

PROPOSAL TO ADDRESS FAILURE OF MEDICAL SERVICES

ON NORTHERN EYRE PENINSULA

SOUTH AUSTRALIA

Northern Eyre Peninsula Health Alliance
December 2021

Executive Summary

The Northern Eyre Peninsula (NEP) region is suffering a prolonged health crisis, threatening the well-being of rural Australians and the survival of small towns. The situation has worsened since this report was commissioned, with the ratio of GPs to population less than half of the ratio in the Greater Adelaide region and areas of South Australia outside of the Greater Adelaide Region.

Without intervention, the remaining GPs in the region continue to operate under an unsustainable workload and are at immediate risk of departing the region and further damaging its reputation, making recruitment nearly impossible.

With financial assistance from the Federal Minister for Health, the Northern Eyre Peninsula Health Alliance (NEPHA) Board, through the Eyre and Far North Local Health Network (EFNLHN) has employed a project officer from January 2021 to undertake research on the current health crisis and develop options that can work for the NEP region and be duplicated for other rural and remote areas of Australia.

The NEP's workforce crisis is caused by our region offering inadequate remuneration, stressful working conditions, old and inadequate housing, and inadequate and outdated medical practice infrastructure. With twenty-four recommendations, NEPHA proposes a workable service delivery model, GP remuneration and benefits package; the supporting infrastructure needed; and the investment required to address the shortage of GPs in the NEP Region, with an implementation period of five years.

Recommendation 1: Workable Service Delivery Model

A service delivery model will be developed comprised of six medical practices operating within three notional clusters which are based on geographically proximate groups of towns. Within five years, the NEP will recruit nine full time equivalent (FTE) Vocationally Registered (VR) GPs to achieve a goal of twelve FTE Vocationally Registered GPs providing services in the NEP. Additionally, the NEP will host four non-Vocationally Registered (non-VR) trainee GPs. All GPs in the model will be contracted to participate in an on-call roster for emergency presentations. EFNLHN will employ an additional Rural Generalist to create capacity for rotation to general practices as backfill.

Recommendation 2: GP Remuneration and Benefits Package

To attract GPs to the region, an upfront sign-on bonus of \$50,000 pro-rata will be paid over the first 2 years. Each GP will be offered a minimum income guarantee of \$250,000 per annum pro rata and be entitled to six weeks of paid annual leave, two weeks of paid continuing professional development leave and two weeks of paid unplanned sick leave. All GPs in the model will be offered free accommodation of high quality and a travel allowance of \$5,000 per annum. GPs will be assisted to acquire and maintain procedural and emergency medicine skills by rotation through larger hospitals on the Eyre Peninsula. Local Governments will commit to flexibly responding to the GP's social needs and interests. Local Governments will assist newly arrived GPs to settle into the community. Where possible, Local Governments will assist with finding childcare for the GP's children and assisting the GP's spouse to find meaningful paid work.

Recommendation 3: Supporting Infrastructure Required

Twelve high quality new houses will be built in the Northern Eyre Peninsula so GPs can be offered accommodation of a high standard. Cowell and Elliston Medical Practices will be upgraded.

Recommendation 4: Investment Required for Implementation

NEPHA has worked closely with Local Government and the EFNLHN administration to develop a sustainable solution requiring financial commitment from the Federal Government over a minimum of five years, an ongoing commitment from the EFNLHN for administrative and medical practice support and a financial commitment and project management support from Local Government.

The respective contributions are as follows:

<i>Local Government</i>	<i>\$2.2 Million over 5 years</i>
<i>EFNLHN</i>	<i>\$1.8 Million over 5 years</i>
<i>Commonwealth</i>	<i>\$10.33 Million over 5 years</i>

The implementation of the recommendations requires continual collaboration to ensure appropriate and timely monitoring and evaluation by all three levels of government and NEPHA.

Our communities are at breaking point and need the Federal Government to demonstrate that rural and remote communities are valued. The funding for this report has perhaps provided the last opportunity to turn around the rural health crisis before the reputation of the NEP region as a place to live, work and retire is irretrievably destroyed. The NEPHA Board commends this report to the Federal Government as an opportunity to demonstrate that health systems in rural and remote Australia can be repaired.

Recommendations

Recommendation 1: Implement a Workable Service Delivery Model

- 1.1 Northern Eyre Peninsula medical practices be supported to collect quality medical practice data on the health and service needs of their population and utilisation of services to better inform GP requirements in the future.*
- 1.2 Within 5 years, the NEP recruit 9 FTE Vocationally Registered GPs to achieve a goal of 12 FTE Vocationally Registered GPs providing services in the NEP.*
- 1.3 Within 5 years, the NEP host 4 non-Vocationally Registered trainee GPs.*
- 1.4 A service delivery model be developed comprised of six medical practices operating within three clusters which are based on geographically proximate groups of towns.*
- 1.5 Every town within each cluster will offer new high quality accommodation.*
- 1.6 GPs have no human resources or corporate responsibility as the practices will be managed by an owner organisation, making the model flexible and dynamic, allowing GPs to fluidly enter and exit the model while maintaining workforce supply.*
- 1.7 All GPs in the model be contracted to participate in an on-call roster for emergency presentations.*
- 1.8 EFNLHN to employ an additional Rural Generalist to create capacity for rotation to general practices.*

Recommendation 2: Offer an Attractive Remuneration and Benefits Package

- 2.1 Each GP be offered a minimum income guarantee of \$250,000 per annum pro rata.*
- 2.2 Each GP in the proposed model be entitled to six weeks of paid annual leave.*
- 2.3 Each GP in the proposed model be entitled to two weeks of unplanned sick leave.*
- 2.4 Each GP in the proposed model be entitled to two weeks of paid professional development leave.*
- 2.5 GPs with procedural skills be encouraged and supported to access the Commonwealth Rural Procedural Grants Program.*
- 2.6 GPs be assisted to acquire and maintain procedural and emergency medicine skills by rotation through larger hospitals on the Eyre Peninsula.*
- 2.7 All GPs in the model be offered a travel allowance of \$5,000 per annum.*
- 2.8 All GPs in the model be offered free accommodation of high quality.*
- 2.9 To attract GPs to the region, an upfront sign-on bonus of \$50,000 pro-rata be paid over the first 2 years.*
- 2.10 Local Governments to assist newly arrived GPs to settle into the community. Where possible, Local Governments to assist with finding childcare for the GP's children and assisting the GP's spouse to find meaningful paid work.*

- 2.11** *Local Governments commit to flexibly responding to the GP's social needs and interests.*
- 2.12** *In addition to the remuneration and benefits package, the available geographic incentives be advertised to potential recruits.*

Recommendation 3: Build and Upgrade Supporting Infrastructure

- 3.1** *Cowell and Elliston Medical Practices be upgraded.*
- 3.2** *Twelve high quality new houses be built in the Northern Eyre Peninsula so GPs can be offered accommodation of a high standard.*

Recommendation 4: Implementation to take 5 years and involve comprehensive monitoring and evaluation. Cost of implementation to be contributed to by Local Government, Eyre & Far North Local Health Network and the Commonwealth Government.

4.1 *Contributions over 5 years as follows:*

<i>Local Government</i>	<i>\$2.2 Million over 5 years</i>
<i>EFNLHN</i>	<i>\$1.8 Million over 5 years</i>
<i>Commonwealth</i>	<i>\$10.33 Million over 5 years</i>

Contents

Executive Summary	2
Recommendations	4
Introduction	8
Background	10
The Issue	10
Impact on Health Outcomes	12
A New Model	14
The Project	15
Needs Assessment Report Findings	18
Determining Demand for GP Services	21
The Current GP Workforce on Northern Eyre Peninsula	22
GP Workforce Required on Northern Eyre Peninsula	22
Proposal	23
The Vision	23
Steps to Achieve the Vision	24
Recommendation 1: New Service Delivery Model	24
Diagram	26
Recommendation 2: Attractive Remuneration and Benefits Package	28
Recommendation 3: Build Supporting Infrastructure	34
Summary of Contributions by Commonwealth, State and Local Governments	37
Recommendation 4: Implementation, Monitoring and Evaluation	39
Conclusion	40
References	41
Appendices	45
Appendix A: Potentially Preventable Hospitalisations and Potentially Preventable Deaths	45
Appendix B: GP Workforce Required on the NEP	47
Appendix C: Estimated GP Baseline Remuneration	51
Appendix D: Previous NEP Local Government Efforts Contributions	52
District Council of Kimba	52
District Council of Streaky Bay	52
Wudinna District Council	52
District Council of Cleve, District Council of Franklin Harbour, and District Council of Elliston ...	52
Appendix E: Implementation Goals	53
Attachments	54

Attachment A - NEPHA Constitution.....	54
Attachment B – Needs Assessment Report	54
Table of Acronyms	55
List of Tables	56
List of Figures	57

Introduction

The Northern Eyre Peninsula (NEP) has a critical shortage of medical services. Some towns have no General Practitioners (GPs) resident in their communities and are forced to rely on locums for primary medical care and hospital services. Other towns have medical services which are difficult to sustain and are at risk of failure.

The Eyre and Far North Local Health Network (EFNLHN) is South Australia's most remote region. Small towns are separated by considerable distances. There is no easy access to tertiary referral centres. GPs in the NEP region service more people and cover a greater geographic area than GPs in metropolitan areas in Australia. Currently, the Northern Eyre Peninsula has GP coverage of 3.6 full time equivalent (FTE) resident GPs for an estimated resident population of 8,662, an area of 31,511km². The service provided by these 3.6 FTE GPs includes afterhours on-call for six hospitals. This is a rate of 1 FTE GP per 2,406 people and 1 GP covering 8,753.3km². In 2022, this rate will drop to 1 GP per 3,094 people and 1 GP covering 11,254km² as another GP departs the Northern Eyre Peninsula. The rates show the NEP has less than half the GP coverage of Greater Adelaide, which has 1 GP per 902 people and 1 GP covering 2.2km².

For the whole of SA outside of Greater Adelaide there is 1 GP per 1,079 people, with 1 GP covering 2709km² (Public Health Information Development Unit, 2021). Further, GPs in the NEP region take on the additional obligations of servicing the hospitals which metropolitan GPs do not.

To address the demand for GP services the region employs locums. Engagement of locums can be unreliable, there is no continuity of care, and this approach is unsustainable. The 4 resident GPs working in the Northern Eyre Peninsula are dissatisfied and burnt out. There is concern that if the shortage of resident GPs is not addressed promptly, the last of the existing resident GPs will leave and it will not be possible to replace them. During the development of this report the GP in Wudinna (0.8FTE) has announced his intention to leave on 31 December 2021 leaving only 3 resident GPs in Northern Eyre Peninsula. There is no replacement for this doctor.

The Northern Eyre Peninsula Health Alliance (NEPHA) is a cross-jurisdictional alliance formed in 2019, comprised of representatives from Eyre and Far North Local Health Network (EFNLHN), the District Council (DC) of Kimba, the DC of Franklin Harbour, the DC of Cleve, the DC of Elliston and a representative of the Streaky Bay and Districts Medical Clinic. NEPHA seeks solutions to the critical shortage of medical and health professional services on the Northern Eyre Peninsula. There is shared frustration amongst NEPHA members and other regional stakeholders about the ongoing challenge of providing communities with local health services. The current situation is compromising the health of communities and putting lives at risk.

Local and State Government have contributed considerable time and resources in attempts to attract GPs to the Northern Eyre Peninsula region. This includes community members taking over the ownership, operation and funding of General Practices in the region and engaging in extensive advocacy. EFNLHN has integrated several primary health care services to maximize economies of scale. Despite these efforts, the Northern Eyre Peninsula has seen no progress towards the creation of a long-term and sustainable GP workforce.

In 2019, The Honourable Greg Hunt MP met with the Northern Eyre Peninsula Health Alliance (NEPHA). Following this meeting, NEPHA was granted \$300,000 to undertake a project with the objective to improve service delivery models for General Practice services in the Northern Eyre Peninsula that promote workforce retention and recruitment of health professionals to the region ('the NEPHA Project').

Access to Medical Services on the Northern Eyre Peninsula is at crisis point. The NEPHA Project is an opportunity to address this crisis. This paper, a result of a cross-jurisdictional region-wide collaboration, presents an approach to this problem.

It proposes a workable service delivery model, remuneration and benefits package, the supporting infrastructure needed, and the investment required, to address the shortage of GPs in the NEP region.

Background

The Issue

The issue of health workforce shortages, and the loss of access to primary health care in the Northern Eyre Peninsula, is similar to that of many rural and remote regions across Australia and the world.

The Northern Eyre Peninsula catchment, consisting of The District Council (DC) of Elliston, The DC of Streaky Bay, The DC of Franklin Harbour, The DC of Cleve, The DC of Kimba, and Wudinna DC, (refer to Figure 1) has a relatively small population of 8,662, spread across six towns and covering an area of 31,512km². The six NEP towns each have one medical practice and one grant-funded hospital servicing populations of between 1,011 (DC of Elliston) and 2,204 (DC of Streaky Bay) (Australian Bureau of Statistics, 2021). The six towns are separated from one another by distances of between 70km and 165km (Google, 2021).¹

Given each NEP town has a population of between approximately 1,000 and 2,000, there is enough consulting and hospital work for between one and three full time GPs to service each town.² Historically, each NEP town was serviced by one private GP. Sole Practitioners who lived and consulted in the community for decades and provided twenty-four-hour emergency services to the local hospital. As these GPs have retired or resigned and closed their businesses, they have been unable to be replaced, leaving towns and hospitals with no local medical service. The lived experience of NEP communities and the literature on factors influencing recruitment and retention of primary care doctors to rural and remote Australia, shows that the 'sole practitioner' model will not attract or retain GPs in current times. The literature identifies that much of traditional rural practice as described above is characterised by long hours of work, high workloads, low on-call ratios (1:1 in many cases), lack of support from other medical practitioners and lack of access to locum relief, which tends to lead to burnout and poor work-life balance (Humphreys, et al., 2001) (McGrail, et al., 2017); (McIsaac, et al., 2019); (Holloway, et al., 2020). Individual discussion has demonstrated this is also the case for the few GPs still working on the NEP. This is a major barrier to recruitment and retention (Holloway, et al., 2020). Studies have found that even financial incentives to work in rural and remote areas are not effective unless GPs are offered work-life balance, collegial support, and reliable access to locum relief (McGrail, et al., 2017).

The challenge for the NEP is to find an alternative model that avoids burnout of its staff, offers professional support and fosters collegiality and training; thereby being an attractive model within which doctors will work and create a more sustainable GP workforce. Given the remoteness of NEP towns, the low population density of the region and the difficulties this creates in the provision of primary medical services, there is a further challenge to ensure a financially sustainable model.

¹ See Attachment A: Needs Assessment Report for a detailed description of the NEP geography and health service coverage.

² See Appendix A for the GP workforce required to service the Northern Eyre Peninsula.

Through a systematic review of published literature on models of primary health care, Wakerman et al (2008) identified which Australian rural and remote primary health care models are sustainable, where they are, and why. Typologies of sustainable models were defined into five groupings, based on the level of remoteness and population density of their geographical location. The authors reported that successful models providing primary health care to communities smaller than 2,000 inhabitants are required to 'capture the necessary population aggregation required to support minimum service threshold requirements and thereby ensure adequate access to care' (Wakerman, et al., 2008). With increasing remoteness and decreasing population density, there is a higher need to integrate primary health care services to maximise economies of scale. An effective model must be flexible enough to integrate with other primary health care services for this purpose. With increasing remoteness, there is also a higher dependence on environmental enablers being in place to support the model. The environmental enablers are 'Community readiness', 'supportive policy' and 'Commonwealth/State relations'.

The existence of NEPHA, a cross-jurisdictional regional alliance, and the community consultation findings in the Needs Assessment Report (Attachment B) both demonstrate a strong readiness and commitment from the NEP Community to find and implement solutions to the GP workforce shortage.

The existence of South Australia's Rural Health Workforce Strategy (SA Health, 2021) and the Australian Government Department of Health's Stronger Rural Health Strategy (Australian Government Department of Health, 2021) indicate a conducive policy environment and corresponding initiatives to support a new model in the NEP region. This paper will discuss how such State and Federal initiatives and what Commonwealth/State relations could support NEPHA's proposed model.

Wakerman et al (2008) also identified five 'Essential Service Requirements' which 'lessen the threat to service sustainability' of primary health care models. These are adequate funding, linkages between organisations, adequate infrastructure, and an active focus on workforce recruitment and retention. Activities to improve workforce recruitment include 'conveying a sense of excitement about the model, participation in an innovative development, and professional challenges and opportunities' (Wakerman, et al., 2009). Activities to improve workforce retention includes investment in staff such as 'funding of professional development activities; housing and child care allowance; fares for periodic visits to place of initial recruitment; mentoring; career planning and pathways for advancement; flexibility of employment with respect to location and staff rotation; and flexibility to accommodate recreational and professional development needs (Wakerman, et al., 2009). This paper discusses the funding, linkages, infrastructure and investment in staff required for NEPHA's proposed model to be sustainable.

There are also factors outside of the business model which are influential in creating and maintaining a sustainable GP workforce in country areas. The probability of a doctor relocating to and remaining in a geographical area is largely influenced by human preference which can vary between individuals based on personality, background, and life factors. However, both the literature and the lived experience of the NEP demonstrate that there are some common key factors facilitating the attraction and retention of rural and remote doctors.

Family-unit needs, such as occupational opportunities for the GP's spouse, and suitable education options for the GP's children, are drivers of deciding whether to work as a rural doctor (Humphreys, et al., 2001) (Holloway, et al., 2020). Another major incentive to work and remain in rural practice is the opportunity to "build professional support networks", and access local training opportunities, including opportunities to undertake procedural work and upskilling (Humphreys, et al., 2001); (Holloway, et al., 2020). One study found that support programs for rural doctors targeting their psychological and physical wellbeing played a significant role in retention (Gardiner, et al., 2006). An Australian Government report states that the availability and cost of housing can make attracting and retaining health workforce more difficult (Standing Council on Health, 2012).

Mclsaac et al (2019) and McGrail et al (2017) found that younger GPs who are employees or contractors as opposed to practice principals are generally more mobile and therefore more likely to relocate from metropolitan to rural and remote areas. McGrail et al (2017) further found that working in a location for less than three years and being an overseas-trained doctor were also associated with higher GP mobility. These findings may inform targeted recruitment strategies.

It is established that rural experience during medical education makes GPs more likely to practise in rural areas and contributes to a 'pipeline' effect to build the rural medical workforce (Ogden, et al., 2020). A Medical Specialty Decision Making Study, undertaken by GPEx and the University of Adelaide, indicates that "rural exposure is important [for medical students] in deciding to choose a career in rural General Practice" (Laurence, et al., 2020, p. 51). Further, a Graduate Tracking Study demonstrates that experience of rural General Practice, at the vocational training level, positively influences the likelihood of graduates choosing to work in rural General Practice (Laurence, et al., 2020, p. 32). Although there is opportunity for the Northern Eyre Peninsula to host medical students and GP Registrars, the limited number of GPs in the NEP region and the lack of maturity in the development of some NEP medical practices precludes the ability to host these trainees at the present time.

Impact on Health Outcomes

Without enough GPs in the Northern Eyre Peninsula, there will be significant impact on the health outcomes of the population of this region.

Between 18 and 24.3 percent of the Northern Eyre Peninsula's population is aged over 65 years, which is significantly higher than Australia's 16 percent (Public Health Information Development Unit, 2021).

The Northern Eyre Peninsula is situated within Eyre and Far North Local Health Network (EFNLHN). The top five chronic diseases reported by residents in the EFNLHN in 2019-20 were arthritis (34.7%), cardiovascular disease (11.4%), asthma (11.2%), diabetes (8.4%), and osteoporosis (7.0%) (SA Health, 2021). In 2019-20, 33.3% of EFNLHN residents reported having a current mental health condition, 17.8% reported experiencing psychological distress, and 9.6% reported suicidal ideation (SA Health, 2021).

In 2019-20, the risk factor prevalence reported amongst EFNLHN residents were 27.2% with high blood pressure, 19% with high cholesterol, 12.6% current smokers, 33.2% at short term risk of alcohol related injury, 23% at long term risk of alcohol related injury, 39.2% with an overweight body mass index, and 32.8% with an obese body mass index (SA Health, 2021).

In the 2019 financial year, 18.8% of Australians felt they waited longer than acceptable to get an appointment with a GP and this rate fell by 0.2% in 2020 (AIHW, 2021). In the 2019 financial year, 24.2% of residents in the Country SA Primary Health Network (CSAPHN) felt they waited longer than acceptable to get an appointment with a GP and this rate increased by 0.2% in 2020 (AIHW, 2021).

Potentially Preventable Hospitalisations (PPH) measure access to ‘timely, effective, and appropriate’ primary health care (AIHW, 2021). Every NEP Local Government Area (LGA) has a proportionally higher rate of potentially preventable hospitalisations for all conditions than the national rate. The DC of Cleve, DC of Elliston, DC of Kimba and DC of Wudinna are between 22% and 30% higher than the national rate. The DC of Franklin Harbour is 1% higher than the national rate and the DC of Streaky Bay is 65% higher than the national rate. In the 2018 financial year, 305 people on the NEP were hospitalised due to potentially preventable conditions and 147 of these were related to chronic conditions which could have been managed earlier by a GP. See Appendix A for data tables.

Potentially Avoidable deaths are “Deaths from conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care” (AIHW, 2020). Between 2015 and 2019, Population Health Areas of the Northern Eyre Peninsula had a higher rate of avoidable deaths from cancer, circulatory system diseases, suicide and self-inflicted injuries, and other external causes of mortality including transport accidents, accidental drowning and submersion than the national age standardised rate of mortality to population (See Appendix A) (Public Health Information Development Unit, 2021).

It is well established that access to quality primary health care “...is the most inclusive, equitable, cost-effective and efficient approach to enhance people’s physical and mental health” (World Health Organization, 2021) and can prevent unnecessary hospitalisations. General practitioners are the “cornerstone” of effective primary health care (Australian Medical Association, 2020). Currently access to primary care is hindered by GP workforce shortages. Waiting times to see a GP are increasing in South Australian country areas and rates of preventable hospitalisations in the NEP are well above national levels. The GP crisis is decreasing access to primary health care for the NEP population and compromising the region’s health. A continued decrease in GP workforce will exacerbate these effects and potentially place further burden on the more costly secondary and tertiary health care systems if a solution is not developed.

A New Model

In the Australian context, over the last 20 years, Federal and State Government policy has attempted to redistribute the health workforce to rural and remote areas. A recent and very welcome initiative announced by the Commonwealth is the incentive for medical graduates and nurse practitioners to work in rural and remote areas by waiving Higher Education Loan Program debts at varying rates. For a succinct discussion of Federal strategies, see Walters et al (2017). Walters et al (2017) argues for “research that more strongly focuses on solutions that improve conditions for satisfactory and sustained rural and remote employment, including research about workable practice models.” This paper proposes a new model for the Northern Eyre Peninsula and the requirements for its success. It is intended the discussions in this paper will influence targeted policy interventions for the Northern Eyre Peninsula to address its critical shortage of medical practitioners.

The Project

The Project, commencing September 2020 and concluding in June 2022, is overseen by the NEPHA Board.

In 2020, NEPHA adopted a Constitution and appointed an independent chairperson. See Attachment A for NEPHA's Constitution. An independent chairperson was considered by the Alliance as important to ensure objectivity across all the communities covered by the Alliance. In 2021, NEPHA was incorporated and engaged a project officer employed by EFNLHN to undertake the project work. NEPHA meets on a monthly basis to discuss the Project and provide oversight of the project activity.

The geographic catchment for the purpose of the project ('the NEP region') consists of the following LGAs:

- The District Council (DC) of Elliston
- The District Council of Streaky Bay
- The District Council of Franklin Harbour
- The District Council of Cleve
- The District Council of Kimba
- Wudinna District Council

The following map shows the Eyre Peninsula divided into Local Government Areas (South Australian Country Fire Service, 2021) overlaid by an outline of the Northern Eyre Peninsula catchment.

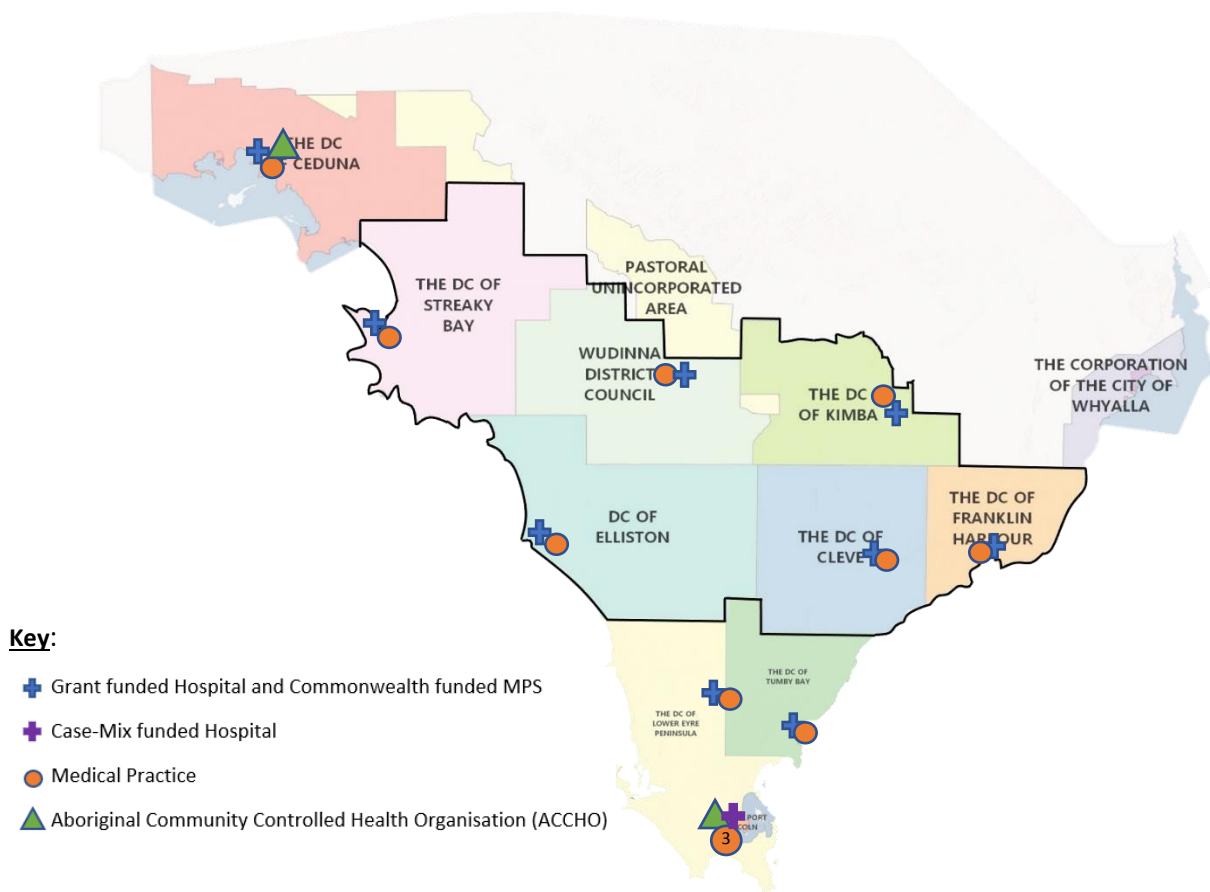
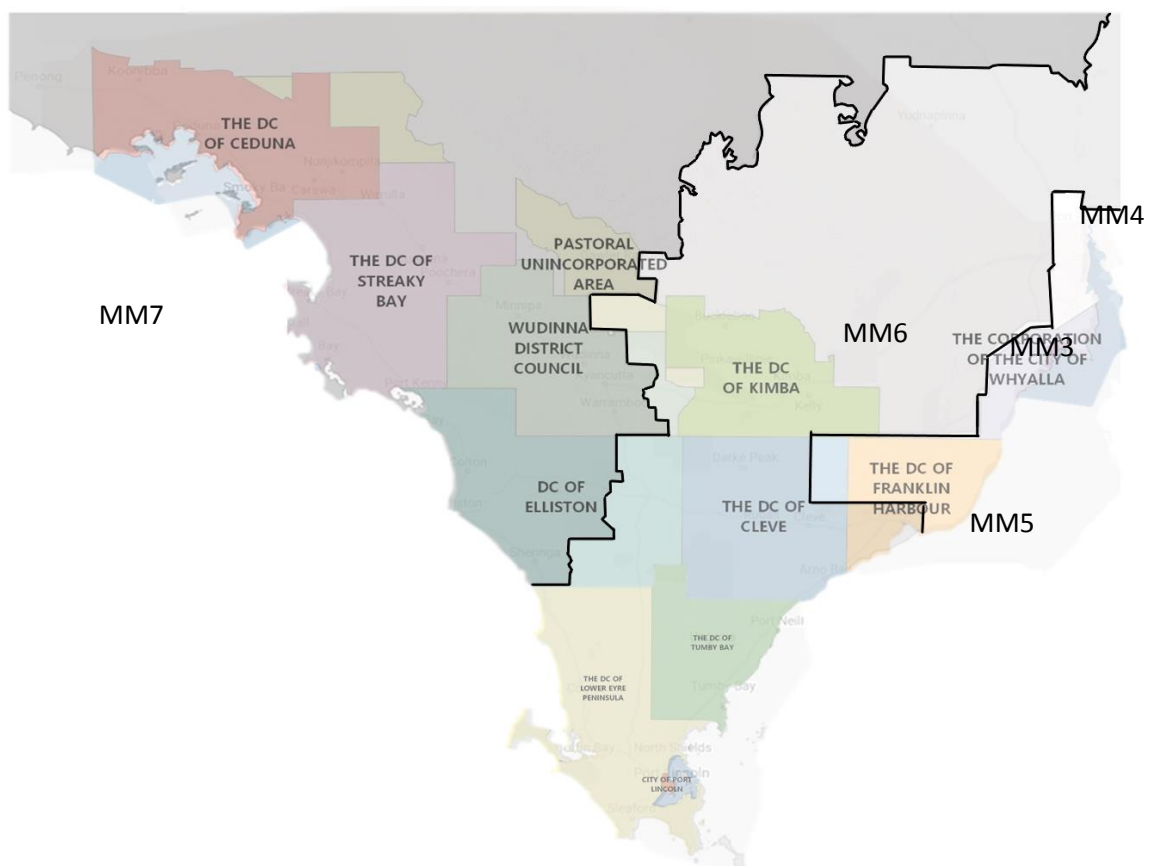


Figure 1: Map of the Eyre Peninsula divided into Local Government Areas overlaid by an outline of the Northern Eyre Peninsula catchment.

The map below shows the Eyre Peninsula divided into Local Government areas (South Australian Country Fire Service, 2021), overlaid by the Remoteness Category of each Eyre Peninsula town according to the Modified Monash Model Classifications (Australian Government Department of Health, 2021).

Cleve, Cowell, Kimba, Port Lincoln, Tumby Bay and Cummins are classified as MM6: Remote Communities, while Ceduna, Streaky Bay, Elliston and Wudinna are classified as MM7: Very Remote Communities (Australian Government Department of Health, 2021). The Whyalla City Council is classified as MM3: Large Rural Towns and Port Augusta City Council is classified as MM4: Medium Rural Towns.

Figure 2: Map of Eyre Peninsula divided into Local Government Areas overlaid by a Map of the Eyre Peninsula divided into Remoteness Categories



Needs Assessment Report Findings

In 2021, NEPHA's Project Officer undertook consultations with a wide range of people such as GPs, Medical Practice staff, Nursing, Local Government, Dentists, Universities, and other relevant stakeholders across the Northern Eyre Peninsula Region to identify the Northern Eyre Peninsula's needs in relation to the recruitment and retention of GPs on the Northern Eyre Peninsula. The Needs Assessment Report (Attachment B) articulates these needs.

Summary of findings

- Increase number of GPs across Northern Eyre Peninsula
- Review structure of current model of medical service delivery
- Review on-call arrangements
- Doctor remuneration insufficient given the responsibility undertaken by GPs
- Lack of collegial and professional support for doctors
- Infrastructure difficulty in obtaining tertiary support
- Professional isolation
- Lack of suitable accommodation
- Access to childcare services
- Access to paid employment for partner.

Consultation confirmed that the most critical need was to increase the number of GPs on the Northern Eyre Peninsula. This is the fundamental purpose of the NEPHA Project. The rate of GPs to population in the NEP is disproportionately lower than that of Greater Adelaide and the rest of South Australia at 1 FTE GP per 2,406 people. Consultation identified that sole practitioners who have lived and worked in the NEP region long term are retiring and are not being replaced by the next generation of GPs. The lack of GPs places pressure on health professionals and support staff in the health system and the backlog of medical work limits access to primary healthcare for the NEP population, resulting in poorer health outcomes.

The remaining needs identified relate to conditions, structures and resources needed to best assist in the recruitment and retention of GPs to the Northern Eyre Peninsula.

The Needs Assessment Report identified several barriers in relation to the recruitment and retention of GPs in the Northern Eyre Peninsula. Most barriers related to the structure of the service model, such as the structure of the afterhours on-call system, doctor remuneration and working conditions, the lack of collegial support for doctors, building the capacity of medical practices to undertake workforce planning and become teaching and training practices.

The current afterhours on-call models on NEP do not allow GPs to have an adequate work-life balance and lead to burn out. For NEP towns with a solo GP, there is an obligation to be on-call for twenty-four hours per day and seven days per week, unless there is locum support which is expensive and unsustainable for anything other than the short term. This obligation is no longer attractive for a new generation of GPs. In other NEP towns, there are multiple doctors contributing to an afterhours on-call roster. Due to the limited number of doctors in the system, they are on remote call for four hospitals at one time. The NEP towns are considerable driving distance apart which makes the current

remote on-call arrangements unsustainable. The after-hours on call system needs to be restructured to allow for a better work and life balance for GPs.

There is a perception amongst doctors that the responsibility and workload of a NEP GP is not currently commensurate with their remuneration and benefits package and that locum work is more competitive in the employment market than rural GP practice. NEP communities do not want to compete over packages offered to doctors. Thus, an attractive remuneration and benefits package, to be used consistently by medical practices across the NEP, needs to be developed.

For many GPs on the NEP, especially solo practitioners, there is a lack of collegial and professional support. Further, there is little collaboration and collegiality between the General Practices. Finally, the vast physical distance and poor internet connection limits access to tertiary support and contributes to professional isolation. Participants consulted believed these factors are barriers to recruiting and retaining GPs on the NEP. The design of the new service delivery model needs to foster collegiality amongst the GPs working within it and incorporate systems that allow GPs to access professional support.

It was identified that GPs who have lived and worked in the NEP region long term are retiring or resigning and are not being replaced by the new generation. GPs who train in rural locations are known to be more likely to work in rural locations, however, consultation participants reported that the limited number of GPs in the NEP region and the lack of maturity in the development of some NEP medical practices limits the ability to host GP Trainees in the NEP region.

To support a pipeline of trainee doctors, the NEP medical practices must also be developed into excellent teaching and training practices. There are several State and Federal initiatives to build the rural GP trainee workforce. These include the Rural Clinical Schools such as Flinders University Rural and Remote Health SA whose region covers South Australia's Riverland and South East, University of Adelaide Rural Clinical School whose region includes NEP, the Rural Doctor's Workforce Agency's (RDWA) Road to Rural Intern Program, More Doctors for Rural Australia Program, the Rural Generalist Program SA and the Remote Vocational Training Scheme (RVTS), which all fund junior doctors at various levels to complete training in rural and remote areas. The capacity of NEP medical practices to provide the required supervision should be developed to enable them to host participants of these programs and provide high quality training within a supportive practice culture. Creating positive experiences for trainee doctors will build a positive reputation for the NEP and foster a continuous flow of trainees through the region. An attractive employment package, great working conditions, and a collective effort by all stakeholders to support these trainees to live in the region is likely to influence them to work in the NEP for an extended period.

Barriers to recruitment and retention of GPs outside of the service model were also identified in NEPHA's Needs Assessment. There is a shortage of suitable accommodation to house GPs in the Northern Eyre Peninsula communities. Existing accommodation for GPs is deteriorating, and the rental market in many towns is scarce, leaving few attractive places for a doctor to live.

The lack of childcare services in most Northern Eyre Peninsula communities is also a major barrier for doctors with children, as GPs with a working partner have no one to care for small children during work hours.

Northern Eyre Peninsula communities need support to improve the liveability of their towns by building suitable and attractive accommodation to house GPs and support to provide childcare services for GPs who are parents. The addressing of these fundamental liveability barriers will support the new service delivery model.

Determining Demand for GP Services

There is no nationally standardised workforce benchmark for the required number of GPs to supply the rural and remote primary health care sector, however attempts have been made at developing such benchmarks and different approaches have various advantages and limitations (Rural Health West, 2014). The Rural Doctors Association of Australia and Monash University recommend a ratio of one full-time GP per 750 Standardised Whole Patient Equivalent (SWPE) for communities like those in the NEP (Rural Health West, 2014); (Rural Doctors Association of Australia, 2003). In 2000, the General Practice Working Party (GPWP) identified an ideal workforce supply ratio of 110.4 GPs per 100,000 population or approximately 1 GP per 906 people (Rural Health West, 2014). Another possible practitioner to population ratio-based benchmark, for the rural and remote primary health care sector is to match the practitioner to population ratio in Greater Adelaide, which is 110.9 FTE GPs to 100,000 population, or approximately 1 GP per 902 people (Public Health Information Development Unit, 2021).

Although a practitioner to population ratio-based benchmark has limitations, (see Rural Health West (2014) for further discussion), it is currently the most appropriate benchmark to use for the design of a region-wide model for the Northern Eyre Peninsula due to the lack of quality data available to formulate a benchmark based on service utilisation, of the NEP medical practices or the health needs of the NEP community.

Upon the establishment and implementation of this model and the recruitment of GPs, Northern Eyre Peninsula medical practices should be supported to collect quality medical practice data on the health and service needs of their population and the utilisation of services, to better inform GP requirements in the future. They could then be supported to use this data to determine more appropriate workforce benchmarks for the required number of GPs to service their practices. The Country SA Primary Health Network or Rural Doctors Workforce Agency would be in the best position to offer support to practices to determine these benchmarks and conduct workforce planning.

For the purposes of the model in this discussion paper, the General Practice Working Party's workforce supply benchmark of 110.4 GPs per 100,000 population, or 1 GP per 906 people, will be used.

The Current GP Workforce on Northern Eyre Peninsula

Currently, the Northern Eyre Peninsula has a rate of 1 FTE GP per 2,406 people. In 2022, this rate will drop to 1 GP per 3,094 people as another GP departs the region. These rates are under half of the GPWP benchmark of 1 GP per 906 people.

GP Workforce Required on Northern Eyre Peninsula

Based on the GPWP's workforce supply benchmark of 1 GP per 906 people with additional consideration of leave allowances and time for teaching and training, the NEP will require 11.7 FTE GPs in total, consulting in NEP medical practices and participating in an on-call roster to provide 24 hour services to NEP hospitals (See Appendix B for analysis). To achieve this FTE value, the NEP requires 8.9 FTE GPs to be recruited to the NEP region. NEPHA recommends the NEP aim to achieve 12 GPs in the region by recruiting an additional 9 GPs over a period of five years. Table 1 breaks these requirements down by Local Government Area (LGA).

LGA	Actual General Practice FTE (1 January 2022)	General Practice FTE Required (GPWP Benchmark)	General Practice FTE Required Incorporating Leave Allowances	Extra FTE Required for Teaching and Training	Estimated Total General Practice FTE Required	General Practice FTE to be recruited
Streaky Bay (DC)	1.0	2.4	2.8	0.1 (One Registrar at Streaky Bay)	2.9	1.9
Elliston (DC)	0.8	1.1	1.3		1.3	0.5
Wudinna (DC)	0	1.4	1.7	0.1 (One Registrar at Wudinna)	1.8	1.8
Kimba (DC)	0	1.2	1.4	0.5 (2 Registrars across Cleve, Cowell and Kimba)	5.7 (across Cleve, Cowell and Kimba) Proposed Goal: 6	4.7 (across Cleve, Cowell and Kimba) Proposed Goal: 5
Cleve (DC)	1.0	2.0	2.4			
Franklin Harbour (DC)	0	1.4	1.7			
Total	2.8	9.5	11.3		11.7	8.9
				Proposed Goal	12	9

Proposal

Proposal on how to ensure sustained GP services in the Northern Eyre Peninsula and support recruitment and retention of GPs to the NEP region.

The Vision

To improve hospital and primary medical service provision to the NEP Region, in the next five years the NEP aims to achieve a total of 12 FTE GPs consulting in NEP medical practices and participating in an on-call roster to provide 24-hour services for medical emergencies (See Appendix B).

Within five years, 12 FTE Vocationally Registered (VR) GPs will be providing services in NEP. Additionally, the region will host 4 Non-Vocationally Registered (Non-VR) General Practice positions through either the More Doctors for Rural Australia Program, the Rural Generalist Program SA or the Remote Vocational Training Scheme (RVTS) or Australian General Practice Training Program (AGPT) to create a pipeline of trainee doctors.

The NEP's medical services will be comprised of six high quality medical practices and six hospitals, grouped into three clusters. GPs will be remunerated well for hospital and on-call work in accordance with South Australia's Fee-For-Service Agreement, have reasonable consulting and on-call workloads and receive paid time off. They will work in collegial groups, being able to seek support from one another across the NEP. They will be supported to access professional upskilling on the Eyre Peninsula and have paid time off to undertake professional development. GPs will live in high quality and comfortable housing in supportive communities. GPs and their families will be satisfied with their work life and community life and will remain on the NEP for multiple years. If they decide to leave, they will be easily replaced by new VR GP recruits who want to work in the region.

Non-VR doctors will train within each cluster, supervised by a VR GP in the cluster who has enough time to dedicate to providing high quality training and support to the Non-VR doctor(s). Non-VR doctors will have positive experiences training on the NEP and they will be likely to return to the NEP as a VR doctor or share their experiences and promote training and working on the NEP to other doctors.

Having enough GPs distributed across the region will increase access to primary healthcare and emergency care for the NEP Population. NEP residents will have shorter waiting times to see their GP in their closest town and chronic disease in the NEP region will be identified early and managed appropriately. The NEP population will have certainty of access to an on-call GP who is able to physically attend their local hospital where necessary. With increased numbers of GPs in the NEP, hospital nurses will have better access to support from GPs in treating hospital inpatients and Aged Care residents. This will in turn decrease the professional and personal burden on nursing staff in the region and likely make the NEP a more attractive place to work as a nurse. Overall health outcomes will improve, reducing the burden on all health professionals in the region and lessening the need for tertiary hospital transfers.

Steps to Achieve the Vision

In order to attract an additional 9 FTE GPs to the NEP and retain the new and existing GPs, the following steps must be simultaneously undertaken:

Recommendation 1: Implement a new service delivery model

Recommendation 2: Offer an attractive remuneration and benefits package

Recommendation 3: Build supporting infrastructure

Recommendation 1: New Service Delivery Model

To sustain the GP workforce, a new service delivery model is required.

It is recommended that within five years, 12 FTE VR GPs will be working across the NEP. Assuming existing NEP GPs remain in the region, an additional 9 GPs will be engaged over an implementation period of five years to reach 12 FTE GPs.

To support a pipeline for the future workforce it is essential that medical practices in the NEP region become teaching and training practices. In addition to the 12 FTE VR GPs, the region will host 4 Non-VR General Practice positions through either the More Doctors for Rural Australia Program, the Rural Generalist Program SA, the Remote Vocational Training Scheme (RVTS), or the Australian General Practice Training Program, to create a pipeline of trainee doctors.

Configuration of Medical Practices

This proposal recommends the development of a service delivery model comprised of six medical practices operating within three clusters which are based on geographically proximate groups of towns. Cluster One includes Streaky Bay and will engage three GPs and one registrar. Cluster Two includes Wudinna and Elliston and will engage three GPs and one registrar. Cluster Three includes Cleve, Kimba and Cowell, and will engage six GPs and two registrars.

In 2022, Eyre and Far North Local Health Network will introduce a salaried Rural Generalist model at Port Lincoln Hospital, which includes the creation of 10 Senior Salaried Medical Officer positions to staff the Emergency Department and provide services to inpatients. These Rural Generalists will have a right of private practice, being able to earn Medicare when consulting in each Cluster and will be used to backfill positions when GP's take leave. To allow this occur it is recommended EFNLHN employs an additional Rural Generalist. This position would be funded by the Commonwealth.

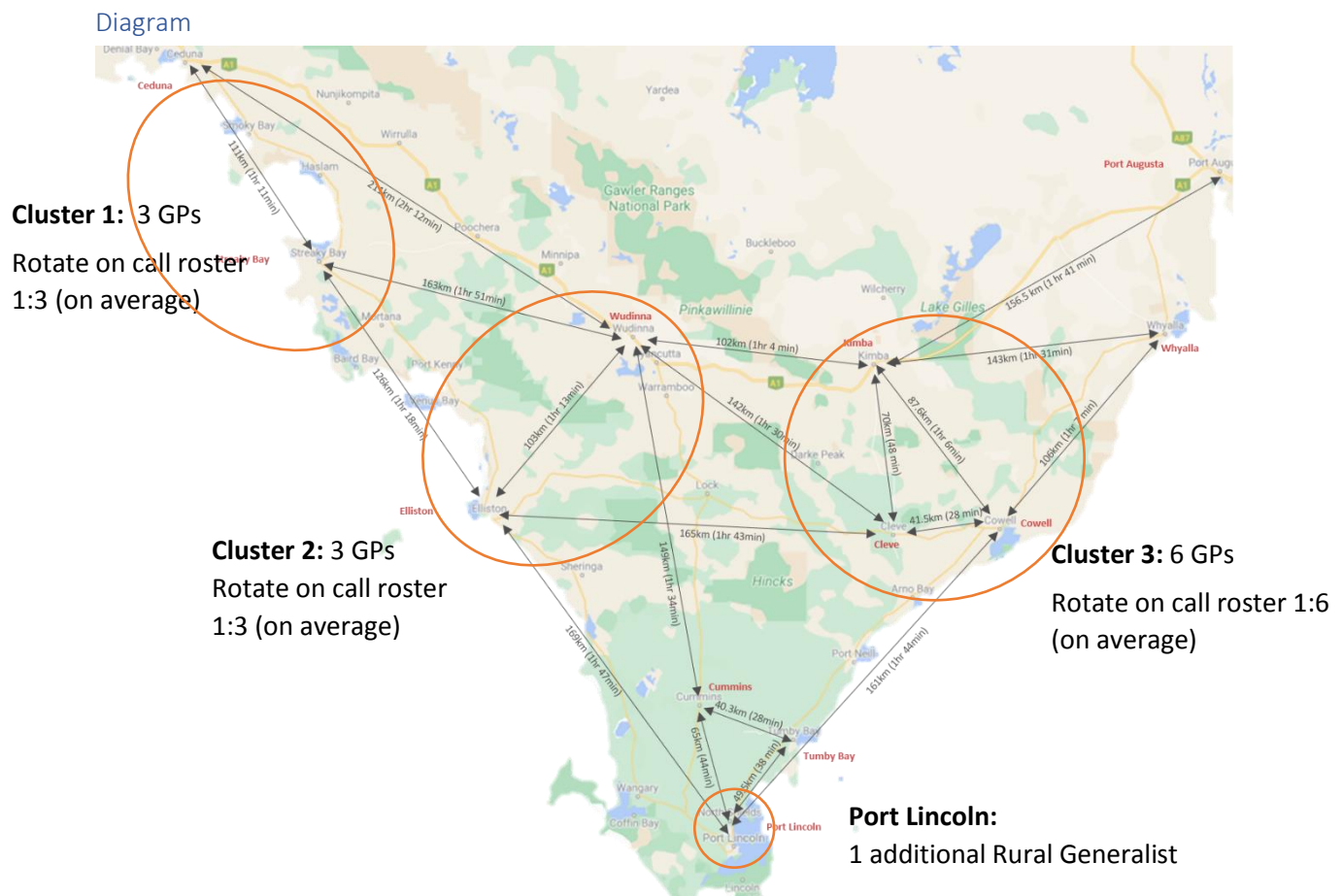


Figure 3: Geographic Structure recommended for After Hours On-Call

It is assumed that a 1:3 on-call roster is achievable but not sufficient to allow GPs working in the model to have adequate work/life balance. A roster of 1:4 or higher is ideal for an adequate work/life balance. It is also assumed that it is acceptable for GPs to do afterhours on-call remotely, from a one-hour drive away from the hospital. Any on-call arrangement requiring more than one hour and thirty minutes' drive between the doctor's location and the hospital is not acceptable. Finally, this structure is designed upon the assumption that the remote afterhours on-call arrangement will be supported by appropriate technology, procedures, and systems to ensure clinical safety. It is assumed that this structure will be supported by the development of solutions for electronic record keeping, and the ability to share information across the medical practices and hospitals in the NEP, to ensure continuity of care with multiple practitioners working within the model.

Summary of Recommendation 1

1.1 Northern Eyre Peninsula medical practices be supported to collect quality medical practice data on the health and service needs of their population and utilisation of services to better inform GP requirements in the future.

1.2 Within 5 years, the NEP recruit 9 FTE Vocationally Registered GPs to achieve a goal of 12 FTE Vocationally Registered GPs providing services in the NEP.

1.3 Within 5 years, the NEP host 4 non-Vocationally Registered trainee GPs.

1.4 A service delivery model be developed comprised of six medical practices operating within three clusters which are based on geographically proximate groups of towns.

1.5 Every town within each Cluster will offer new high quality accommodation.

1.6 GPs have no human resources or corporate responsibility as the practices will be managed by an owner organisation, making the model flexible and dynamic, allowing GPs to fluidly enter and exit the model while maintaining workforce supply.

1.7 All GPs in the model be contracted to participate in an on-call roster for emergency presentations.

1.8 EFNLHN to employ an additional Rural Generalist to create capacity for rotation to general practices.

Recommendation 2: Attractive Remuneration and Benefits Package

It is essential to offer an attractive remuneration and benefits package to incentivise working on the NEP as opposed to a less remote or metropolitan location.

Remuneration

McGrail et al (2017) found that although sixty-five percent of GPs would not move location regardless of financial incentives offered, those who would consider relocating to undertake the “least attractive rural jobs (involving longer working hours, frequent on-call, working in small inland communities with limited social interactions and difficulty getting locums) a financial incentive equal to around 130 per cent current annual earnings is required, valued at \$237,000 per annum in 2013” (McGrail, et al., 2017).

Each GP on the NEP will be contracted to consult at a medical practice and provide services to the hospital(s). Each GP would be offered a minimum income guarantee of \$250,000 per annum pro rata, made up of:

- 65% Medicare Consultation Revenue;³
- 100% On call payment
- 100% Fee for Services provided to inpatients in the local hospital(s), Commonwealth grants and incentive payments for rural GPs.

Currently, GPs on the NEP have no guarantee of their minimum income. The minimum income guarantee will provide certainty to new recruits about their ability to earn an income comparable to city locations.

It would be advertised that there is opportunity to earn a base remuneration upwards of \$350,000 per annum (see Appendix C for GP income estimates). The recruitment strategy will aim to target GPs and Rural Generalists across genders and with experience in consulting in a range of areas so that the NEP population will have access a wide range of expertise and a choice in the gender of their consulting doctor. The recruitment strategy will aim to ensure that each cluster of doctors is not gender homogenous.

Leave

GPs on the NEP currently have no paid sick leave. There are also obstacles to arranging Continuing Professional Development due to the difficulty of finding locum backup and arranging travel to Adelaide to attend courses.

The new package will guarantee GPs paid time off for annual leave, sick leave and for attending Continuing Professional Development courses, supported by their medical practice and EFNLHN. Guaranteed paid leave will allow for better work-life balance and help avoid burnout.

³ This is based on the assumption that the General Practice Working Party’s workforce supply benchmark of 110.4 GPs per 100,000 population, or 1 GP per 905.8 people is an appropriate measure of demand for general practitioners in the NEP and that based on this ratio there will be enough patients for GPs to work a full time equivalent case load of 10 sessions per week for 44 weeks per year, generating a minimum of \$1200 per day of Medicare revenue. See Appendix A for the calculations of the baseline of GP earnings.

Annual Leave - 6 Weeks

Each GP in the proposed model will be entitled to six weeks of annual leave. The GP will be backfilled by either a Rural Generalist from Port Lincoln Hospital or a locum paid for and arranged by RDWA and will receive 65% of the Medicare revenue generated by the doctor backfilling them. RDWA offers locum relief for planned leave, where RDWA pays for the locum's travel and accommodation, arranges provider numbers and supports the locum, while the GP on leave receive the billings generated by the locum (Rural Doctors Workforce Agency, 2021). If a locum cannot be engaged by RDWA, then a locum provider engaged by the practice will be used.

Sick Leave – 2 Weeks

Each GP in the proposed model will be entitled to two weeks of unplanned sick leave, paid by the medical practice at \$400 per day.

Continuing Professional Development Leave - 2 Weeks

Each GP in the proposed model will be entitled to two weeks of paid professional development leave. The arrangements for engaging a locum will be the same as those articulated above under “Annual Leave”.

GPs with procedural skills will be encouraged and supported to access the Commonwealth Rural Procedural Grants Program administered by the Royal Australian College of General Practitioners (RACGP). This will allow GPs to be paid \$2000 per day for up to 10 days of face-to-face training in surgery, anaesthetics and/or obstetrics, or the same amount per day for up to 3 days of face-to-face training in Emergency Medicine (Royal Australian College of General Practitioners, 2021).

In 2022, Eyre and Far North Local Health Network will introduce a salaried Rural Generalist model at Port Lincoln Hospital, which includes the creation of 10 Senior Salaried Medical Officer positions. With the introduction of this model, there will be potential opportunities for GPs in the Northern Eyre Peninsula to rotate through Port Lincoln Hospital to maintain their procedural and emergency medicine skills. Alternatively, arrangements could be made with Flinders and Upper North Local Health Network to co-ordinate the rotation of Northern Eyre Peninsula GPs through Whyalla Hospital to acquire and practice advanced skills.

GPs will also be encouraged and supported to access the Continuing Professional Development Subsidy offered by the Rural Doctors Workforce Agency to assist with accommodation and travel associated with accessing continuing professional development.

Additional Benefits

Travel Allowance

All GPs in the model will be offered a travel allowance of \$5,000 per annum, paid in \$1250 amounts quarterly, to cover the cost of personal or professional return travel to Adelaide during the year. It is recommended the Commonwealth contribute \$5000 travel allowance per resident NEP GP per annum for the five-year implementation period.

An annual travel allowance, in combination with a shared on-call roster (discussed below) and paid leave, will give GPs on the NEP more freedom to visit Adelaide on a regular basis for personal

appointments, Continuing Professional Development, recreational travel, visits to family, or to transfer flights to another location for these purposes. This opportunity to travel with very little burden is likely to alleviate feelings of isolation from living in a remote location.

Accommodation

All GPs in the model will be offered by Local Government, free accommodation of an appropriate standard. A Commonwealth contribution will allow this to be achieved. Accommodation will be maintained and managed by Local Government. Free accommodation in a high-quality home will ensure GPs on the NEP live comfortably. This also acts as a financial incentive for GPs to relocate to, and stay living on, the NEP. This will require an investment in the NEP's accommodation infrastructure which is discussed below. If existing accommodation in the designated community's house is unsuitable for a potential GP recruit, Northern Eyre Peninsula Local Governments are committed to supporting GPs to find suitable and fit for purpose accommodation. Local Governments are committed to being flexible in the support offered to accommodate the GP's needs.

Sign-On Bonus

To attract GPs to the region, an upfront sign-on bonus of \$50,000 pro-rata to be paid over the first 2 years will be offered. This will be repaid if the doctor does not stay working full time in the region for 2 years. The sign-on bonus will be available to new GPs recruited to the model until the Northern Eyre Peninsula achieves a benchmark of 12 FTE GPs. We propose that this sign-on bonus be supported by the Commonwealth and only paid upon the recruitment and settlement of a new GP in a NEP community. In the following years of service, GPs would be supported and encouraged to access the Commonwealth's Workforce Incentives Program – Doctor Stream. It is recommended the sign-on bonus also be paid to the NEP's three remaining GPs to incentivise them to stay working on the NEP for at least two more years.

Opportunities for Continuing Professional Development

GPs will be offered opportunities for upskilling at larger hospitals on the Eyre Peninsula

Family Unit Support

Local Governments will assist newly arrived GPs to settle into the community. Where possible, Local Governments will assist with finding childcare for the GP's children and assisting the GP's spouse to find meaningful paid work. Local Governments will commit to flexibly responding to the GP's social needs and interests. A summary of past Local Government efforts to support GPs on the NEP is outlined in Appendix D.

Geographical Incentives

In addition to the remuneration and benefits package, the available financial geographic incentives outlined in Table 2 would be advertised to potential recruits who are eligible (Australian Government Department of Health, 2021). The value of available financial incentives in addition to the GP's baseline remuneration for MM7 placed doctors is up to \$87,000 per annum and for MM6 placed doctors is up to \$61,800 per annum for eligible Vocationally Recognised (VR) GPs, depending on skill level:

Table 2: Commonwealth and State Funded Financial Geographical Incentives			
Available Incentives	Incentives MM7: <i>Ceduna, Streaky Bay, Elliston, Wudinna</i>	Incentives MM6: <i>Kimba, Cleve, Cowell, Port Lincoln</i>	Administering Organisation
Relocation Support Package	Up to \$5000	Up to \$5000	RDWA
Resident Rural GP Partner Grant	Up to \$3000	Up to \$3000	RDWA
Rural GP Childcare Grant	Up to \$1000	Up to \$1000	RDWA
Australian Government Rural Procedural Grants Program	\$20,000.00	\$ 20,000.00	RACGP
Australian Government Health Workforce Scholarship Program	\$5,000.00	\$ 5,000.00	RDWA
CPD Subsidy	Up to \$ 2,000.00	Up to \$ 1,800.00	RDWA
Workforce Incentive Program (WIP) - Doctor Stream (Available to doctors after one year of service)	Year 0 - \$0 Year 1 – \$25,000 Year 2 – \$25,000 Year 3 – \$35,000 Year 4 – \$35,000 Year 5 plus – \$60,000	Year 0 - \$0 Year 1 – \$16,000 Year 2 – \$16,000 Year 3 – \$25,000 Year 4 – \$25,000 Year 5 plus – \$35,000	Australian Government (Australian Government Department of Health , 2021)
Total value of available incentives per annum	\$32,000 - \$88,000 per annum	\$31,800 - \$62,800 per annum	

Further, available non-financial geographic incentives will also be advertised to potential recruits, such as:

- The More Doctors for Rural Australia Program (MDRAP), administered by RDWA, which allows non-VR doctors to work in rural and remote communities and “access items from group A7 of the Medicare Benefits Schedule” (Rural Doctors Workforce Agency, 2021);
- RDWA's Rural Emergency Skills Program (RESP) which offers fully funded places to eligible participants in continuing professional development courses for emergency advanced skills training (Rural Doctors Workforce Agency, 2021); and
- Access to networking activities such as RDWA's Annual Rural GP Conference (Rural Doctors Workforce Agency, 2021).

Summary of Recommendation 2

Currently, there is no bold and persuasive upfront incentive for a metropolitan GP to relocate to the NEP to live and work. A sign on bonus of \$50,000 in the 2 years of service and an offer of good quality free accommodation will initially incentivise relocating to the NEP to live and work. Currently, GPs on the NEP have no guarantee of their minimum income. The minimum income guarantee will provide certainty to new recruits about their ability to earn an income comparable to city locations. These financial incentives will make moving to the NEP to live and work an attractive and financially safe prospect.

The remaining elements of the remuneration and benefits package overcome the barriers to recruiting and retaining GPs identified in the NEPHA project, such as high workload, burnout, feelings of isolation, and the availability of attractive housing, and will ensure GPs have a positive experience working on the NEP, thereby increasing the likelihood of GP retention and building the reputation of the NEP to attract recruits to replace departing GPs.

- 2.1 Each GP be offered a minimum income guarantee of \$250,000 per annum pro rata.*
- 2.2 Each GP in the proposed model be entitled to six weeks of paid annual leave.*
- 2.3 Each GP in the proposed model be entitled to two weeks of unplanned sick leave.*
- 2.4 Each GP in the proposed model be entitled to two weeks of paid professional development leave.*
- 2.5 GPs with procedural skills be encouraged and supported to access the Commonwealth Rural Procedural Grants Program.*
- 2.6 GPs be assisted to acquire and maintain procedural and emergency medicine skills by rotation through larger hospitals on the Eyre Peninsula.*
- 2.7 All GPs in the model be offered a travel allowance of \$5,000 per annum.*
- 2.8 All GPs in the model be offered free accommodation of high quality.*
- 2.9 To attract GPs to the region, an upfront sign-on bonus of \$50,000 pro-rata be paid over the first 2 years.*
- 2.10 Local Governments to assist newly arrived GPs to settle into the community. Where possible, Local Governments to assist with finding childcare for the GP's children and assisting the GP's spouse to find meaningful paid work.*
- 2.11 Local Governments commit to flexibly responding to the GP's social needs and interests.*
- 2.12 In addition to the remuneration and benefits package, the available geographic incentives be advertised to potential recruits.*

Summary of Contributions – Remuneration and Benefits Package

Table 3 presents a summary of the proposed remuneration and benefits package for a GP working 1.0 FTE and the relevant financial contributor for each element. The Remuneration and Benefits to be received by the GP would be calculated pro rata against the FTE worked by the GP.

Table 3: Package Summary			
Category	Description	Approximate Annual Value	Financial Contributor
Sign-on bonus	\$50,000 one off up-front payment for first 2 years of service.	\$50,000	Commonwealth
Remuneration	Minimum income guarantee of \$250,000 per annum with potential to earn over \$400,000 per annum, made up of: • 65% Medicare Consultation Revenue • 100% On call payment • 100% Fee for Service • Commonwealth incentive payments	\$250,000 - \$400,000	Medicare EFNLHN EFNLHN Commonwealth
Leave	6 Weeks Paid Annual Leave 2 Weeks Paid Professional Development Leave 2 Weeks Sick Leave	\$36,000 - \$60,000 \$12,000 - \$20,000 Up to \$4000	EFNLHN or RDWA
Travel Allowance	\$5,000 per annum	\$5,000	Commonwealth
Accommodation	Free Accommodation of a suitable standard.	\$20,000	Local Governments
Total Package Value Range Excluding Commonwealth Incentives (First Year of Service)		\$373,000 - \$555,000	
Total Package Value Range Excluding Commonwealth Incentives (> First Year of Service)		\$323,000 - \$505,000	
Available Commonwealth Incentives	MM7: \$32,000 - \$88,000 per annum MM6: \$31,800 - \$62,800 per annum	MM7: \$32,000 - \$88,000 per annum MM6: \$31,800 - \$62,800 per annum	
Total Package Value Range Including Commonwealth Incentives (First Year of Service)		MM7: \$405,000 - \$588,000 MM6: \$404,800 - \$587,800	
Total Package Value Range Including Commonwealth Incentives (> First Year of Service)		MM7: \$375,000 - \$593,000 MM6: \$365,800 - \$567,800	

Recommendation 3: Build Supporting Infrastructure

While NEPHA is committed to designing and proposing a new service delivery model, it will be difficult for this model alone to provide adequate incentive for GPs to work and stay on the Northern Eyre Peninsula. Infrastructure must be upgraded or built to attract doctors to the region and retain them, including upgrades to medical practices and the building of high-quality accommodation.

Medical Practice Upgrades

Most of the medical practices in the NEP region are of an acceptable standard. Those which have been upgraded using Commonwealth grants are of a high standard. The medical practices in Cowell and Elliston require upgrades to ensure they are fit for purpose and attractive for consulting GPs.

Cowell

The Cowell Medical Practice building is sub-standard and needs to be replaced. It is not suitable for providing full time services and it will be unattractive for a prospective GP.

Elliston

The Elliston medical practice is dated and very small. Consulting rooms are shared with Community Allied Health and each room has multiple uses. To create a comfortable, fit for purpose, professional and attractive space that can be used by a new GP, the medical practice in Elliston needs renovations including the addition of at least one consulting room.

It is recommended that the Commonwealth fund the upgrade of Cowell and Elliston Medical Practices.

Accommodation

There is a shortage of suitable accommodation to house GPs in the Northern Eyre Peninsula Communities. Existing accommodation for GPs is deteriorating and the rental market in many towns is scarce, leaving few attractive places for a doctor to live. Currently, the ownership, quality, and quantity of housing for doctors in the region varies. The existing housing for doctors in the region needs significant upgrading. In some NEP towns, there is no housing for doctors.

A holistic approach to recruitment and retention of GPs must be taken, which includes improving liveability factors such as the availability of quality housing. To attract doctors to rural areas, comfortable and attractive accommodation is crucial. Offering attractive housing at no cost to GPs is a potential point of difference from more urban areas and is therefore likely to attract GPs to work on the Northern Eyre Peninsula. To promote adequate distribution of GPs across the NEP region, it is important that the available accommodation is of consistent quality across the region. GPs should be able to secure the same high-quality accommodation wherever they choose to work. To promote work and life balance and GPs' privacy, it is important that GPs' housing is located away from the hospital.

NEPHA proposes that twelve high-quality new houses be built in the region for the purpose of housing GPs.

Liveability and attracting workforce for economic development is the core business of Local Governments. It is more cost effective for Local Governments to own and maintain housing as they have the ability to waive council rates, can apply for grants and have the financial systems and maintenance staff to ensure maintenance can be kept to a high standard. Therefore, it is recommended these houses be owned and maintained by Local Government. Doctors working in the town will be able to live in these houses rent free. Priority will be given to doctors working 1.0 FTE.

It is recommended the Commonwealth fund the house builds at \$500,000 per house, totalling \$5.5 million. Northern Eyre Peninsula Local Governments will contribute Council-owned will project manage the build(s) and will provide ongoing maintenance. It is estimated the value of Local Government contributions will be \$100,000 worth of land per house, in kind project management services, and \$20,000 ongoing maintenance per house per year. Table 4 summarises the number of houses proposed to be built in each town and the respective contributions of the Commonwealth and Local Governments.

Table 4: Proposed New Housing				
Town	Number of New Houses	Commonwealth Contribution	Local Government Land Contribution	Ongoing Depreciation and Maintenance of Housing
Streaky Bay	3	\$1,500,000	\$300,000	\$60,000 per year
Elliston	1	\$500,000	\$100,000	\$20,000 per year
Wudinna	2	\$1,000,000	\$200,000	\$40,000 per year
Kimba	2	\$1,000,000	\$200,000	\$40,000 per year
Cleve	2	\$1,000,000	\$200,000	\$40,000 per year
Cowell	2	\$1,000,000	\$200,000	\$40,000 per year
Total	12	\$6,000,000	\$1,200,000	\$240,000 per year

Summary of Recommendation 3

3.1 *Cowell and Elliston Medical Practices be upgraded.*

3.2 *Twelve high quality new houses be built in the Northern Eyre Peninsula so GPs can be offered accommodation of a high standard.*

Infrastructure – Summary of Contributions

Table 5 summarises the contributions required for the infrastructure by year of implementation of the proposed model.

Table 5: Contributions Required for the Infrastructure by Year of Implementation								
Item	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Financial Contributor
New Housing	\$500,000	5 \$2,500,000	4 \$2,000,000	3 \$1,500,000			\$6,000,000	Commonwealth
Medical Practice Upgrades	\$500,000 per practice	\$1,000,000					\$1,000,000	Commonwealth
Council Land to Build Houses	\$100,000	5 \$500,000	4 400,000	3 300,000			\$1,200,000	Local Governments
Maintenance and repairs of Accommodation	\$20,000	5 100,000	9 \$180,000	12 \$240,000	12 \$240,000	12 \$240,000	\$1,000,000	Local Governments
Project Management of House Builds	In Kind							Local Governments

Summary of Contributions by Commonwealth, State and Local Governments

Table 6 summarises the respective proposed contributions over five years of Commonwealth, State and Local Governments for the establishment of a service delivery model and remuneration and benefits package and the supporting infrastructure to attract and retains GPs on the NEP.

Table 6: Summary of Contributions								Contributor
Item	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Total	
Salaried Rural Generalist Position	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000	Commonwealth
Travel Allowance	\$5,000	3 \$15,000	8 \$40,000	10 \$50,000	12 \$60,000	12 \$60,000	\$225,000	
Sign on bonus*	\$50,000	3 150,000	5 \$250,000	2 \$100,000	2 \$100,000		\$600,000	
New Housing	\$500,000	5 \$2,500,000	4 \$2,000,000	3 \$1,500,000			\$6,000,000	
Medical Practice Upgrades	Up to \$500,000 per practice	\$1,000,000					\$1,000,000	
Estimated Sub Total		\$4,165,000	\$2,790,000	\$2,150,000	\$660,000	\$560,000	\$10,325,000	
Locum or Rural Generalist to cover 6 weeks paid Annual Leave	\$30,000	3 \$90,000	8 \$240,000	10 \$300,000	12 \$360,000	12 \$360,000	\$1,350,000	EFNLHN

Locum or Rural Generalist to cover 2 weeks paid Professional Development Leave	\$10,000	3 \$30,000	8 \$80,000	10 \$100,000	12 \$120,000	12 \$120,000	\$450,000	
Estimated Sub Total		\$120,000	\$320,000	\$400,000	\$480,000	\$480,000	1,800,000	
Council Land to Build Houses	\$100,000	5 \$500,000	4 400,000	3 300,000			\$1,200,000	Local Governments
Maintenance and repairs of Houses	\$20,000	5 100,000	9 \$180,000	12 \$240,000	12 \$240,000	12 \$240,000	\$1,000,000	
Project Management of House Builds	In Kind							
Estimated Sub Total		\$600,000	\$580,000	\$540,000	\$240,000	\$240,000	\$2,200,000	

*It is recommended the Commonwealth contribute the sign-on bonus for either a period of five years or until the NEP achieves a benchmark of 12 GPs. It is recommended the sign on bonus be paid to the NEP's three remaining GPs to incentivise them to stay working on the NEP.

Recommendation 4: Implementation, Monitoring and Evaluation

NEPHA Proposes an implementation, monitoring and evaluation period of five years for the proposed model. GPs will be recruited over a five-year period according to a pre-determined sequence. New housing will be built according to that same sequence. The sequencing and goals for each implementation year are at Appendix E.

It is important that the implementation be project managed by a relevant organisation, by liaising with medical practices, hospitals and other stakeholders in the NEP region, and that comprehensive monitoring and evaluation of the model is undertaken.

Monitoring and evaluation of the model would include routine targeted annual data collection and annual reporting on:

- The model's ability to recruit GPs, and recommendations on how to improve recruitment.
- The model's ability to retain GPs, and recommendations on how to improve retention.
- The business viability of each medical practice within the model, including projections on each NEP medical practice's viability to operate financially independently of the fiscal Commonwealth support provided in the initial five-year implementation period.
- The model's effect on improving the NEP population's access to primary health care and hospital services.
- The model's effect on improving the NEP population's health outcomes, including:
 - Chronic disease identification and management by general practices
 - Number of Potentially Preventable Hospitalisations
 - Number of Potentially Avoidable Deaths

The specific indicators used to measure the abovementioned evaluation criteria would be determined by the project managing organisation at the beginning of the implementation period.

Recommendation 4 *Implementation will take 5 years and involve comprehensive monitoring and evaluation. Cost of implementation be contributed to by Local Government, Eyre & Far North Local Health Network and the Commonwealth Government.*

Conclusion

This paper, a culmination of a cross-jurisdictional region-wide co-operation, has proposed the medical model, the supporting infrastructure required, and the requisite investment necessary of all levels of Government to address the dire shortage of GPs in the NEP region. The NEP must increase its number of GPs in order to prevent losing its existing Doctors due to reaching a point of burnout. The NEP has a slim window of opportunity. With a funding commitment from the Commonwealth, the existing commitment and collaboration of major regional stakeholders, and the required resources to implement the proposal set out in this paper, there is great opportunity to build the GP workforce of the NEP back to the standards required to reclaim equitable access to health care for the NEP population.

References

AIHW, 2019. *Developing a National Primary Health Care Data Asset: consultation report*, s.l.: Australian Institute of Health and Welfare.

AIHW, 2020. *National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2020*. [Online]
Available at: <https://meteor.aihw.gov.au/content/index.phtml/itemId/716490>
[Accessed 1 12 2021].

AIHW, 2021. *Disparities in potentially preventable hospitalisations across Australia: Exploring the data*. [Online]
Available at: <https://www.aihw.gov.au/reports/primary-health-care/disparities-in-potentially-preventable-hospitalisations-exploring-the-data/contents/introduction>
[Accessed 22 11 2021].

AIHW, 2021. *Percentage of adults who felt they waited longer than acceptable to get an appointment with a GP, by Primary Health Network (PHN) area*, s.l.: Australian Institute of Health and Welfare.

Australian Bureau of Statistics, 2021. *Estimated Resident Population, Local Government Areas, South Australia*, Canberra: s.n.

Australian Government Department of Health, 2021. *Doctor Stream Incentive Payment Amounts*. [Online]
Available at: <https://www.health.gov.au/initiatives-and-programs/workforce-incentive-program/doctor-stream/payment-amounts>
[Accessed 04 November 2021].

Australian Government Department of Health, 2021. *Distribution Priority Area*. [Online]
Available at: <https://www.health.gov.au/health-topics/health-workforce/health-workforce-classifications/distribution-priority-area#how-dpa-locations-are-determined>
[Accessed 21 October 2021].

Australian Government Department of Health, 2021. *Health Workforce Locator*. [Online]
Available at: <https://www.health.gov.au/resources/apps-and-tools/health-workforce-locator/health-workforce-locator>

Australian Government Department of Health, 2021. *Incentives and support for GPs and general practices in MM locations*. [Online]
Available at: <https://www.health.gov.au/resources/collections/incentives-and-support-for-gps-and-general-practices-in-mm-locations>
[Accessed 10 08 2021].

Australian Government Department of Health, 2021. *Stronger Rural Health Strategy - factsheets*. [Online]
Available at: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/stronger-rural-health-strategy-factsheets>
[Accessed 07 11 2021].

Australian Medical Association, 2020. *Delivering Better Care for Patients: The AMA 10-Year Framework for Primary Care Reform*. [Online]
Available at: <https://www.ama.com.au/article/delivering-better-care-patients-ama-10-year-framework-primary-care-reform>

- Australian Tax Office, 2021. *Offsets and Rebates*. [Online]
Available at: <https://www.ato.gov.au/individuals/income-and-deductions/offsets-and-rebates/>
[Accessed 04 11 2021].
- Australian Tax Office, 2021. *Research and development tax incentive*. [Online]
Available at: <https://www.ato.gov.au/Business/Research-and-development-tax-incentive/>
[Accessed 04 11 2021].
- Australian Tax Office, 2021. *Simple Tax Calculator*. [Online]
Available at: <https://www.ato.gov.au/Calculators-and-tools/Host/?anchor=STC&anchor=STC#STC/questions>
[Accessed 04 11 2021].
- Australian Tax Office, 2021. *Zone and Overseas Forces Tax Offsets*. [Online]
Available at: <https://www.ato.gov.au/Individuals/Income-and-deductions/Offsets-and-rebates/Zone-and-overseas-forces-tax-offsets/>
[Accessed 04 11 2021].
- Australian Taxation Office, 2021. *Study and training loan repayment thresholds and rates*. [Online]
Available at: <https://www.ato.gov.au/Rates/HELP,-TSL-and-SFSS-repayment-thresholds-and-rates/#HELPandTSLrepaymentthresholdsandrates201>
[Accessed 18 September 2021].
- Dunchue, L., 2021. *Tax Consequences of Grant for assistance to pay HECS/HELP Debt*, s.l.: s.n.
- Gardiner, M., Sexton, R., Kearns, H. & Marshall, K., 2006. Impact of support initiatives on retaining rural general practitioners. *Australian Journal of Rural Health*, Volume 14, pp. 196-201.
- Google, 2021. *Google Maps*. [Online]
Available at: <https://www.google.com/maps>
[Accessed 17 April 2021].
- GPEX, 2019. *GPEX Supercisor Policy*. [Online].
- Holloway, P., Bain-Donohue, S. & Moore, M., 2020. Why do doctors work in rural areas in. *Aust J Rural Health*, Issue 28, p. 543–554.
- Horton, D. R., 1996. *AITSTIS Map of Indigenous Australia*. [Online]
Available at: <https://aiatsis.gov.au/explore/map-indigenous-australia>
- Humphreys, J. et al., 2001. A critical review of rural medical workforce retention in Australia. *Australian Health Review*, 24(4), pp. 91-102.
- John Flynn Placement Program, 2021. *Home*. [Online]
Available at: <https://www.jfpp.com.au/>
[Accessed 30 11 2021].
- Kumar, R. & Pal, R., 2018. India achieves WHO recommended doctor population ratio: A call for paradigm shift in public health discourse!. *Journal of Family Medicine and Primary Care*, Volume 7, pp. 841-844.
- Laurence, C., Black, L., Cheah, C. & Karnon, J., 2011. Is different better? Models of teaching and their influence on the net financial outcome for general practice teaching posts. *Medical Education*, 11(45).
- Laurence, C. et al., 2020. *Medical Specialty Decision Making Study*, Adelaide: The University of Adelaide.

McGrail, M., O'Sullivan, B., Russell, D. & Scott, A., 2017. *Solving Australia's rural medical workforce shortage*, s.l.: Melbourne Institute of Applied Economic and Social Research, The University of Melbourne.

McIsaac, M., Scott, A. & Kalb, G., 2019. The role of financial factors in the mobility and location choices of General Practitioners in Australia. *Human Resources for Health*, 17(34).

Ogden, J. et al., 2020. Recruiting and retaining general practitioners in rural practice: systematic review and meta-analysis of rural pipeline effects. *Medical Journal of Australia*, 5(213), pp. 228-236.

Public Health Information Development Unit, 2021. *Health Workforce*, s.l.: Torrens University.

Public Health Information Development Unit, 2021. *Potentially preventable hospitalisations - Chronic conditions*, s.l.: Torrens University.

Public Health Information Development Unit, 2021. *Social Health Atlas of Australia: Notes on the Data*. [Online]
Available at: https://phidu.torrens.edu.au/current/data/sha-aust/notes/phidu_data_sources_notes.pdf
[Accessed 22 11 2021].

Public Health Information Development Unit, 2021. *Social Health Atlas of Australia: Population health Areas*. [Online]
Available at: <https://phidu.torrens.edu.au/social-health-atlases/data#social-health-atlas-of-australia-population-health-areas>

Regional Development South Australia, 2021. *Growing our Regional Workforce Review Summary*, s.l.: s.n.

Royal Australian College of General Practitioners, 2021. *About RPGP*. [Online]
Available at: <https://www.racgp.org.au/the-racgp/faculties/rural/rural-procedural-grants>
[Accessed 07 11 2021].

Rural Doctors Association of Australia, 2003. *Sustaining Medical Practice in Rural and Remote Australia*, s.l.: s.n.

Rural Doctors Workforce Agency, 2011. *The Rural Doctors Workforce Agency Report on the Rural Pathway Project*, s.l.: s.n.

Rural Doctors Workforce Agency, 2021. *Annual Rural GP Conference 2021*. [Online]
Available at: <https://www.ruraldoc.com.au/conference>
[Accessed 07 12 2021].

Rural Doctors Workforce Agency, 2021. *More Doctors for Rural Australia Program (MDRAP)*. [Online]
Available at: <https://www.ruraldoc.com.au/rural-locum-relief-program>

Rural Doctors Workforce Agency, 2021. *RESP Programs*. [Online]
Available at: <https://www.ruraldoc.com.au/RESP>
[Accessed 07 12 2021].

Rural Doctors Workforce Agency, 2021. *Rural SA Locum Program*. [Online]
Available at: <https://www.ruraldoc.com.au/rural-gp-locum-support>
[Accessed 07 12 2021].

Rural Health West, 2014. *Rural and Remote Primary Health Care Workforce Planning - What is the Evidence?*, Perth: Rural Health West.

SA Health, 2021. *Eyre and Far North Regional LHN Profile 2019-20*. [Online].

- SA Health, 2021. *Rural Health Workforce Strategy*. [Online]
Available at:
<https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/about+us/our+local+health+networks/regional+health+services/rural+health+workforce/rural+health+workforce+strategy>
[Accessed 07 11 2021].
- Services Australia, 2021. *Workforce Incentive Program (WIP) - Practice Stream*. [Online]
Available at: <https://www.servicesaustralia.gov.au/organisations/health-professionals/services/medicare/workforce-incentive-program-wip-practice-stream>
[Accessed 05 10 2021].
- South Australian Country Fire Service, 2021. *Bushfire Management Area Plans*. [Online]
Available at: <https://www.cfs.sa.gov.au/prepare-for-a-fire/bushfire-management-planning/bushfire-management-area-plans/>
- South Western Sydney Primary Health Network, 2021. *iRAD*. [Online]
Available at: <https://www.swsphn.com.au/irad>
[Accessed 04 11 2021].
- Standing Council on Health, 2012. *National Strategic Framework for Rural and Remote Health*, s.l.: s.n.
- Wakeman, J. et al., 2008. Primary health care delivery models in rural and remote Australia - a systematic review. *BMC Health Services Research* , 8(276).
- Wakeman, J. et al., 2009. Features of effective primary health care models in rural and remote Australia: a case-study analysis. *Medical Journal of Australia*, 191(2), pp. 88-91.
- Walters, L. et al., 2017. Where to next for rural general practice policy and research in Australia?. *Medical Journal of Australia*, 2(207), pp. 56-58.
- World Bank, 2021. *GNI per capita (constant LCU) | Data*. [Online]
Available at: <https://data.worldbank.org/indicator/NY.GNP.PCAP.KN>
[Accessed 09 09 2021].
- World Bank, 2021. *Physicians (per 1,000 people) | Data*. [Online]
Available at: <https://data.worldbank.org/indicator/SH.MED.PHYS.ZS>
[Accessed 09 September 2021].
- World Health Organization, 2021. *Primary Health Care*. [Online]
Available at: <https://www.who.int/news-room/fact-sheets/detail/primary-health-care>

Appendices

Appendix A: Potentially Preventable Hospitalisations and Potentially Preventable Deaths

Potentially Preventable Hospitalisations (PPH) measure access to ‘timely, effective, and appropriate’ primary health care (AIHW, 2021). In Table 1, ASR per 100,000 refers to the Age Standardised Rate of Potentially Preventable Hospitalisations per 100,000 population. SR refers to a Standardised Ratio, which ‘provides a comparison to the Australian rate which is assigned a value of 100’ (Public Health Information Development Unit, 2021). ‘Ratios below 100 are proportionally less than the national rate, while ratios above 100 are proportionally higher than the national rate’ (Public Health Information Development Unit, 2021).

Table 1 shows the total potentially preventable hospitalisations for chronic conditions and the total potentially preventable hospitalisations for all conditions in each NEP LGA for the 2018 financial year (Public Health Information Development Unit, 2021).⁴ Every NEP LGA has a proportionally higher rate of potentially preventable hospitalisations for all conditions than the national rate. The DC of Cleve, DC of Elliston, DC of Kimba and DC of Wudinna are between 22% and 30% higher than the national rate. The DC of Franklin Harbour is 1% higher than the national rate and the DC of Streaky Bay is 65% higher than the national rate. In the 2018 financial year, 305 people on the NEP were hospitalised due to potentially preventable conditions and 147 of these were related to chronic conditions which could have been managed earlier by a GP.

Table 1: Potentially Preventable Hospitalisations (2018 Financial Year)						
	Admissions for total chronic conditions			Admissions for all potentially preventable conditions		
	Number	ASR per 100,000	SR	Number	ASR per 100,000	SR
Cleve (DC)	29	1,365.0	125	59	2,910.2	122
Elliston (DC)	17	1,472.9	135	34	3,112.2	130
Franklin Harbour (DC)	20	1,076.4	99	40	2,402.0	101
Kimba (DC)	18	1,370.2	125	36	2,886.4	121
Streaky Bay (DC)	43	1,738.7	159	95	3,949.4	165
Wudinna (DC)	20	1,382.8	127	41	2,923.6	122
Total	147			305		

Potentially Avoidable deaths are “Deaths from conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care” (AIHW, 2020). In Tables 2, 3, 4, and 5, the Average Annual ASR per 100,000 refers to the average annual indirectly age-standardised rate per 100,000 people (aged 0 to 74 years) based on the Australian standard. SDR refers to the indirectly age-standardised rate of deaths in comparison to the Australian rate, which is assigned a value of 100. ‘Ratios below 100 are proportionally less than the national rate, while ratios

⁴ Table 1 is based on Public Health Information Development Unit (PHIDU), Torrens University Australia material from: Social Health Atlas of Australia: Local Government Areas (online) 2018. Accessed 22 November 2021 [https://phidu.torrens.edu.au/social-health-atlases/data#social-health-atlases-of-australia-local-government-areas].

above 100 are proportionally higher than the national rate' (Public Health Information Development Unit, 2021).

Tables 2, 3, 4, and 5 show between 2015 and 2019, Population Health Areas of the Northern Eyre Peninsula had a higher rate of avoidable deaths from cancer, circulatory system diseases, suicide and self-inflicted injuries, and other external causes of mortality including transport accidents, accidental drowning and submersion, than the national age standardised rate of mortality to population (Public Health Information Development Unit, 2021).⁵

Table 2: Avoidable Deaths from Cancer, 0 to 74 years (2015-2019)				
Population Health Area (Code and Name)		Number	Average Annual ASR per 100,000	SR
40077	Ceduna/ West Coast/ Western	10	28.5	99
40078	Eyre Peninsula/ Le Hunte - Elliston	15	27.0	94
40079	Kimba - Cleve - Franklin Harbour	8	30.1	104

Table 3: Avoidable Deaths from Circulatory System Diseases,⁶ 0 to 74 years (2015-2019)				
Population Health Area (Code and Name)		Number	Average Annual ASR per 100,000	SR
40077	Ceduna/ West Coast/ Western	19	54.1	156
40078	Eyre Peninsula/ Le Hunte - Elliston	24	42.7	123
40079	Kimba - Cleve - Franklin Harbour	6	22.3	64

Table 4: Avoidable deaths from suicide and self-inflicted injuries, 0 to 74 years (2015-2019)				
Population Health Area (Code and Name)		Number	Average Annual ASR per 100,000	SR
40077	Ceduna/ West Coast/ Western	5	17.0	134
40078	Eyre Peninsula/ Le Hunte - Elliston	5	12.4	98
40079	Kimba - Cleve - Franklin Harbour	8	42.3	333

Table 5: Avoidable deaths from other external causes of mortality (Transport accidents; Accidental drowning and submersion; etc.), 0 to 74 years (2015-2019)				
Population Health Area (Code and Name)		Number	Average Annual ASR per 100,000	SR
40077	Ceduna/ West Coast/ Western	7	23.5	149
40078	Eyre Peninsula/ Le Hunte - Elliston	10	24.2	154
40079	Kimba - Cleve - Franklin Harbour	# ⁷	..	..

⁵ Tables 2, 3, 4 and 5 are based on Public Health Information Development Unit (PHIDU), Torrens University Australia material from: Social Health Atlas of Australia: Population Health Areas (online) 2018. Accessed 22 November 2021 [<https://phidu.torrens.edu.au/social-health-atlases/data#social-health-atlases-of-australia-population-health-areas>].

⁶ "Circulatory system diseases" includes rheumatic and other valvular heart disease, hypertensive heart and renal disease, ischaemic heart disease, cerebrovascular diseases, heart failure, and pulmonary embolism (AIHW, 2020).

⁷ # replaces numbers from 1 to 4. Data of this size is not shown (Public Health Information Development Unit, 2021).

Appendix B: GP Workforce Required on the NEP

GP Workforce Required for Consulting in Medical Practices

For the purposes of the proposed model in this discussion paper, the General Practice Working Party's workforce supply benchmark of 110.4 GPs per 100,000 population, or 1 GP per 906 people, has been used.

Based on the GPWP benchmark, 9.5 FTE GPs are estimated to be needed to service the overall NEP population. However, if each NEP GP takes eight weeks of leave per year and at least four GPs supervise registrars, as proposed in this discussion paper, the NEP will require 11.7 FTE GPs to adequately service the region. The following discussion demonstrates this.

Assuming each medical practice is providing services for 260 clinic days per year, 1 full time equivalent doctor taking 6 weeks of annual leave and 2 weeks of professional development leave can work for 220 days in the medical practice ('clinic days') per year plus afterhours on-call if no sick leave is taken. Table 1 shows that the requirement for GPs on the NEP increases from 9.5 FTE to 11.3 FTE GPs to allow each GP to take eight weeks of leave per year.

To support a pipeline for the future workforce it is essential that medical practices in the NEP region become teaching and training practices. This will require GPs in the model to incorporate teaching time into their schedule. The maximum amount of formal teaching time required of a GP supervising a registrar would be a minimum of 3 hours per week or 0.08 FTE (Laurence, et al., 2011); (GPEx, 2019). This is based on the traditional teaching model of 1 GP supervisor per first year Registrar providing 1:1 teaching time each week. Adding 45 minutes of preparation time per week makes this 0.1 FTE or 22 days per year per first year Registrar.⁸ Table 1 shows the NEP will host four Registrars, which increases the FTE requirement by 0.4 FTE, from 11.3 FTE to 11.7 FTE GPs in order to incorporate teaching and training time.

Therefore, with the incorporation of eight weeks of leave per year per GP and teaching time for four Registrars, the total requirement of FTE GPs on the NEP is 11.7 FTE. As of January 2022, the NEP will have 2.8 FTE GPs. Therefore, assuming existing NEP GPs remain in the region, an additional 8.9 FTE GPs would need to be engaged. NEPHA recommends aiming for a target of recruiting 9 GPs to the NEP region within five years, achieving a total of 12 GPs. Table 1 reflects this goal.

⁸ Although this calculation is based on the traditional teaching model, practices could implement alternative teaching models such as those proposed by Laurence et al (2011) to achieve cost savings.

Table 1: General Practice FTE Required for NEP LGAs including Leave and Teaching						
LGA	Actual General Practice FTE (1 January 2022)	General Practice FTE Required (GPWP Benchmark)	General Practice FTE Required Incorporating Leave Allowances	Extra FTE Required for Teaching and Training	Estimated Total General Practice FTE Required	General Practice FTE to be recruited
Streaky Bay (DC)	1.0	2.4	2.8	0.1 (One Registrar at Streaky Bay)	2.9	1.9
Elliston (DC)	0.8	1.1	1.3		1.3	0.5
Wudinna (DC)	0	1.4	1.7	0.1 (One Registrar at Wudinna)	1.8	1.8
Kimba (DC)	0	1.2	1.4	0.5 (2 Registrars across Cleve, Cowell and Kimba)	5.7 (across Cleve, Cowell and Kimba)	4.7 (across Cleve, Cowell and Kimba)
Cleve (DC)	1.0	2.0	2.4			
Franklin Harbour (DC)	0	1.4	1.7			
Total	2.8	9.5	11.3		11.7	8.9
				Proposed Goal	12	9

GP Workforce Required to Service NEP Hospitals

Traditionally, GPs service NEP Hospitals on a fee-for service basis under contractual arrangements with EFHNH, caring for inpatients, attending to Accident and Emergency presentations. Unlike South Australian metropolitan hospitals which record the working hours of salaried medical officers, NEP Hospitals only record the services provided by doctors for the purpose of determining the fees to be paid for their services. The time spent providing such services is rarely recorded because it is not necessary information for the purpose of contracting the GP, as the fee paid is based on the type of service provided. Further, there is no recorded data on instances when the on-call GP is contacted by telephone but does not physically attend the hospital or charge a fee for their service. For this reason, there is insufficient data to accurately estimate the GP FTE required to service NEP hospitals. However, analysis of data on Accident and Emergency presentations and inpatient admissions can provide a general indication of the requirement for a GP workforce to service the NEP hospitals.

Total Accident and Emergency Department Admissions

In the 2021 financial year, there were a total of 3,842 Accident and Emergency (A&E) Department admissions in the NEP region. Table 2 shows the total A&E admissions by Triage Category for NEP hospitals for the 2021 financial year.

	1 Resuscitation <2 min	2 Emergency <10 min	3 Urgent <30 min	4 Semi-Urgent <60 min	5 Non-Urgent <120 min	Total:
Cleve	3	50	159	201	157	570
Cowell	1	35	141	188	125	490
Elliston	1	17	82	163	186	449
Kimba	4	31	203	231	104	573
Streaky Bay	5	62	177	324	548	1,116
Wudinna	7	32	84	207	314	644
Total:	21	227	846	1,314	1,434	3,842

Figure 1 shows the total Triage Category 1 and 2 A&E admissions by hospital and time of day. The graph shows that across the NEP, between 19% (Cowell) and 49% (Streaky Bay) of Triage Category 1 and 2 A&E admissions occurred between 6:00pm and 7:00am.

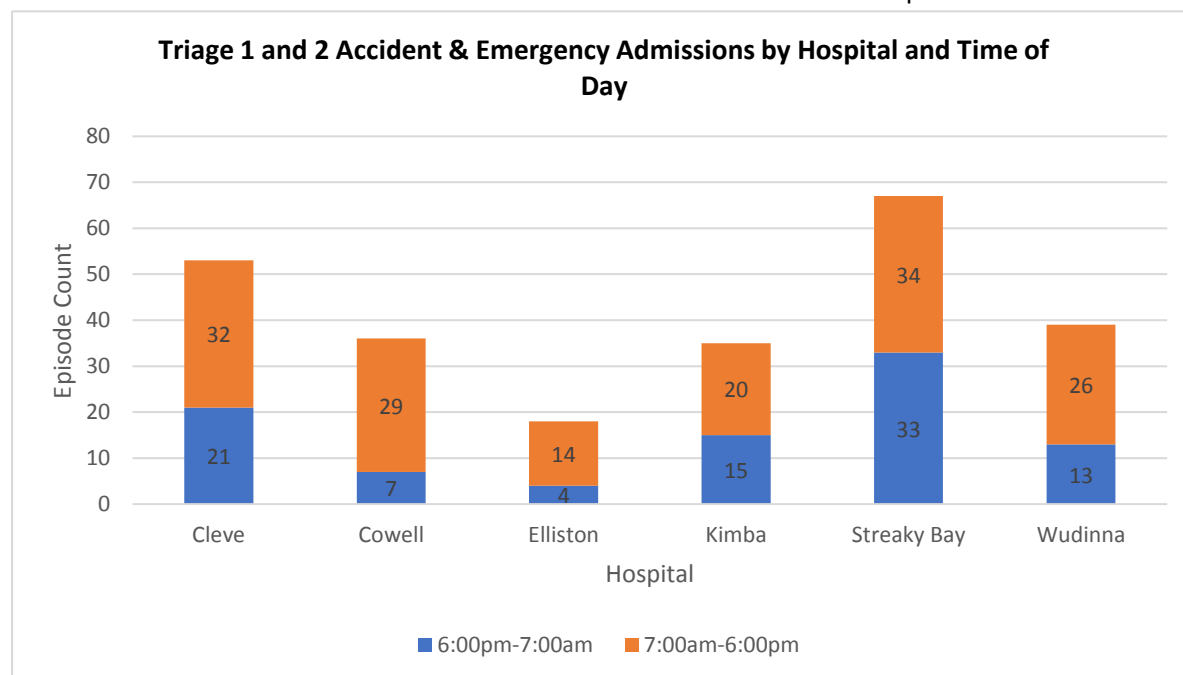


Figure 1: Triage 1 and 2 Accident and Emergency Admissions by NEP Hospital and Time of Day

Total Outpatient Presentations

In addition to admitted patient activity, NEP hospitals experience presentations of patients who are treated but not admitted to hospital. These presentations generally require either dressings, surgical treatment, or removal of sutures. Table 3 shows the total Outpatient Presentations for the 2021 financial year by hospital.

Table 3: NEP Outpatient Presentations 2021 Financial Year	
Hospital	Outpatient Presentations
Cleve	110
Elliston	178
Kimba	585
Streaky Bay	587
Wudinna	335
Total:	1,795

Given the low volume of activity in NEP hospitals, it is not financially viable to staff with full time medical officers. However, a medical officer presence is still required, and hospitals require access to an on-call medical practitioner in the event of a serious Accident and Emergency presentation. Due to the remoteness of NEP towns, it is important that each town continues to have an Accident and Emergency Department, especially given the proximity of the towns to major highways, increased tourism during summer months, and the high percentage of the NEP population who are ageing or who work in environments of high physical risk, including primary and heavy industries.

In every town, at least 19% of Triage 1 and 2 Accident and Emergency presentations occur between 6:00pm and 7:00am, which warrants a twenty-four hours per day on-call medical officer roster.

Furthermore, servicing the hospital is a significant source of income for NEP GPs. See Appendix B for an analysis of potential minimum GP remuneration, incorporating the current on-call payment and actual figures from 2020-2021 financial year of fees charged by GPs and locums for services provided to inpatients at NEP hospitals. Servicing the NEP hospitals can offer variety and opportunity to practice a broader scope of medicine than their usual medical practice consulting, which is attractive for existing NEP doctors and potential recruits.

Appendix C: Estimated GP Baseline Remuneration

The following calculations assume a doctor will earn 65% of theirs or a backfilling locum's generated Medicare revenue for 10 clinical sessions of 3.5 hours' duration per week for 50 weeks per year, 100% of Fee for Service payments from the hospital(s), and a minimum of a 1:4 on call payment. It is also assumed that there is enough demand in NEP communities for all GPs working in the model to achieve this workload if they are spread to ensure there is service coverage of 1 GP per 906 people in each Local Government Area or GP Catchment Area.⁹

Estimated Minimum GP Remuneration (GP Billing \$1200 Billings per day, 50 Weeks Service Coverage Per Year)			
		Remuneration (per FTE GP per annum)	Who pays
	65% Medicare Consultation Revenue	\$194,512.50	Medicare
	On call payment	\$56,666.67 – \$85,000.00	EFNLHN
	Fee for Service	\$4,542.00 - \$21,485.01	EFNLHN
	TOTAL BASE REMUNERATION	\$270,900.70 - \$284,054.50	

Estimated Minimum GP Remuneration (GP Billing \$1400 Billings per day, 50 Weeks Service Coverage Per Year)			
		Remuneration (per FTE GP per annum)	Who pays
	65% Medicare Consultation Revenue	\$227,500.00	Medicare
	On call payment	\$56,666.67 - \$85,000.00	EFNLHN
	Fee for Service	\$4,542.00 - \$21,485.01	EFNLHN
	TOTAL BASE REMUNERATION	\$303,888.20 - \$317,042.00	

Estimated Minimum GP Remuneration (GP Billing \$1500 Billings per day, 50 Weeks Service Coverage Per Year)			
		Remuneration (per FTE GP per annum)	Who pays
	65% Medicare Consultation Revenue	\$243,425.00	Medicare
	On call payment	\$56,666.67 – \$85,000.00	EFNLHN
	Fee for Service	\$4,542.00 - \$21,485.01	EFNLHN
	TOTAL BASE REMUNERATION	\$319,813.20 - \$332,967.00	

Estimated Minimum GP Remuneration (GP Billing \$2000 Billings per day, 50 Weeks Service Coverage Per Year)			
		Remuneration (per FTE GP per annum)	Who pays
	65% Medicare Consultation Revenue	\$325,325.00	Medicare
	On call payment	\$56,666.67 – \$85,000.00	EFNLHN
	Fee for Service	\$4,542.00 - \$21,485.01	EFNLHN
	TOTAL BASE REMUNERATION	\$401,713.20 - \$414,867.00	

⁹ GP Catchment Area refers to the “829 non overlapping geographical GP catchment areas” used by the Australian Government for the purposes of determining Distribution Priority Areas (Australian Government Department of Health, 2021).

Appendix D: Previous NEP Local Government Efforts Contributions

Local Governments have contributed considerable time and resources to attracting GPs to the NEP Region. The following is a summary of the contributions made to date by Northern Eyre Peninsula Local Governments to attracting and retaining GPs on the Northern Eyre Peninsula.

District Council of Kimba

Since 2016 the District Council (DC) of Kimba has provided a rent free, fully equipped medical centre to GPs servicing the town and paid the accreditation costs of the previous private general practitioner servicing Kimba. The DC of Kimba owns a doctors' house and offers this to doctors free of charge. Currently, the DC of Kimba are investing almost \$1 million into an upgrade and extension of the existing medical practice.

The DC of Kimba has participated in extensive advocacy to attract a GP to Kimba, including significant media engagement, the Mayor's participation as the presiding member of Eastern Eyre Health Advisory Committee for several years, representing Local Government on the South Australian Rural Health Workforce Strategy Steering Committee, and presentations to State and Federal Ministers. It is estimated these contributions are valued at \$1,900,000.

District Council of Streaky Bay

Since the retirement of its full-time private GP in January 2020, the District Council of Streaky Bay has undertaken the operation and funding of the not-for-profit Streaky Bay and Districts Medical Practice and the funding of locum services. The Streaky Bay and Districts medical practice has made a considerable investment in attracting and retaining its current full time GP who was recruited and relocated to Streaky Bay to undertake the position in August 2020. Since the inception of this not-for-profit medical practice, the DC of Streaky Bay has invested approximately \$355,000 to keep the practice open until the GP arrived in 2020. The DC of Streaky Bay also financially assisted the new GP to secure a house in Streaky Bay and continues to support the medical practice as necessary for other medical staffing.

Wudinna District Council

The current private GP in Wudinna has served the community for fourteen years. This GP began as a medical student on placement in the John Flynn Placement Program (John Flynn Placement Program, 2021) and formed a connection with the community. The Mayor at the time actively maintained a professional relationship with the medical student, who returned to Wudinna as a GP Registrar, and subsequently, a vocationally recognised private GP. The DC of Wudinna has continued to support and advocate for their local GP and provided strong support in the establishment of NEPHA in 2019.

District Council of Cleve, District Council of Franklin Harbour, and District Council of Elliston

The District Council of Cleve, District Council of Franklin Harbour, and District Council of Elliston have each played a strong advocacy role in the recruitment and retention of GPs to the NEP region with representation on the NEPHA Board and responding to community concerns about the GP shortage.

Appendix E: Implementation Goals

Table 1 lists the goals of the implementation of the proposed model, by year of implementation.

Table 1: Implementation Goals	
Year	Goals
1	Build five new Houses: • 1 x Streaky Bay • 1 x Kimba • 1 x Cowell • 1 x Cleve • 1 x Wudinna Commence GP recruitment campaign
2	Recruit five GPs: • 1 x Streaky Bay • 1 x Kimba • 1 x Cowell • 1 x Cleve • 1 x Wudinna Build four new Houses: • 1 x Streaky Bay • 1 x Kimba • 1 x Cleve • 1 x Wudinna
3	Recruit two GPs: • 1 x Wudinna • 1 x Streaky Bay Build three Houses • 1 x Streaky Bay • 1 x Elliston • 1 x Cowell
4	Recruit two GPs • 1 x Cowell • 1 x Kimba
5	Recruit number of GPs necessary to cover any departing GPs

Attachments

Attachment A - NEPHA Constitution	 Rules of Northern Eyre Peninsula Health
Attachment B – Needs Assessment Report	 Eyre Peninsula Workforce Strategy_N

Table of Acronyms

Acronym	Name
ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
CSAPHN	Country SA Primary Health Network
DC	District Council
EFNLHN	Eyre and Far North Local Health Network
FTE	Full-time equivalent
FUNLHN	Flinders and Upper North Local Health Network
GP	General Practitioner
LGA	Local Government Area
LHN	Local Health Network
NEP	Northern Eyre Peninsula
NEPHA	Northern Eyre Peninsula Health Alliance
Non-VR	Non-Vocationally Recognised
PGY	Post Graduate Year
RDWA	Rural Doctor's Workforce Agency
RGPSA	Rural Generalist Program South Australia
RHWS	Rural Health Workforce Strategy
RVTS	Remote Vocational Training Scheme
VR	Vocationally Recognised

List of Tables

Table 1: General Practice FTE Required for NEP LGAs including Leave and Teaching.....	22
Table 2: Commonwealth and State Funded Financial Geographical Incentives	31
Table 3: Package Summary	33
Table 4: Proposed New Housing	35
Table 5: Contributions Required for the Infrastructure by Year of Implementation	36
Table 6: Summary of Contributions.....	37

List of Figures

Figure 1: Map of the Eyre Peninsula divided into Local Government Areas overlayed by an outline of the Northern Eyre Peninsula catchment.	16
Figure 2: Map of Eyre Peninsula divided into Local Government Areas overlayed by a Map of the Eyre Peninsula divided into Remoteness Categories	17
Figure 3: Geographic Structure recommended for After Hours On-Call	26