

Ms Jenny Mannering
Inquiry Secretary
Parliament House, HOBART 7000
rur@parliament.tas.gov.au

Re: Government Administration Committee “A” – Inquiry into Rural Health Services

Dear Ms Mannering,

The Royal Flying Doctor Service is pleased to provide the following submission to the Committee’s inquiry into Rural Health Services.

We appreciate being allowed to make this late submission.

As an organisation who has been operating in Tasmania for 61 years, and whose mission in Tasmania is “to improve health outcomes for all Tasmanians with a specific focus on remote and rural areas”, we believe that we are uniquely placed to assist this Inquiry.

It is well known that the RDFS provides aero-medical ambulance services; perhaps what is less well-known is that over recent years we have broadened our involvement into primary health care, and we now also provide dental and mental health care services into rural Tasmania.

To that end, in this submission will provide information relevant (but not necessarily exclusively so) to terms of reference 1, 2a, 2b, 2i, as well as 3a, 3b, and 3i.

I would be more than happy to provide you with further information, or elaborate verbally to the Committee, should you so wish.

In particular we would appreciate the opportunity of demonstrating the functionality of the RFDS Service Planning and Operations Tool (SPOT). An overview of SPOT is also attached.

Your sincerely,



JOHN KIRWAN
CEO
RFDS - Tasmania

Overview of the Royal Flying Doctor Service in Tasmania

The RFDS was created more than 90 years ago to address the absence of health services in remote and rural areas. RFDS operates in areas where mainstream primary care services are not present, called “areas of market failure” by the Commonwealth Government. We operate with a mixture of Commonwealth, State and Local government support across Australia.

Our fundraising as a registered charity allows us to supplement these services and help fund capital and equipment.

We operate a wide range of aero-medical and primary care services in all States and the Northern Territory. These range from aero-medical evacuation, inter-hospital transfers, repatriation of patients, primary care clinics, aero-medical and road-based dental and other services, telehealth, and medical chests.

Each of the six RFDS Sections vary in the services offered, for a range of reasons. We work closely together, this cooperation has been critical in response to bushfires, floods and COVID over the past 2 years.

RFDS Tasmania is very fortunate to have Her Excellency the Hon Kate Warner as our patron. Her Excellency and Mr Warner are active in their support of our programs and generous with their time and encouragement.

We have a skills-based board, with 9 board members (5 from the North, 3 from the South, 1 from the North West) drawn from a range of backgrounds, supported by various board sub committees. These sub committees also include non-board members with specialist skills. Board members are not paid and offer their time and advice generously.

The Board recently appointed two new directors: Dianne Baldock (Chair of Circular Head Aboriginal Corporation) and Paul Hodgen (former CEO Launceston Airport).

Malcolm White was re-elected as Chairman, Caroline Wells as Deputy and Tony Gray as Chair of our Finance Risk and Investment Committee; they constitute the Executive.

➤ RFDS economic and social impact in Tasmania

Three RFDS Sections operate in Tasmania, SE (Aeromedical, aircraft, pilots and engineer; contracted to Ambulance Tas) Mobile Patient Care for low acuity road transfers, operated by our Victorian Section (currently not active), and RFDS Tasmania.

In total we employ almost 50 staff, most of whom live in remote, rural and regional areas.

A 2020 study for the RFDS by National consulting firm BDO Services has estimated the RFDS contributes \$623 million to GDP in Australia, and \$7.66 million in Tasmania, with most of this in regional and remote areas.

RFDS Tasmania received no Department of Health or Tasmanian Health Service funding, in 2018/19. We pay rent to the DoH/THS of over \$22,000 for rooms for our Primary Care staff.

On Flinders and King Islands we do not pay rent to the THS/DoH for our use of the dental clinics, as RFDS now provides these services at the request of the State Government, thus saving the state the operating costs, estimated at \$14,000 net. We see this as a successful partnership model.

Our Dental, Primary and Mental health programs are all having a role in hospital avoidance and reducing unplanned readmissions and improving mortality and morbidity outcomes in the communities we serve.

It is worth noting that health is a significant industry in regional Australia:

Health is a significant industry in regional Australia with direct employment in Healthcare and Social Assistance often accounting for over 15% of jobs in a regional place, and national forecasts are for another 85,000 jobs in this industry in regions by 2023. Around 32% of the Tasmanian annual budget is allocated to the provision of health services, and health is one of the largest employers of skilled and unskilled people. Likewise, in the Northern Tasmania region it is one of the largest employers, accounting for more than 16% of employment.¹

There is direct correlation between education, employment, and improved health outcomes. This is another reason we support the development of our place-based services in the communities we serve.

RFDS staff work and often live in rural and remote areas, our staff work within their scope of practice and they are employed under and accredited for by the Clinical Advisory Committee. RFDS staff face a different challenge, in the absence of appropriate referral service or long waiting lists, we find staff having to deal with patients/client of higher acuity.

RFDS has a strong commitment to the future rural and remote workforce. In our 60th year of operation in Tasmania, we have awarded our 60th UTAS/TAFE student scholarship to support medical, nursing, and dental assistants that allows them to experience working rural and remote areas.

As an accredited Health service, RFDS is a requirement under NSQHS Standard 2- Consumer Engagement to engage and codesign services with the community, and specifically to address closing the gap and the establishment of an Aboriginal Health Plan.

A full list of recommendations can be found at the conclusion of this submission.

¹ Regional Australia Institute report, June 2020, for the Launceston Chamber of Commerce

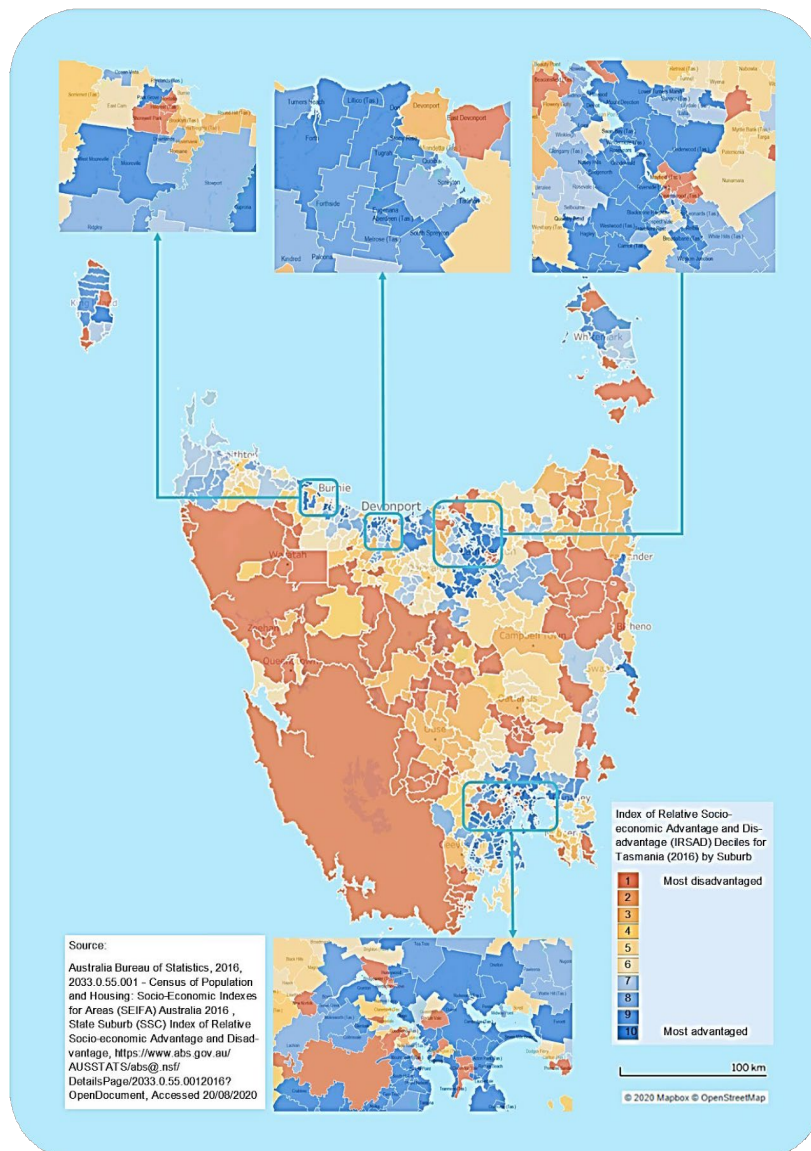
INQUIRY TERM OF REFERENCE:

1. Health outcomes, including comparative health outcomes

In recent report from Primary Health Tasmania, they make the link between socio economic status and health clearly.

Our education, occupation, and income affect our health status. Socio-economic disadvantage is strongly associated with poorer health outcomes. Figure 3 depicts the areas of socio-economic disadvantage (coloured red and orange) within our community. These are mostly in rural and remote areas, however there are pockets of disadvantage throughout Tasmania's main population centres.²

IRSD distribution in Tasmania by suburb



² PHT Data report to RFDS, February 2021

Future risk, From 90 to 100: Planning for the health needs of country Australia in 2028 (RFDS Research paper).

This RFDS research paper focuses on the year 2028, the 100th Birthday of the RFDS. It reports as that we have 11.8 million Australians currently living with at least one chronic illness, with 2028 forecasts equalling 13.8 million, a national increase of 15.6%. Yet chronic illness prevalence forecast to remain higher in remote Australia than metropolitan areas.

- Disability-adjusted life years (DALY), or the number of years lost to ill-health, disability, or early death, are forecast to increase in remote areas over the decade to 2028 with:
 - cancer up by 15.6%, from 37.6 to 44 DALYs;
 - mental illness up by 21.6%, from 21.8 to 27.1 DALYs; and
 - neurological conditions such as Alzheimer's, up by 47.8%, from 13.2 to 21.5 DALYs

The report forecasts by 2028 remote Australia will have only:

- a fifth the number of General Practitioners compared to metropolitan areas (43 compared to 255 per 100,000 population);
- a twelfth of the number of physiotherapists (23 compared to 276 per 100,000 population);
- half the number of pharmacists (52 as compared to 113 per 100,000 population); and
- a third the number of psychologists (34 as compared to 104 per 100,000 population).

The impact on access to health services, due to increased demand and a reduced workforce in rural and remote areas unless we take action, will be profound.

As TABLE 1 (attached) demonstrates, unfortunately, generally Tasmania is significantly worse in most measures when comparing chronic disease prevalence and risk factors between Tasmania and the rest of Australia.

RFDS Tasmania have commissioned two key reports, that have been used to chart the RFDS in Tasmania direction. The 2013, *Health Care Status and Access in Rural and Remote Tasmania: Information Paper*. This paper prepared by Dr Kim Weber provided an overview of the health status of Tasmanians and indications of where the RFDS may want to focus on, e.g., dental. The first report informed the process to employ the first CEO following receipt of the Stan Merritt bequest.

In 2015 RFDS commissioned an update of the 2013 report called "*Provision of Primary Health Care Services Strategic Study*" that was presented to the Board Planning day by the author, Dr Kelly Shaw. This paper also included a section on areas the RFDS may wish to consider.

This 2015 Report focused on the available epidemiological data at the LGA level.

The key findings where the health of Tasmania's population is adversely affected by:

- high rates of lifestyle risk factors for chronic disease (smoking, nutrition, alcohol, physical inactivity, obesity, and mental health)
- high rates of chronic disease and multimorbidity (particularly cardiovascular disease, diabetes, cancer, musculoskeletal conditions, and injury).

It is clear that rural Tasmanians experience poorer health outcomes than non-rural Tasmanians. The highest premature mortality is observed on the remote West Coast and Flinders Island. Rural Tasmanians also have poorer access to local general practice services, with the majority of GPs per capita in Tasmania located in Hobart or Launceston.

In actioning these reports the RFDS successfully tendered for a new PHN/PHT chronic diseases contract, that was then extended and expanded, and commenced new dental and youth mental health services, the attached maps illustrate the change between 2015 and 2019.

All these services recurrent costs are funded through Commonwealth programs with RFDS providing additional recurrent and all the capital funding needed from our fundraising. The new \$350,000 dental truck (below) is an example.



INQUIRY TERM OF REFERENCE:

2. Availability and timeliness of health services including: a. Ambulance services;

3. Barriers to access to: a. Ambulance services

Aeromedical Contract and RFDS Tasmania

The Tasmanian RFD Section's interest in aeromedical is not new as the Tasmanian Section was responsible for the service until 1994, dating back to the late 1950s when the RFDS was invited to Tasmania by the then Minister for Health.

The history of RFDS SE involvement in the Tasmanian aeromedical contract dates to 1994 when RFDS NSW (as it was then) was asked to come to Tasmania by RFDS Tasmania after difficulties with the RFDS Tasmania local contracted provider of aircraft.

In 1995, the State government decided to call tenders for the service and RFDS have held the contract since then.

The current contractual arrangement for aero-medical services expires in June 2022.

Aero-medical infrastructure support

RFDS base at Launceston Airport

The RFDS has self-funded the building and maintenance of the Launceston base. The base needs upgrading to comply with current and future needs. It is estimated to cost \$10 million.

Infrastructure at Hobart Airport

Patient transfers at Hobart airport, including neonatal transfers are in the open, on the General Aviation apron. This service is required to operate 24/7 all year round.

With the current and planned developments at Hobart Airport RFDS has commissioned an architect and developed conceptual plans to for an integrated service that would include rotary, fixed wing and road, a short-term holding unit to assist with patient flow and as additional capacity in the event of an emergency/epidemic or pandemic.

The Australian Antarctic Division and their Polar Medical Unit will be consulted to ensure any development is complementary to the State and Federal Governments Antarctic gateway position and avoid unnecessary duplication. The estimated cost is \$15 million

Remote and Regional Airports in Tasmania

Regional and remote airports are critical in providing the necessary infrastructure for;

- > Aeromedical emergency evacuations and patient transfers
- > Are a key resource in managing natural disasters such as fire fighting

- > Have a key role in assisting economic development, both tourism and freight of high value-added exports

The RFDS has over the years invested almost half a million dollars building transfer shelters at St Helens, Flinders and King Island and at Wynyard Airports, all funded from RFDS fundraising. Once these have been constructed, RFDS ordinarily transfers ownership of the facilities to the local airport owners. The innovative Tasmanian designed and built shelter at Wynyard was the first of its kind in Australia.

The RFDS has a role in making representation to the Commonwealth and State Governments and the airport owners to ensure that there are adequate landing facilities for services. We are also consulted by the Commonwealth on where the higher priorities are in regard to maintenance and upgrades. RFDS took the initiative and flew Canberra based staff from the Commonwealth Department of Infrastructure staff to visit Flinders and Cape Barren Islands to see firsthand the challenges. The outcome of this RFDS initiative, with local support, has been the upgrade of Flinders Island and Cape Barren Islands airstrips.

There are several known and emerging challenges in regional airports in Tasmania that will need to be addressed.

INQUIRY TERM OF REFERENCE:

2. Availability and timeliness of health services including: b. Primary care, allied health and general practice services

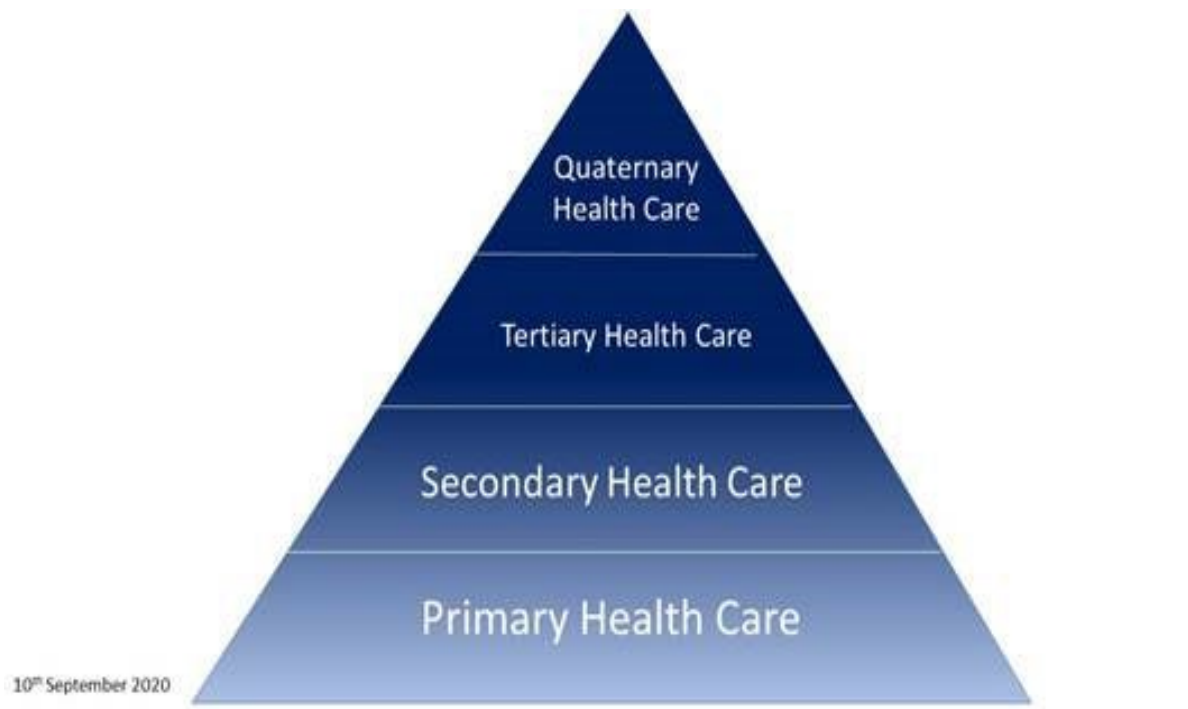
3. Barriers to access to: b. Primary care, allied health and general practice services

In addressing this term of reference, it is important to understand the role of Primary care.

The Commonwealth, States and Territories have agreed to the following vision for primary health care:

A strong, responsive, and sustainable primary health care system that improves health care for all Australians, especially those who currently experience inequitable health outcomes, by keeping people healthy, preventing illness, reducing the need for hospital services, and improving management of chronic conditions.

The health system and its patient pathways can be described as pyramid, where the majority of the activity should be at the Primary care level, as should the investment. This is even more critical in Rural areas, where the need and health initiatives are highest, and the numbers and range of services are limited relative to the main metropolitan areas.



The unique demographics in Tasmania, when combined with what can be challenging climate, geographic and transport difficulties, make it critical we provide the optimal level of Primary Health Care in rural and remote areas in Tasmania.

Tasmanian State Government position - making Tasmania the healthiest state by 2025

In 2007 the then Department of Health and Human Services (now DoH) as part of several reforms, issued a detailed Plan, the Primary Health Service Plan. Since 2007 we have seen COVID, NDIS, aged care reform and various Royal Commissions and the integration of Primary care with Acute care to create 3 health regions; then mental health into the 3 regions; then the abolition of the 3 regions into the one THS, this Plan still has significant merit.

There have also been parliamentary Inquires, with some relevant recommendations, that have in general not been acted upon by the Government of the day. The RFDS has made submissions to these.

In brief our position is we also need a focus on rural and remote health outcomes, and how the disparity with metropolitan health outcomes will be addressed, when and how.

With the change in Government and the introduction of the One State, One Health System, Better Outcomes approach the Government approach to Primary care was outlined in the 2015 White Paper, specifically pages 53 to 59 and the creation of the Healthy Tasmanian Program.

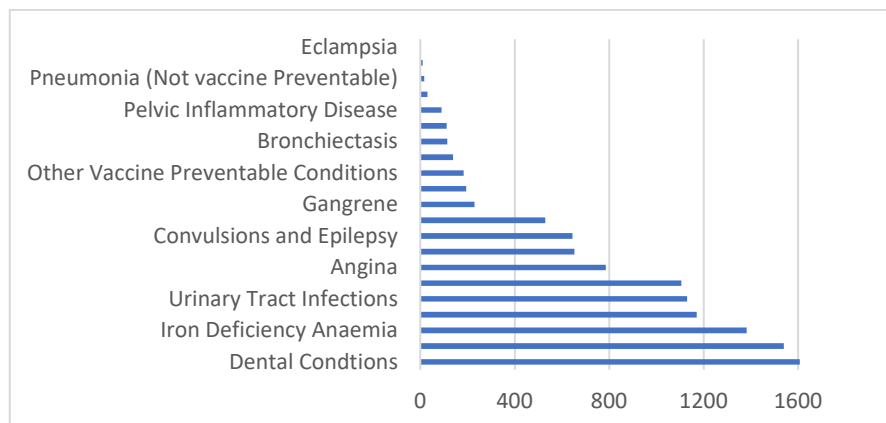
http://www.dhhs.tas.gov.au/data/assets/pdf_file/0005/374765/OHS-White-Paper-Final-Release-vf4-Press.pdf

In respect to Rural and Remote areas, the 2015 White paper said,

Health services in Tasmania's rural and remote communities are predominantly primary health services. These communities have the poorest health outcomes in Tasmania, generally poorer levels of infrastructure, and variable levels of social capital. They are home to some of the State's most vulnerable people; people who will continue to struggle with poor outcomes in an underperforming health system that is focused on high-cost specialist tertiary services. People in rural and remote areas are often expected to take themselves to specialist clinicians at major hospitals, even though their transport options are, by comparison with urban areas, extremely limited and not well coordinated with health services. This raises important questions of access and equity in the health care system. In Tasmania's rural and remote communities, there are a diverse range of services, typically provided from within a single health facility. This may include colocated GP and ambulance services, inpatient care, residential aged care, emergency care, allied health, maternity care, community nursing, mental health, and health promotion. Rural hospitals currently play an important role in providing services that support the roles of the major acute hospitals. This includes the provision of subacute care, freeing up capacity in the acute hospital to take on additional patients. Rural general practitioners play a vital role in their community, often supporting the medical services provided from local rural hospital or multipurpose facilities. Rural facilities provide a useful model for integrated care, with GPs providing oversight across a continuum of care from home care to rural hospital admission, including referrals and case conferencing with outreach clinicians. Rural facilities also host outreach clinical services, which may include medical specialists, child health, pain management teams, and allied health. These facilities are also equipped with video-conferencing technology to assist eHealth delivery.³

From the data included in this paper and other submissions it is clear, there has been no significant improvement in health outcomes since the 2016 White paper.

Separations for selected preventable hospitalisations in Tasmania 2013-14



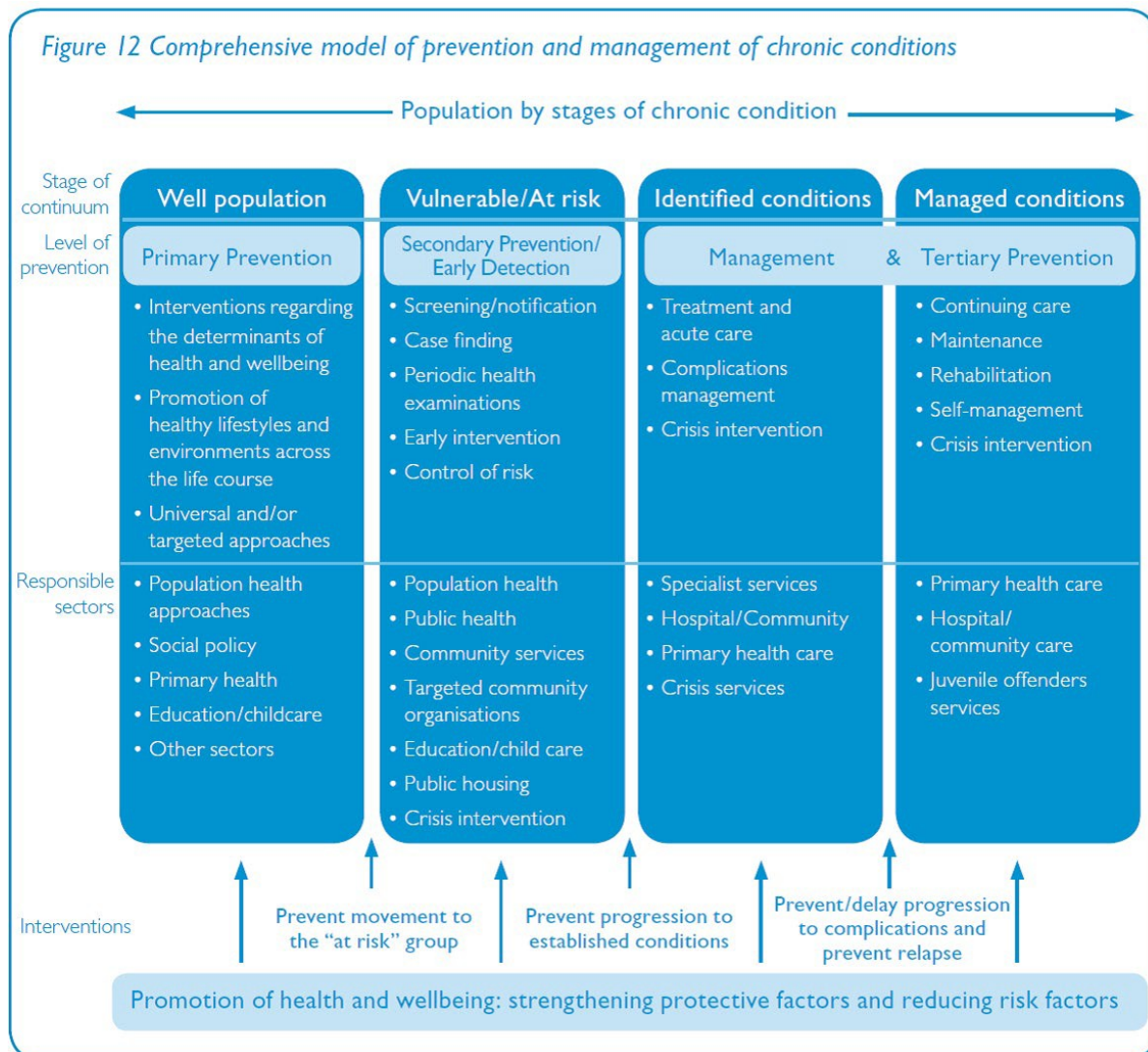
ADA Tas Submission to Our health Care Future Consultation paper, February 2021

³ One Sate, One Health System, Better outcomes, Delivering Safe and Sustainable Clinical Services, White Paper, DHHS, June 2015



Royal Flying Doctor Service TASMANIA

This is not unique to Tasmania, the focus and resourcing of the health needs of rural and remote communities, and in particular - the broad primary care area, is generally lacking, see Figure 12:



Adapted from National Public Health Partnership 2001 Background Paper: *Preventing Chronic Disease: A Strategic Framework*.

In other States that have a strong health outcomes approach, funding for health services is tested using several tools, such as marginal benefit analysis, to ensure the best outcomes are achieved for the investment. There has been limited public debate about the options for where the health \$ is best invested.

The dominance of the Acute sector in Tasmanian makes this discussion difficult, and funding/investment are often driven by metrics that are biased toward the acute sector, e.g. Elective surgery waiting times, yet the shorter life expectancy in rural and remote areas is not considered in the public debate.

For example, the DoH Health System Dashboard has 15 reports/KPIs, with only 2 that could be seen as Primary care, and none focusing on rural and remote health outcomes.

<https://www.healthstats.dhhs.tas.gov.au/healthsystem>

On the 6th of November 2020, the State Minister for Health released Our Health Care Future, Immediate actions, and consultation paper. Consultations closed in February 2021. RFDS has made a submission, that is consistent with this submission.

In short, the RFDS submission is we need to do a considerable amount more if we are to address the health inequities we have in rural, remote and Aboriginal communities, and we need to map a pathway, including clear KPIs, towards the Governments vision of having the nation's healthiest population by 2025, including our rural and remote communities.

RFDS Primary Health Care Program

Chronic health conditions are largely preventable, yet reducing their incidence and burden continues to present significant challenges to the healthcare system. Therefore, the RFDS, with our original five partnering LGAs, (Flinders Island, George Town, Dorset, Break o Day, and Glamorgan Spring Bay Councils) have created a more co-ordinated and integrated approach to prevention and optimal management of chronic health conditions in the community.

This has led to us growing a team of more than 20 rural health workers, primary health workers, mental health workers, exercise physiologists and physiotherapists, all working in remote and rural communities around Tasmania.

In 2019 the program was expanded to the Huon Valley, Tasman Peninsular, Bruny Island, Meander Valley, West Coast, Northern Midlands and Central Highlands.

UTAS conducted an external review of the first 18 months of the program, which was positive. One outcome from the evaluation, was the direct cash savings to our clients who no longer having to travel into Launceston for treatment.

We now operate in twelve LGAs throughout the North, South, East and West Coast. The average consultation time is 90 minutes and some clients who undertake our designated rehabilitation programs, will have over 10 visits.

The RFDS program is not focussed on numbers and through-put but instead we focus on improving health outcomes, educating people to better understand and better manage their chronic health conditions in their local community.

We want to empower people to be able to live a better quality of life and reduce the need for hospitalisations. The independent evaluation through the University of Tasmania confirmed that the quality and accessibility of the free service improved participants' health and well-being. Many of these clients no longer have the need to travel to receive essential health services which has led to a decrease in social and financial burdens as well as an increase in uptake in attendance for rehabilitation and counselling

The Primary Health team saw a total of 6,961 patients over 21,000 consultations since 2019.

A particular focus for our teams is cardiovascular disease (CVD), with one in six Australians being affected and CVD being our number one cause of death in Australia. Tasmania has particularly poor statistics and outcomes comparable to the National figures, second only to communities in the Northern Territory.

As a major cause of death and disability in Australia, CVD places a huge burden on the economy as well as the healthcare system, costing \$7.7 billion a year and being responsible for 11 per cent of all hospitalisation. Post-event rehabilitation is critical to reducing further hospitalisations and death, however Tasmania sees an extremely low response to uptake due to the distance required to urban centres.

RFDS has been delivering the Prime Mover – Phase III cardiopulmonary rehabilitation program for several years with an amazing response as it is delivered within these regional communities where access is a huge barrier. This has not only benefited the clients but assisted in clearing wait times within the acute care sector.

The recent study by Driscoll et al. in the International Journal of Cardiology indicates that cardiac rehabilitation was found to be associated with 99.9% probability of being cost-effective with 60% uptake preventing 536 deaths and 823 readmissions to hospital over a 10-year period.

On the 10th March, the DoH, THS and RFDS launched the partnership we have with CardiHab to provide digital cardiac rehabilitation for THS and RFDS patients across the state. This is an Australian first. Patients complete the virtual program using the CardiHab app remotely while under clinical supervision by qualified healthcare professionals. Supported by weekly phone or video consultations from their clinician, patients can benefit from the convenience of technology enabled care from their home.

This program is Commonwealth funded via PHN/PHT competitive tender, commenced in January 2017, and is a free service to eligible clients. One of the challenges has been to find suitable facilities for us to be able to operate from.

RFDS Mental Health Program

The RFDS's Mental Health Program is a free service for people living in remote and rural areas of Tasmania in the areas we operate in.

The mental health program was established in 2017 with initial funding from Primary Health Tasmania. In early 2019 we commenced a new mobile youth mental health; this new program is due to funding provided by the Commonwealth to the RFDS nationally.

The program expanded to support youth aged between 8-16 years of age living in rural and remote areas of Tasmania, as this was identified as the area of greatest need.

The Primary Health manager and the team of physical and mental health workers identified the demand for high quality, effective services to be delivered, and co-designed in consultation with clients and stakeholders a program to cover a gap for clients who would not normally be able to access mainstream mental health services.

Accessibility is often a barrier for rural and remote community members and the success of programs in these areas relies on working with key community groups and general practitioners (who are our primary referrers) as well as having a skilled and mobile workforce that can provide these services. Allowing consumers to self-refer also decreases any barriers to accessing services.

Successful accreditation against the National Safety Quality Health Service Standards and certification against the National Mental Health Standards has formed the foundation for RFDS to consolidate, expand and develop new programs, ensuring they are high quality, safe and client centred.

Accreditation provided the foundations to develop and implement a quality management system and to ensure our staff and clients were partners at every step of this journey.

RFDS Tasmania now has robust systems in place to evaluate, audit and report on program deliverables and meet contractual KPI requirements.

Over 65 Physical Health Service

(National RFDS program funded by Commonwealth Sport Department)

RFDS Tasmania's 'Better Ageing Program' are located in the Meander Valley LGA and undertaken over 800 facilitated exercise consults with elderly residents since its commencement.

The Meander Valley is in a regional area and has a higher than state average rate of over 65s.

Obesity rates are 11.8% higher than the Tasmanian average. Obesity represents 1 in 5 older Australians, increasing the risk of chronic health conditions, social impairment, and disability.

The service model is based on physical activity sessions over a minimum 10-week period. Each client attends a weekly group exercise program, however they are also provided with a personalised program and tracking via an app and/or paper which allows clients to monitor their own goals and progress and provide a self-motivator.

To support sustainability beyond the funding period of June 2021 (as there is no commitment to recurrent funding) the program will focus on:

- > Education and skills development component that will empower and enable clients to facilitate and sustain change in their own lives.
- > Identify and engage community champions to be able to support and continue program beyond funding timeline.

INQUIRY TERM OF REFERENCE:

2. Availability and timeliness of health services including: i. Dental services

3. Barriers to access to: i. Dental services

1. RFDS Mobile Dental Care Program

Tasmania has some of the worst dental health in Australia with the highest rate of complete tooth loss, the greatest number of dentures, the highest average number of missing teeth and the greatest number of people who have not seen a dentist in the past five years⁴.

Tooth decay is Australia's most prevalent health problem even though it is largely preventable. In 2013-14 the average weighted cost per hospital separation across Tasmania's four public sector acute hospitals varied from \$4,761 to \$5,539, with dental admissions being one of the highest preventable admissions. Conversely an average preventative dental check-up, including x-rays and cleaning, can be carried out for approximately \$180-\$200.

The Australian Dental Association (ADA) Tasmanian Branch submission to Our Health Care future states,

In Tasmania, dental conditions were the biggest reason for preventable hospital admissions. That's over 12.5% of preventable hospitalisations. Most of these admissions were for children requiring dental treatment, most often dental extractions, under a general anaesthetic in the Day Theatres of Tasmanian's major hospitals. Children who have required dental treatment in a hospital are likely to need repeat general anaesthetic dental treatment in future years. The best predictor of future dental caries is the presence of dental caries now in a person's mouth.⁵

Rural Tasmanians experience poor oral health at significantly higher rates than people living in major centres. Across the nation there are almost three-and-a-half-times less dentists in rural and remote areas. High rates of diabetes, heart, stroke, and vascular disease would indicate poor oral health in remote Tasmania. Specifically, these conditions are strongly linked to poor periodontal/ oral health.

For some country Tasmanians, particularly the most socio-economically disadvantaged, there are barriers to accessing existing services for reasons that are often complex and cumulative.

To address these disparities, particularly of access, RFDS has developed innovative oral health programs that derive from its experience of running dental outreach programs around Australia and that build on its profile and high levels of trust in rural communities. These programs are underpinned by a number of principles:

- > Operate where other services don't;
- > Employ different service models depending on the needs of the community;
- > Ensure close co-operation with other service providers in the region;
- > Provide preventative, early intervention and treatment services;

⁴ RFDS Health Care Status and Access in Rural & Remote Tasmania – Information Paper 2013

⁵ ADA Tas Submission to Our health Care Future Consultation paper, February 2021

- > Orientate the services toward potential to prevent future disease and provide appropriate care to groups considered at higher risk of dental disease; and
- > Structure visits to maximize outcomes and move beyond emergency and demand dental care.

Using a partnership model, the RFDS Mobile Dental Care program focuses on remote and rural areas of Tasmania where there is the greatest unmet need.

Both the areas of service and the engagement model have been designed in consultation with:

- > Oral Health Services Tasmania
- > Commonwealth Department of Health
- > Local Governments
- > Community Groups
- > Aboriginal Corporations
- > Australian Dental Association Tasmania and private dentists

In the 2016 Federal election campaign, Senator Nash, on behalf of the Commonwealth Government, committed \$11 million over two years (2016-17 and 2017-18) to enable the RFDS to continue providing its current suite of dental services and/or to expand service provision to enable access for more remote and rural Australians in underserved areas.

The RFDS provides a mobile service that works in multiple areas including: Circular Head/Smithton, East Coast/Swansea, North East/Scottsdale and King and Flinders Islands. We currently employ five dental staff, including dental therapists, dentists, and dental assistants. We are currently exploring ways to expand our dental offerings, to meet the needs in the community.

Our staff provide a fixed clinic model and a visiting service to the schools and aged care environments. The aged care visits are another RFDS Tas innovative service.

Eligibility is determined by residing in an eligible area and having the service delivered in this area. This has caused issues with some areas of service in the south. It also presents challenges for our prosthetic services, as it requires the Launceston-based prosthetist and his staff to travel to eligible areas to provide a service.

We are currently assessing how we can fit out the King Island dental clinic, to allow the Prosthetist to undertake this work on island.

A purpose-built dental truck was required to expand services to schools, aged care facilities and more remote communities. The truck enables delivery in areas where there are no – or sub-standard – built facilities, while maintaining accredited standards of work health and safety issues, infection, and sterilization controls.

RFDS staff can drive the dental truck to location, plug it into 3 phase power and water, and commence operations, negating the need for moving valuable equipment, including heavy infrastructure such as dental chairs, and allowing on-site sterilisation.

At the end of July 2020, we have seen 3,029 patients over 7,464 visits and delivered 41,297 dental treatments since we commenced our dental outreach program on 1 May 2017.

Recommendations

1. Map all Emergency Department presentations and potential preventable admissions by region, preferably LGA level, including dental, identify areas of highest activity, identify frequent users, implement case management plans with local GPs and suitable providers.
2. Develop and implement alternatives where the referral/waiting times are outside acceptable clinical guidelines, e.g., tele health.
3. Develop and implement a set of rural and remote health indicators/KPIs to be added to the DoH Health System Dashboard.
4. Use the Anticipatory Health care approach, based on the development of the successful RFDS chronic disease and hospital avoidance programs.
5. Strengthen the relationship between physical health and mental health.
6. The Government's policy papers need to define clearly what are primary care services, as not all services in the community are primary care. There is risk that post-acute/sub-acute services in the community will absorb the limited resources available for primary care. For example, the maldistribution of allied health, including mental health within Tasmania.
7. Existing and predicted demand need to be mapped and analysed, with appropriate evidence-based interventions developed and implemented, noting the need to resource long term programs.
8. Sustainable resourcing for Primary care needs to be identified and agreed with 3 tiers of Government and other funders, focusing on funding, and delivering services in communities.
9. Establish a data linkage team to allow data from non THS providers, to be linked and accessed, for example the 41,000 dental treatments provided by the RFDS dental teams to public patients so there is a more accurate record to allow better planning and allocation of resources.
10. Include the Private and NFP sectors in the development of the Governments Health ICT Plan, with the objective of securing synergies and interoperability. For example, THS/OHST and RFDS both use the Titanium dental IT system, and THS and RFDS are both about to use the CardiHab app-based rehab systems.

General Comments

- RFDS is a strong supporter and user of Tele health, RFDS was one of the first to use tele health over 90 years ago. It is not the panacea to all health needs. Access, functional literacy, health literacy and digital literacy all need to be addressed. Cost and connectivity are also an issue in our experience, and models of care need to be changed.
- Health promotion is the process of enabling people to increase control over the determinants of health and thereby improve their health. (WHO 1986). The RFDS approach has been to imbed this approach in all our programs, e.g. RFDS school education and dental programs. This does require addressing the Social Determinants of Health and will require sustainable long-term funding.
- RFDS is a strong supporter of integration, as it supports our holistic approach to providing care. The role of the Patient/Consumer are pivotal, as the saying goes, nothing about us.....without us. Noting this is an Accreditation Standard we all must comply with and provide evidence of compliance. Having interoperability of ICT will be critical and also a core Q&S/Accreditation standard as it applied to the patient journey. In the smaller areas, RFDS believes there are significant opportunities and synergies if all the areas (primary, mental, dental health, disability, and aged care) are mapped and the options are considered at a community level.
- In addressing the question on clear pathways, and the figures report on page 17 of the Consultation paper, unless there is a significant focus on developing and expanding primary care services, as defined, clear pathways cannot be achieved, thus relieving some pressure on the acute sector.
- As noted in the Health Workforce 2040 reports, a stronger involvement with the Private and NFP sector is to be encouraged. The DoH/THS are such a dominant presence due to size, and often more generous pay and conditions (for example to be able to offer permanent employment contracts) we are often looked with unintended adverse outcomes.
- RFDS supports the development of models of care, that can deliver services in the community, the right care, place, and time, that can utilise staff with different skills and qualifications. For example, we employ both Physiotherapists and Exercise Physiologists to meet the need of the patient/client/community.



Royal Flying Doctor Service
TASMANIA

Table 1

Description	Tasmania number %	Non-Tas. number %	Per 100,000 population rate ratio
Self-assessed health status for those aged 15 years and over (proportions age standardised)			
Excellent/ very good	52.9	57.6	0.92*
Fair/ poor	16.2	14.0	1.16*
Number of selected chronic conditions for persons of all ages			
No selected chronic conditions	51.7	54.7	0.94
1 or more selected chronic conditions	48.4	45.3	1.07*
1 selected chronic conditions	26.5	26.9	0.98
2 selected chronic conditions	12.4	10.7	1.15
3 or more	9.6	7.6	1.26
Selected current long-term conditions for persons of all ages			
Arthritis	16.0	13.0	1.23
Asthma	13.0	11.0	1.18
Back problems (dorsopathies)	16.9	15.6	1.09
Cancer (malignant neoplasms)	2.3	1.5	1.51
Chronic obstructive pulmonary disease (COPD)	2.3	2.2	1.05
Diabetes mellitus	4.3	4.3	1.00
Hayfever and allergic rhinitis	22.5	19.0	1.19
Heart, stroke and vascular disease	4.7	4.1	1.13
Hypertension	10.5	9.3	1.13
Kidney disease	0.4	1.0	0.42
Mental and behavioural conditions	21.8	19.8	1.10
Osteoporosis	3.5	3.3	1.07
Health risk factors			
Severe / Very severe bodily pain	9.4	7.0	1.35*
High / Very high psychological distress	13.7	12.9	1.06
Overweight / Obese	69.3	66.1	1.05*
Current daily smoker	17.4	13.6	1.28*
Exceeded lifetime risk guidelines	16.7	15.9	1.05*
Exceeded single occasion risk guidelines	49.0	42.6	1.15*
Inadequate fruit or vegetable consumption	93.5	94.9	1.11*
Daily consumption of sugar sweetened drinks	12.3	8.9	0.96*
Daily consumption of diet drinks	3.7	4.9	0.98*
Physical activity: Did not meet guidelines	85.1	84.5	1.01
Physical activity: No exercise (0 minutes)	19.7	17.9	1.10*
High blood pressure ($\geq 140/90$ mmHg)	24.5	21.5	1.14*





Royal Flying Doctor Service TASMANIA





SPOT Overview

Tasmania

What is SPOT?

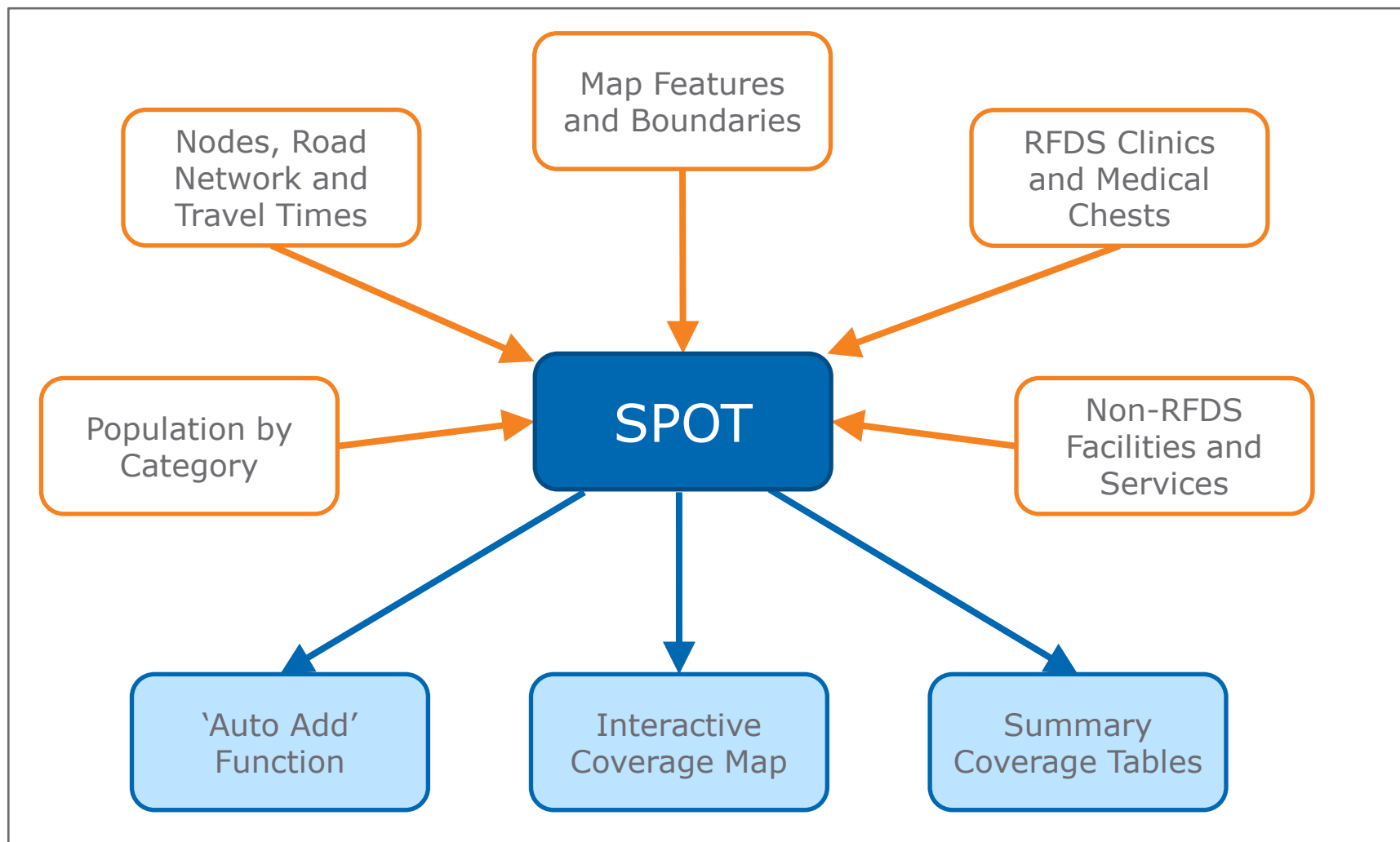
SPOT is a Decision Support Model

- **SPOT assists RFDS in identifying service options** to improve access to primary health services across regional, remote and very remote Australia.
- It **maps and links** health services, population and road networks.
- It takes account of **current and potential future service provision** by RFDS and by other service providers.
- It relates these to **measures of demand for health care** using population demographics.

Use of SPOT

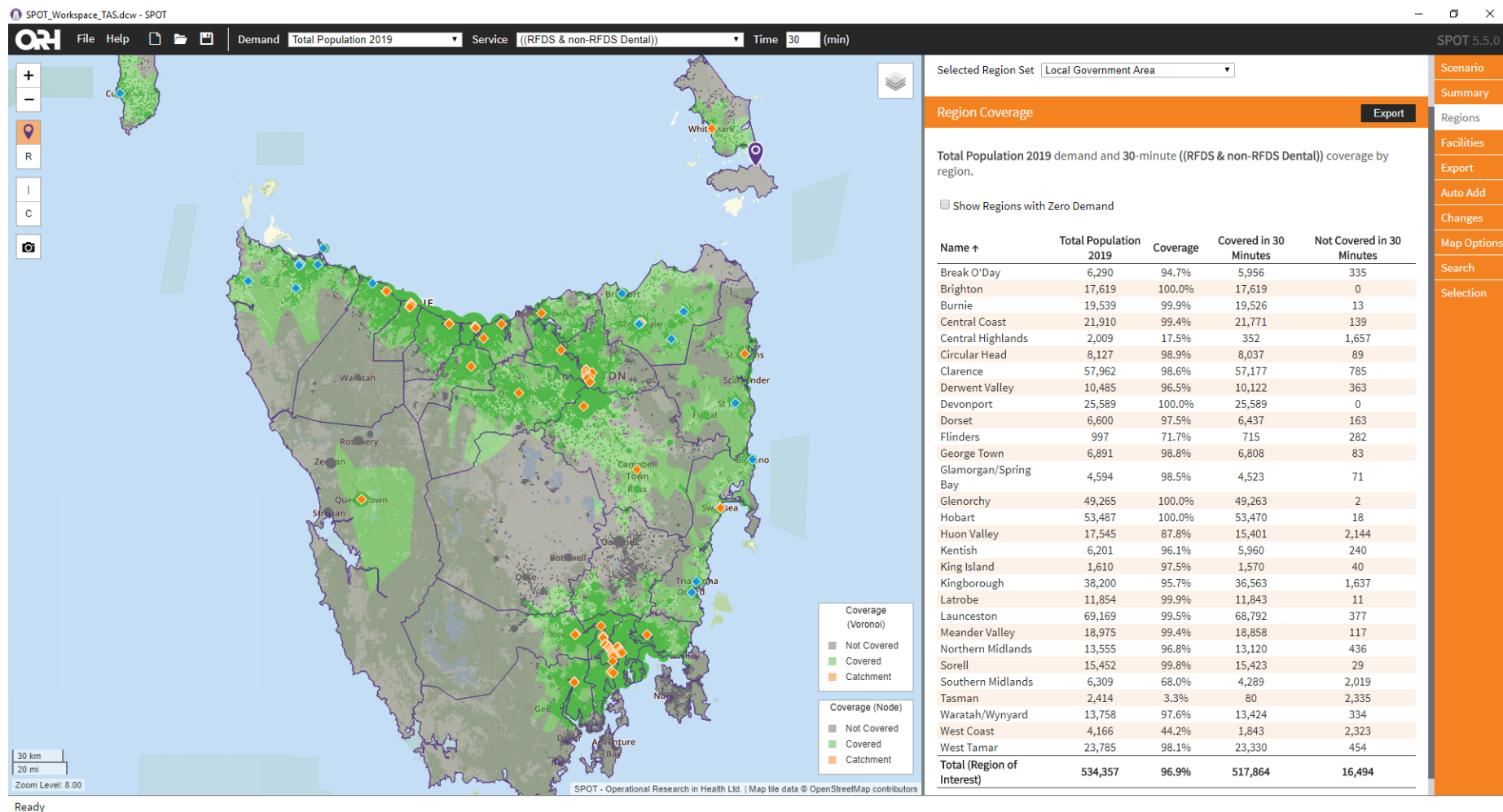
- **Quantify current service coverage and accessibility** for people in regional and remote communities to primary health care available from RFDS and other service providers.
- **Examine the impact of potential changes in services** on population coverage and accessibility.
- **Iterative** approach to support RFDS decision-making and service planning with its stakeholders.
- **Update population and service information regularly** to maintain completeness and relevance of model.

SPOT Overview



User chooses **service type** and **population type** of interest, also a **road travel time coverage** threshold (eg, 90 minutes).

SPOT Tasmania Screenshot



Potential Scenarios

Scenario 1 Identify communities with no 'medical infrastructure' and plan the range and frequency of services to be provided.

Scenario 2 Identify communities 'where the existing medical infrastructure is insufficient and the RFDS has an appropriate and an agreed role to meet short-term gaps'.

Scenario 3 Identify communities 'that are suitable for transition from RFDS to local service provider'; and logically also include communities that could move from a local service provider to RFDS.

Scenario 4 Identify where RFDS should invest new funding for specific service types in order to maximise coverage or to reduce/stabilise the level of Primary Evacuations (PEs).

Scenario 5 Identify where RFDS resources could best move from serving one area to serving another; or reduced to release savings.

SPOT Development

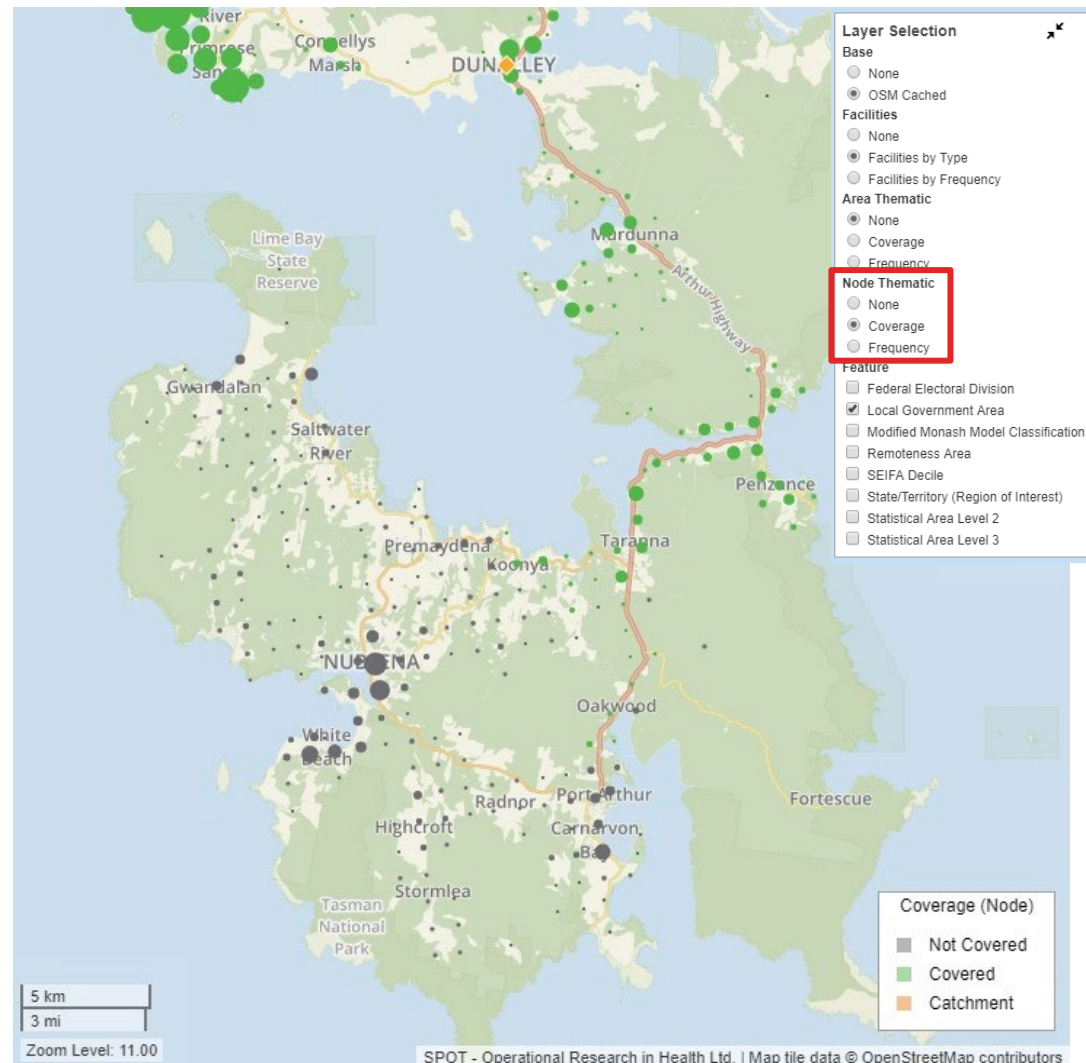
- Initial development work in 2016/17 for 'Remote and Very Remote' (mainland) SPOT.
- Subsequent development of regional Victoria and Tasmania SPOT models.
- Latest version incorporates a service frequency visualisation.
- Potential (unconfirmed) future development:
 - Streamline process of saving facility changes.
 - Cloud-based hosting to improve access/speed.
 - Frequency-based coverage statistics.

SPOT Key Concepts

Demand Coverage - Node

- Demand at a node is said to be **covered** by a set of facilities if the drive time from the node to the nearest facility does not exceed the user-defined time threshold.
- The total **coverage** percentage is the proportion of total covered demand across all nodes.

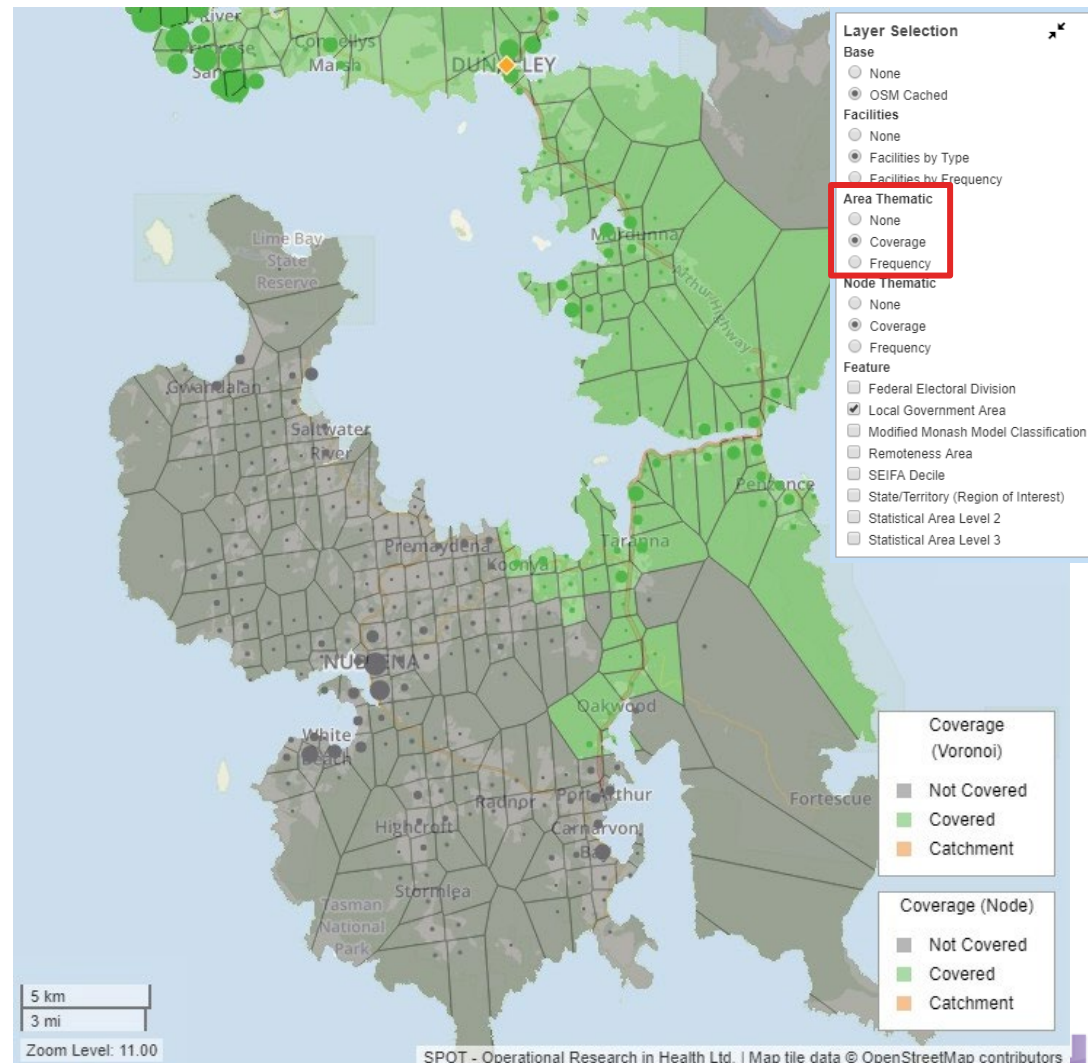
Name ↑	Total Population 2019	Coverage	Covered in 30 Minutes	Not Covered in 30 Minutes
Tasman	2,414	41.0%	989	1,425



Demand Coverage - Area

- Tasmania is split into polygons (**voronoi**) such that each polygon contains exactly one node (and every point in the polygon is closer to that node than any other node).
- In this way **area coverage** can be displayed (coverage status for node is then displayed across the polygon).

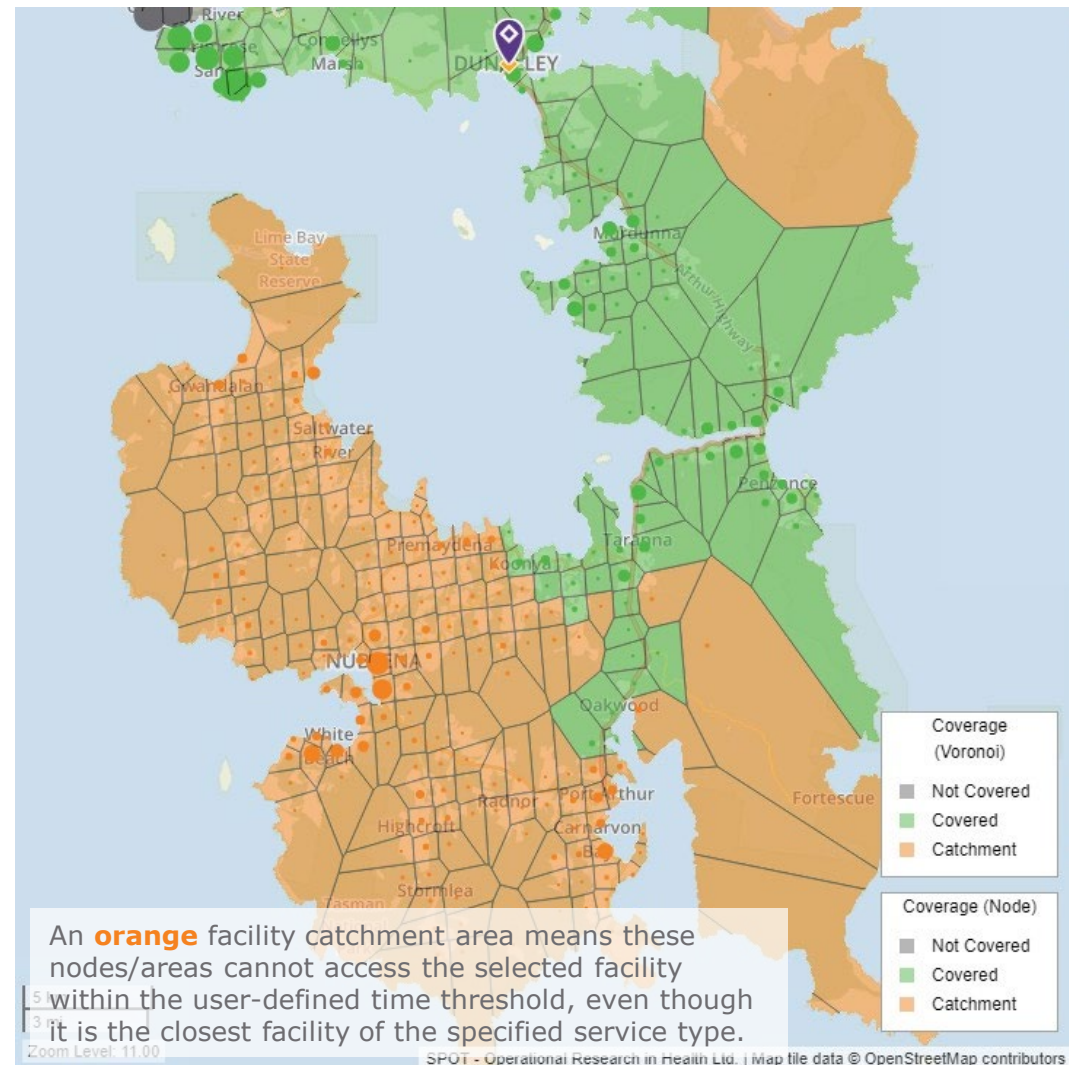
Name ↑	Total Population 2019	Coverage	Covered in 30 Minutes	Not Covered in 30 Minutes
Tasman	2,414	41.0%	989	1,425



Facility Catchments

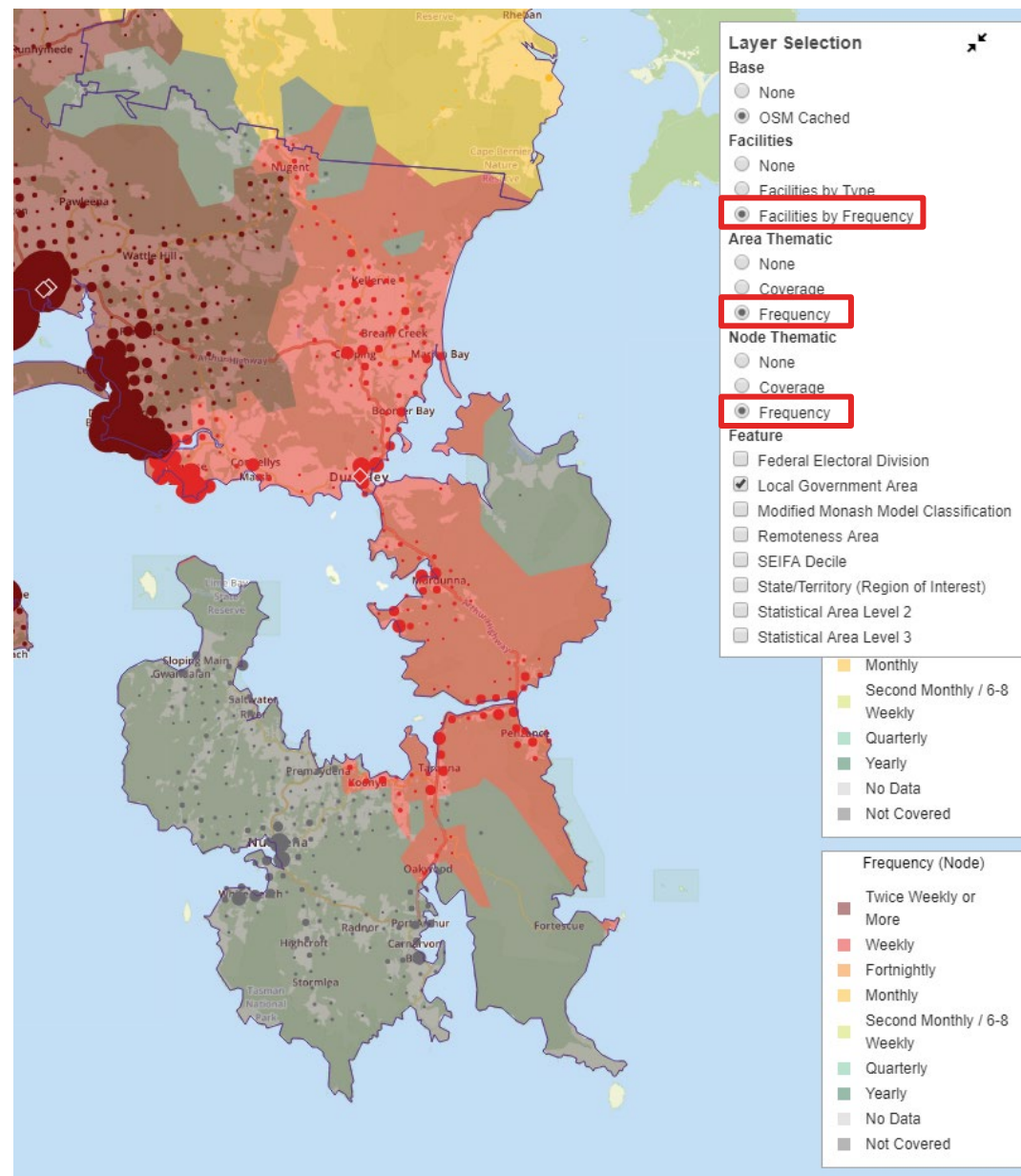
- The **catchment** for an individual facility is the set of nodes for which that facility is the nearest facility.
- As with coverage, both **node** and **area** catchments can be displayed.
- Catchments are calculated separately for each **service type**.

Service	Total Population 2019 Catchment	Coverage	Covered Within 30 Minutes	Not Covered Within 30 Minutes
((RFDS & non-RFDS Mental Health))	4,875	70.5%	3,436	1,439
((Mental Health))	4,890	70.4%	3,442	1,449
Counselling	6,740	51.2%	3,447	3,292



Frequency

- Facilities and area and node thematic layers can be coloured by **frequency** of service.
- The coverage layer is split according to frequency of the **closest** facility.
- If more than one provision contributes to the selected service type, the **highest** frequency is shown.



SPOT Tabs

- **Scenario:** lists the input and mapping files loaded into SPOT.
- **Summary:** summary of overall coverage for every service and demand type combination.
- **Regions:** total demand and coverage statistics by area for the selected service and demand type.
- **Facilities:** list of facilities that provide the selected service type, along with facility type, frequency type, and catchment information.
- **Export:** allows coverage results to be saved to an Excel workbook (or a facilities file to be exported and re-loaded into SPOT to account for facility edits).

SPOT 5.5.0

Scenario

Summary

Regions

Facilities

Export

Auto Add

Changes

Map Options

Search

Selection

Edit

SPOT Tabs

- **Auto Add:** access functionality for SPOT to suggest optimal new locations to improve coverage.
- **Changes:** lists all user-made changes to facilities since the model inputs were last loaded.
- **Map Options:** provides settings for the map view.
- **Search:** provides functionality to search for facilities and nodes by name or node number.
- **Selection:** provides additional detail on selected facility or node.
- **Edit:** (optional) allows user to make changes to the selected facility.

SPOT 5.5.0

Scenario

Summary

Regions

Facilities

Export

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Map Options

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Selection

Edit

SPOT Inputs

Demand

- 2019 population from ABS on 1km grid
- Population demographics from SA1 level distributed across grid points (degree of approximation)
- High Needs Group =
 - Indigenous Age 55 and Over
 - Non-Indigenous Age 65 and Over
 - Age 0 to 4
 - Female 18 to 44
 (as defined by AIHW)

Demand Types
Total Population 2019
Indigenous
Indigenous Age 55 and Over
Non-Indigenous Age 65 and Over
Age 0 to 4
Age 5 to 12
Age 13 to 17
Age 0 to 12
Age 0 to 17
Female Age 18 to 44
Male Age 18 to 44
Female Age 18 to 64
Male Age 18 to 64
Female Age 65 and Over
Male Age 65 and Over
Age 65 and Over
High Needs Group

Facilities

- RFDS clinics:
 - Dental
 - Mental Health
 - Physical Health, Physiotherapist and Exercise Physiologist
 - Rural Health
 - Primary Health

RFDS Service Type	SPOT Service Category
Dental	RFDS Dental
General Counselling	RFDS Mental Health
Mental Health	RFDS Mental Health
Mental Health Worker	RFDS Mental Health
Over 65s Exercise Classes	RFDS Physical Health
Physical Health Worker	RFDS Physical Health
Physiotherapist	RFDS Physiotherapist
Physiotherapy	RFDS Physiotherapist
Exercise Physiologist	RFDS Exercise Physiologist
Strength2Strength (Exercise Physiology)	RFDS Exercise Physiologist
Health Promotion	RFDS Rural Health
Rural Health Worker	RFDS Rural Health
Dietician	RFDS Primary Health
Drug/Alcohol	RFDS Primary Health
Sexual Health	RFDS Primary Health

Facilities

- Healthdirect data
 - From August 2020
- Other sources:
 - AIHW MyHospitals
 - OHST
 - Tasmanian Health Directory
 - TAZREACH
- Medical chests
 - From RFDS SE

All Facility Provisions	
RFDS Dental	Counselling
RFDS Mental Health	General Mental Health Services
RFDS Physical Health	Acute Mental Health Services
RFDS Physiotherapist	Child and Adolescent Mental Health Services
RFDS Exercise Physiologist	Rehabilitation/Continuing Care
RFDS Rural Health	Psychology
RFDS Primary Health	Psychiatry
Medical Chests	Mental Health Advocacy
Hospital Services	Mental Health Information/Referral
Emergency Department	Audiology
General Practice/GP (doctor)	Diabetes Educator
Aboriginal Health	Dietetics
Maternal, Child and Family Health	Exercise Physiology
Nurse-Led Clinic	Occupational Therapy
General Dental	Optometry
OHST Adult	Physiotherapy
OHST Children and Teens	Podiatry
Pharmacy	Speech Pathology/Therapy
Chronic Disease Management	Other Clinics/Hospitals
Drug/Alcohol	

Grouped Service Types

Grouped Service	Provisions
((All RFDS Physical Health))	RFDS Physical Health RFDS Physiotherapist RFDS Exercise Physiologist
((All RFDS Clinics))	RFDS Dental RFDS Mental Health ((All RFDS Physical Health)) RFDS Rural Health RFDS Primary Health
((RFDS & non-RFDS Dental))	RFDS Dental General Dental OHST Adult OHST Children and Teens
((RFDS & non-RFDS Physical Health))	Exercise Physiology Physiotherapy ((All RFDS Physical Health))
((Mental Health))	Counselling General Mental Health Services Acute Mental Health Services Child and Adolescent Mental Health Services Rehabilitation/Continuing Care Psychology Psychiatry Mental Health Advocacy Mental Health Information/Referral
((RFDS & non-RFDS Mental Health))	RFDS Mental Health ((Mental Health))
((Allied Health))	Audiology Diabetes Educator Dietetics Exercise Physiology Occupational Therapy Optometry Physiotherapy Podiatry Speech Pathology/Therapy
((Medical Chests and Pharmacies))	Medical Chests Pharmacy
((All GPs, Hospitals & Medical Chests))	Medical Chests Hospital Services Emergency Department General Practice/GP (doctor)

Frequency

Frequency	Colour
Twice Weekly or More	
Weekly	
Fortnightly	
Monthly	
Second Monthly / 6-8 Weekly	
Quarterly	
Yearly	
No Data	

Nodes and Travel Time Matrix

- Population and facility locations – total of 13,189 nodes
- Node names assigned based on suburbs to allow easy searches – except where facility name is already known
- Travel time matrix with over 150,000,000 links between nodes – island speeds increased as base data was too slow.
- Travel time = 16,384 minutes means not accessible (ie, population point on Flinders Island to facility on mainland Tasmania).

Boundaries

- State/Territory (Region of Interest)
- Federal Electoral Division
- Local Government Area
- Remoteness Area
- Modified Monash Model Classification
- Statistical Area Level 3
- Statistical Area Level 2
- SEIFA Decile (IRSD)

Questions?

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