

The logo features a central white circle containing the text 'Sustainable Rural Healthcare HUBS'. The words 'Sustainable Rural' are in a smaller, blue, sans-serif font, while 'Healthcare' and 'HUBS' are in a larger, bold, dark blue, sans-serif font. This central circle is surrounded by a ring of eight colored segments in shades of orange, yellow, green, and blue, which are further set against a background of larger, overlapping geometric shapes in similar colors.

Sustainable Rural Healthcare **HUBS**

Buloke Loddon Gannawarra Sustainable Rural Healthcare Hubs (Multidisciplinary) Trial

Year 1 - early implementation evaluation report
July 2025

IMOC Round 4 – Sustainable Rural Healthcare Hubs. Grant activity ID: 4-J0EK4IH



**Sustainable Rural
Health Project**

Acknowledgement of Country

Monash Rural Health, Northern District Community Health and project partners acknowledge this project is taking place on many unceded First Nations Countries, including the Lands of the Dja Dja Wurrung, Barapa Barapa, Wemba Wemba, Yorta Yorta, Wergeia, Wotjobaluk, Jaadwa, Jadawadjali, and Jupagalk Peoples.

We pay our respects and give thanks to the Ancestors, Elders and Young people for their nurturing, protection and caregiving of these sacred lands and waterways, acknowledging their continuing cultural, spiritual and educational practices.

We are grateful for the sharing of Country and the renewal that Country gives us. We acknowledge and express our sorrow that this sharing has come at a personal, spiritual and cultural cost to the wellbeing of First Nations peoples.

We commit to addressing the injustices of colonisation across the region, and to listening to the wisdom of First Nations communities who hold the knowledge to enable healing.

We extend that respect to all Aboriginal and Torres Strait Islander Peoples.

The Sustainable Rural Healthcare Hubs project is funded by the Australian Government's Department of Health and Aged Care through the 'Innovative Models of Care (IMOC) Program Funding Community Supported Rural Primary Care Trials – Round 4'. The lead organisation is Northern District Community Health (NDCH) with Murray Primary Health Network (Murray PHN), Boort District Health (BDH), Inglewood & Districts Health Service (IDHS), and East Wimmera Health Service (EWHS) as consortium members. Monash Rural Health (MRH) leads the project evaluation.

The project is funded for four years from July 2023 to June 2027. Grant activity ID: 4-J0EK4IH

The Monash University Human Research Ethics Committee (project identification 42449) approved an ethics application for the project on 25 September 2024.

www.ruralhealthcarehubs.org.au



Glossary

Integrated Health Network Alliance ('the Alliance')	A collaborative partnership between Murray PHN (Primary Health Network), Boort District Health, Inglewood & Districts Health Service, East Wimmera Health Service, and Northern District Community Health.
Healthcare consumer	A person receiving services from a healthcare provider. Used in preference to 'patient', 'client' or 'service user'.
Sustainable Healthcare Hubs ('the Hubs program')	A multidisciplinary model of healthcare for people living in the local government areas of Buloke, Loddon and Gannawarra shires.

Acronyms

AOD	Alcohol and other drugs	MBS	Medicare Benefits Scheme
BDH	Boort District Health	MDAS	Mallee District Aboriginal Service
BLG	Buloke, Loddon and Gannawarra	MDT	Multidisciplinary Team
BSC	Buloke Shire Council	MRH	Monash Rural Health
CC	Care Coordinator	MTHS	Mallee Track Health Service
CDH	Cohuna District Hospital	Murray PHN	Murray Primary Health Network
DBNC	Dingee Bush Nursing Centre	NCLLEN	North Central Local learning and Employment Network
DFFH	Department of Families, Fairness and Housing	NDCH	Northern District Community Health
DoH	Department of Health	NP	Nurse Practitioner
DoHAC	Department of Health and Aged Care	PHU	Public Health Unit
EWHS	East Wimmera Health Service	RACH	Residential Aged Care Home
FTE	Full Time Equivalent	UCC	Urgent Care Centre
GP	General Practitioner	VIC DOH	Victoria Government Department of Health
GSC	Gannawarra Shire Council	VIC DEPT FFH	Victorian Government Department of Families, Fairness and Housing
KDH	Kerang District Health	Western Vic PHN and WVPHN	Western Victoria Primary Health Network
IDHS	Inglewood & Districts Health Service		
IHN	Integrated Health Network		
LGA	Local Government Area		
LSC	Loddon Shire Council		

Executive summary

The Sustainable Rural Healthcare Hubs (Multidisciplinary) Trial Year 1 Evaluation Report details the preparation for, and implementation of, the Innovative Model of Care (IMOC) multidisciplinary Hubs program in the Buloke, Loddon, and Gannawarra shires to address their shared challenges around community healthcare needs, resource use and ageing populations.

The Year 1 Early Implementation Report (1 January 2025 to 30 June 2025) is the second of four reports tracking the implementation of the Hubs program to June 2027. It is a deliverable of the funding requirements for the grant opportunity supported by the Australian Government's Department of Health, Disability and Ageing through the 'Innovative Models of Care (IMOC) Program Funding Community Supported Rural Primary Care Trials – Round 4'.

Data for the report were collected from consumer surveys, clinical activity reports, population and service data, and healthcare provider discussions.

Key findings at June 2025 included:

- Completion of three launch and training days for staff representing six sites, resulting in all sites involved in the Hubs model of care having undergone initial training
- Development of site-specific patient flows adapted from the generic preliminary patient flow based on Medicare optimisation and access to nurse practitioner workforce
- Establishment of the Hubs model of care in four sites (Kerang, Quambatook, Pyramid Hill and Boort), with further development required at remaining sites
- Recognition that workforce changes require the Hubs model to be flexible and adaptable to respond to local context and workforce availability reflecting the importance of place-based modelling

- Development of a draft health economics strategy for application in FY26 and FY27
- Development of a draft patient flow tailored to First Nations Peoples into the Hubs program to promote Cultural Safety
- Awareness of the need for further adaptations to patient flow to provide MDT care in different workforce scenarios, including extending leadership roles to registered nurses (RN) and allied health professionals (AHP)
- The need for advocacy for funding models that enable team-based care that support different workforce scenarios and staffing mix which are constantly changing in small rural settings
- The critical need for funding models that support the implementation of innovative service approaches, particularly in workforce-shortage areas, without imposing constraints on the model or exposing organisations to financial risk
- Fit-for-purpose contractual arrangements, built from a common understanding of shared purpose and trust, that will embed a sustainable model in the region
- The challenges of implementation and sustaining models with a limited workforce
- Recognition of the pivotal role of the care coordinator in supporting the implementation of the model of care
- Acknowledging the importance of a diverse Hubs model of care information dissemination strategy.

The Year 1 Report describes the Early Implementation stage of the Hubs program development.

Sustainable Rural Healthcare Hubs Project Evaluation

INTRODUCTION

The focus of the Hubs program is to deliver accessible, localised and comprehensive healthcare for people living with chronic conditions in small rural communities across three adjoining Shires of Buloke, Gannawarra and Loddon (all MMM5), who would benefit from a multidisciplinary team-based (MTD) approach to care. The Hubs program model of care strengthens usual care by making team-based care more intentional and systematic, and by providing systems for efficient communication between healthcare providers.

The MDT model of care comprises of shared leadership from a general practitioner and nurse practitioner, supported by a care coordinator, with involvement from allied health and other professionals or support organisations involved in the person's care.

More background on the Sustainable Rural Healthcare Hubs multidisciplinary team (MDT) model of primary care is outlined in the [Baseline Evaluation Report](#).

REPORT TIMELINE

There will be four evaluation reports aligned with the project's stages:

- Year 0, Baseline report: 30 June 2024 to 31 December 2024, completed December 2024
- Year 1 report: 1 January to 30 June 2025, completed June 2025
- Year 2 report: 1 July 2025 to 30 June 2026, to be completed financial year 2025/2026
- Year 3 report: 1 July 2026 to 30 June 2027, to be completed financial year 2026/2027.

These reports will include the findings from healthcare consumer and provider perspectives and journey mapping, which includes clinical file audits and patient narratives. (See Attachment 1: Data Collection Summary table).

HUBS PROGRAM EVALUATION

The research team evaluating the project's outcomes comprises the Integrated Health Network (IHN) Alliance, plus members of the Integrated Model of Care (IMOC) Action Research and Evaluation Working Group. IMOC has two sub-groups focused on intervention and evaluation.

- Intervention group members: Dr Nerida Hyett, Trevor Adem, Donna Doyle, Dallas Coghill and Penny Wilkinson.
- Evaluation group members: Associate Professor Pam Harvey, Kylie Shanahan/Mitchell Brusamarello (research assistants), Pauline Nolan (Aboriginal Researcher), Dr Kalayu Brhane Mruts and Professor Shane Bullock.

The program evaluation completed in Year 1 reports on early implementation of the model of care across sites, and overall progress and challenges.

In Year 2 (July 2025 - June 2026), the evaluation will be expanded to include Aboriginal and/or Torres Strait Islander Peoples data, and a health economic evaluation. Aboriginal Researcher, Pauline Nolan (Yorta Yorta), is designing a First Nations stream for the model of care and program evaluation to promote Cultural Safety for people who identify as Aboriginal and/or Torres Strait Islander Peoples. A health economist team from Monash University, led by Dr Jonathan Foo, is developing a strategy for the project to address economic and other outcome measures.



Year 1 Report: January to June 2025

Background

The Hubs program is being conducted across three adjoining Local Government Areas (LGAs) of Buloke, Loddon and Gannawarra in Central and Northwest Victoria. These LGAs consist mainly of small rural communities classified as Monash Modified Model (MMM) 5 [3]. The overall population of the area is approximately 25,000. The LGAs have ageing communities, high rates of chronic disease, and experience critical health workforce shortages across all healthcare sectors (see Table 1).

The Hubs program initially identified sites included Healthcare Hub locations serviced by four health services (Table 1), with the intention of establishing at least six sites during the trial period. The MDT model of care at each site would have general practitioner

(GP) and nurse practitioner (NP) co-leadership, with care coordinator support, and other service providers and practitioners involved in team care depending on patient need and workforce availability.

The program proposes multidisciplinary team-based care clinics in Kerang, Quambatook and Pyramid Hill, Boort, Inglewood and areas supported by East Wimmera Health Service. In-depth program discussions occurred with health services about Hub site locations during a co-design phase before the commencement of the Hubs trial in 2022-2023. During pre- and early-implementation stages, the locations have been confirmed, and three sites are currently operational with further sites under development.





Table 1: Proposed Hub program locations and community characteristics December 2024 (ABS, 2021)

Partner Health Service	Town	GP services	Population (Suburb and Localities)	Median age	Aboriginal and/or Torres Strait Islander People (%)	Median weekly income (household)	Top 3 chronic conditions
NDCH	Kerang	Small 2-5 GP FTE general practice and community health	3,960	51	3.9%	\$1,006	Arthritis 15.7%, Asthma 12.0%, Mental health 10.7%
NDCH	Quambatook	Community health site, no GP onsite	229	59	1.7%	\$857	Arthritis 14.4%, Asthma 13.5%, Mental health 11.8%
NDCH	Pyramid Hill	Community health site, no GP onsite	598	46	2.0%	\$964	Arthritis 10.5%, Other 9.7%, Asthma 9.2%
BDH	Boort	Solo GP general practice, rural public hospital RACH and UCC	940	57	1.6%	\$1,054	Arthritis 12.0%, Mental health 9.4%, Asthma 8.9%
IDHS	Inglewood	1.5 GP FTE general practice, rural public hospital RACH and UCC	886	55	2.6%	\$844	Arthritis 18.7%, Mental health 17.0%, Other 11.7%
EWHS	Birchip	Solo GP general practice, rural public hospital RACH and UCC	694	49	1.2%	\$1,171	Arthritis 13.1%, Asthma 9.2%, Mental health 8.1%
EWHS	Charlton	Solo GP general practice, rural public hospital RACH and UCC	1,095	56	1.6%	\$958	Arthritis 15.8%, Mental health 9.8%, Asthma 9.3%
EWHS	Donald	Small 2 GP FTE general practice, rural public hospital RACH and UCC	1,472	52	2.5%	\$1,044	Arthritis 14.8%, Mental health 10.5%, Asthma 10.1%
EWHS	Wycheproof	Solo GP general practice, rural public hospital RACH and UCC	610	56	0%	\$1,011	Arthritis 15.2%, Mental health 12.6%, Other 11.3%
EWHS	St Arnaud	Small 2 GP FTE general practice, rural public hospital RACH and UCC	2,318	52	2.3%	\$920	Arthritis 14.7%, Mental health 11.9%, Other 9.2%
Victoria	-	-	-	38	1.0%	\$1,759	Mental health 8.8%, Asthma 8.4%, Arthritis 8.0%, Other 8.0%

ABS (2021); RACH: Residential Aged Care Home, UCC: Urgent Care Centre

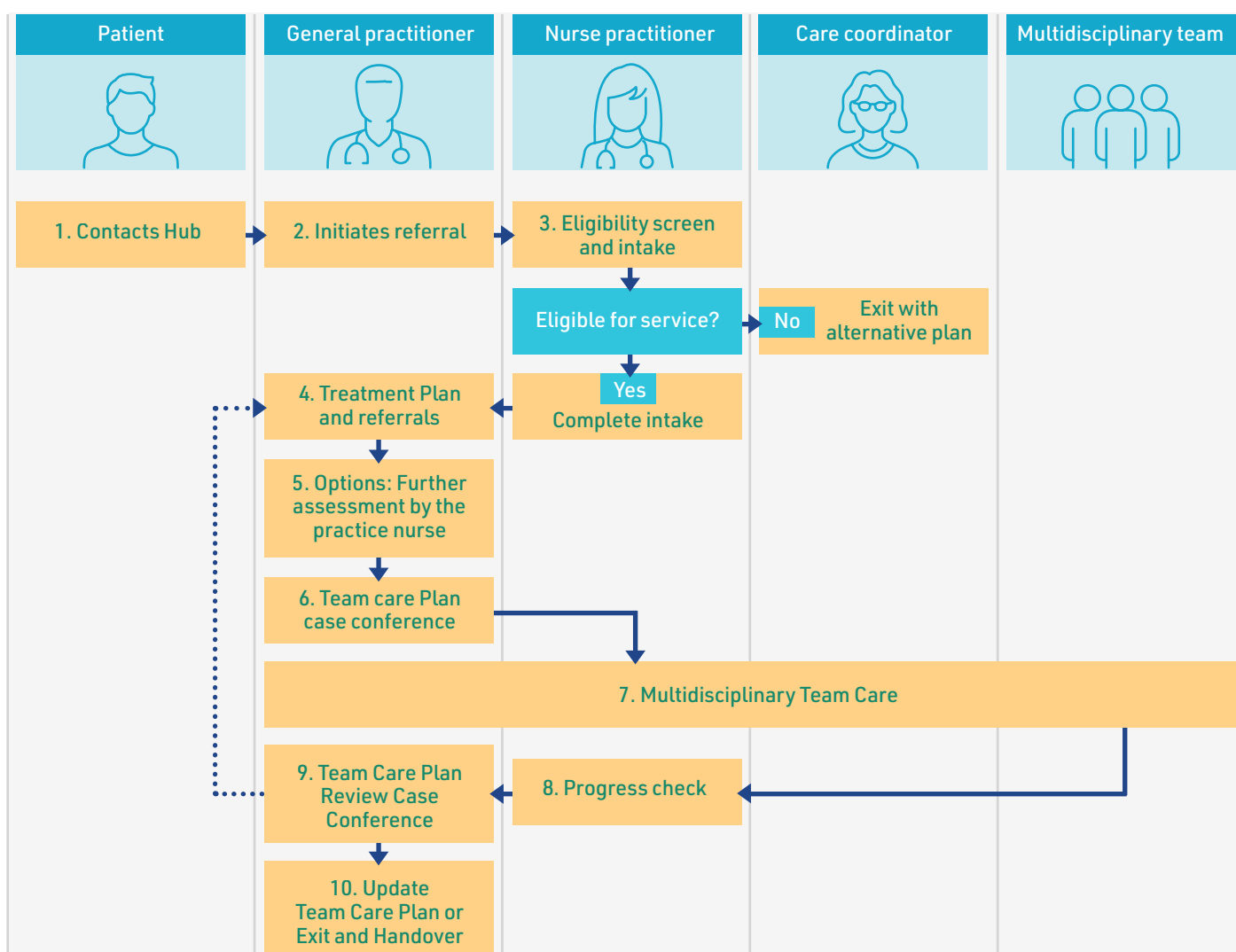
GOVERNANCE AND PROJECT LEAD

The existing IHN Alliance partnership and preceding collaborative co-design and project activities enabled the development of key principles to inform interprofessional collaboration and shared leadership, clinical governance and collaborative planning, and clinic service planning. The governance structure is attached (Attachment 4).

The lead organisation and contract agency for the IMOC funding is Northern District Community Health (NDCH). Multiple contractual agreements support the Hub program alongside the IMOC funding, and include those between NDCH, other rural services, and Murray PHN.

The generic multidisciplinary team-based care patient flow (Figure 1) was developed to align with relevant MBS items for revenue and sustainability. As Hub locations differ in health service leadership, location, workforce availability and service provision, it was expected that, over time, a variation of the generic patient flow would be required for each site and multiple variations might be used for different workforce availability scenarios to allow for continuity of care.

Figure 1: Hubs Patient Flow - generic based on MBS optimisation and NP availability



Suggested MBS billing items for chronic disease and aged care (Table 2) may also vary according to health consumer cohort characteristics and presentations. The MBS items in Table 2 reflect what was available in Year 1. Updates will be made for Year 2 to reflect changes to the GP Chronic Condition Management Plan items that will be implemented from 1 July 2025.



Table 2: Proposed MBS item numbers (Year 1)

Patient flow	Relevant MBS items
1. Contact Hub (Patient)	N/A
2. Initiate referral (GP)	3 Level A GP consultation
	23 Level B GP consultation 6-20mins
3. Eligibility Screen and Intake (Nurse Practitioner)	82215 Level D Nurse Practitioner over 40mins
4. Treatment Plan and Referrals (GP)	721 GP Management Plan
	723 Team Care Arrangements (GP)
	2715 Mental Health Treatment Plan (GP)
	701 , 703 , 705 , 707 , 715 Health Assessment (GP)
5. Option: Further assessment by the Practice Nurse	N/A – included in GP claim
6. Team Care Plan Case Conference (GP)	735 GP Case Conference 15-20 mins
	739 GP Case Conference 20-40mins
	930 GP Mental Health Case Conference 15-20mins
	933 GP Mental Health Case Conference 20-40mins
	10955 Allied health/NP Case Conference attendance 15-20mins
	10957 Allied health case conference attendance 20-40mins
7. Multidisciplinary Team Care (GP, NP, CC and Multidisciplinary Team)	10950 to 10970 Individual allied health services
	81100 to 81125 group allied health services
8. Progress Check (NP)	82210 Level C Nurse Practitioner
	82215 Level D Nurse Practitioner
9. Team Care Plan Review and Case Conference (GP)	732 GPMP or TCA Review
	2712 Mental Health Care Plan Review (GP)
	735 GP Case Conference 15-20 mins
	739 GP Case Conference 20-40mins
	930 GP Mental Health Case Conference 15-20mins
	933 GP Mental Health Case Conference 20-40mins
	10957 Allied health/NP Case Conference attendance 15-20mins
	10957 Allied health case conference attendance 20-40mins
10. Continue Team Care OR Handover (NP and CC)	82210 Level C Nurse Practitioner \$50.05
	82215 Level D Nurse Practitioner \$73.80
	10997 Practice nurse GPMP/TCA support

AIMS

The aim of the Year 1 stage evaluation of the Hubs program was to investigate its development and implementation in the proposed sites. Specifically, it focused on:

- Site readiness to begin the Hub program
- Site contextualisation for patient flow processes
- Determinants identified at the implementation stage.

METHODS

The evaluation has employed a mixed-methods methodology to describe each site's implementation processes and patient flow.

Qualitative data included a descriptive analysis of semi-structured focus groups and individual interviews with healthcare providers and the lead agency to further investigate Hub program site logistics and processes for implementation of the model of care, including contextualisation of the patient flow diagrams.

Quantitative data included de-identified aggregate practice data reports for the time of this report supplied by Murray PHN, with participating general practices' informed consent to identify any changes in chronic disease-related workflows. Community and health service profiling through a descriptive analysis of publicly available population health datasets (AIHW) was reviewed for currency (Table 1). Members of the Alliance also summarised their services to review any changes (Attachment 2).

Program launch and training days were completed at three services covering six sites. Quantitative data collection from Hubs program sites after launches included clinic day tally sheets and patient experience surveys.

The research working group, consisting of members from NDCH, Monash Rural Health and Murray PHN, held regular meetings to discuss data collection procedures and findings. Specific meetings were conducted to include a team of health economists from Monash University focused on a health economics strategy, and with the Aboriginal researcher about including First Nations Peoples in the Hubs program and evaluation.

INTEGRATED FINDINGS

Data collection for Year 1 included staff involvement at Hub training and review meetings, patient data information from active sites and discussions with the leadership team from the lead agency.

HUBS PROGRAM LAUNCHES

Three further site program launches and training days were completed in Year 1:

- **East Wimmera Health Services** (held at Donald on 28 January 2025 and Wycheproof on 29 January 2025, including staff covering St Arnaud, Charlton and Birchip) involving nursing and allied health practitioners and general practice staff (n=9)
- **Inglewood & District Health Services** (held at Inglewood on 6 February 2025) involving nursing and allied health practitioners, GPs and general practice staff and IDHS executive staff (n=7).

All partner health services have had initial training in the Hubs program implementation process.

HUBS PROGRAM IMPLEMENTATION

The Hubs program patient intake began at NDCH from 1 January 2025 at its three sites of Kerang, Quambatook and Pyramid Hill, with a six-week gap in service because of nurse practitioner leave. Other sites had yet to fully implement the Hubs program and data collection by the end of this reporting period. The IDHS hub start date was postponed to July 2026 because of NP MBS provider number delays. The BDH site was transitioning from the previous NP model of care to the MDT model, and retrospective data will be collected for this period under the IMOC project to be reported in Year 2. EWHS's Hubs program start date was envisioned as 1 July 2025 (in Year 2 of the project), but since its training day, EWHS has implemented formal MDT case conferences and established communication procedures with patient's general practices ready for implementation once the program begins.

HEALTHCARE PROVIDER DISCUSSIONS

REFERRAL FORM

A major finding of the Sustainable Rural Healthcare Hubs Program Baseline Report was the importance of creating formal processes around patient intake and referral, and the ability to enhance existing care models. This has resulted in the development of an intake form for use by external referrers who do not have access to the general practice software (see Attachment 3).

SITE SPECIFIC PATIENT FLOW

To further understand contextual patient flow at sites, meetings were held at Inglewood (IDHS), Pyramid Hill (NDCH), and St Arnaud (EWHS), and patient flow diagrams created to reflect current understandings of the Hub logistics and how Hub patient care pathways will work. These discussions have clarified the variations from the generic patient flow diagram presented at program launches and allowed for tailored, place-based approaches that reflect the differences in implementation at each site. The contextualised patient flow diagrams also showcase the operational complexities in service referral and delivery at rural healthcare providers related to an innovative model of care.

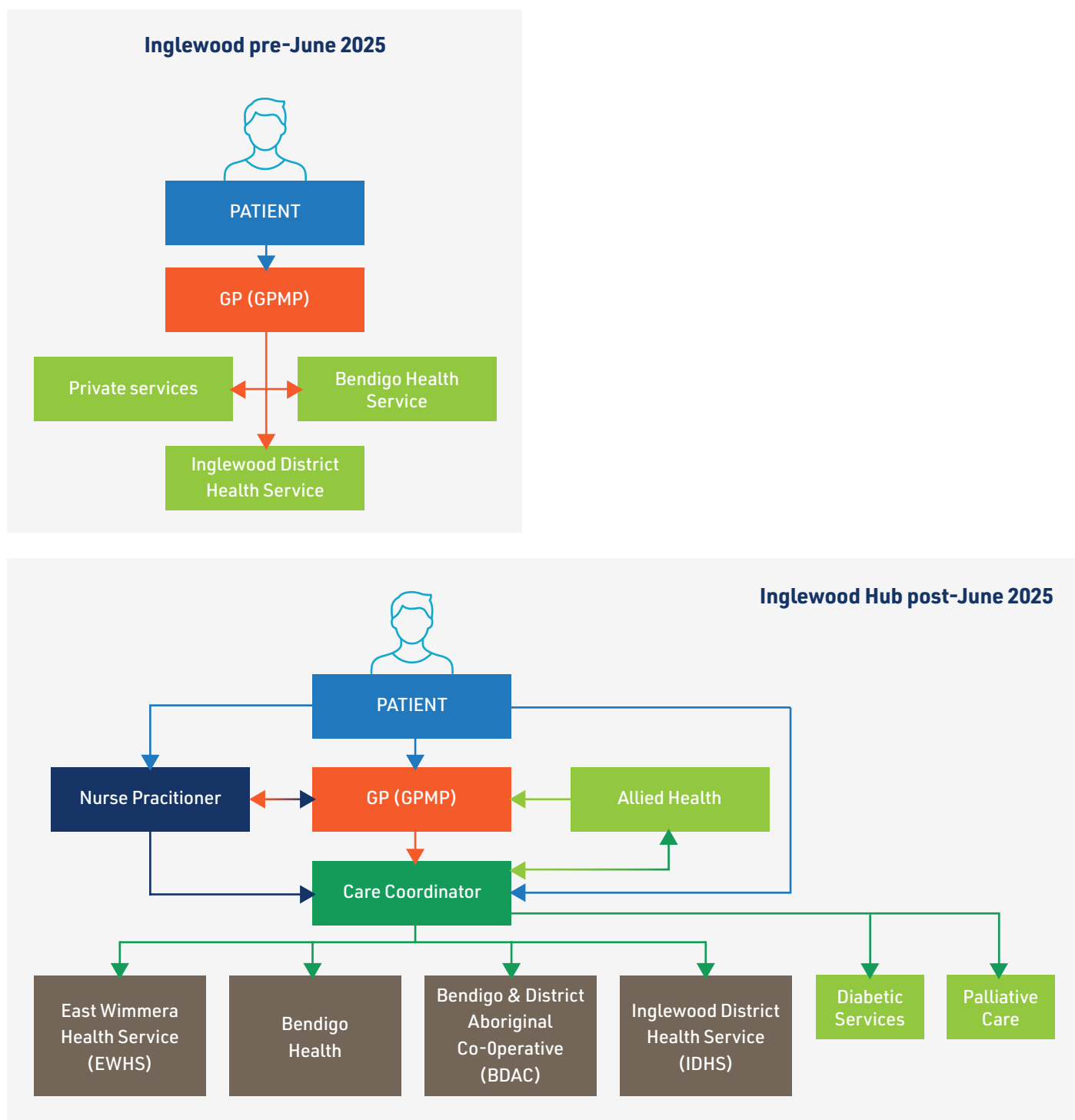
IDHS patient flow proposal

Discussions at IDHS involved the NP, care coordinator, practice manager and clinical services manager. Several points were raised about systems of communication, service knowledge among healthcare providers, the importance of known and trusted healthcare professionals to the community members receiving care, and referral pathways to other services for the acknowledged healthcare gaps in the district. These discussions helped the partnering services understand current service availability in the area and decide on the referral pathway.

The Hubs model of care at IDHS was due to begin in June 2025 but was delayed because of NP service provider number acquisition. The patient flow diagrams in Figure 2 reflect the working model of patient flow perceived by those present in the discussions, and closely align with the generic patient flow, with an emphasis on the pivotal role of the care coordinator and their role in care navigation.

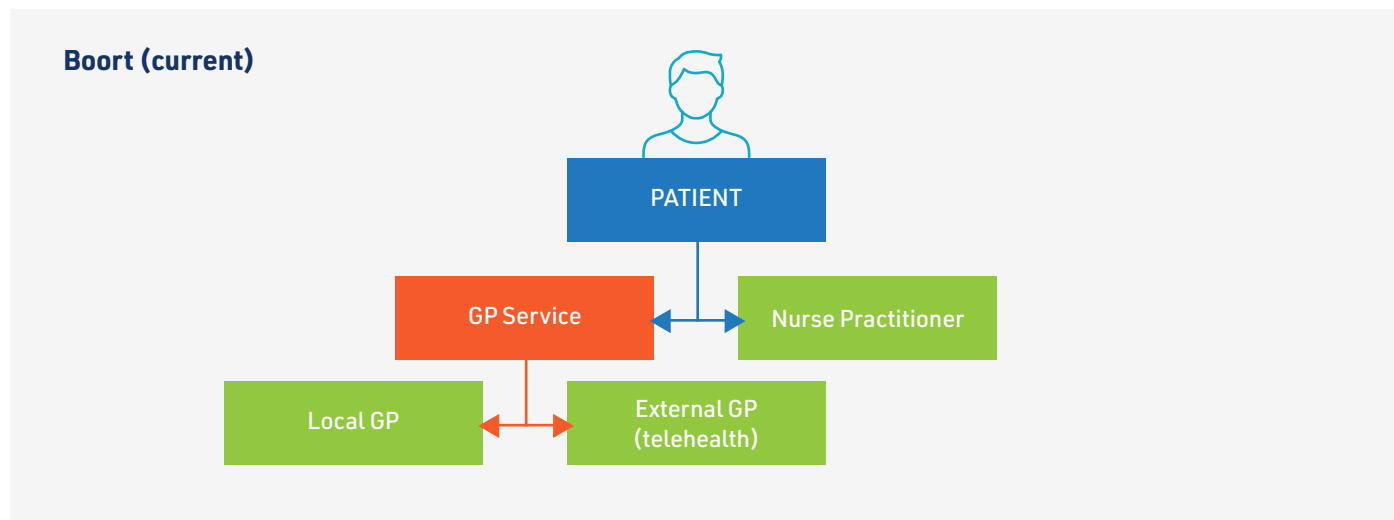


Figure 2: Examples of proposed patient flow IDHS



The NP at IDHS also works at the clinic at BDS and suggested the following patient flow for Boort once the Hubs MDT program is fully implemented (Figure 3), which also aligns with the generic patient flow originally suggested.

Figure 3. Patient flow at Boort and Districts Medical Centre



NDCH patient flow proposal

The discussion between the NP and the care coordinator during a visit at the Pyramid Hill site of NDCH showed a good alignment with the generic patient flow diagram (figure 1) created as an initial example of how the MDT model of care could strengthen usual care models. The discussion reinforced the different referral paths to the NP, including from other healthcare professionals within NDCH and from patients connecting directly with the care coordinator. Other entry points were self-referrals to the Hubs program because of knowledge obtained, for example from community pharmacy, the Neighbourhood House, NDCH Facebook posts, and flu clinics. This shows the need for diverse ways of disseminating Hubs program information to reach its intended participants.

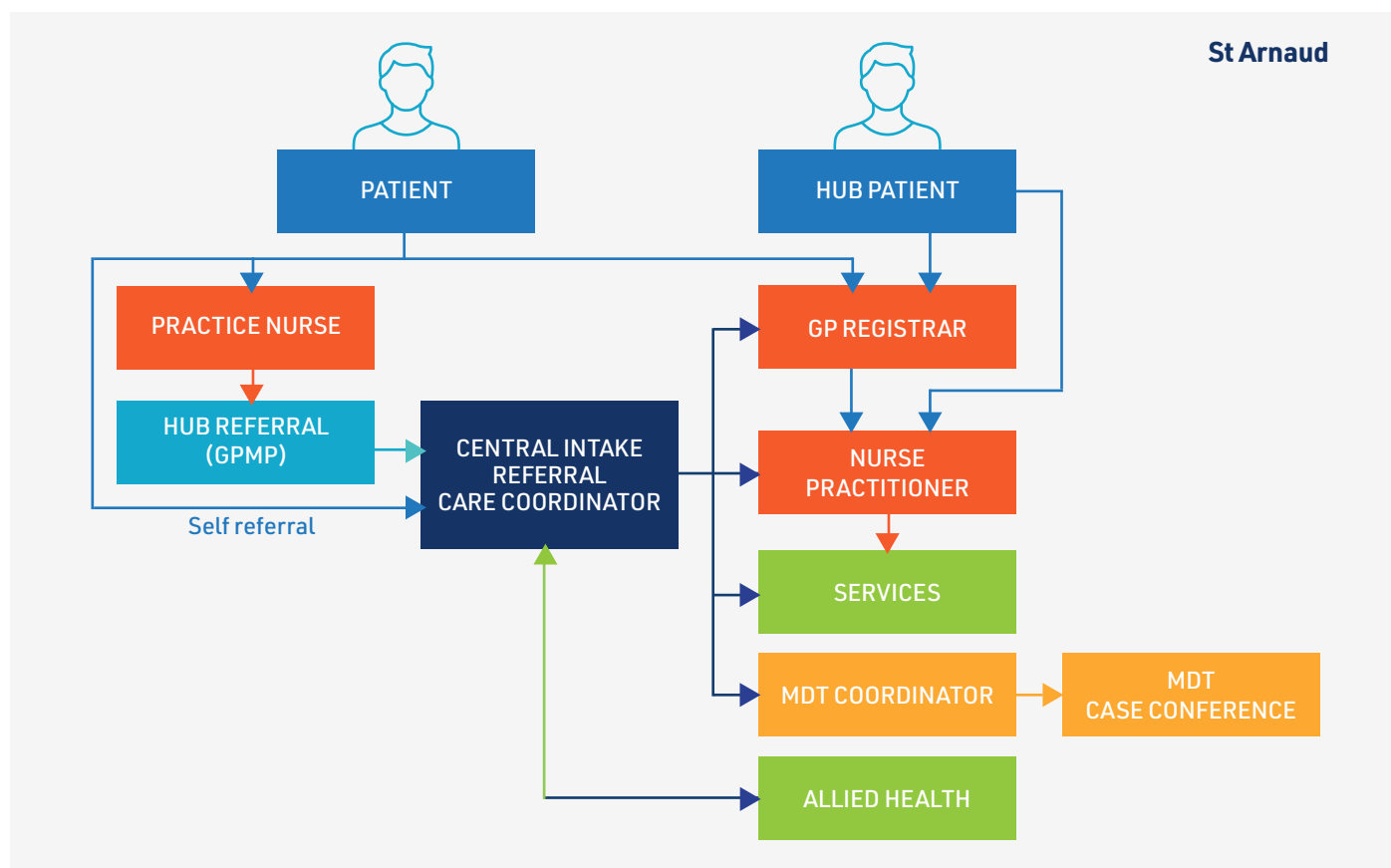
EWHS patient flow proposal

Since the training days at Donald and Wycheproof where referral systems and case conferencing were discussed as priorities for the start of the Hubs model of care, the existing MDT have implemented regular times for case conferences at which the GP is invited if required. More efficient referral pathways are also being investigated, particularly around robust methods of ensuring patient confidentiality. While the EWHS MDT already has an approach to usual care for people with chronic conditions, it was acknowledged that some sites had closer connections with local GPs than others.

Using the example of St Arnaud as a site, pathways to the Hub program via a GP registrar were considered (Figure 4). As local GPs were absent for part of the year with other service delivery, a Remote Vocational Training Scheme (RVTS) GP registrar is being considered and would be a referral source for the Hubs program.



Figure 4. Proposed EWHS site



Adaptation of the generic patient flow diagram

The discussions with healthcare providers highlighted the clinical leadership role of nurse practitioners in patient flow, especially given their ability to lead MDT care in contexts where there are limited and declining numbers of GPs. During Year 1, a key learning was the need for further adaptations to provide MDT care in different workforce scenarios and service delivery sites, as demonstrated by the site-specific patient flow diagrams.



HUBS PROGRAM CLINIC DATA

One health provider, NDCH, implemented the Hubs program and data collection in full at its sites on 1 January. While Boort was also a Hubs site from 1 January, the program is transitioning from the previous NP model of care and retrospective data will be collected in Year 1. Other health providers remain in the pre-implementation stage, reflecting the time needed to implement a variation of a model of care despite its alignment with usual care arrangements.

NORTHERN DISTRICT COMMUNITY HEALTH

The Hubs program NP and care coordinator attended clinic days each Thursday at three locations (see table 3). The NP was on leave for 6 weeks during the reporting period.

Table 3: NDCH Hubs Program clinics

Clinic Location	Clinic Days	Local priorities
Kerang	Thursday (once every 3 weeks)	75+ health assessment
		Chronic Illness (adult) mgt plan
		Mental illness
Quambatook	Thursday (once every 3 weeks)	75+ health assessment
		Chronic Illness (adult) mgt plan
		Mental illness
Pyramid Hill	Thursday (once every 3 weeks)	75+ health assessment
		Chronic Illness (adult) mgt plan
		Mental illness

Clinic day reports

There were 17 individual Hubs program clinic reports submitted in the Year 1 reporting period across sites associated with NDCH, accounting for 55 individual Hubs consumers across the clinics in the catchment area (see Table 3). During this time, there were three new patients across these clinics who had not attended the clinic within the last two years: two in Pyramid Hill and one in Kerang. Non-Hub program patients were also seen by Hubs clinical staff onsite for usual care. These encounters were not recorded for this report but show an additional value for the outreach model.

Table 4. Hubs consumers and new patient number by clinic location in the NDCH catchment

Clinic location	Hubs consumers	New patients
Kerang	7	1
Pyramid Hill	21	2
Quambatook	27	0
Total	55	3

Patient demographics

Of the 55 Hubs consumers, 28 were women and 27 men, with no people identifying as gender diverse or non-binary. There was a reported patient age range of 25-85+ years old. A breakdown of gender and ages by clinic is summarised below (Figure 5 and 6):

Figure 5. Patient gender by clinic site in the NDCH catchment area

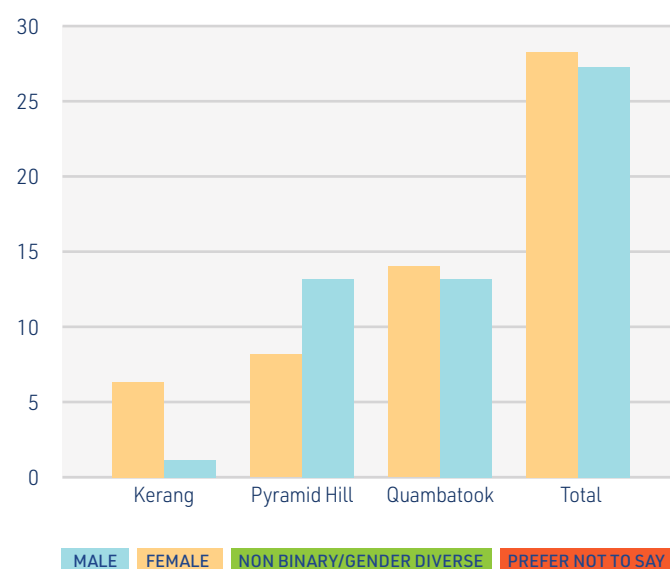
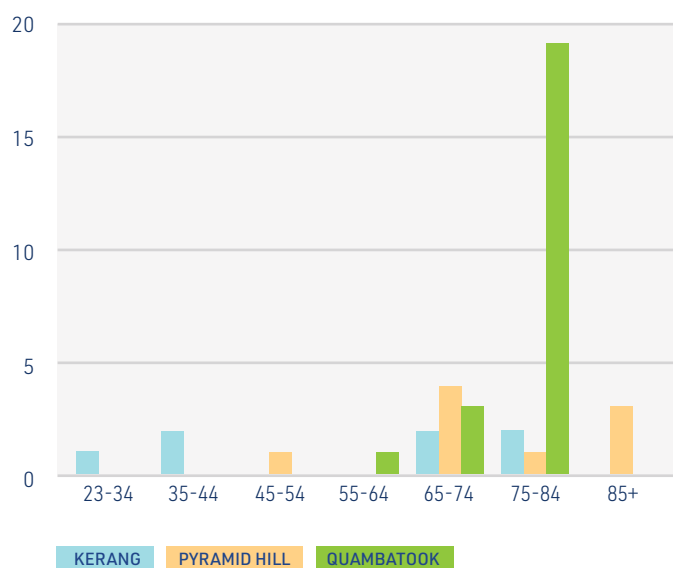


Figure 6. Patient age ranges by clinic in NDCH sites



* NB: some missing data from clinic reports

Patients who attended the Kerang clinic identified as either living in Kerang (postcode 3579) or Quambatook (postcode 3540). Patients who attended the Pyramid Hill clinic all identified as being from Pyramid Hill (postcode 3575). Most patients who attended the Quambatook clinic lived in Quambatook (postcode 3540) with one patient from Pyramid Hill (postcode 3575).

Clinical services

In Kerang, all seven patients were seen by the nurse practitioner, while five patients were additionally seen by a practice nurse or enrolled nurse. In Pyramid Hill, all 21 patients were seen by a nurse practitioner, with 19 of the patients also receiving a consultation with a practice nurse or enrolled nurse, and two of the patients by a community health nurse. In Quambatook, all 27 patients saw a nurse practitioner, with 26 patients additionally seeing a practice nurse or enrolled nurse, one patient seeing a general practitioner, seven seeing a community health nurse and one patient seeing a dietitian. A summary of MBS items reported in the clinic data is below (see Table 5).

Table 5: NDCH MBS items 1 Jan - 30 Jun

MBS ITEMS CLAIMED	KERANG COUNT	PYRAMID HILL COUNT	QUAMBATOOK COUNT
23 Level B GP consult 6-20 mins			3
82205 Level B NP over 6-20 mins		8	8
82210 Level C NP over 25-44 mins	6	8	12
82215 Level D NP over 40 mins		3	3
91189 NP phone consultation over 6-20 mins	1	1-2	1
10955 allied health practitioner attendance as part of a multidisciplinary case conference team			1 - 4

Patient experience surveys and journey mapping

For the Year 1 reporting period, there were two surveys submitted from the same clinic site. Data cannot be reported for a sample size of less than five to maintain patient confidentiality and data integrity. No patient journey mapping interviews were conducted during Year 1 because of the early stages of the program's implementation.



PRACTICE DATA

Aggregate general practice data reports from two practices across the BLG provided a snapshot of the population currently seen in each region and MBS items utilised in their care. Data was provided by Murray PHN through their licence to the Practice Aggregation Tool for the Clinical Audit Tool (PAT CAT), a data repository, aggregation and reporting tool for CAT4 de-identified data extract files. The participating general practices provided informed consent for Murray PHN to share the data with the researchers to include in this report.

For this report, MBS items recorded in the population were compared from the reporting periods 1 July 2024 - 31 December 2024 (baseline) and 1 January 2025 - 30 June 2025 (Year 1). Please note that these data do not reflect causation and are a snapshot representation of practice statistics.

Figure 7. Baseline vs Year 1 MBS Items recorded in population

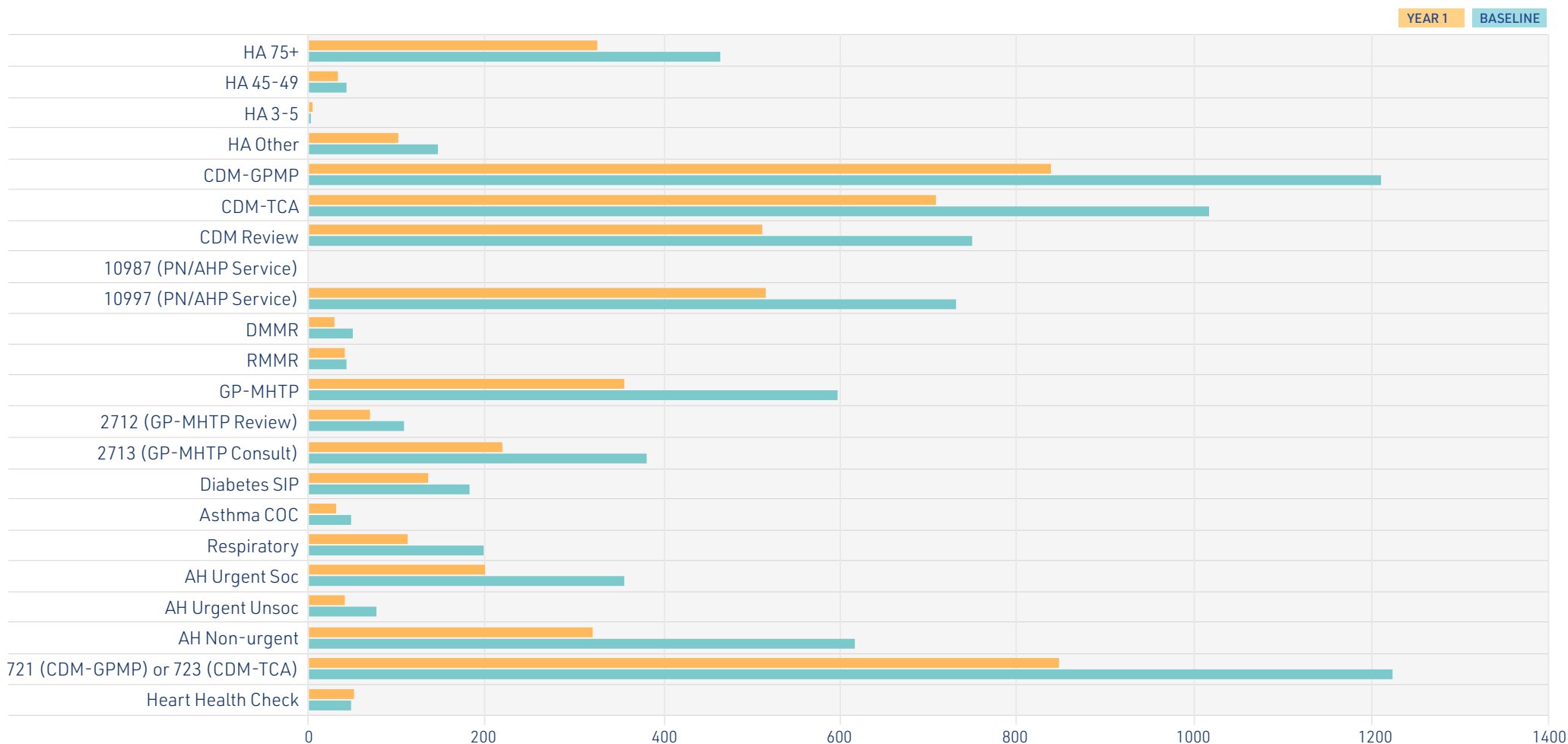
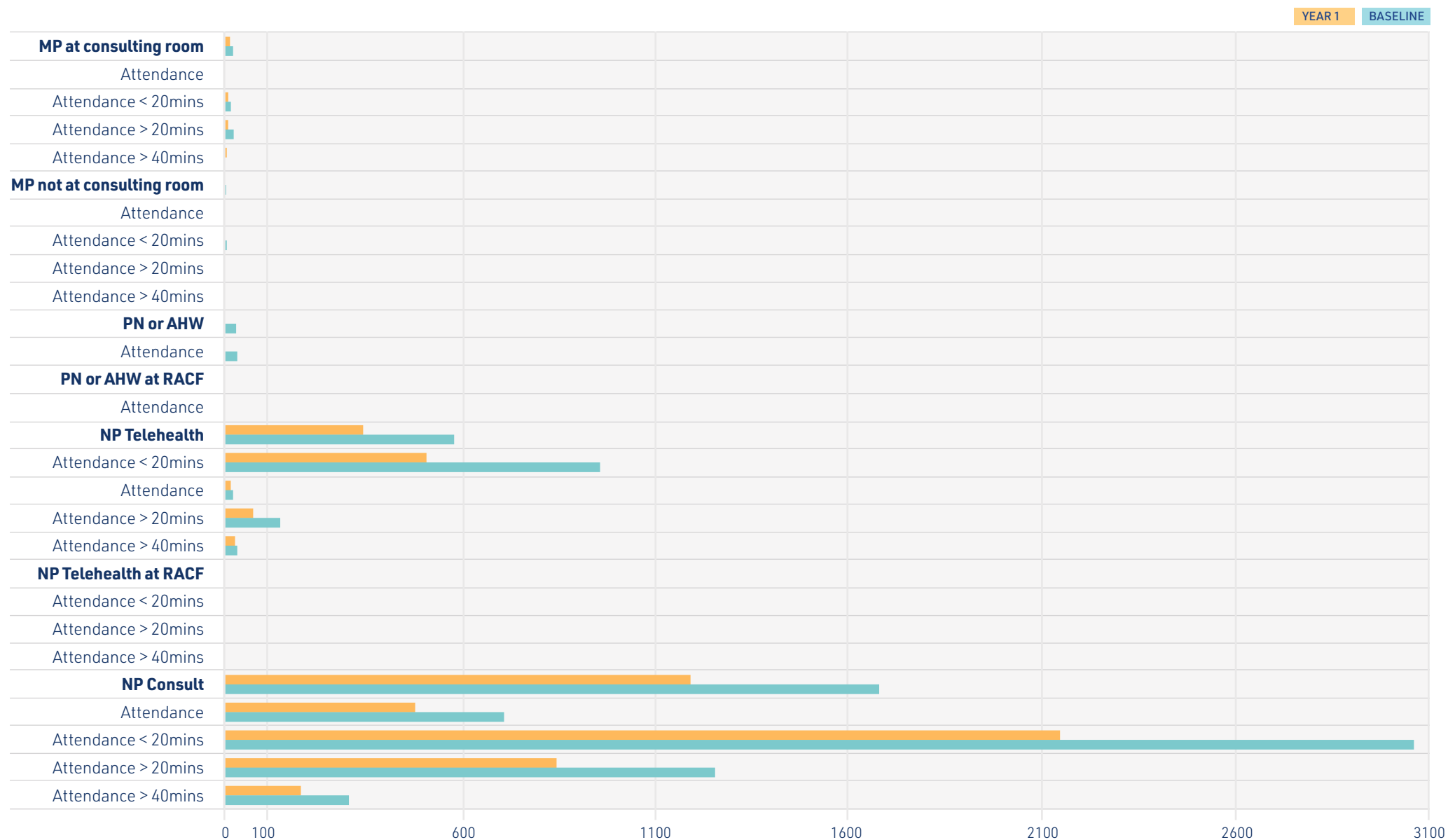




Figure 8: Baseline vs Year 1 consultation MBS items recorded in population



IMOC LEAD ORGANISATION (NDCH) DISCUSSION

At the end of the Year 1 reporting time, the leadership team from NDCH and the lead researcher discussed reflections from the Year 1 implementation period.

Foremost, the leadership team emphasised the importance of the Hubs program and its ability to provide patients with 'wraparound' care. Their support for, and understanding of, the aims of the Hubs to improve healthcare access for people with chronic conditions struggling to navigate the healthcare system and testing the viability of shared workforce models in locations of thin workforce markets was strong.

As the lead agency for the IMOC funding, financial sustainability emerged as a critical concern throughout the discussion. NDCH carries contractual responsibility for workforce costs, even when staff are employed by partner organisations. This arrangement has created significant risk exposure. Hub establishment costs have required resourcing above the project officer salary provided by the IMOC grant funding.

Initial financial modelling underestimated several factors: rising nurse practitioner salaries, increased infrastructure costs, and the need for care coordinators with nursing-level expertise rather than administrative skill sets for planning and facilitating multidisciplinary team care. Furthermore, while Murray PHN funding currently offsets some of this risk, this support will cease on 30 June 2026, increasing the urgency for a sustainable revenue model.

Resourcing was another area of concern. Early leadership and project management capacity were insufficient for the complexity of this initiative, and the resignation of the project officer during Year 1 increased the workload on staff with existing roles. The capacity to replace clinical staff while on leave was limited, leaving gaps in service and therefore revenue. Workforce salaries paid by the lead agency for the NP and CC in the three NDCH Hub sites have not been effectively supported by MBS revenue.

GP clinics' interest in participating in the Hubs has fluctuated since the model was developed, for a range of reasons. This has significantly affected the ability to establish and implement Hub sites, and has required substantial time and ongoing communication from the lead agency and other health service staff.

On reflection, the leadership team noted that the absence of clear, upfront agreements with partnering health services and risk mitigation strategies complicated implementation. Contractual arrangements were often reactive rather than pre-emptive, leaving the lead agency vulnerable. They also emphasised the importance of real-world financial modelling in future grant applications, as well as acknowledging the possibility of policy change such as bulk billing incentives and MBS rebate structures.

The future direction of the Hubs program was also discussed. Immediate priorities include strengthening referral pathways and patient flow to optimise MBS billing. Longer-term viability will require system-wide collaboration and policy alignment, particularly regarding nurse practitioner funding parity, and the leadership team noted the importance of the health economic evaluation of which the protocol is currently being prepared. An analysis of all costs, including set-up and data collection time, will be useful in planning for the future. In the interim, the focus will be on refining processes and clarifying contractual obligations, improving data collection, and demonstrating value to both patients and partner organisations.



Discussion and analysis

The implementation of the Hubs program across the proposed clinic sites has required the development of processes tailored to the individual context of the different healthcare providers and the sites involved. The full Hubs program and data collection began in Year 1 at the three sites associated with the lead IMOC agency, NDCH. Strategies associated with data collection required further discussion and training, with a process now established. This emphasises the need for consistent communication with Hub sites from the research team.

The Hubs program implementation draws on existing workforce capacity as there are no funds specifically for clinical service delivery within the IMOC funding. NDCH, as the lead organisation, reports experiencing a heavy burden on its time and finances because of the contractual complexity of partnering with other health services, workforce recruitment challenges, and unforeseen set-up costs and workload.

Exploring blended funding models to support clinical staff salaries, reviewing MBS item funding, PHN funding, and other community health and rural hospital funding streams needs to be a future consideration. The complexity of blended funding models is highlighted as a challenge because each health professional and site has different funding and contractual arrangements for service provision and MDT care. This complexity has been reflected in the slower implementation of the

Hubs program at some sites. In addition, the conditions attached to supplementary funding sources restrict the collection of patient co-contributions, thereby limiting the capacity to assess the long-term financial sustainability of the model.

The time required for initial set-up, establishment activities and navigating complex contractual and operational arrangements also reduced the collective capacity of all Hub partners to undertake proactive service-establishment work. In particular, the time invested in foundational administrative and operational tasks limited the ability of partners to engage early and jointly with communities, clinicians, and local health services to build awareness of the Hubs model and collaboratively develop new referral pathways. These coordinated and cohesive service-establishment efforts are essential to system strengthening and are especially critical when introducing and embedding a new model of care within local areas. The constrained capacity across the partnership in Year 1 has therefore been a contributing factor to lower-than-expected service levels within several trial sites.

Workforce remains a major challenge for rural healthcare providers, with the resignation of the project officer and research assistant during Year 1 and an inability to recruit to other clinical positions as examples of changing environments in which the broad program teams work.



GP clinics have fluctuated in their support of the Hubs and the perceived benefits of implementation. The original proposal for the Hubs program of co-leadership of NPs and GPs needs to extend to other health professionals when these roles are not available and is another key learning from Year 1. Recognising the clinical leadership capacity of highly skilled and experienced registered nurses (RN) and allied health professionals (AHP), who can work in the care coordinator role and lead the intake and eligibility assessment stages, coordinate team care plans and case conferences, and facilitate progress reviews and support will enable the Hubs program to flex to site-specific circumstances and workforce capability of their clinicians.

The generic patient flow model will be adapted in Year 2 to reflect this, with recognition that the implementation of multidisciplinary team care and patient flow will have variations at each site depending on workforce availability, existing healthcare systems and structures, and patient and provider preferences.

Implementation enablers for the Hubs program included the Integrated Health Network, the executive-level working group comprising local healthcare and government representatives, providing oversight of the Hubs project and its governance. IHN meetings are key forums for discussions relating to the Hubs program, including operational matters and risk response.

The Healthcare Hubs Operational Working Group, an operational working group, was also seen as a key component for the work of the Hubs. Facilitated by the NDCH project coordinator and research implementation lead during Year 1, it supported the model of care implementation and co-design research knowledge translation to identify effective implementation mechanisms and strategies that could be shared across sites. Meetings were formalised through an agreed term of reference document, with director-level membership from each of the project partner health services. The meetings occurred fortnightly during Year 1 to support the early implementation process, with monthly reporting to the project control (IHN Alliance). In Year 2, this group will continue to meet monthly for ongoing implementation support.

Another enabler was the community of practice for nurse practitioners. A monthly 30-minute community of practice online meeting commenced in Year 1 for the nurse practitioners to meet with the NDCH project coordinator and research implementation lead for problem-solving of implementation barriers and contextual challenges and to facilitate peer support across clinical leadership.

Conclusion

The Year 1 data collected for this report provides an overview of the implementation and developmental processes required for the Hubs program model of care in the BLG shires.

As anticipated, the Year 1 Hubs program report reflects the need for flexibility and adaptability in program design for successful implementation of an MDT approach to primary healthcare in multiple small rural towns. Current healthcare delivery models, financial impact, and the establishment of working relationships are major determinants in the implementation of the Hubs program despite its extensive co-design and consultation history. Regular reviews of the processes involved were required and will continue to be necessary to enable stakeholder participation.

This Year 1 report reflects the complexity of implementing innovative care models in rural settings. It underscores the need for adaptive strategies, strong governance, and sustained collaboration to achieve the program's aims.

NEW DEVELOPMENTS FOR YEAR 2

FIRST NATIONS PEOPLES STREAM

The Aboriginal researcher associated with the research team is creating a culturally responsive strategy for including the experiences of First Nations Peoples in the Hubs program. This requires respectful consultation with Aboriginal and Torres Strait Islander group representatives. An ethics application amendment will be submitted in September 2025 as an amendment to the one approved by the Monash University Human Research Ethics Committee before inviting people to be involved in the research process.

HEALTH ECONOMICS STRATEGY

A pragmatic iterative health economic evaluation strategy will be created with the primary aim of determining financial sustainability based on the minimum annual revenue per patient required for each Healthcare Hub to reach an operational break-even point. This break-even analysis will be conducted from the Healthcare Hub perspective over the financial years 2025-2026 (Year 2) and 2026-2027 (Year 3). A secondary cost of implementation analysis will be conducted to determine the cost to establish each Healthcare Hub, to provide evidence for scalability.

Summary

This Year 1 report demonstrates the complexity of establishing an extended model of healthcare in the region, and the time successful negotiation takes. Four healthcare services are involved in the Hubs program, with each partner provider at a different stage of program implementation. Two healthcare services began the Hubs program at four sites by June 2025, with another service due to start in July 2025. The other service start dates are to be determined.

NEXT STEPS

The Hubs program will continue to be evaluated over its development. Year 2 activities will focus on:

- incorporation of an Aboriginal and Torres Strait Islander stream with expert evaluation guidance from Pauline Nolan, Aboriginal Researcher. This will be vital for the provision of culturally safe care for First Nations Peoples accessing the Hubs program
- implementation of the health economic strategy. This strategy will assist in evaluating the cost effectiveness, financial feasibility and social value of the Hubs program
- key determinants identified in the Year 1 report will be further addressed through project governance structures which includes the Operational Working Group (fortnightly meetings), the Project Control Group (IHN Alliance, monthly meetings), and the BLG Executive Network (bi-monthly meetings) (see Attachment 4).
- planning and development of multidisciplinary workforce training pathways in the model of care, building on the medical workforce pathways developed in Year 0/1 with the Remote Vocational Training Scheme.

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RESEARCH TEAM

- Associate Professor Pam Harvey, MRH (co-lead)
- Dr Nerida Hyett, Murray PHN, MRH, La Trobe University (co-lead)
- Kylie Shanahan/Mitchell Brusamarello, RA, MRH
- Prof Shane Bullock, MRH
- Trevor Adem, EWHS
- Donna Doyle, BDH
- Dallas Coghill, IDHS
- Penny Wilkinson, NDCH
- Dr Kalayu Brhane Mruts, Murray PHN
- Dr Damilola Adu, Murray PHN (to May 2025)
- Pauline Nolan, Aboriginal Researcher
- Associate Professor Natasha Brusco, Dr Sara Whittiker and Dr Jonathan Foo, Health Economist team, Monash University



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Attachment 1: Data collection summary table

Data	Research question/s	Baseline 0 months	Year 1	Year 2	Year 3
Patient Experience Survey 15min survey completed hard copy or online, offered four times per year over three years.	1, 4, 5, 6		✓	✓	✓
Patient Journey Mapping Interview and clinical file audit, once per year. Audit of patient files from target population group to extract data on diagnosis, medical history, and team-based care service provision and outcomes ("patient journeys")	1, 4, 5, 6		✓	✓	✓
Healthcare provider interviews Semi-structured qualitative interviews (30mins), at baseline and once per year.	1, 2, 3, 4, 5, 6	✓	✓	✓	✓
Daily clinic report survey Clinic report submitted each clinic day by the Care Coordinator through an online link.	3, 4		✓	✓	✓
Murray PHN data report Deidentified aggregate MBS billings and practice data reports supplied by Murray PHN in 6-monthly	3, 4, 6	✓	✓	✓	✓
Community and services profile Written mapping audit and diagrams. Descriptive analysis of public population health data identifying health needs and priorities. Public data, ethics not required.	2, 3, 4, 5, 6	✓	✓	✓	✓



Attachment 2: Hubs program workforce and service mapping

MENTAL HEALTH AND ALCOHOL AND OTHER DRUG SERVICES

All services can be included in the Hubs MDT model of care

Program	F2F or t/health	Employer	Funding	Kerang	Quambatook	P/Hill	Boort	Inglewood	Wycheproof	Donald	Charlton	Birchip	St Arnaud
RFDS Flying Doctor Wellbeing	both	RFDS	RFDS										
IDHS (PTS, CCC, Child, AOD)	both	IDHS	Murray PHN MH/AOD					✓			✓		
NDCH (PTS, CCC, AOD, NPROM)	both	NDCH	Murray PHN MH/AOD	✓	✓	✓			✓			✓	
EWHS social work	both	EWHS	EWHS						✓	✓	✓	✓	✓
BDAC AOD day program	N/A	BDAC	BDAC, Murray PHN				✓						
Stride Psychosocial Recovery	both	Stride	Murray PHN MH/AOD			✓	✓	✓					
Wellways Psychosocial Recovery	both	Wellways	Murray PHN MH/AOD	✓	✓				✓	✓	✓	✓	
Bendigo headspace	t/health	BCHS	Murray PHN MH/AOD								✓		
Swan Hill headspace	both	SHDH	Murray PHN MH/AOD	✓					✓	✓		✓	
Loddon Child Local	both	NCLLEN	State Gov			✓	✓	✓					
DS psychiatrist	t/health	RFDS	RFDS										
Bendigo Health psychiatric services	both	BH	State Gov	✓	✓	✓	✓	✓					
Grampians Health psychiatric services	both	GH	State gov						✓	✓	✓	✓	✓

**BOORT HUB****Site:** Boort District Medical Centre (BDMC)**Outreach options:** Boort District Health (BDH) Residential Aged Care Home and Hospital Urgent Care Centre (co-located), home visits, Boort District P-12

Stage	Clinician	FTE	Primary employer	Funding	Mode
0	GP	0.9	BDMC	Medicare	F2F
0	Practice Nurse (EN)	1.0	BDMC	Medicare	F2F
0	Practice Nurse (RN)	0.4	BDMC	Medicare	F2F
0	Practice manager	1.0	BDMC	BDMC	F2F
0	Reception	-	BDMC	BDMC	F2F
1	Nurse Practitioner	0.1	NDCH	Blended	F2F
1	Care Coordinator	0.1	BDMC	Blended	F2F
2	Care Coordinator/AHA	0.2	BDH	Murray PHN/ NDCH MDT	F2F
2	First Nations – Integrated Team Care	-	BDAC	Murray PHN ITC	F2F
2	Physiotherapist – 3D Physiotherapy	-	Private	Private, MBS	F2F
2	Podiatrist	-	-	-	F2F
2	Child health – Loddon Child Local	-	NCLLEN	State Gov	F2F



INGLEWOOD HUB

Site: Marong Medical Practice (MMP) Inglewood

Outreach options: Inglewood DHS Residential Aged Care Home and Hospital Urgent Care Centre (co-located), home visits

Stage	Clinician	FTE	Primary employer	Funding	Mode
0	GP	-	MMP	Medicare	F2F
0	Practice nurse	-	MMP	MMP, Medicare	both
0	Reception	-	MMP	MMP	both
2	Nurse Practitioner	0.1	NDCH	Blended	F2F
2	Care Coordinator – RN	0.2	IDHS	Murray PHN MDT	F2F
2	Occupational therapy	-	IDHS	IDHS, Home care packages	F2F
2	Physiotherapy	1.5	IDHS	State (Community Health), Medicare	F2F
2	Exercise Physiology	1.0	IDHS	IDHS, Medicare	F2F/ group
2	Speech pathology (paediatric)	-	IDHS	RFDS	F2F
2	Dietetics	0.4	IDHS	Murray PHN (CDM), Medicare	both
2	Podiatry – public	0.2	Bendigo Health	My Aged Care (CHSP)	F2F
2	Podiatry – private	0.1	Private	Medicare, Workcover, DVA, private insurance, fees	F2F
2	Diabetes nurse educator	0.7	IDHS	Murray PHN (CDM), Medicare	both
2	Chronic Disease Nursing (community)	0.4	IDHS	Murray PHN (CDM)	both
2	First Nations – Integrated Team Care	-	BDAC	Murray PHN (ITC)	F2F
2	Child health – Loddon Child Local	-	NCLLEN	State Gov	F2F

**KERANG HUB****Site:** Northern District Community Health (NDCH) Kerang**Outreach options:** Aged care, Kerang high school, home visits

Stage	Clinician	FTE	Primary employer	Funding	Mode
0	GP	3.0	Contract	MBS	both
0	Registered nurse	3.5	NDCH	NDCH	F2F
0	Enrolled nurse	0.8	NDCH	NDCH	F2F
0	Nurse Practitioner	0.8	NDCH	MBS, Murray PHN DiSS	both
0	Chronic disease nurse	0.8	NDCH	Murray PHN	F2F
0	Diabetes educator	1.2	NDCH	NDCH	both
0	Speech pathology	1.0	NDCH	NDCH	F2F
0	Occupational therapy	4.0	NDCH	NDCH	F2F
0	Physiotherapy (paediatric)	0.6	NDCH	NDCH	F2F
0	Podiatry	0.8	NDCH	NDCH	F2F
0	Dietician	0.8	NDCH	NDCH	both
1	Nurse Practitioner	0.1	NDCH	Blended	F2F
1	Care Coordinator (EN)	0.1	NDCH	Blended	F2F
2	GP registrar	0.1	NDCH	RVTS, NDCH	both

**QUAMBATOOK HUB****Site:** NNDCH Quambatook**Outreach options:** Home visits

Stage	Clinician	FTE	Primary employer	Funding	Mode
0	Community Health Nurse (RN)	-	NDCH	CHSP	F2F
1	Nurse Practitioner	0.1	NDCH	Blended	F2F
1	Care Coordinator (EN)	0.1	NDCH	Murray PHN/NDCH MDT	F2F
2	GP registrar	0.1	NDCH	RVTS, NDCH	both
2	Chronic disease nurse	0.8	NDCH	Murray PHN	t/health
2	Diabetes educator	1.2	NDCH	NDCH	t/health
2	Speech pathology	1.0	NDCH	NDCH	t/health
2	Occupational therapy	4.0	NDCH	NDCH	t/health
2	Physiotherapy (paediatric)	0.6	NDCH	NDCH	t/health
2	Podiatry	0.8	NDCH	NDCH	F2F
2	Dietician	0.8	NDCH	NDCH	t/health

**PYRAMID HILL HUB****Site:** NDCH Pyramid Hill**Outreach options:** Pyramid Hill College, home visits

Stage	Clinician	FTE	Primary employer	Funding	Mode
0	Community Health Nurse (RN)	-	NDCH	NDCH	F2F
1	Nurse Practitioner	0.1	NDCH	Blended	F2F
1	Care Coordinator (EN)	0.1	NDCH	Blended	F2F
2	GP registrar	0.1	NDCH	RVTS, NDCH	both
2	Chronic disease nurse	0.8	NDCH	Murray PHN	t/health
2	Diabetes educator	1.2	NDCH	NDCH	t/health
2	Speech pathology	1.0	NDCH	NDCH	t/health
2	Occupational therapy	4.0	NDCH	NDCH	t/health
2	Physiotherapy (paediatric)	0.6	NDCH	NDCH	t/health
2	Podiatry	0.8	NDCH	NDCH	F2F
2	Dietician	0.8	NDCH	NDCH	t/health



EWHS

Site:

Outreach options: Residential Aged Care Home and Hospital Urgent Care Centre (co-located), home visits, schools

Stage	Clinician	FTE	Primary employer	Funding	Mode
0	GP	0.9	-	Medicare	both
0	Practice Nurse (EN)	-	-	Medicare	F2F
0	Practice Nurse (RN)	-	-	Medicare	F2F
0	Practice manager	1.0	-	-	F2F
0	Reception	-	-	-	F2F
1	Nurse practitioner	-	-	-	-
2	Nurse Practitioner	-	EWHS	Blended	both
2	Nurse Practitioner (mental health)	0.4	NDCH	PHN	both
2	Care Coordinator (Central intake)	0.6	EWHS	Blended	t/health
2	Diabetes educator	-	-	-	-
2	Physiotherapy	-	-	-	-
2	Occupational therapy	-	-	-	-
2	Registered nurse	-	-	-	-

Attachment 3: Patient referral form

Referring healthcare provider details (stamp accepted)		
Name:		
Health organisation:		
Health organisation address:		
Phone:	Fax:	
Patient/client details		
Given name:		Date of birth:
Family name:		Phone:
Residential address		Town: Postcode:
Next of kin/alternate contact:		Alternate contact phone:

Is this person an existing patient of the practice to which you are referring? ☐ Yes ☐ No

Presenting concerns or other comments (if applicable)

.....

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.....

This program facilitates multidisciplinary team care for patients/clients who need 3 or more professionals involved in their care.

What existing services need to be kept informed about this patient's/client's care (if known)?

.....

.....

.....

.....

What is the patient's/client's goal (if known)?

.....

.....

.....

Patient/client information and consent

My healthcare provider has explained the purpose of this referral to the Sustainable Rural Healthcare Hubs program. I give permission for my care plans to be shared with the Hub Provider, and for the Hub Provider to contact me to discuss how the program can support me in my care plan needs.

Patient/client signature:

Healthcare provider signature:

Verbal consent (where signature not practicable) ☐

Date

Attachment 4: Governance structure

