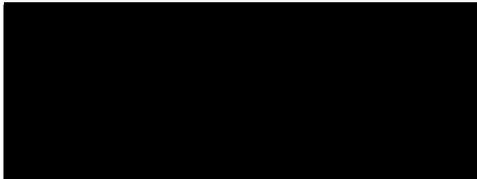




07 December 2020



Dear [REDACTED]

Re: OIA request – Urgent care services

Thank you for your Official Information Act request received on 12 November 2020 seeking information from Waitematā District Health Board (DHB) about urgent care services.

In response to your request, we can provide the following information:

1. Does your DHB have a current plan or strategy for the provision of After-Hours / Urgent Care Services as defined in the PHO Services Agreement?

Yes.

a. If yes, please provide a copy of the plan / strategy documentation.

The metropolitan Auckland DHBs developed a business case in 2014 that was used to define the strategic direction for after-hours and urgent care services - refer **Attachment 1**. While this document uses "Draft" as a watermark, it is the final document.

2. As a DHB, do you directly provide or fund (either fully or partly) the provision of after-hours/urgent care services that meet the requirements of the provision of urgent care services, as defined in the PHO Services Agreement?

Yes.

a. If yes, please provide details of the nature and size of services funded or directly provided by the DHB (excluding financials).

Waitematā DHB has service agreements directly with three urgent care clinics (Shorecare Smales Farm, Shorecare Northcross and White Cross Henderson) and with Coast to Coast Health Care Wellsford.

The abovementioned four urgent care clinics are required to open all-year-round, including public holidays from 8 am to 8 pm, except for White Cross Henderson and Shorecare Smales Farm, which are open 24 hours per day, seven days per week. Coast to Coast Health

Care Wellsford is contracted to provide Accident and Medical Services from 8pm until 8am Monday-to-Friday and all hours Saturday and Sunday.

Through these providers, Waitematā DHB subsidises after-hours and overnight services for our most-vulnerable populations (Quintile 5 population, over-65s, High User Health Card-holders, under-14-year-olds and Community Services Card-holders).

Waitematā DHB also provides financial incentives for nine General Practices in West Auckland to deliver extended GP clinic hours to support primary care services for the populations in that area.

- 3. Within your DHB district, do PHOs (or equivalent bodies) directly provide or fund (either fully or partly) the provision of after-hours / urgent care services that meet the requirements of the provision of urgent care services, as defined in the PHO Services Agreement?**

Waitematā DHB recognises PHOs do not directly provide or fund the provision of urgent care services. However, requirements of the PHO Services Agreement remain in place.

- a. If yes, please provide details of the nature and size of services funded or directly provided by the PHO(s) (excluding financials).**

Not applicable.

- 4. Are General Practices within your DHB district required to fund (either fully or partly) the provision of after-hours / urgent care services that meet the requirements of the provision of urgent care services, as defined in the PHO Services Agreement?**

General Practices within Waitematā DHB district are not required to fund the provision of urgent care services. However, many provide extended hours of operation, including clinics on Saturdays. Some general practitioners are also on the rosters of the urgent care clinics.

- a. If yes, please provide details of the nature and size of services funded by General Practice.**

Not applicable.

- 5. Are General Practices within your DHB district required to participate in an urgent care / after-hours / on-call roster in order to meet their urgent care services obligations, as defined in the PHO Services Agreement?**

In some situations, yes – see below.

- a. If yes, is this participation (and cost of on-call availability of clinicians) at the cost of the General Practice or another entity?**

The original purpose of the rural funding streams provided for within the PHO Services Agreement has been retained by the Auckland-Waitematā Rural Alliance. These funding streams include Rural After-Hours, Rural Retention and Rural Bonus funding.

The Rural After-Hours component provides a funding contribution for West Rodney (Kumeu Village Medical, Kaipara Medical, The Doctors Huapai and Waimauku Doctors) and Wellsford and Warkworth (Coast to Coast Health Care) Rural General Practices to provide an after-hours service via an on-call roster to support after-hours urgent care services for their enrolled populations.

I trust that this information is helpful.

Waitematā DHB supports the open disclosure of information to assist community understanding of how we are delivering publicly funded healthcare. This includes the proactive publication of anonymised Official Information Act responses on our website from 10 working days after they have been released.

If you consider there are good reasons why this response should not be made publicly available, we will be happy to consider your views.

Yours sincerely



Dr Debbie Holdsworth
Director Funding
Waitematā District Health Board



DRAFT AFTER-HOURS BUSINESS CASE

11 July, 2014

Prepared by:

Auckland Regional After-Hours Network (ARAHN)

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DRAFT

KEY POINTS

- Auckland Regional After-Hours Network.
- Five-year business case.
- Fully integrated after-hours system for Metro Auckland.
- Alliance of DHBs and PHOs, with key after-hours providers (includes St John joining ARAHN).
- Clear GP obligations for 24/7 care.
- Improved patient access above the high level already provided.
- Proposed funding per year \$7.2 million for DHBs, \$2.36 million for PHOs.
- Contestable procurement process for after-hours and GP deputising (telephone triage) services.
- Analysis shows risk if ARAHN (and overnight funding) ceases up to 35,000 extra patients could attend Metro EDs after hours and overnight in Year 1. This number is projected to not decrease in the next five years as the population growth rate in Auckland is rising.
- Keeping growth rates at all Auckland EDs as low as any in New Zealand is anticipated if ARAHN proceeds according to the business case.

EXECUTIVE SUMMARY

This business case describes the activities and impact of the Auckland Regional After-Hours Network (ARAHN); it identifies a future model of an integrated after-hours system built around general practice 24/7 responsibilities and proposes that Auckland Metro District Health Boards (DHBs) and Primary Health Organisations (PHOs) commit to supporting ARAHN for a further five years – from 1 July 2015 to 30 June 2020.

History

ARAHN is an alliance of the three Auckland DHBs, seven PHOs, the Auckland After-Hours Consortium (the Consortium) and Homecare Medical (HML). The Consortium represents 11 Accident and Medical (A&M) clinics contracted to provide services according to ARAHN's specifications. HML provides GP deputising (telephone triage) services.

The current ARAHN configuration was established in 2011, when A&M providers, PHOs and DHBs came together to find collective solutions to a set of previously intractable problems relating to after-hours access and services. The solutions included a network of A&M clinics with aligned opening hours, free under-six access and a range of subsidies for other high-needs groups. An alliance structure was developed to provide regional co-ordination across clinic services, telephone triage, public communications, clinical governance and integrated reporting.

The ARAHN project partnership meets regularly with an active, planning, service co-ordination and quality improvement agenda, with transparent information across partners.

ARAHN has been independently evaluated by the University of Auckland, School of Population Health.

The evaluation highlighted the functionality of ARAHN as a health network and noted strong support and commitment across the partner organisations. The evaluation also noted that the increase in accident and medical clinic utilisation as a result of free under-six access was plausibly associated with a lower than expected increase in emergency department (ED) attendance for the same group. The evaluation identified that the current subsidies for other eligible groups did not appear to have a significant impact on A&M utilisation.

Business case

The starting point for this business case is that Auckland has low ED utilisation rates compared to NZ and internationally. The business case aims to maintain and enhance these trends.

This business case has been developed by all the ARAHN partner organisations working together. It is an agreed approach.

Table 1: Comparisons of average standardised annual ED utilisation per 1000 population

	New Zealand		Australia	UK	USA	Canada
	Auckland	Rest of NZ				
Average standardised annual ED utilisation per 1000 population ¹	184	250	311	345	408	476

GP obligations

At the heart of the business case are general practice obligations to provide 24/7 first-level care for enrolled populations. Commitments across PHOs include consistent, structured relationships between general practices, GP deputising telephone services, after-hours clinics and patient communications to ensure 24/7 needs are reliably met. A major step is requiring all GPs to have a contract with a local after-hours clinic as a preferred provider that clearly outlines the service expectations of both parties after hours.

Integration

General practices are supported by an integrated after-hours system, with universal GP after-hours phone diversion to a regional GP Deputising Service that provides an advice, triage and referral service. The GP Deputising Service and St John Ambulance service will work closely together, with St John having more flexibility to provide see-and-treat services and transport to after-hours clinics for low acuity patients. The system will support a better integrated 24/7 response for complex patients such as the elderly and those with long term conditions.

Support structures

The ARAHN leadership alliance will continue. Clinical governance will be enhanced by integrated data from all after-hours services to inform quality, safety and efficiency reviews. GPs will be required to communicate with their practice populations about access to GP Deputising Services and after-hours clinics. ARAHN will work more closely with DHB community nursing services. ACC is reviewing its options to identify whether a closer relationship with ARAHN may allow for modified service and resourcing models in the Auckland environment.

Implementation and procurement of services

ARAHN will enter into a contestable procurement process to identify providers for GP deputising, after-hours clinic and support service requirements. The procurement will include the community-based overnight services, which are currently provided from four clinics.

The procurement process will be undertaken by a sub-group of DHB and PHO representatives and will be managed to avoid conflicts of interest. The future membership of ARAHN may change after

¹ References for numbers (Matt)

the procurement, if new service providers join the mix or current providers are no longer part of ARAHN.

Table 2: Core specifications for the after-hours clinical services to be procured by ARAHN

Area	Core specifications
Access to a clinic after-hours	<ul style="list-style-type: none"> ▪ Funded after-hours clinics open until 10pm. ▪ Same or better access than current after-hours service configuration (note MOH requirement is 95% of under-sixes within a 60-minute drive time). ▪ Support equitable access for the whole population of each DHB.
Access to overnight services	<ul style="list-style-type: none"> ▪ One community-based after-hours clinic within each district to provide overnight services (Waitakere, North Shore, Central Auckland, Counties Manukau).
Subsidisation	<ul style="list-style-type: none"> ▪ Free under-13s when the new policy comes into effect in July 2015. Maintain lower co-pays for quintile 5, over-65s, High Use Health Card (HUHC) and Community Service Card (CSC) holders.
Quality accreditation	<ul style="list-style-type: none"> ▪ Providers to meet the Accident and Medical Clinic Accreditation Standard.

Impact of ARAHN initiative

ARAHN supports the Triple-Aim objectives of improved patient experience, improved quality and outcomes and improved system efficiency. (See summary table below.)

- Patient experience will be enhanced through improved access to GP deputising and after-hours clinics, with greater co-ordination, improved handover and a more seamless response to after-hours need.
- Health quality and safety will be enhanced through improved data integration and whole-system clinical governance and monitoring, with better sharing of patient information across in-hours and after-hours services.
- System efficiency will be improved through a greater number of people with low acuity conditions meeting their after-hours needs within a community setting.

ARAHN Consortium after-hours clinics see similar volumes of patients between 6pm and 8am as the Metro EDs. In 2013 these network A&Ms saw 113,347 patients eligible for subsidised care (under sixes, over-65s, quintile 5s, HUHC and CSC holders).

Presentations of eligible groups at after-hours clinics have increased above forecast since the initiative began in September 2011. Corresponding data shows that presentations at EDs for eligible groups have tracked lower than expected. The largest impact has been for under-sixes. Note that there may be other external reasons for this decrease in eligible ED presentations.

The business case has extrapolated current ED growth trends forwards for five years and identified the potential future impact on ED attendances if ARAHN service components cease. The difference

in volume seen at EDs during the after-hours and overnight period if ARAHN services cease could be as high as ~33,000 patients annually.

The financial implications for these changes have been calculated by using the average long run cost for ED services per presentation. The difference in the costs of supporting ARAHN services and EDs seeing the corresponding patients is an extra \$2 million in year one. This cost rises to \$3.2 million per year in the following four years.

The independent evaluation identified that if ARAHN were discontinued, consequences could include:²

- *breakdown of the alliance and loss of momentum generated by network partners*
- *collapse of the system of after-hours care as currently configured*
- *increased prices for care, unless alternative funding arrangements can be reached*
- *renewed growth in ED use*
- *a need for a new regional consultation on a standardised local approach.*

This business case proposes a five year frame. This is a considerable commitment. However, the ARAHN approach is one of continuous improvement. ARAHN anticipates regular data-informed reviews and renegotiation processes to ensure Triple Aim objectives are constantly driving service improvements.

Annual ARAHN funding contributions for partners from 1 July 2015 are anticipated to be as follows:

- The three DHBs: \$7,201,031 (note there is an extra \$912,964 for Wellsford and Waiheke after hours, which is outside of the ARAHN mandate).
- The seven PHOs: (based on the 2014 proportions of enrolees):

Table 3: Annual PHO funding contributions from Auckland PHOs

ProCare	Auckland PHO	EastHealth	Total Healthcare	Waitemata PHO	NHC	AH+
\$1,379,427	\$93,179	\$149,653	\$136,396	\$344,318	\$131,167	\$126,874

- The After Hours Consortium currently contributes \$100,000. This may be impacted by the procurement process.

ARAHN believes the focus on clear GP obligations, integrated systems, information and clinical governance places the Auckland model at the forefront of international after-hours developments. (See table.)

² School of Population Health, After Hours Initiative Phase 1 Evaluation Report, 2013, Page 29

Table 4: Summary of ARAHN initiatives, linked to guidance from literature and Triple Aim goals

Improvement Area (and link to Triple Aim goals)	International and New Zealand Literature	ARAHN response	Reference
<p>Integrated after-hours service</p> <p>System efficiency</p>	<p>Many Western countries are integrating their after-hours service, with a combination of walk-in appointments, nurse-led triage and changes in the response from ambulance.</p>	<p>ARAHN service design and alliance leadership explicitly supports operational co-ordination and integration and was commended by the University of Auckland evaluation for success in this area.</p>	<p>Grol, Geisen & Uden, 2006</p> <p>University of Auckland evaluation</p>
<p>Targeted patient communications</p> <p>Patient experience</p> <p>System efficiency</p>	<p>Studies have identified the optimal approaches to giving urgent care advice, and the after-hours evaluation identified effective communication channels for Auckland patients.</p>	<p>Communication will be increasingly based on patients' preferred methods, primarily from general practice, supplemented by aligned broader social media communication strategy.</p>	<p>Safeer& Keenan, 2005</p> <p>Kings Fund 2011</p> <p>Uni Evaluation p 10, 124, 125</p>
<p>Consistent healthcare professional communications</p> <p>Quality/outcomes</p> <p>System efficiency</p>	<p>There is an increasing transfer of care and information between the hospital and primary care, which if poorly managed can adversely affect patient outcomes. Clinician-led multidisciplinary groups break down barriers in communication and improve patient care across the sector, supported by quality IT.</p>	<p>Whole-system Auckland (after hours) clinical subgroup to streamline communications between professionals, continuing clinical review of data and quality standards and a commitment for clinicians in primary care to receive individual patient feedback to improve future management in the community.</p>	<p>Kripalani, LeFevre, Philips et al, 2007</p> <p>Uni Evaluation pp 130-136</p> <p>ARAHN Business Case Section Y</p>
<p>Connected telephone triage service</p> <p>Patient experience</p> <p>Quality/outcomes</p> <p>System efficiency</p>	<p>In Australia and the UK telephone triage (TT) is playing an increasing role in after-hours service. This is beneficial for the patient, the system and communicating access. Ideally, the system should use only one non-emergency telephone number. It is already infrequent for TT lines in NZ to triage patients to the hospital.</p>	<p>All GPs link to TT service via GP phone after hours, with increasing facilities signed up to the service. Nurses triage after hours supported by robust algorithms. TT links across systems and to ambulance call centres. GPs able to provide guidance for how to respond to specific patients.</p>	<p>Nagree, Cameron, Gosbell & Mountian, 2012</p> <p>Kings Fund 2011</p> <p>Healthdirect Australia 2013</p> <p>St George, 2006</p>
<p>Broadened ambulance response</p> <p>Patient</p>	<p>Non-urgent or non-serious patients may be as high as 50% of ambulance volume, improvement in response for these patients is cost-effective for the system and leaves more</p>	<p>St John initiatives include see-and-treat, ambulance divert to A&M clinics and linking phone clinical hub with wider telephone tirage service</p>	<p>Snooks et al, 1998</p> <p>Dale et al, 2003</p> <p>Mason et al,</p>

Improvement Area (and link to Triple Aim goals)	International and New Zealand Literature	ARAHN response	Reference
experience System efficiency	ambulances on the road to deal with 'majors'.	for low-acuity calls.	2008 Pointer et al, 2001 Woolard, 2006
Utilisation of after-hours and over-night clinics Patient experience System efficiency Quality/outcomes	New Zealand has a well-developed infrastructure, providing after-hours services of accredited clinics compared with the more ad-hoc services in other countries. This is especially in Auckland, where a high proportion of the accredited clinics are found, and the increased patient choice across extended hours may impact on the city having one of the lowest ED attendance rates in the Western world.	Maintain a network of funded after-hours clinics that are accessible for patients through location, opening hours and lowered co-payments. Maintain funded overnight services to continue to give patients community options 24/7.	RCUCP Website Clearwater, 2014 University of Auckland evaluation p 134 University of Auckland p 127
Subsidies for at-risk groups Patient experience Quality/outcomes System efficiency	There is substantial evidence that lowering the cost of services does increase utilisation and has the potential to reduce inequalities. One group that benefits from access after-hours is children whose medical conditions tend to deteriorate more in the evening.	After hours care will be free for under-13s, with subsidised care for over-65s, quintile 5, HUHC and CSC holders.	Rajpar, Smith & Cooke, 2000 Harris, Patel & Bowen, 2011 Goodyear Smith et al, 2008
GP responsibility to urgent and after-hours care Patient experience Quality/outcomes System efficiency	There is variation in the way that general practice approaches urgent care around the world, and the way they utilise ED and other after-hours services. Understanding causes of variation encourages best practice and can lead to improved general practice models of care and capacity.	GPs will have a much closer relationship with an after-hours provider, and two-way data shared so that both the facility and the system can see and interpret trends in the care given across Auckland. PHOs have a strengthened role supporting consistent general practice response to 24/7 needs.	Kings Fund, 2011

1 RECOMMENDATIONS

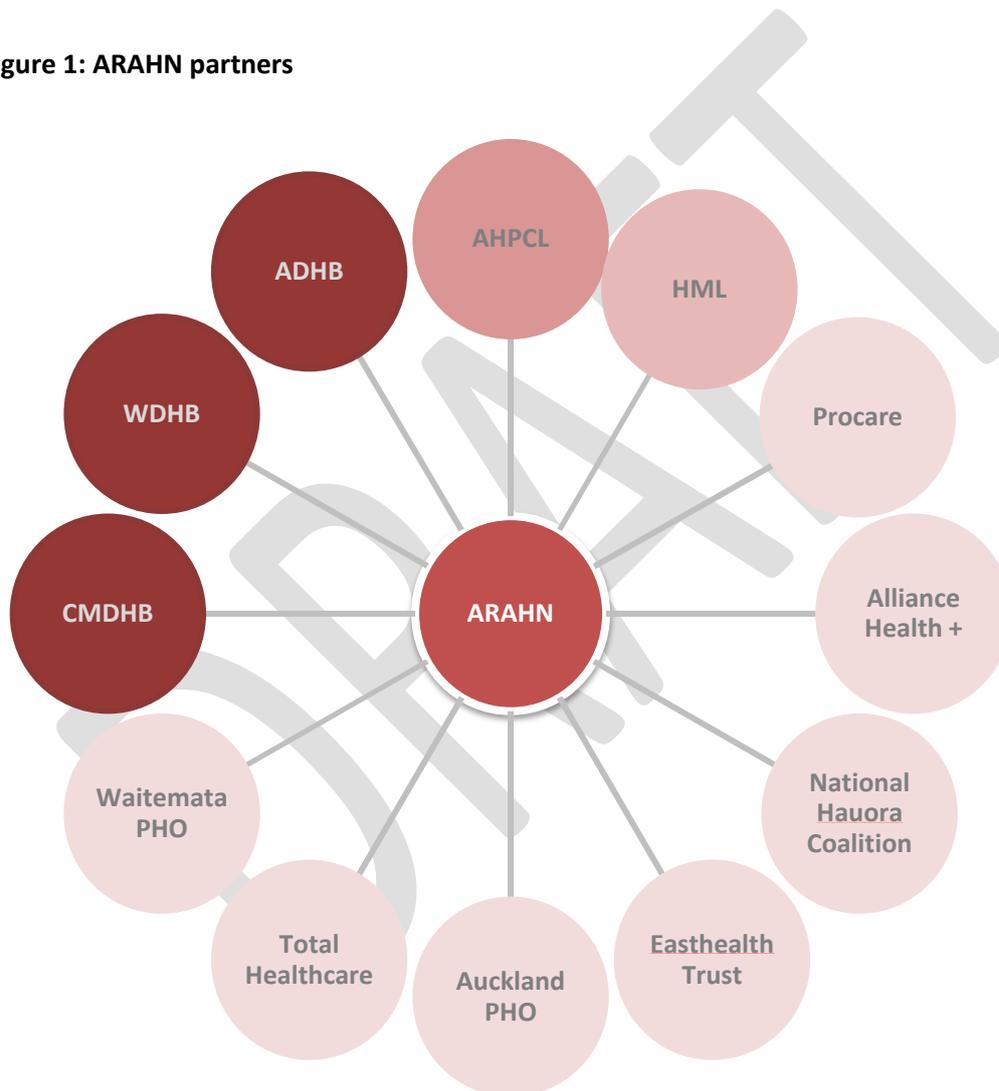
- The Auckland Regional After-Hours Network and the after-hours initiative is formally supported to continue for five years, from 1 July 2015 to 30 June 2020.
- Auckland DHB, Waitemata CHB and Counties Manukau DHB continue to resource ARAHN at current levels, with provision for demographic and cost pressure adjusters.
- All PHOs in the Auckland Metro area continue to resource ARAHN at current levels, with provisions for demographic and cost pressure adjusters, noting funding pro-rata, based on a per Enrolled Service User contribution.
- PHOs and general practices commit to complying with a clear set of regionally consistent obligations for ensuring quality 24/7 first level care.
- St John is formally confirmed as a member of ARAHN.
- ARAHN undertakes a contestable procurement process for after-hours clinical and support services to be provided from 1 July, 2015. A subgroup of DHB and PHO representatives will lead the procurement process and this will be done in a manner that mitigates conflicts of interest.
- The provision of community overnight-services past 30 June 2015 is formally part of the ARAHN procurement process.
- All members of ARAHN commit to a process of data-informed continuous quality improvement, which will drive regular service modifications to achieve Triple Aim objectives.
- The clinical subgroup is re-established with wider clinical representation and reports to ARAHN and to the Auckland Metro Clinical Governance Forum.
- A further independent evaluation is commissioned two years after the services are established following procurement, which would be in the 2017/18 year.

2 THE AUCKLAND REGIONAL AFTER-HOURS NETWORK

The Auckland Regional After-Hours Network (ARAHN) is made up of 12 member organisations:

- PHOs: Procure, Alliance Health Plus, National Hauora Coalition, Easthealth Trust, Auckland PHO, Total Healthcare, and Waitemata PHO
- Auckland Metro DHBs: ADHB, WDHB and CMDHB
- After Hours Providers Consortium Ltd: Whitecross, Eastcare, Takanini Care, Shorecare, East Tamaki Health Care, Three Kings Accident and Medical, Pukekohe
- Telephone triage: HML.

Figure 1: ARAHN partners



ARAHN was established in September 2011, with its structure, functions and contributions formalised through an annual agreement – the Network Services Agreement – which is signed by all parties. A leadership structure – the Project Partnership – was established, which includes representation from all parties. Regular meetings are held, with alliance decisions being made by consensus across the parties.

During 2013, St John and ACC have begun working more closely with ARAHN.

3 BUSINESS CASE SCOPE AND OBJECTIVES

This business case is being prepared for all of the member organisations currently making up ARAHN.

The business case scope includes:

- patients residing within the three Auckland Metro DHBs
- GP 24/7 first level service obligations
- after-hours clinical services
- overnight clinical services
- GP deputising (telephone triage services)
- organising and supporting structures for supporting the services.

Resources for specific after-hours services in Wellsford and Waiheke are excluded.

The objective is to achieve a solution for after-hours services in metro Auckland that achieves the Triple Aim objectives of simultaneously improving patient experience, health outcomes and system sustainability.

- Best-for-patient, best-for-system solution for providing community-based after hours (6pm to 8am) first-level services.
- Metro-wide consistency in operationalising GP obligations to provide accessible 24/7 care for their enrolled patients and recognition of the GP as a patient's medical home.
- Metro-wide consistency in operationalising DHB obligations to access, quality and service integration for after-hours care for their resident populations.
- Ensure investment of GP and DHB funds in community after-hours services is cost effective and value for money.
- Ensure that a solution for after-hours services meets agreed minimum standards for access for Auckland residents, no matter where they live.
- Ensure that solutions for community-based after-hours services are sustainable and support strong clinical governance and continuous quality improvement.

4 PROCESS OF DEVELOPING THE BUSINESS CASE

The After-Hours Project Partnership (alliance structure of the After Hours Network) worked in collaboration with St John and ACC to develop this business case. All members contributed to development and agreed to the final outputs.

The independent evaluation of the after-hours initiative, led by the School of Population health, has also informed the business case.

The ARAHN partners understand the business case will need to be signed off by all ARAHN member organisations.

5 HISTORY AND PROGRESS OF ARAHN

The after-hours system prior to the establishment of the After-Hours Network lacked co-ordination and linkage between providers. Funding was complex in that each DHB and some PHOs held separate contracts with providers for after-hours care. These contracts were varied in terms of fees and contractual obligations. (See appendix for overview of funding contributions prior to ARAHN). Issues included:

- variable opening hours from A&M clinics across Auckland Metro
- variable prices, with significant differences between DHB areas, especially in Government policy priority areas, such as under-sixes
- poorly-defined and highly variable GP obligations to provide 24/7 first level services
- increasing demand for ED services, without a systematic regional approach to address the causes of inappropriate ED use
- a lack of any integrated data analysis or clinical governance to inform systemic improvements across the after-hours system
- inability to undertake population health messaging
- variable responses to patients calling their GP after hours.

In 2009, the three Auckland DHBs allocated an extra \$2.53 million to after-hours services as a result of an increased of Ministry of Health funding tagged for after-hours.

5.1 ESTABLISHING ARAHN

In July 2010 the Auckland Metro DHBs agreed to develop a regional approach to after-hours planning. A working group was formed, which included the Auckland Metro DHBs, seven Auckland PHOs and a consortium of A&M clinics; which later became the Auckland Regional After-Hours Network (ARAHN).

- ARAHN developed the 'Optimal Straw Man' document, which outlined the optimal model for after-hours services for Auckland
- In April 2011 CMDHB as lead DHB for the ARAHN put out a request for proposals (RFP) to seek service provision contracts based on the Optimal Straw Man model.
- As part of the RFP process a new alliancing arrangement was put in place. The ARAHN agreed on how to implement the Optimal Straw Man within available resources including the following initiatives:
 - subsidised accident and medical co-payments for children aged under six, adults aged 65 and over, quintile 5 residents, HUHHC holders and CSC holders at ARAHN clinics
 - ARAHN A&M clinics (total of 11) open till 10pm
 - four ARAHN A&M clinics open 24/7/365 (overnight services)
 - telephone triage services – only some PHOs elected to use this service initially
 - communications strategy to inform the public about above initiatives.

- Each member of the ARAHN contributed funding to implement the initiatives described above. For the first two years the funding from each member was tagged to specific service streams and PHOs were not contributing equitably.

ARAHN is currently governed by three key contracts:

1. After-Hours Network Services Agreement – this contract was signed by all of the ARAHN member organisations committing to funding they would provide to implement the initiatives of the ARAHN.
2. Head agreement between CMDHB, which hosts the contracting for services on behalf of ARAHN, and the After-Hours Providers Consortium – this contract outlined the funding the A&M Clinics received for providing lower co-payments to eligible populations and extended opening hours.
3. Head agreement between CMDHB and Homecare Medical Ltd (HML) to provide after-hours telephone triage services.

ARAHN also has contracts with providers for services such as communications and project support.

5.2 PROGRESS OF ARAHN TO 2011 – 2013

Table 1 below outlines the key milestones in the ARAHN development.

2011: Establishment of the Auckland Regional After-Hours Network (Sept 2011):

- Auckland Metro alliance approach to providing after-hours care.
- Network of 11 A&M Clinics; four open 24 hours, six open 8am – 10pm, one open 8am – 11pm. Subsidies offered to quintile 5, under-sixes, 65 and over, HUHC and CSC users.
- Telephone triage service provision to most PHO populations.
- St John initiative – taking low acuity to A&Ms and offering a subsidised co-payment.
- Establish clinical and communications sub-groups.

2012: Continuation of after-hours service provision, including communications campaigns. Phase 1 evaluation undertaken.

2013: Renegotiation of the after-hours contract:

- All PHOs making equitable funding contributions to all after-hours services (funding not tagged to particular services).
- All network clinics providing after hours free under-sixes care.
- All PHOs agreed to subscribe to HML for telephone triage services.
- Link to urgent care initiatives.

Phase 2 evaluation undertaken.

2014: Renegotiation of the after-hours contract for A&M services and for one year. Increased payments for some Consortium clinics and reduced opening hours

to 9pm for Consortium clinics.

- Development of business case for ongoing support for after-hours initiative, due for presentation to DHB boards in August 2014.
- Closer alignment with St John and ACC.

5.3 SOURCE OF FUNDING AND FUNDING ALLOCATIONS:

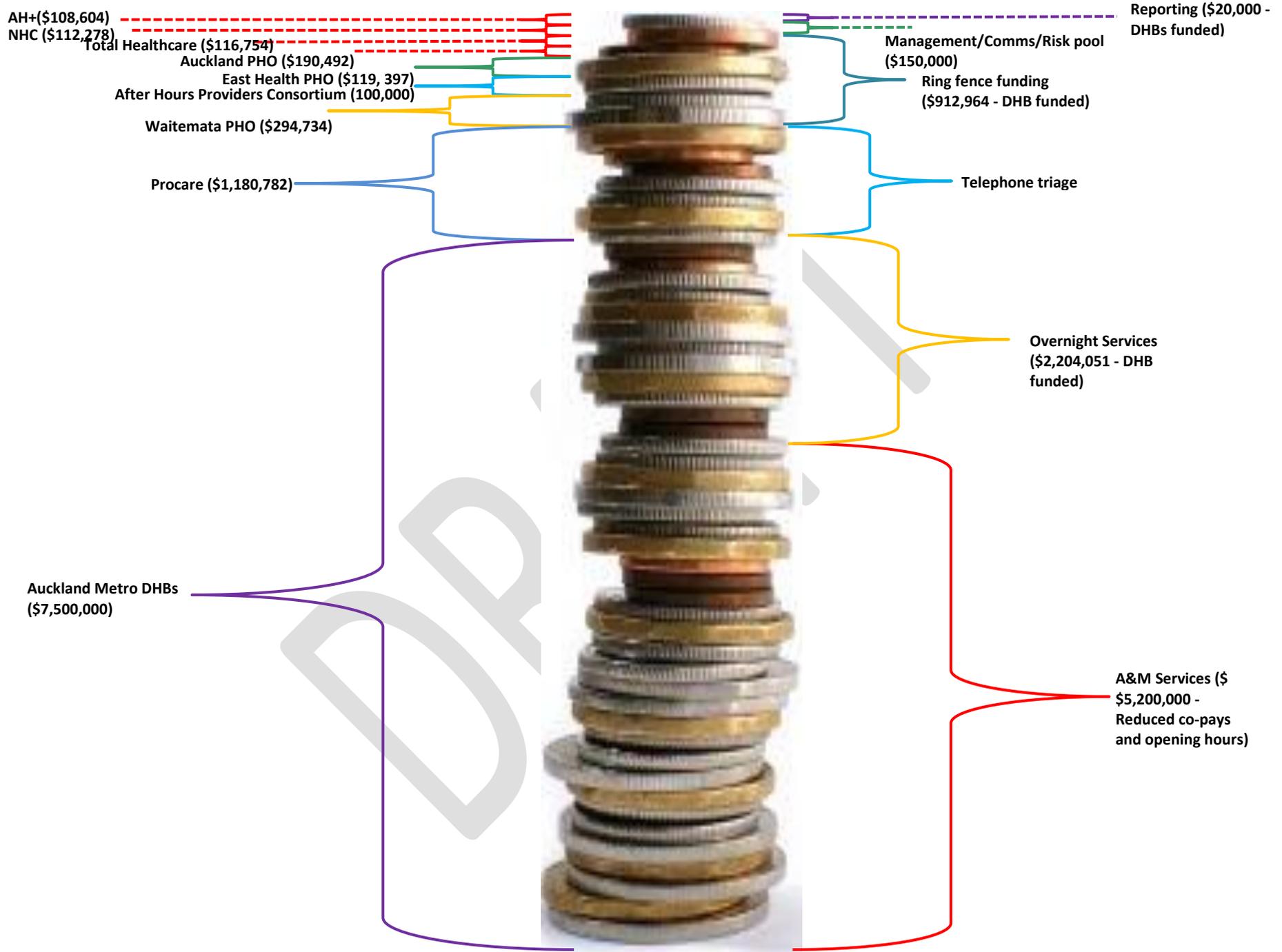
Funding for ARAHN comes from the three DHBs (with splits between DHBs based on historical level and negotiated agreements for new funding), and from PHOs based on an agreed per Enrolled Service User contribution. The A&M consortium contributes \$100,000 to ARAHN support infrastructure. Table 1 presents the detail around the 2013/14 funding for ARAHN. Note the \$912,964 'ring fenced funding' is allocated to the Wellsford and Waiheke after-hours services. Whilst this funding is included here for completeness, the contracts are administered by Waitemata and Auckland DHBs and are not considered part of the ARAHN business case.

Table 5: Funding contributions for ARAHN from 2013 to 2014.

Service Area	Auckland metro DHB's	ProCare	Auckland PHO	EastHealth	Total Healthcare	Waitemata PHO	NHC	AH+	A&Ms	Year 3 Total
A&M Services (Reduced co-pays and opening hours)	\$4,158,934	\$489,028	\$72,669	\$115,444	\$48,354	\$122,066	\$46,501	\$44,979	\$102,026	\$5,200,000
Overnight	\$2,204,051									\$2,204,051
Telephone triage		\$662,542	\$44,754	\$71,879	\$65,511	\$165,377	\$63,000	\$60,938		\$1,134,000
Management/Comms		\$29,213	\$1,973	\$3,169	\$2,888	\$7,292	\$2,778	\$2,687	\$100,000	\$150,000
Reporting	\$20,000									\$20,000
Year 3 totals	\$6,382,985	\$1,180,783	\$119,396	\$190,492	\$116,753	\$294,735	\$112,279	\$108,604	\$202,026	\$8,708,051
Wellsford & Waiheke funding	\$912,964									\$912,964
Year 3 totals including Wellsford & Waiheke funding	\$7,295,949	\$1,180,782	\$119,397	\$190,492	\$116,754	\$294,734	\$112,278	\$108,604	\$202,026	\$9,621,015

The following diagram shows the funding inputs to ARAHN and how the funding is allocated to the different services and functions of ARAHN. A total of \$9,621,015 is provided for the after-hours system in Auckland in 2013/14 (including Wellsford/Waiheke). This includes some of the money the DHBs and PHOs contributed to after-hours services prior to the establishment of the network, as well as additional money contributed by all partners of the ARAHN.

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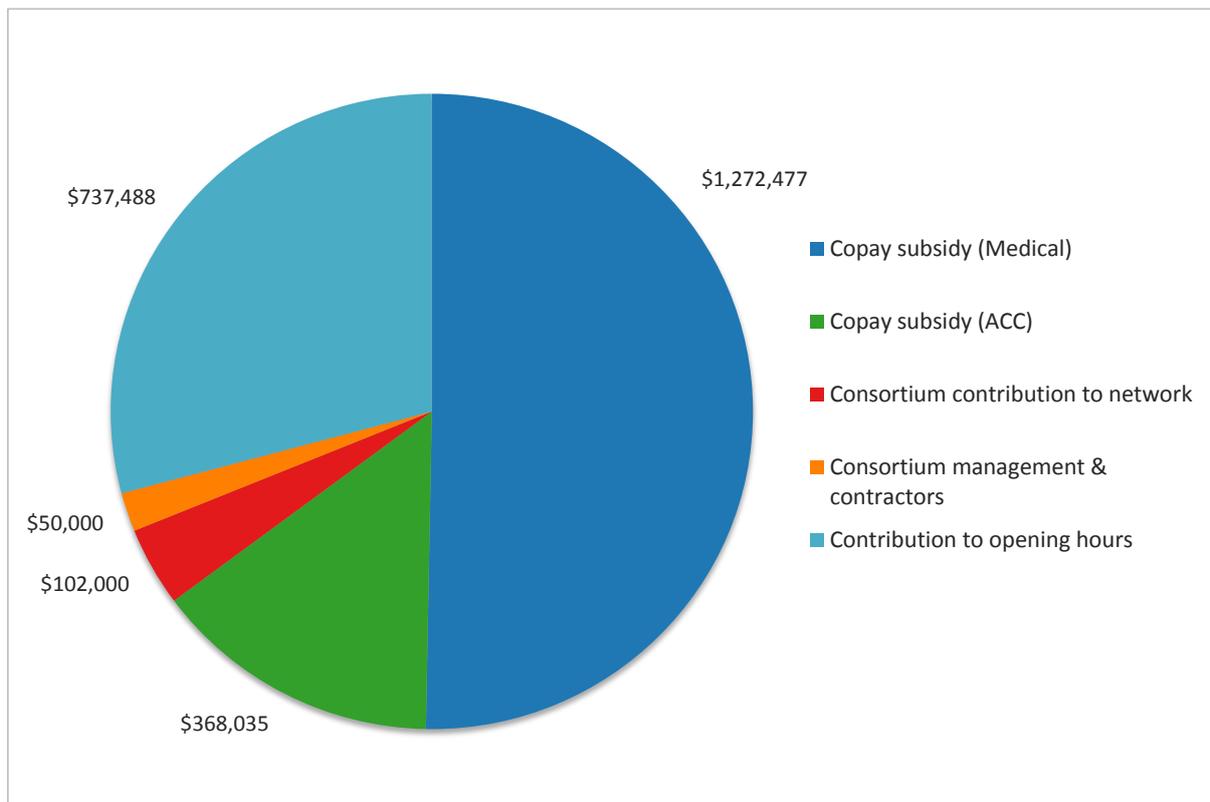


5.4 APPLICATION OF FUNDING WITHIN A&M CLINICS

The graph below shows how the 2011 funding increase (\$2.53M) is allocated within the Consortium. Fifty percent of the money is spent reducing co-payments for medical patients, 18% for ACC patients and a further 5% for management, contractors and contribution to the network.

Twenty seven percent of the money (~\$680,000) is the contribution to extending opening hours.

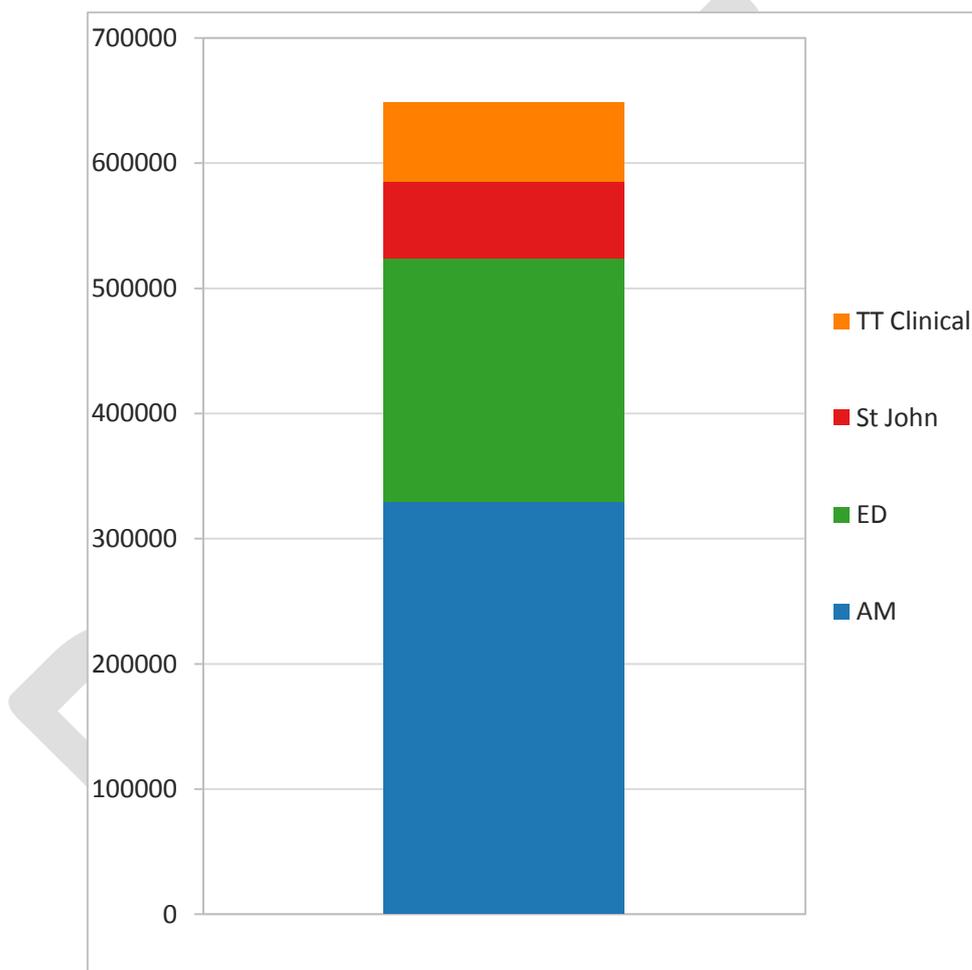
Figure 2 ARAHN breakdown of funding allocated to after-hours providers annually (new money)



6 AUCKLAND AFTER HOURS ACTIVITY

The graph below shows the relative contributions of various after-hours services across the whole of Metro Auckland for 2013, including all recorded data from network A&Ms, and estimating utilisation for St John based on 2012 volumes. There were over 650,000 instances of after-hours clinical activity in Auckland in 2013, of which 50% was at A&Ms, and the rest split at 200,000 ED attendances and ~65,000 each for St John and telephone triage clinical advice. Note: we do not have data for the 7 A&M clinics that are not part of the business of one of the Consortium clinics.

Figure 3: Total after-hours volumes by key Auckland stakeholders



The graph below shows the relative contributions of the stakeholders across each of the Auckland DHBs for 2013, including all recorded data from A&Ms. Counties Manukau has the highest volumes at 280,000 per year, approaching double that of ADHB. Each of the WDHB volumes are ~100,000. CMDHB also has a much higher proportion of A&M consults (two thirds) than the other DHBs, while Waitakere the lowest ED volumes.

Figure 4: Total after-hours volume by DHB, geography & facility over the last year

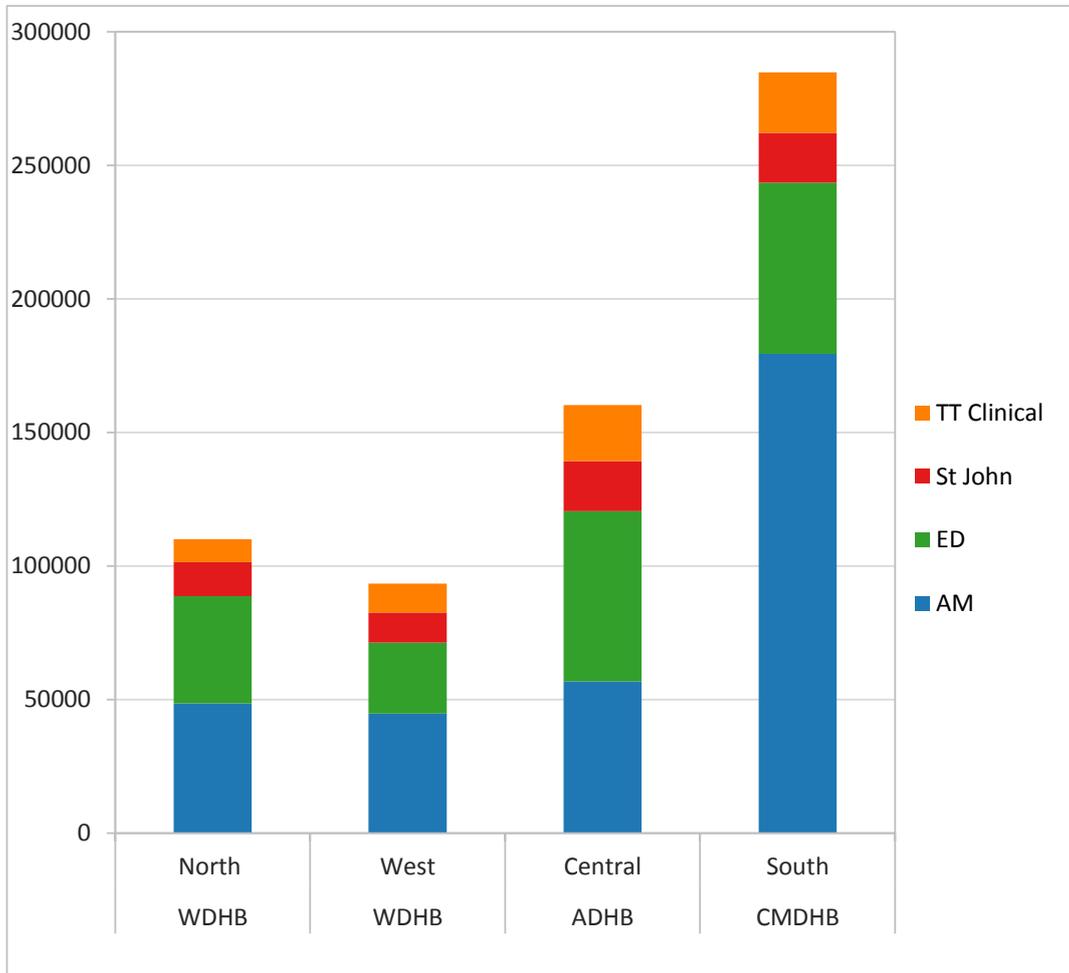
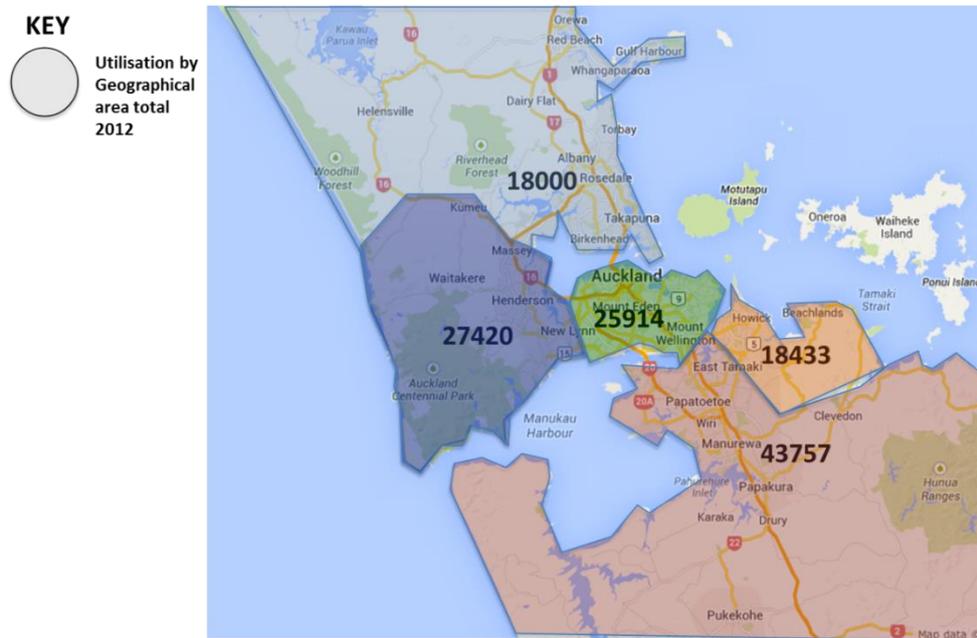


Figure 5 below shows utilisation of the Consortium A&M clinics by where the patient reside. The figure shows that 40–45% patients reside within the CMDHB region, attending these A&Ms. Twenty percent are from the ADHB region and the remainder of patients are from the WDHB region. There are slightly more patients from the West than the North for the WDHB region.

Figure 5: After-hours volumes by region



6.1 ACCIDENT AND MEDICAL CLINICS

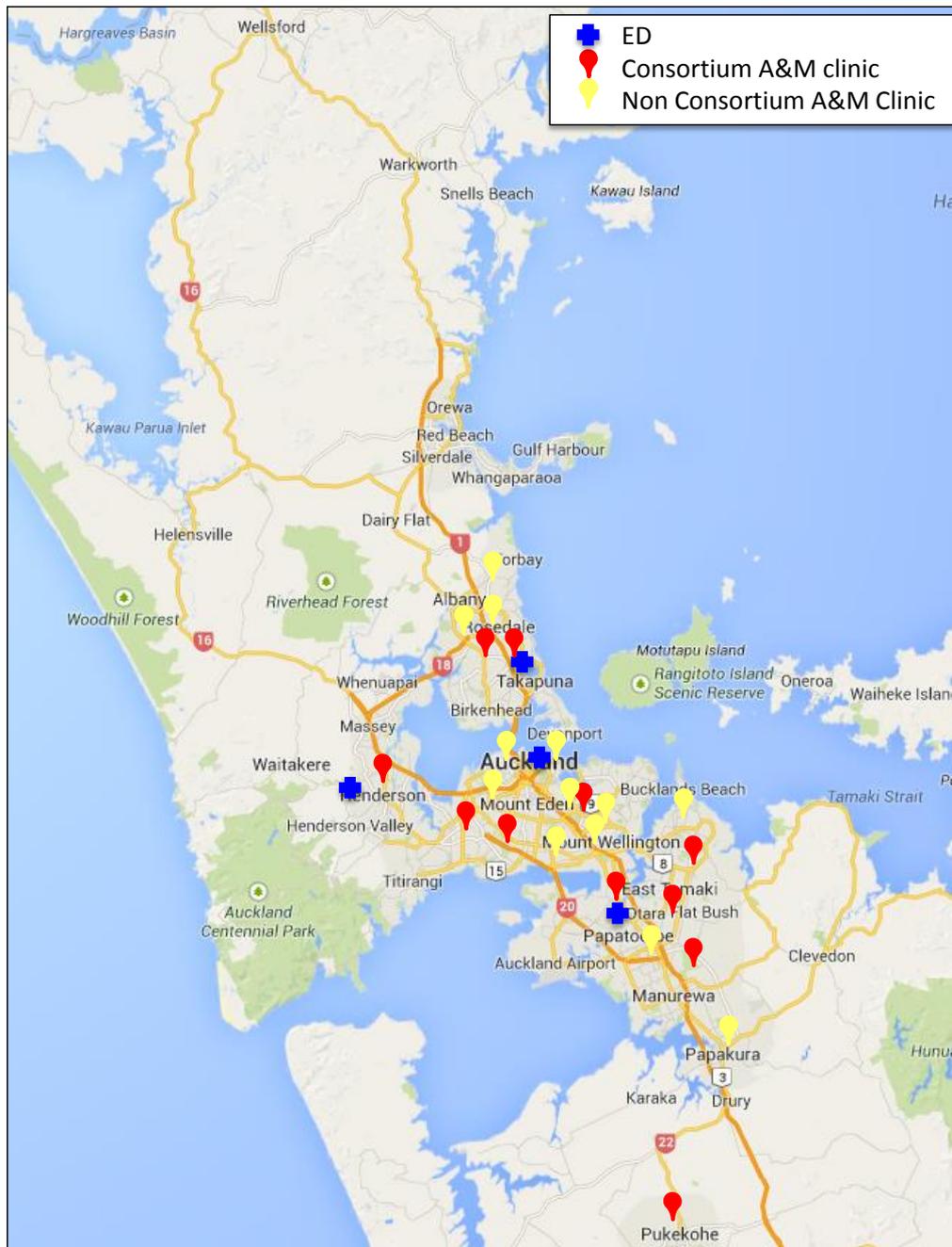
There are four emergency departments in Auckland open 24 hours. They are located North, West, Central and South. There are four funded 24-hour clinics situated North, West, Central and East. There are seven other clinics that are open until 10pm, and the 11 clinics that have these extended hours comprise the Consortium, formed in 2011. There are a further 14 other Accident and Medical Clinics that have accreditation with the respective college (RCUCP, formally AMPA), of which seven are under the same business umbrella as a Consortium clinic. These Consortium 'Auxiliary' clinics also provide exactly the same data as the Consortium clinics.

There are a total of 42 general practices which offer extended hours³ in Auckland across the three DHBS.

³ Regular hours for general practice are defined as 8:30am – 5:30pm, totalling 45 hours per week. Extended hours in general practice agreed by ARAHN is defined as in excess of 8 hours exceeding the regular 45 hours per week.

The following map presents where the facilities of the after-hours system are located. Note the general practices are spread across the Auckland region.

Figure 6: Auckland after hours providers map

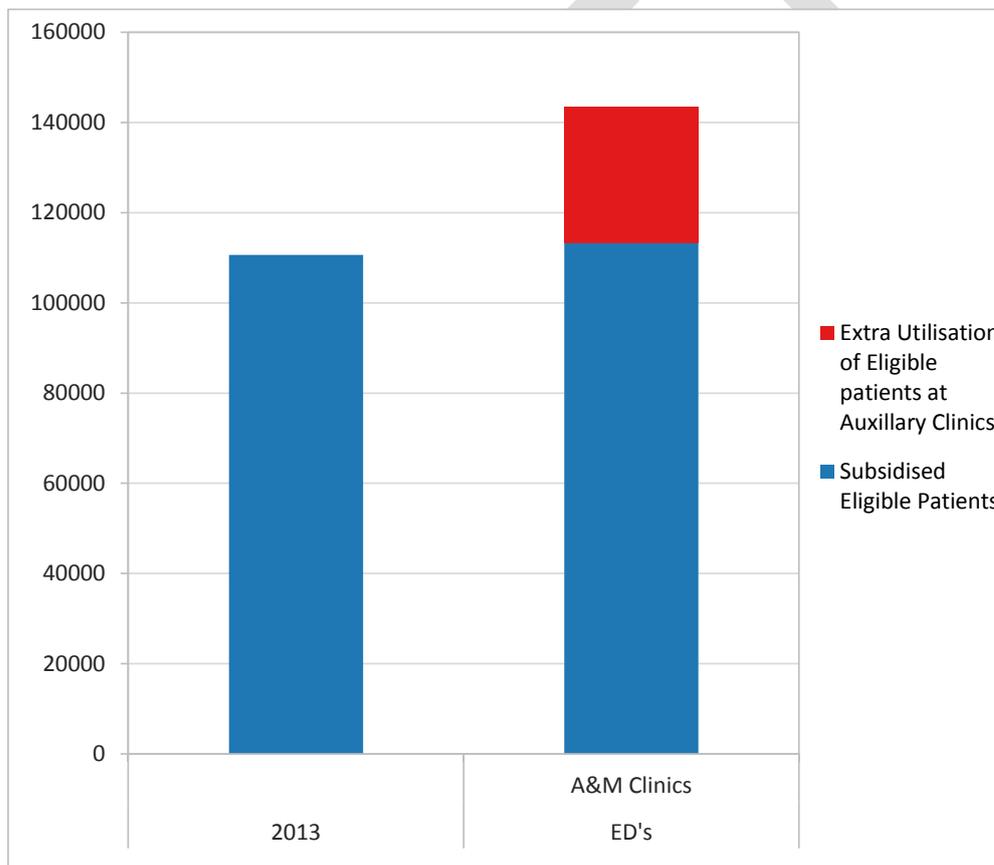


The 11 Consortium clinics have provided data for the last five years. However, the extra seven Consortium Auxiliary clinics have only all provided consistent data in the last year. This explains why the recorded volumes from the auxiliary clinics were much higher in 2013. The reason that both the Consortium and Auxiliary clinics data is included in the front section is twofold:

- The Auxiliary clinics have had the same co-payment subsidies after-hours as the Consortium clinics and therefore have an impact on volumes and patient behaviour since the ARAHN initiative began.
- Including Network and Auxiliary clinics shows a more accurate record of the total and relative contribution after-hours from Consortium A&M clinics in Auckland.

The graph below shows the extra volume of Eligible patients seen after-hours at the Auxiliary clinics, compared to that recorded at the EDs and Consortium A&Ms.

Figure 7: Comparison of all eligible patients seen after hours in 2013 by facility type including auxiliary A&M Clinics

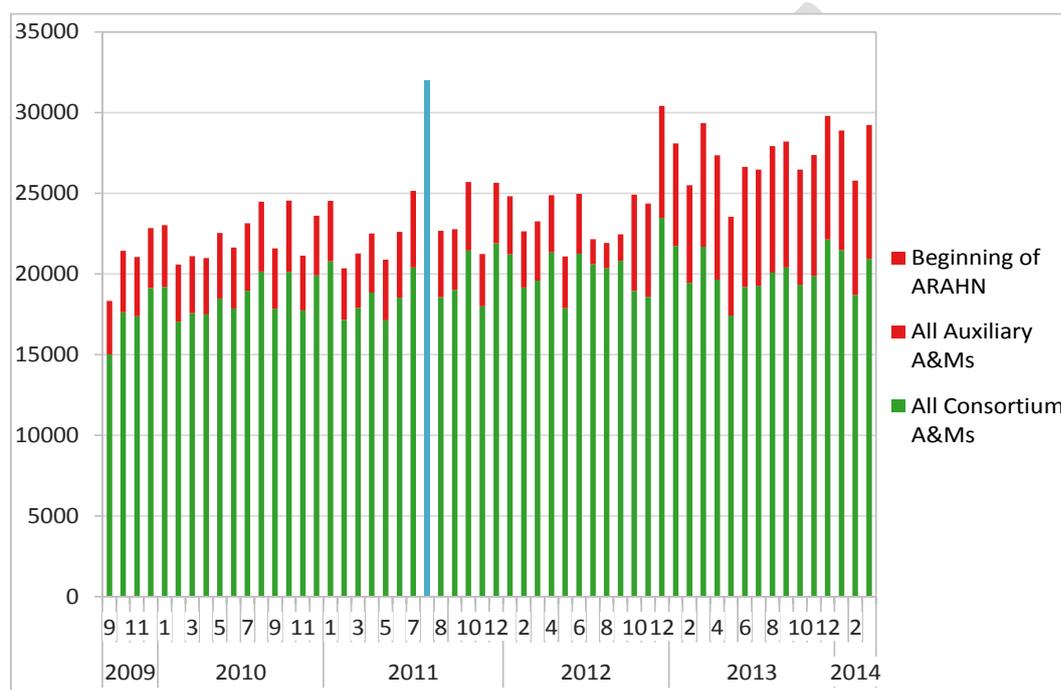


However for the purposes of trends and financial analysis, only volumes from the Consortium clinics are recorded, as the data was not consistent before 2013.

6.2 UTILISATION ACROSS NETWORK AT A&M LEVEL

The graph below shows the monthly volumes of both the 11 Consortium clinics and the 7 Auxiliary clinics⁴ from two years before ARAHN began until the first quarter of 2014. It shows that there has been a growth in the volumes seen after-hours at the Consortium clinics from an average of 16,000 patients per month to ~17,500, with a seasonal variation peaking in winter and over summer holidays. When including the Auxiliary clinics, the total after-hours volume was seldom less than 20,000 consults per month in 2013, and peaked over 25,000 at Christmas time in the last two years.

Figure 8: Total after-hours volumes per month of both Consortium clinics & auxiliary clinics (recorded) pre and post ARAHN



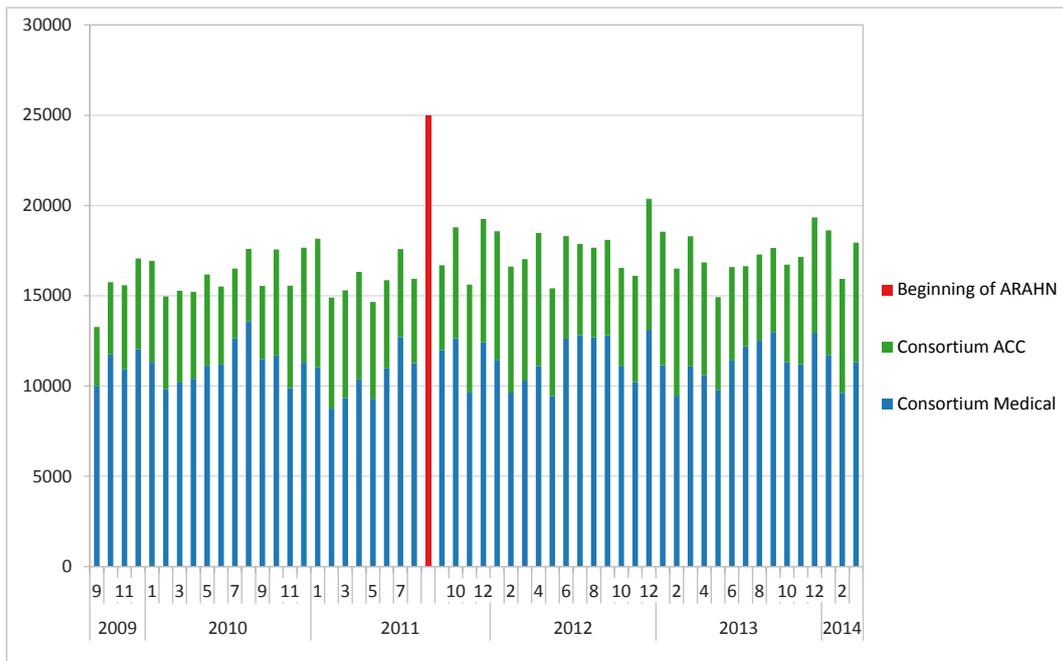
- For medical patients seen after hours at the Consortium clinics, the eligible patients per hour have always been above that predicted before ARAHN began.
- Specifically for under-six medical patients attending Consortium A&Ms, the volumes seen have consistently been above that predicted and this is statistically significant.
- Both Maori and Pacific patient volumes seen at the Consortium clinics have shown a small steady (but not statistically significant) amount of growth.
- Volumes of patients living in quintile 5 suburbs also show some growth but there has been no difference in utilisation of the Consortium A&M clinics by those holding a CSC or HUHC.

⁴ There are a total of 11 Consortium clinics, which have provided data for the last five years, while the Auxiliary clinics have only provided consistent data in the last year. This explains why the Auxiliary clinics have much higher volumes in 2013. The reason that both the Consortium and Auxiliary clinics are included is that all provide the same co-payment subsidies after hours. This therefore shows the full impact of the ARAHN initiative.

6.3 UTILISATION OF A&Ms BY CONSULTATION TYPE

The graph below shows the difference in Medical and Accident consult types presenting at the Consortium clinics for the last five years. There is a highly seasonal utilisation for ACC, peaking every summer at ~7,000 consults per month while in winter it is 5,000. There has been no rise in ACC volumes over the last three years, and now ACC consults make up 33% of the total volume seen at the 11 clinics.

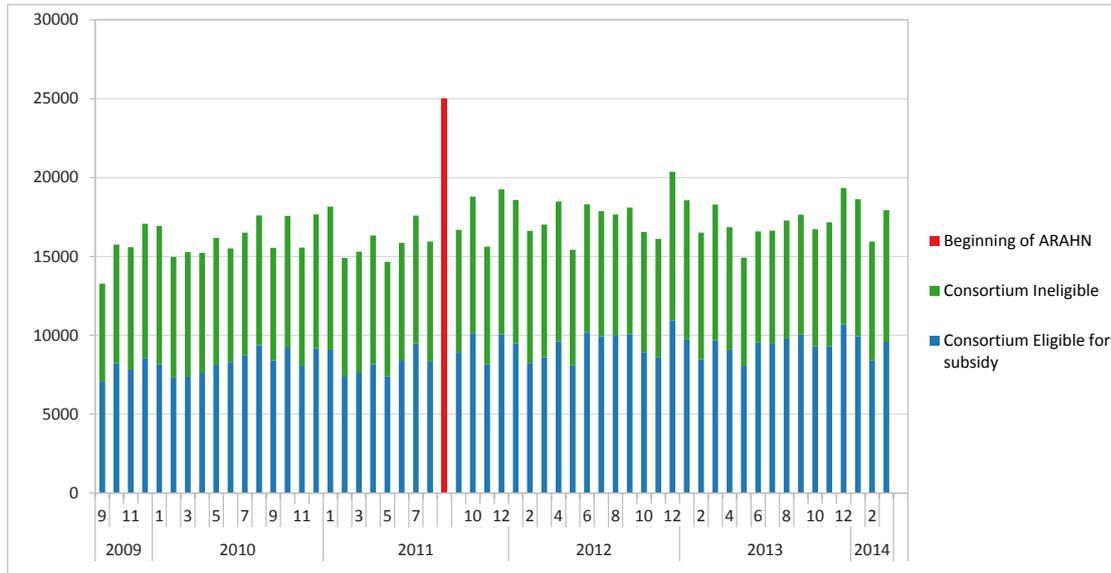
Figure 9: Consortium A&Ms after-hours utilisation over five years by consultation type



6.4 UTILISATION OF A&Ms BY PATIENTS ELIGIBLE AND NOT ELIGIBLE FOR SUBSIDY

There has been an increase in the volume of eligible patients seen per year since ARAHN began; there are now between 9,000 and 11,000 per month. The proportion of after-hours consults to A&M clinics that are eligible for subsidy has now risen to be consistently greater than 50%.

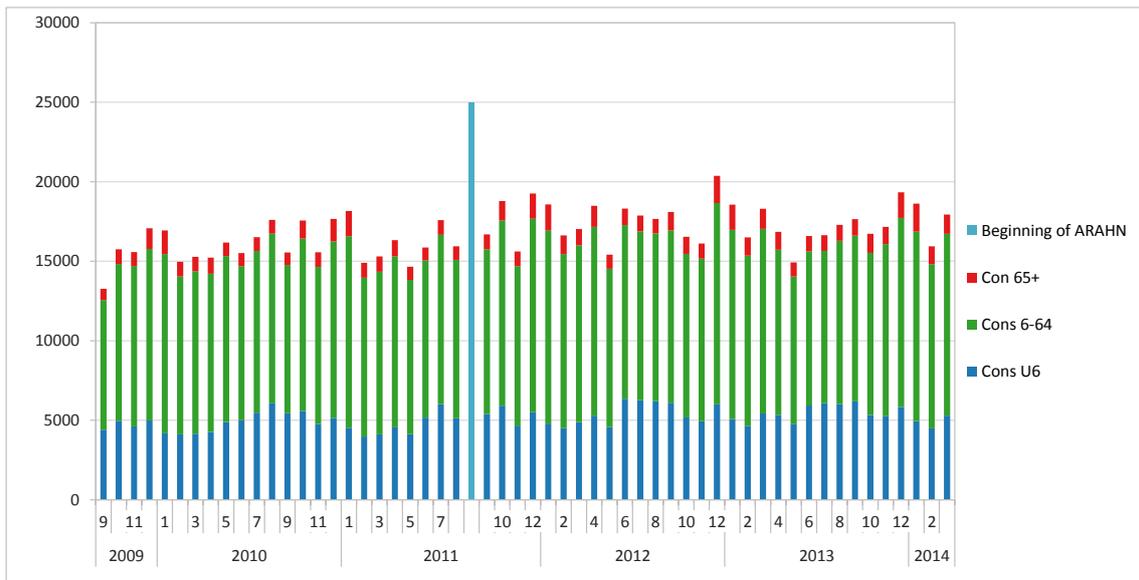
Figure 10: Consortium A&Ms after-hours utilisation over five years by eligible patient volumes



6.5 UTILISATION OF A&Ms BY AGE GROUP

The graph below shows the three different age brackets used for analysis, highlighting the two groups that are funded by ARAHN to have subsidised co-payments (under-sixes and over-65s). Overall, under-six consults after-hours contribute around 33% of the volume, and this has risen since the network began to be ~7,000 per month in winter for the 11 clinics. Volumes of elderly patients have always been less than 10% of the consults.

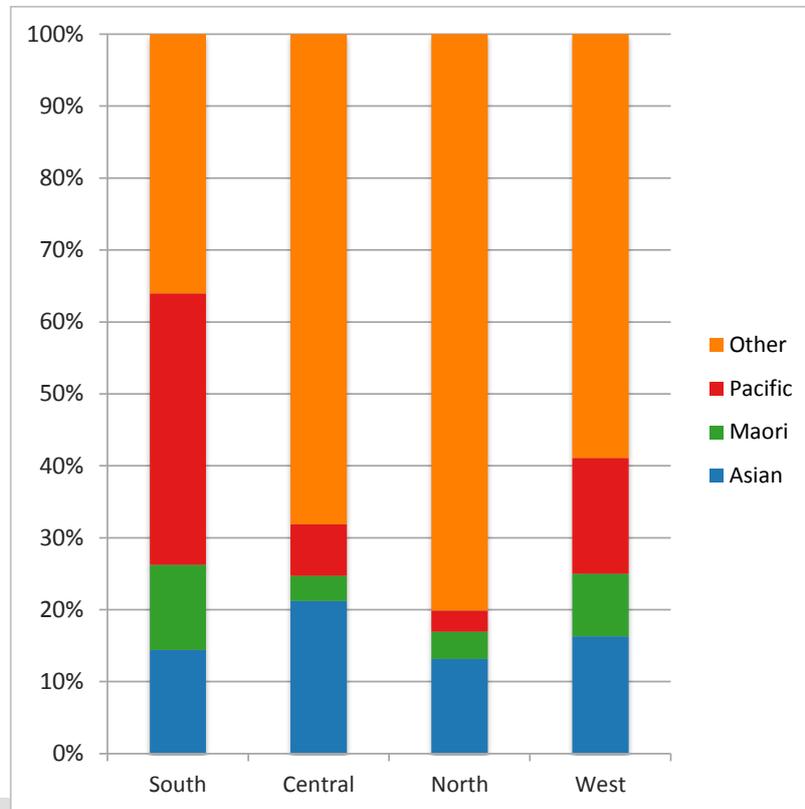
Figure 11: Consortium A&Ms after-hours utilisation over five years by age group



6.6 UTILISATION OF A&Ms BY ETHNICITY

The graph below shows that the major ethnicity that presents to the Consortium A&Ms is 'other', which mostly comprises NZ Europeans. There is marked variation by geography, largely due to the variation in ethnicities residing in each area.

Figure 12: Consortium A&Ms after-hours utilisation by proportional ethnicity over 2009-2012

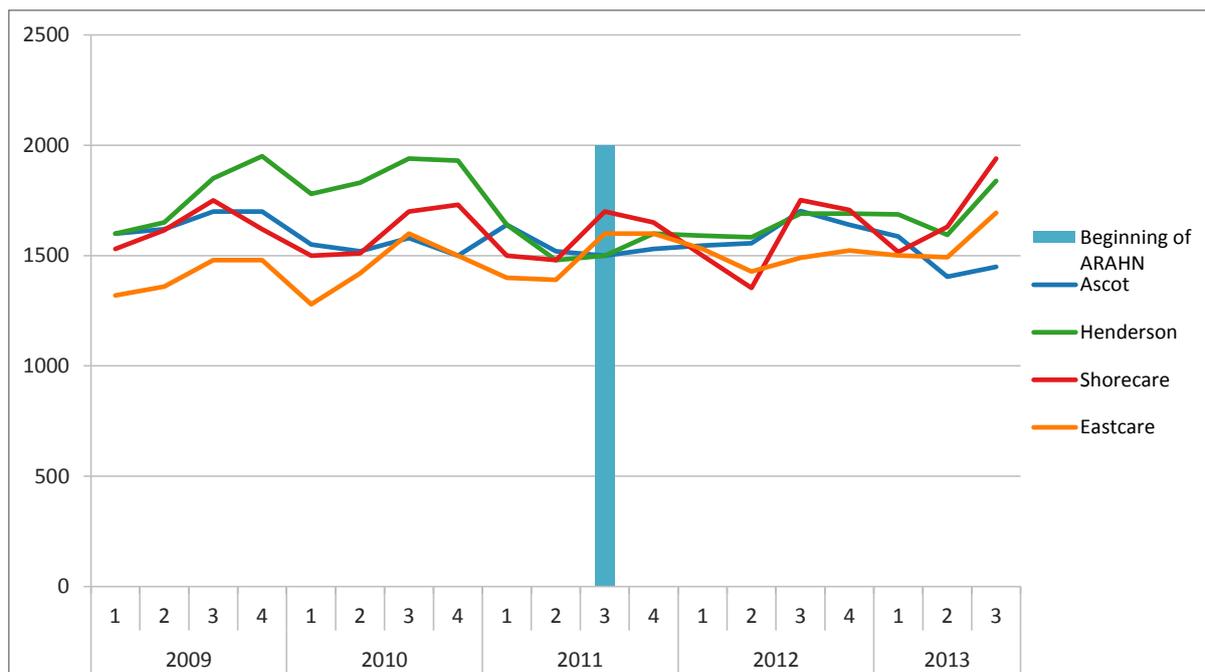


6.7 UTILISATION OF OVERNIGHT SERVICES

Volumes

The graph below shows that over the last two years the quarterly volumes for each of the overnight A&M clinics have ranged between 1400 and 1950, which equates to yearly volumes of ~7000 per clinic. There has been a slight overall increase in 2013 from 2012.

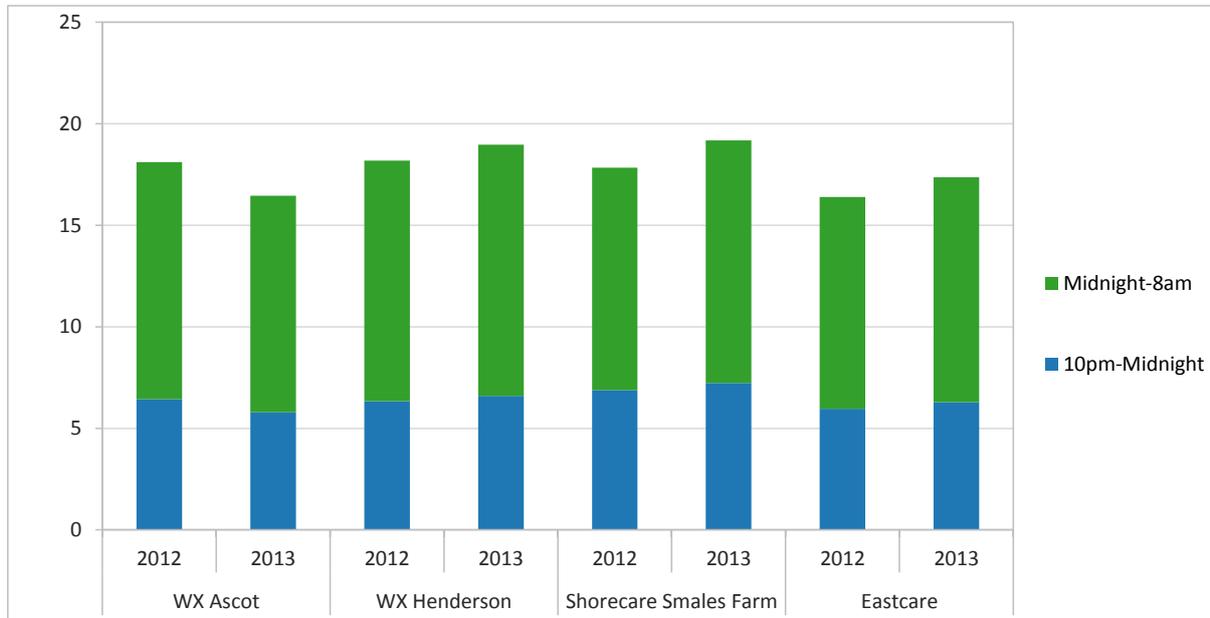
Figure 13: Overnight volumes (10pm – 8am) for the 24-hour Consortium A&Ms over the last five years



Time of presentations

The graph below shows that for the last two calendar years each of the four overnight A&M clinics in Auckland have seen between 16 and 19 patients per night (10pm–8am), six of which were between 10pm and midnight (~33–40%).

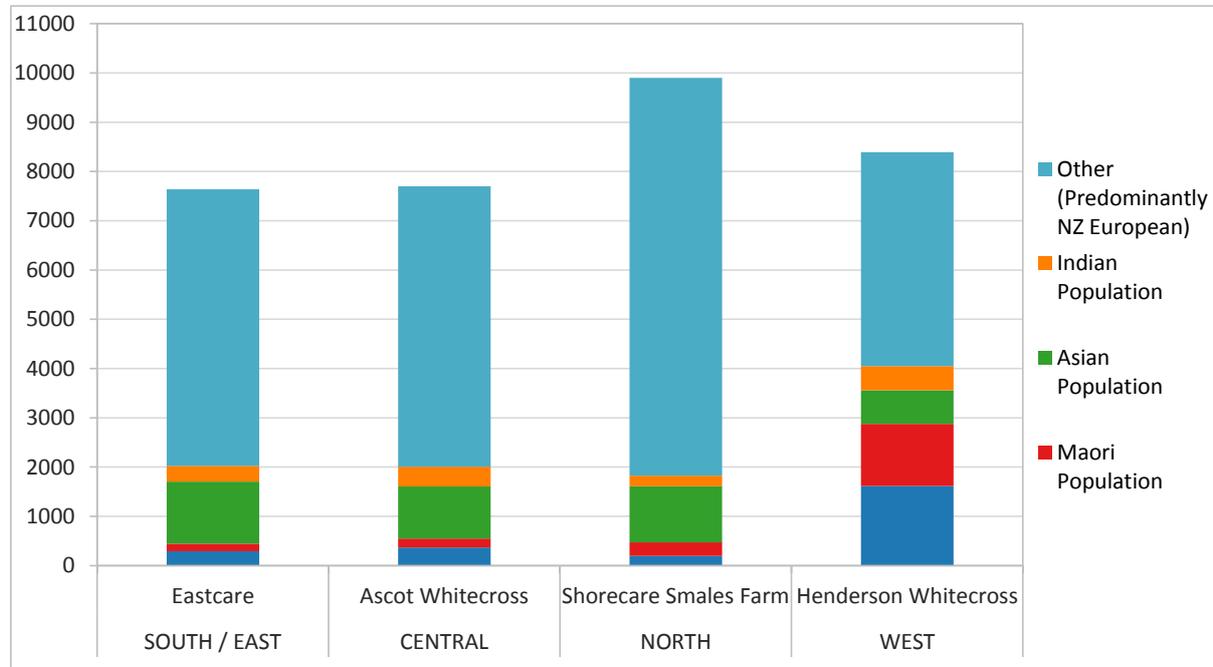
Figure 14: Overnight volumes per night on average for each 24-hour A&M clinic over 2012–2013 by time segments



Ethnicities

The graph below shows the breakdown of ethnicities presenting to the four overnight clinics. Apart from Henderson White Cross, which has one sixth Pacific, Maori and Asian/Indian, all clinics have 70% NZ European utilisation.

Figure 15: Ethnicity breakdown presenting to overnight clinics in 2013



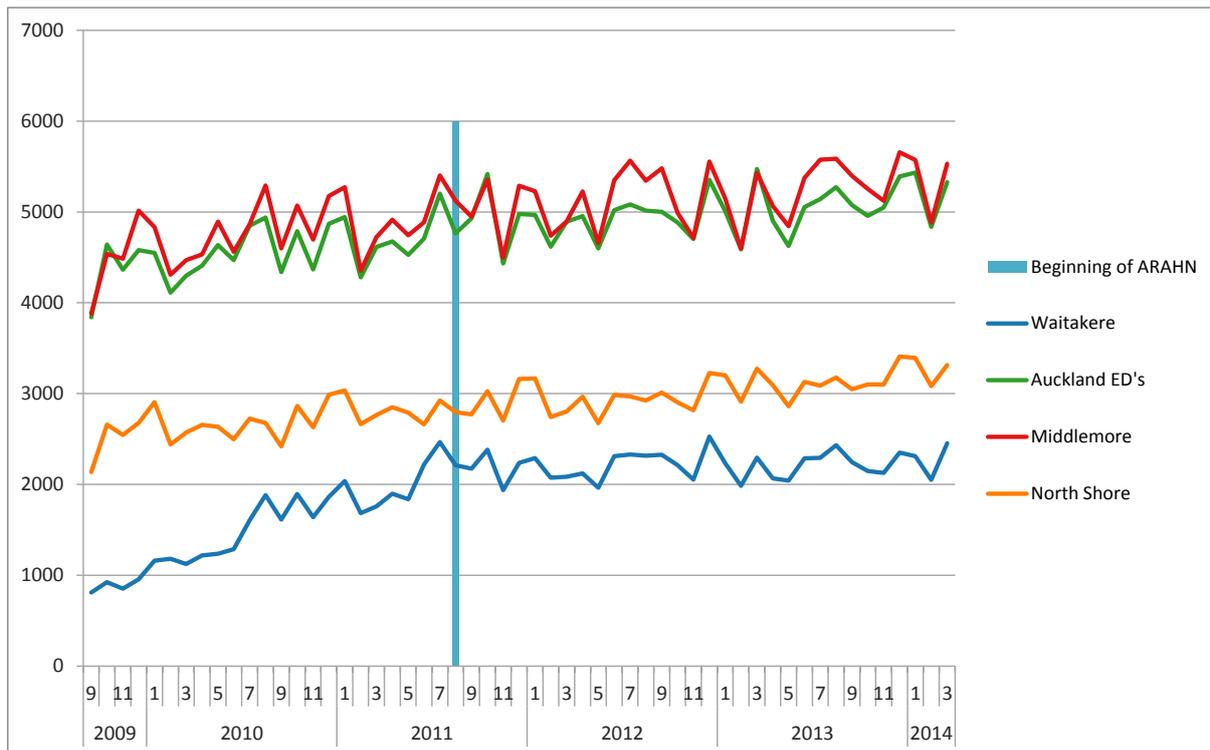
6.8 ED UTILISATION AND TRENDS

- Since the network began, the Metro Auckland Emergency Departments have shown that the eligible patient medical volumes have tracked lower than expected.
- Specifically for under-sixes attending the Metro Auckland DHBs, there has been a statistically significant decline since September 2011, with growth falling across all geography and DHBs in the last year.
- The decrease for eligible patients has been most marked at CMDHB, where the utilisation has been consistently lower than the predicted 95% confidence interval for all age groups presenting to Middlemore ED over 2013/early 2014.

6.9 COMBINED ED VOLUMES

The graph below shows five years of after-hours volumes attending the six Auckland EDs (including APU), pre- and post-ARAHN. Middlemore is the largest of the EDs at ~5000 per month, while North Shore and Auckland City track identically at 3000 per month – all slowly increasing. Waitakere (15%), Starship (10%) and APU (5%) are the smaller EDs and there has been no real growth in attendances at these EDs since the network began.

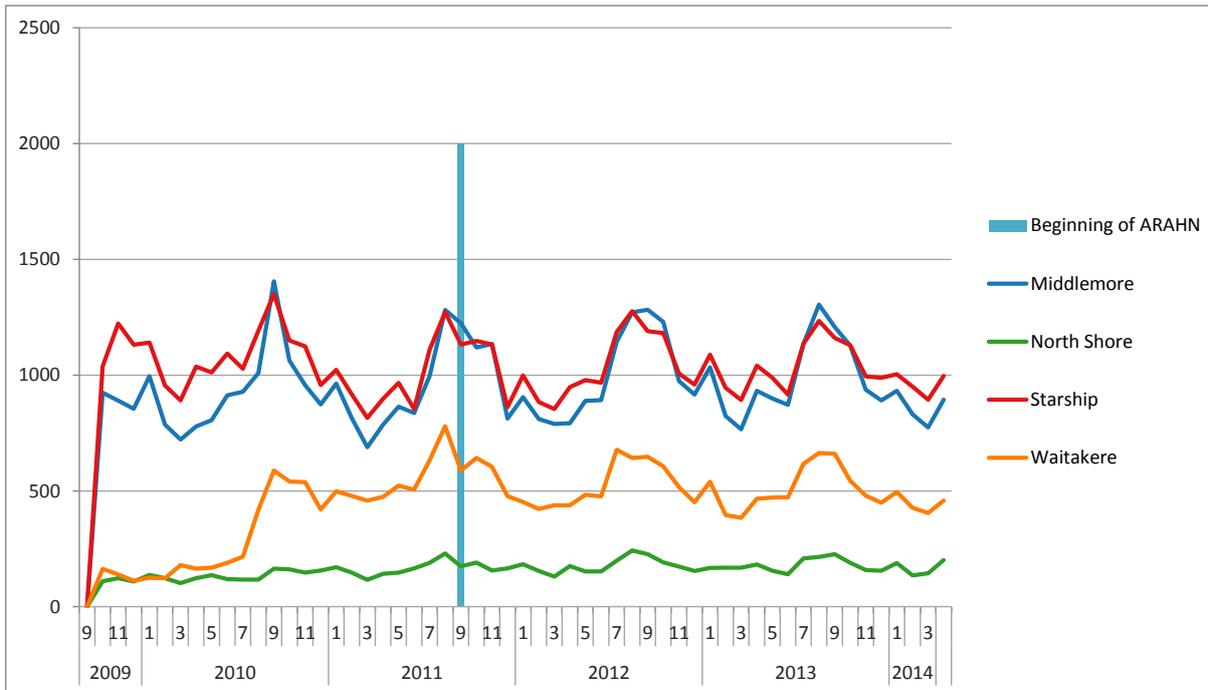
Figure 16: Total after hours volumes for Auckland EDs over five years



Under-sixes

The next graph shows that at the EDs, Middlemore and Starship hospital see equal volumes of under-six patients per hour, which is between 800 (summer) and 1300 (winter) per month. These volumes are not increasing. Waitakere ED sees between 400 and 650 per month, and North Shore hospital consistently sees fewer than 200.

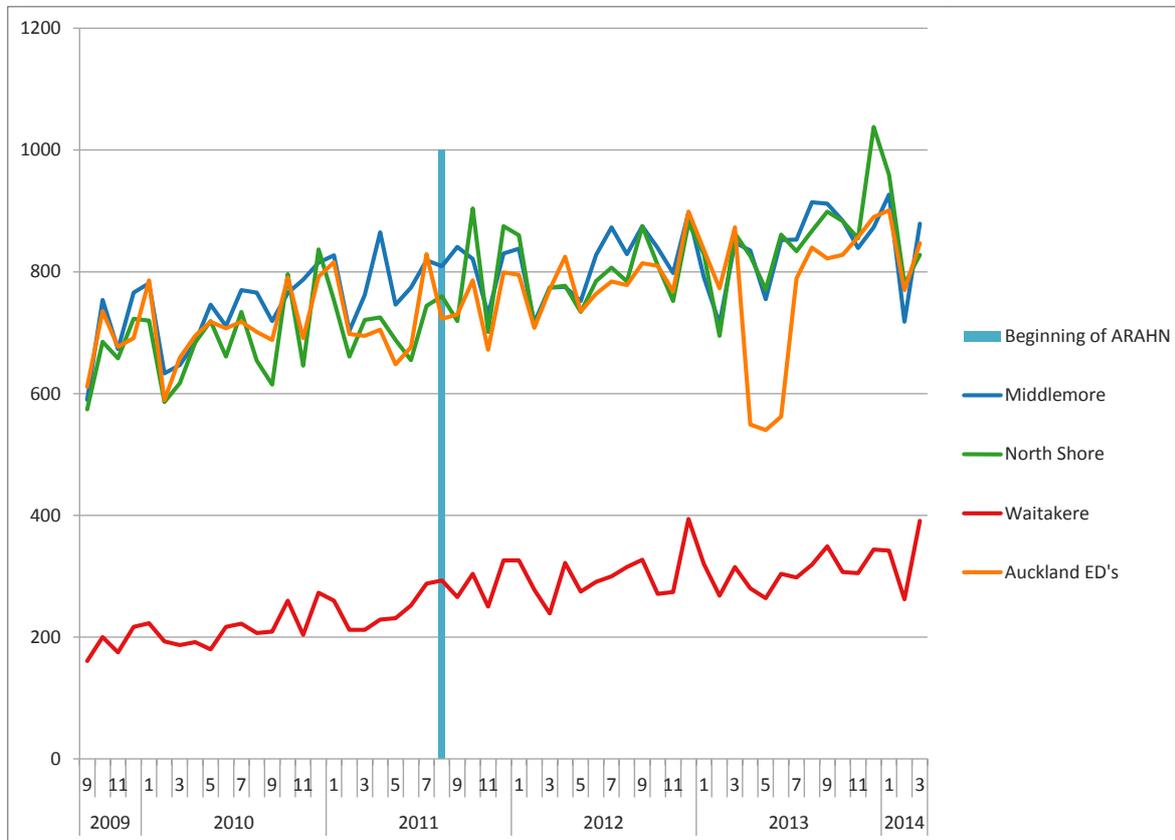
Figure 17: Total under-sixes volumes seen after hours at each Auckland ED over five years



Elderly

The next graph shows that North Shore Hospital, Middlemore and Auckland city see very similar volumes of elderly patients per month, averaging 800. All EDs have rising volumes of over-65s, despite the initiative to decrease co-payments for this group.

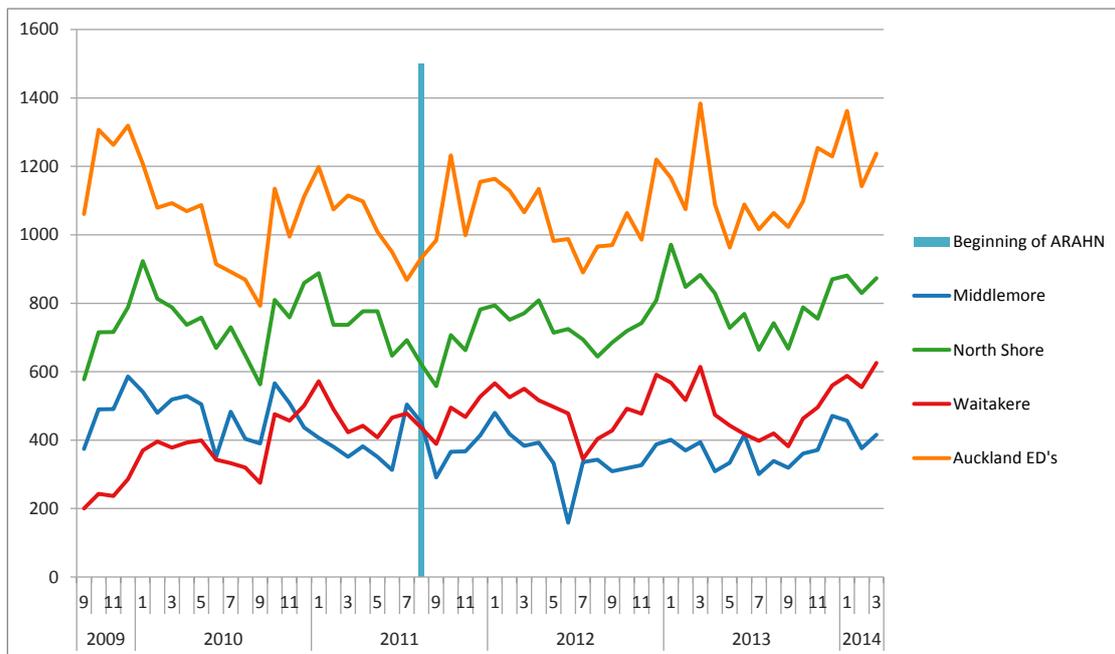
Figure 18: Total 65+ volumes seen after hours at each Auckland ED over five years



ACC volumes

The next graph shows that ACC volumes attending the Auckland EDs fluctuate between 600 and 900 per month for Auckland City and North Shore ED, and 400 and 600 for Waitakere and 300 and 400 for Middlemore and Starship EDs. Volumes at the EDs are cyclical and increasing in summer months, with a recent spike around Christmas 2014.

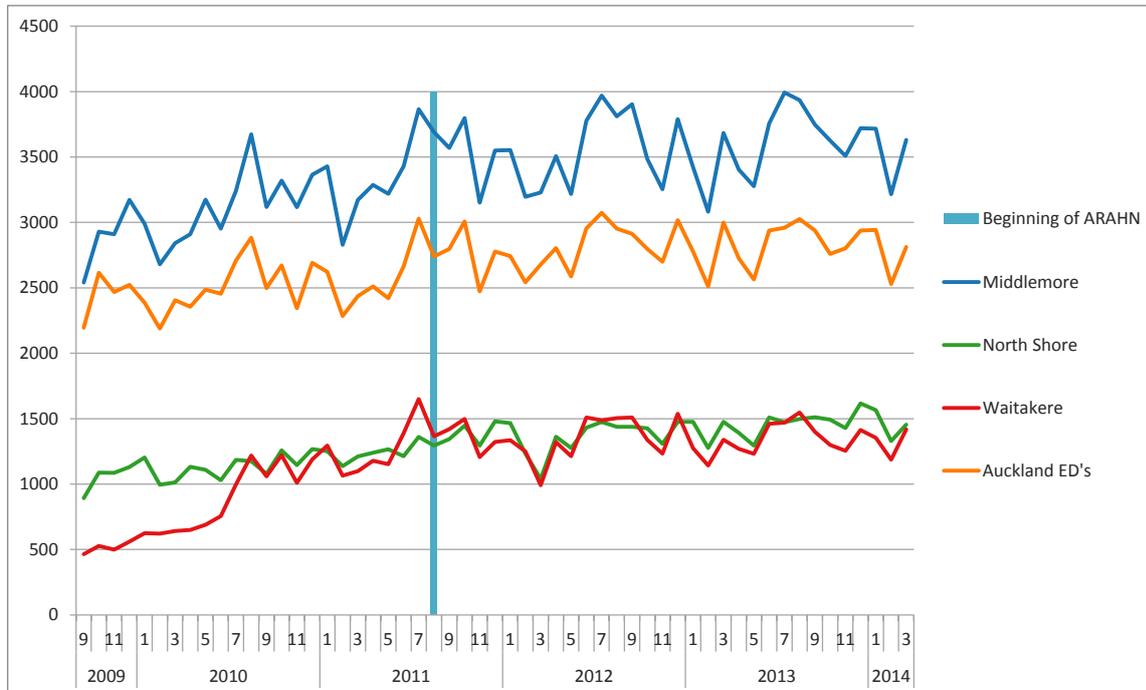
Figure 19: Utilisation volumes of the four Metro Auckland EDs after hours by patients with an accident over five years



Eligible

The graph below shows that since the beginning of ARAHN, eligible patient volumes seen at the four EDs in Auckland have stayed relatively constant, with seasonal variation. Middlemore has ~45% of the total eligible volumes at 3500 per month on average, while Auckland EDs ~28% at 2800 per month and both Waitemata EDs 14% at 1400 per month.

Figure 20: Eligible patient utilisation after-hours of each Auckland EDs over the last five years

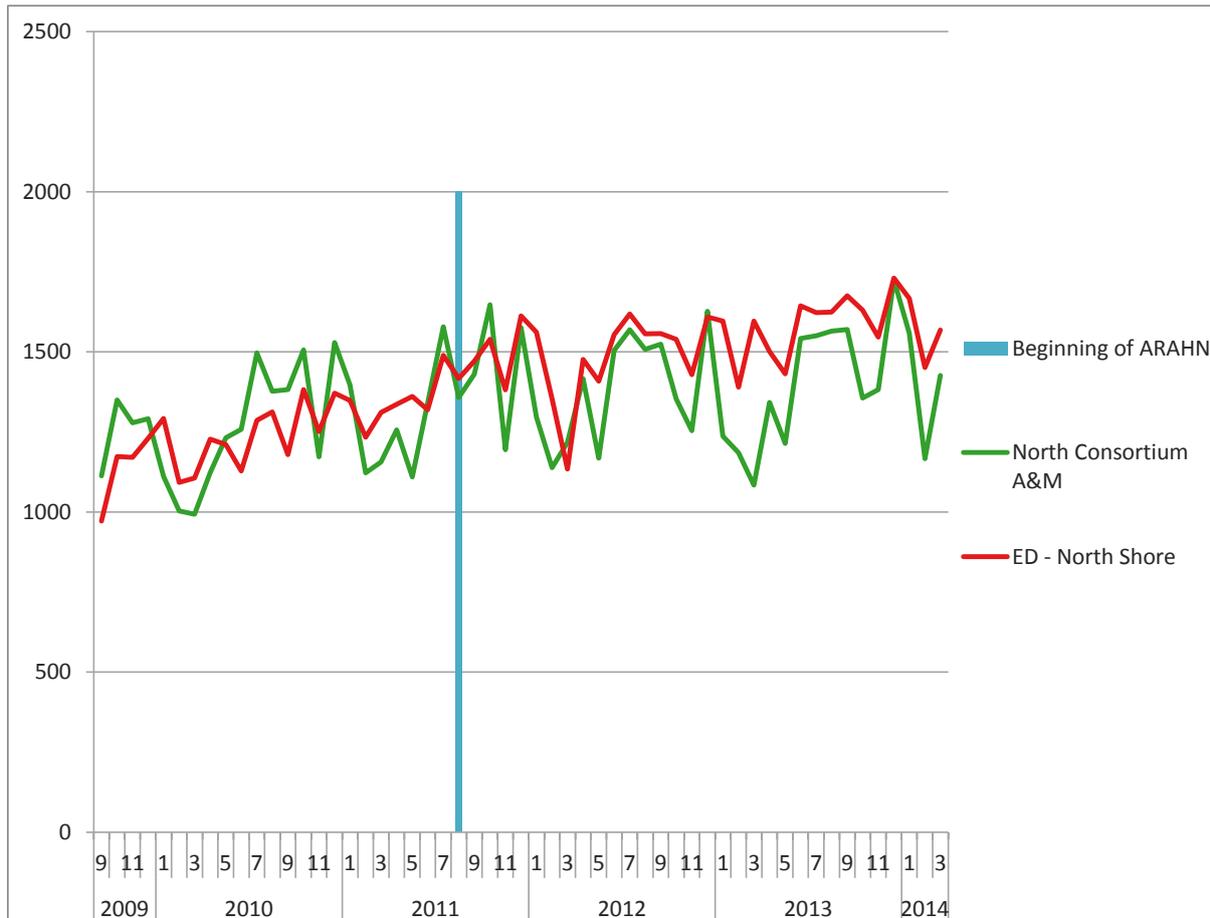


6.10 UTILISATION COMPARISON BETWEEN A&M AND ED – BY DISTRICT

North Shore

The graph below shows a steady increase of presentations at North Shore ED, with stable presentations at the A&M clinics post the initiative. Overall, the North Shore ED accounts for 45% of after-hours consultations. The three recorded A&Ms accounted for the remainder of presentations.

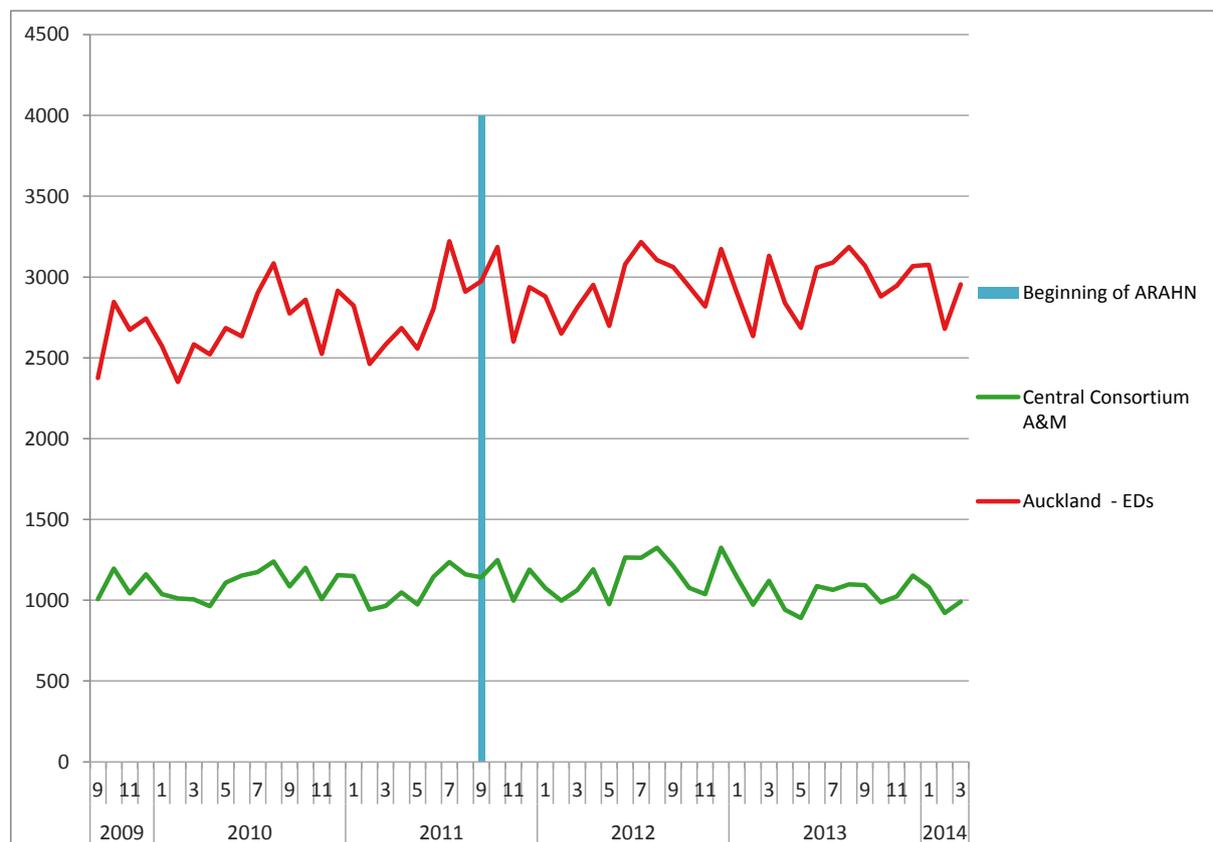
Figure 21: After-hours utilisation in the North location by broad facility type & total casual eligible volumes



Central

The graph below shows that the rate of increase of presentations to Auckland City ED has slowed since the ARAHN began. Starship volumes have not risen and APU only has small volumes. In contrast to the other geographical areas, Auckland City EDs have a much higher proportion of after-hours consultations than the A&Ms at 60%.

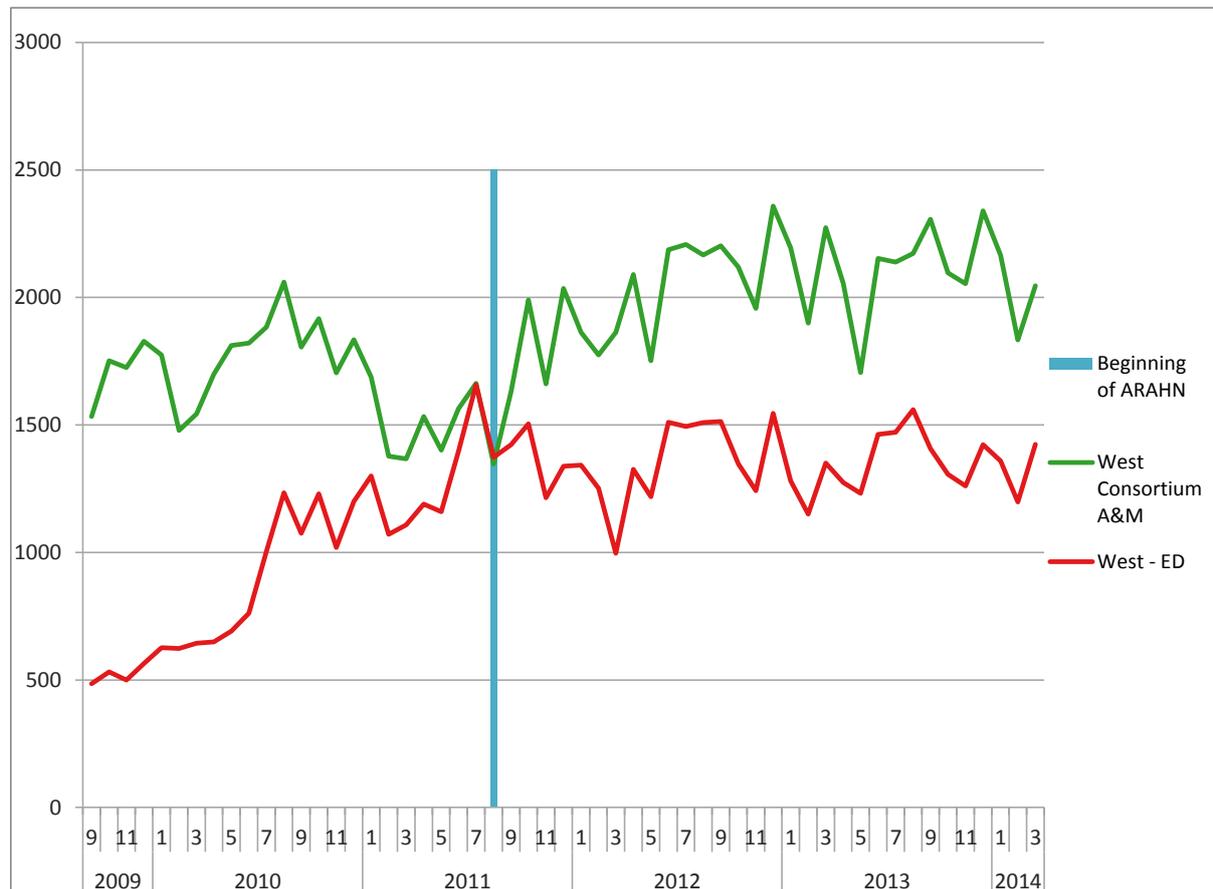
Figure 22: After-hours utilisation in the Central location by broad facility type & total casual eligible volumes



West

The graph below shows that the Waitakere ED volumes have risen as expected since opening 24 hours. Since the ARAHN initiative began, all three of the facilities in the West have had stable volumes, with Waitakere ED making up 40% of the total activity.

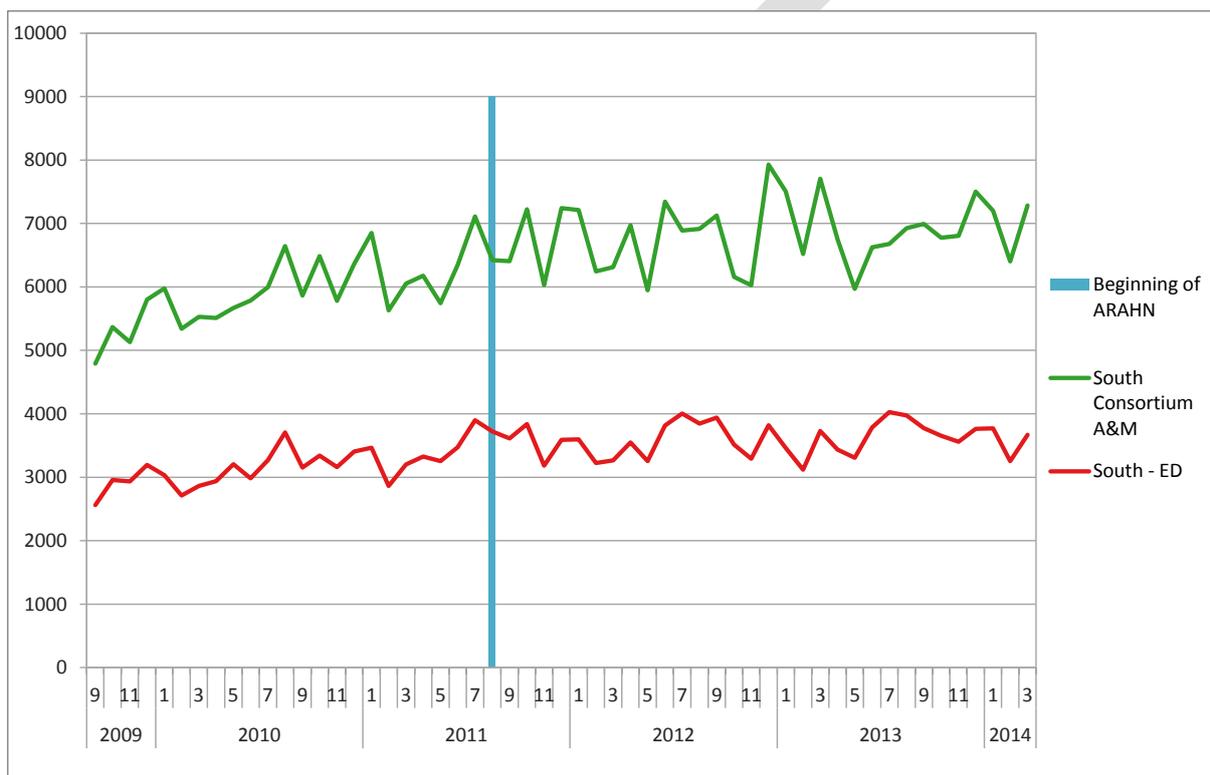
Figure 23: After-hours utilisation in the West location by broad facility type & total casual eligible volumes



South

The graph below shows that the growth rate of Middlemore ED has slowed since ARAHN began. Middlemore ED sees over 4,500 patients per month. Despite Middlemore ED being the busiest of the EDs in Auckland, it only accounts for 40% of the total in the South, because there are eight other A&Ms in the South and East region that contribute to after-hours volumes. Note that the volumes included are only casual patients, and many of the South clinics enrol patients, which would increase their volumes after hours. The impact of including enrolled patients would further reduce the proportion of after-hours presentation seen at ED.

Figure 24: After-hours utilisation in the South & East location, by broad facility type & total casual eligible volumes

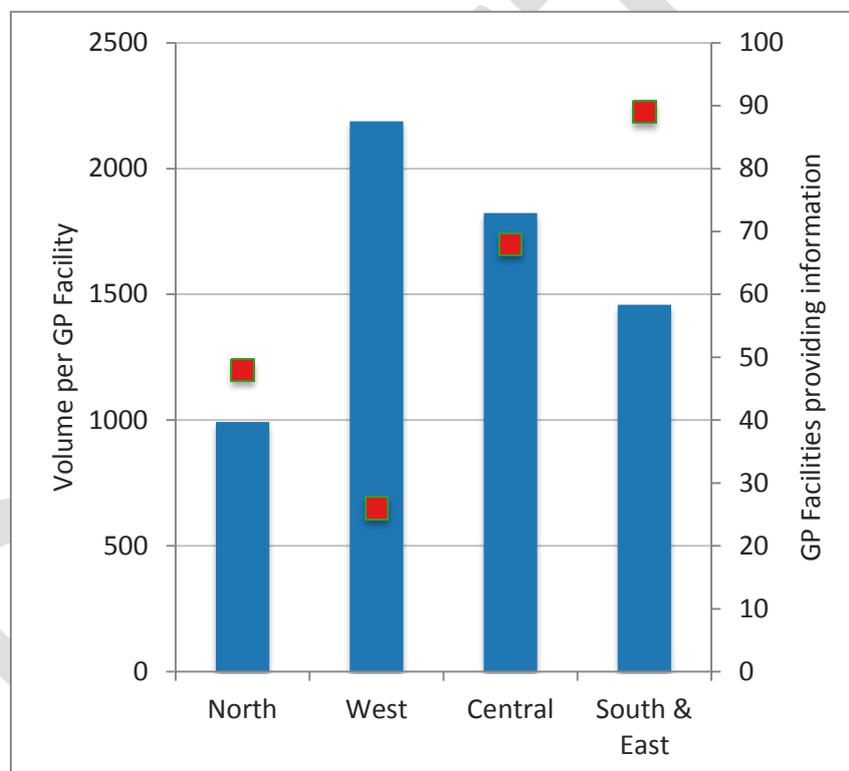


6.11 UTILISATION AND COVERAGE OF TELEPHONE TRIAGE SERVICES

Quality data from telephone triage has only recently become available. There were 370,000 calls through the telephone triage service in 2013, of which the majority were patients registered in GP facilities in Central, South and East. Note that in Waitemata many GP practices only began using Telephone Triage services in 2013.

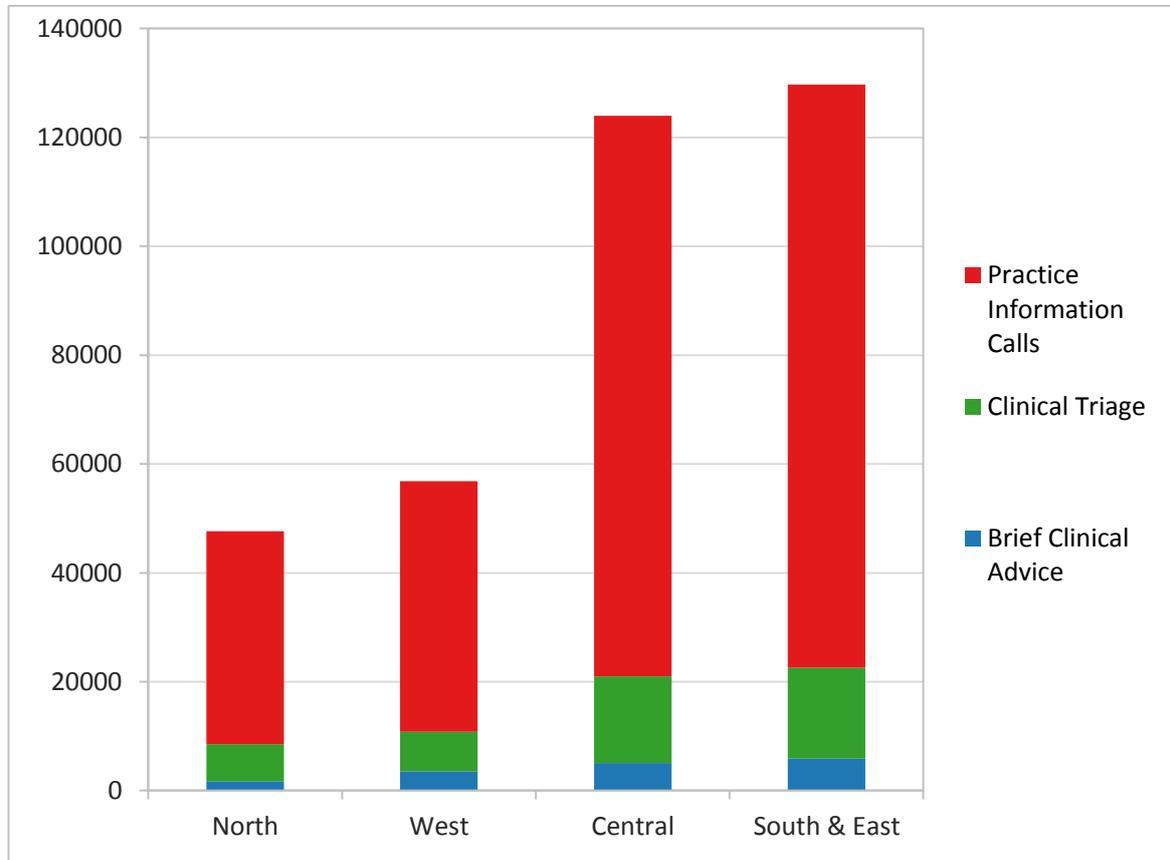
The graph below shows the number of calls that are fielded by HML in each geographical area, as a proportion of the number of practices registered/providing information. The West has the highest and the North the lowest utilisation by practice of the geographical areas, while the two geographical areas with the highest number of GP facilities have around 1500–1700 calls per practice.

Figure 25: Total calls per practice registered with HML in 2013



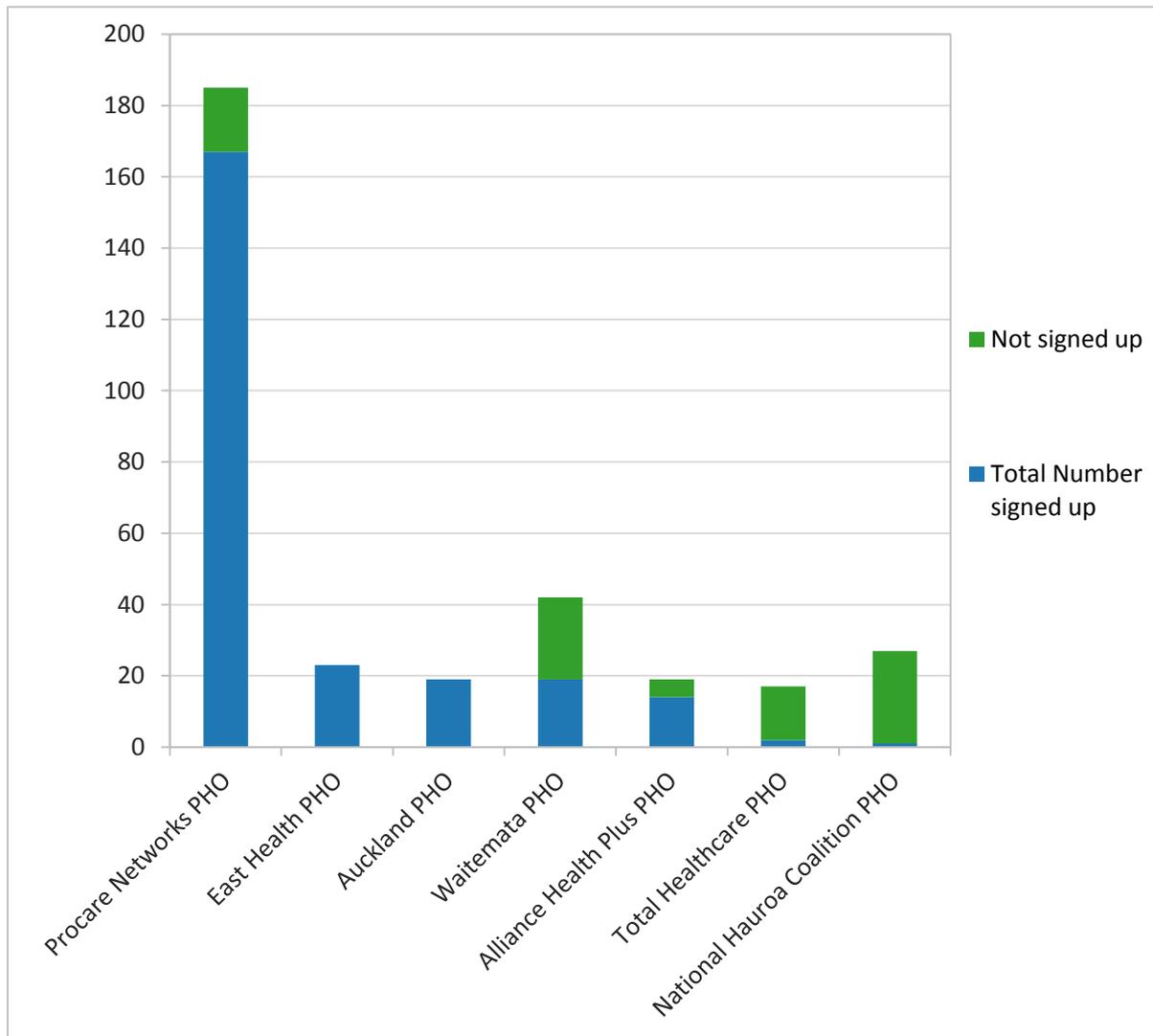
The graph below shows the number of calls in 2013 received from general practices situated in each geographical area, and the breakdown of the types of calls. Over 80% of all calls currently to HML are for practice information, with 25–33% of the clinical calls resulting in clinical advice from a nurse.

Figure 26: Type of telephone triage calls in 2013



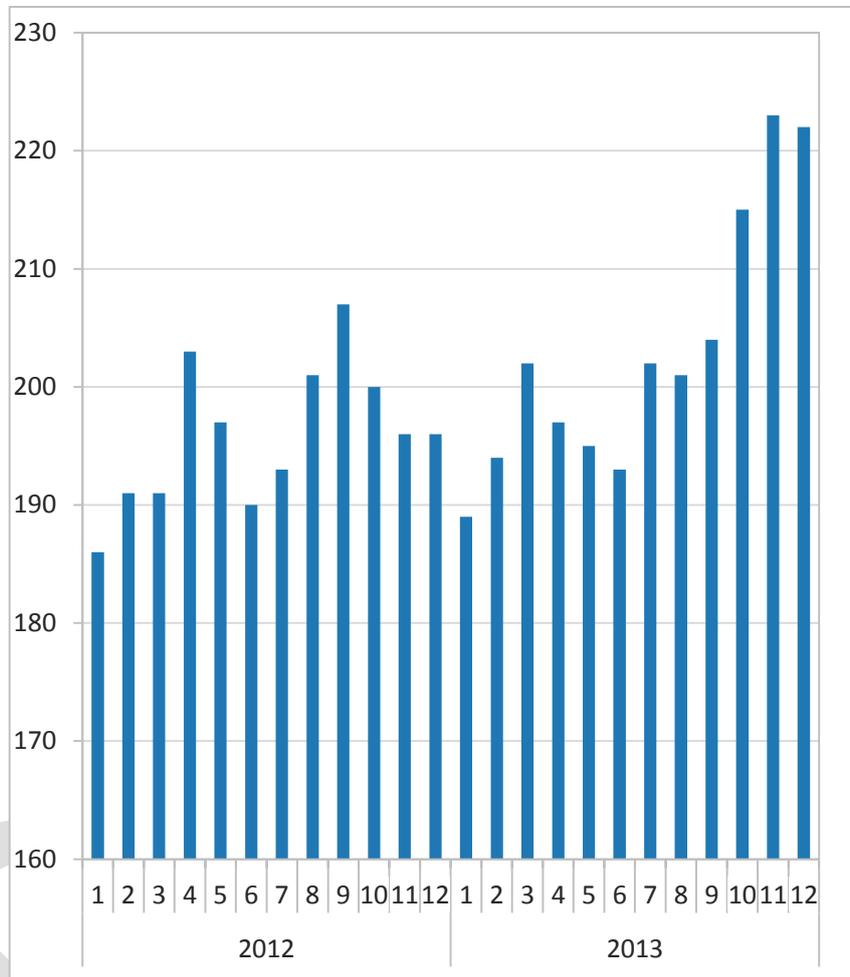
The graph below shows the number of GP practices signed up with Telephone Triage HML as of early 2014, by PHO. It shows that Procure is the largest PHO and has 179 practices signed up. Waitemara PHO is the second largest PHO by practices, and it has just less than 50% uptake. All of the GP practices covered by East Health and Auckland PHO are with HML, while those based in South Auckland Total Healthcare and NHC have low uptake for the 18 and 29 practices they respectively represent.

Figure 27: Current number of practices with each PHO and the number that are registered with HML



The graph below shows the records from HML of the number of practices having their patients using the service over the 2012 and 2013 period. It shows a slow growth to winter 2013 and then a steady increase in the last three months. The most recent records have 246 practices registered with HML telephone triage.

Figure 28: Practices recorded as having patients using HML over 24-month period



6.12 NUMBER OF GPs OPEN EXTENDED HOURS AND RANGE OF HOURS

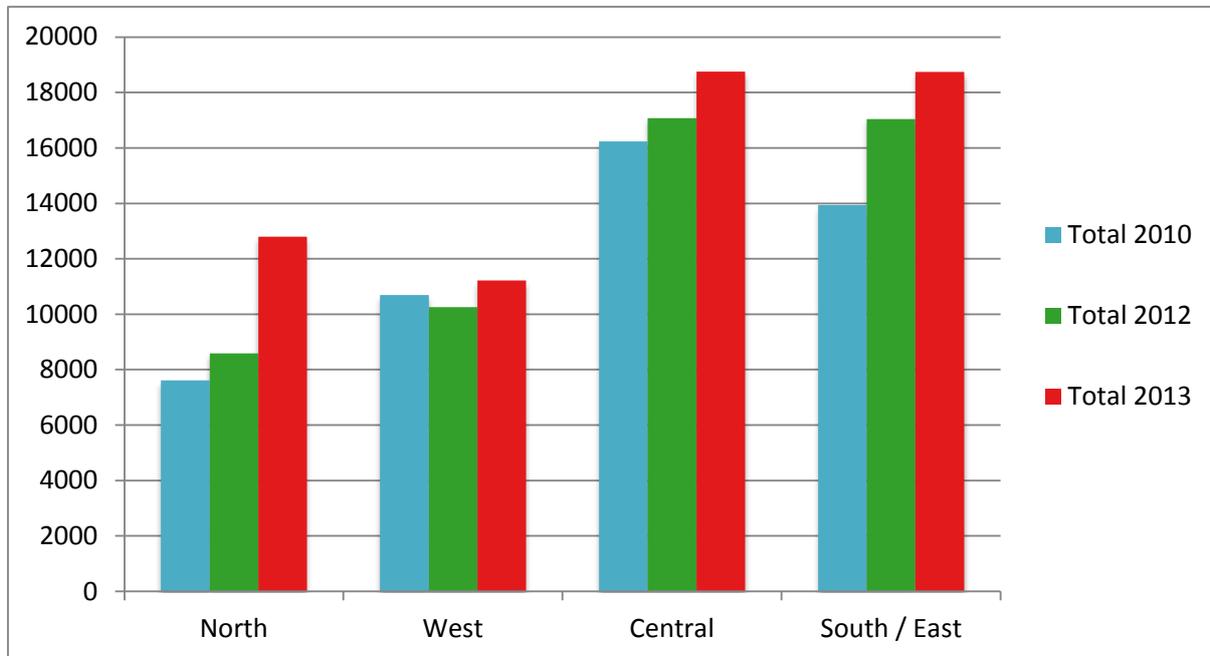
Table 6: Number of GPs open extended hours and range of hours

DHB	Number of general practices open	Range of hours
ADHB	15	The practices in ADHB offer extended hours between 8 and 27 hours in excess of what is classified as regular hours (45 hours per week). Practices are generally open for a full day on week days and at least a half day over the weekend.
WDHB	10	The practices in WDHB offer extended hours between 8 and 32 hours in excess of what is classified as regular hours (45 hours per week). Practices are generally open for a full day on week days and at least a half day over the weekend.
CMDHB	17	The practices in CMDHB offer extended hours between 8 and 39 hours in excess of what is classified as regular hours (45 hours per week). Practices are generally open for a full day on week days and at least a half day over the weekend.

6.13 AMBULANCE UTILISATION

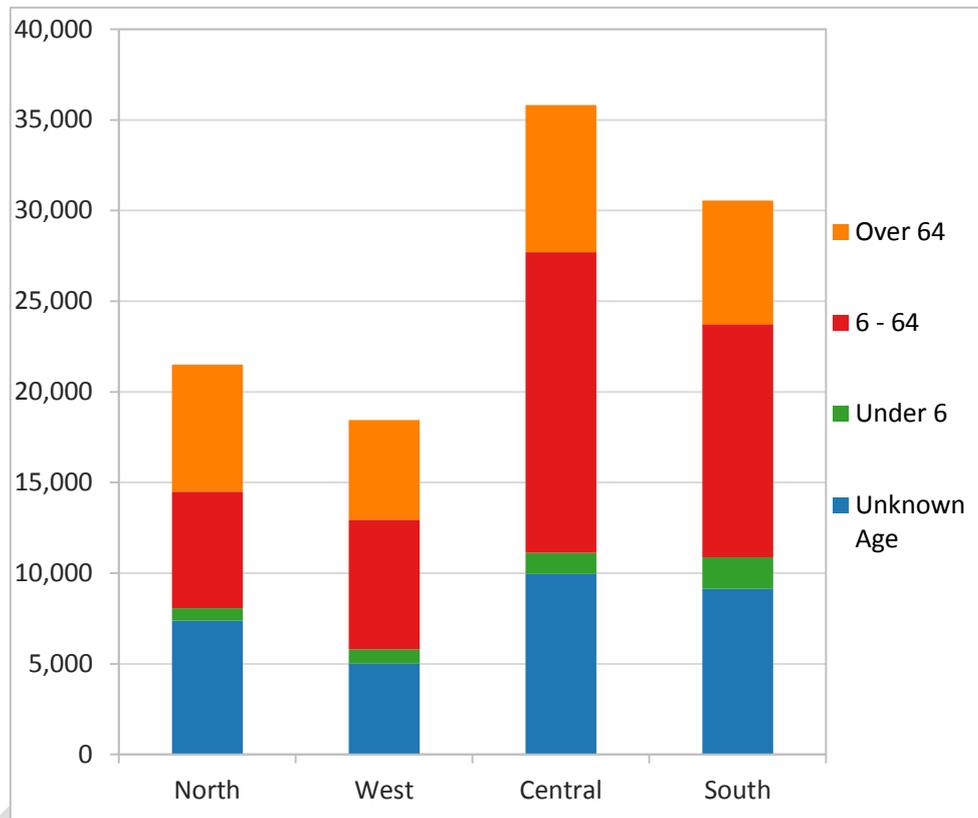
The graph below shows the total volumes of calls to each broad response area of St John after-hours, before and since the After-Hours Network began. It shows a rise in volumes in all of the four geographical areas, with more significant rises by over 4000 extra transports in the North and South/East.

Figure 29: St Johns after hours, 7pm – 8am utilisation in Auckland by geography and years



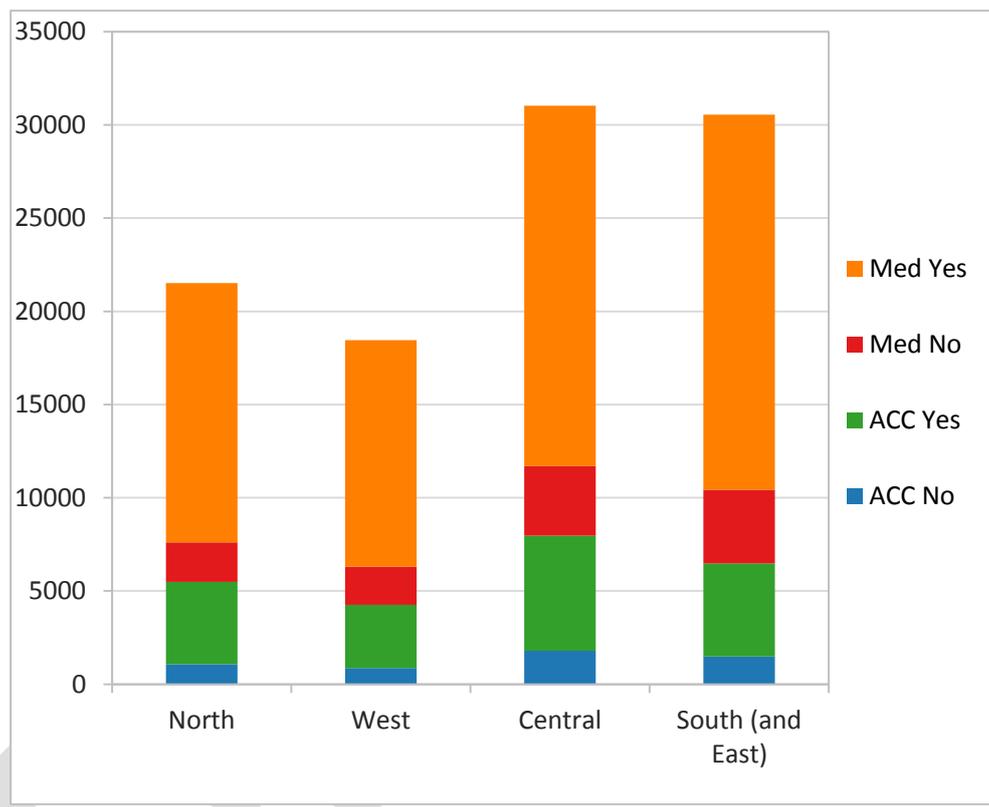
The graph below shows the proportion of each broad age bracket across the geographical areas. A very low proportion of ambulances are used for under-six patients, around two thirds are from 6 to 64 and the rest from elderly patients for all areas. Of note, in around 30% of transports the patient's age is not entered in the data capture; however this is anticipated to change with St John moving to tablets in their ambulances over the next one or two years.

Figure 30: St John after-hour utilisation in Auckland by geography and age bracket 2013



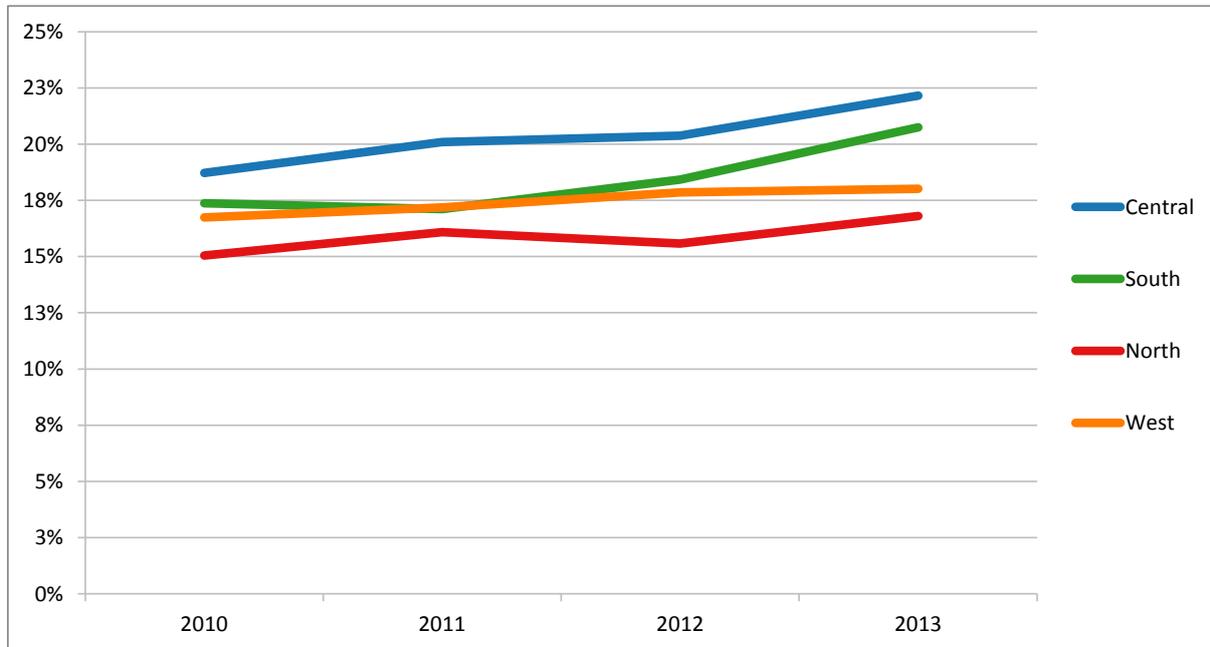
The graph below shows the proportion of consults that are both ACC and medical, and those that are transported or not by geographical area in 2013. It shows that 66–75% of attendances are for medical problems and that 80% of patients were transported in 2013. There is no real difference by location in the proportion of consult types; however more patients are transported in the North than the South.

Figure 31: St John after-hour utilisation in Auckland by geography and type of consult and whether transported, 2013



The graph below shows the change in proportion of those ambulance attendances that were transported to a facility over the last four years across each geographical location. It shows that the proportion has increased across all areas, with a higher increase of 3–4% in the Central and South. In Waitemata DHB there has been less of an impact from any initiatives so far to see and treat patients and leave them at home.

Figure 32: Proportion of those transported after-hours Auckland geographical area



7 OVERVIEW OF FUTURE CARE MODELS AND SERVICE MIX – 2015–2020

The Auckland after-hours initiative conforms with international trends in integrated service design. As part of the evaluation, a literature review was undertaken about after-hours care models in peer counties. The evaluation notes:

“The need to meet growing demand for quality after-hours care, rising health system costs, reorienting systems to primary health care (PHC), and greater integration of primary and secondary services has led to the development of new models of care and devolution of after-hours service provision. Most international developments reported in this review have emerged since 2000.

“Three main models have emerged in after-hours PHC: telephone triage, walk-in clinics, and GP co-operatives. Most countries, including NZ, use a mix of models that provide more options and opportunities to access quality after-hours PHC. Increasingly, some care is provided by commercial entities as well as public provision. Nurse-led triage is a common

entry point, either by telephone or onsite in commercially operated walk-in clinics. Regional and national telephone helplines also feature providing advice about symptoms and where to seek help.”⁵

The ARAHN model includes the service components above and supports them with strong integration across design and operational co-ordination, data integration and clinical governance.

7.1 A FULLY-INTEGRATED AFTER HOURS SYSTEM FOR AUCKLAND

ARAHN represents most of the services that make up the after-hours system in Auckland (GPs, EDs, most A&Ms, telephone triage, ambulance, DHB community services).

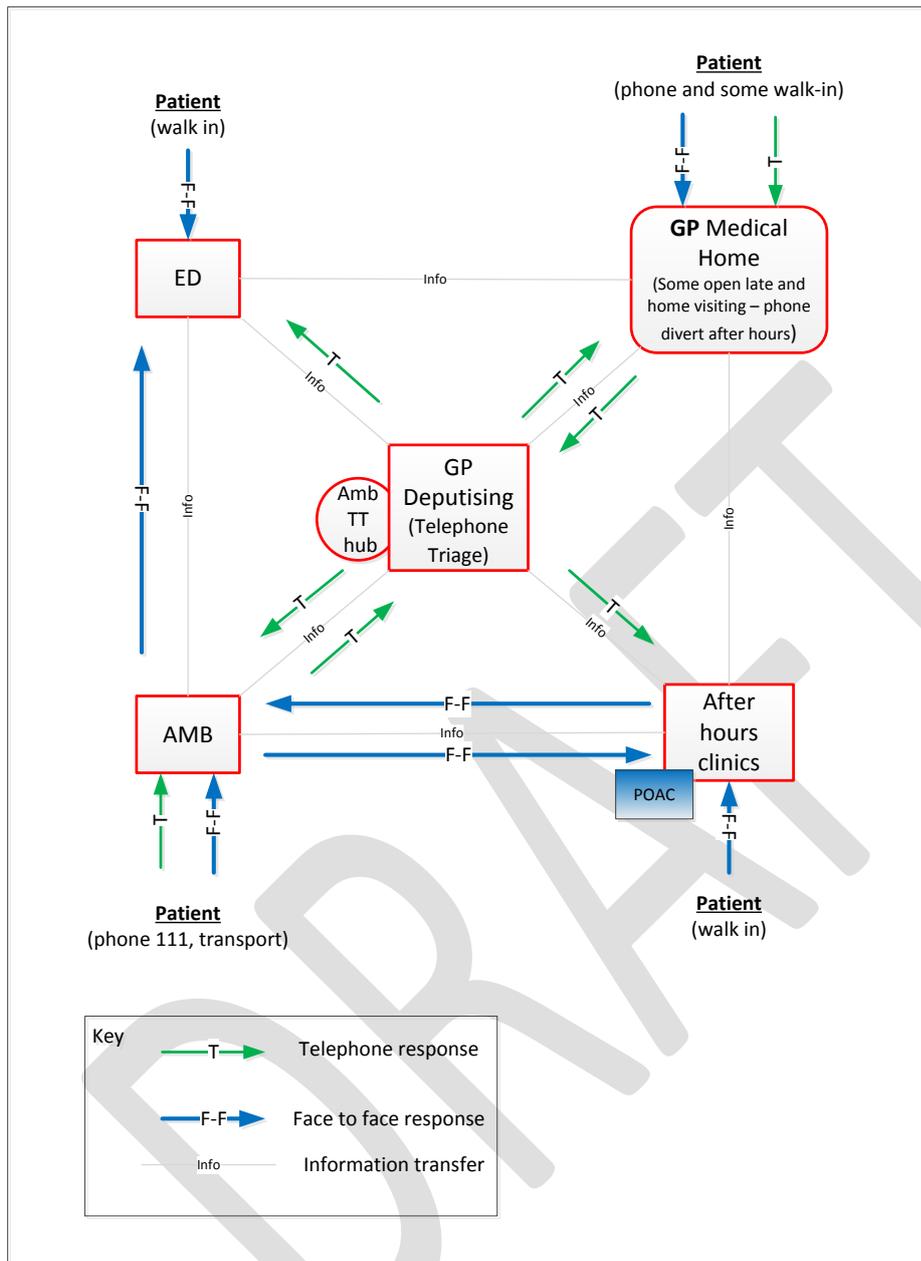
The core hypothesis of the business case is that by developing an integrated after-hours system, there will be a positive impact on the Triple Aim elements of:

- patient/public experience
- health outcomes and quality
- system sustainability – a key element of system sustainability is to reduce pressure on ED presentations.

This model below illustrates the integrated after-hours system being proposed in this business case.

⁵ School of Population Health, After Hours Initiative Phase 1 Evaluation Report, 2013, Page 20

Figure 33: Integrated after-hours system model



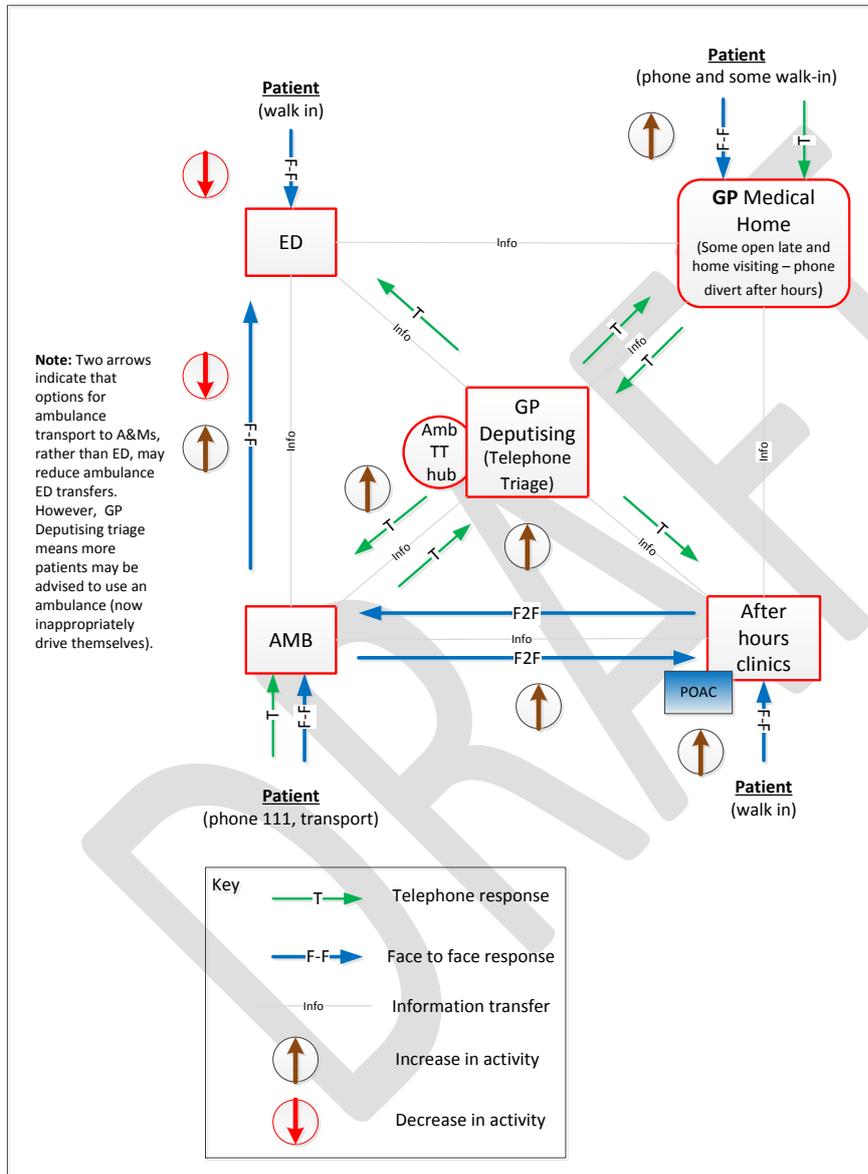
1. **Integrated system supporting GP 24/7 obligations:** One integrated system, recognising the GP as the patient’s medical home and GP responsibility for 24/7 first level services but also emphasising GP deputising (telephone triage) as providing the key system-wide response and co-ordination function after hours. There is an emphasis on improved health literacy and patients making appropriate access choices.
2. **GP deputising role:** All GPs in Auckland link to integrated telephone triage free of user charges (except phone call). GP deputising works to an agreed specification and is supported by all PHOs. St John can also integrate its clinical hub and telephone system with the telephone triage provision. This fully integrated telephone triage service provides a

consistent response for all Aucklanders. The TT service may also receive transfers from St John, where the call is not deemed high acuity.

- 3. Improved guidance but retaining choice:** The aim is to have a system where users are guided to their best and most appropriate option for after-hours care. However, choice is maintained and users can enter the system via walk-in to ED and A&M clinics or via phone calls to their GP, 111, or telephone triage.
- 4. Integration of information:** The aim is to support information flow across the system supporting integrated patient care. This includes information accompanying presentation (e.g. warm handover by GP deputising to other services) and patient notes, following an after-hours event in any part of the system.
- 5. Flexibility with face-to-face service:** Face-to-face service options include direct treatment by A&M, ED and ambulance. Ambulance provides transfers to EDs, and to A&Ms for low acuity needs (including POAC response – so zero co-pay), and also transfer of patients with high acuity from A&Ms to EDs.
- 6. Wider options:** ARAHN believes the model outlined above will form the basis for improved linkage to residential aged care and palliative care needs, links to DHB district nursing services and to improve integration with hospital EDs (all of these are part of the ongoing ARAHN work plan).

The graphic below shows the dynamics within this model if it is to work successfully. The brown arrows show a relative increase in activity in an integrated community-based system and the red arrows showing a relative decrease in activity in the hospital-based system (ED attendance and direct ambulance transports to ED). The aim is to support a greater proportion of after-hours need in the community, where there are lower cost structures.

Figure 34: Integrated after-hours system model showing activity changes



7.2 IMPACT FOR TRIPLE-AIM

The ARAHN model aims to support Triple-Aim outcomes:

Patient experience

The aim is to improve patient experience through:

- improved literacy and knowledge of access to GP deputising services and to local subsidised after-hours services; and to support informed choice for consumers
- simplicity in that any patient calling their GP after hours will be linked to the integrated after hours system
- improved linkages to the GP as medical home through feedback from all parts of the system regarding patients' after-hours clinical events – the aim is for a more seamless in-hours and out-of-hours experience
- improved convenience through a set of open late clinics within convenient locations across metro Auckland
- improved convenience through appropriate response, for example, telephone advice and transport to a local after-hours clinic, rather than transport to ED for minor issues.

Health outcomes

- Maintaining low barriers (travel, cost, opening hours) for people to access after-hours services, enables people to access help when needed.
- Improved care integration through standards and systems for feedback to GPs as medical home.
- Improved whole-system clinical protocols and quality review through integrated clinical governance, with aim is to ensure right conditions are treated in right clinical facility.

System efficiency

- Responding to after-hours need in an efficient and lower cost environment (where clinically appropriate).
- Influencing consumer literacy and knowledge towards telephone triage as a first stop for after-hours advice (with one aim of supporting appropriate use of EDs).
- Whole-system data integration and data analysis and regular reports to inform integrated clinical governance and alliance-based management, to enable continuous quality improvement.
- Supporting consistent actions and obligation by all GPs across Auckland for their 24/7 service obligations.

8 CORE SERVICE COMPONENTS OF INTEGRATED AFTER-HOURS SYSTEM

8.1 PRINCIPLES

- General practices are responsible for first level care coverage 24/7 for enrolled patients.
- DHBs are responsible for supporting equitable access to services within their districts.
- DHBs and general practices have a collective responsibility for ensuring acceptable levels of access to defined after-hours services.
- PHOs (on behalf of general practice) and DHBs will continue to discharge their collective responsibility for 24/7 care through a regionally consistent approach to resourcing access to community-based after-hours services.
- The Government policy that children under 6 (now under 13) be free for community healthcare after hours has associated costs that are not covered by the obligations of GPs to provide 24/7 care for their enrolled patients; these costs should be borne by the DHBs/MOH.
- General practices agree to discharge their 24/7 obligations through a clearly defined Code of Conduct that will outline regionally consistent expectations and will confer on PHOs the responsibility for enforcing the Code with member practices.

9 CORE AFTER-HOURS SERVICE SYSTEM

9.1 GENERAL PRACTICES

Role and accountability

General practices are the Medical Home of the patient, and all ongoing care should be delivered or co-ordinated through them. They acknowledge that they are paid capitation for the care of each patient, which covers first contact services and urgent care 24 hours a day, 365 days a year.

- General practices will contract to a named after-hours service. It is anticipated that this will often be their local Accident and Medical Provider; although not in all cases. The contract will identify service expectations in after-hours and holiday periods. General practice patients will be advised to access the contracted clinic as a preferred provider. The preferred provider for a general practice after hours does not need to be a clinic specifically funded with reduced co-pays, although it is encouraged to be as this will be the cheapest for the eligible patient.
- General practices will utilise GP deputising services when they are not open, via forwarding their phones directly to the deputising service and pro-actively communicating with patients to call their GP's phone number in the first instance with an after-hours health need.
- General practices will encourage their patients to seek primary after-hours and urgent care from community based services rather than the hospital, for appropriate low acuity conditions.

- General practices will specifically organise after-hours care for the extended holiday periods for patients registered with their facility that that will likely need managing when they are not open. This is about handover of patients requiring anticipatory care (e.g. patients with complex conditions) to contracted AH providers.

Transparency and enforceability

General practices will be responsible for proactively ensuring they have the systems, relationships and communications in place to deliver on their defined 24/7 obligations. PHOs will work with practices to enforce these obligations, taking into account:

- contracts with, and promotion of, preferred after-hours provider
- linkage to, and promotion of, their GP deputising service
- communication with their after-hours provider before each major public holiday (Christmas and Easier) to discuss the of transfer care during this time as appropriate
- agreement to PHO review to ensure obligations are met and understanding of potential sanctions if there are not.

The future ARAHN work programme is to agree a formal and enforceable Code of Conduct for general practice that reflects the points outlined above.

9.2 GP DEPUTISING SERVICE (TELEPHONE TRIAGE)

Role and accountability

The GP deputising service will streamline the care and direction of patients into the most appropriate place for their care for the problem that they present with. Nurses will use clinical judgement and algorithms, and also demonstrate 'best for system' understanding and take into account the contracted after-hours clinic relationships of the GP that the patient is enrolled with.

The GP deputising service(s) will operate with specifications that are consistent across metro Auckland. All general practice phones switch to GP deputising service when the practice is closed after hours. GP obligations to support the GP deputising service are outlined in GP Code of Conduct. Minimum requirements for the GP deputising service include:

- direct call forward or patient choice from local practice phone system (note some practices may prefer their own 24/7 response, which will be allowable as long as it meets the 24/7 obligations)
- personalised answering for each practice (e.g. 'you have reached practice xyz')
- administrative triage and advice
- clinical triage and disposition
- clinically (nurse) led response – supported by decision support tool
- shared care access and activation (assume funded as part of regional access)
- warm handover (e.g. stay on the line as patient transferred to ambulance)
- discharge summaries to medical home (additional to current services)
- links to other services – POAC and St John Clinical hub

- NHI look-up and reporting
- practice level reporting
- PHO level reporting (including automated checking/reporting of GP phone switch-over)
- in-hours support available for short term unplanned/emergency business continuity events for practices (e.g. phone system breaks down)
- receive and respond to specific GP instructions related to higher risk patients (e.g. 'if this patient calls with this issue, advise response includes ...')
- unplanned outages are covered. Immediate cover is provided but ongoing cover is negotiated.

General practices will have the option in the future of paying more for an augmented service from GP deputising. However, further services are outside the scope of the core ARAHN response.

Transparency and enforceability

Deputising services will proactively ensure they have information relevant to each general practice in their database and will provide regular data to the ARAHN integrated reporting hub, along with providing quarterly 'transparency' reports that identify utilisation and applications of resources within the GP deputising service, including:

- information on after-hours clinics that each general practice has contracted as their after-hours provider, and direct patients preferentially to this service
- report on where financial resources are being applied.

9.3 ACCIDENT AND MEDICAL PRACTICES (OR OTHER AFTER HOURS PROVIDERS)

Role and accountability

Funded after-hours clinics will contractually open for the required hours (currently minimum of 9pm or for 24 hours), have Urgent Care accreditation (X-ray, pharmacy etc.) and not increase co-payments for eligible patients above that agreed upon by ARAHN. They will be open 365 days of the year. Specifications for inclusion in the ARAHN include the following:

- Will see any of the patients registered with the general practice facility that has contracted with them as the preferred provider and give them satisfactory care.
- Will not actively seek to enrol any patients that are sent to them as a contracted provider of after-hours services.
- Will apply any subsidies to patients as intended and not bill patients inappropriately.
- Will advise contracted GP practices of the clinic's co-payment levels and alert them of any changes in co-payments for patients, and the reason for this.
- Will electronically send discharge records to the patient's general practice within one working day of the visit (with consent).
- Will make agreed data from all casual patients visits to that service available to the After-Hours Network to improve system functionality.

Transparency and enforceability

ARAHN has developed a 'transparency report' in which after-hours clinics provide information on where funding provided to clinics specifically for after-hours care by the ARAHN Network is being used, in a high-level financial summary. This requirement will be continued.

After-hours clinics will have funding deducted if they cannot provide the services they are contracted for during the required after hours periods. (This specifically relates to a prolonged decrease in opening hours or an increase in co-payments and will be deducted as a lump sum proportionate to the decrease if ARAHN considers the reason unsuitable.)

9.4 PRIMARY HEALTHCARE ORGANISATIONS

Role and accountability

PHOs will encourage the general practices contracted with them to provide sufficient service coverage as defined in the Code of Conduct for after-hours care. PHOs will monitor the performance of practices and provide regular reports on PHO performance against agreed metrics to ARAHN on a quarterly basis. PHOs will have a support of ARAHN to actively improve the consistency of after-hours care provided across member practices to ensure an acceptable minimum standard is achieved.

Transparency and enforceability

PHOs are expected to take on new responsibilities to ensure transparency and enforceability of the obligations of their GP members, including:

- ensuring members are accountable via back to back agreements
- knowing the contracted after-hours provider for each general practice they represent
- receiving information from the GP deputising service about the opening hours of their general practices, to compare them against historical and current records of opening hours
- providing general practices with clear guidelines on their minimum contractual obligations to after-hours providers, and discuss with them the potentially different approaches to their commitment
- responsibility for auditing after-hours arrangements of practices ; this includes annual spot audit of after-hours arrangements including switch over of practice phones
- reporting back to each practice their patients' aggregated use of after hour's facilities
- funding may be withheld from general practices that do not meet their contract requirements for after-hours patient care
- monitoring the use of Accident and Medical Services and Emergency Departments for the GP facilities under their umbrella and question variation
- using GP deputising service data to assess if general practices are open during normal business times. Where there is practice closure at a time the practice is required to be open PHOs may impose financial penalties on the practice.

Note: The future ARAHN work programme is to formally agree the PHO role in enforcing the Code of Conduct for general practice that reflects the points outlined above.

9.5 EMERGENCY DEPARTMENT

Role and accountability

EDs will provide emergency care to patients from their catchment area. They will refer back to the medical home for the management of all chronic conditions; however, acknowledge that injury rehabilitation can be done with an after-hours clinic setting. They will liaise with stakeholders to improve the 'front door' experience, with the common goal of having patients treated in the community and specifically at their medical home.

Transparency and enforceability

EDs will be expected to take a more active role as partners in ARAHN than they have in the past, including:

- provision of data of utilisation of their facility so that general practices can understand their registered patients aggregated use of the ED, and so that PHOs can understand the aggregated use of the ED by the GPs under their care
- providing EDS reports back to both medical home and to their preferred provider after-hours clinic
- providing access to data on the use of Accident and Medical Services and emergency departments after hours for each PHO and review variation through the combined Clinical Subgroup
- actively participating in clinical governance of the after-hours system, through representation on the ARAHN Clinical Subgroup. This will include actively communicating changes in the hospital system that will have an impact on other providers of care.

9.6 AMBULANCE

Role and accountability

This business case proposes that St John formally becomes part of ARAHN. It is not anticipated that St John resourcing will be integrated with ARAHN. However, all parties believe there is considerable benefit to include St John in ARAHN's collective planning, operational co-ordination, integrated data analysis and clinical governance.

St John has identified a set of initiatives that reflect the aims of the ARAHN and improves integration within the sector:

- **Integrated clinical hub, secondary triage and flexible response**

St John will provide a secondary telephone triage service for an appropriate subset of ambulance 111 callers. This will be provided by establishing a Clinical Hub within the ambulance emergency communications centre at Mt Wellington. Secondary triage within

the Clinical Hub will be provided by nurses sourced from the current ARAHN telephone triage provider and funded by St John. Co-locating these nurses within the St John emergency communications centre will help develop and improve the ambulance/primary care interface, utilise the expertise of St John Intensive Care Paramedic coaches also located within the centre and take advantage of the business continuity systems such as power supply and alternative communication arrangements.

The Clinical Hub will also enable linking directly with the Regional Clinical Pathways activity, including improving referral from St John clinical hub into primary and community services.

- **Clinical data sharing**

Introducing ambulance officer electronic patient report forms during 2014 (roll out to be completed by June 2015) will enable clinical data sharing with the medical home and links with e-shared care.

- **Expand low acuity options with A&M services**

St John will continue to promote and increase uptake of the POAC pathway to refer appropriate low acuity patients to a primary care setting, rather than ED, using the POAC Implementation Officer role established in May 2014. This will include non-urgent transport options for patients assessed as low acuity to A&Ms after hours, using a voluntary health shuttle service. The aim is to increase referrals by 50% within six months. With ARAHN, St John will also explore options regarding the establishment of an after-hours intoxication pathway for patients in the Auckland CBD in partnership with the Auckland CBD safe zone to reduce the number of intoxicated patients requiring transport to ED.

- **Paramedic links to medical advice**

Explore after-hours telephone access to a doctor for paramedics and primary care nurses (such as from residential care facilities), utilising the current medical staff within the four 24-hour Accident and Medical Centres between 10pm and 6am.

Transparency and enforceability

St John is committed to working towards a co-ordinated urgent and after-hours system as an integral part of the overall health care system.

10 SUPPORT COMPONENTS FOR INTEGRATED AFTER-HOURS SYSTEM

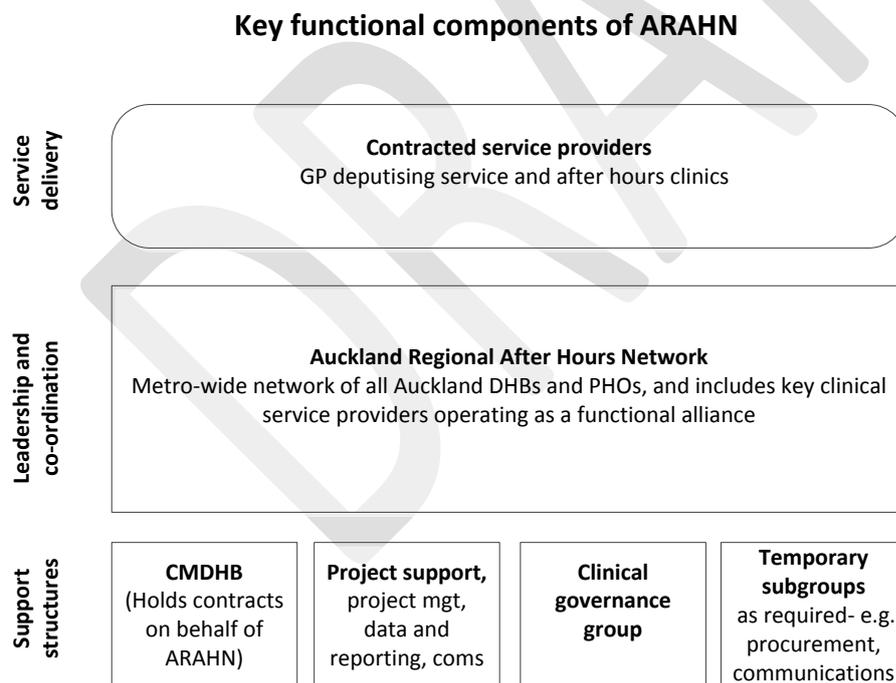
10.1 STRUCTURE AND MEMBERSHIP OF ARAHN ALLIANCE

ARAHN has been an effective functional alliance for more than three years. An independent evaluation by the University of Auckland, School of Population Health, found:

“The Auckland Regional After-Hours Network has functioned effectively and provides a valuable platform for further development of after-hours service initiatives in the Auckland region. The successful functioning of ARAHN as a network is attributable to extensive buy-in from most key stakeholders and providers, and effective facilitation and management of network processes.”⁶

Moving forward it is proposed to maintain the functional components and alliancing structure that has been operating effectively in the past, shown in the diagram below. This business case proposes that St John formally join ARAHN.

Figure 35: Key functional components of ARAHN



The ARHAN is made up of the three Auckland DHB and the all the Auckland PHOs, with representation from the key clinical service providers. The make-up of the current alliance may

⁶ School of Population Health, After Hours Initiative Phase 1 Evaluation Report, 2013

change as a result of the procurement process – some providers may exit and other may join. The functional components of ARAHN include the following:

- The alliancing process is supported by a terms of reference, agreed processes, and a Network Services Agreement, which is a formal annual agreement outlining the contributions and obligations of all parties to the alliance.
- Counties Manukau DHB fulfils the role as contractor and funds manager on behalf of ARAHN.
- Communications, project support and data analysis support are required and will form part of the procurement process.
- The strong clinical governance group is seen as a vital part of the future ARAHN structure.
- Various subgroups will be established from time to time to focus on resolution of specific issues.

The aim is that all organisations with ‘skin in the game’ participate in the network, working together to administer services, solve problems and support continuous quality improvement of after-hours service.

10.2 WHOLE-SYSTEM CLINICAL QUALITY AND SAFETY

Over the past two years ARAHN has established a functional clinical subgroup and has developed quarterly reporting of data from across the system, with the aim of supporting strong clinical understanding and leadership across whole-system performance and efficiency, and clinical safety and quality.

10.2.1 Clinical governance

Moving forward, ARHAN will maintain the Clinical Subgroup and terms of reference, but will expand the clinical leadership to include representatives that reflect the scope of integrating within this business case. The Clinical Subgroup will provide clinical leadership and oversight for the After Hours initiative and to provide links with other clinical governance forums, specifically the Auckland Metro Clinical Governance Forum.

Role and functions

The core functions of this subgroup are to:

- oversee all clinical aspects of the After Hours initiative, particularly the interfaces and patient flows between those providing care, i.e., between GP deputising services, St John, A&Ms and EDs
- develop and monitor ARAHN’s clinical reporting and key clinical indicators
- examine clinical pathways relevant to the After Hours initiative and prioritise exposure of these to the organisations each member represents
- review clinical complaints and any specific instances of clinical risk, particularly in relation to the interfaces between providers (where complaints are wholly within the scope of individual providers, they will be managed through standard practices and processes already established within each organisation)
- make recommendations to the ARAHN Project Partnership in relation to clinical matters

- operate at all times within the authorities delegated to the subgroup from the Project Partnership
- resolve clinical issues escalated by parties to the After Hours network and/or by the project partnership support function and to escalate to the Project Partnership, where necessary
- provide guidance to the Project Partnership support function
- provide input to the Subgroup that is in line with the agreed principle of 'best practice', quality and best for system
- assist with identifying key stakeholders groups within their own areas and advise on appropriate communication mechanisms
- seek input and feedback on clinical matters from within their own sector and organisation
- act as a point of contact for clinical matters for the project partnership support function.

10.2.2 Integrated data analysis and reporting

For the past two years ARAHN has been producing a regular quarterly report on utilisation across A&M and ED services and for various population groups. This analysis has helped to inform the impact of the ARAHN initiative. However, the analysis has been constrained by a lack of GP deputising (telephone triage) data and a lack of St John data.

The aim moving forward is to develop a fully integrated approach to data collection and analysis across the after-hours system, with the aim of informing a Continuous Quality Improvement approach to service design, quality and safety. It is proposed that increased effort and resource goes into data collection, analysis and reporting.

ARAHN recommends streamlining the information that is currently being collected in the system. The aim is to define what is reported from each part of the system, how it amalgamated, and how it is stored and then accessed by the right group(s) for analysis.

ARAHN anticipates that the data will be reported to the Clinical Subgroup for initial analysis. The Clinical Subgroup will also have the ability to ask questions of the data, a function that will be resourced and the data stored in a way that it can be easily manipulated to find the answer. Key functions of analysis will include:

- across the system
- activity and flows
- unintended consequence
- feedback to stakeholders
- dashboard reporting.

A datamart solution is proposed as a fast and relatively cheap way to implement a centralised repository of information while having benefits of automation that can be used to easily distribute information in a meaningful format back to stakeholders and for evaluation.

During 2014/2015 ARAHN will develop enhanced capacity to derive valuable information from integrated data streams. This will require agreements across ARAHN relating to data: definitions, extraction, storage, mapping, collating, reporting and distribution.

It is anticipated that ARAHN will undertake contestable procurement for the services required for the data management, analysis and reporting.

10.3 PATIENT COMMUNICATIONS AND ACCESS

The independent evaluation of the ARAHN initiative identified that the approach being taken to communications was not particularly effective. The previous emphasis was on media communications, some social media, and relatively passive communications from general practice (posters and brochures etc.). This led to low levels of patient awareness of their eligibility status for subsidisation at clinics and for accessing telephone triage.

The evaluation undertook a survey of patients at A&Ms and EDs and noted that overall, awareness of the fee co-pay subsidy was low with only one in three participants being aware of it. Only half of those who were actually eligible for subsidies (A&M 68%, ED 75%) were aware (34% A&M, 30% ED).⁷

Figure 36: Graph from School of Population Health evaluation report – Proportions of A&M and ED participants who were aware of the AHI subsidy islet, who named eligibility categories, those and who were not aware of the subsidy

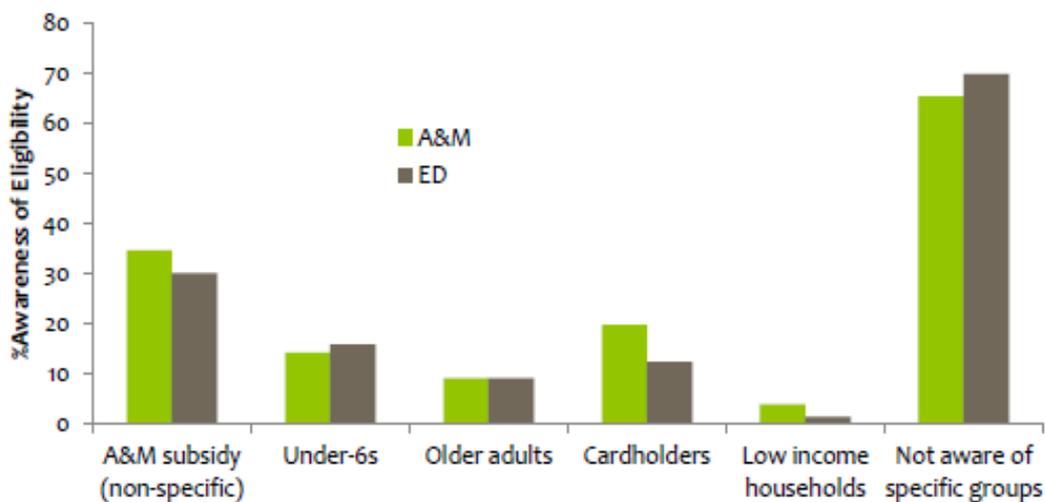


FIGURE 5.5: PROPORTIONS OF A&M AND ED PARTICIPANTS WHO WERE AWARE OF THE AHI SUBSIDY ITSELF, WHO NAMED ELIGIBILITY CATEGORIES, THOSE AND WHO WERE NOT AWARE OF THE SUBSIDY

Only one in six or fewer of all A&M and ED participants (16%, 12%) recalled any media advertising about the initiative. Similarly, only a small number of those who were aware of the subsidy said they had heard about it from media sources. The most frequently cited sources were a family doctor with the A&M clinic.

ARAHN has reviewed the evaluation results of the communication effort and is proposing a different communications approach for the future, which places more emphasis on a general practice proactively communicating directly with its practice population about access and eligibility to after-hours services.

⁷ School of Population Health, After Hours Initiative Phase 1 Evaluation Report, 2013, Pages 36-41

Key components of the communications strategy include:

- practices proactively communicating with patients about accessing 24/7 care. PHOs will support practices with advice, collateral and systems for systematically communicating with their practice population (for example txt campaign). ARAHN will develop expectations and standards of practice-level communication. PHOs will support and monitor and report on practice performance around after-hours communication.

Key messages for patients will be to:

- ring your GP for urgent advice 24/7 (noting all after-hours calls will be forwarded to the integrated GP deputising service)
- advise on accessing local subsidised open late clinics (noting that GPs will be required to have a contract with a local clinic which specifies expectations of service levels and subsidisation).

This practice-centred communications strategy will be supported by:

- improving the branding of the network of clinics offering subsidies and in-clinic information
- using social media to access and influence target groups about the 'ring your GP' and 'low fee open late clinics' key messages
- responsibility of all ARAHN members to inform their clinicians of ARAHN initiatives – for example, ambulance, and DHB services.

10.4 LINKAGE TO DHB SERVICES

ARAHN has identified that in order to continue to improve the performance and efficiency of community-based after-hours care, improved linkage to DHB services is required, including ED services and District Nursing Services.

ARAHN plans to work with DHBs to develop a model where district nursing can receive referrals from St John, GP deputising services and A&Ms and have greater role in managing housebound patients following an urgent event. This initiative is at an early stage, with implementation likely post 2015. Better linkage with district nursing offers opportunity for improved service and efficiency, particularly with the frail elderly.

ARAHN will also link to wider ED-led urgent care initiatives including locality co-ordinators in EDs to direct care transfer back to the community in CMDHB and an ADHB initiative for 'Intermediate care' services to increase support for acute incidents in the community and prevent admissions, and development of Early Supported Discharge team to discharge from ED/APU without inpatient admission.

10.5 PROCUREMENT OF FUTURE SERVICES

ARAHN is responsible for a set of services. Contracts for the delivery of after-hours clinic services (via the Consortium) and GP deputising services have been secured until 30 June 2015. Future services are required to be purchased in an open, contestable and transparent manner in line with Government procurement guidelines.

A sub-group of ARAHN, made up of the DHB and PHO partners, will run a contestable procurement process for the services required by ARAHN. The procurement process will be designed to manage conflicts of interest. (Note some PHOs may have a conflict of interest, as well as the Consortium members.) Services to be procured include:

- GP deputising services (telephone triage and disposition)
- after-hours clinics
- overnight clinics
- communications support
- data integration and analysis
- management support services

Services will be procured by a subgroup of DHB and PHOs in a regionally consistent manner. Currently Counties Manukau DHB formally holds and manages contracts on behalf of ARAHN and receives funds from other parties for their share of the contract costs. This arrangement works well and it is anticipated Counties Manukau DHB will continue in the role.

DRAFT

11 SPECIFICATIONS TO ACHIEVE COMMUNITY ACCESS TO AFTER-HOURS CLINICS

The requirements of GP deputising and after-hours clinical services are described in Chapter 8. Further specifications have been agreed by ARAHN that will guide the procurement of after-hours and overnight services. These are described in Table 7 below.

Note: Please see appendices for further discussion on overnight services, clinic locations and drive times and subsidisation of co-payments.

Table 7: Proposed specifications for future after hours services

Area	Core specifications	Implications
Access to after-hours clinics	Funded after hours clinics open until 10pm.	Funded until 9pm for 2014/15.
	Same or better access than current after-hours service configuration (note MOH requirement is 95% of under-sixes within a 60-minute drive time).	Approximately 35-minute drive time access is currently achieved.
	Support equitable access for the whole population of each DHB – avoid relative overservicing in one area and underservicing in another.	Influence decision on future after-hours clinic locations.
Access to overnight services	One community-based after-hours clinic within each district to provide overnight services (Waitakere, North Shore, Central Auckland, Counties Manukau).	Same as at present – procurement may lead to change in providers.
Subsidisation	Free under-13s when the new policy comes into effect in July 2015. Maintain current lower co-pays for quintile 5, over-65s, HUHC and CSC holders.	New group for free service is 6–12 year olds. After-hours providers that are part of the network will need to explicitly support free under-13s
ACC accreditation	Providers to meet the Accident and Medical Clinic Accreditation Standard	Current ACC accredited providers meet standards. Any new entrant providers will need to meet standard.

12 BUSINESS CASE ANALYSIS: IMPACT ON EDs OF CONTINUING OR CEASING ARAHN INITIATIVE

12.1 BASIS FOR THE BUSINESS CASE ANALYSIS

This section the business case is based around estimating the impact of the ARAHN initiative continuing or ceasing, in terms of the impact on the metro EDs.

The analysis is based on the following:

1. Understanding the likely impact on patient behaviours if the ARAHN initiative was to be continued or to cease.
2. Understanding the changes in utilisation of the A&M after-hours services and overnight services and the subsequent impact on ED presentations.
3. Projecting future ED utilisation – based on current trends.
4. Developing a sensitivity of activity for each ED in the future depending on funding, based on the best plausible data, to identify the potential range of relative ED attendances and the increase-for each ED.
5. Exploring the financial implications of funding/ non-funding the After-Hours initiative by taking patient volumes and exploring the corresponding costs for each ED.

12.2 IMPACT ON SERVICES AND PATIENT BEHAVIOR IF ARAHN FUNDING CEASES

There are a number of implications with reducing or withdrawing the funding of ARAHN initiatives.

Table 8: Impacts from ARAHN funding ceasing

Area		Impact
1	GP deputising	End to comprehensive and integrated telephone triage services, with GPs undertaking variable after hours advice (which may be directing patients straight to ED).
2	Extended hours	Most of the clinics in the network would reduce opening hours back to 8pm.
3	Increased co-pays	Quintile 5, HUHC, CSC and over-65s who currently receive a subsidy will experience increased co-pays and may present to EDs as an alternative.
4	Overnight clinics cease	Many of the patients currently going to overnight services would present to EDs.
5	Patient confusion/behavior change	Lack of common policies and systems will lead to multitude of opening hours, costs and local arrangements leading to patient confusion and inability to work across regions to change patient behaviour around after hours care.
6	Loss of continuous improvement opportunity	Ceasing resourcing would end the current arrangement whereby integrated data and ARAHNs alliance structure inform actions and opportunities for cross-service CQI and problem solving.

The impacts that relate to after-hours/overnight clinic access can be directly assessed, whilst others (GP Deputizing, patient behavior change and lack of system co-ordination) can be inferred. The section below reviews the direct impact of ceasing certain services.

12.3 IMPACT OF ARAHN FUNDING ON A&M CLINIC ATTENDANCE

In total there are a minimum of 63,000 patients per year who would be directly impacted if all the current After-Hours initiative funding was removed, including funding for the 24-hour clinics. It is likely most of the clinics would close at 8pm and co-payments would rise for eligible groups after

hours until these earlier closing times. This includes under-sixes, which the MOH require to be free after-hours.

Table 9: Numbers of patients impacted by ARAHN ceasing

Area of impact	Approx number of patients involved
Clinics Impacted by <u>opening hours/subsidisation</u>	= 11,000 patients
Clinics Impacted by <u>subsidisation</u> (hours stayed same)	= 7150 patients
Clinics impacted by <u>overnight (8pm–8am)</u>	= 45,000 patients (27000 between 10pm and 8am and 18000 between 8pm and 10pm)
Total of ~63,000 impacted, with 3000 of these in more than one way	

Assumptions and notes:

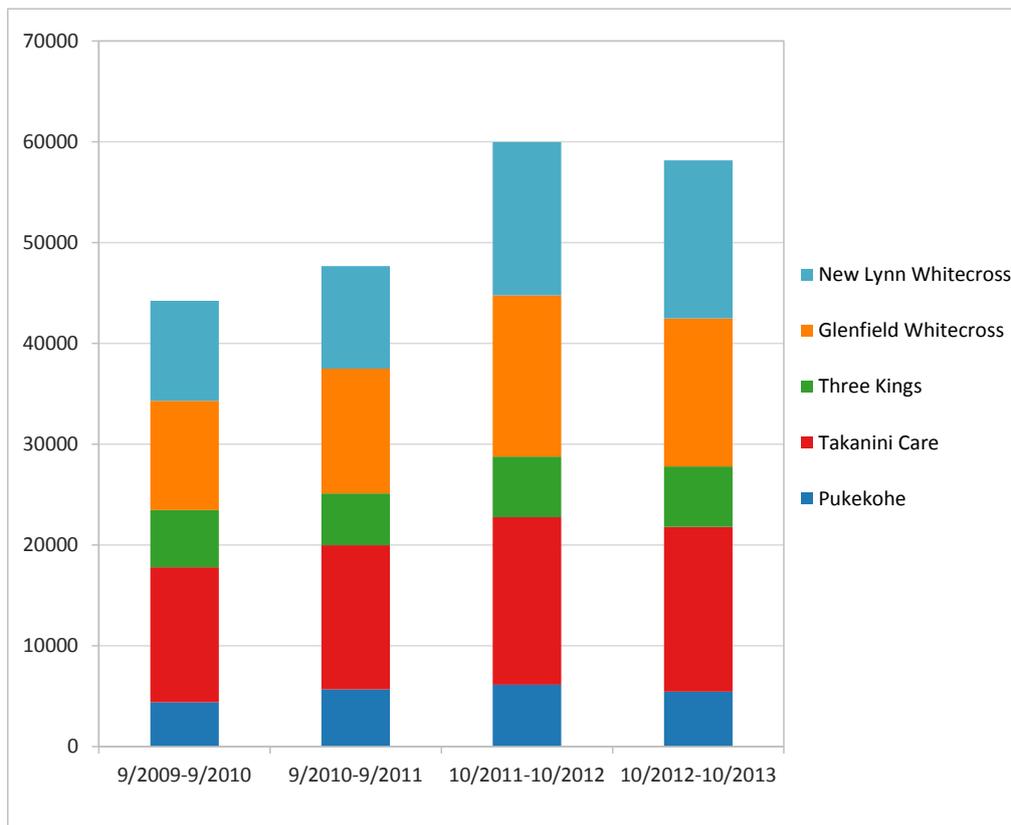
- It is expected that overnight clinics would reduce their opening hours until 8pm by the end of the first year, if all subsidies were removed.

Data in the table described in more detail in the sections below:

Reduced opening hours

For the five Consortium clinics that have been funded to increase their opening hours to at least 10pm, there has been a yearly increase in total volumes by ~13,100 patients. (Note that six of the clinics were already funded to close later prior to 2011.) This increase can be directly attributed to new resources.

Figure 37: Casual patients seen per year time period pre & post ARAHN by the five clinics with increased hours

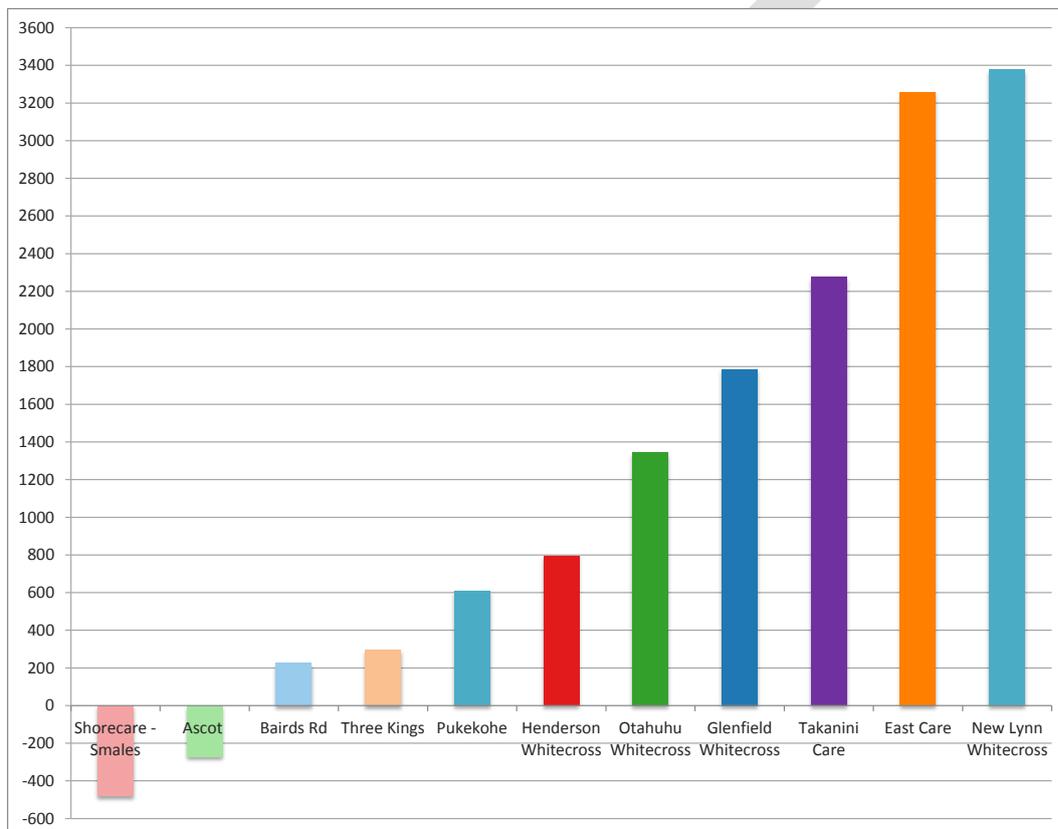


Increased co-pays (subsidisation ceases)

The point above relates to clinics that extended opening hours and lowered-copays as a result of the ARAHN initiative. There was also an increase in the eligible patients who received lower co-pays but attended clinics which did not change their opening hours.

When comparing pre and post ARAHN, a further ~3100 more eligible patients were seen at southern clinics (ETHC Bairds Road and Otahuhu White Cross), while Eastcare and Henderson White Cross had an extra 3250 and 800 Eligible patients per year, respectively.

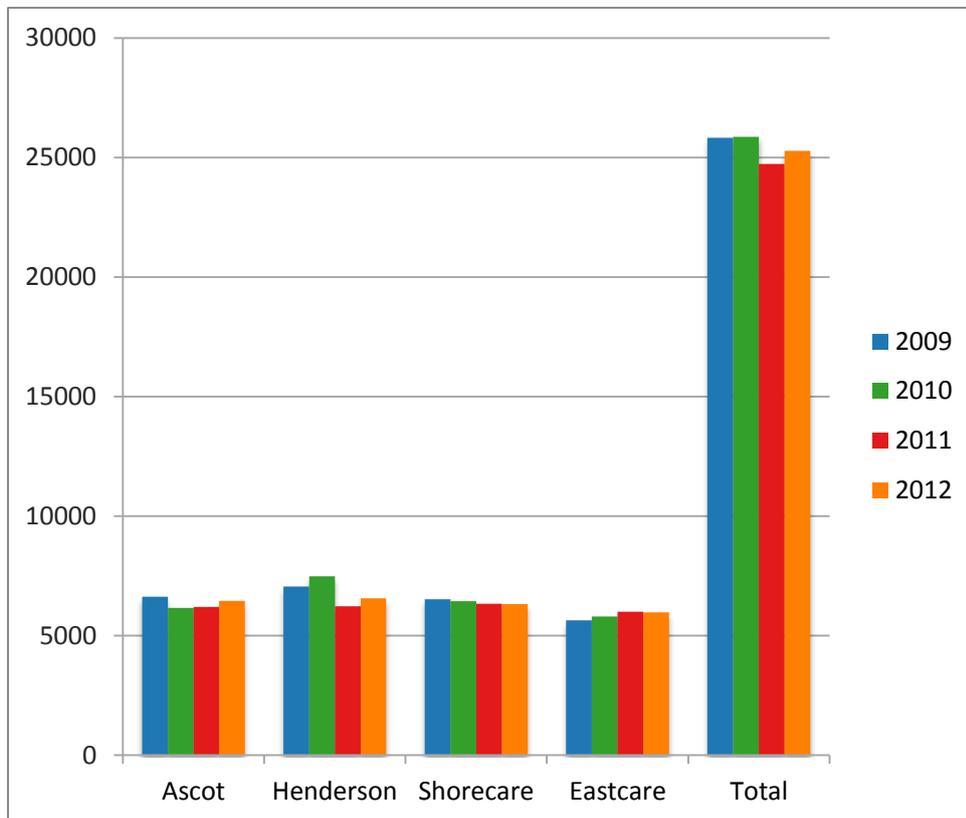
Figure 38: Average difference in eligible patient volumes attending Consortium clinics for two years pre & post ARAHN



Ceasing of overnight services

The four network clinics that provide 24-hour services see ~18,000 patients per year from 8pm to 10pm. Over the last five years the 24-hour clinics consistently see a combined ~27,000 patients per year from 10pm to 8am.

Figure 39: Overnight volumes (10pm–8am) per clinic and total over 2009–2012



12.4 POTENTIAL IMPACT IF ARAHN FUNDED SERVICES CEASE

When patients were surveyed during the Phase 1 evaluation in 2012 about what they would do if the A&M clinic they were visiting that day was closed, an average of 40% gave their only answer as 'Attend the Emergency Department'.

In the Auckland Metro DHB overnight services review an assumption was made that if all overnight services clinics were closed after 10pm then all patients presenting to those clinics would present to their relevant ED. For this business case we are being more conservative and assuming 75% would then seek help at an ED if concerned between 10pm and 8am.

The table below summarises the volumes impacted by services reducing opening hours and subsidies, and then calculates the number who would then go to EDs based on patient survey results.

Proportions of patients who would attend EDs if ARAHN services reduced

The first column is the geographical area in which the facility is situated. South and East are combined, as they are both in CMDHB jurisdiction.

The two (green) columns are the estimated proportions of patients that currently go to funded A&Ms and would now go to EDs, from the University survey.

The next three orange columns are the current (extra) utilisation of the A&M in each geographical area, and whether that be at an extended hour clinic, or overnight clinic and its relevant time bracket.

The two pink columns are the calculated increased extra volumes of eligible patients from just those clinics that did not increase their hours.

The final two columns calculate the total volume of patients impacted per geographical area, and the maximal increase in volumes anticipated in Year 1

Table 10: Proportions of patients who would attend EDs if ARAHN services reduced

	Proportion that would go to ED if A&M closed		(Extra) Volumes seen over 1 year period by clinic group type			Extra volumes potentially seen specifically due to copayment subsidies		Total patients affected by service reduction per year	Maximal increase in volume anticipated Year 1
	After Hours	Overnight (10pm-8am)	Afterhours Clinics extra total volumes from extending closure to 10pm	Volumes seen at the 24 hour clinics between 8-10pm	Overnight volumes (10pm-8am) seen at the 24 hour clinics	Extra volumes seen of Eligible patients at the other Consortium clinics	Extra volumes seen of eligible patients at the 24 hour clinics	TOTAL	TOTAL
North	35%	75%	3,032	4,800	8,029	0	0	15,861	8,450
West	50%	75%	4,984	4,518	6,806	0	794	17,102	8,905
Central	31%	75%	575	4,230	6,244	0	0	11,049	6,365
South	40%	75%	2,345	4,400	6,200	3,135	3,257	19,337	9,590
TOTAL	40%	75%	10,936	17,948	27,279	3,135	4,051	63,349	33,309

Assumption and notes:

Patients could be counted as either going to ED because of change in hours or change in eligible co-payments, hence the total impact does not include summation of all columns together.

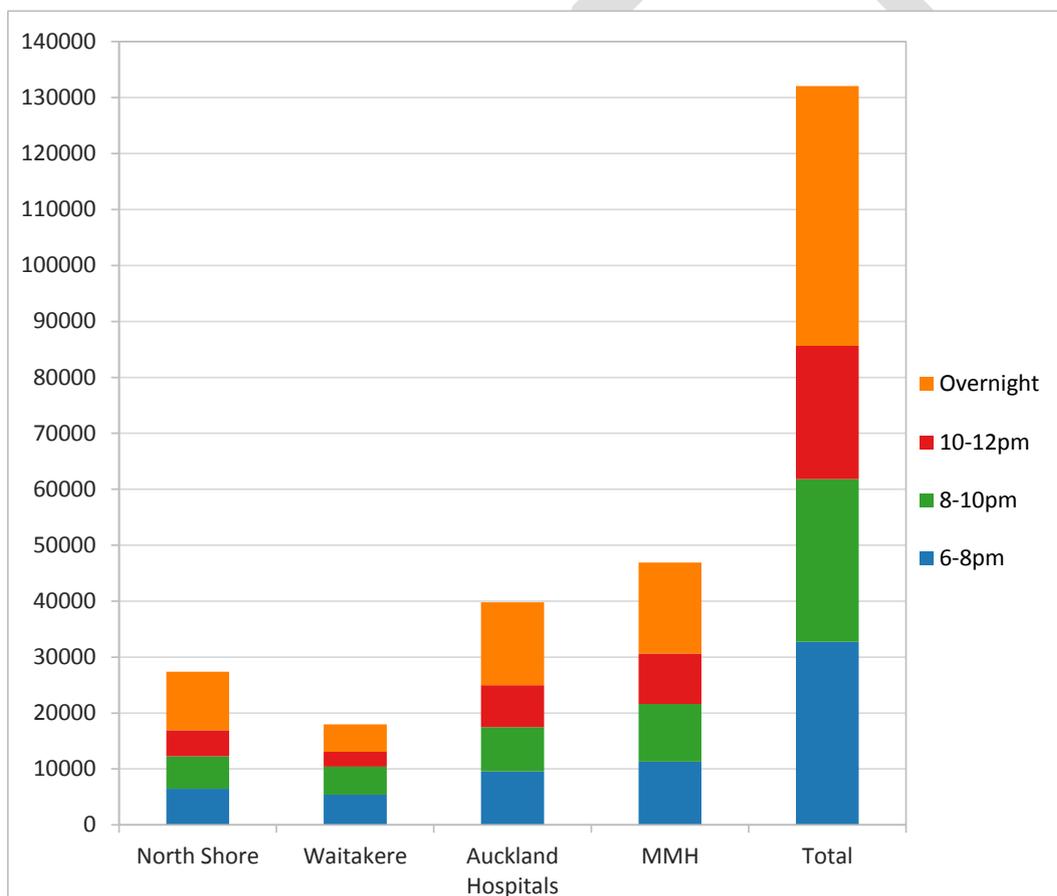
The combination of service reduction would impact in a change in volumes being able to attend the clinics in different ways, but the estimation would be ~33,000 in year one if all the services were removed.

12.5 COMPARISON OF IMPACT OF AFTER-HOURS VOLUME REDUCTION AND CURRENT ED VOLUMES

Currently in Auckland Metro EDs see 133,000 patients between 6pm and 8am per year.

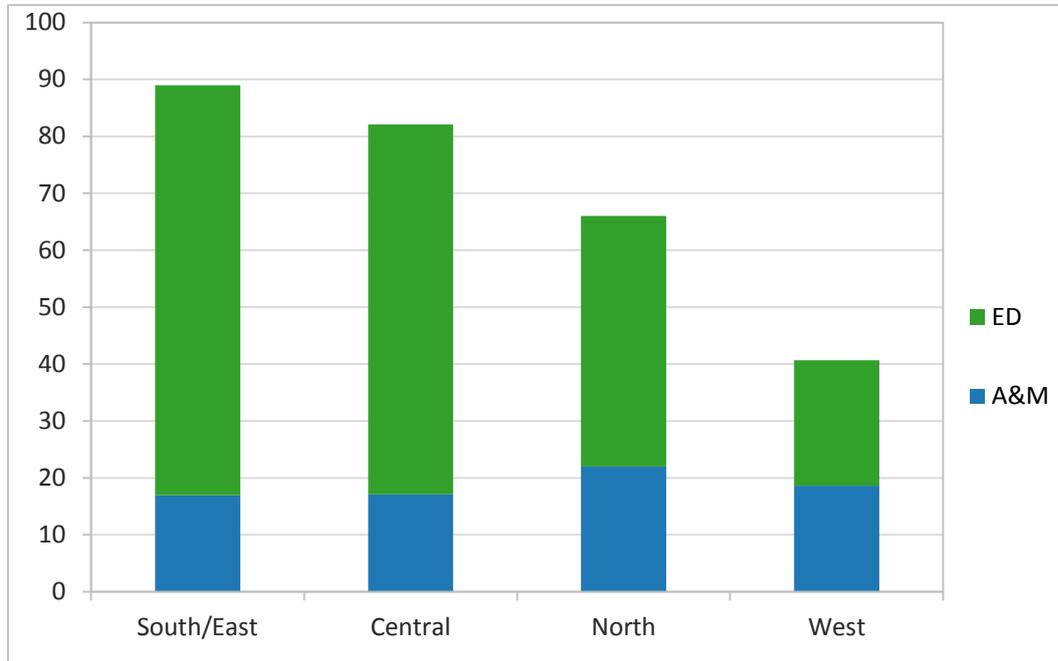
Between 8pm and 10pm 30,000 patients per year are seen, which accounts for about 25% of the total after 6pm volumes. A further 68,000 or 50% of the volume is 10pm to 8am.

Figure 40: Volume presenting to each Auckland ED & total by time bracket over a one-year period, 6pm–8am



Overall in Metro Auckland for the overnight period of 10pm to 8am, the ED volumes account for between 60% and 85% of the total overnight volumes, depending on the district, the balance being the four overnight clinics that see 21% of all patients.

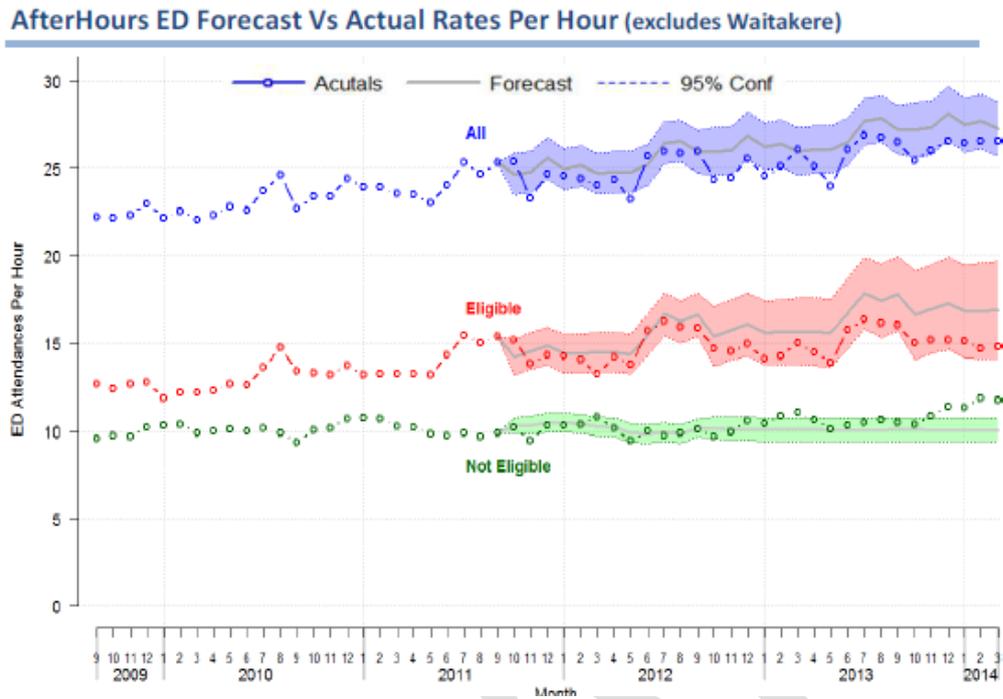
Figure 41: Total daily volumes overnight (10pm–8am) seen by facility type and geography for 2012



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Since the start of the ARAHN initiative the growth of ED volumes for patients eligible for subsidy have consistently tracked less than predicted, based on previous trends.⁸

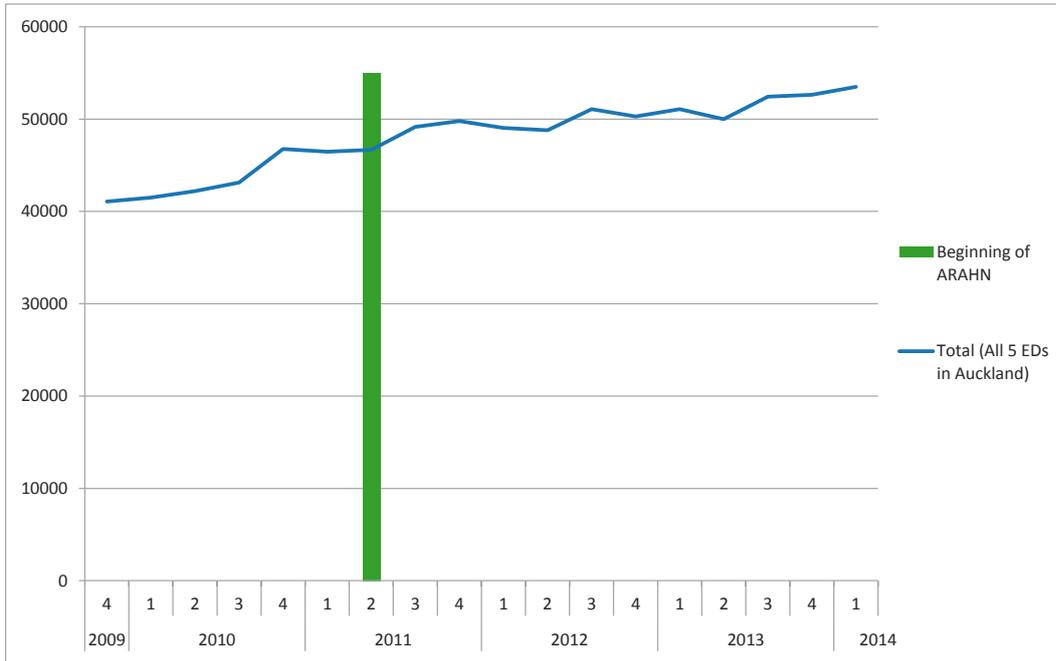
Figure 42: After-hours ED forecast vs actual rates per hour (excludes Waitakere)



⁸ Note Waitakere is excluded as the data is confounded by the fact the ED went to 24 hours at a similar time that the ARAHN initiative began.

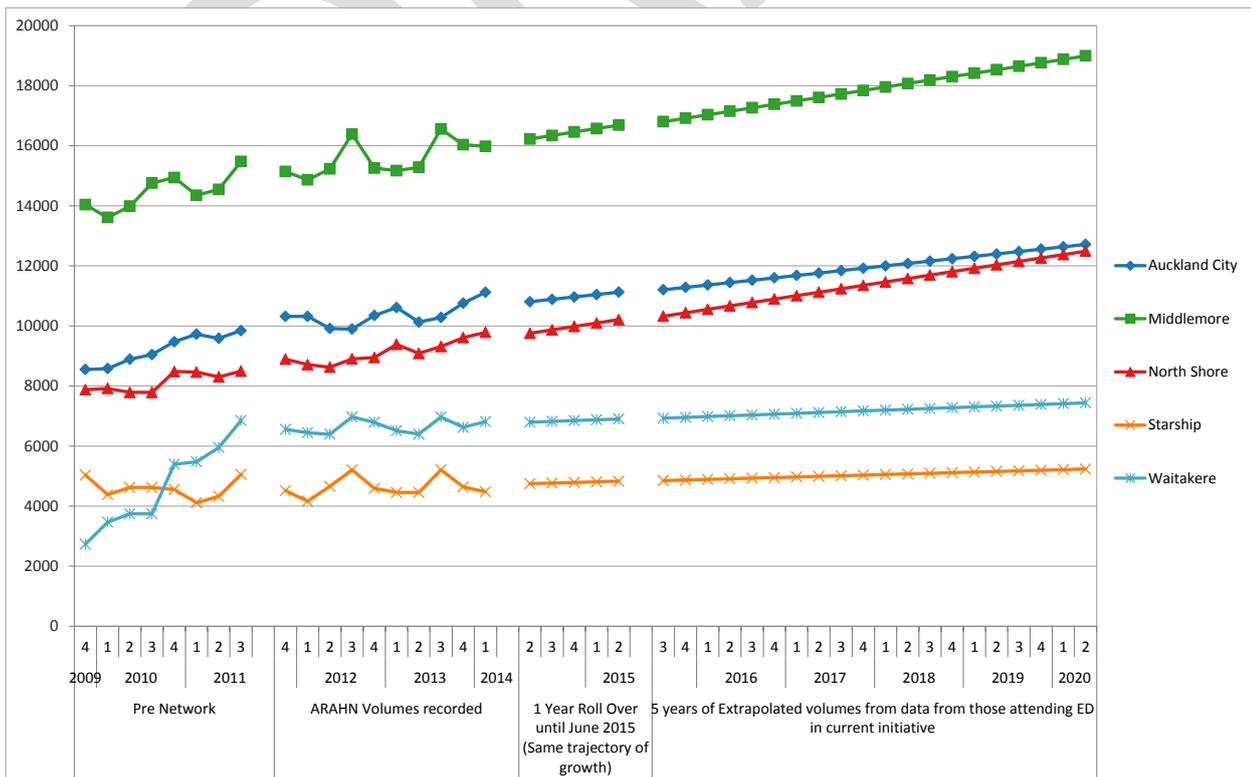
Despite this, total after-hours ED volumes continue to rise, at on average 3.5% per year across Metro Auckland.

Figure 43: Total Metro Auckland ED after-hours volumes per quarter over a five-year period



Based on the growth rates at each ED since the beginning of ARAHN, the total after-hours volumes per ED can be estimated until 2020. The individual ED volume histories in comparison with the ARAHN status, and the predicted trends, are shown below:

Figure 44: Estimated future volumes for five years at the Auckland EDs, based on the last 2.5 years of growth after hours with the initiative in place



12.6 PRICING USED TO CALCULATE COST IMPLICATIONS TO DHB FOR INCREASED ED UTILISATION

Following discussions with DHB finance managers, ARAHN decided to use average long run total costs to inform cost of extra presentations.

Waitemata DHB provided current average total costs for each of North Shore and Waitakere Hospital average Emergency Department presentations. Counties DHB provided current average total costs for all ED attendances at Middlemore. Auckland DHB did not provide detailed costing information in the request timeframe. Therefore we have estimated average Auckland DHB presentation costs using a mid-point of the range between North Shore and Middlemore ED total average costs. (See appendix for more detailed discussion on costings).

Table 11: ED average total cost of each presentation

Emergency department	Average total cost of each presentation (regardless of time of day)
Middlemore	\$383.24
North Shore	\$334.00
Waitakere	\$222.00
Auckland	\$358.62

12.7 OVERALL IMPACT TO THE METRO AUCKLAND ED'S

The analysis above estimated that an additional 33,309 patients would present to EDs across the Metro area if the ARAHN initiative were 'switched off' in year one. A conservative view is that this would be the only increase in volumes presenting to ED, and that there would be no growth of patients that would previously have used the community service, into the EDs.

The projections outlined below take account of the immediate impact, based on reduction of various ARAHN services, and the predicted trend towards further ED use if the broader ARAHN initiative were to stop. The trends are presented for each ED.

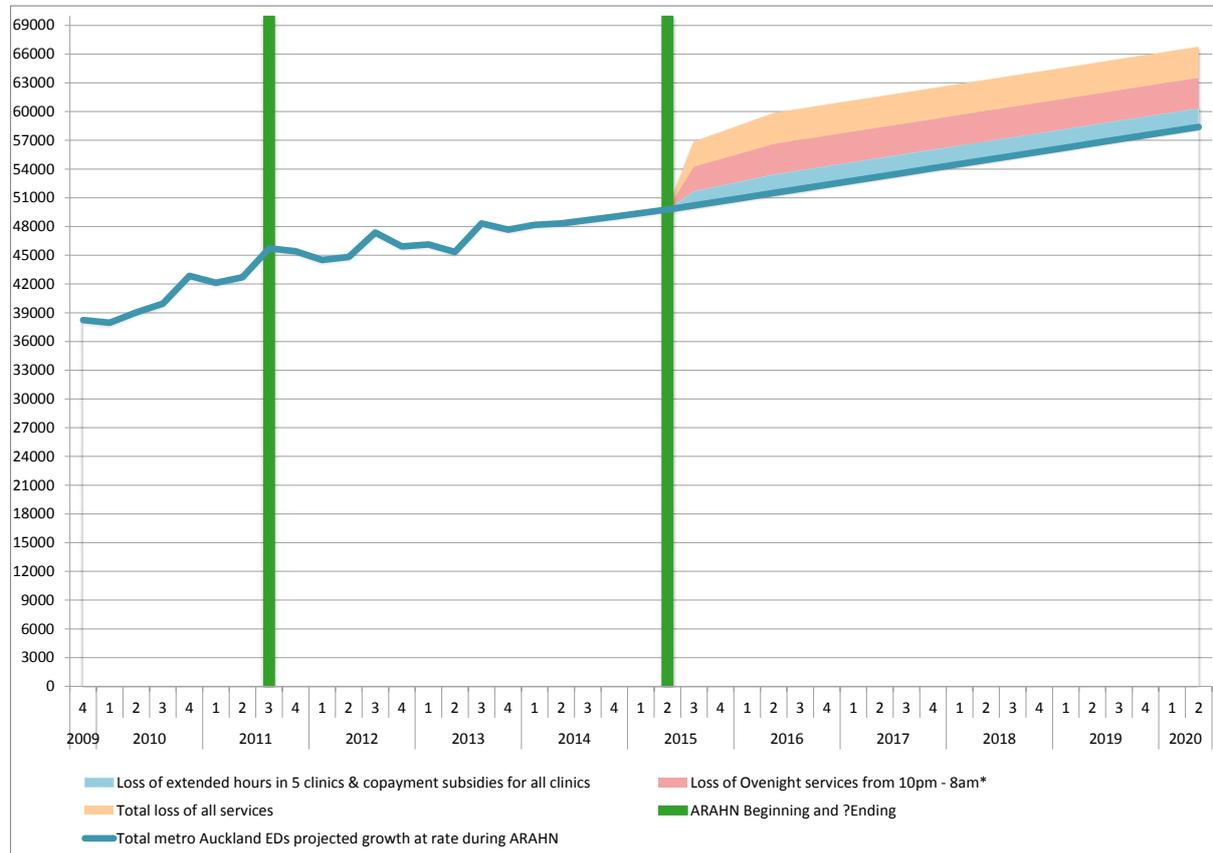
There are three scenarios that we envisage as happening across Metro Auckland and for each DHB and hospital.

The first scenario is that the new money that has been contributed by the DHBs into decreasing co-payments and increasing opening hours is withdrawn. This assumes that the overnight services continue in exactly the same way.

The second scenario is that the overnight services currently provided by the four community clinics are removed, however they are still subsidised to provide lowered co-payments and be open until 10pm. All of the other Consortium clinics are still funded as before.

The third scenario is that all of the money is removed for after-hours care in Auckland. This is both the new money since the establishment of ARAHN in 2011 and that provided for overnight services, but also money that previously was used to subsidise after-hours care, especially in the lower socioeconomic areas.

Figure 45: Metro Auckland total after-hours ED attendances based on options of withdrawal of current funded community services



* Bairds Rd A&M will remain open will 11pm and co-payment subsidies will exist for all other services.

Overall when combining all four EDs in Metro Auckland a calculated minimal increase in volumes could be to just over 66,000 patients per quarter in total in 2020; 150% of the after-hours volume of presentations when ARAHN began in September 2011.

Projected volume and cost changes for Metro Auckland EDs from ARAHN ceasing/functioning across three scenarios

The following description outlines the structure and explanation of the content for all the following tables relating to the three scenarios (of reduced funding).

The first column of numbers is the calculated increases volume of patients from Scenario 1; removing money for extending six clinics hours and reducing co-pays for 11.

The second column of numbers is the calculated increase in volumes of patients from Scenario 2; removing subsidies for the four 24-hour clinics to provide overnight care.

The third column of numbers is the calculated increase in volumes of patients from Scenario 3; removing all after-hours subsidies.

The fourth column is the average long-run cost for that year from one or multiple DHBs.

The final 3 columns are the volumes multiplied by the long-run costs, and this gives the new cost to the DHB(s) per year if each scenarios' subsidy is removed. These values can be compared to the current/projected DHB subsidy at the bottom of each table, and the Metro Auckland Table also includes the PHO contribution.

Table 12: Projected volume and cost changes for Metro Auckland EDs from ARAHN ceasing/functioning

Year	Increased ED attendances from removal of subsidies and co-pays	Increased ED attendances from removing overnight subsidies	Increased ED attendances from removing all after hours A&M subsidies	Average Long Run cost per Metro Auckland ED patient	Increase in cost at Metro EDs from removing extended hours clinics	Increase in cost at Metro EDs from removing overnight clinics back to 10pm	Increase in cost at Metro EDs from removing all services to 8pm
2015/16	6,883	1,8269	30,107	\$322.45	\$2,249,083	\$5,878,021	\$9,691,037
2016/17	7,852	2,0476	33,504	\$323.73	\$2,585,204	\$6,611,218	\$10,820,593
2017/18	7,852	2,0476	33,504	\$323.73	\$2,585,204	\$6,611,218	\$10,820,593
2018/19	7,852	2,0476	33,504	\$323.73	\$2,585,204	\$6,611,218	\$10,820,593
2019/20	7,852	2,0476	33,504	\$323.73	\$2,585,204	\$6,611,218	\$10,820,593
Current DHB Funding					\$2,740,000	\$2,154,000	\$7,624,000
Current PHO Funding					\$500,000	\$0	\$500,000

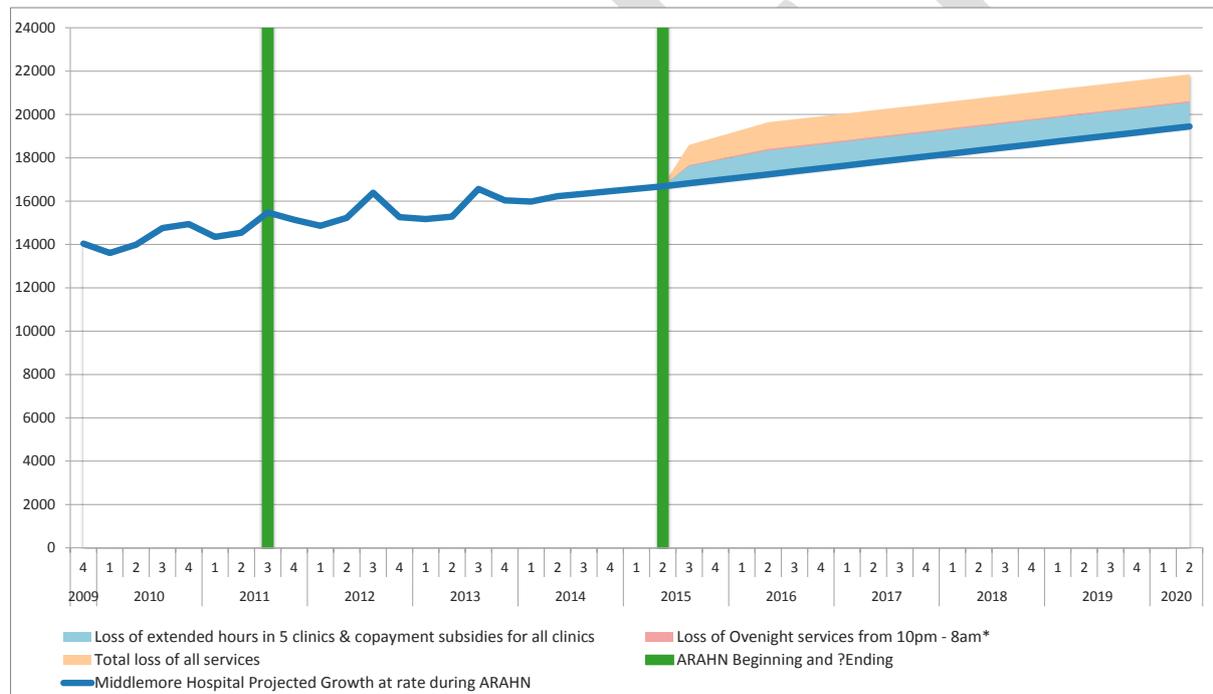
This Equates to an increase in spend by between \$2.2 and \$10.8 million across the four metro Auckland EDs from increasing ED patient volumes per year, based on one of three scenarios of reduction of DHB subsidy

Note: Costs are based on the total cost for an average ED presentation in each hospital.

12.7.1 Middlemore Hospital

For Middlemore Hospital ED this would mean an increase of 3,800–4700 patients attending per year if either the current ARAHN initiative or overnight services subsidies ceased, which corresponds to another 10–13 patients per day during either after-hours period. The increase in volume overnight (10pm–8am) is expected to be 15%. It is more costly for the hospital to see the patients in both these scenarios than pay for the community services. In a complete loss of subsidised service, Middlemore ED is calculated as seeing another 26 patients per day during the after-hours period, costing \$1.5 M extra than the current funding to ARAHN from CMDHB.

Figure 46: Baseline and projected growth of Middlemore Hospital after-hours ED attendances based on options of withdrawal of current funded community services



* Bairds Rd A&M will remain open until 11pm and co-payment subsidies will exist for all other services.

Table 13: Projected volume and cost changes for Middlemore ED from ARAHN ceasing

Year	Increased ED attendances from removal of subsidies and co-pays	Increased ED attendances from removing overnight subsidies	Increased ED attendances from removing all after hours A&M subsidies	Average Long Run cost per Metro Auckland ED patient	Increase in cost at Metro EDs from removing extended hours clinics	Increase in cost at Metro EDs from removing overnight clinics back to 10pm	Increase in cost at Metro EDs from removing all services to 8pm
2015/16	3,800	4,000	8,320	\$383.24	\$1,456,312	\$1,532,960	\$3,188,557
2016/17	4,400	4,660	9,580	\$383.24	\$1,686,256	\$1,785,898	\$3,671,439
2017/18	4,400	4,660	9,580	\$383.24	\$1,686,256	\$1,785,898	\$3,671,439
2018/19	4,400	4,660	9,580	\$383.24	\$1,686,256	\$1,785,898	\$3,671,439
2019/20	4,400	4,660	9,580	\$383.24	\$1,686,256	\$1,785,898	\$3,671,439
Current DHB Funding					\$913,333.33	\$278,256.00	\$2,101,589.33

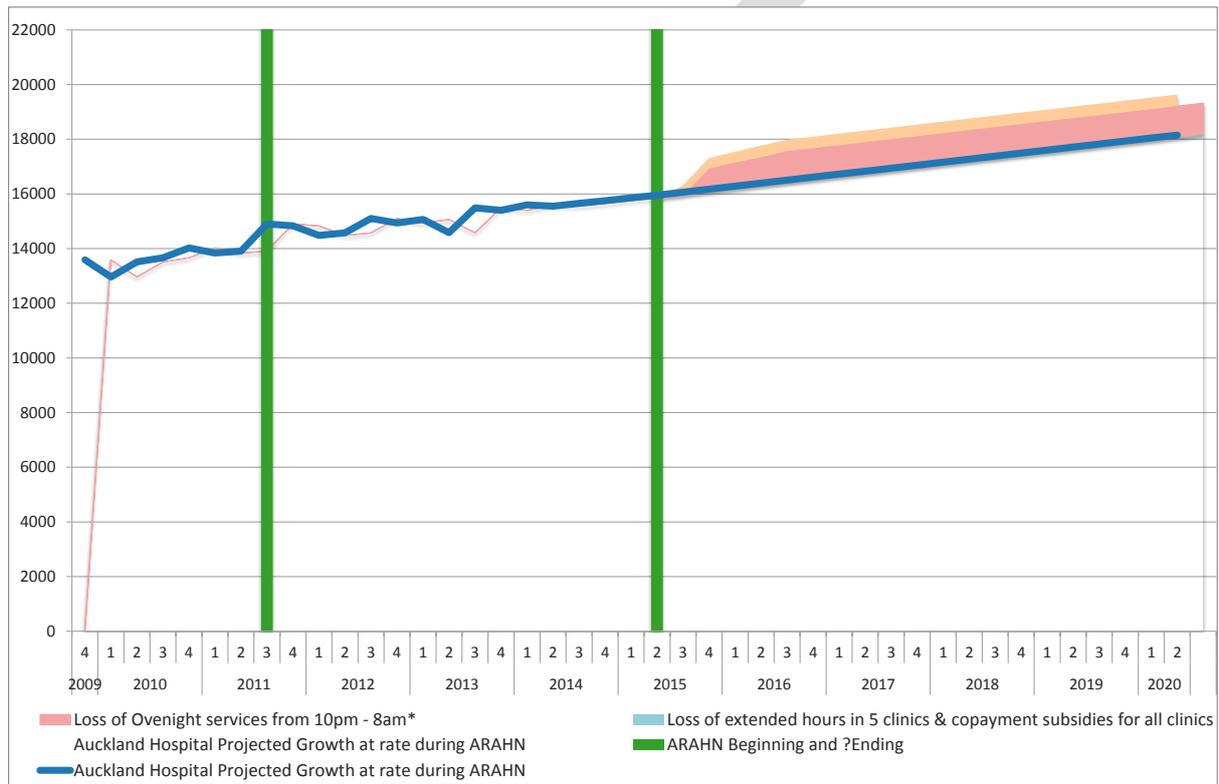
Assumptions and notes:

- Costs are based on the total cost for an average ED presentation in each hospital.

12.7.2 Auckland City Hospital

For Auckland DHB this would mean an increase of up to 200 patients attending per year from the volumes at the clinics located centrally, if the current ARAHN initiative was removed. If overnight services were not subsidized, this would correspond to another 12 patients attending during this period; an increase in the volume from 10pm to 8am by 15% on current. It is more costly for the hospital to see the patients both if overnight and in a complete loss of subsidised service, costing the DHB an extra \$400–\$800 K if all these patients were seen at the ED instead of the centrally located A&Ms.

Figure 47: Baseline and projected growth of Auckland Hospital after-hours ED attendances based on options of withdrawal of current funded community services



* Co-payment subsidies will exist for all other services.

Table 14: Projected volume and cost changes for Auckland City ED from ARAHN ceasing

Year	Increased ED attendances from removal of subsidies and co-pays	Increased ED attendances from removing overnight subsidies	Increased ED attendances from removing all after hours A&M subsidies	Average Long Run cost per Metro Auckland ED patient	Increase in cost at Metro EDs from removing extended hours clinics	Increase in cost at Metro EDs from removing overnight clinics back to 10pm	Increase in cost at Metro EDs from removing all services to 8pm
2015/16	170	4,076	5,636	\$358.62	\$60,965	\$1,461,735	\$2,021,182
2016/17	200	4,684	6,364	\$358.62	\$71,724	\$1,679,776	\$2,282,258
2017/18	200	4,684	6,364	\$358.62	\$71,724	\$1,679,776	\$2,282,258
2018/19	200	4,684	6,364	\$358.62	\$71,724	\$1,679,776	\$2,282,258
2019/20	200	4,684	6,364	\$358.62	\$71,724	\$1,679,776	\$2,282,258
Current DHB Funding					\$913,333.33	\$852,050.00	\$2,675,383.33

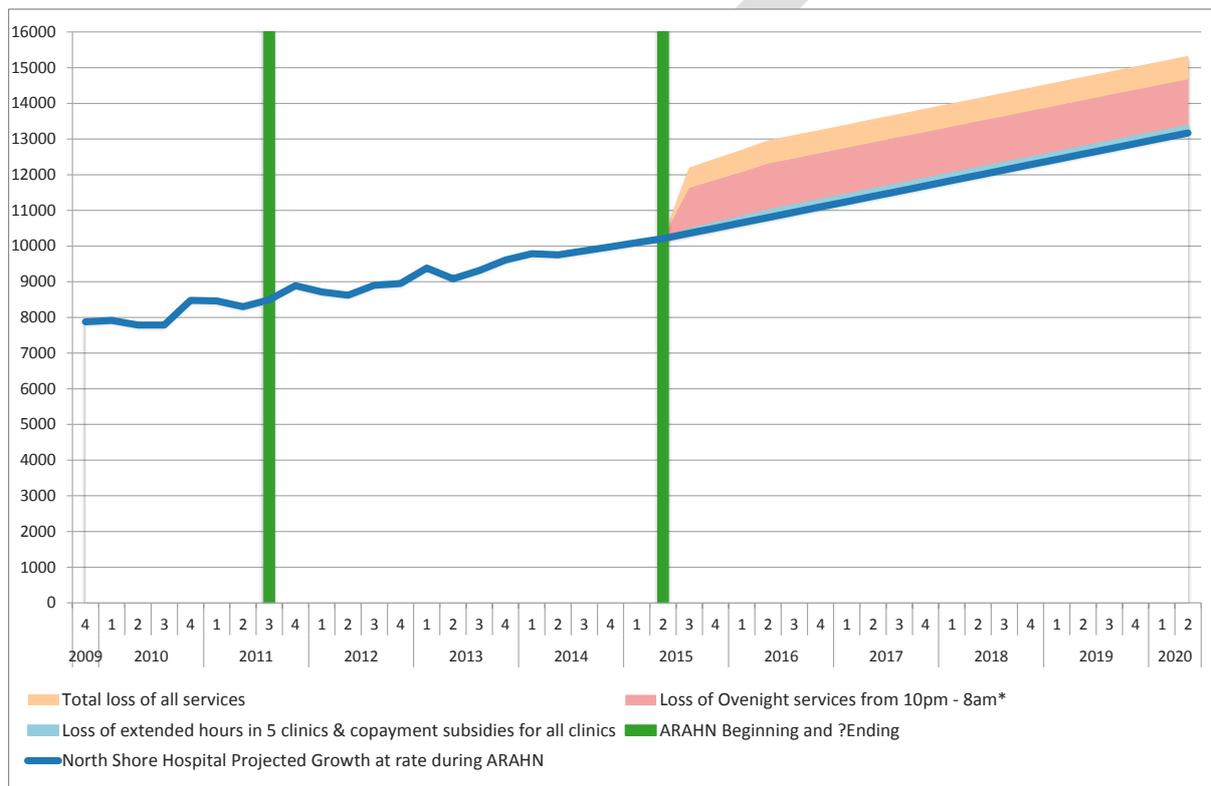
Assumptions and notes:

- Costs are based on the total cost for an average ED presentation in each hospital.

12.7.3 North Shore ED

For North Shore Hospital ED this would mean an increase of 760–940 patients attending per year if the current ARAHN initiative subsidies ceased. It is more costly for the hospital to see the 6000 patients overnight than pay for the community services; 16 patients after 10pm would increase the volume by 30% and cost \$1.5M extra than the \$330,000 currently given to Shorecare. In a complete loss of subsidised service, North Shore ED is calculated as seeing another 24 patients per day during the after-hours period; removing overnight and all subsidised services each cost \$1.5 million extra to see the patients in NSH ED.

Figure 48: Baseline and projected growth of North Shore Hospital after-hours ED attendances based on options of withdrawal of current funded community services



* Co-payment subsidies will exist for all other services.

Table 15: Projected volume and cost changes for North Shore ED from ARAHN ceasing

Year	Increased ED attendances from removal of subsidies and co-pays	Increased ED attendances from removing overnight subsidies	Increased ED attendances from removing all after hours A&M subsidies	Average Long Run cost per Metro Auckland ED patient	Increase in cost at Metro EDs from removing extended hours clinics	Increase in cost at Metro EDs from removing overnight clinics back to 10pm	Increase in cost at Metro EDs from removing all services to 8pm
2015/16	760	5,540	7,998	\$334.00	\$253,840	\$1,850,360	\$2,671,332
2016/17	940	6,020	8,648	\$334.00	\$313,960	\$2,010,680	\$2,888,432
2017/18	940	6,020	8,648	\$334.00	\$313,960	\$2,010,680	\$2,888,432
2018/19	940	6,020	8,648	\$334.00	\$313,960	\$2,010,680	\$2,888,432
2019/20	940	6,020	8,648	\$334.00	\$313,960	\$2,010,680	\$2,888,432
Current DHB Funding					\$456,666.67	\$330,000.00	\$1,241,666.67

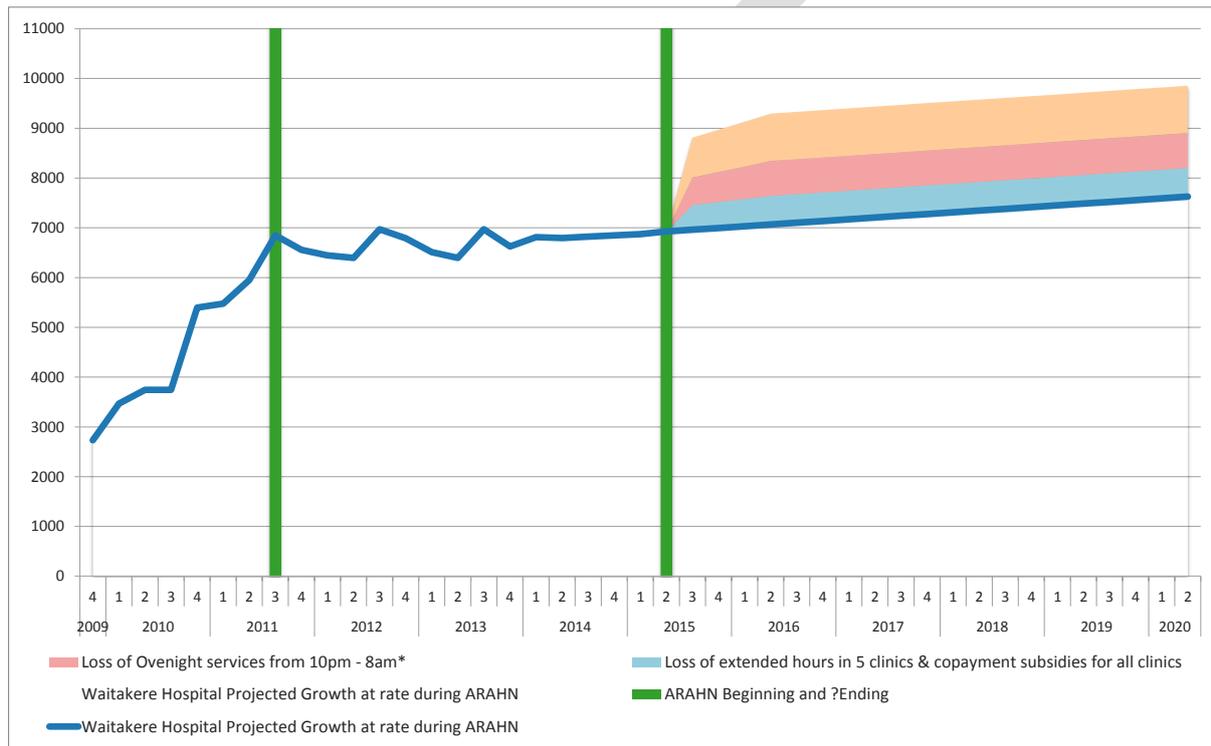
Assumptions and notes:

- Costs are based on the total cost for an average ED presentation in each hospital.

12.7.4 Waitakere Hospital

For Waitakere Hospital ED this would mean an increase of 2,300 patients attending per year if the current ARAHN initiative ceased, which corresponds to another six patients per day after-hours and costing \$50,000 extra per year. Overnight Waitakere ED would see another 14 patients from 10pm to 8am, which would cost \$450,000 more per year than the current funding to Henderson WX, and increases the volumes attending the ED at this time by 50%. In a complete loss of subsidised service, Waitakere ED is calculated as seeing another 24 patients per day during the after-hours period, costing \$300,000 extra than the current funding from WDHB into the community.

Figure 49: Baseline and projected growth of Waitakere Hospital after-hours ED attendances based on options of withdrawal of current funded community services



* Co-payment subsidies will exist for all other services.

Table 16: Projected volume and cost changes for Waitakere ED from ARAHN ceasing

Year	Increased ED attendances from removal of subsidies and co-pays	Increased ED attendances from removing overnight subsidies	Increased ED attendances from removing all after hours A&M subsidies	Average Long Run cost per Metro Auckland ED patient	Increase in cost at Metro EDs from removing extended hours clinics	Increase in cost at Metro EDs from removing overnight clinics back to 10pm	Increase in cost at Metro EDs from removing all services to 8pm
2015/16	2,153	4,653	8,153	\$322.45	\$477,966	\$1,032,966	\$1,809,966
2016/17	2,312	5,112	8,912	\$323.73	\$513,264	\$1,134,864	\$1,978,464
2017/18	2,312	5,112	8,912	\$323.73	\$513,264	\$1,134,864	\$1,978,464
2018/19	2,312	5,112	8,912	\$323.73	\$513,264	\$1,134,864	\$1,978,464
2019/20	2,312	5,112	8,912	\$323.73	\$513,264	\$1,134,864	\$1,978,464
Current DHB Funding					\$456,666.67	\$693,745.00	\$1,605,411.67

Assumptions and notes:

- Costs are based on the total cost for an average ED presentation in each hospital.

12.8 BENEFITS FROM CONTINUED FUNDING AND IMPROVED INTEGRATION

This business case earlier identified a number of Triple Aim benefits for the continued development of a resourced, co-ordinated and integrated after-hours environment for Auckland. In this section, the focus is on actions that may have an impact on reducing future ED growth.

Table 17: After-hours components and impact of continued funding and improved integration

Improvement Area (and link to Triple Aim goals)	International and New Zealand Literature	ARAHN response	Reference
Integrated after-hours service System efficiency	Many Western countries are integrating their after-hours service, with a combination of walk-in appointments, nurse-led triage and changes in the response from ambulance.	ARAHN service design and alliance leadership explicitly supports operational co-ordination and integration and was commended by the University of Auckland evaluation for success in this area.	GroL, Geisen & Uden, 2006 University of Auckland evaluation
Targeted patient communications Patient experience System efficiency	Studies have identified the optimal approaches to giving urgent care advice, and the after-hours evaluation identified effective communication channels for Auckland patients.	Communication will be increasingly based on patients' preferred methods, primarily from general practice, supplemented by aligned broader social media communication strategy.	Safeer& Keenan, 2005 Kings Fund 2011 Uni Evaluation p 10, 124, 125
Consistent healthcare professional communications Quality/outcomes System efficiency	There is an increasing transfer of care and information between the hospital and primary care, which if poorly managed can adversely affect patient outcomes. Clinician-led multidisciplinary groups break down barriers in communication and improve patient care across the sector, supported by quality IT.	Whole-system Auckland (after hours) clinical subgroup to streamline communications between professionals, continuing clinical review of data and quality standards and a commitment for clinicians in primary care to receive individual patient feedback to improve future management in the community.	Kripalani, LeFevre, Philips et al, 2007 Uni Evaluation pp 130-136 ARAHN Business Case Section Y
Connected telephone triage service Patient experience Quality/outcomes System efficiency	In Australia and the UK telephone triage (TT) is playing an increasing role in after-hours service. This is beneficial for the patient, the system and communicating access. Ideally, the system should use only one non-emergency telephone number. It is already infrequent for TT lines in NZ to triage patients to the hospital.	All GPs link to TT service via GP phone after hours, with increasing facilities signed up to the service. Nurses triage after hours supported by robust algorithms. TT links across systems and to ambulance call centres. GPs able to provide guidance for how to respond to specific patients.	Nagree, Cameron, Gosbell & Mountian, 2012 Kings Fund 2011 Healthdirect Australia 2013 St George, 2006
Broadened ambulance response	Non-urgent or non-serious patients may be as high as 50% of ambulance volume, improvement in response	St John initiatives include see-and-treat, ambulance divert to A&M clinics and linking phone clinical hub	Snooks et al, 1998

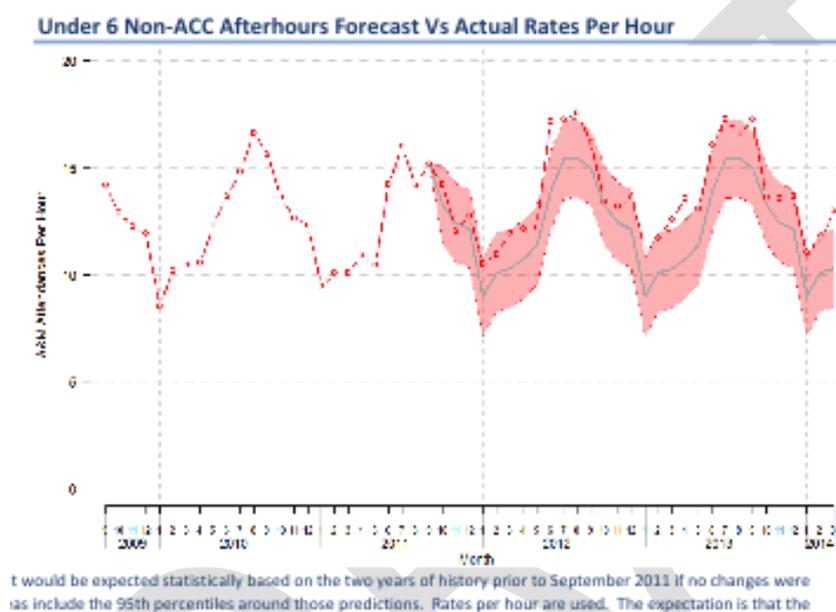
Improvement Area (and link to Triple Aim goals)	International and New Zealand Literature	ARAHN response	Reference
Patient experience System efficiency	for these patients is cost-effective for the system and leaves more ambulances on the road to deal with 'majors'.	with wider telephone triage service for low-acuity calls.	Dale et al, 2003 Mason et al, 2008 Pointer et al, 2001 Woolard, 2006
Utilisation of after-hours and over-night clinics Patient experience System efficiency Quality/outcomes	New Zealand has a well-developed infrastructure, providing after-hours services of accredited clinics compared with the more ad-hoc services in other countries. This is especially in Auckland, where a high proportion of the accredited clinics are found, and the increased patient choice across extended hours may impact on the city having one of the lowest ED attendance rates in the Western world.	Maintain a network of funded after-hours clinics that are accessible for patients through location, opening hours and lowered co-payments. Maintain funded overnight services to continue to give patients community options 24/7.	RCUCP Website Clearwater, 2014 University of Auckland evaluation p 134 University of Auckland p 127
Subsidies for at-risk groups Patient experience Quality/outcomes System efficiency	There is substantial evidence that lowering the cost of services does increase utilisation and has the potential to reduce inequalities. One group that benefits from access after-hours is children whose medical conditions tend to deteriorate more in the evening.	After hours care will be free for under-13s, with subsidised care for over-65s, quintile 5, HUHC and CSC holders.	Rajpar, Smith & Cooke, 2000 Harris, Patel & Bowen, 2011 Goodyear Smith et al, 2008
GP responsibility to urgent and after-hours care Patient experience Quality/outcomes System efficiency	There is variation in the way that general practice approaches urgent care around the world, and the way they utilise ED and other after-hours services. Understanding causes of variation encourages best practice and can lead to improved general practice models of care and capacity.	GPs will have a much closer relationship with an after-hours provider, and two-way data shared so that both the facility and the system can see and interpret trends in the care given across Auckland. PHOs have a strengthened role supporting consistent general practice response to 24/7 needs.	Kings Fund, 2011

12.9 POTENTIAL INCREASING POSITIVE IMPACT ON ED VOLUMES

Since the start of ARAHN in September 2011, there have been 290,000 patients eligible for reduced subsidy seen at funded A&Ms across metro Auckland.

This included over 167,000 under-six children of which at least 131,000 were free consultations (all are free now). In their Phase 1 evaluation of the Auckland After-Hours Initiative delivered in late 2012, the University of Auckland found a significant increase in the utilisation of A&Ms by under-sixes, as a result of zero co-pays.

Figure 50: Under-six non-ACC after-hours forecast vs actual rates per hour



Government policy is to extend the zero co-pays to under-13s. ARAHN assumes that the free-under-13s policy will increase the after-hours clinic utilisation of this group and subsequently reduce the utilisation of EDs.

ARAHN believes that given the range of initiatives outlined above and the under-13s free co-pays, there is an opportunity to further reduce future ED growth. ARAHN believes that over five years it should be able to increase its collective impact on ED presentation in the after-hours period.

12.10 CONCLUSIONS – SENSITIVITY ANALYSIS

In the first year, there could be a difference of ~33,000 patients attending the EDs in Auckland, if services changed to give reduced community after-hours access. This equates to a net increase of \$2 million required from the Auckland DHBs in the 2016 financial year and over \$3million in each subsequent year.

The members of ARAHN believe it can achieve an improved impact on reducing the growth rate of ED attendances (within the current budget), providing free care for all patients under six (and under 13 future) and high-quality care for at least another 25,000 subsidised patients per year. The extended opening hours and overnight services allow increased access for all Aucklanders, giving 1.5 million potential patients a choice to visit a community doctor within 35 minutes' drive, no matter where they live in the city and no matter the time of day.

ARAHN commits to improving a number of areas which have so far restricted its impact, and for the first time is analysing data collected across the system to understand the behaviours of not only the patients but the healthcare professionals involved in the care. This means a communication strategy is not only aimed at helping patients find the best and most applicable care for them, but also showing healthcare professionals in the community and in the hospitals what services are on offer and how to direct patients most effectively to them.

This approach will benefit all the stakeholders involved in providing quality after-hours care in Auckland, but those individuals that will especially benefit are the following:

1. **General practitioners** in Auckland will now be able to understand the after-hours flows of the patients registered with their practice through their PHO. They will have a much closer relationship with their preferred after-hours provider, feeling confident that their patients will be looked after when their doors are shut. They will receive information on those patients that ended up at the ED, and will be able to see how their patients use the services in comparison to other GPs. They will utilise the options which GP deputising is offering around sharing high user and problematic patient information, and receive feedback from all parties to improve their own response to patient needs.
2. **Emergency department** staff in Auckland will continue to benefit from patients being seen preferentially in the community for most problems. However they will have an increased understanding of the role that the community plays and how to integrate the care of patients back into their medical home. After-hours providers will be more accountable for transferring patients to the Hospital and will better understand the range of services on offer in Auckland, to allow ED clinicians to only see patients that need the increased level of care the hospital provides. St John initiatives with telephone triage will improve the response for patients who do not necessarily need transport to hospital, while data capture from all of these areas will monitor this system to limit failures and act to rectify any trends which may have negative outcomes for patients or the ED.
3. **Patients** will continue to benefit from the extended opening hours and overnight services, with many still being treated free or at very low cost across the whole of Auckland. They will receive increased communication from their GP facility about what to do when they have an urgent complaint, and an increasing number of practices will be linking their phone lines after hours to a

centralised telephone service so patients only have one number to call for advice and information. General practices can share information securely in the telephone service so patients will feel they are getting more integrated care, and this will also be applicable if St John needs to be involved. Patients will be advised which after-hours provider will give them the most cost-effective care, whether this be directly from the GP, when on the phone to telephone triage or even when they think they might need an ambulance.

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13 FUTURE IMPLICATIONS AND CONTRIBUTIONS FOR ARAHN MEMBERS

This business case is seeking an agreement from each of the three Auckland DHBs and the seven PHOs to support the after-hours initiative and to continue with the current levels of resourcing.

Resourcing for 2014/15 has been agreed and the business case is seeking a resourcing envelope for another five years until 30 June 2020.

The table below identifies the future resourcing for each component and total assuming current resourcing levels are maintained. Note that the procurement process may result in some changes of resourcing levels across the various categories.

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Table 18: Future resourcing for ARAHN

Service Area	Auckland DHBs	ProCare	Auckland PHO	EastHealth	Total Healthcare	Waitemata PHO	NHC	AH+	A&Ms	Annual service costs
A&M Services (Reduced co-pays and opening hours)	\$4,871,980	\$524,083	\$35,401	\$56,857	\$51,821	\$130,816	\$49,834	\$48,203	\$100,000	\$5,868,995
Overnight Telephone triage	\$2,204,051									\$2,204,051
Management/Comms		\$811,526	\$54,818	\$88,042	\$80,243	\$202,564	\$77,167	\$74,641		\$1,389,000
Data & reporting	\$75,000	\$43,819	\$2,960	\$4,754	\$4,333	\$10,938	\$4,167	\$4,030		\$150,000
Annual partner contributions	\$50,000									\$50,000
	\$7,201,031	\$1,379,428	\$93,179	\$149,653	\$136,397	\$344,318	\$131,168	\$126,874	\$100,000	\$9,662,046

Service Area	Auckland DHBs	ProCare	Auckland PHO	EastHealth	Total Healthcare	Waitemata PHO	NHC	AH+	A&Ms	Annual service costs
Total per enrollee in Auckland	\$5.04	\$1.65	\$1.65	\$1.65	\$1.65	\$1.65	\$1.65	\$1.65	\$1.65	
Funding for Wellsford & Waiheke	\$912,964									\$912,964
Updated contributions incl. Wellsford & Waiheke funding	\$8,113,995	\$1,379,427	\$93,179	\$149,653	\$136,396	\$344,318	\$131,167	\$126,874	\$100,000	\$10,575,010

Resources required across five years for each network partner is identified below.

Table 19: Total ARAHN partner funding for five years

Total funding - 5 years	Auckland DHBs	ProCare	Auckland PHO	EastHealth	Total Healthcare	Waitemata PHO	NHC	AH+	A&Ms	Total services costs - 5 years
Annual partner contributions	\$36,005,155	\$6,897,140	\$465,895	\$748,265	\$681,985	\$1,721,590	\$655,840	\$634,370	\$500,000	\$48,310,230

It would be anticipated that resourcing levels would be negotiated with reference to demographic adjusters and cost pressure adjusters

PHO contributions would continue to be on a per-enrolled service user (ESU) basis, unless alternative methods of allocation are agreed. The cost per ESU method means that PHO contributions will vary from year to year, based on their relative proportions of the total enrolled population. The proposed 'in principle' commitment of five years, should not lock the parties into a service design model.

The procurement and resourcing approach should allow for parties to review the approach based on the focus on the Triple Aim objectives and processes of regular review and continuous improvement

14 RISKS AND MITIGATION

Table 20: Risks and mitigation strategies

Implementation Risk	Mitigation	System Risk	Mitigation	Clinical Risk	Mitigation
Sustainability – all partners remaining committed as all have a role to play.	Continued engagement of all partners through the network alliance – careful management if change of partners following procurement process.	Patients choosing to attend an after-hours clinic rather than the medical home due to convenience or cost.	Monitor utilisation and take action if system has implications for medical home role. Ensure ‘alternative to ED’ communication is appropriate.	Patients inappropriately presenting at an after-hours clinic leading to delayed treatment and potential harm.	Clinical governance sets advice around appropriate response/pathways for key conditions. Monitor and implement changes to communications, if required.
Slippage (e.g. missing winter comms).	Clear project plans with key accountabilities for delivery identified. Regular monitoring and reporting through the network.	High levels of growth in after-hours clinics - financially unsustainable.	Establish risk-management protocols in service agreements as part of procurement.	Under-sixes dis-enrolled from practices due to high use of after-hours clinics and high clawback.	Monitor utilisation and dis-enrolments – PHO role to review and address inappropriate dis-enrolments.
GP non-compliance with 24/7 obligations.	PHOs to establish regional approach	Clawback (financial incentives)	Monitor clawback and review implications –	Incorrect treatment/advice	Clinical governance review and guidance

	with clear monitoring and consistent approach to non-compliance.	interferes with after-hours clinic/GP relationships.	potentially develop different relationships as part of GP/after-hours clinic contract.	(telephone triage/ambulance) leading to harm.	to address safety and quality issues.
PHO non-compliance with GP monitoring role.	ARAHN requiring regular PHO reports on PHO compliance.	Increased ED attendance due to risk adverse triage from GP deputising service.	Integrated data system shows trends in utilisation. Identify issues early and modify triage algorithm/ advice if necessary.		
Reliance on external infrastructure components e.g. shared care technologies.	Network to establish links with appropriate parts of the sector to ensure dependencies are understood and well-managed.	ARAHN becomes disconnected from locality planning and wider urgent care initiatives.	Clear communications from DHB/PHO representatives and CQI approach to modification, where there is value.		
Clinical commitment to quality governance roles.	Reestablishment of the Clinical Sub Group, with wider membership, links to Metro Clinical Governance Forum,	Service contract negotiations become deadlocked and destabilise the network.	Clear prospective service review processes in developed in procurement negotiations. Cost		

	support with good data.		pressure issues flagged well in advance.		
Slippage in procurement process.	Clear project plan for procurement process and service establishment – stick to deadlines.	Mix of subsidisation, opening hours and clinic locations not achieving desired results for improving access.	Monitoring access and impact through integrated data, flexibility to change if data shows alternative configurations may produce better results.		

15 GLOSSARY

A&M	Accident and Medical Clinics
ACC	Accident Compensation Corporation
ARAHN	Auckland Regional After Hours Network
DHB	District Health Board
ED	Emergency Department
HML	Homecare Medical
PHO	Primary Health Organisation
NSH	North Shore Hospital
HUHC	High Use Health Card
CSC	Community Services Card

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16 APPENDICES

16.1 FUNDING FOR AFTER HOURS PRIOR TO THE ARAHN

Funding towards after hours care prior to the network was complex in that each DHB and some PHOs held separate contracts with providers for after-hours care. These contracts were varied in terms of fees and contractual obligations. The following table shows the funding sources contributed to after-hours services prior to the establishment of the network. Note the contributions listed under each DHB towards co-payments also include some funding contributions from PHOs.

DHB	Co-payments	Overnight	Telephone triage	Ring fenced	Total spend pre-ARAHN
ADHB	\$286,667	\$852,050		\$460,065	\$1,598,782
WDHB	\$766,515	\$1,073,745	\$25,000	\$744,961	\$2,610,221
CMDHB	\$810,000	\$278,256		\$98,941	\$1,187,197
TOTAL	\$1,863,182	\$2,204,051	\$25,000	\$1,303,967	\$5,396,200

16.2 NOTES ON METHODOLOGY FOR ED PRICING

Establishing accurate avoided costs in each ED from a potential decrease in volumes and the potential additional costs of any increased volumes can be complex.

We have estimated these avoided and additional costs using a simple method as part of the overall cost benefit discussion.

16.2.1 Initial methodology for benefit costing

In this business case Robert Paine (CFO at Waitemata DHB) and Ron Pearson (CFO at Manukau DHB) have suggested/agreed with a simple costing process which is using the most recently available average total cost of an emergency department presentation to estimate increased costs and avoided costs of changes in volumes related to the initiative.

While this cost reflects the total cost of ED attendances at the current volumes experienced by each ED it does not hold true for changes in volumes. The two DHB Finance Managers we have discussed this with agree that each ED will have its own capacity limits and that the same volume avoided in each ED will save a different level of costs. For example, a volume avoided that delays ED facility expansion will have a higher avoided cost than in another ED, where the additional volume simply requires would have only required additional staffing and supplies, or may just require additional supplies.

However, as an indicative cost the use of average total costs for all ED attendances has been agreed by the Consortium.

These average total costs have then been applied to the scenario volumes produced by various sensitivities in predicted growth of services over the next five years.

16.2.2 Source of cost data for average total costs of ED attendances

Waitemata DHB provided current average total costs for each of North Shore and Waitakere Hospital Emergency Department presentations.

Counties DHB provided current average total costs for all ED attendances at Middlemore.

Auckland DHB did not provide detailed costing information in the February request timeframe. Therefore we have estimated costs using a mid-point of the range between North Shore and Middlemore ED total average costs.

Emergency department	Average total cost of each presentation (regardless of time of day)	Time period and source
Middlemore	\$383.24	July 2013 to Feb 2014 actual costs – Cherian Thomas and Margaret White CMDHB 25/2/14
North Shore	\$334	July 2013 to Feb 2014 actual costs – Paul Cunninghame WDHB 24/2/14
Waitakere	\$222	July 2013 to Feb 2014 actual costs – Paul Cunninghame WDHB 24/2/14
Auckland	\$358.62	Assumed as mid-point between North Shore and Middlemore

These costs were derived using all ED attendances and further stratification could be carried out.

Further analysis could be carried out to identify the average total cost of an ED attendance after hours and overnight. This is a group closer to the patient group accessing the AH&I. We would expect these average costs to be higher than the average costs in the table above.

Data can be provided by the DHBs for just those patients attending ED who were not admitted – this may be a more representative group of those accessing the A&MI.

Data could also be extracted for patients in particular triage categories, assuming that triage is a rough proxy for diagnostic severity. We would expect the average total costs for a lower priority triage to be lower than those noted above for all patients. For example, the draft triage 4 average total cost for North Shore is \$40 lower than for all patients, and for Waitakere it is \$12 lower than for all patients.

16.3 COMMUNITY OVERNIGHT SERVICES

Overnight A&M services are provided in four locations, one in each of the four Auckland Districts.

White Cross Ascot	Central Auckland, Ascot Hospital, Remuera
East Care	Counties Manukau, Botany Rd, Howick
Shore Care	North Shore, Smales Farm, Takapuna
White cross Henderson	Waitakere, Lincoln Rd, Henderson

The overnight clinics are all open 24 hours and provide subsidised services at the same rates as the other network after-hours clinics. The overnight clinics are the only network community clinics open

past 10pm (9pm from 1 July 2014) and provide services to 8am. The exception is Baird's Rd in Otara, which opens to 11pm.

Historically, the overnight services were included within the alliance management and accountability structure of ARAHN. After a review in 2012, DHBs said they would prefer to manage the overnight services contracts separate from the ARAHN alliance.⁹ However, as part of the business case development process, DHBs have signalled that they support the overnight services being reviewed as part of an integrated whole system solution. DHBs wish to see a contestable procurement process for overnight services alongside the after-hours clinics and GP deputising services.

A review of the Auckland Metro District Health Board overnight services, completed in 2012, identified that on average there are 10–15 patients seen in each clinic between 10pm and 8am, with almost half of all overnight attendances taking place between 10 and 12 pm. The funding methodologies and levels for the clinics vary considerably, based on historic issues and the components covered in each contract.

The contract prices are:

	Overnight clinic	Annual contract
1	White Cross Ascot	\$852,050
2	East Care	\$278,256
3	Shore Care	\$330,000
4	White cross Henderson	\$584,133
	Total	\$2,204,051.00

The 2012 review looked at attendance patterns across the A&Ms and use by different demographic groups. It also explored clinical issues and staffing and cost structures within EDs to determine the impact on EDs if the community overnight services were not operational. The review was inconclusive about whether funding the overnight services was good value and concluded that each of the EDs faced different issues, and that further work was required to analyse the benefits and costs associated with maintaining the community overnight services. This detailed cost benefit analysis has not been undertaken to date.

The 2012 review was undertaken in a different environment to that proposed by this business case. This proposal includes a number of new elements which may impact on utilisation patterns of overnight services in the future:

- contracts between GPs and local A&M services
- universal access to an integrated GP deputising service, when practices are phoned after hours
- changed closing times for subsidised network A&Ms (from 10pm to 9pm)

⁹ Auckland Metro District Health Boards Overnight Services – A Descriptive Analysis, Sept 2102
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- increased emphasis on ambulance diverting low acuity patients to A&M clinics for POAC-funded services
- change to free under-13s.

It is proposed that the ARAHN procurement process provides clear minimum specifications for overnight services, but does not separate the overnight services contracts from procurement of the wider after-hours services.

The aim is to encourage service providers to look at opportunities for innovative approaches to service configurations and to identify the most cost effective options for providing accessible community-based 24-hour services.

The ARAHN procurement subgroup will need to satisfy itself that the proposed solutions for community-based overnight services are of positive value compared to no services and increasing ED volumes, and taking into account a reduction in patient access.

16.4 ACHIEVING BEST VALUE ACCESS – LOCATIONS AND COST

The ARAHN evaluation identified the importance of clinic proximity and cost as key dimensions impacting community access to after-hours facilities.¹⁰

The current location/opening hours/subsidisation model provides a baseline for access.

16.4.1 Opening hours

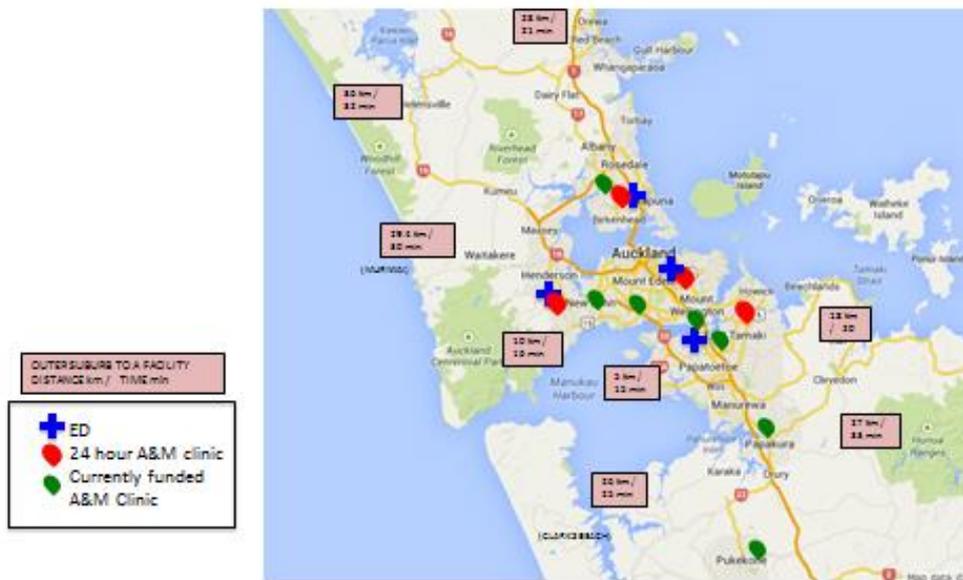
One important issue requiring further analysis is whether the reduction of opening hours from 10pm to 9pm for the 2014/15 year, undertaken as a cost constraint measure, is the optimal decision in the longer term in term of impact on Triple Aim objectives and ED admissions. ARAHN proposes shifting the opening time back to 10pm as a core specification, but will monitor with interest the impact of shifting the closing time to 9pm during 2014/15.

16.4.2 Access and clinic location

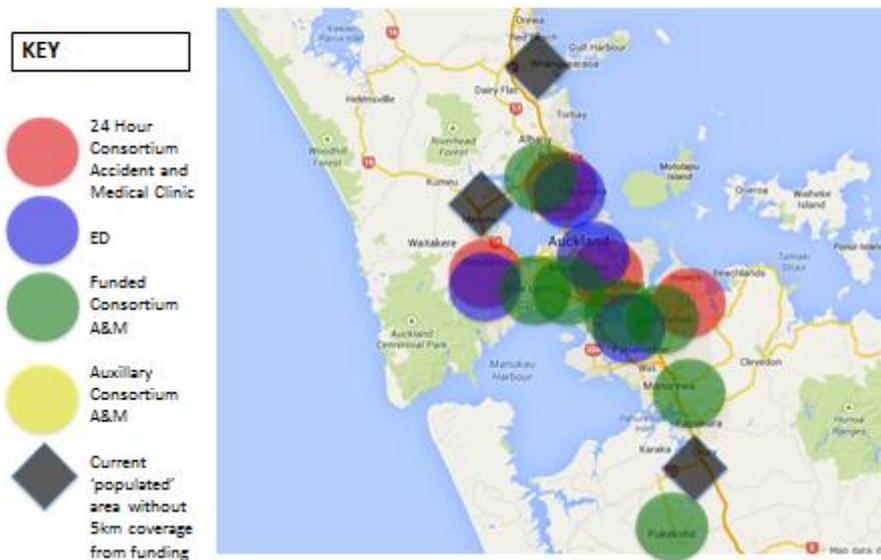
The Ministry of Health guidance is that at least 95% of under-sixes should have access to after-hours care within a 60-minute drive. Analysis based on estimated travel times indicate that for most of the population there is a maximum 33-minute drive in normal traffic from anywhere in the greater Auckland region to a 'Funded' after-hours provider.

Outer suburb travel times to ED, after hours and overnight clinics

¹⁰ School of Population Health, After Hours Initiative Phase 1 Evaluation Report, 2013



Another way to look at access is through travel distance to an after-hours facility. The following map identifies that generally Aucklanders do not have to travel more than five kilometres to reach an ARAHN network facility. There are three key 'populated' areas in greater Auckland that are not covered by a 5km radius of a funded after-hours service, Whangaparaoa being the most affected (although Northcross Clinic decreases their travel distance until 8pm).



16.4.3 Access and clinic cost

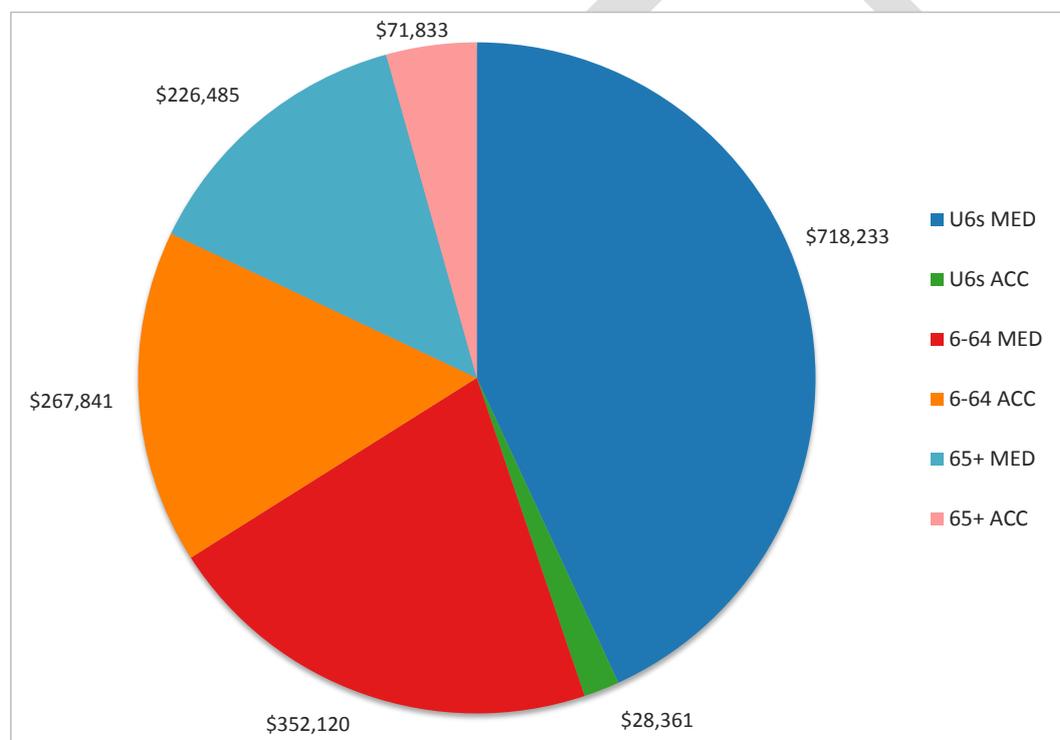
The Phase 1 evaluation identified that “there is clear evidence that there are significantly higher levels of A&M utilisation wherever co-payments are eliminated. In this evaluation, we see this most clearly in the utilisation of A&Ms in South, East and West Auckland by under 6s.”¹¹

The evaluation also identified that there was less convincing evidence that the subsidisation for the other eligible groups (over-65s, quintile 5, CSC and HUHC holders) where there was still a co-payment, had an impact on A&M utilisation.

“...there have not been increases in A&M utilisation for eligibility categories for whom the co-payment has not been reduced to zero. This applies to all eligibility categories other than under 6s This pattern is consistent even though many of the reductions in co-payment levels for over 65s and card-holders have been substantial.”

Currently the funds for A&M open late services are applied in the following manner.

Consortium Clinic subsidy proportions by age group and consultation type over 2013



It is proposed to continue with the current subsidy regime, with expansion to under-13s when the new policy comes into effect. This will be subject to further advice when the funding implications are known.

¹¹ School of Population Health, After Hours Initiative Phase 1 Evaluation Report, 2013, Page 64

One issue regarding the evaluation's finding of relatively poor uptake of partially subsidised services (over-65s and Q56) is whether this was due to the policy being ineffective or whether it was because of a low uptake due to poor communications and awareness.

This business case proposes a new approach with more emphasis on GP actions and responsibilities for patient communications.

The uptake and impact of subsidies should continue to be rigorously monitored, with ongoing review (particularly around high needs groups and inequalities), and potential modification, to ensure subsidisation of co-pays is achieving the best impact on access and equity.

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