The Spinifex Network

Pre-Budget Submission 2020-21

The Treasury
Australian Government
17th September 2020

Dear Treasurer,

The Spinifex Network is pleased to provide a submission for the 2020–21 Federal Budget.

Our Mission is to mobilise a national rural health and medical research network to strengthen rural health. We currently represent 62 member bodies from across Australia who are concerned with regional, rural and remote[1] health and wellbeing. They have seen the value of working collaboratively together and have seed funded the current Network to address significant gaps in the current rural health research (see Appendix A for more detail on the Spinifex Network).

In this submission, we propose three years of funding for the Spinifex Network and propose a work plan with three overarching objectives. It will:

- Embed regional, rural and remote priorities into the national research agenda;
- Build capacity for rural clinicians in research and for rural health services in evaluation; and
- Champion a rural prosperity mindset.

The modest investment requested to fund the Spinifex Network over three years will provide national collaborative oversight and an overall rural research program that builds on, and with, new and established rural-focused organisations such as the University Departments of Rural Health, Rural Clinical Schools, the National Rural Health Alliance, and Rural Health Commissioner. It will ensure rural health and medical research is aligned with supporting economic prosperity, including employment in the regions.

Why is this needed now?

Health outcomes for rural Australians are worse than those of city dwellers. Major issues with recruitment and retention of clinicians fester, and continuing migration to the cities is reducing the viability of some rural communities. Healthcare delivery is also different in smaller communities when compared to metropolitan counterparts, with primary, community, and aged care having dominant roles.

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[1] In most instances in this document rural has been used as shorthand for 'regional, rural and remote.'

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COVID has recently highlighted health inequity and system problems and rural healthcare is becoming a frequent subject for media exposés. The economic consequences of COVID-19 mean there is a risk of worsening rural health and wellbeing.

Investing in health and medical research produces high returns ($3.90 for every dollar invested[1]) with the bulk of gains being in the health of the population. In a time of austerity, it is important to ensure every health research dollar works hard to improve outcomes and to reduce inequities. This budget submission addresses the need for the development of evidence-based solutions to significant place-based rural health issues, attraction and retention of rural clinicians, and the enhancement of prosperity in rural communities.

The Spinifex Network will seek rebalancing opportunities *within* existing research funding allocations and to *enhance* existing research funding activities by building research capacity and capability in rural communities via place-based research and translation, increasing the likelihood of innovations being rolled out and sustained. With additional support, the Network will provide a much-needed practical infrastructure for national collaboration in the rural research sector, which is characterised by highly dispersed practitioners and historic underfunding. The proposed work elements fill gaps and bolster existing infrastructure.

Network Objectives

Objectives	Why this matters	Proposed work elements	Resources
Embed regional, rural and remote health and economic priorities into the national research agenda	Rural health outcomes are worse than those of urban dwellers and rural health, and health and medical research is currently not being prioritised. Rebalancing research funding will reduce the gap.	The Spinifex Network connects rural research issues and solutions to the national agenda by ensuring: 1. Every major national health research initiative has targets for: • Relevant rural health outcomes; • Representation and involvement of rural voices; and • The amount of funding for rural health that is directed to researchers located rurally.	**$650,000**
		2. A rural health research checklist, to encourage researchers and funders to consider rural health priorities and opportunities to incorporate rural researchers, is developed and used by the health research sector.	**$45,000**
		3. Provision of rapid constructive advice to government including: stakeholder synthesis reports, rapid literature reviews and evaluation support and brokerage for rural health initiatives.	**$250,000**

Build capacity for rural clinicians in research and for rural health services in evaluation	Currently research support for rural clinicians is lacking. This is a wasted opportunity to involve them in solution development for rural health problems. Research training supports attraction and retention of the rural health and medical workforce. Health services often do not have the skills to undertake effective testing of potential solutions to rural health challenges and to obtain timely recognition of success and failure.	The Spinifex Network will build capacity by: 4. Developing a place-based model of research training to support skills development relevant to their own clinical practice and local needs. We will work with Australian Rural Health Education Network (ARHEN), Federation of Rural Australian Medical Educators (FRAME) and health services to identify a pipeline of practitioners to participate in a tailored mentoring and research capacity strengthening program including a community of practice. Competitive $20,000 scholarships will support backfill, provide project funds and a 'skills escalator' voucher scheme (e.g. for statistical support). Support is not limited to higher degree candidates. 5. Developing an Indigenous researcher pipeline, similar to item 4, with details to be developed in partnership with peak groups (e.g. the NHMRC's Indigenous Researcher Network, Lowitja Institute). 6. Developing, collaborating and delivering online case-based learning modules for rural health service managers and clinician-managers in primary and community care, comprising: implementation science, program design for evaluation (e.g. use of program logic models) and conducting evaluation (impact and economic including development of business impact statements).	**$800,000** **$450,000** **$300,000**
Champion a rural prosperity mindset	Rural people are in a position to solve local problems themselves when appropriately resourced. Extension of telehealth and distance education	The Spinifex Network will support: 7. A toolkit and interactive model for research funders and decision-makers to enable them to calculate flow-on effects in terms of localised outcomes as represented by patient health and economic activity (including employment) as a consequence of	**$400,000**

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	should benefit and not disadvantage our medical and education rural ‘anchor institutions’ (regional universities and rural health services). Health is central to COVID recovery and we must ensure rural health outcomes do not deteriorate. Allocation of research funding to rural areas has a direct and positive effect on rural prosperity (which itself impacts health). The reverse is also true.	health and medical research funding decisions. 8. Economic evaluations and modelling so that decision-makers are fully informed about the effects of positive and negative changes with regard to rural health ‘anchor institutions.’[2] 9. Investing in rural people to develop health solutions and support their scale-up where possible by supporting rural health innovators across Australia via rural incubators and also by working with state and national organisations e.g. MTP Connect.[3]	 **$150,000** **$800,000**

TOTAL $ 3.845 m total over 3 years ($1.282 m per annum)

If funded, by the end of 2021 the Spinifex Network will be:

1. Supporting and informing government decision-making regarding rural health and medical research;
2. Actively building research capacity in rural clinicians and health services; and
3. Championing the role of health in rural prosperity.

The projected cost over the forward estimates is as follows:

Proposal Elements	**20-21 ($M)**	**21-22 ($M)**	**22-23 ($M)**	**23-24 ($M)**	**Total ($M)**
1. Funded Spinifex Network	0.125	0.20	0.20	0.125	**0.65**
2. Rural health research checklist	0.025	0.02	-	-	**0.045**

[2] Anchor institutions are defined as: universities and health services that play a vital role in their local communities and economies.

[3] https://www.mtpconnect.org.au/

3. Rapid reviews	0.05	0.10	0.10	-	**0.25**
4. Rural practitioner capacity building	0.125	0.225	0.225	0.225	**0.8**
5. Rural Indigenous practitioner capacity building	-	0.15	0.15	0.15	**0.45**
6. Online course in evaluation for health services	0.1	0.075	0.075	0.05	**0.3**
7. Model to calculate flow-on effects of research funding decisions on geographic regions.	-	0.15	0.2	0.05	**0.4**
8. Economic modelling to support research decision-makers	0.025	0.125	-	-	**0.15**
9. Support for rural health business innovation	0.15	0.25	0.25	0.15	**0.8**
TOTAL	**0.6**	**1.295**	**1.2**	**0.75**	**3.845**

The attached submission provides further details about each of the three workstreams and nine proposed funding outcomes. We would, of course, be very happy to provide more detail or discuss these matters further with you or your Department.

Yours sincerely,

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Workstream 1:

Embed regional, rural and remote priorities into the national research agenda

This will be achieved by support for the Spinifex Network itself. The outcome will be that the Spinifex Network connects rural research issues and solutions to the national agenda by ensuring:

1. Every national research initiative has targets for:
    - Relevant rural health outcomes;
    - Representation and involvement of rural voices; and
    - The amount of funding for rural health that is directed to researchers located rurally.
2. A rural health research checklist, to guarantee researchers and funders have considered rural health priorities and opportunities to incorporate in-place rural researchers, is developed and used by the research sector.
3. Provision of rapid constructive advice to government including: reports synthesising the views of rural stakeholders, rapid literature reviews and evaluation support, and brokerage for rural health programs.

Why this matters:

Rural health outcomes are worse than those of urban dwellers and rural health and health and medical research is currently not being prioritised. Health services often don't have the skills to undertake effective testing of solutions to rural health challenges and to obtain timely recognition of success and failure.

Thirty percent of Australia's population lives outside major cities. **Rural patients are already older and sicker** than their city counterparts and will become more so; the burden of disease in rural regions is growing.[2] They suffer premature deaths at 1.3-1.9 times the rate of their city counterparts. Their shorter lives are due to death from heart disease, diabetes, suicide, and motor vehicle accidents.[3] They are more likely to have chronic health conditions including arthritis, asthma, back problems, deafness, diabetes, heart, stroke and vascular disease.[3] Overall, people in rural and remote Australia have about 1.3 times the burden of disease compared with city dwellers (1.7 times for the very remote). Compared with those living in cities, people in rural areas are more likely to be smokers, drink hazardous quantities of alcohol, have overweight or obesity, lower levels of education and reduced access to work.

The gap between the city and rural patients is widening. As the genuine miracles of modern medicine multiply, the gap between the care city and rural patients receive widens. When subspecialists, sophisticated tests, highly complex surgery and cutting-edge drug regimens are only available in large cities, rural patients go without or suffer extended time away from family and community.

It is also recognised that clinician and organisational participation in research leads to better care. Healthcare performance improves even when that has not been the primary aim of a particular

piece of research[5] – i.e. a 'research active' health organisation delivers safer, higher quality care. Opportunities to develop and test creative service delivery solutions in (such as technology-enabled re-design of complex care) which may reduce the inequity in health outcomes are limited, because **the proportion of funding dedicated to both rural health and to health services research has been inadequate.** In 2018 basic science received 45% of NHMRC expenditure, clinical research 31%, public health 13% and health services research just 4.4%. Although 30% of the population lives rurally, only 2.4% of NHMRC funding went toward research that specifically aimed to deliver health benefits to people who live in rural or remote Australia.[4]

The Medical Research Future Fund (MRFF) offers new opportunities to address rural health. In setting priorities, its Advisory Board is charged with taking into account: *the burden of disease on the Australian Community and to consider how to: deliver practical benefits from medical research and medical innovation to as many Australians as possible, ensure that financial assistance provides the greatest value and complements and enhances other financial assistance provided for medical research and medical innovation.* In addition to a focus on population need, the MRFF has a strong emphasis on innovation and translational research, both needed to solve rural health problems.

Unfortunately, there is currently inadequate rural representation on Australia's major research advisory committees. For instance, in the case of the NHMRC, all members of the Council are based in capital cities, and in the case of the Research Advisory Committee, the only exception is from Newcastle. Of 79 members of the Advisory Boards supporting the large strategic MRFF missions (and setting priorities) only one lives rurally. The omission of rural representation from the Million Minds Mental Health Mission is especially egregious. Of the 18 members on their advisory panel, every single member, including the consumer representatives, are from major cities. This is despite the clear and disproportionate rural burden of mental illness and vulnerability, and the particular need for mental health solutions that can support stressors such as drought, fire, flood and climate change.

Rural representation matters.[4] The current Australian Government consultation paper on the Rural Health Multidisciplinary Training Program has recently identified areas where rural academics and clinicians should have more representation in governance and decision-making about *training*.[6] The primary aim of *researc*h priority-setting is 'to gain consensus about areas where increased research effort including collaboration, coordination and investment will have wide benefits.'[7] However, setting priorities is understood as 'a complex, value laden, contested process buffeted by competing objectives and political interests.'[8] Groups enable the detection of biases and better decision-making, but not when group members are too similar[9] or if some members are perceived as lower status.[10] Panel composition has a large effect on research decision-making.[10] Of note is the phenomenon of 'cognitive particularism' –people make decisions based on their membership in a particular scientific school of thought: *'It is not that panel members are not of goodwill but that they simply do not fight so hard for subjects that are not close to their hearts'*.[11]

It could be said that to date there has been a 'biomedical bubble' in Australia that has limited funding attention to many rural health issues. This would occur if, for instance, all members on an advisory group are from prestigious urban research institutes with a discovery science focus. The bubble refers to the situation *'where supporters of biomedical science create reinforcing networks,*

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[4] When the Spinifex Network advocates for the rural voice in research advisory groups, this refers to inclusion of rural researchers, clinicians and consumers. The value of patient participation in decision making on health research is increasingly being recognised and required

feedback loops and commitments beyond anything that can be rationalised through cost-benefit analysis.'[12p6] This results in resources being drawn away from alternative ways of improving health – for example, influencing the social, economic, environmental and behavioural determinants of health outcomes, reducing variation in care quality, and from research on care versus cure (e.g. for dementia).[12p22]

In summary, Workstream 1 means that the funded Spinifex Network will be able to advise and constructively influence so that rural concerns are appropriately represented and considered in decisions about funding and priorities for Australian health and medical research.

Workstream 2:

Build research capacity for clinicians in research and for health services in evaluation

The Spinifex Network will build capacity by:

4. Developing a place-based model of research training to support skills relevant to their own clinical practice. We will work with ARHEN, FRAME and health services to identify a pipeline of practitioners and enrol them in a tailored mentoring and research capacity strengthening program including a community of practice. Competitive $20,000 scholarships will support backfill, provide project funds and a 'skills escalator' voucher scheme (e.g. for statistical support). Support is not limited to higher degree candidates.
5. Developing an Indigenous researcher pipeline, similar to item 4, with details to be developed in partnership with peak groups (e.g. the Indigenous Researcher Network (IRNet), Lowitja Institute).
6. Developing, collaborating and delivering online case-based learning modules for rural health service managers and clinician-managers in primary and community care, comprising: implementation science, program design for evaluation (e.g. use of program logic models) and conducting evaluation (impact and economic including development of business impact statements).

Why this matters:

- Currently research support for rural clinicians is lacking. This is a wasted opportunity to involve them in solution development for rural health problems;
- Research training supports attraction and retention of the rural health and medical workforce; and
- Health services often do not have the skills to undertake effective testing of solutions to rural health challenges and to obtain timely recognition of success and failure.

Rural health issues need locally developed solutions. Different models of care are required to deliver healthcare in regional, rural and remote locations: delivery challenges include geographic spread, low population density, limited infrastructure and higher costs. There are fewer general practitioners,[13 p11] and many fewer specialist medical practitioners, nurses and allied health practitioners (e.g. half as many physiotherapists, occupational therapists and psychologists per head of population in outer regional areas as in the cities.[14]). Rural context matters in all care, whether considering a place-based solution for people with severe mental illness living in a small community,[15] nursing to support patients with Parkinson's disease,[16] physiotherapy for rehabilitation after hand injury,[17] or safe ways to administer chemotherapy or immunotherapy.[18 19] When individuals and communities are engaged in redesign of services, solutions are feasible and effective in the local context. Conversely, lack of ownership in solution development makes implementation difficult, and sustainability and spread are limited. Evidence suggests that well-trained 'clinician-scientists' are likely to perform research with a strong translational element, increasing the link

between research and clinical practice.[20] [21] This is particularly so **in rural areas, where clinicians are intimately engaged with the service delivery issues that they are seeking to address through their applied research**. This effectively overcomes the research into practice time-lag.

There may have been an overemphasis on the value of 'quality improvement' (QI) in healthcare at the expense of research rigor. QI initiatives are often accompanied with so called 'cargo cult science' – where only the superficial outer appearance of the intervention is reproduced and no attention to information that might contradict the desired outcome.[28] Those who introduce interventions are sometimes so convinced change is positive, they avoid evaluation.[28] Poor reporting on QI, with no tradition of publication means that it can be difficult to even find out about a success or a failure elsewhere, or know what was really done.[28]

Rural regions don't just need *more* clinicians, they need high quality clinicians – passionate, skilled teachers and researchers are central to delivery of safe high-quality care.

Multiple strategies are required to support rural clinicians to be involved in research. These include quarantined time and backfill in resource stretched environments, timely and focused research skills support, formal and informal mentoring and collaborative networking to scale high quality rural translation. As employment models differ widely from non-government organisations (e.g. the Royal Flying Doctor Service) to privately contracted service provision, flexibility and academic tailoring is important. Traditional models of research training, for example, full-time PhD scholarships commonly used in biomedical research, are often inappropriate for practitioners in rural and remote areas. While an alternate James Cook University Cohort Doctoral Program PhD model has proven successful, much research support is also needed for clinicians earlier in their career journey (e.g. undertaking Honours or Masters or not currently enrolled in a higher degree program).

Indigenous researcher leadership is recognised as crucial to the success of initiatives to improve Indigenous health.[22] [6] This is reflected in the NHMRC-sponsored Indigenous Researchers network and the MRFF 10-year commitment to Aboriginal and Torres Strait Islander directed research.

There is emerging evidence that place-based research improves the lives of practitioners as well as that of their communities. The result can be **improved recruitment and retention**. Key factors that affect retention include work variety, workplace culture, professional opportunities, sense of community and spousal employment.[23] [24] Currently, high achieving young clinicians are advised that settling in a rural area is likely to prevent them excelling in medical research. Yet it is a myth that that research excellence is the sole province of large research units; small teams are more likely to innovate.[25] In Canada, establishing the 'Regional Medical Campus' favourably impacted the quality of professional life, research, medical practice, and regional development.[26] Local research has recently demonstrated the importance of career pathways in rural allied health clinician recruitment and retention.[27]

Finally, the lack of information about clinical and cost-effectiveness of existing technologies, models of care and health policies has been linked to waste in health.[29] Hence, part of the $185 billion we spend on healthcare in Australia annually (accounting for about 10 per cent of the country's economic activity[30]) is funding healthcare that has unknown benefit – and some of this unevaluated healthcare will not only have no benefit; it may well cause harm.[31] **Recent national work has demonstrated that health service skills in evaluation, including economic evaluation, are limited at the 'local level'** (by way of contrast, national evaluation, for example, for the Pharmaceutical Benefits Scheme is high quality).[31] Health services who had prior experience commissioning

evaluations, economic evaluations in particular, from third parties such as commercial consultancies or academics, expressed dissatisfaction with both the process and the quality of the output of these evaluations. This research revealed that local health services 'were starved for evaluation staff and evaluation skill-sets' and health services wanted development of internal capacity and capability. The proposed online modules will deliver these skills via practical case studies of direct rural relevance.

In summary, the funded Spinifex Network will support capacity building in research and evaluation for clinicians and for managers in order to improve the appropriateness, effectiveness and efficiency of rural health services. Special emphasis will be placed on supporting the development of Indigenous researchers and managers.

Workstream 3:

Champion a rural prosperity mindset

The Spinifex Network will support:

7. A toolkit and interactive model for research funders and decision-makers to enable them to calculate the flow-on effects of funding decisions on geographic regions;
8. A series of economic evaluations and modelling to assist decision-makers and regulators in regard to anchor institutions; and
9. Investing in rural people to develop health solutions and support their scale-up where possible by supporting rural health innovators across Australia via rural incubators and also by working with state and national organisations e.g. MTP Connect.[5]

Why this matters:

- Rural people are in a position to solve local problems themselves when appropriately resourced;
- Extension of telehealth and distance education should benefit and not disadvantage our rural medical and education 'anchor institutions' (regional universities and rural health services);
- Health is central to COVID recovery and we must ensure rural health outcomes do not deteriorate; and
- Allocation of research funding can either increase or decrease rural prosperity.

The Medical Research Future Fund (MRFF) 'is investing to supercharge the growth of Australia's health and medical research, while fuelling jobs, economic growth and export potential'.[32] Such investment makes sense. A recent Australian report described a historical (1990-2004) return on investment from medical research of $3.90 for every dollar invested.[1] Of the $78 billion in gains attributed to medical research, $52 billion was in the form of health gains, and $26 billion in wider economic gains and from commercialisation of medical research.[1]

Health gains result in a larger and more productive workforce, which in turn has wider economic flow-on impacts across the economy. Good health has a positive, sizable, and statistically significant effect on aggregate output (e.g. a one year improvement in a population's life expectancy contributes to a four percent increase in output).[33] Medical research sector jobs themselves are typically high value jobs that contribute substantially to the economy. [1] In all, **medical research is considered a good investment and likely to 'continue to deliver excellent returns on investment.'**[1]

Knowledge-intensive services can enable productivity growth in lagging regions: **research and development intensity correlates with a region's GDP per capita**.[12] Thus investment in Australian

[5] https://www.mtpconnect.org.au/

rural health and medical research and in rural researchers (that is, research jobs based in rural regions) is likely to create specific local economic benefits. With funding, the Spinifex Network would be able to develop an economic model to support decision-making about allocation of research resources rurally (when appropriate to the research project). For example, calculating the difference to a rural economy between involving 'fly in fly out' researchers compared to basing researchers rurally would be useful.

Evidence is available from other sources that suggests that **the effects of research investment in a rural economy will often be significant**. The specific benefit to Australian rural communities from rural clinical schools has been calculated a number of times. Analyses undertaken for Tamworth and Taree demonstrated that the funds injection provided by the staff employed on the medical student program AND the money spent by resident students led to supply chain and consumption flow on effects which doubled their contribution to the local economy.[34] In the case of the Murray Darling Medical School, an initial $124 million direct investment comprising capital expenditure, building maintenance and ongoing non-staff operating expenditure was estimated to generate further regional economic flow-on impacts of between $1.3 billion and $2.4 billion. This includes impacts from the direct employment of staff and local expenditure from the medical students who will reside in the region. However, considerable benefit was also attributed to the likely retention of rural students as rural practitioners and then their positive effect on health outcomes in an underserved region.[35]

The outcomes of investment in education or research increasing prosperity in a region are particular to local circumstances – hence the need to develop a specific economic model that can be applied in different regions. For instance, in the case of the Murray Darling it was noted: '*… because the region is not at full employment, we consider that the increase in demand and economic activity would occur without pushing up prices or wages, and without crowding out other economic activity.'* [35] Many other rural regions have household incomes below average and very high youth employment. Such regions are likely to derive greater benefit then more prosperous communities. For instance, data collected from United States Community Health Centers (centres that have provided primary healthcare services in medically underserved areas over 50 years) led to the estimate that US$11 is generated in total economic activity for every US$1 invested in the centres.[2]

While we have argued under Workstream 2 that opportunity to be involved in research is a potentially important factor in ensuring practitioners do indeed stay post education, **broader economic features also matter in retention of graduates**. A study conducted in Iowa titled *'Will they Stay or Will They Go?'* investigated detrimental rural out-migration, or brain drain, of college-educated individuals. The authors found overall cost of living and a strong local economy were ranked as the top features, followed by lifestyle features including access to basic consumer goods and access to health facilities.[36]

The special contribution of healthcare facilities and higher education institutions ('med and ed') as economic drivers and 'anchor institutions' in communities is well recognised.[37] [38]

> *Anchor institutions are enduring organizations that are rooted in their localities. It is difficult for them to leave their surroundings even in the midst of substantial capital flight. The challenge to a growing movement is to encourage these stable local assets to harness their resources in order to address critical issues such as education, economic opportunity, and health. It is difficult to imagine fragile local economies and widening social disparities changing without leveraging stable institutions…' (https://www.margainc.com/aitf/)*

The US anchor institutions movement encourages the institutions themselves to try to contribute locally to substitute for lack of public resources. However, in the United Kingdom, the National Health Service (NHS) Confederation is arguing for the need for central support for the '*local development of approaches to inclusive growth, which will specifically target actions and initiatives that seek to tackle local inequalities, including health inequalities'.* They also remark on '*the obvious and pressing links between the social determinants of health and low regional productivity'* [39] and that *'mobilising the strength of an area's assets is a critical part of realising the economic potential of a place'.*[39]

The NHS Confederation has further developed this argument with a recently published plan to tackle spatial health and socioeconomic inequalities and boost health outcomes in the deprived areas of Yorkshire and Humber.[40] This includes benefiting from recent review of processes for UK Treasury investment decisions, with addressing regional inequalities now receiving greater priority in decision-making. We argue that **Australian modelling is needed to ensure that relevant facts about addressing regional inequalities are available for research funders and decision-makers.**

The ninth and final element of our work plan involves support for rural incubators. Business incubators are organisations dedicated to supporting start-ups and small businesses by providing services to accelerate their growth including facilitation, provision of accommodation and training in entrepreneurship and commercialisation. **Of Australia's current incubators, it is estimated that less than 4% are rural, compared to 8% globally.[41]** However, health service start-ups in these incubators are a growing proportion of their success stories, for instance BirthBeat based in Tamworth, New South Wales. Entrepreneurship globally, and particularly rural entrepreneurship is well-placed to drive societal health and local economy and the connections between health, education and agriculture are well recognised as fundamental drivers for economies.[42]

The combined impacts of drought and bushfires have demonstrably impacted unemployment, particularly youth unemployment in outer regional areas (ABS 2013, 2018 c[6]). **Support to grow business in regional and outer regional communities to generate employment can be directed through Australia's developing network of rural based incubators and via providing a strong rural partnership for MTPConnect.**

In summary, Workstream 3 means that the Spinifex Network will contribute to rural prosperity by developing economic models to support decision-making around anchor institutions and the consideration of the economic implications of research funding being *received* by rural regions and also by supporting the development of rural health businesses.

[6] https://www.aihw.gov.au/reports/australias-welfare/employment-trends

Spinifex NETWORK

Appendix A:

About the Spinifex Network

People living in rural, regional and remote locations deserve better health.

We will be rigorous and use creative and non-traditional research approaches to improve health outcomes for these Australians.

Our strength is in our rural roots, our will to collaborate and make change happen.

Spinifex, where it grows in the desert and near the coast, is a symbol of resilience.

It can withstand storms, winds and king tides. It has deep roots, it resists drought and stabilises the earth.

– a collective statement of purpose and intent for the Spinifex Network, endorsed by participants at the Spinifex Symposium, Alice Springs, November 13, 2019.

What is the Spinifex Network?

A large number of organisations from across Australia who are concerned with regional, rural and remote[7] health and wellbeing have seen the value of working collaboratively together and have voluntarily joined together and seed funded the current Spinifex Network. This co-operative group has successfully and rapidly built consensus, driven by their shared passion and their highly inclusive approach. Critically, the Spinifex Network is very wide ranging and builds on the foundation provide by the UDRH and rural clinical school movement driving seeded research of rural clinicians. Spinifex members are an impressive group; there are no other Australian organisations with the capacity, network or plan to undertake the unique suite of work proposed. We are able to take an integrated perspective to solving rural health issues. We have also successfully demonstrated a geographically distributed approach to our work and this would continue in a funded model.

Our Point of Difference

Highly inclusive rural membership enables creative and implementation-focused approaches to rural health problems.

The current network is convened by Australia's three NHMRC Centres for Innovation in Regional Health (CIRH): NSW Regional Health Partners (NSWRHP), Central Australian Academic Health Science Network (CAAHSN) and the Tropical Australian Academic Health Centre (TAAHC). It has been supported from its inception by the Advanced Health Research and Translation Centres (AHRTCs) with significant rural footprints: West Australian Health Translation Centre (WAHTN), Health Translation South Australia (HTSA) and Brisbane Diamantina Health Partners (BDHP). Spinifex's inclusive approach is reflected by the active involvement of non-accredited CIRHs: The Western

[7] In most instances rural has been used as shorthand for 'regional, rural and remote.'

Alliance Academic Health Science Centre (Victoria) and HealthANSWERS (NSW) and Top End Academic Health Partners (TEAHP). The work of all translation centres to close the evidence-practice gap includes the extensive use of co-design, with researchers working alongside consumers and clinicians and a major role in building health service capacity in problem-solving and evidence-based system redesign.

However, Spinifex membership goes beyond the academic-clinical partnerships of the translation centres, by including community organisations, workforce agencies and training providers – all with a passion for evidence-based improvement in rural health. Future membership targets are the rural aged care and disability sectors and links with local government (and with local industry via the proposed incubator work).

Proposed Future Governance Structure

The Spinifex Network will invest in incorporation upon indication of support from Government. Members will also be asked for a very modest contribution to cover operational costs and to facilitate access to programs. As an incorporated national organisation, the Spinifex Network would join the National Rural Health Alliance as a member (currently the NHRA is a member of Spinifex) and contribute fully to NRHA activities. The Network will meet face-to-face annually prior to the NHRA *research conference.*

Spinifex Statement

People living in rural, regional and remote locations deserve better health.

We will be rigorous, and also use creative and non-traditional research approaches to improve health outcomes for these Australians.

Our strength is in our rural roots, our will to collaborate and make change happen.

Spinifex, where it grows in the desert and near the coast, is a symbol of resilience. It can withstand storms, winds and king tides. It has deep roots, it resists drought and stabilises the earth.

Actions

1. Lobby for dedicated funding for rural health and medical research
   - Rapid response reviews on key challenge topics
   - Generate member evidence of missed opportunities and of successful place-based solutions
   - Develop the economic case
2. Identify detailed research priorities and measurable targets
3. Connect rural researchers
4. Ensure a rural voice in all other MRFF Missions
5. Provide tailored training and development
6. Run a national rural health entrepreneurship scheme

We exist to improve:

Access to healthcare that meets the needs of rural communities, through technology, workforce and innovative care delivery.

Support for sustainable rural communities by responding to the unique health challenges of place.

Our work will also:

1. Strengthen indigenous health
2. Build rural researcher capacity
3. Increase rural prosperity

Join Us

We welcome organisations working actively or supporting the improvement of rural health through research.

Apply online via **spinifexnetwork.com.au**

Members List

Spinifex NETWORK

FINANCIAL

Australian and New Zealand College of Anaesthetists
- 6400 Specialists

Australian Rural Health Education Network
- Broken Hill University Department of Rural Health
- University Center for Rural Health, North Coast NSW
- University of Newcastle Department of Rural Health
- Three Rivers University Department of Rural Health
- Centre for Remote Health, Alice Springs
- Mount Isa Centre for Rural and Remote Health
- Southern Queensland Rural Health, Toowoomba
- UniSA DRH, Division of Health Sciences
- Flinders Rural Health SA, Flinders University
- Centre for Rural Health, University of Tasmania
- Monash Rural Health
- Department of Rural Health, University of Melbourne
- Deakin Rural Health
- La Trobe University UDRH
- Majarlin Kimberley Centre for Remote Health, WA
- WA Centre for Rural Health (WACRH)

Baker Heart and Diabetes Institute

Brisbane Diamantina Health Partners
- Metro South Hospital and Health Service
- Metro North Hospital and Health Service
- West Moreton Health
- Mater Misericordiae Ltd
- Children's Health Queensland Hospital and Health Service
- The University of Queensland
- Queensland University of Technology
- Translational Research Institute
- QIMR Berghofer Medical Research Institute
- Department of Health
- Brisbane South PHN

Central Australia Academic Health Science Network
- Aboriginal Medical Services Alliance Northern Territory
- Anyinginyi Health
- Baker Heart and Diabetes Institute
- Central Australian Health Service NT
- Central Australian Aboriginal Congress
- Centre for Remote Health
- Charles Darwin University
- CRANA Plus
- Flinders University
- Menzies School of Health Research
- Nganampa Health
- Ngaanyatjarra Health Service
- Ngaanyatjarra Pitjantjatjara Yankunytijatjara Women's Council
- Poche Centre for Indigenous Health and Wellbeing
- Tangentyere Council
- Western Desert Dialysis

Charles Sturt University Faculty of Science

James Cook University, Division of Tropical Health and Medicine

Flinders University
- Flinders Health and Medical Research Institute
- Centre For Remote Health
- Menzies School of Health Research

Health Translation SA
- Government of South Australia
- South Australian Health and Medical Research Institute
- Flinders University
- The University of Adelaide
- University of South Australia
- Aboriginal Health Council
- Country SA PHN
- Adelaide PHN
- Health Consumers Alliance of SA

Innovative Research Universities
- Charles Darwin University
- Flinders University
- Griffith University
- James Cook University
- La Trobe University
- Murdoch University
- Western Sydney University

Top End Academic Health Partners
- Menzies School of Health Research
- National Critical Care and Trauma Response Centre
- Charles Darwin University
- Danila Dilba Health Service
- Miwatj Health Aboriginal Corporation
- Northern Territory Primary Health Network

La Trobe Rural Health School

Lishman Health Foundation Inc.

National Rural Health Alliance Ltd (41 Members)

NSW Regional Health Partners
- Health Hunter New England Local Health District
- Health Central Coast Local Health District
- Health Mid North Coast Local Health District
- Hunter New England and Central Coast PHN
- Hunter Medical Research Institute
- Calvary Mater Newcastle
- University of Newcastle
- University of New England

Optometry Australia

Rural Workforce Agency Network
- NSW Rural Doctors Network
- Rural Workforce Agency Victoria
- Health Workforce Queensland
- Rural Health West
- Rural Doctors Workforce Agency (SA)
- HR Plus
- Northern Territory PHN

The Society of Hospital Pharmacists of Australia

University of Newcastle
- Dept of Rural Health
- Centre for Rural and Remote Mental Health

University of New England
- New England Institute of Healthcare Research, Faculty of Medicine and Health, UNE
- UNE SMART Region Incubator

The University of Queensland, Centre for Online Health, Faculty of Medicine

University of South Australia

University of Southern Queensland

WA Country Health Service

Western Alliance Academic Health Science Centre
- Deakin University
- Ballarat Health Services
- Barwon Health
- Colac Area Health
- East Grampians Health Service
- Epworth
- Federation University
- St John Of God Health Care
- South West Healthcare
- Western District Health Service
- Western Victoria PHN

Western NSW Local Health District

SUPPORT AND IN KIND

Allied Health Professionals Australia
- 20 member organisations

Australasian College of Paramedicine

Australian Chiropractors Associations
- 3,000 Members

Australian College of Nursing

Australian College of Rural and Remote Medicine

Australian Healthcare and Hospital Association and Deeble Institute

Australian Nursing & Midwifery Federation

Australian Physiotherapy Association
- 26,000 Members

Congress of Aboriginal and Torres Strait Islander Nurses and Midwives

Consumers Health Forum of Australia

Country Women's Association Australia
- 17,000 Members

CRANAplus
- 60 Corporate Members

CRC for Developing Northern Australia

FRAME Federation of Rural Medical Educators

Hunter New England And Central Coast PHN

ICPA Isolated Children's Parents' Association Australia
- Represents over 2500 families and individual members.

National Aboriginal and Torres Strait Islander Health Worker Association
- 28 member organisations

National Rural Health Student Network
- 29 Clubs

New England Institute of Healthcare Research

Ngaanyatjarra Pitjantjatjara Yankunytijatjara Women's Council (Aboriginal Corporation)

NSW Health Pathology

NSW Rural Health Research Alliance

Royal Far West

The Royal Flying Doctor Service (RFDS)

Rural Health West

Services for Australian Rural and Remote Allied Health

Tasmanian Collaboration for Health Improvement
- University of Tasmania
- Tasmanian Government
- Primary Health Tasmania

The Pharmacy Guild of Australia

Telethon Kids Institute

Western Australian Health Translation Network
- Curtin University
- Edith Cowan University
- Murdoch University
- The University of Notre Dame Australia
- The University of Western Australia
- Ear Science Institute Australia
- Harry Perkins Institute of Medical Research
- Institute for Respiratory Health
- Lions eye Institute
- Perron Institute
- Western Australian Government
- Path West
- Ramsay Health Care
- Telethon Kids Institute
- St John Of God Health Care

Western QLD Primary Health Network

Spinifex NETWORK

<table>
<tr><th colspan="4">Spinifex Network Strategy</th></tr>
<tr><td>Vision</td><td colspan="3">Rural, regional and remote Australia celebrates sustainable, resilient, healthy communities and economies</td></tr>
<tr><td>Mission</td><td colspan="3">To mobilise a national rural health and medical research network to strengthen rural health</td></tr>
<tr><td>Target Groups</td><td colspan="3">Community, Clinicians, Researchers, Industry, Innovation Partners, Local, State and Federal Governments, Investors, Philanthropists</td></tr>
<tr><td>Strategic Priorities</td><td colspan="3">Improved access to healthcare through technology, workforce and innovative care delivery
Equitable research funding to place based researchers in rural communities</td></tr>
<tr><td>Objectives</td><td>To generate and translate rigorous research and evaluation
a. Undertake rapid reviews of the key issues for rural health
b. Publish papers and promote findings
c. Create white papers and other communications identifying priority areas for rural research
d. Engage with State and Territory Governments and local health services</td><td>To support and develop rural health researchers
a. Create opportunities for rural researchers to join and advise MRFF Missions and other government health and medical research advisory committees and funding assessment panels
b. To attract additional research funding for rurally based health and medical research</td><td>To identify, measure and highlight the unique health challenges of place (including social, economic, cultural, ecological and demographic factors)
a. Share place-based health data to generate accurate maps of the health challenges.
b. Create the economic case for the value of place-based research to rural health and the economy
c. Create the economic case for the value of rural research in recruitment and retention</td></tr>
</table>

Measures of success	• Rural representation on key government medical research committees • Funding attracted for rural medical research • New health solutions emerging from research • New investment into rural health	• Rurally based health research • Capacity building pathways and practices in place and delivering place-based research outcomes	• Workforce metrics • Health is understood as both a determinant of SES and as a driver of regional economic prosperity
Spinifex Network Enablers	**Develop new funding pathways to support the work of the SN members** including access to government and industry grants, philanthropic funds and building an 'investor' community who understand the vision of the network. **Create a joined-up narrative** with clear messages about the key issues to be solved. **Problem solving health and medical research challenges with communities** by bringing diverse talent and processes to imagine new service mechanisms and better health outcomes.		
Key Message	**Spinifex Network is a national network bringing community and health services together with researchers to build evidence-based change in rural health**		
Guiding Principle	**We work cooperatively to achieve the best outcomes for our rural communities**		
Values	**Equity Inclusion Excellence Engagement**		

Spinifex NETWORK

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