Overnight and extended hours primary care in Counties Manukau DHB

A rapid review of after hours options

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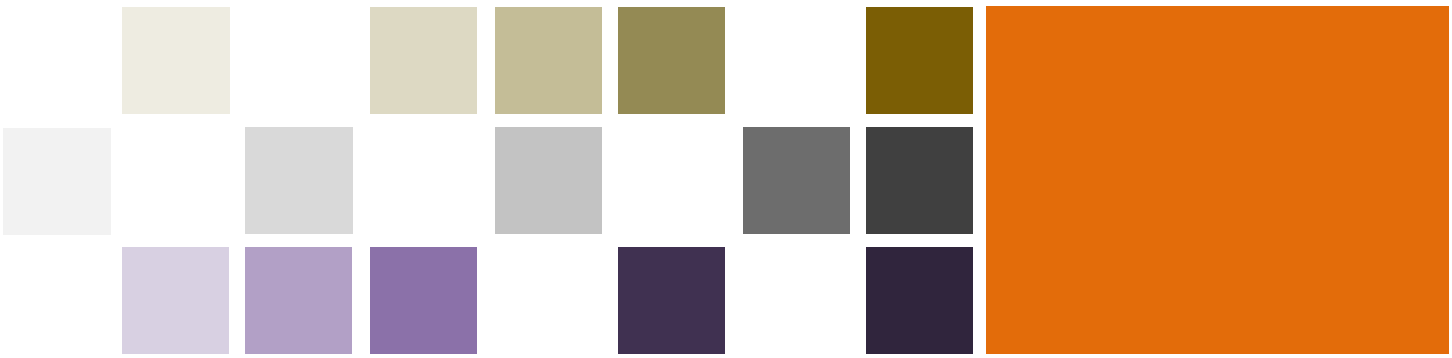

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Background

This review aims to address two questions:

- What has been the impact of the new after hours arrangements in the district from 1 July 2018?
- What has been the impact of the DHB choosing not to fund an overnight service?

In light of these findings, the aim is then to provide advice regarding the options for the DHB to fund services up to and beyond 11pm.

Issues

In 2018 a new after hours funding arrangement was developed across Auckland. Counties Manukau DHB (CMDHB) chose not to fund overnight services between 11pm and 7am. East Care Urgent Medical Centre chose to continue to offer its existing overnight services. In December 2020 East Care ceased to provide this service, finding it unsustainable in workforce terms. This service change presents an opportunity for CMDHB to stand back and consider the options for development of after hours and overnight services in the district.

Overnight urgent care services other than the Emergency Department (ED) are not widely available in the rest of New Zealand, being provided only in Auckland, Hamilton and Christchurch.

Significant challenges to overnight service delivery include:

- Workforce availability. In the context of primary care workforce shortages, finding staff for overnight services can be very difficult.
- Financial sustainability. The low level of demand can make the economics of overnight services very challenging.
- Safety. Small services with few staff can raise risks of clinical sustainability, as well as issues of scale and resilience.
- There are complex interactions between the delivery of urgent care services with specialist Urgent Care qualified staff, or with general practice based services that are more founded in routine primary health care. Much depends upon the goal of a service, and the workforce that supports delivery.
- Consistent signalling about service access is important for community understanding of how to access care.
- The PHO Services Agreement has a minimum standard of 95% of enrolled population having access to face to face After Hours Services within 60 minutes travel time. In much of New Zealand this is accomplished by having primary health care support ED services for overnight care.

Utilisation data

Key points from analysis of utilisation data are:

- Since the new after hours contracts in 2018 there appears to have been a small increase in utilisation in the morning hours, from 8am.
- Overall, there has been little significant change in volumes, although across specific areas there have been marked changed, including a major increase in Franklin.
- Peak utilisations under the current system seem to occur around 7-8pm.
- The closure of overnight services at East Care does not seem to have had an impact on other services in the dataset, although non-overnight services appear to have shown a slight increase in 2021.
- Since 2018 Māori utilisation of Middlemore ED has dropped, and utilisation of St John Ambulance services has increased.
- Over 65 year old utilisation appears to have increased most markedly in Urgent Care Centres.
- Utilisation of youth aged under 14 has decreased across the board.
- Presentations by CSC and HUHC cardholder have increased across the board, although this is possibly driven by wider CSC eligibility and uptake.
- Presentations by deprivation quintile 4 and 5 patients has dropped in urgent care centres and at ED, and has increased with St John ambulance services.

Options

The major options available for future investment include:

- Provide funding to restore overnight services in the East
- Develop new overnight services near Middlemore
- Develop new overnight services in the Southern part of the District
- Further extend hours for existing services
- Developing a unified overnight service across Auckland

Key considerations to bear in mind when weighing up options include:

- The overall strategic goals of extending the hours of access to services.
- The preferred urgent care models, and how these relate to core primary health care.
- Workforce constraints, and how these will be addressed.
- Issues of scale and sustainability, both in clinical and financial terms.

1. Background

1.1 Aims

This review aims to address two key questions. These are:

- What has been the impact of the new after hours arrangements in the district from 1 July 2018 on increasing access to care, reducing demand for hospital services and improving outcomes for patients?
- What has been the impact of the DHB choosing not to fund an overnight service, including the impact in each locality?

In light of these findings, the aim is then to provide advice regarding the options for the DHB to fund services beyond 11pm based on current demand, for example to fund services to 1am or 7am, including advice on localities that this service may need to be located in, and staffing levels required for after hours and urgent care clinics.

1.2 Approach

The review has two principal aspects: the analysis of quantitative data supplied by the After Hours Alliance on service volumes, and a series of interviews with key stakeholders to understand background, and to elicit views on options.

Given the rapid timeframe and limitations on the data available the review seeks to go as far as feasible with the key questions, but there are limits to the extent to which they can be answered. The goal is to go as far as is feasible with the information that is readily available. In particular, since only patient level information on locality was not available, there are limited conclusions that can be drawn about specific localities from the quantitative data, although the geographic location of different services can give an indication.

2. Key issues

2.1 Background to services in Counties Manukau

In 2018 a new after hours funding arrangement was developed across Auckland. At the time Counties Manukau DHB (CMDHB) chose not to fund overnight services between 11pm and 7am, given the low background level of utilisation in the Emergency Department over these hours. East Care Urgent Medical Centre, however, chose to continue to offer its existing overnight services that served the Howick, East Tamaki and Flat Bush areas. In December 2020 East Care ceased to provide this service, finding it unsustainable in workforce terms.

At the same time, there are significant pressures upon the Emergency Department (ED) at Middlemore, while the highest need populations within CMDHB are located to the West and South of Middlemore. Moreover there is rapid population growth in districts further to the South, particularly in Papakura and Franklin.

This service change presents an opportunity for CMDHB to stand back and consider the options for development of after hours and overnight services in this rapidly changing and complex district.

2.2 Overnight services elsewhere in New Zealand

Much of New Zealand does not have access to overnight primary health care, and is typically reliant upon Emergency Departments for urgent care between 11pm and 7am. Overnight primary care is available in three parts of Aotearoa.

Auckland

Overnight services are available at

- Shorecare Smales Farm, on the North Shore
- Westcare White Cross Henderson
- White Cross Ascot, in Auckland DHB, though close to the border with CMDHB.

These services are provided under contract to Auckland and Waitemata DHBs. Subsidies are provided for holders of CSC and HUHC cards, under 14s and people aged 65 and over.

Hamilton

Te Rapa Urgent Care and Medical Centre provides a 24 hour service in Hamilton. The Urgent Care service is provided by urgent care clinicians, and is operated distinctly from the primary care service provided by the same centre. Anglesea Medical also provide 24 hour services, with DHB funding for overnight provision.

Christchurch

Christchurch has a 24 hour surgery, managed by Pegasus Health on contract to Canterbury DHB. It is staffed by a combination of local GPs and directly employed specialist urgent care clinicians, with an extensive nursing staff.

Other centres

Overnight urgent primary care is not provided elsewhere in New Zealand, and local communities are typically reliant upon the local ED for access to care overnight. In central Wellington the Accident and Urgent Medical Centre is open from 8am to 9pm. It was originally established in the early 1990s as a 24 hour service, but the overnight component was dropped, primarily for reasons of financial viability. In that case general practice makes a financial contribution to ED, allowing for additional ED staffing, to recognise the general practice obligation to provide after hours services.

Kenepuru Hospital, in Porirua, is the site for 24 hour accident and medical clinic. Local general practice provides much of the staffing, with the DHB providing staff for the overnight component of the service.

The Accident and Urgent Medical Centre in Tauranga is open from 8am to 9pm. Dunedin's Urgent Doctors Service opens from 8am to 10pm.

2.3 Challenges for overnight service delivery

Stakeholders identified several clear challenges to overnight service delivery. These are:

Workforce availability

This is a significant constraint for overnight services. Given the context of significant workforce shortages in primary care more generally, finding staff who are willing to operate an overnight service can be highly challenging. The process of finding staff is likely to be slow and involved, meaning that there is likely to be a delay of several months between deciding to fund and provide any overnight service and developing the capability to do so. While there are other constraints upon overnight services, it is widely considered that workforce availability is the major challenge in operating a sustainable service. This is exacerbated when an overnight service is small in scale, depending upon only a handful of clinicians. In this case it may only take a loss of one or two people from a roster to make an entire service unviable.

Workforce constraints are also likely to apply to extending service hours more generally, even if not to a full overnight service. Pragmatically, where a clinic nominally finishes patient care at a given time, staff are likely to need to be present for an hour or more afterwards, finishing cases and closing down

the facility. A service that operates to 11 or 12 is likely to require staff to be available until 1am or later.

Financial viability

Overnight services require significant subsidy. Demand is not high, and the unit cost of a consultation is typically large. This means that overnight services usually require dedicated subsidy in order to operate. A funder then has to consider the opportunity cost of that subsidy, what alternative services (including other urgent care services) could be funded, and what relative benefit that would bring to local communities. It should be noted that a 24 hour service was historically provided in central Wellington, but that this was stopped due to lack of financial viability.

In this context, ED services are a different proposition. If an ED already exists as an overnight service, the marginal cost of providing care to patients during a relatively quiet time between 11pm and 7am may be low. ED at Middlemore sees patients self discharging at approximately 1am, after which the service is typically quiet.

Safety

Safety has two aspects – clinical safety and personal security. Evening and overnight services typically require security staff to be present, contributing to the cost of the service.

In terms of clinical safety, while typical overnight provision is based upon one doctor, one nurse and one admin person plus security, this is an extremely minimal service. An additional clinician would be a useful addition, improving the level of peer support and making the clinical team more resilient. However our understanding is that this is not generally achieved in after hours services, given the low overnight volumes.

Other issues

Some of the options for configuration of extended hours and overnight services will depend upon the goal and the capability that is needed for the service. For example, the Christchurch 24 Hour Surgery is highly equipped, and is able to operate a model in which it can stabilise a patient and monitor overnight. This requires a different level of capability (and a different relationship with respect to demand for ED care) than a service that is principally about immediate treatment, and which might refer a proportion of patients onward to ED.

Similarly, staffing models can vary – a traditional staffing model for urgent care is to be reliant upon local GPs to provide a significant part of the service, while an alternative is to staff the service with dedicated urgent care clinicians. Again, the choice of model will to some extent reflect the range of care that the service is intended to deliver, and the different strengths of GPs and urgent care

clinicians. The Canterbury model relies upon urgent care clinicians during the day and in the overnight shift, with local GPs providing additional capacity for the busy evening shifts.

This issue raises further questions about the lines between general practice and urgent care. Pure urgent care services will be focussed on a mode of delivery that is about triaging and treating acute care, and will typically not provide routine primary care or enrol patients. Mixed models are more likely to be based upon a general practice service, with extended resources for urgent care. If urgent care services are geared to a high level of acute care, then general practitioners may not always be comfortable with the clinical environment, a situation that is anecdotally the case in the Christchurch 24 Hour Surgery.

A number of stakeholders suggested that Middlemore ED could be better at making effective use of Emergency Q for patient diversion than is currently the case, noting also the key positive equity impact of Emergency Q in providing options for Māori and Pacific patients. Although emphasis on diversion is likely to be most effective when the diversion option is geographically close to the ED.

There are broader considerations that may be important for decision making about extended hours and overnight services, and the signals that they deliver for patients. Changing the times at which services are open has the potential to confuse patients, particularly since they are only likely to find out about changed times at the point when they seek to access a service. More broadly, there is a question about whether not providing alternatives to ED at some times of the day or night sends a message that ED should always be the default for access to urgent care. Community perceptions of service access are likely to drive aspects of care seeking behaviour.

Several stakeholders commented on the changing nature of overnight care, and particularly on the balance between accident and medical care, shifting from a history of predominantly accident services to a current state of predominantly medical presentations. It seems clear that overnight services of the future will have to have the capability to deal with serious medical needs.

PHO Agreement

As context, it should be noted that the PHO Services Agreement sets out the minimum national requirements for access to Urgent Care Services under Schedule C, Clause Five. These are:

> (1) The PHO will Provide all Service Users with access to Urgent Care Services on a 24-hour a day, 7-day a week basis for 52 weeks a year, in accordance with clause 3.
>
> (2) The PHO must ensure that Urgent Care Services that are provided by a face to face consultation are available to 95% of its Enrolled Population: (a) within 30 minutes travel time during Regular Hours; and
>
> (b) within 60 minutes travel time during After Hours.
>
> (3) In order to meet its obligations set out in this clause, the PHO must ensure that if the PHO itself or any one or more of its Contracted Providers are unable to

provide Urgent Care Services, the PHO or the relevant Contracted Providers put in place alternative arrangements for the continued provision of Urgent Care Services.

In practice, many PHOs work with their DHB, and provide a financial contribution to the overnight provision of ED services rather than providing services themselves. The minimum After Hours access requirement is that 95% of the population should have access to a face to face consultation within 60 minutes of travel time.

3. Utilisation patterns

3.1 Description of data

Sapere studied three sources of data provided by Counties Manukau DHB to identify changes in service utilisation before and after the after-hour changes in July 2018, which we will henceforth refer to as the "old period" and the "new period" respectively. These datasets provided deidentified details for all patients who used one of three services over the period 1 January 2017 to 31 December 2020:

- Urgent care centres (UCCs)
- Middlemore Hospital ED
- St John ambulances.

For each patient, the following information was provided:

- Date of contact with health service
- Hour of day of contact with health service
- Gender
- Ethnicity
- ACC status
- Whether the patient was a Community Services Card (CSC) or High Use Health Care (HUHC) holder
- Deprivation quintile
- Name of the site or service utilised.

Based on this data, we focused on how utilisation of the each of these three services varied across the hours of the day, based on the average monthly contacts that were seen in each period. It is important to note that the impacts of COVID-19 resulted in lowered utilisation in a number of months in 2020 that impacted the average number of monthly contacts. We make note where this has a significant impact on the trend observed.

3.2 Service analysis

3.2.1 Total utilisation

The pattern of healthcare service utilisation across the DHB increased slightly following the change to the new arrangements. Average total contacts[1] per month remained largely unchanged before and after the change (Table 1), with some minor movements in each of the three services, with a decline in presentations to Middlemore ED the most prominent change. The overall pattern of demand over the 4 years studied did not appear to change significantly, with the exception of a drop in utilisation in March to May 2020, likely due to COVID-19, the only major deviation (Figure 1).

[1] We collectively refer to visits to UCCs, presentations to Middlemore ED or responses by St John ambulance as "contacts"

There are two things to note with respect to the data. Firstly, the dataset for St John appeared to have incomplete or missing data for the period January to May 2019 for some of the cohorts. We have omitted these months when calculating averages for St John in this report, as these figures artificially decrease the total number of average responses for the service. Secondly, the impact of COVID-19 in March and May resulted in reduced utilisation across all services and sites, leading to a dampening of the average number of contacts for the period after July 2018. However, in our assessment of the data, there do not appear to be any instances where this resulted in a change in the trend reported.

Figure 1 Total count of contacts across Counties Manukau DHB

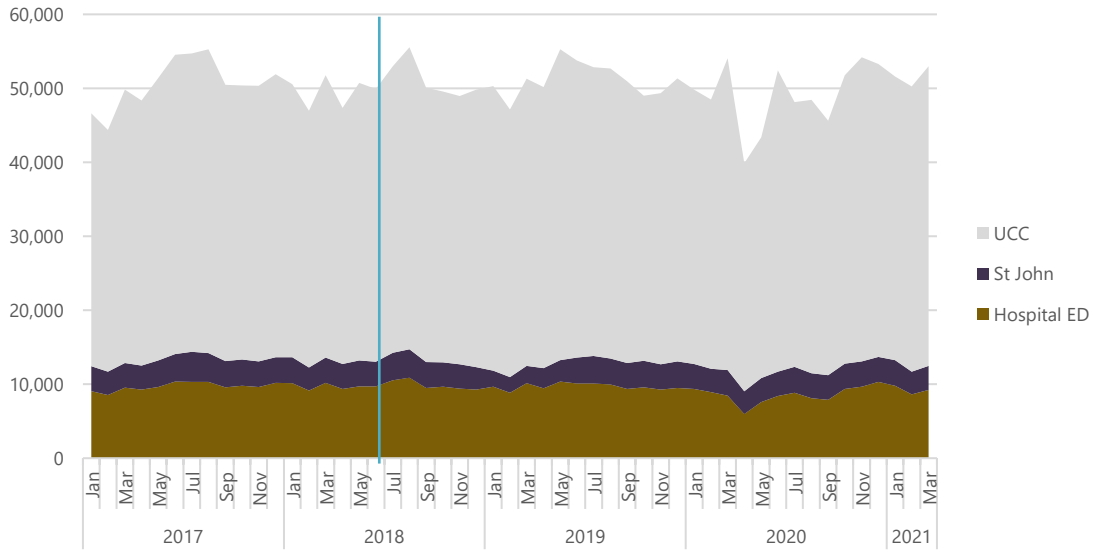


Table 1 Average number of contacts with services before and after July 2018

	Before July 2018	After July 2018	% change
Urgent care centres	37,127	37,930	+2.2%
Middlemore Hospital ED	9,694	9,278	-4.3%
St John ambulance	3,480	3,403*	-2.2%
All services	50,301	50,611*	+0.6%

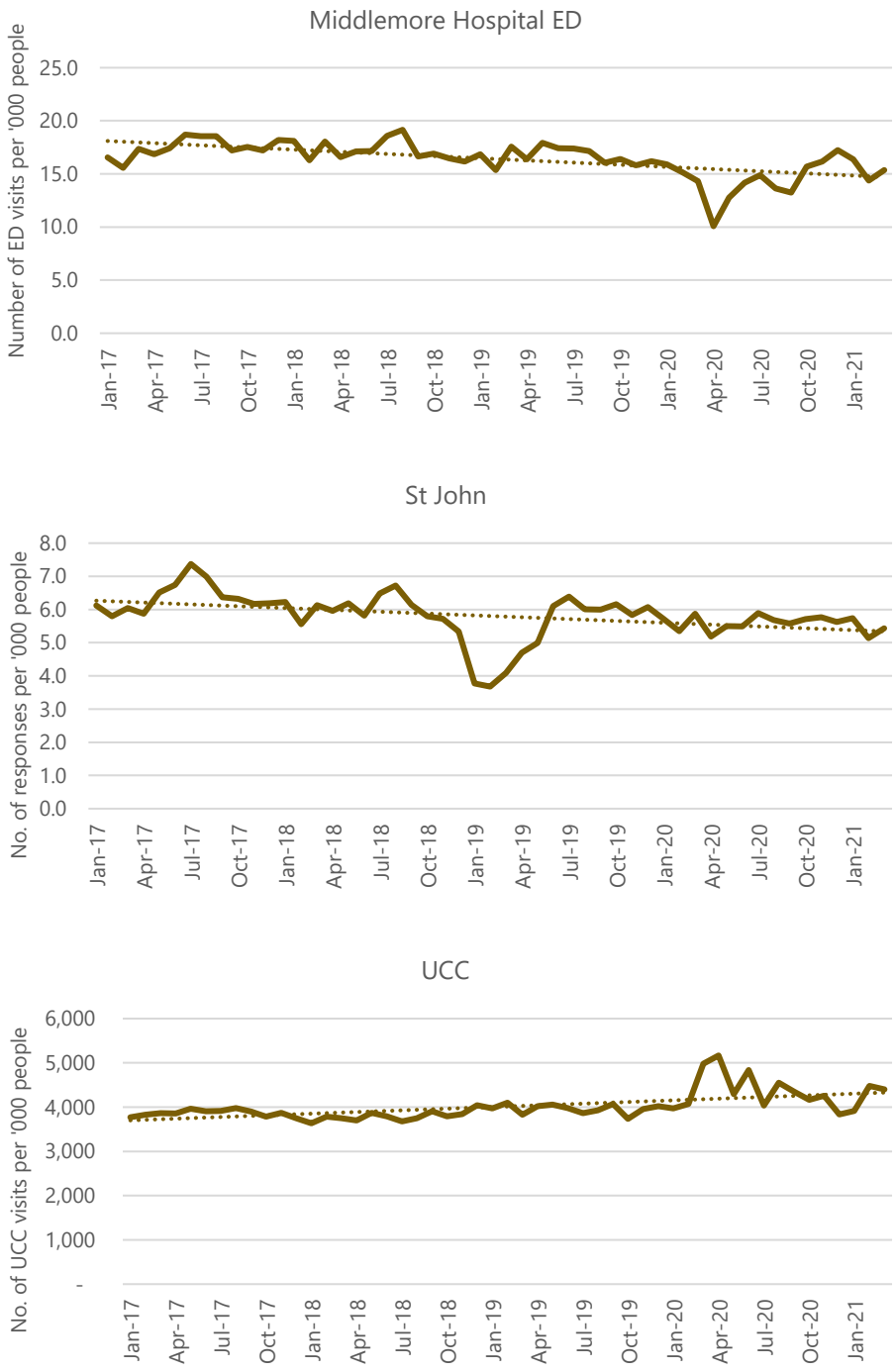
*This figure removes the incomplete data for St John services between January to May 2019

Per capita utilisation rates can also provide insight into the potential changing healthcare needs of the population. The per-1,000-person[2] utilisation rate of Middlemore Hospital ED and St John (although the latter is influenced by a gap in the data in early 2019) has been gradually declining, despite increasing population growth in the DHB over the period studied. In contrast, the per-1,000-person

[2] As monthly estimates of population do not exist, we have developed monthly population estimates based on the annual Stats NZ subnational population estimates for DHBs where we have separated each year's annual population growth into 12 equal increments, and applied each of these increments each month

utilisation rate of UCCs has been steadily increasing, which was likely accelerated by a significant increase in 2020, as a result of the impacts of COVID-19.

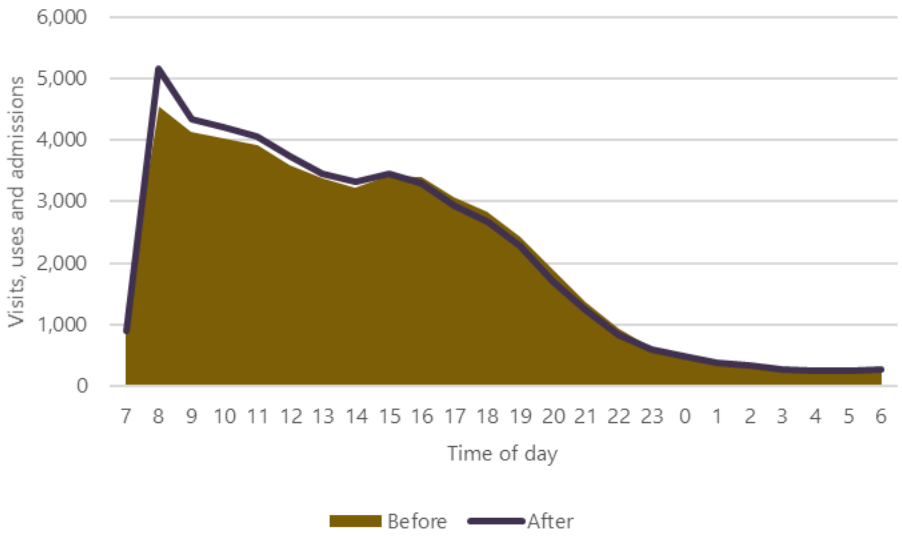
Figure 2 Per-1,000-persons utilisation rates



3.2.2 Utilisation by time of day

While utilisation volumes did not appear to significantly change between the two periods, the pattern of utilisation by time of day suggest there have been some changes. When looking at the average number of monthly contacts by time of day, there appears to be a significant spike in the average number of contacts in the morning in the new period when compared to the old period (Figure 3).

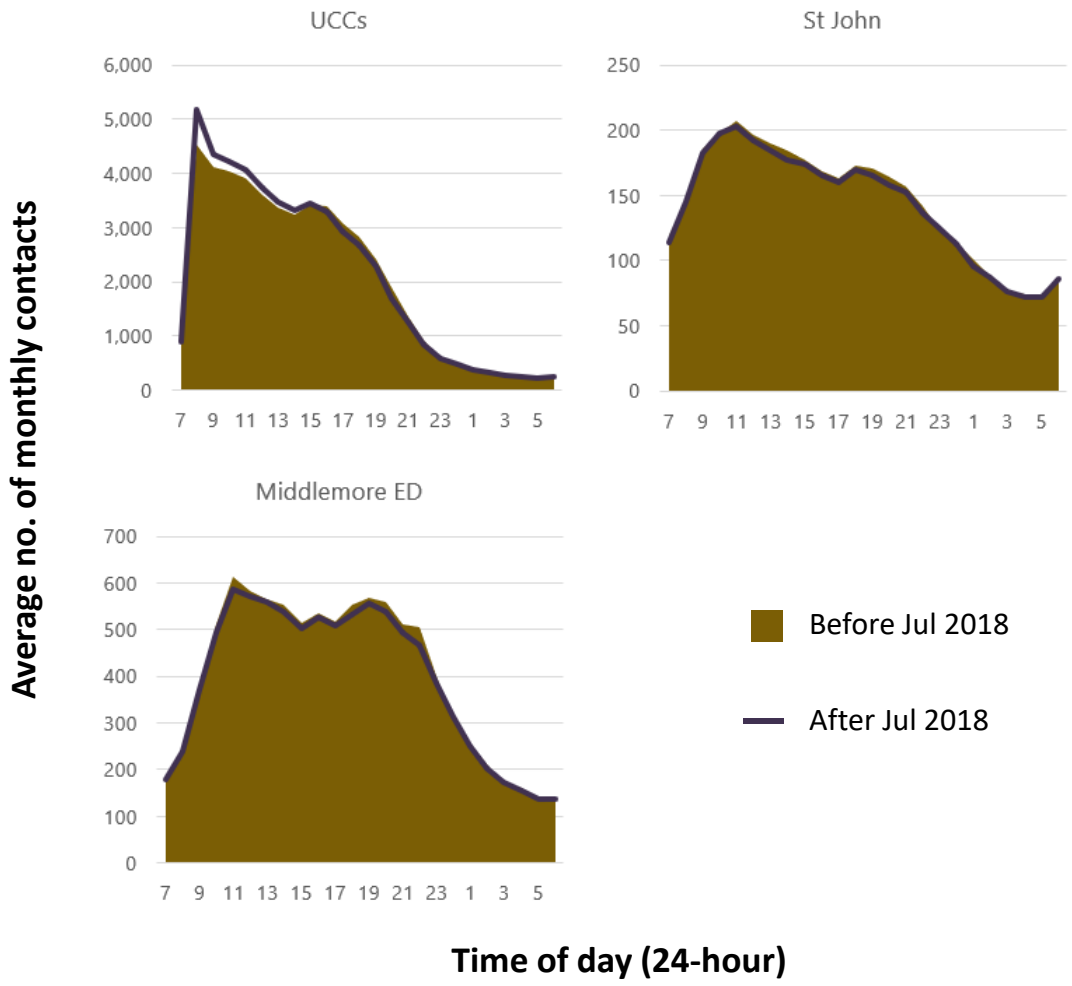
Figure 3 Average number of contacts per month - before and after Jun 18 by time of day



This is primarily driven by an increase in average monthly visits to UCCs in the early morning hours. Presentations to Middlemore ED broadly remained the same with the old and new arrangements, while responses by St John ambulance appeared to decline in the new period. Looking at St John utilisation by year reveals that this decline was driven by a smaller than usual levels of responses in 2019 (10% lower than previous years), rather than being attributable to a decline due to COVID-19 – St John utilisation in 2020 was largely consistent with 2017 and 2018 volumes.

We can also see that there is a considerable volume of utilisation of St John and Middlemore ED past 11 PM. Between 11 PM and 7 AM, St John responded to an average of 802 patients per month (27 patients per day), while there was an average of 2,023 presentations to ED per month (67 presentations per day) in the new period. Both these figures are similar to figures during these hours over the old period, suggesting there was no significant change in utilisation of these two services following the changes to the after-hours arrangements.

Figure 4 Average number of monthly contacts by service and time of day, before and after July 2018



3.2.3 Utilisation by location

While there is limited scope in being able to assess utilisation changed by patient location, an assessment of how utilisation changed across UCCs between the new and old period can provide an indication of any differences in locational impacts following the change to the new arrangements (Figure 5). In comparing the total number of visits to UCCs before and after July 2018, most UCCs had a decline in the total number of visits with the exceptions of East Care, Franklin and TCL Counties Care. However, in the case of the latter two, the scale and uniformity of increases in average utilisation across all hours of the operation (Figure 5) suggests there were other factors that resulted in this outcome beyond changes to the after-hours arrangements.

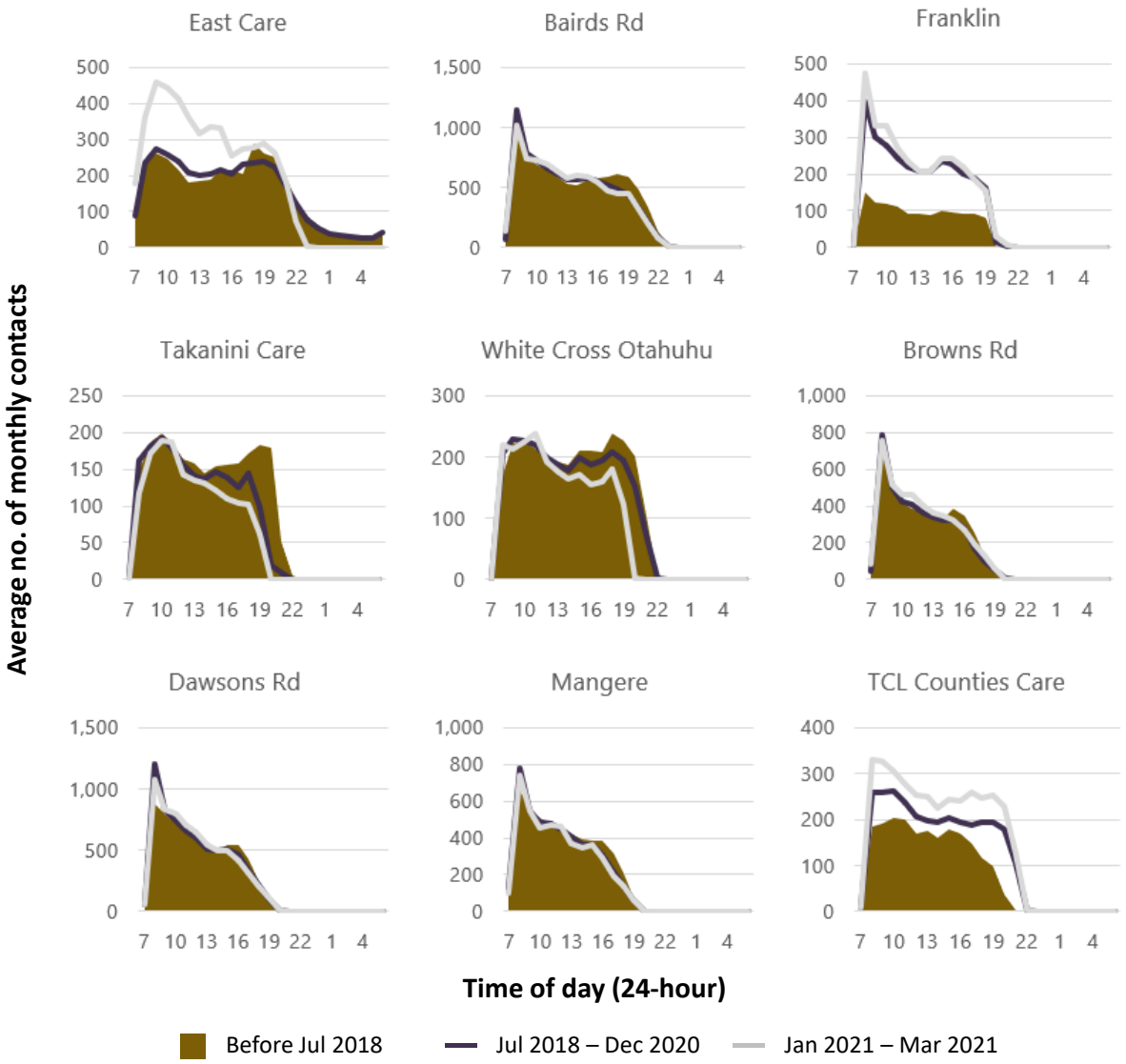
Table 2 Average number of UCC visits before and after July 2018

	Before July 2018	After July 2018	% change
Bairds Rd	8,791	8,315	-5.4%
East Care	3,744	3,773	+0.8%
Franklin	1,852	2,907	+57.0%
Takanini Care	2,245	1,924	-14.3%
White Cross Otahuhu	2,814	2,618	-7.0%
Browns Rd	4,287	4,142	-3.4%
Dawsons Rd	6,979	6,728	-3.6%
Mangere	4,986	4,699	-5.8%
TCL Counties Care	2,046	3,132	+53.0%

In considering utilisation across the time of day, a general pattern that occurs across most UCCs in the new period is an increase in the average number of visits in the early morning compared to the old period. One possible explanation for this is that patients who would otherwise have visited an after-hours service previously instead wait until the following day and going to their nearest clinic as a priority if they are still feeling unwell.

While not all UCCs offer after-hours services, we can see that there is consistent utilisation for those that offer after (5PM – 8PM) or extended (8PM – 11PM) hours. This can be most clearly seen at East Care, which has an evening peak of utilisation at approximately 7PM (260 visits per month, or approximately 9 visits per day) and a declining but consistent utilisation between 11PM and 7AM (457 visits per month of approximately 5 visits per day). Takanini Care, White Cross Otahuhu, TCL Counties and Franklin also appear to have relatively high levels of after-hours utilisation before their closures at 8PM, characterised by the evening peaks seen at 7PM for the period after 30 June 2018.

Figure 5 Average number of monthly visits by UCC and time of day, before and after July 2018



One final point to consider with respect to location is the closure of the after-hours service at East Care UCC in late 2020. Upon an initial assessment, there does not appear to be a major impact on service utilisation compared to the same period a year ago (noting that March 2020 was impacted by COVID-19 restrictions and thus reported lower utilisation across services).

Looking at UCC utilisation by time of day for the period January to March 2021, we can see a significant increase in East Care (and TCL Counties Care) in 2021, driven largely by significant increases in volume (January to March 2021 reported. Takanini Care and White Cross Otahuhu also show slight deviations in 2021 compared to their post-July 2018 figures, mostly in afternoon and evening utilisation. However, caution should be exercised in comparing averages from a 3-month period (2021) with the averages of over 30 months (July 2018 to December 2020).

Table 3 Average number of contacts, January to March 2020 vs. January to March 2021

	Jan-Mar 2020	Jan-Mar 2021	% change
Urgent care centres	38,547	39,154	+1.6%
Middlemore Hospital ED	8,917	9,209	+3.3%
St John ambulance	3,331	3,259	-2.2%
All services	50,795	51,623	+1.6%

3.3 Cohort analysis

In this section, we analyse how the utilisation of the three services changed for different cohorts before and after the changes to the after-hours arrangements.

3.3.1 Māori

Utilisation of services by Māori patients appeared to remain relatively consistent between the old and new period, with a decline in the average number of presentations to Middlemore ED being the largest charge between the two periods (Table 4). There is also a significant increase in the number of responses by St John ambulance, however as the data is incomplete during the new period, we cannot say if this is a persistent increase.

Figure 6 Total number of contacts by Maori patients by month

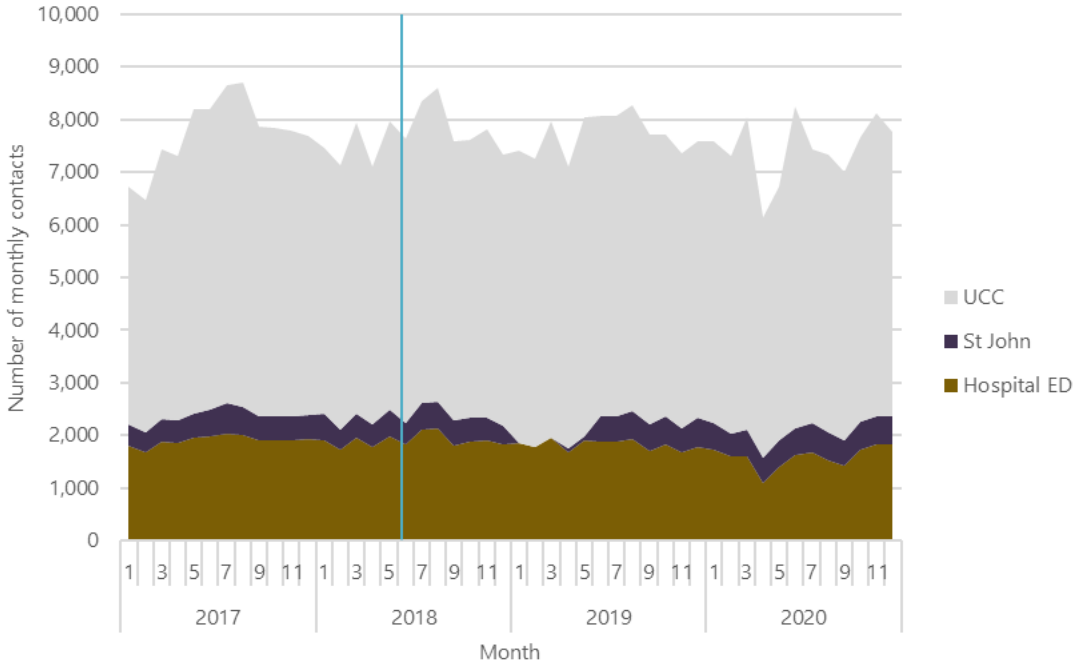


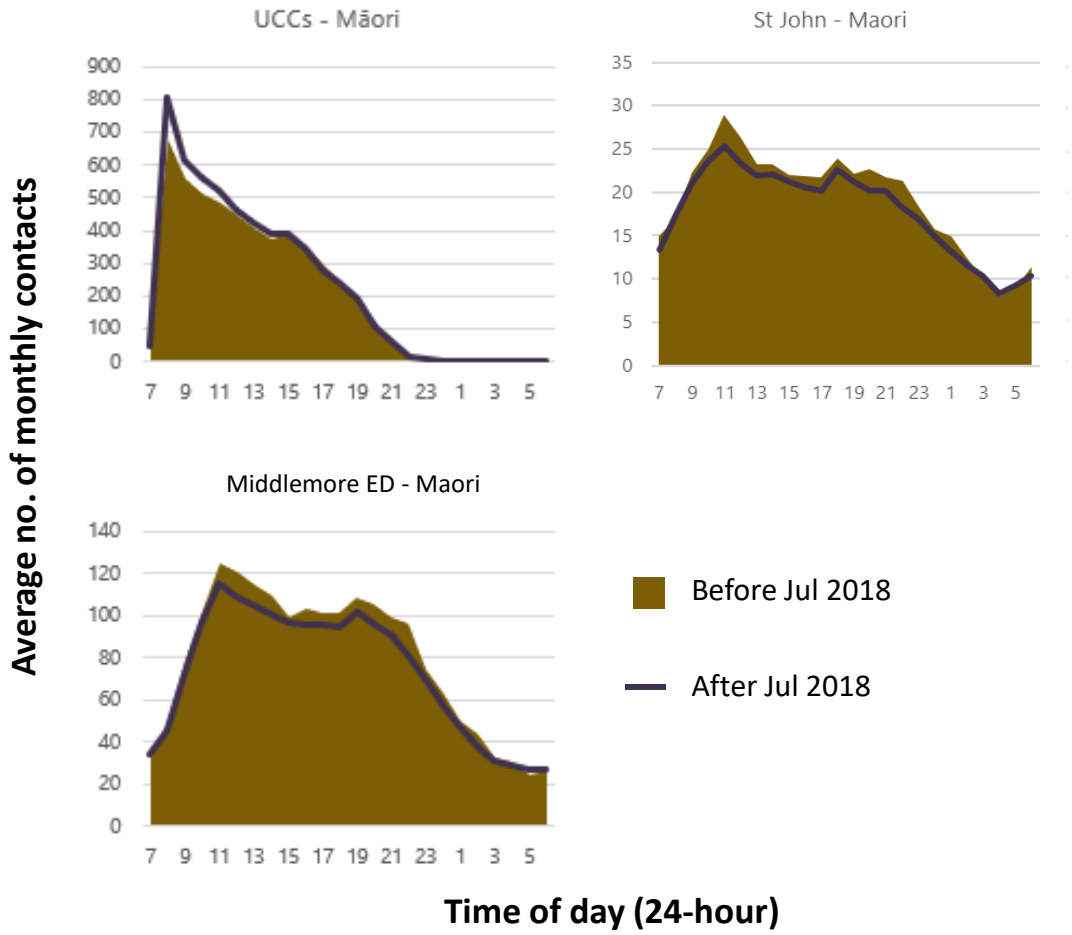
Table 4 Average number of monthly contacts by Māori patients before and after July 2018

	Before July 2018	After July 2018	% change
Urgent care centres	5,352	5,472	+2.8%
Middlemore Hospital ED	1,891	1,752	-7.3%
St John ambulance	458	494*	+7.9%
All services	7,675	7,645	-0.4%

*This figure removes the incomplete data between January to May 2019

Analysis of service utilisation by time of day reveals a similar pattern of usage as seen with the broader total population, with an increase in UCC visits in the early hours in the new period compared to the old period and a broad decline in utilisation over the course of the day in both Middlemore ED. Notably, the decline in utilisation of Middlemore ED appears to be largely driven by a large decline in 2020 (and thus, COVID-19), with utilisation in 2019 appearing broadly similar to past years, so it is unclear if this decline represents a broader trend.

Figure 7 Average number of monthly contacts by service and time of day by Māori patients, before and after July 2018



3.3.2 Over 65

Utilisation of services by patients over 65 years appeared to increase in the new period, driven largely by a significant increase in visits to UCCs in the new period (Table 5). As with the Māori patient data, the data for St John's utilisation for this cohort was incomplete and so we have made corrections to account for this missing data. The result is a moderate decline in the utilisation of St John ambulance over the period – however, this result should be interpreted with caution.

Figure 8 Total number of contacts by patients over 65 by month

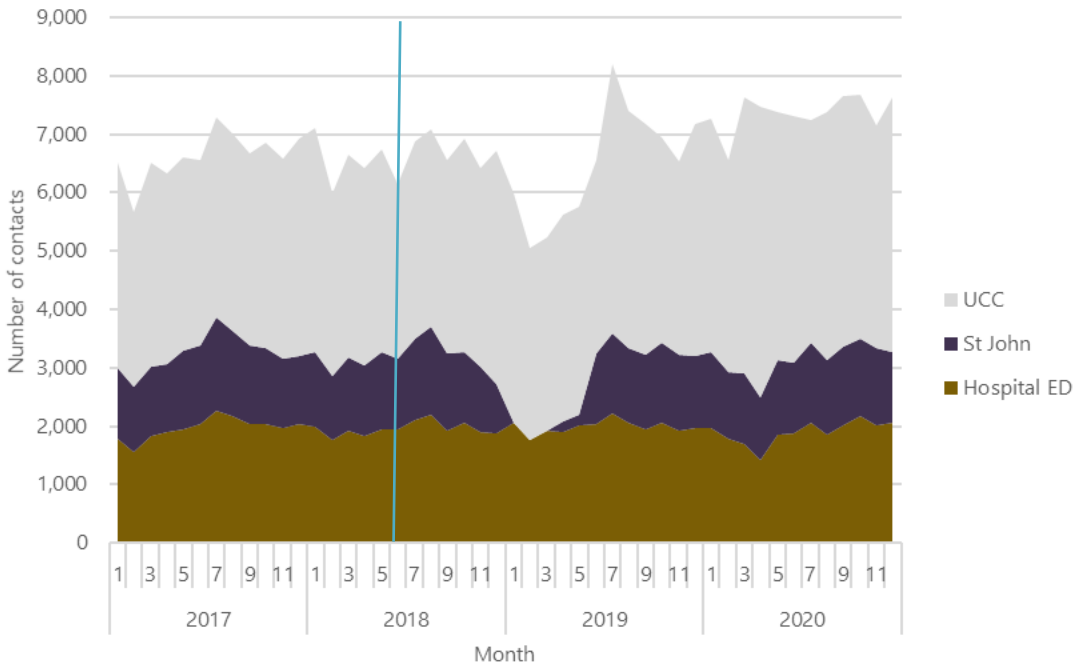


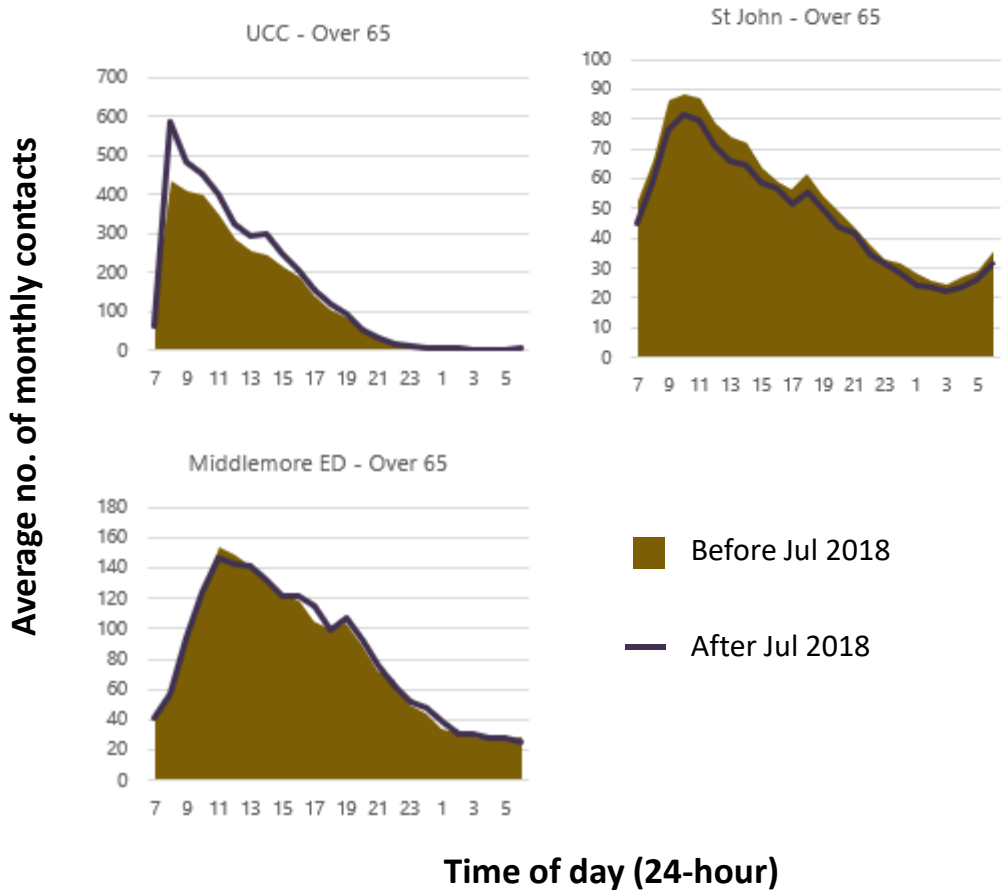
Table 5 Average number of monthly contacts by patients over 65 before and after July 2018

	Before July 2018	After July 2018	% change
Urgent care centres	3,378	3,869	+14.5%
Middlemore Hospital ED	1,942	1,954	+0.6%
St John ambulance	1,267	1,259*	-0.7%
All services	6,587	6,964	+5.7%

*This figure removes the incomplete data between January to May 2019

Analysis of service utilisation by time of day reveals a similar pattern of usage as seen with the broader total population, with an increase in UCC visits in the early hours in the new period compared to the old period and a broad decline in utilisation over the course of the day in St John responses. Visits to Middlemore ED increased slightly in the afternoon and early morning, but otherwise remained similar. Notably, the decline in utilisation of Middlemore ED appears to be largely driven by a large decline in 2020 (and thus, COVID-19), with utilisation in 2019 appearing broadly similar to past years, so it is unclear if this decline represents a broader trend or simply the impacts of COVID-19.

Figure 9 Average number of monthly contacts by service and time of day by patients over 65, before and after July 2018



3.3.3 Under 14

Utilisation of services by patients under 14 years declined across all services following July 2018, in large part due to significant reductions in service utilisation in 2020 (Table 6). Compared to other cohorts, the under 14 group tends to be more volatile in terms of average contacts across the three services in a given month. This could potentially be due to the nature of these patients being young and typically accompanied or transported by their parents/guardians (which reduces the need for St John transportation).

Figure 10 Total number of contacts by under 14-year olds by month

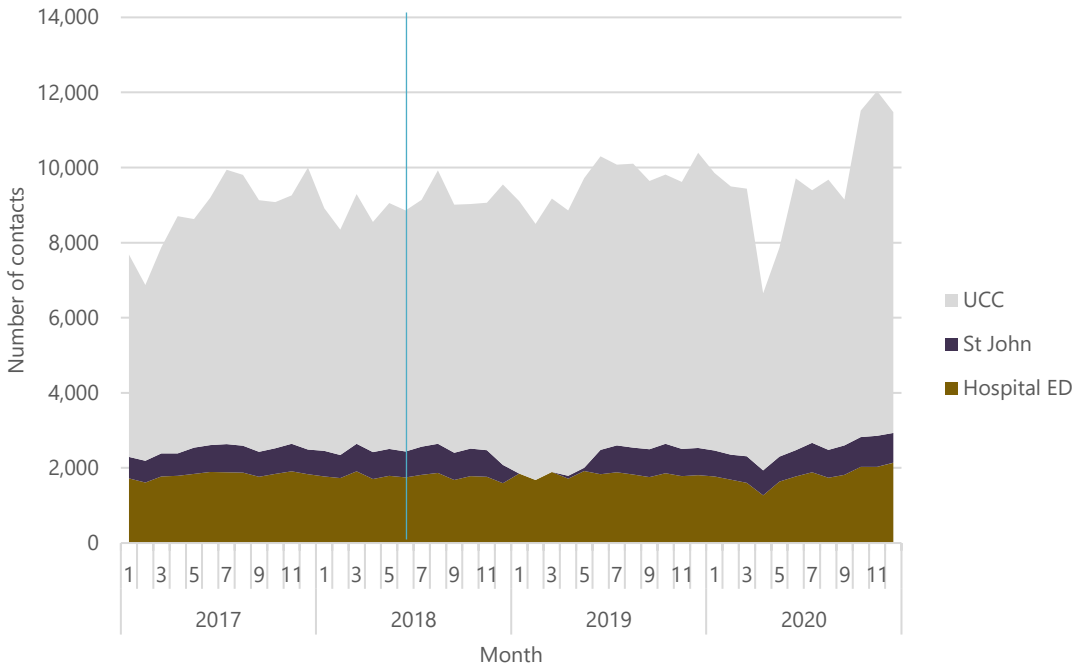


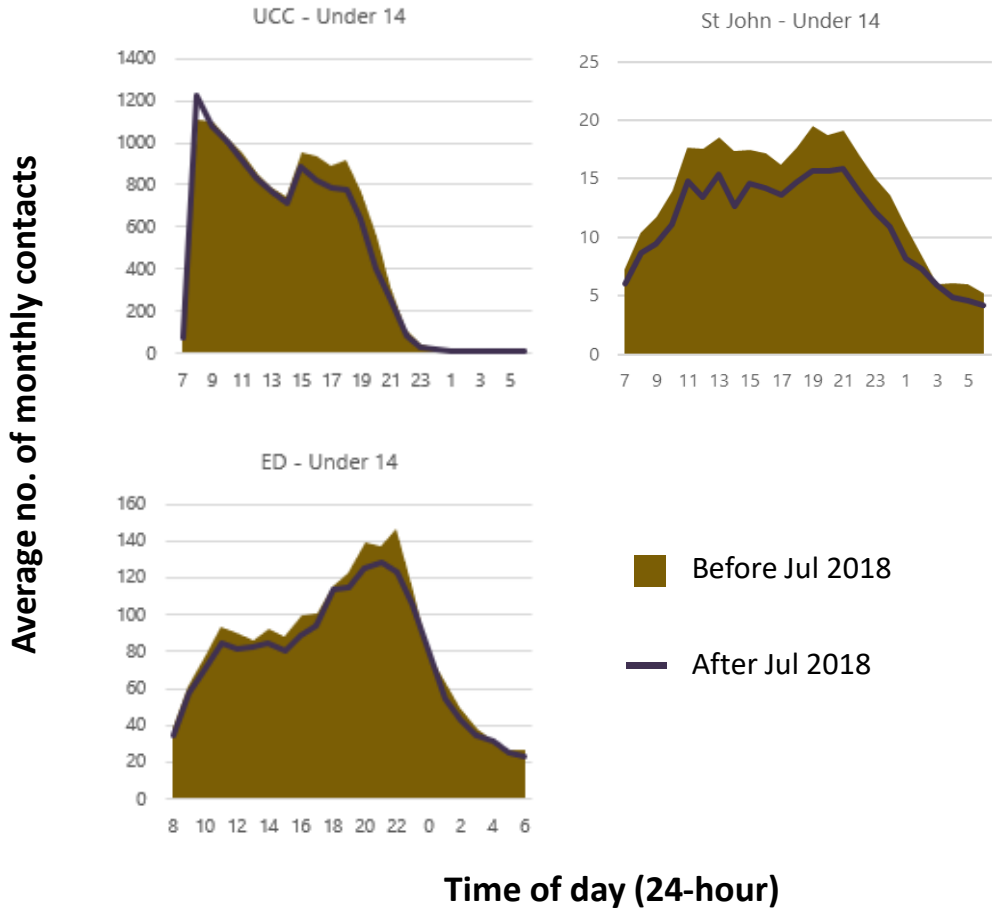
Table 6 Average number of monthly contacts by patients under 14 before and after July 2018

	Before July 2018	After July 2018	% change
Urgent care centres	12,365	11,368	-8.1%
Middlemore Hospital ED	1,945	1,786	-14.6%
St John ambulance	329	300*	-8.8%
All services	14,639	13,088	-10.6%

*This figure removes the incomplete data between January to May 2019

Analysis of service utilisation by time of day reveals a broad reduction in utilisation across most times of the day in all three services, with only a small increase in UCC visits in the early hours in the new period compared to the old period. As mentioned previously, the decline in utilisation of services appears to be largely driven by significant declines in utilisation in 2020 across all three services, with utilisation in 2019 appearing broadly similar to past years.

Figure 11 Average number of monthly contacts by service and time of day by patients under 14, before and after July 2018



3.3.4 CSC and HUHC holders

Utilisation by CSC and HUHC holders increased significantly following the change to the after-hours arrangements (Table 7). However, if we look at Figure 12, we can see that this is driven by a significant increase from the April 2019 onward in all three services, as well as a noticeable absence of data for St John and Middlemore ED between January to March 2019. Given that no major shift seems to occur in the latter half of 2018, it is questionable as to how much of the increase reported was driven by the change to the after-hour arrangements, and so we would advise caution when interpreting these figures.

Figure 12 Total number of contacts by CSC and HUHC holders by month

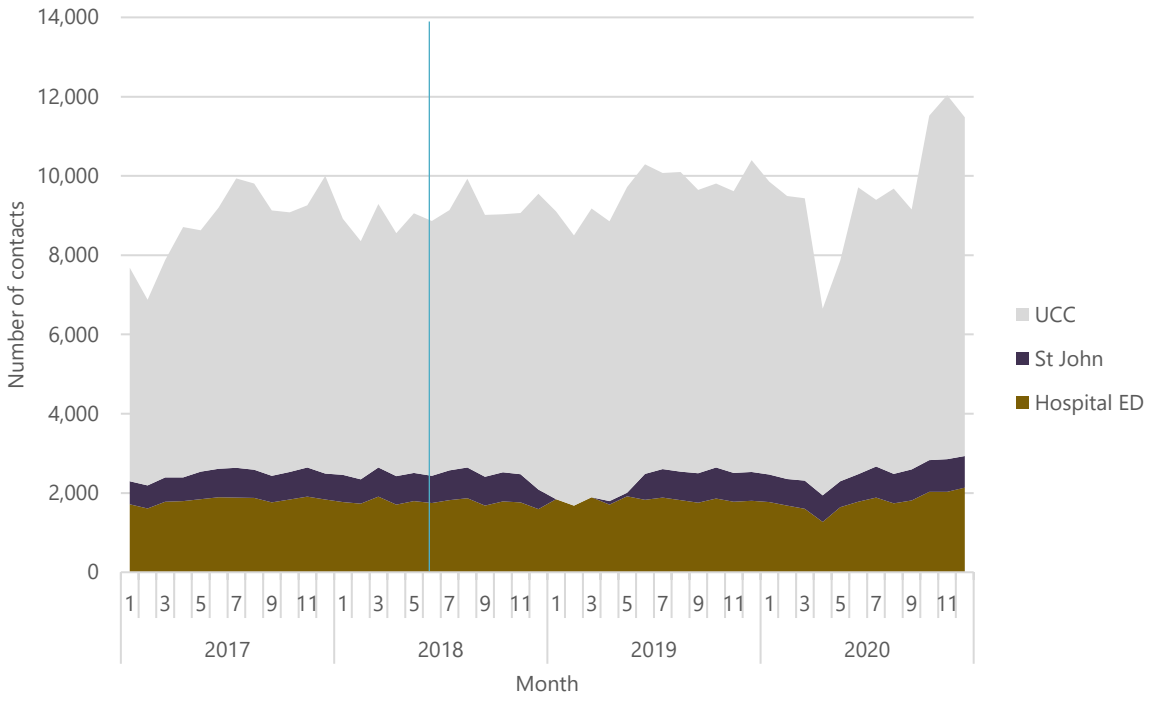


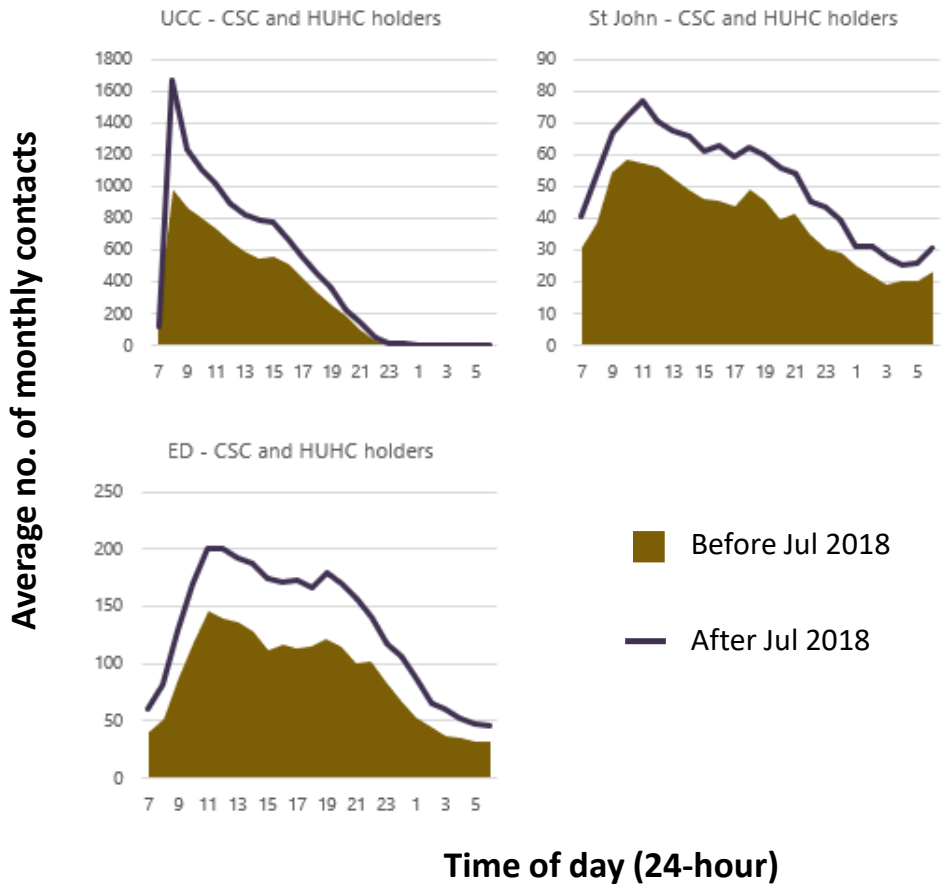
Table 7 Average number of monthly contacts by CSC and HUHC holders before and after July 2018

	Before July 2018	After July 2018	% change
Urgent care centres	7,835	11,936	+52.3%
Middlemore Hospital ED	2,130	3,388*	+59.1%
St John ambulance	933	1,498*	+53.2%
All services	10,897	17,089	+56.8%

*This figure removes the incomplete data between January to May 2019

Analysis of service utilisation by time of day reveals a broad increase across all hours of the day in all three services, which suggests that the data is likely driven by the broad increase seen in Figure 12. This makes it difficult to infer much from the changes in the old and new periods, although the pattern of use seen in the new period suggests that both St John and Middlemore ED generally have two peaks in utilisation – one in the morning (approximately 9-10 AM) and one in the evening (approximately 7-8 PM).

Figure 13 Average number of monthly contacts by service and time of day by CSC and HUHC holders, before and after July 2018



3.3.5 Deprivation quintiles

Utilisation by individuals in deprivation quintiles 4 and 5 decreased slightly changes to the after-hours arrangements (Table 8), primarily driven by a decline in the utilisation of UCCs and Middlemore ED. For the majority of the period studied, utilisation of each of the three services remained largely similar with a very slight downward trend over the period to 2021 – however, this is likely influenced by the impacts of COVID-19 over the first part of 2020, as the period following does not largely deviate from previous trends.

Figure 14 Total number of contacts for deprivation quintiles 4+5 individuals by month

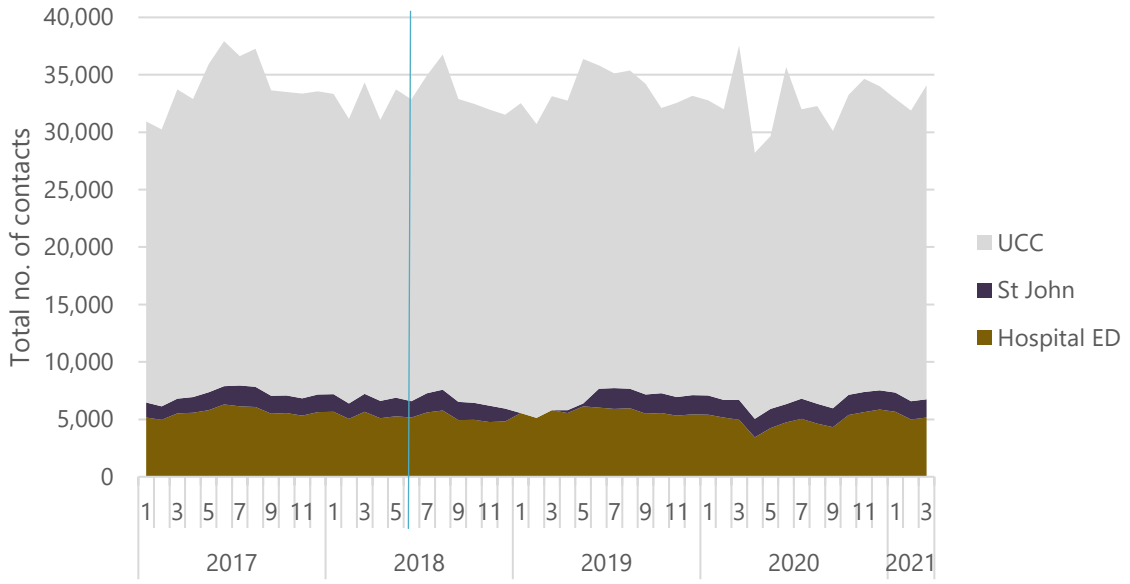


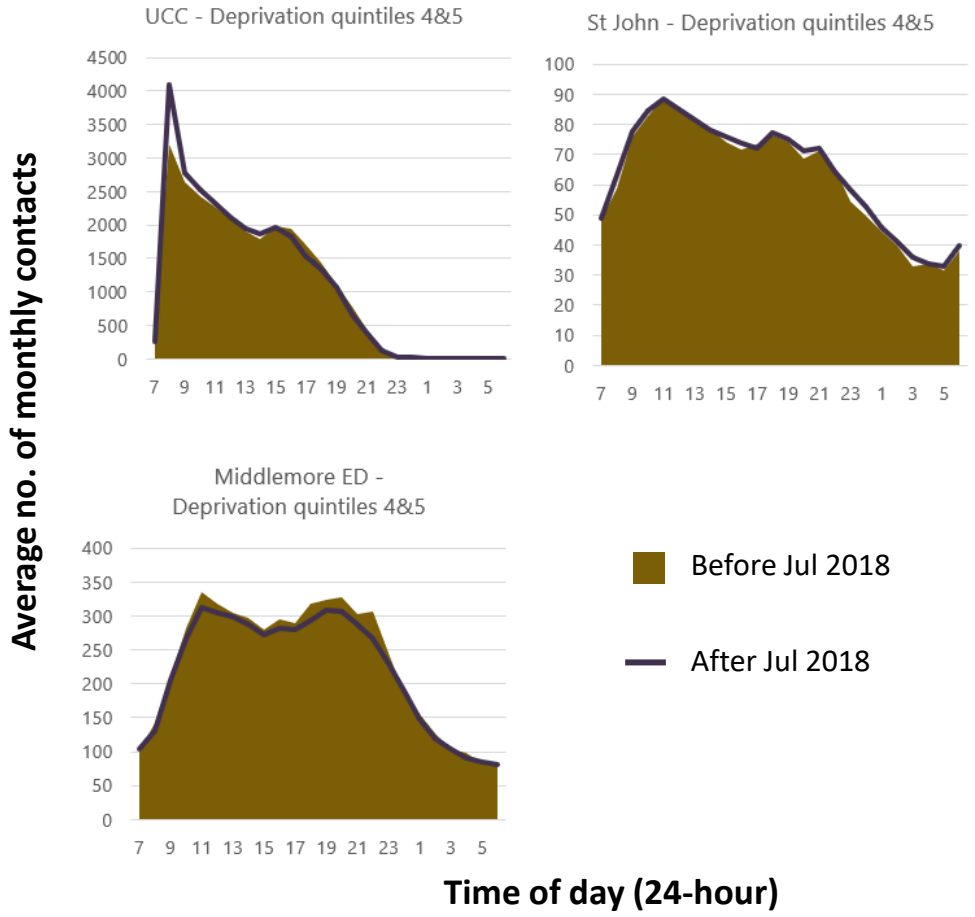
Table 8 Average number of monthly contacts by income quintile 4+5 individuals before and after July 2018

	Before July 2018	After July 2018	% change
Urgent care centres	26,652	26,534	-0.4%
Middlemore Hospital ED	5,518	5,253	-4.8%
St John ambulance	1,502	1,638*	+9.1%
All services	33,672	9,677	-0.7%

*This figure removes the incomplete data between January to May 2019

Analysis of service utilisation by time of day reveals a broad increase by the high deprivation quintile cohort in UCC utilisation in the mornings, as well as a general increase in utilisation of St John services over the course of the day. Middlemore ED utilisation largely remained the same, with slight declines in the afternoon and evening peaks. After hours usage across UCCs and ED appeared to remain fairly constant, with a slight increase in St John after 7PM.

Figure 15 Average number of monthly contacts by service and time of day for individuals in deprivation quintiles 4&5, before and after July 2018



4. Options

We set out a number of possible options for the future of overnight and extended hours services in the Counties Manukau District. Options are not necessarily mutually exclusive, but ultimately depend upon commissioning decisions about how to achieve greatest value for the communities of Counties Manukau DHB.

4.1 Main options

Restore overnight services in the East

East Care provided an overnight service for the population of East Auckland, although this has not been funded through a DHB contract since 2018. One option would be to provide funding to restore a service in the East. This option:

- Would be subject to workforce constraints, and would require time to re-establish.
- Would provide overnight services to East Auckland, with a current demand level of approximately 20 patients per 11pm-7am shift.
- Would continue to see overnight demand from Manukau and further South met by Middlemore ED.
- Will be an Urgent Care service strongly supported by local general practice.

Develop new overnight services near Middlemore

A service physically located near Middlemore could have different characteristics from the former service in East Auckland.

- A service located in Manukau or Mangere would likely have to be free or low cost at the point of care, for at least a proportion of the population, since it would be located in a community with particularly high socioeconomic need.
- Overnight care for people in East Auckland would have to be met by White Cross Ascot and Middlemore ED.
- There would likely be complex issues in distinguishing between general unmet primary care need and urgent care need, with the risk of perverse incentives to seek routine primary care through an urgent care service unless carefully designed.
- There would be improved scope for the use of Emergency Q to a geographically close service.
- There are existing Urgent Care services in the area, which do not operate overnight.
- All overnight options face challenges of workforce and small scale sustainability.

Develop new overnight services in the Southern part of the District

Populations in CMDHB are growing quickly, but the fastest growing populations are those in the South of the district, in Papakura and Franklin. A long term view might consider developing more extended hours services, and potentially overnight services, in the South. One stakeholder asserted that there would be a future need for what would effectively be a second ED in the Southern part of the district.

- A long term view may favour development of Urgent Care services in this part of the district.
- Any investment would have to be planned with a very explicit growth pathway.
- There are a number of existing services that could be built upon for extended services in this area, including those at Papakura.
- A detailed analysis of geolocated patient data will be needed to establish the potential viability of this option.
- All overnight options face challenges of workforce and small scale sustainability.

Further extend hours for existing services

Extending the hours of existing services to a consistent closing time of 11pm or later, without investing in overnight services. This option would essentially see investment in a number of existing services, with the goal of pushing to a consistent evening service time for non ED car across the district.

- This option may see higher utilisation per invested dollar than overnight options, since evening utilisation is at a higher level than overnight consultations.
- This would leave Middlemore ED as the sole overnight option for care between 11pm and 7am for the whole district.
- The workforce constraints will still be a challenge, but are likely to be less difficult than for an overnight service.
- Achieving consistent hours for Urgent Care services across the district will simplify communications for patient access.
- Having no alternative to ED for a proportion of the day may risk sending a message that ED is the default form of care ahead of Urgent Care services.

Developing a unified overnight service across Auckland

There may be the potential for a unified service across Auckland with a single team of clinicians focussed across a small number of sites, augmented by telehealth services that can provide access to care across a significant geographic area.

- This option would be a major change to the organisation of overnight and Urgent Care services, and would potentially require significant disruption to existing services.

- This option would potentially be a mechanism for developing a service with significant scale that could mitigate some of the workforce risk constraints.
- As with other options, it would be important to be clear about the cost at the point of care, and the potential interaction with routine primary health care services.
- The combination of face to face and telemedicine will require careful design.
- Establishing a single, unified system across Auckland could have benefits for communication about expectations of after hours care to local communities.

4.2 Decision factors

When considering these options, or other options that might arise, there are a number of key factors that should be considered:

1. The overall strategic goal of extending the hours of service access. A number of questions must be considered as part of this issue, including:

   - To which populations is it a priority to provide service to, and what are their needs?
   - How does any given option fit with wider strategy in service development?
   - How do options fit with Urgent Care services across the Greater Auckland region?

2. The preferred Urgent Care model. This could be a model based more upon a general practice supported Urgent Care service, or a more purely defined Urgent Care service that is distinct from general practice care. As a decision factor, this will depend upon the level of service that the service is required to provide as well as the workforce that it is expected to draw upon. This will depend upon whether the Urgent Care service is seen as working at a level that is approaching ED levels of capability, or a more constrained urgent care assessment and referral service that is a closer fit with routine primary health care.

3. Workforce constraints are the major challenge in establishing any extended hours or overnight service. Any realistic decision about after hours services will have to be made in close consultation with provider organisations about what is viable in terms of recruitment and retention of the clinical workforce, and with realistic consideration of the workforce issues.

4. Scale issues are important to sustainability. The potential scale of service will, in part, determine how vulnerable a service is to workforce and demand fluctuations.

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