation around an evidence base and within an evaluation framework would assist.

It is also to be hoped that the development of the NBN will facilitate new forms of collaboration with more consistent and easily available IT mechanisms for collaborative work among researchers, policy makers, health service managers and clinicians.

Conclusion

The Alliance is pleased to contribute to the Strategic Review of Health and Medical Research. Our Submission canvasses very briefly the extraordinary breadth of the determinants of health status, the particular health needs of rural people, the contribution to meeting needs that can be made by the national health research effort, and the great capacity of the rural and remote research body within the national team.

With a fair degree of recognition and support, the rural health research community will play a leading role in providing the evidence required to meet the unique challenges of rural and remote health, including through the transformation of health service delivery and adoption of new technologies.

The Alliance would welcome the opportunity to convene a rural and remote health consultation with representatives of the Panel as it will be difficult for many rural and remote health researchers to attend the public hearings in the capital cities. The 3rd Rural and Remote Health Scientific Symposium in June provides such an opportunity.

Attachment 1

Member Bodies of the National Rural Health Alliance

ACHSM	Australasian College of Health Service Management
ACRRM	Australian College of Rural and Remote Medicine
AGPN	Australian General Practice Network
AHHA	Australian Healthcare & Hospitals Association
AHPARR	Allied Health Professions Australia Rural and Remote
AIDA	Australian Indigenous Doctors' Association
ANF	Australian Nursing Federation (rural members)
APA (RMN)	Australian Physiotherapy Association Rural Member Network
APS	Australian Paediatric Society
APS (RRIG)	Australian Psychological Society (Rural and Remote Interest Group)
ARHEN	Australian Rural Health Education Network Limited
CAA (RRG)	Council of Ambulance Authorities (Rural and Remote Group)
CHA	Catholic Health Australia (rural members)
CRANAplus	CRANAplus – the professional body for all remote health
CWAA	Country Women's Association of Australia
FS	Frontier Services of the Uniting Church in Australia
HCRRA	Health Consumers of Rural and Remote Australia
ICPA	Isolated Children's Parents' Association
NACCHO	National Aboriginal Community Controlled Health Organisation
NRHSN	National Rural Health Students' Network
PA (RRSIG)	Paramedics Australasia (Rural and Remote Special Interest Group
PSA (RSIG)	Rural Special Interest Group of the Pharmaceutical Society of Australia
RACGP (NRF)	National Rural Faculty of the Royal Australian College of General Practitioners
RDAA	Rural Doctors Association of Australia
RDN of ADA	Rural Dentists' Network of the Australian Dental Association
RHW	Rural Health Workforce
RFDS	Royal Flying Doctor Service
RHEF	Rural Health Education Foundation
RIHG of CAA	Rural Indigenous and Health-interest Group of the Chiropractors' Association of Australia
RNMF of RCNA	Rural Nursing and Midwifery Faculty of the Royal College of Nursing Australia
ROG of OAA	Rural Optometry Group of the Australian Optometrists Association
RPA	Rural Pharmacists Australia—Rural Interest Group of the Pharmacy Guild of Australia and the Society of Hospital Pharmacists of Australia
SARRAH	Services for Australian Rural and Remote Allied Health