EXECUTIVE SUMMARY

NORTH WESTERN MELBOURNE PRIMARY HEALTH NETWORK

AFTER HOURS PRIMARY HEALTH CARE: GAP ANALYSIS AND RECOMMENDATIONS

December 2018

IMPACT CO.

INTRODUCTION

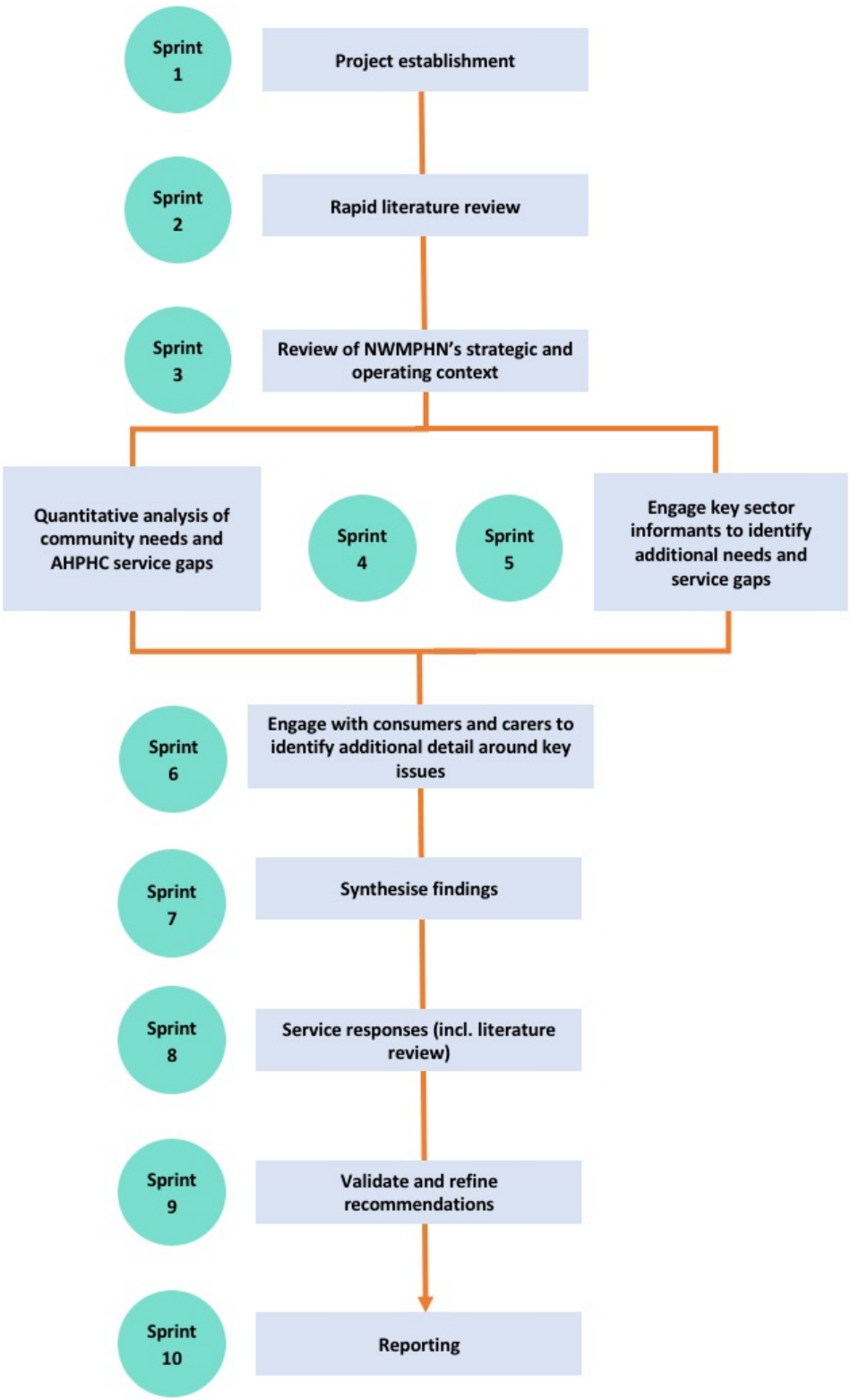
Impact Co. is delighted to present the North Western Melbourne Primary Health Network (NWMPHN) with a a final report outlining the work that has been completed for the After Hours Gap Analysis and Recommendations project.

Impact Co. was engaged to provide NWMPHN with a richer understanding of the current state of after hour primary health care (AHPHC) in, and in close proximity to, the NWMPHN catchment. In doing so, Impact Co. was specifically tasked with considering the key areas of community need and service gaps, particularly for priority populations, with the purpose of identifying broad level recommendations that can inform the future commissioning efforts of NWMPHN.

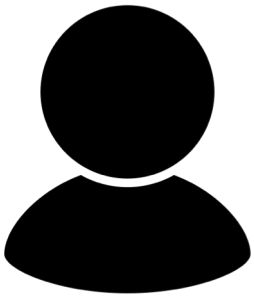
An overview of the methodology, key insights and proposed recommendations are outlined in this Executive Summary.

METHODOLOGY

To undertake the AH Gap Analysis and Recommendations project, 10 key Sprints were adopted.



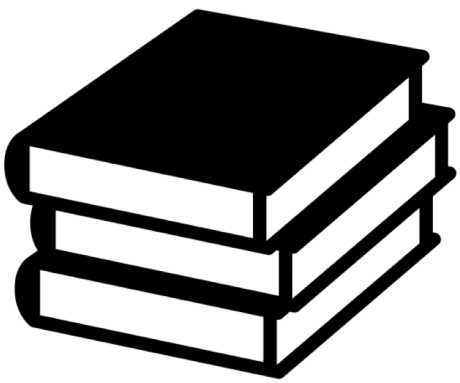
AH NEEDS ASSESSMENT METHODOLOGY BY NUMBERS



13 health service providers or key informants were consulted

80 consumers participated in one of the 9 focus groups facilitated

103 references were cited in the two literature reviews conducted



38 data variables from 8 different sources were used to calculate a Composite Index Score for each LGA

INSIGHTS

SPRINT 2 – RAPID LITERATURE REVIEW

A health care system that is able to provide the right care, at the right place, and at the right time is crucial to reducing health inequity and improving health outcomes. When people fall ill, their choice of what service to access for care and advice is influenced by a range of factors.

The literature review conducted in *Sprint 2* explored various reasons for the rising number of ED presentations, and whether certain population cohorts are likely to seek care at an ED, as opposed to other alternatives offered in the primary care system.

The key insights obtained are set out below:

- Besides GP unavailability, there are other reasons to explain why there is a growing number of GP-type presentations in ED. These include, perceived seriousness or urgency of conditions and the services/features offered by ED. These themes were consistent across the general population.
- The attendance of children in EDs for low urgency conditions has been extensively explored in research, which reflects the magnitude of the presentations made by this population cohort in Australian EDs.
- There is sufficient research to suggest that Aboriginal and Torres Strait Islander people, people experiencing homelessness and older adults tend to have more frequent interactions with EDs. However, the proportion of these interactions that were non-urgent and could be effectively managed in primary care is unclear and therefore requires further research.
- There was limited local evidence to describe the nature of ED attendances by people with a disability, people who identify themselves as LGBTIQ, and individuals with a CALD, refugee or asylum seeker background. It would therefore be useful to undertake further research in relation to these cohorts to be able to draw a more definitive conclusion.
- Age was the only demographic factor found to have an association with non-urgent presentations. However, socioeconomic disadvantage, low income and education levels, and poor self-reported health are predictors of poor health outcomes. Mental health was the only clinical variable associated with high ED and general practice utilisation.
- Although well utilised, it is not clear whether alternative after hour services are having an impact in reducing the demand on EDs.

Implications:

- Based on the key findings described above, a Composite Index Score was developed, which includes the following variables as data indicators: age (with an emphasis on young children and older adults), humanitarian settlers, homeless population, CALD individuals, socio-economic disadvantage, psychological distress, chronic illness and self-reported health status.
- Population cohorts that have limited evidence and quantitative data to describe the nature of their attendance in ED (e.g. LGBTIQ populations) formed the basis of the qualitative interviews (Sprint 5 and 6).

INSIGHTS

SPRINT 4 – QUANTITATIVE ANALYSIS OF COMMUNITY NEED AND AHPHC GAPS

Guided by the findings of the literature review, a number of demographic factors were identified to inform the need for AHPHC services. It is these factors, which are highlighted below, that were used to inform the calculation of a Composite Index Score. The Composite Index Score quantifies the relative need for AH primary care services across the catchment, allowing LGAs to be ranked in order from most to least need.

The Composite Index Score is comprised of three sub-indices:

1. AH Need Index
2. Unmet AH Demand Index
3. AH Service Availability Index

CALCULATING THE AH NEED SUB-INDEX SCORE

The AH Need Sub-Index score was calculated using 16 data indicators related to the demographic drivers of need for AH primary care. A number of indicators (see below) were given an additional 0.50 weighting in recognition that they were found in the literature to have greater influence over ED attendance or health outcomes. Those indicators to which a weighting was applied are identified by the use of a "(W)".

AH Need Index indicators

Population size
0-4 year old population **(W)**
65+ year old population **(W)**
Population growth
Homeless population
Refugee population
Aboriginal and Torres Strait Islander population
CALD population
Socio-economic disadvantage **(W)**
Population living with mental illness **(W)**
Population in poor health **(W)**
Population living with complex chronic conditions

AH Need Index scores

Rank	LGA	AH Need Index	AH Need Index
1	Hume (C)	0.098	9.84
2	Brimbank (C)	0.090	8.99
3	Wyndham (C)	0.087	8.74
4	Melton (C)	0.086	8.58
5	Maribyrnong (C)	0.079	7.93
6	Darebin (C)	0.079	7.89
7	Melbourne (C)	0.077	7.74
8	Moreland (C)	0.074	7.42
9	Moorabool (S)	0.071	7.13
10	Hobsons Bay (C)	0.067	6.71
11	Moonee Valley (C)	0.066	6.58
12	Yarra (C)	0.065	6.47
13	Macedon Ranges (S)	0.060	5.98

INSIGHTS

SPRINT 4 – QUANTITATIVE ANALYSIS OF COMMUNITY NEED AND AHPHC GAPS

CALCULATING THE UNMET AH DEMAND SUB-INDEX SCORE

To our knowledge, there is no standardised method for quantifying a population's unmet demand for AHPHC services. To calculate this sub-index, four data indicators were selected that could demonstrate that patients' need for primary health services in the AH period were met by acute care services rather than within the community. These indicators were selected based on the insights from the literature review and were limited by data sources that were timely, accurate or publicly accessible.

Unmet AH Demand Index indicators

Non-urgent ED attendances
Mental health-related non-urgent ED attendances
Potentially preventable hospitalisations
Non-urgent ambulance call-outs

Unmet AH Demand Index scores

Rank	LGA	Unmet Demand Index	% Unmet Demand
1	Hobsons Bay (C)	0.091	9.14
2	Maribyrnong (C)	0.090	9.00
3	Darebin (C)	0.087	8.72
4	Brimbank (C)	0.081	8.08
5	Moreland (C)	0.080	7.99
6	Melton (C)	0.079	7.89
7	Moorabool (S)	0.078	7.80
8	Hume (C)	0.076	7.63
9	Moonee Valley (C)	0.076	7.57
10	Yarra (C)	0.075	7.53
11	Wyndham (C)	0.071	7.13
12	Melbourne (C)	0.070	6.95
13	Macedon Ranges (S)	0.046	4.56

INSIGHTS

SPRINT 4 – QUANTITATIVE ANALYSIS OF COMMUNITY NEED AND AHPHC GAPS

CALCULATING THE AH SERVICE AVAILABILITY SUB-INDEX SCORE

Generating the AH Service Availability Index involved determining the relative amount of primary care services available in the AH periods by LGA. The majority of indicators (or data) used to calculate this score were extracted from the National Health Service Directory (NHSD) database. As such, one limitation of our analysis is that its accuracy is dependent on the accuracy, and currency, of information stored in the NHSD. We assessed:

- The number of service locations open in the AH period; and
- The number of weekly service hours available in the AH period.

A total of 18 service availability indicators were selected for inclusion into the index analysis.

AH Service Availability Index indicators

All services (number of services and number of hours)
GP services (number of services and number of hours
Pharmacies (number of services and number of hours)
Community mental health services (number of services and number of hours)
Non-clinical mental health services (number of services and number of hours)
Aboriginal and Torres Strait Islander services (number of services and number of hours)
CALD services (number of services and number of hours)
Alcohol and other Drugs services (number of services and number of hours)
Medical Deputising Service coverage (National Home Doctor Service only)

AH Service Availability Index scores

Rank	LGA	Service Availability Index	% Service Availability
1	Macedon Ranges (S)	0.022	2.25
2	Melton (C)	0.030	2.97
3	Hobsons Bay (C)	0.037	3.68
4	Hume (C)	0.038	3.82
5	Wyndham (C)	0.039	3.95
6	Brimbank (C)	0.042	4.15
7	Moorabool (S)	0.042	4.18
8	Darebin (C)	0.052	5.21
9	Moonee Valley (C)	0.062	6.21
10	Melbourne (C)	0.113	11.28
11	Maribyrnong (C)	0.120	12.02
12	Moreland (C)	0.166	16.56
13	Yarra (C)	0.237	23.73

INSIGHTS

SPRINT 4 – QUANTITATIVE ANALYSIS OF COMMUNITY NEED AND AHPHC GAPS

CALCULATING THE COMPOSITE INDEX SCORE

The final step in generating the Composite Index Score involved combining the results of the three sub-indices for each LGA using the following equation:

$$\text{Composite Index Score} = \frac{\text{AH Need Index} + \text{Unmet AH Demand Index}}{\text{AH Service Availability Index}}$$

The LGA with the highest score is assumed to have a combination of the greatest need and unmet demand, with the poorest AH service availability. This approach to calculating the Composite Index Score reveals the extent of variation between the LGAs, providing an indication of the extent to which each LGA could be prioritised within the NWMPHN engages in future AH service commissioning.

It should be noted when reviewing the Composite Index Score that even for LGAs with a low ranking this does not mean that challenges do not exist with respect to the local AHPHC system. Rather, it means that the issues within those LGAs may be more targeted, requiring a more detailed review (and understanding) of the issues affecting specific populations. This could be done through a more extensive and place-based qualitative review.

LGA Ranking by Composite Index Score

Rank	LGA	AH Need Index	Unmet Demand Index	Service Availability Index	COMPOSITE INDEX	% COMPOSITE INDEX
1	Melton (C)	0.086	0.079	0.030	5.537	13.67
2	Macedon Ranges (S)	0.060	0.046	0.022	4.694	11.59
3	Hume (C)	0.098	0.076	0.038	4.573	11.29
4	Hobsons Bay (C)	0.067	0.091	0.037	4.307	10.63
5	Brimbank (C)	0.090	0.081	0.042	4.111	10.15
6	Wyndham (C)	0.087	0.071	0.039	4.023	9.93
7	Moorabool (S)	0.071	0.078	0.042	3.568	8.81
8	Darebin (C)	0.079	0.087	0.052	3.190	7.87
9	Moonee Valley (C)	0.066	0.076	0.062	2.279	5.62
10	Maribyrnong (C)	0.079	0.090	0.120	1.409	3.48
11	Melbourne (C)	0.077	0.070	0.113	1.302	3.21
12	Moreland (C)	0.074	0.080	0.166	0.931	2.30
13	Yarra (C)	0.065	0.075	0.237	0.590	1.46

INSIGHTS

SPRINT 5 & 6 – CONSUMER & PROVIDER EXPERIENCE OF AH SERVICE AVAILABILITY

Following the completion of *Sprints 2* & *4*, a targeted approach was used to engage certain population cohorts, and providers who provided care or services to these population groups. The particular focus of this engagement was to focus on those population groups where there was limited understanding with respect to the nature of their attendance to ED or interactions with the primary care system.

A number of key themes emerged from the qualitative interviews and focus groups:

1 **The health system is not set up to support consumers through their health journey**

- Providers and consumers acknowledge the lack of integration and collaboration amongst health providers
- Providers are open to trialing innovative service models that could contribute to a more integrative service response for patients

> *"My GP was away for three weeks…they said, 'this* [other] *doctor will treat you, he knows exactly your problems'. When I went to see him, he had no idea…I just walked out…you explain your history that many times, it's like a broken record."*
>
> **Consumer (CALD)**

2 **Consumers want a personalised health experience**

- A trusting and mutually respectful relationship with a GP / health workers is the most important factor for consumers
- Empathy is a necessary requirement for health practitioners to engage with their patients effectively
- Confidentiality and security of medical information is important, particularly for vulnerable communities

> *"I see my GP…I'm now a 20-30 minute drive away but I still see her because she's really good…she knows my history, all of my history and she's always willing to admit when she doesn't know something. She's willing to learn, especially in regards to my queer stuff, like, she admits that she's not that experienced but she wants to learn. She wants to learn and be better about it"*
>
> **Consumer (young adult identifying as LGBTIQ)**

INSIGHTS

SPRINT 5 & 6 – CONSUMER & PROVIDER EXPERIENCE OF AH SERVICE AVAILABILITY

3 Alternative AH service options don't accommodate for some of the region's most vulnerable population groups

"There is a nurse at the emergency housing I'm at, but I refuse to see her…because they're hopeless. They have no experience whatsoever…They don't know how to talk to people that are homeless – absolutely none – they have no idea. No people skills"

Consumer (Person experiencing homelessness)

"the idea of phoning someone that I don't know or who I don't have a connection with is quite difficult for me and anxiety-provoking"

Consumer (Adult identifying as LGBTIQ)

4 The ED isn't equipped to manage mental health issues

"they are medically fit to be discharged but mentally they're not…the are still acute and unstable, they come to us but they can only maintain a presence in the community for only so long as their stress and vulnerability reaches a point where they have to go back to hospital, so it becomes a cycle – in and out"

Health provider (homelessness services)

5 Charging a gap payment during the AH period is a barrier for marginalised community members

"they do stop bulk-billing after 5 o'clock and if you are a walk in, you'll have to pay $70-$80. You don't get bulk-billed on a Saturday"

Consumer (person with complex mental health issues)

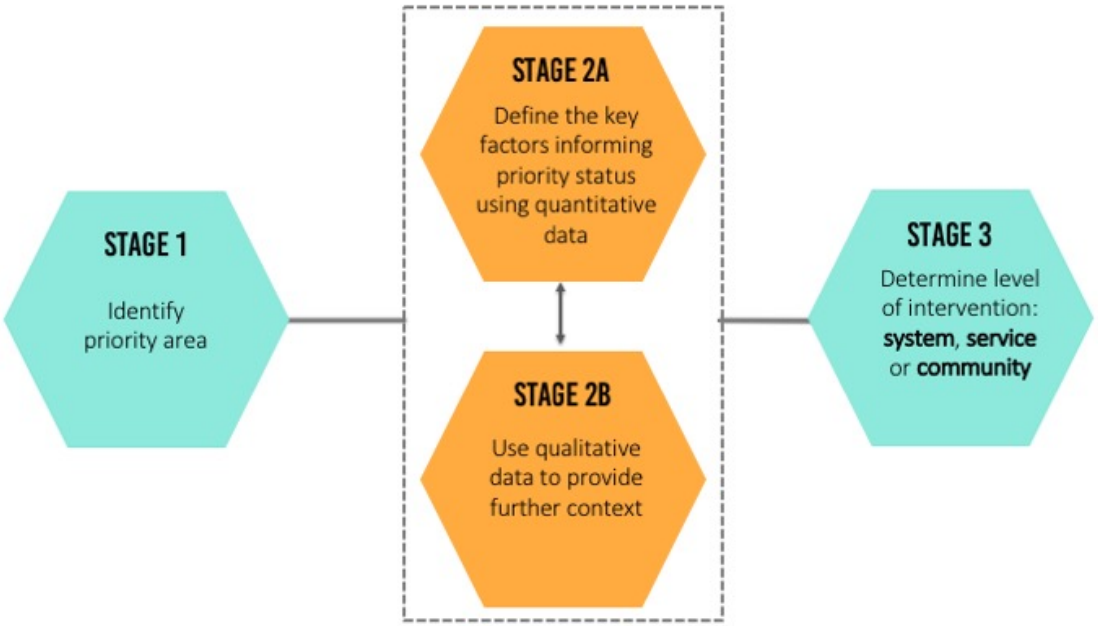
6 Providers find providing primary care services during the AH period difficult

RECOMMENDATIONS

THE AH COMMISSIONING FRAMEWORK

The findings set out in this report suggest that the AH needs in the NWMPHN catchment are varied and multifaceted. This must be reflected in the commissioning of any AH response in the catchment.

To support the future NWMPHN catchment, Impact Co. proposes a three three-stage approach, or **AH Commissioning Framework,** to assist NWMPHN to scope and determine the intent of interventions in the AHPHC in its catchment. This is depicted and further described below:



STAGE 1 – IDENTIFY PRIORITY AREA

Stage 1 involves the identification of a priority area(s) that will the focus of the commissioning activity.

Priority areas can be one of two types:

1. **Cohort-based** priorities are those which have been determined by the Commonwealth Department of Health and communicated via the PHN guidelines or set out in the strategic directions of the PHN.
2. **Place-based** priorities are geographic based. In this instance, the findings of the Composite Index Score should be taken into consideration, particularly those LGAs that are ranked the highest in terms of overall relative AH needs.

RECOMMENDATIONS

THE AH COMMISSIONING FRAMEWORK

STAGE 2A – DEFINE THE FACTORS INFORMING PRIORITY STATUS USING QUANTITATIVE DATA

This stage involves using the quantitative data presented in this report to understand why this particular LGA or cohort is identified as a priority area of focus.

For place-based priority areas, understanding the scores for each sub-index of the Composite Index Score may provide an indication of the certain factors that are influencing the LGA's priority status. As per the table below, the level of urgency (or attention required) for each AH sub-index can be based on where a certain LGA is ranked relative to other LGAs in the catchment.

Rank	Urgency Category
1 – 6	High urgency
7 – 13	Low urgency

When this criteria is applied to the ranking of each LGA across the three indices, the following results were obtained.

		AH Need		AH Demand		AH Service Availability	
Composite Index Score Rank	LGA	Rank	Urgency	Rank	Urgency	Rank	Urgency
1	Melton (C)	4	High	6	High	2	High
2	Macedon Ranges (S)	13	Low	13	Low	1	High
3	Hume (C)	1	High	8	Low	4	High
4	Hobsons Bay (C)	10	Low	1	High	3	High
5	Brimbank (C)	2	High	4	High	6	High
6	Wyndham (C)	3	High	11	Low	5	High
7	Moorabool (S)	9	Low	7	Low	7	Low
8	Darebin (C)	6	High	3	High	8	Low
9	Moonee Valley (C)	11	Low	9	Low	9	Low
10	Maribyrnong (C)	5	High	2	High	11	Low
11	Melbourne (C)	7	Low	12	Low	10	Low
12	Moreland (C)	8	Low	5	High	12	Low
13	Yarra (C)	12	Low	10	Low	13	Low

If the level of urgency is high for a particular sub-index, it suggests that any intervention to target the LGA should be focused on those factors or variables used to calculate the particular sub-index score.

RECOMMENDATIONS

THE AH COMMISSIONING FRAMEWORK

STAGE 2B – USE QUALITATIVE DATA TO PROVIDE FURTHER CONTEXT OF KEY FACTORS

In this stage, data gathered from the focus groups and key stakeholder interviews should be used to provide further context to describe why the cohort or place is a priority focus area, particularly the key issues that could not be uncovered by the quantitative data analysis. This is particularly relevant for the LGBTIQ population where quantitative data to describe their location and utilisation of health services is limited or unavailable.

The context should provide an indication of the problem that could be addressed through a targeted commissioning activity.

STAGE 3 – DETERMINE LEVEL OF INTERVENTION(S) REQUIRED

At the last stage, the key factors to explain why a particular location/place or cohort is a priority area should be determined to identify the types of intervention(s) that NWMPHN should implement or commission. These interventions can be divided into three domains:

- *System* – A system intervention refers to one that will apply to some or all of the health providers and consumers in a region. Such interventions are aimed at integrating or increasing partnerships between, providers to streamline the patient's journey of care. In effect, these interventions are designed to take a collective and system-based approach to make the AHPHC system work better
- *Service*– A service intervention refers to the enhancement of existing or creation of new services that directly address issues relating to service availability within a specific area
- *Community* – A community intervention refers to those that are designed to build the awareness and knowledge of consumers or members of a certain community so that they can better access and navigate the AHPHC system.

If the priority is place-based, the results from Stage 2A can be used to consider, as a starting point, the domains of intervention that could be in scope using the equation below:

Intervention domain = AH Need urgency category + AH Unmet Demand urgency category + AH Service Availability urgency category

When this equation is applied, the table on the following page identifies the possible combinations and the corresponding domain(s) of interventions that could be considered. The domain of interventions(s) relevant to the sub-indices are not necessarily linear, which becomes apparent when the urgency categories are considered in combination.

RECOMMENDATIONS

THE AH COMMISSIONING FRAMEWORK

STAGE 3 – DETERMINE LEVEL OF INTERVENTION(S) REQUIRED (CONT.)

When the equation is applied, the table below highlights the possible combinations and the corresponding domain(s) of interventions that could be considered.

AH Need	AH Unmet Demand	AH Service Availability	Intervention Domain Required
High	Low	Low	Community
Low	High	Low	System and Community
Low	Low	High	Service
High	Low	High	System and Service
High	High	Low	System and Community
Low	High	High	Community and Service
Low	Low	Low	Targeted intervention may be warranted for specific population groups
High	High	High	System, Community and Service

When the equation is applied to each LGA within the NWMPHN catchment, the different types of interventions required to address the identified gaps in the AHPHC system become evident. The table below provides an indication of the types of interventions that could be commissioned to target the specific AH needs for that particular location. It is these intervention domains that offer a framework to guide the future commissioning efforts for NWMPHN with respect to AHPHC.

	AH Need	AH Unmet Demand	AH Service Availability	Intervention Domain Required
Melton (C)	High	High	High	System, Community, Service
Macedon Ranges (S)	Low	Low	High	Service
Hume (C)	High	Low	High	System and Service
Hobsons Bay (C)	Low	High	High	Community and Service
Brimbank (C)	High	High	High	System, Community, Service
Wyndham (C)	High	Low	High	System and Service
Moorabool (S)	Low	Low	Low	Targeted intervention may be warranted for specific population groups
Darebin (C)	High	High	Low	System and Community
Moonee Valley (C)	Low	Low	Low	Targeted intervention may be warranted for specific population groups
Maribyrnong (C)	High	High	Low	System and Community
Melbourne (C)	Low	Low	Low	Targeted intervention may be warranted for specific population groups
Moreland (C)	Low	High	Low	System and Community
Yarra (C)	Low	Low	Low	Targeted intervention may be warranted for specific population groups

RECOMMENDATIONS

APPLYING THE AH COMMISSIONING FRAMEWORK

HOW TO APPLY THE AH COMMISSIONING FRAMEWORK: A WORKED EXPAMPLE

How to apply the AH Commissioning Framework using a hypothetical example: Maribyrnong

Stage 1:

Due to the strategic direction advised by the Board, the LGA of Maribyrnong has been identified as a priority focus area for NWMPHN.

Stage 2A:

Maribyrnong has the 10th highest Composite Index Score of all the LGAs within the NWMPHN catchment. When each sub-index score is ranked and converted into its relevant urgency category, the following results are obtained:

	AH Need		AH Unmet Demand		AH Service Availability	
	Rank	**Urgency**	**Rank**	**Urgency**	**Rank**	**Urgency**
Maribyrnong (C)	5	High	2	High	11	Low

The high urgency in the AH Need sub-index is associated with its high homeless and CALD population, its predicted population growth by 2031 and rates of population who self-rate their health as fair/poor relative to the other LGAs. Maribyrnong also has high rates of Cat 4/5 ED presentations, non-urgent ambulance call-outs and PPHs, which have contributed to a high urgency classification for the AH Unmet Demand sub-index.

Stage 2B:

The literature and qualitative interviews highlight the various barriers faced by the homeless and CALD community in accessing health services, particularly during the AH period. This includes a lack of awareness and integration of existing services, and a reluctance to use alternative AH options.

Stage 3:

When the urgency categories are viewed in combination, the following domain of interventions are suggested (as per **Table 49**):

	AH Need	AH Unmet Demand	AH Service Availability	Intervention Domain Required
Maribyrnong (C)	High	High	Low	**System and Community**

System and community-type interventions, as a starting point, could be explored due to the high AH needs and unmet demand in the area. These interventions reflect the fact that Maribyrnong has a high level of AH service availability when compared to other LGAs, but based on the rankings set out in the Index, residents are not aware of these options (instead relying on ED) or services are not effectively integrated to support their needs.

On this basis, if NWMPHN were to consider taking action in Maribyrnong, the AH Commissioning Framework indicates that the PHN could achieve greater impact with its interventions by:

- Focusing on enhancing the effectiveness of the AH system; and
- Supporting the community to make better decisions about where to access health care in the AH period.

IMPACT CO.