
ROWDAN
ECONOMIC
AND SOCIAL
IMPACT OF
COMMUNITY
RURAL
HEALTHCARE

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This Report has been prepared by Rowdan Consulting for Rural and Remote Medical Services Ltd.

Angela Rowland

Before establishing her own boutique consulting firm, Angela Rowland was a Director of the global firm L.E.K. Consulting. She joined the London office in 1999, and in 2005 transferred to the Sydney office. Prior to this Angela worked in the Canadian Telecommunications industry. Angela has been a Strategy Consultant for Tourism Australia, Head of Strategy for Xero and Group Executive Strategy and Planning for Virgin Australia. She has a BEng from McGill University and an MBA from INSEAD.

EXECUTIVE SUMMARY

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Investment in community-based primary care in rural and remote areas can reduce mortality rates, improve health and quality of life in addition to potentially saving millions in unnecessary hospital costs…

- There are over 2.5 million Australians living outside major cities and inner regional areas
- They currently need to travel long distances to reach the limited level of GP / Primary Care services available to them
- This gap in essential primary care services has been shown to contribute to poorer health outcomes, higher mortality rates (especially for children) and earlier death than those in less remote areas
- More deaths due to preventable and treatable illnesses
- Higher prevalence of health risk behaviours that could be addressed with improved access to primary care interventions
- A generally lower understanding and awareness of their own health needs
- These poor health outcomes drive increased hospital usage
- Higher hospital admission rates than less remote areas
- Higher levels of non-urgent visits to the emergency departments (further aggravated by lack of GP access)l
- These outcomes have high implicit and explicit costs:
- c.1400 excess* deaths per year
- c.17k excess* hospitalisations (c.$83m in costs)
- c.55k excess* emergency room visits (c.$37m in cost)
- The Government has put in place frameworks and initiatives to address these issues but little progress has been made despite studies pointing to the resulting health and economic benefits that could be delivered.

Note: *excess defined as difference in outcomes if rates were equivalent to Inner Regional populations, costs based on NHDC estimates per separation and per sub-urgent emergency department visit
Source: AIHW, NHCDC, ABS

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… as well as delivering economic and social benefits to the communities they serve

- Economic productivity suffers when populations are in poorer health
- Additional costs driven by remoteness and its often associated lack of local health care include pay premiums required to attract and retain local teachers and police
- It has been demonstrated that health systems are a net contributor to economic growth through job creation, skills advancement as well as local procurement and spend
- Providing health care in rural and remote areas through locally based medical practitioners has been shown to deliver a much broader set of additional benefits far and beyond improved health by positively impacting local economic, social and human outcomes and cohesion
- Examples of two typical NSW rural practices shows an estimated local economic benefit of over $1m p.a. and 10-16 jobs per practice

CONTEXT

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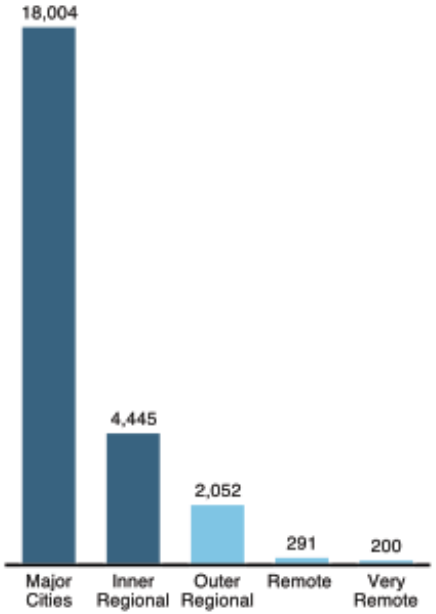
Over 2.5m people live outside major cities and inner regional areas

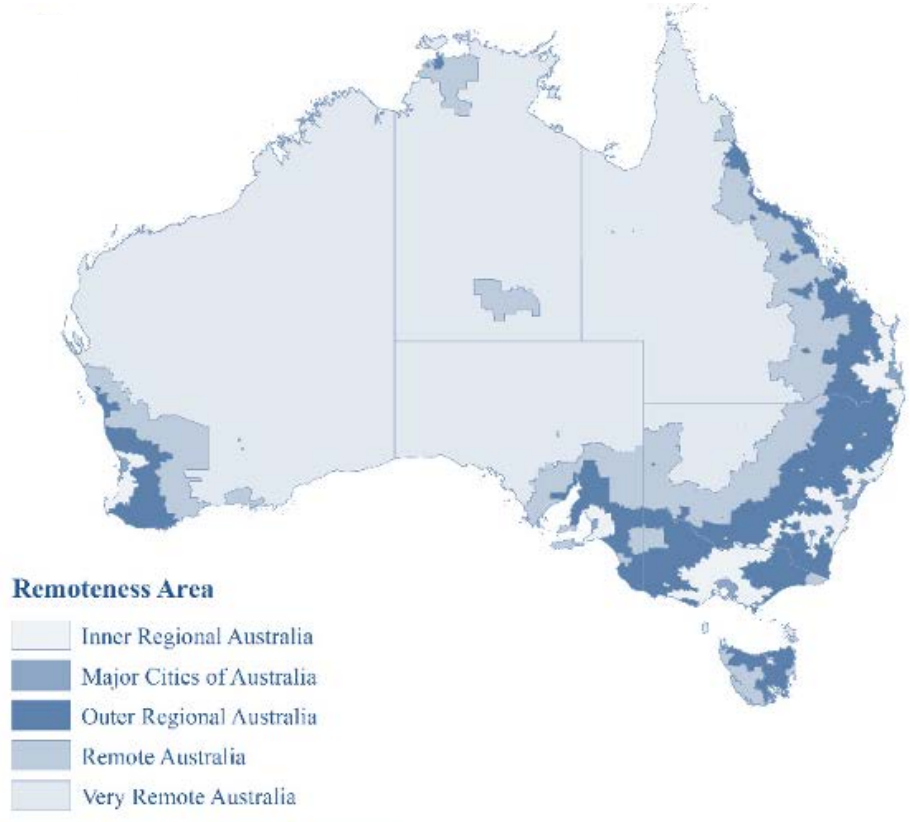
RESIDENT POPULATION BY REMOTENESS AREA

2018 '000s OF PEOPLE



Source: ABS

MAP OF REMOTENESS AREAS



GP ACCESS

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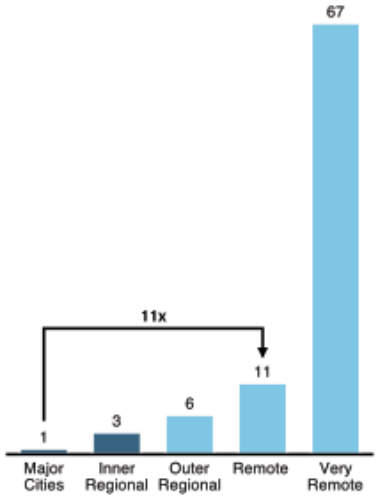
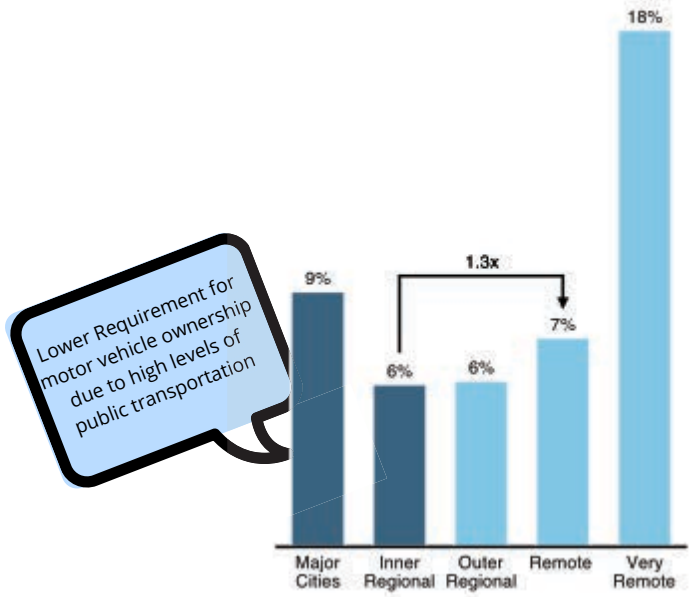
Remote residents need to travel significantly longer distances to reach their closest GP practice made more difficult by lack of motor vehicle ownership

AVERAGE DISTANCE* TO CLOSEST GP PRACTICE BY REMOTENESS AREA | KM



DO NOT OWN A MOTOR VEHICLE | PERCENT OF HOUSEHOLDS 2016 CENSUS



Note: * distance calculated as weighted average of direct lines to census mesh block centroids, actual drive times will be longer.
Source: ABS, www.healthdirect.gov.au

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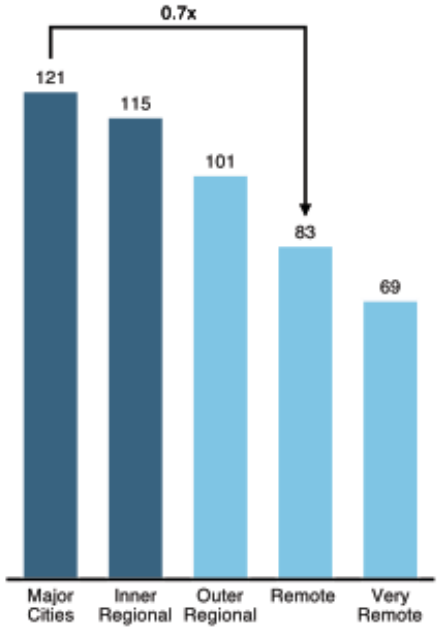
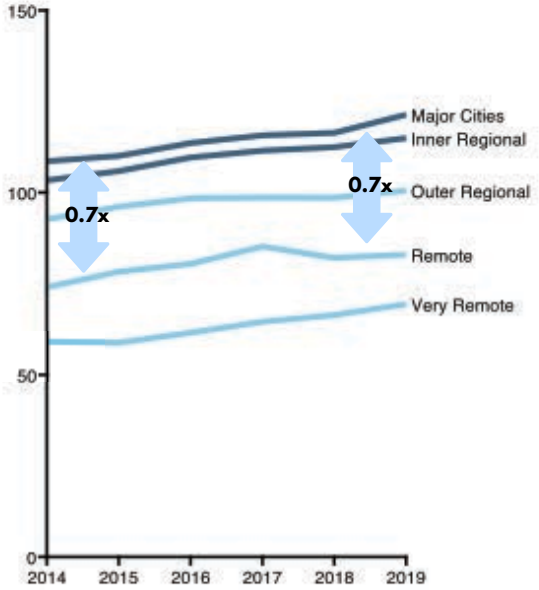
Relative GP availability declines with remoteness and has not shown signs of improvement

GP FULL-TIME EQUIVALENT (GPFTE) | PER 100,000 POPULATION



GP FULL-TIME EQUIVALENT (GPFTE) | PER 100,000 POPULATION



Note: GPFTE is a method to estimate the workload of GPs providing primary care services. The method calculates a GP's workload based on the MBS services claimed as well as patient and doctor factors that affect the duration of a consultation. One GPFTE represents a 40 hour week per week for 46 weeks of the year
Source: Department of Health - Health Workforce Data

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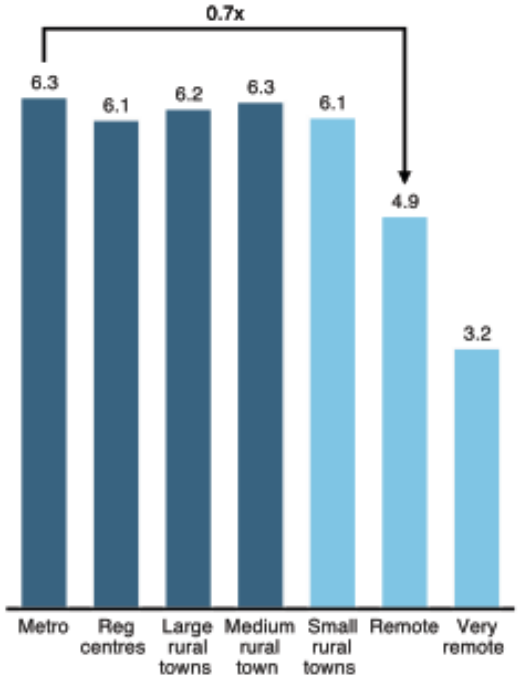
An Australian Medical Charity Since 2001

PRIMARY CARE

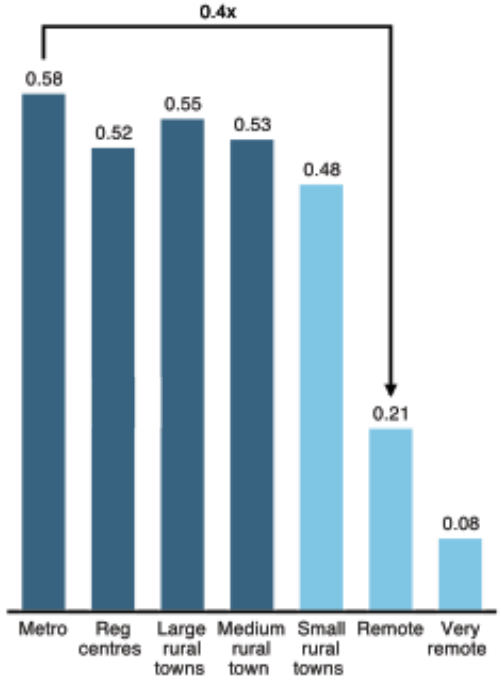
RARMS HEALTH

Health services delivered per capita drop significantly in more remote areas, with a larger gap in Allied Health

GP NON-REFERRED ATTENDANCES | 2019
NUMBER OF SERVICES PER CAPITA



ALLIED HEALTH SERVICES |
2019 SERVICES PER CAPITA



Source: AIHW; Department of Health

MORTALITY

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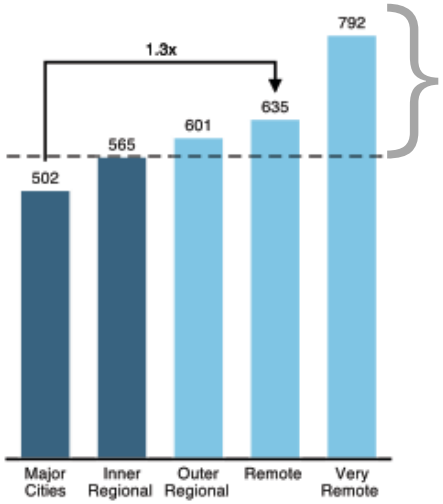
Unsurprisingly, total death rates are higher and people are dying younger in these more remote areas

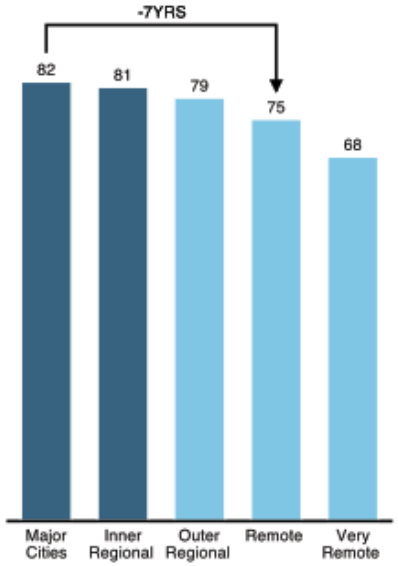
MORTALITY RATES | 2017 PER 100,000 POPULATION (AGE STANDARDISED)



c.1400 excess deaths

Excess defined as difference to Inner Regional Rates

MEDIAN AGE AT DEATH | 2017 YEARS



Source: AIHW; Department of Health

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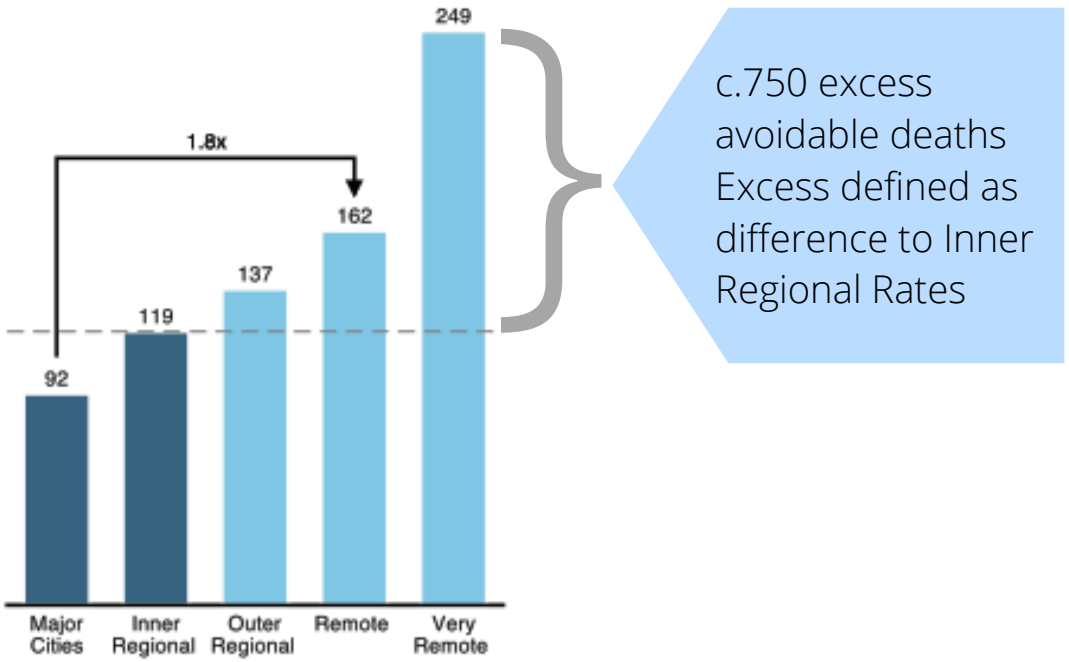
When only ‘avoidable deaths’ are considered the gap is even larger

POTENTIALLY AVOIDABLE DEATHS (PAD) I 2017 PER
100,000 POPULATION (AGE STANDARDISED)



c.750 excess avoidable deaths
Excess defined as difference to Inner Regional Rates

Potentially Avoidable Deaths

The number of deaths each year of people under 75 from conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care.

Source: AIHW

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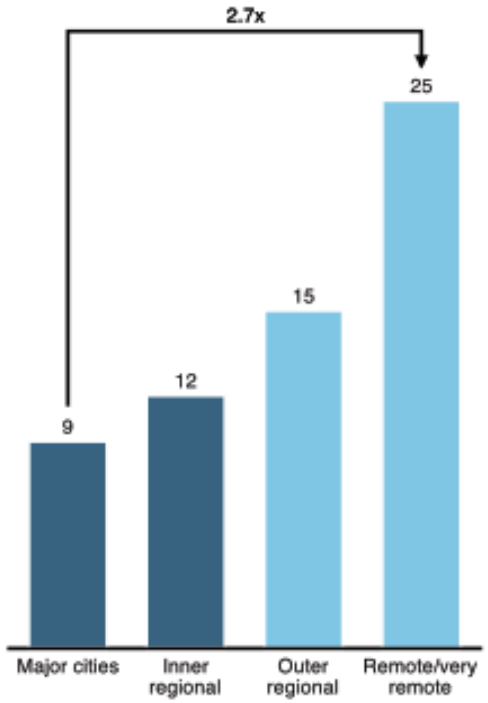
The gap in child mortality is particularly stark

CHILD DEATHS | 2017 PER 1000



Child mortality is impacted by a variety of health and social factors

- Maternal health (e.g. hypertension, obesity, and diabetes) and risk factors during pregnancy (e.g. smoking and alcohol use) are key drivers
- Access to quality medical care increases the probability of healthy births

Source: AIHW

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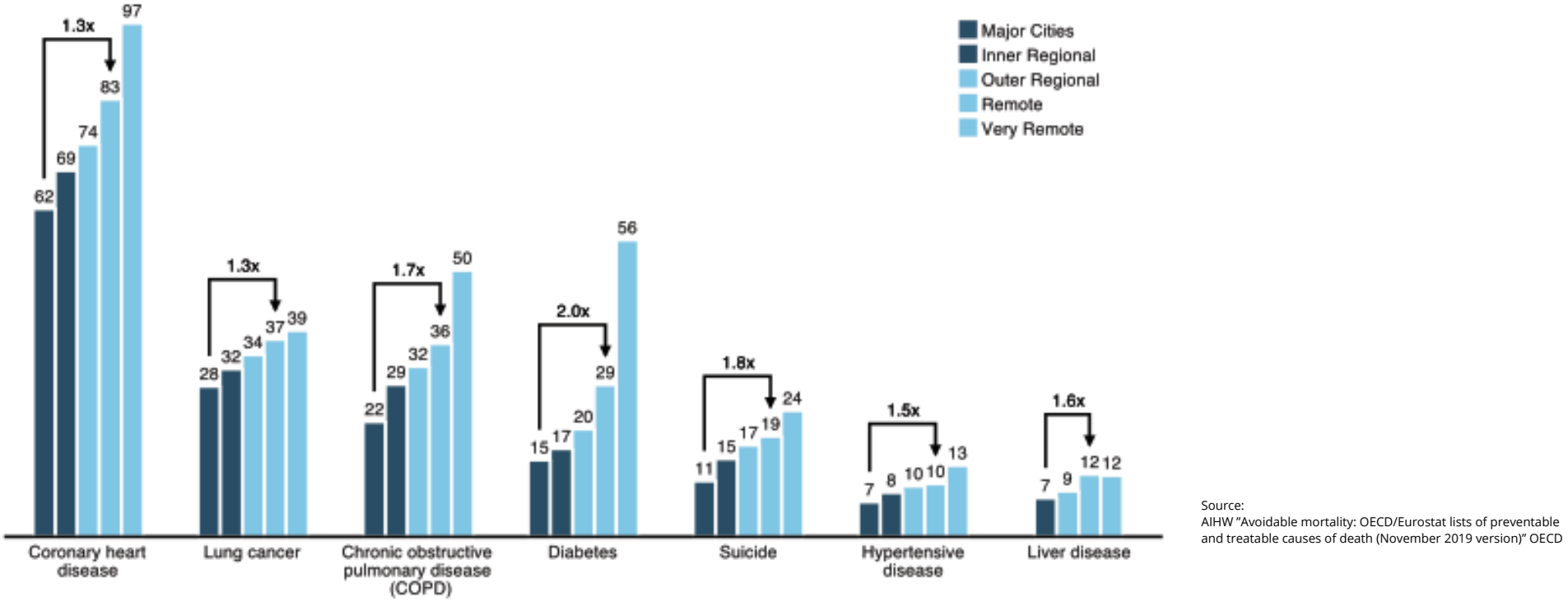
Many of the causes of death which increase with remoteness are preventable and treatable with improved access to community-based primary care

SELECTED LEADING CAUSES OF DEATH | ANNUAL RATE 2013-17 PER 100,000 POPULATION (AGE STANDARDISED)



Source:
AIHW "Avoidable mortality: OECD/Eurostat lists of preventable and treatable causes of death (November 2019 version)" OECD

HOSPITALISATIONS

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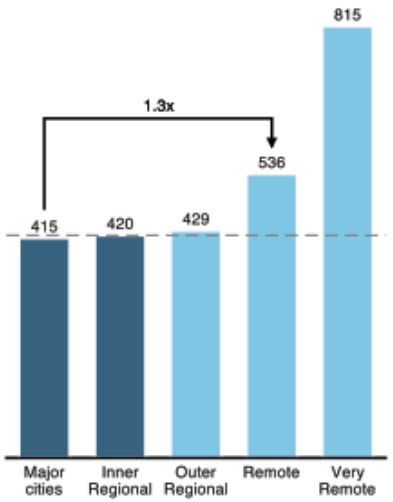
Preventable hospitalisations occur more frequently in more remote areas

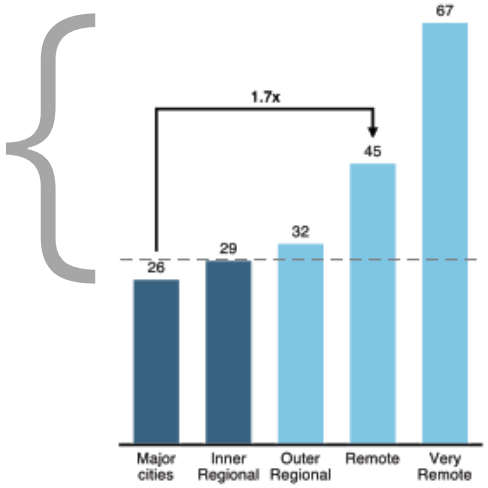
TOTAL HOSPITALISATIONS |
2017-18 PER 1000 PEOPLE (AGE-STANDARDISED)



c.17,000 excess hospitalisations (c.$83m in costs*)

Excess defined as difference to Inner Regional Rates

POTENTIALLY PREVENTABLE HOSPITALISATIONS (PPH) |
2017-18 PER 1000 PEOPLE (AGE-STANDARDISED)



Note: Hospitalisations are measured as separations; *assumes c.$4,885 per hospitalisation (based on acute)
Source: AIHW; NHCDC National Hospital Cost Data Collection 2017-18

EMERGENCY PRESENTATIONS

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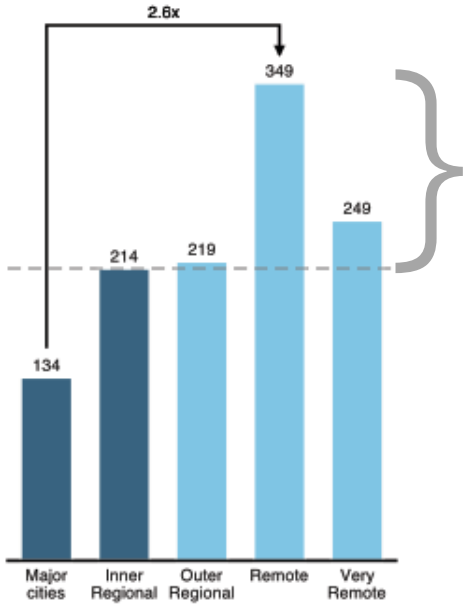
Lack of GP access drives residents to use emergency departments more frequently for less urgent issues

SEMI & NON-URGENT EMERGENCY DEPARTMENT PRESENTATIONS | 2017-18 PER 1000 PEOPLE



c.55,000 excess Emergency Dept presentations (c.$32m in hospital costs* plus c.$5m in ambulance costs)
Excess defined as difference to Inner Regional Rates

Low acuity patient presentations to emergency departments has been shown to decrease with increasing GP density**

Note: : * assumes c.$561 per non-admitted ED presentation; **avg ambulance costs per incident c.$871 FY16
Source: AIHW; NHCDC National Hospital Cost Data Collection 2017-18; **"Patterns of low acuity patient presentations to emergency departments in New South Wales, Australia" EMA Emergency Medicine Australia June 2017, Productivity Commission (Ambulance Costs)

ATTITUDES & BEHAVIOURS

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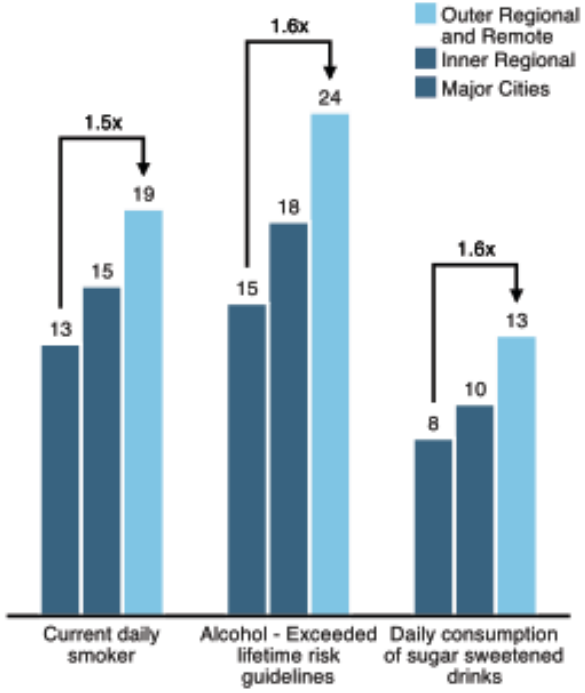
Higher levels of health risk behaviours can be moderated with appropriate access to health prevention and promotion delivered by community-based primary care

PREVALENCE OF SELECTED HEALTH RISK FACTORS | 2017-18 PROPORTION OF PERSONS AGED 18 AND OVER



- Primary healthcare services have been shown to reduce high risk behaviours
- A strategy for lowering the chronic disease burden is provision of care targeting modifiable behavioural risks (preventive care) through primary care
- Care is provided in five steps: ask, advise, assess, assist, and arrange/follow-up. This model has been successful in behaviours such as diet, alcohol consumption, and physical activity and consistently reported to be effective in reducing health risk behaviours
- Findings also suggest that any amount of preventive can be beneficial, however receipt of the full model is most likely to result in positive behaviour change.

Source: AIHW; "The association between the receipt of primary care clinician provision ofpreventive care and short term health behaviour change" Preventive Medicine - March 2019

GOVERNMENT INITIATIVES

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And all this despite various Government initiatives to improve rural and remote health

National Strategic Framework for Rural and Remote Health

Aims to improve health outcomes and return on investment for rural and remote Australians by identifying the systemic issues that most require attention.
Vision: People in rural and remote Australia are as healthy as other Australians

Five Goals: Rural and remote communities will have	Outcomes
Improved access to appropriate and comprehensive health care	Access
Effective, appropriate and sustainable health care service delivery	Service models and models of care
An appropriate, skilled and well-supported health workforce	Health workforce
Collaborative health service planning and policy development	Collaborative partnerships and planning at the local level

'Closing the Gap'

The Closing the Gap framework outlines targets to reduce inequality in Aboriginal and Torres Strait Islander people's life expectancy, children's mortality as well as education and employment. (Remote populations are more indigenous c.30% than the rest of Australia c.3%)

Health Area	Health Area	Outcomes
Child Mortality Target	Halve the gap in mortality rates for Indigenous children under five within a decade (by 2018)	Improvements in mortality rates have not met the target and key contributing factors are the preponderance of chronic health conditions and risky health behaviours of mothers both of which can be positively altered through increased access to primary care
Life Expectancy Target	Close the life expectancy gap within a generation (by 2031)	The gap has not narrowed. There has been an improvement in Indigenous mortality rates from circulatory disease (heart disease, stroke and hypertension) offset by an increase in cancer mortality rates [which can be improved through increased access to primary care]

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THE VALUE OF COMMUNITY-BASED RURAL & REMOTE PRIMARY CARE

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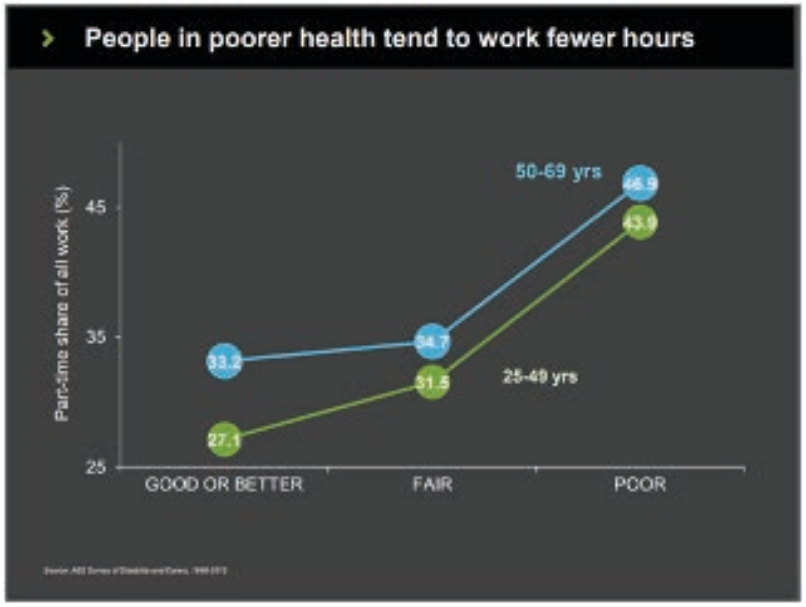
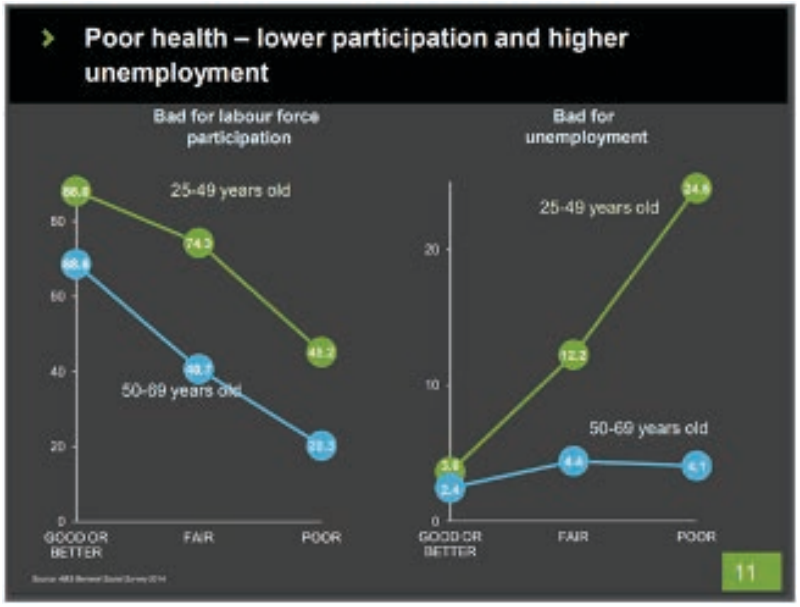
Poorer health outcomes are clearly linked to reduced economic productivity and increased costs for government and the community over time





" ...in summary, productivity matters to the health system. And health outcomes matter for productivity."

"... the last time this conference was held, participants agreed that: 'Health spending delivers economic benefits beyond the health portfolio ..."
Productivity Commission Chair Michael Brennan, 2019

Source: "Reaping Broader Economic Benefits from an Effective Healthcare System: a visual lens" 2019

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Delivering the "right care" in rural and remote communities is critical if government is to reduce the economic cost of health care and the burden of disease

$575

Average cost per non-admitted patient at Local Hospital Emergency Department in NSW

$39

Medicare rebate for Standard GP consultation

SOURCE: National Hospital Cost Data Collection(Round 22) at https://www.ihpa.gov.au/sites/default/files/publications/round_22_nhcdc_infographics_emergency.pdf

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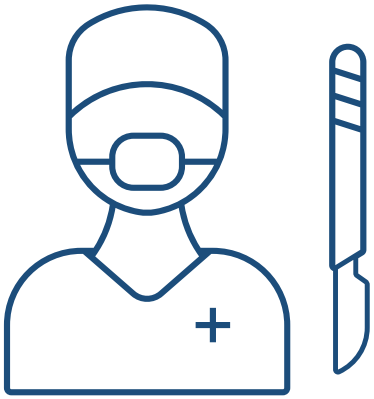
In the United States, community-based primary care has been shown to be cheaper, safer and more effective than delivering the same care from hospitals

Association of Primary Care Practice Location and Ownership With the Provision of Low-Value Care in the United States (2017)

Objective
The study examined the differences in the ordering of tests by GPs operating from a hospital based primary care clinic compared to a community-based primary care clinic.

Results
This study of 31,162 visits for upper respiratory tract infection, back pain, and headache from 1997 to 2013 found that attendances at US hospital-based practices was associated with greater use of computed tomography and magnetic resonance imaging, radiographs, and specialty referrals compared to visits to community-based practices. The study referred to previous research which found that greater continuity of primary care services is associated with increased use of preventive care, reduced costs, and lower rates of emergency department visits, hospitalizations, and all-cause mortality.



11.4% lower

Community-based primary care practitioners make fewer specialist referrals ...

2.9% lower

and fewer radiography tests ...

2% lower

and fewer CAT scans and MRIs ...

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And an Australian study found significant savings to government through investment in community-based primary care in remote communities

The cost-effectiveness of primary care for Indigenous Australians with diabetes living in remote NT communities (2014)

An Australian study evaluated the costs and health outcomes associated with primary care use by Indigenous people with diabetes in remote communities in the Northern Territory found that primary care resulted in lower mortality and hospitalisation rates. The cost of preventing one hospitalisation for diabetes ranged from $248 to $739 (depending on level of primary care usage) vs $2915 the average cost of one hospitalisation (based 2008/09 cost data) or $1-3 in primary care investment can save c.$12 in hospital costs

$248 - $739

Cost of preventing one hospitalisation for diabetes through effective primary care

$2,915

Compared to the average cost of one hospital admission for diabetes

$1-3 investment in primary care can save ~$12 in hospital costs

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Health systems are also a net contributor to social and economic capacity in rural & remote communities - without community-based primary care rural and remote towns will lose jobs, economic activity and business investment

World Health Organization, Economic and Social Impact and Benefits of Health Systems (2019)

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A typical Australian community-based primary practice is estimated to inject over $1.1m p.a. into its local community and create 16 local jobs

	Jobs (FTE)	Payment / Salaries / Wages	Est. Community Spend (%)	Est. Community Spend ($)
General Practitioners (GPs)	3	$1.7m	30%	$505k
Administrative staff headcount	7 (3.2)	$227k	100%	$227k
Nursing & clinical staff headcount	4 (1.0)	$110k	100%	$110k
Cleaning staff headcount	2 (0.35))	$16k	100%	$21k
Other expenditure		$19.5k	100%	$19.5k

SOURCE: Independent evaluation of direct economic and employment contribution based on 2019/20 financial data for two RARMS remote medical centres.

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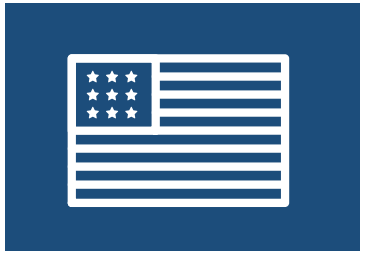
Research has also shown that health system investment, particularly primary care, has important economic and social benefits when flow-on and induced effects are taken into account

A study by the World Health Organisation of European countries found that on average for every additional €100 000 spent on the health system, four new jobs are created in the rest of the economy. On average one new job created in the health care sector will result in the total employment (in the whole national economy) growing by 1.3 (direct and indirect effects) or 1.7 (when induced effects are included). In the vast majority of the countries analysed, the employment multipliers for the health sector were found to be higher than the average across all sectors (62) of the economy.

SOURCE: Economic and Social Impacts and Benefits of Health Systems (World Health Organization, 2019)



A US health study found that health centres in federally designated underserved areas save over $24bn for the healthcare system annually and produced $26.5bn in economic benefits ($11 of economic activity for every $1 of federal funding) in addition to employing 157k full time roles and 112k other local jobs

SOURCE: “Health Centres Provide Cost Effective Care" (US, 2015)

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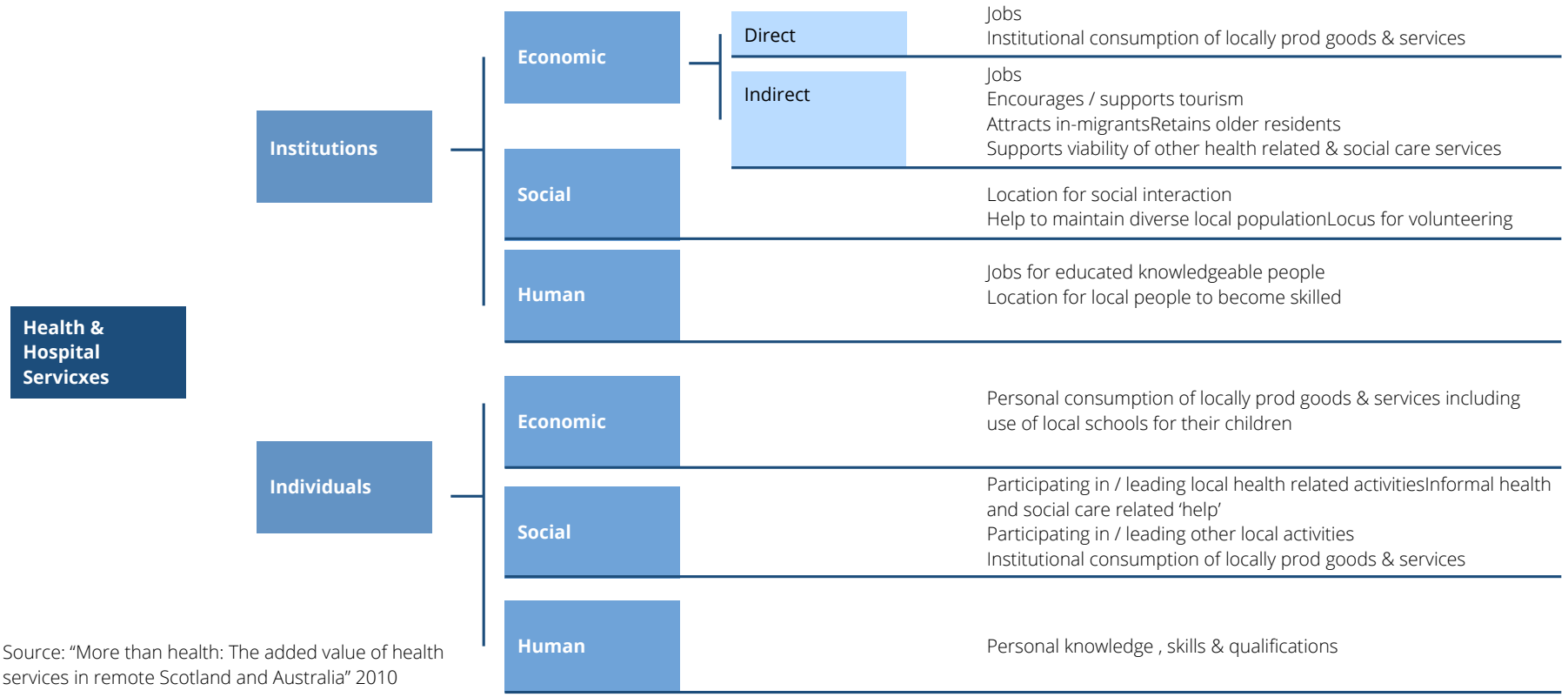
And research also shows the value added by health services in rural & remote communities goes even further beyond health and economic outcomes



Source: "More than health: The added value of health services in remote Scotland and Australia" 2010

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Other studies have also identified benefits from community-based primary care in underserved areas

"The Economic Impact of a Rural Primary Care Physician" (US 2013)

Objective

Estimate the economic contributions to employment and labour income from the direct and secondary impacts of a rural primary care physician on the community and surrounding area including the local hospital.

Results

A rural primary care physician in a community with a local hospital creates c.24.2 jobs and over $1.3m of income (wages & salaries) from the clinic and hospital. Total value underestimated as other sectors such as pharmacy and nursing homes are not included.

"Economic importance of the health-care sector in a rural economy" (2003)

Objective

Estimate the economic contributions to employment and labour income from the direct and secondary impacts of a rural primary care services on the community and surrounding area including the local hospital in Atoka County in the US.

Results

The total employment impact of the health sector represents approximately 18.5% of the total non-farm employment in Atoka County, Oklahoma. Type III multipliers showed impact of doctors was 1.79, hospitals was 1.7, nurses 1.54, Other health workrfers 1.62 and community pharmacies 1.49.

Investing in rural health brings dollar returns to local economies (and improves health)

Data collected over their nearly 50-year history show these centres not only provide quality and culturally safe health care and related social services to vulnerable populations, they stimulate the economies of their local communities.

There's a multiplier effect that extends beyond the employment of health care professionals and ancillary staff and beyond the walls of the clinics; the centres buy goods and services from local businesses and the improved health of the local population means increased employment and household spending.
https://theconversation.com/investing-in-rural-health-brings-dollar-returns-to-local-economies-and-improves-health-73454

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And it helps to reduce other costs to government, such as higher incentive payments to attract and retain teachers, police etc to rural & remote areas due to a lack of available local health care

Remoteness Areas	Number of Schools	Average Isolation Grouping	Transfer Points
Outer Regional	236	7.3	c. 3.5
Remote	37	5.2	c. 4.5
Very Remote	11	$16k	c. 8

Increasing Transfer Points

The Socio Economic Isolation Allowance schools are grouped depending on the degree of isolation. The greater degree of isolation, the lower the group number.

Human Services And Justice Agencies
Ability to offer incentives to attract and retain employees in hard-to-fill positions in rural and remote locations
Incentive packages up to a maximum of $10,000 value per annum per employee.
In some circumstances, packages of more than $10,000 may be approved

Points	Value	4 Points	6 Points	8 Points
Rural teacher incentive	less value of rental subsidy, where applicable	NA	$20,000	$25,000
Rental subsidy		50%	70%	90%
Retention benefit	$5,000 per annum up to 10 years	N	Y	Y
Experienced teacher benefit	$10,000 per annum up to 5 years	N	Y	Y
Recruitment bonus	$10,000 if applicable	N	Y	Y

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And, finally, community-based local, face-to-face primary care is how rural, remote and Indigenous people want to access healthcare services

87.3%
of patients prefer to receive healthcare from a GP in the community

8.8%
of patients prefer to receive healthcare in a hospital

99.0%
of rural and remote people believe it is important to have a local GP who lives and works in their town

59.5 - 72%
of rural and remote people think it is NEVER OK for Telehealth to be used instead of a local GP for a range of conditions from getting an existing script changed to dealing with an emergency or delivering bad news

90.1%
of rural and remote people think that they are not treated fairly in access to health services compared to people who live in the cities

SOURCE: Rural and Remote Community Healthcare Survey 2020 No. 1; Preliminary Report on Rural and Remote Healthcare Survey 2020 No. 2


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