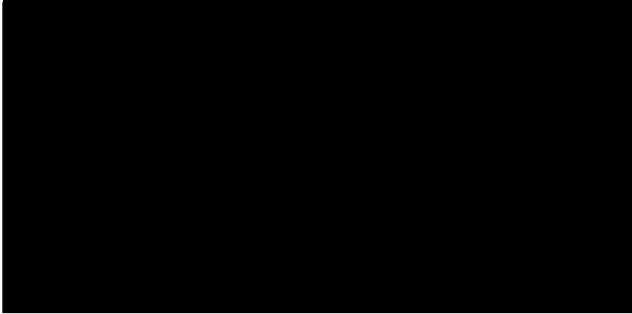


4 February 2020



Re: Official Information Act request – Cardiac Demand

I refer to your Official Information Act request dated 3 December 2019 requesting following information:

Since 1 January 2019, copies of any reports, documents, memoranda, reviews and briefings regarding cardiac treatment and surgery capacity and resource.

Information is provided below in relation to **cardiac surgery capacity and resource** at Auckland DHB for the period January – November 2019. This is management information and does not include the day-to-day operational data, from which the information is sourced.

The following reports for the last week of each month since January 2019 are attached:

1. Extract from MOS (Management Operating System) reports (Waitlists)
2. Ministry of Health cardiac surgery production reports (Surgery Throughput)

Note that these reports are produced weekly and we have assumed that one report per month is sufficient to provide a view of cardiac surgery capacity and resource over this period. In some cases, there were no reports for the last week of the month due to internal resource constraints or a public holiday at that time so the reports for the first week in the month following are included instead. Draft versions of these reports are not included.

Adult Cardiovascular Directorate

The following information is extracted from the Cardiovascular Directorate Quarterly Review report for November 2019. Note that previous quarterly reports in 2019 did not contain any information related to cardiac surgery capacity and resource.

CTSU¹ Delivery, Waiting List

The CTSU waiting list remains relatively stable despite growth in TAVI² procedures (which could have reduced demand on surgical waitlist). Weekly delivery remains significantly below the MOH target with variance averaging - 25%. The theatre capacity required to meet the MOH target is currently not available and changes to the model of care and lengthening the working day would be required to meet this. However, at present demand, i.e. referrals for surgery, would not support this level of throughput. As PVS³ is predicated in part on delivery close to the MOH target, this makes recurrent significant financial under-delivery highly likely. Further modelling work is being done to understand this better, as this will impact on decisions relating to the theatre staffing model and possible need for investment in staffing. Changes to the model of care to ensure some increase in capacity, ideally with phased approach to lengthening working days in theatres, is however essential to service delivery, particularly as the trend data advises the cardiac surgery service is at its peak during October/Nov/December with growth in P1 workload and emergency care. Waitlist and patient waiting times will need to be managed closely.

Further information is provided in the Hospital Advisory Committee (HAC) reports for March, June, September and November 2019, available [here](#).

Auckland DHB has a number of initiatives underway to improve the delivery of cardiac surgery. These are listed below:

- Cardiovascular Intensive Care Unit (CVICU) patient flow improvements to reduce the incidence of bed unavailability in CVICU – Enhanced Recovery After Surgery (ERAS) pathway and early discharge from CVICU to the ward for appropriate patients
- Patient transfer improvements from CVICU to enable transfer of more patients in the morning to improve access to CVICU beds for post-operative care.
- Patient discharge improvements from the ward – early blood round and X-rays (6am) to facilitate early patient discharge home and allow early transfer from CVICU to free up CVICU beds.
- Regular review and analysis of operating room utilisation and staffing to optimise scheduling and production
- Improved thoracic pathway to identify patients that do not need post-operative high dependency care to free up capacity.
- Trialling TAVI procedures in the Cardiac Intensive Care Unit (CIU) rather than the operating rooms to enable additional Aortic Valve Repairs (AVRs) to be scheduled.

¹ CTSU – CardiacThoracic Surgical Unit

² TAVI - Transcatheter aortic valve implantation

³ PVS – Price Volume Schedule

Starship Child Health

The Paediatric Cardiac and Congenital Service (PCCS) produces a range of operational reports which are variously detailed and relate to specific aspects of service performance. During 2019, PCCS provided a summary of the service's performance for Radio New Zealand, the Ministry of Health and for the patient and family support organisation Heart Kids. These summaries are provided below:

As context, it should be noted that on 29 January 2020, the Government announced a \$300 million capital investment in health, which included \$25 million to expand Starship's Paediatric Intensive Care Unit (PICU).

This \$25 million will deliver extra capacity for this national service to meet the growth in demand. The expansion project will see the number of beds in PICU increase to more than 30. Construction is planned to begin in early 2021.

The information below was provided to Radio NZ and the Ministry of Health before this funding was confirmed.

Summary provided to Radio New Zealand (July 2019)

- Starship's surgeons are the only paediatric cardiac surgeons permanently employed within New Zealand's public health system. However, there are a number of excellent, experienced locum surgeons who provided support on a temporary basis.
- The locum surgeons are specialist paediatric cardiac surgeons and they will be providing full-time cover between August and December.
- Starship's Paediatric and Congenital Cardiology Service (PCCS) runs around 100 PCCS outreach clinics across both North and South Island, each year. The clinics are planned with the local DHBs and scheduled throughout the year. Any minor change to the number of clinics from one year to the next, is based on the local DHB's clinical need and demand.
- Clinics may on occasion be postponed or affected by flight delays or cancellations, or by staff sickness. For example, a clinic in Palmerston North earlier this year was affected by a clinician's flight being delayed. In these situations, we work with the local DHB to reschedule the clinic.
- We started the recruitment process for a third paediatric cardiac surgeon in early June.
- We are currently recruiting for a third paediatric cardiac surgeon and expect to make that appointment in the next 8-12 weeks.
- We have been managing demand since one of our surgeons left in 2017. We are continuing to conduct high numbers of surgeries, with 402 surgeries conducted in 2018, compared with 390 in 2016.
- Currently there are 55-65 children on average on the wait list. In previous years this has typically been around 40-50 children. The increase is related to intensive care unit and surgical capacity.
- We will continue to review the wait list and prioritise children for surgery, according to clinical need.

- At times, surgeries do need to be rescheduled and so some patients may not receive surgery as promptly as they, their whānau or we would like. This is due to a number of factors but it is always informed by the clinical need of all our patients.
- There are 22 intensive care unit (ICU) beds in Starship. Since 2016, the number of staffed ICU beds has increased from 17 to 22 to manage demand.
- The Paediatric Intensive Care Unit (PICU) at Starship is a combined general and cardiac intensive care facility. It provides pre- and post-operative care for children undergoing treatment for congenital cardiac conditions. There is work underway to explore further expanding our Paediatric Intensive Care Unit bed capacity.

Summary provided to Ministry of Health – November 2019

The Paediatric and Congenital Cardiac Service (PCCS) is a national service based at Starship Hospital. This service is the sole provider of cardiology and cardiac surgical services for infants and children with congenital and acquired heart disease in New Zealand and parts of the Pacific Basin. We provide cardiac care across the life spectrum with a foetal cardiology service through to care of those born with congenital heart disease who are now adults (adult congenital heart disease - ACHD).

There are currently 65-75 children on average on the waiting list, this compares with a typical average of around 55-65 children.

The service performs a high volume of acute surgeries and surgery on infants less than one year old. The wait list is continually prioritised to manage the safety of all patients.

There are currently two significant impacts on elective surgical waiting times, Paediatric Cardiac Surgeon capacity and post-operative intensive care bed capacity. Surgeon capacity is being addressed with locums, a new recruit in December 2019 and a further new recruit expected in early/mid-2020. However because we have reduced surgeon capacity, we are currently running one, rather than 2 operating rooms. This was planned, allowing us to maintain clinical safety and also allow for leave and to prevent excessive workload on current surgeons. We will be increasing back to two operating rooms in December.

Paediatric Intensive Care capacity was increased significantly (approximately 35%) over the last 3-4 years with investment from both the MoH PCCS support (2 beds) and ADHB (4 beds). PICU nurse recruitment is on-going and will be complete in Q3 2019/20, at which time all PICU beds are resourced. Beyond 2020 PICU will require an expansion of the current physical facility and a business case for this is in development. As part of the ADHB critical care strategy, we have done extensive modelling of critical care demand and capacity to ensure we understand the future requirements and can plan for these. This is informing the PICU physical bed business case.

Waiting times have increased in Q1 2019/20, largely due to the impact of acute patients and access to post-operative beds. The expected ESPI 5 performance for the balance of this financial year is as below. We have not recovered at the rate we were initially predicting, due to acute workload and the surgeon and PICU capacity issues above. We expect that waiting times will peak in Q2 and will start to see significant recovery in Qs 3 and 4 as we increase surgeon and OR capacity.

	ESPI-5 WL		ESPI-5 Non-Compliance Volume		ESPI-5 Non Compliance %	
	A CHD	Paed Cardiac	A CHD	Paed Cardiac	A CHD	Paed Cardiac
18/19 Q4	20	73	2	4	10.0%	5.5%
19/20 Q1	20	88	2	15	10.0%	17.0%
19/20 Q2	18	95	5	20	27.8%	21.1%
19/20 Q3	17	82	4	10	23.5%	12.2%
19/20 Q4	17	74	3	8	17.6%	10.8%

Summary provided to Heart Kids September 2019

Please see attached.

You are entitled to seek a review of the response by the Ombudsman under section 28(3) of the Official Information Act. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Please note that this response, or an edited version of this response, may be published on the Auckland DHB website.

Yours faithfully

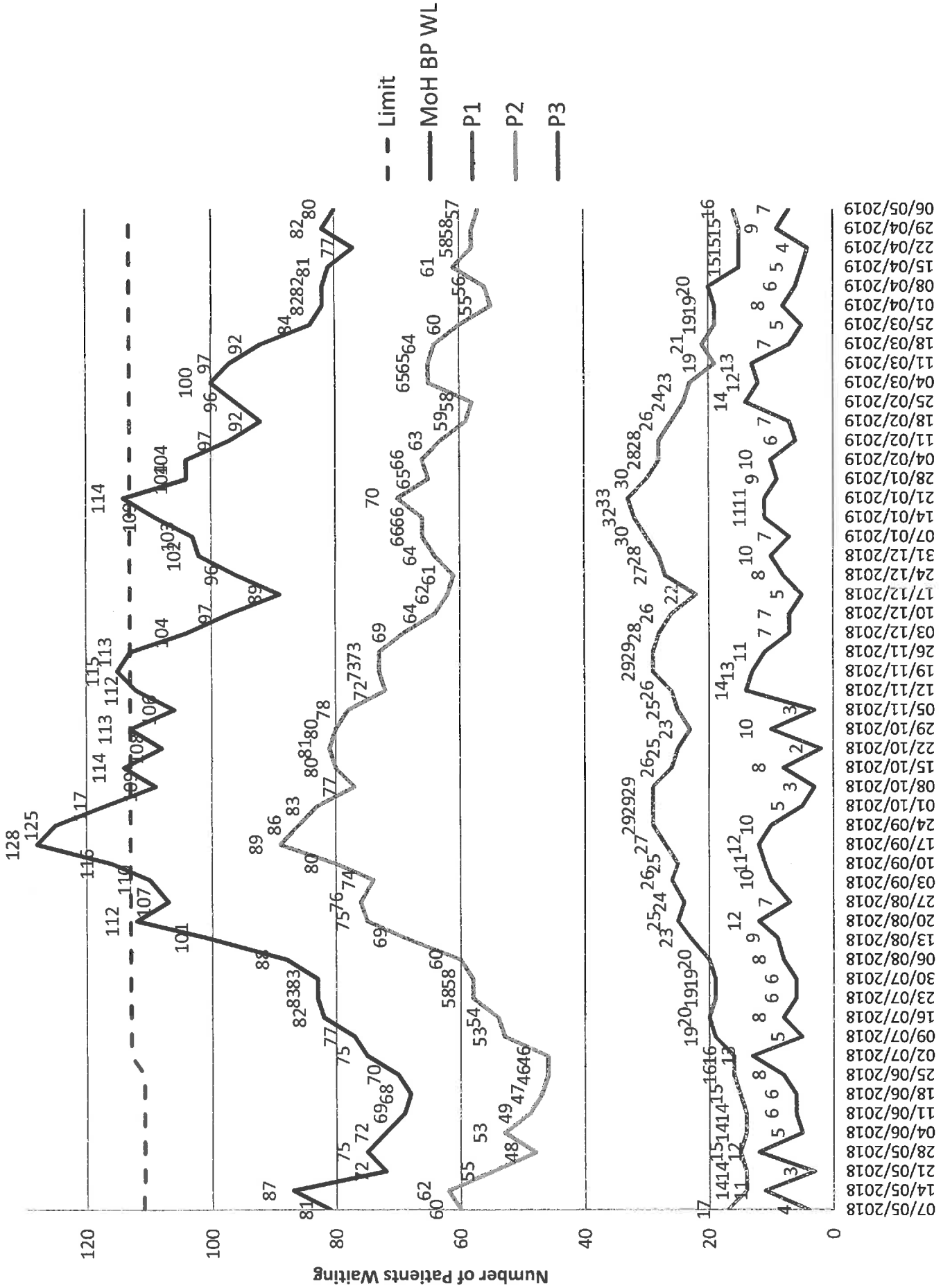


Ailsa Claire, OBE
Chief Executive

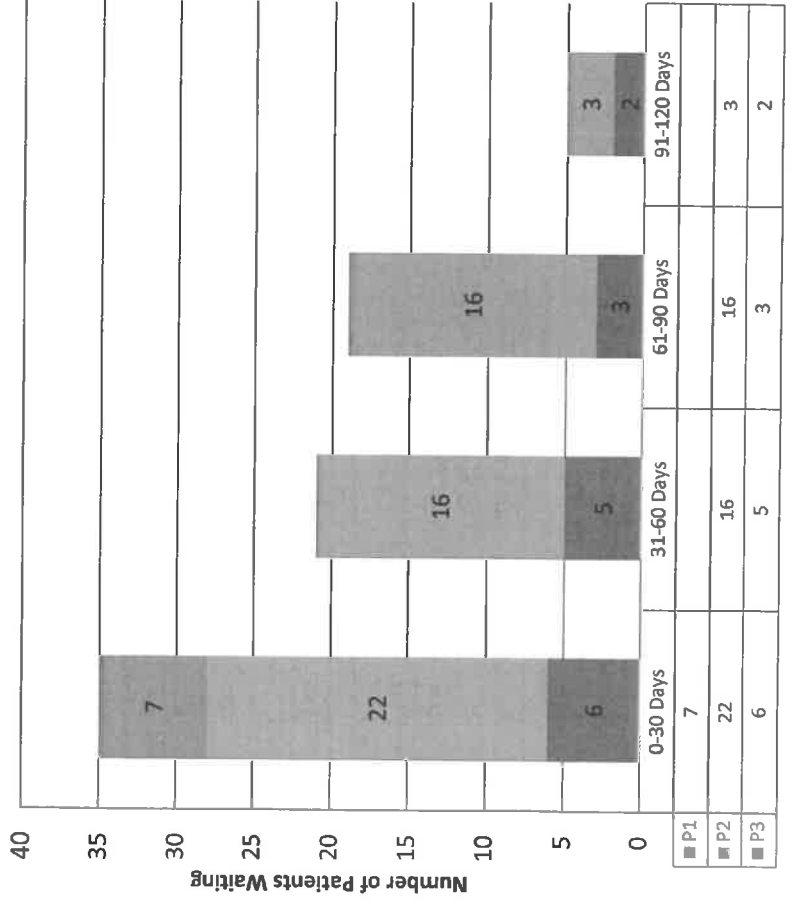
Waitlists

CTSU	Targets
↳ Bypass Wait List: 80	113 patients (MoH); 85 (ADHB)
↳ 7 P1	10 days (MoH)
↳ 57 P2	30 days (MoH)
↳ 16 P3	120 days (ESPI5)

CTSU MoH BP Waitlist



CTSU MoH BP WL Breakdown



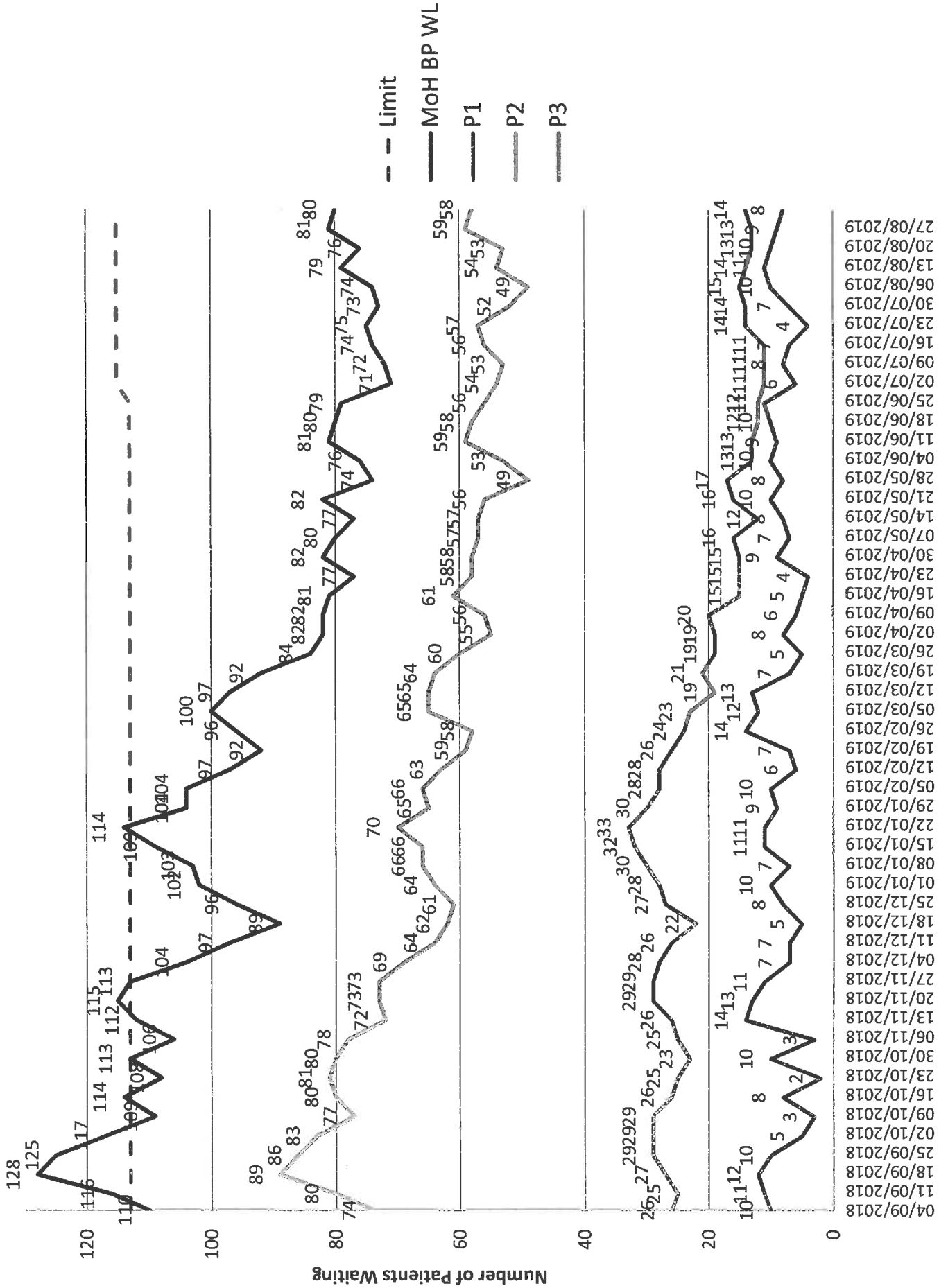
Waitlists

CTSU

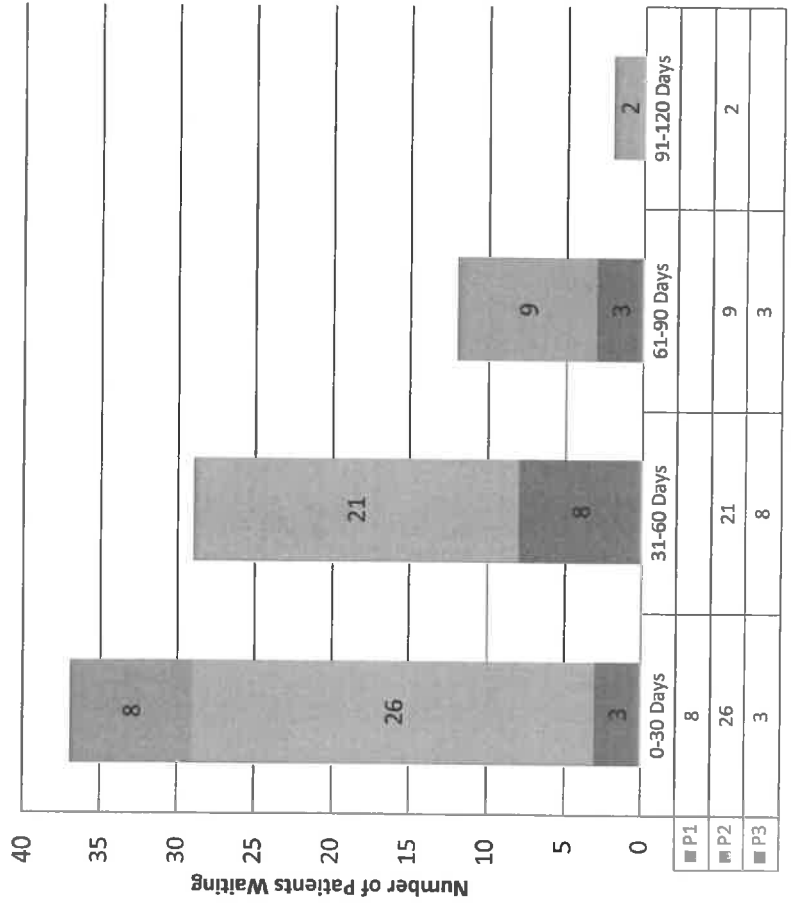
	Targets
↗ Bypass Wait List: 80 ↗ 8 P1	115 patients (MoH); 85 (ADHB) 10 days (MoH)
↗ 58 P2 → 14 P3	30 days (MoH) 120 days (ESPI5)

CTSU MoH BP Waitlist

Updated 2nd July 2019



CTSU MoH BP WL Breakdown

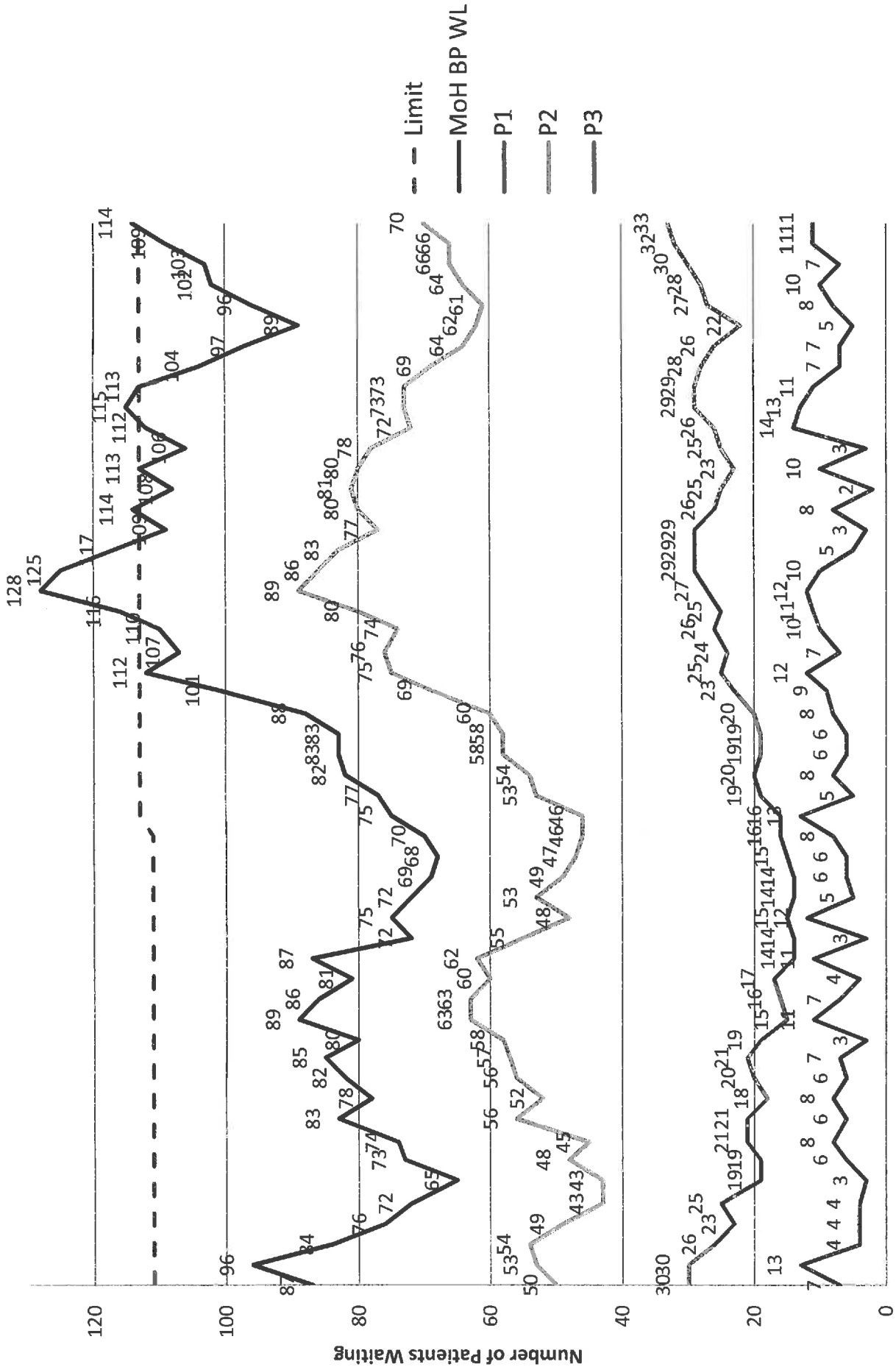


Waitlists

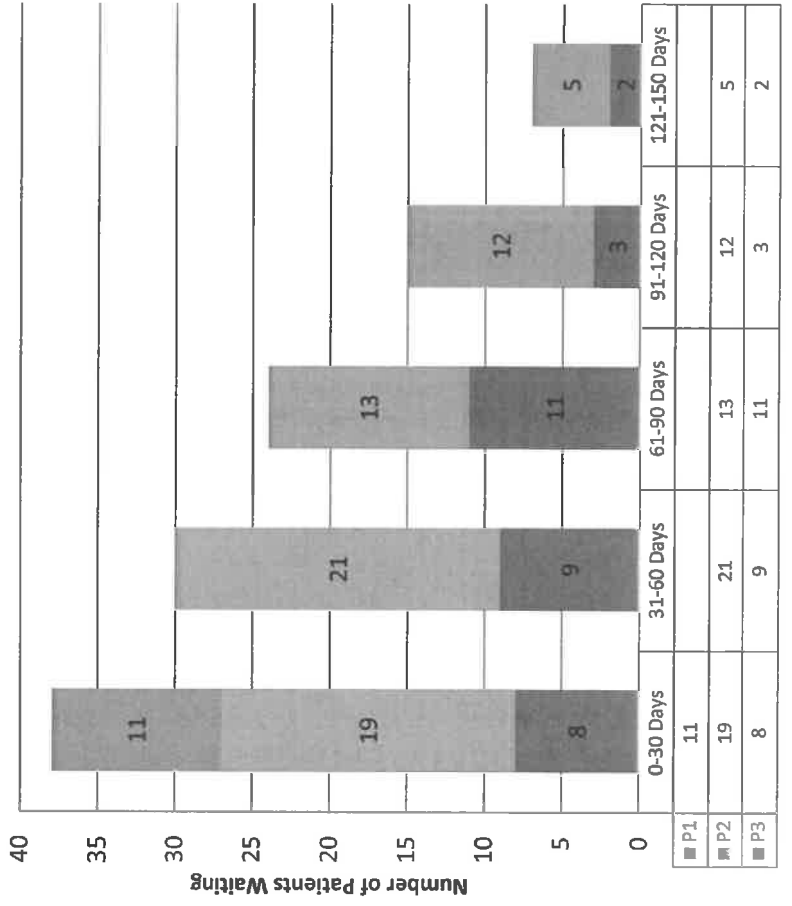
CTSU	Targets
↗ Bypass Wait List: 114 → 11 P1	113 patients (MoH); 85 (ADHB) 10 days (MoH)
↗ 70 P2	30 days (MoH)
↗ 33 P3	120 days (ESPI5)

CTSU MoH BP Waitlist

Updated 21st January 2018



CTSU MoH BP WL Breakdown



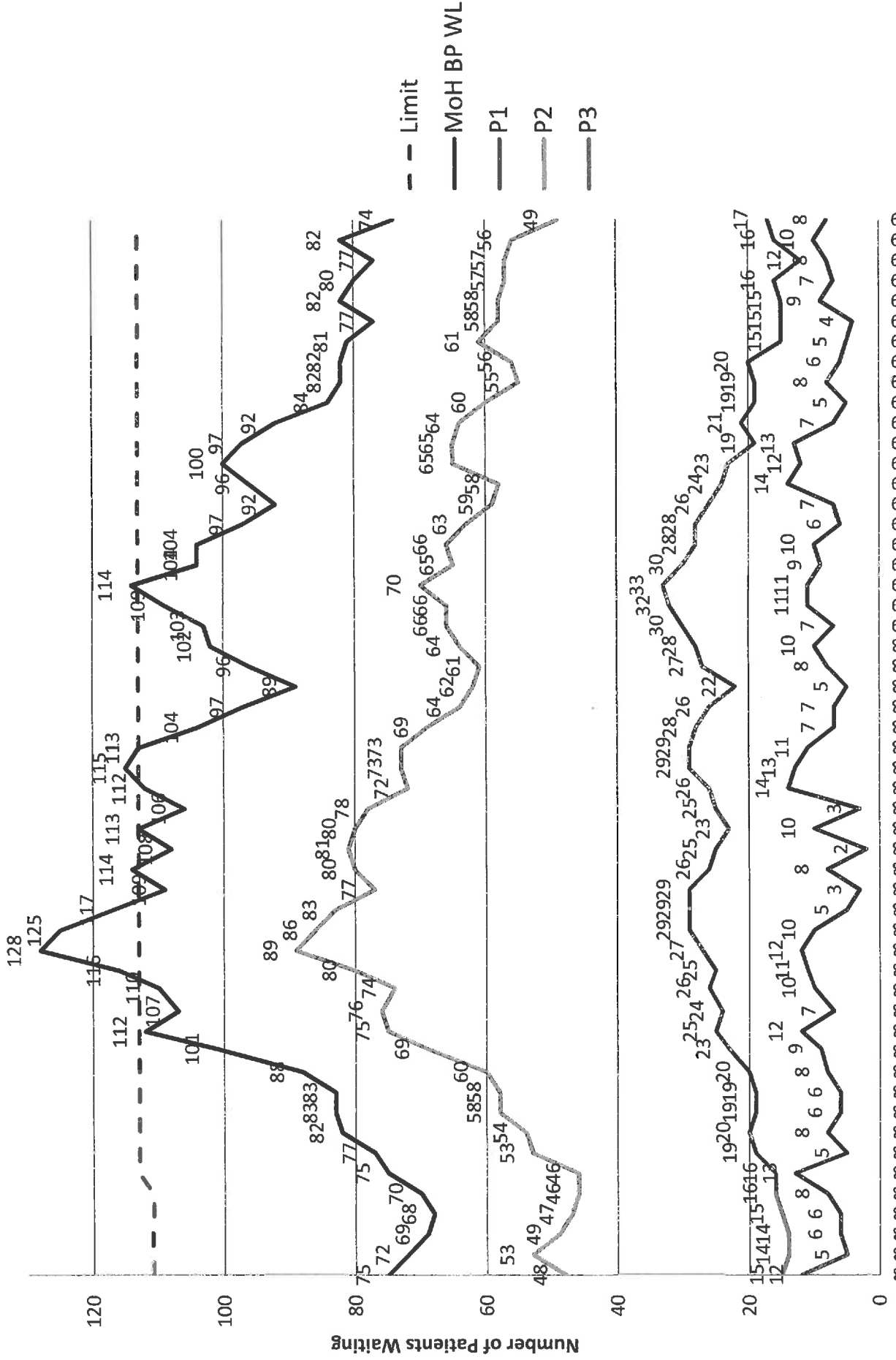
Waitlists

CTSU

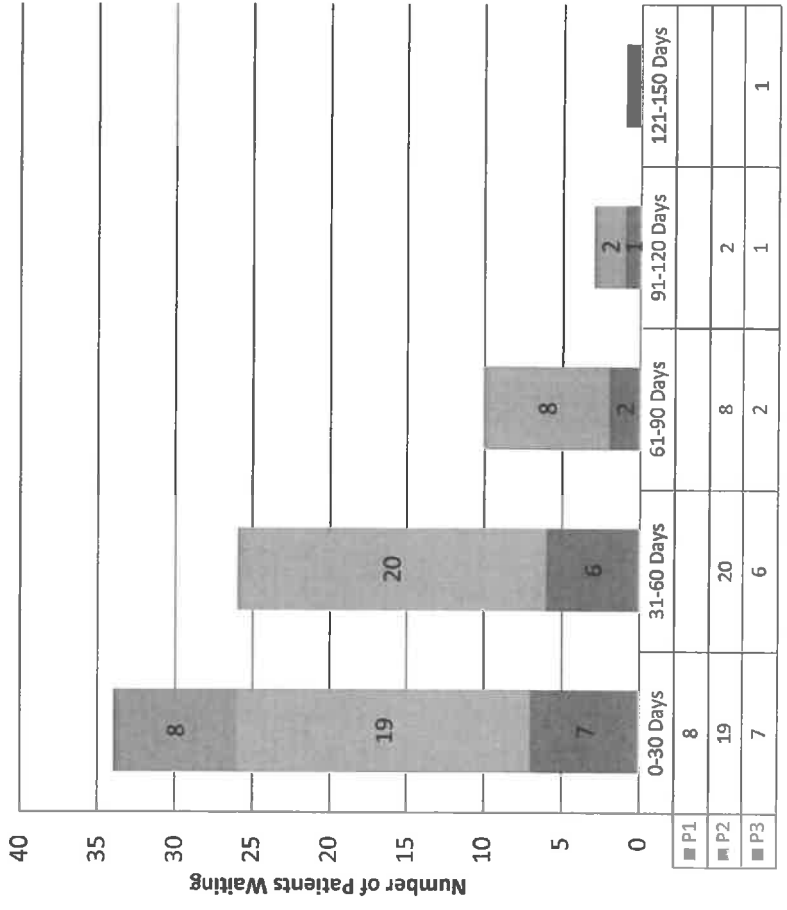
	Targets
↳ Bypass Wait List: 74 ↳ 8 P1	113 patients (MoH); 85 (ADHB) 10 days (MoH)
↳ 49 P2	30 days (MoH)
↳ 17 P3	120 days (ESPI5)

CTSU MoH BP Waitlist

Updated 27th May 2019



CTSU MoH BP WL Breakdown



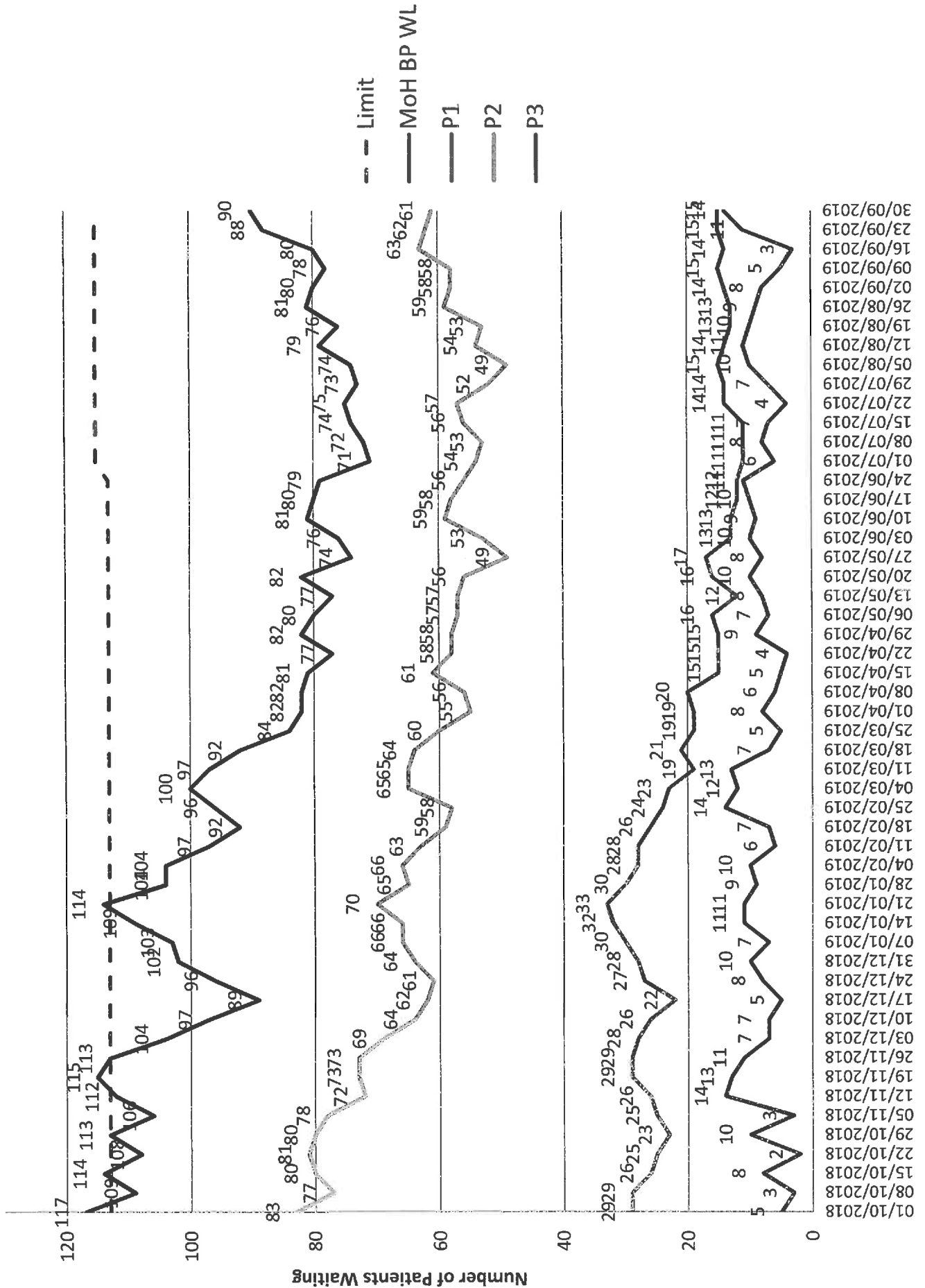
Waitlists

CTSU

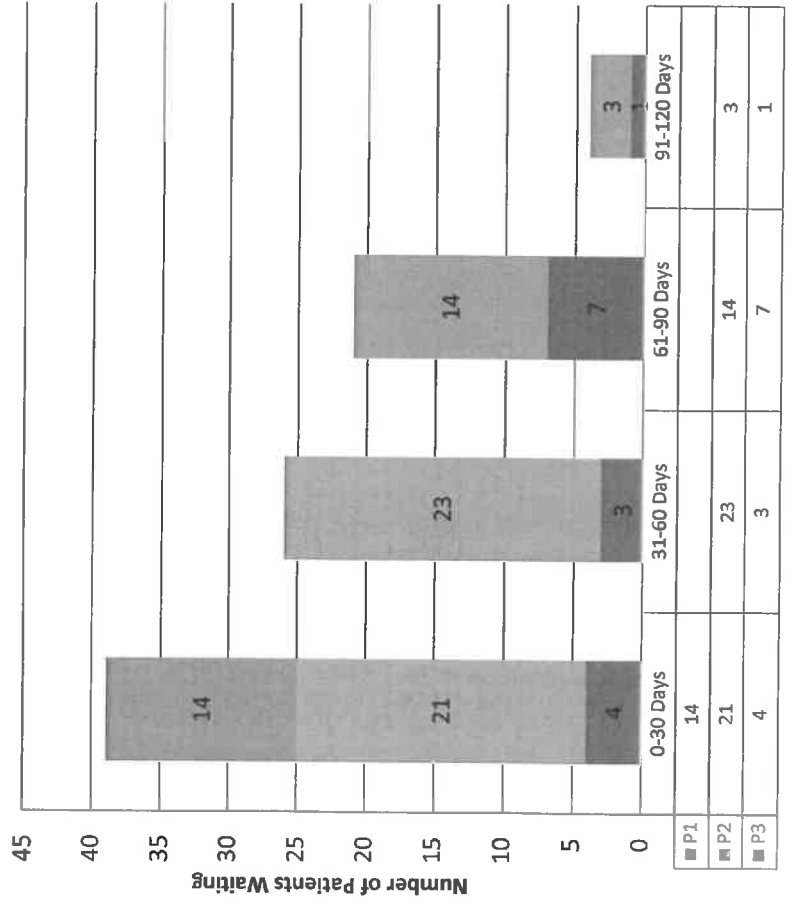
	Targets
↗ Bypass Wait List: 90 (Total 138)	115 patients (MoH); 85 (ADHB)
↗ 14 P1 (Longest wait 12 days)	10 days (MoH)
↘ 61 P2 (Longest wait 109 days)	30 days (MoH)
→ 15 P3 (Longest wait 94 days)	120 days (ESPI5)

CTSU MoH BP Waitlist

Updated 30th September 2019



CTSU MoH BP WL Breakdown



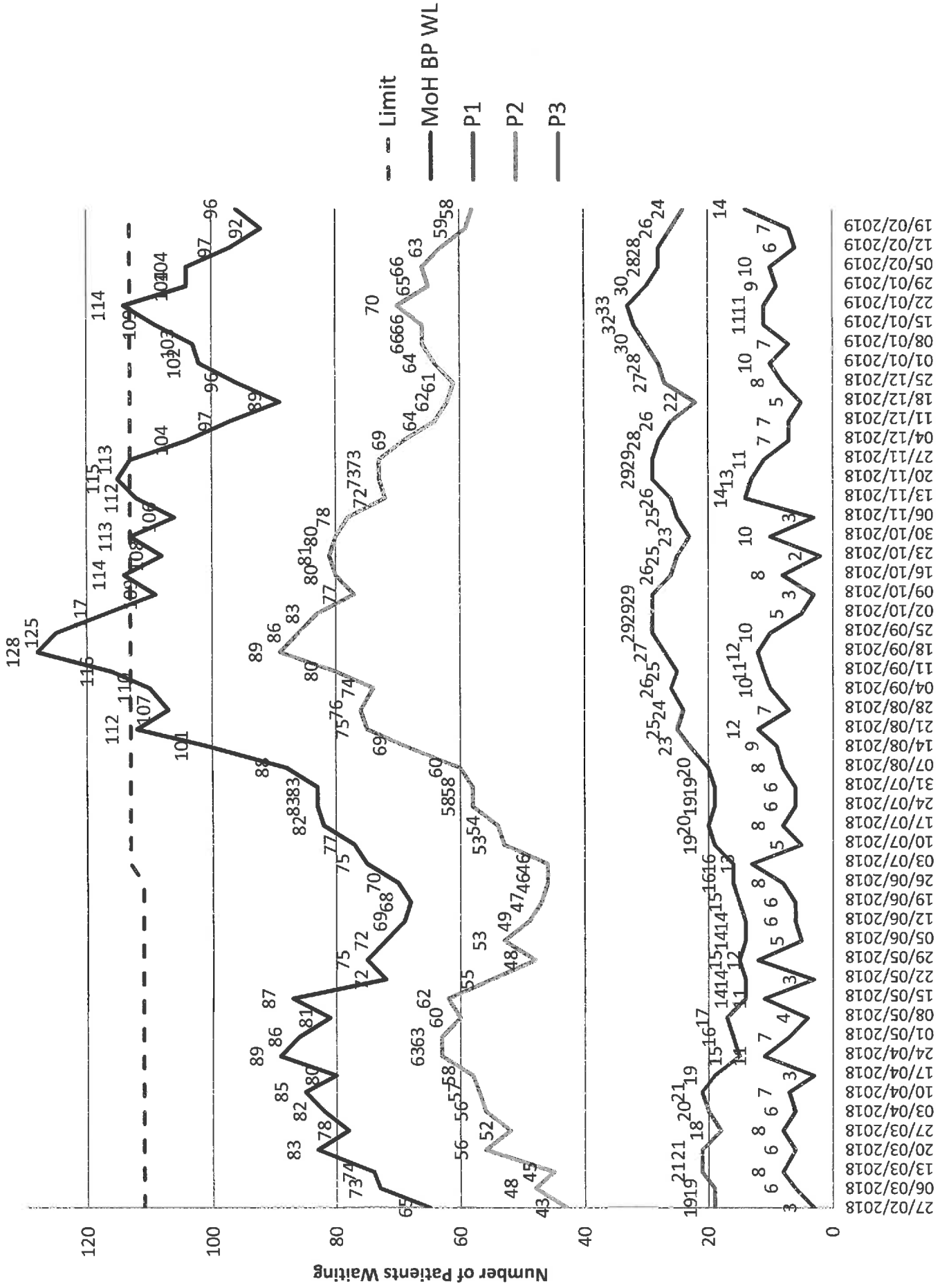
Waitlists

CTSU

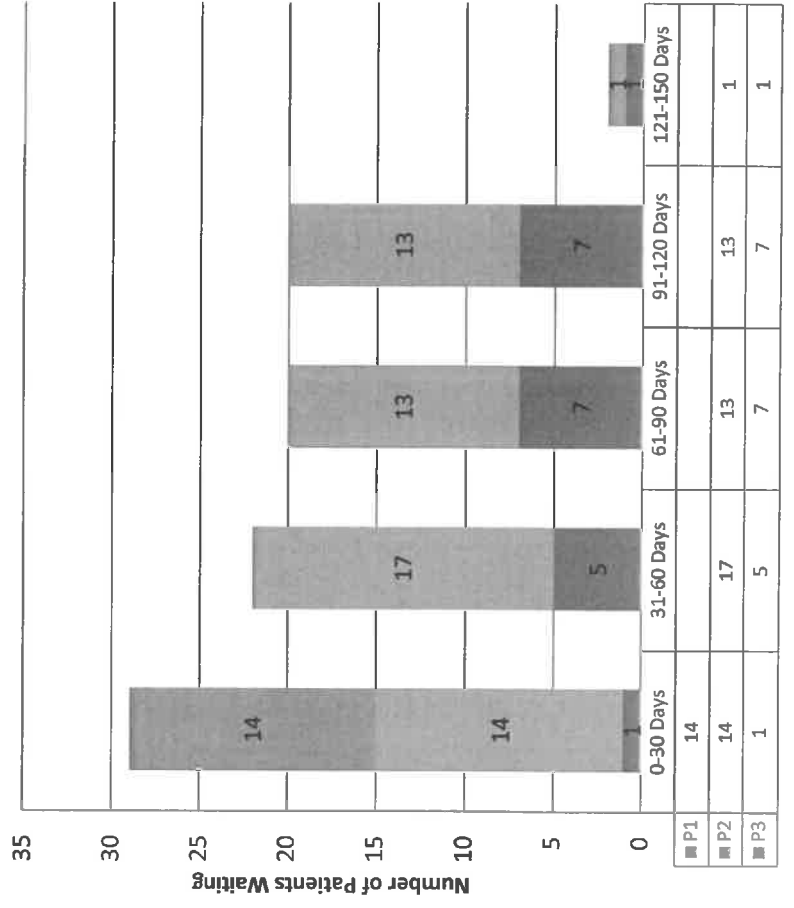
	Targets
↗ Bypass Wait List: 96 (Total 136)	113 patients (MoH); 85 (ADHB)
↗ 14 P1 (Longest wait 7 days)	10 days (MoH)
↘ 58 P2 (Longest wait 122 days)	30 days (MoH)
↘ 24 P3 (Longest wait 125 days)	120 days (ESPI5)

CTSU MoH BP Waitlist

Updated 25th February 2019



CTSU MoH BP WL Breakdown

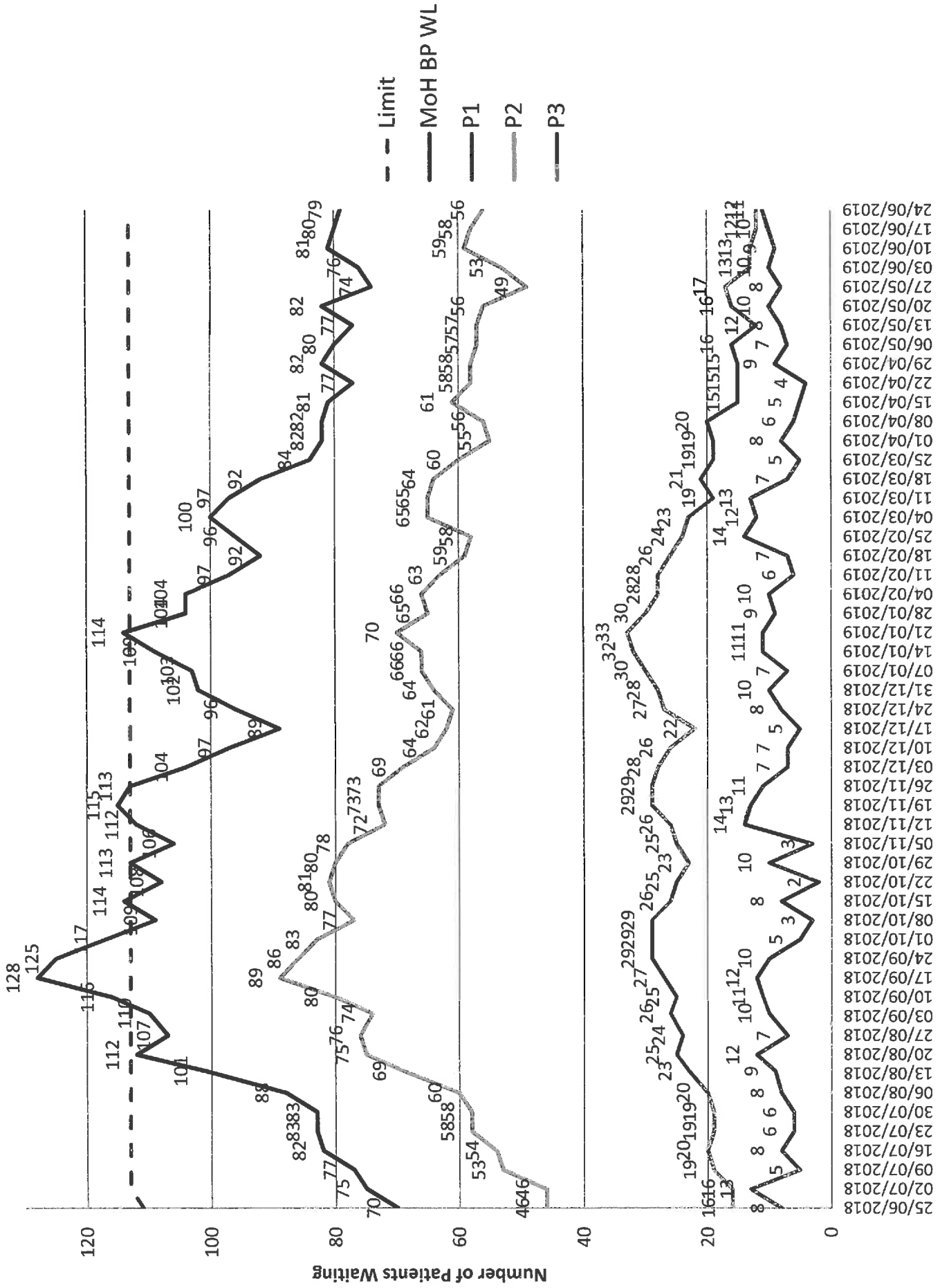


Waitlists

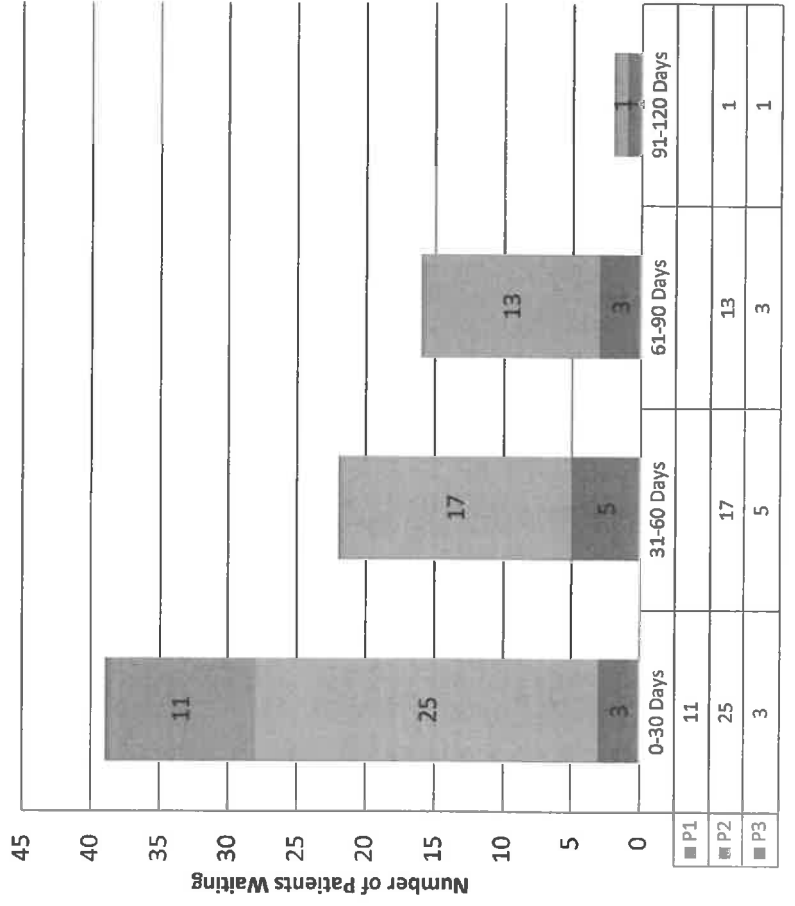
CTSU

	Targets
↳ Bypass Wait List: 79 ↗ 11 P1	113 patients (MoH); 85 (ADHB) 10 days (MoH)
↳ 56 P2	30 days (MoH)
→ 12 P3	120 days (ESPI5)

CTSU MoH BP Waitlist



CTSU MoH BP WL Breakdown

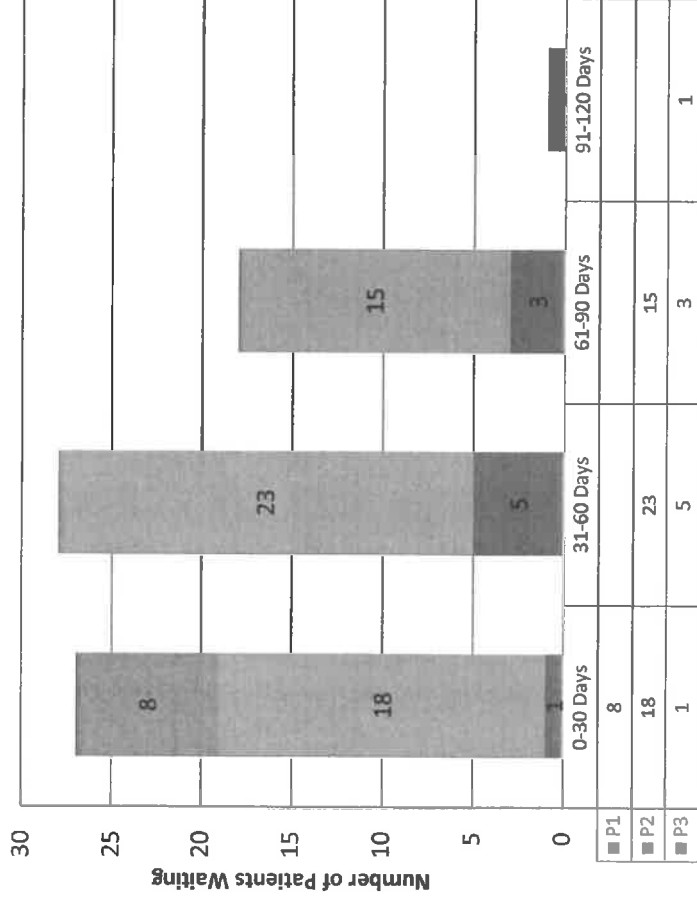


Waitlists

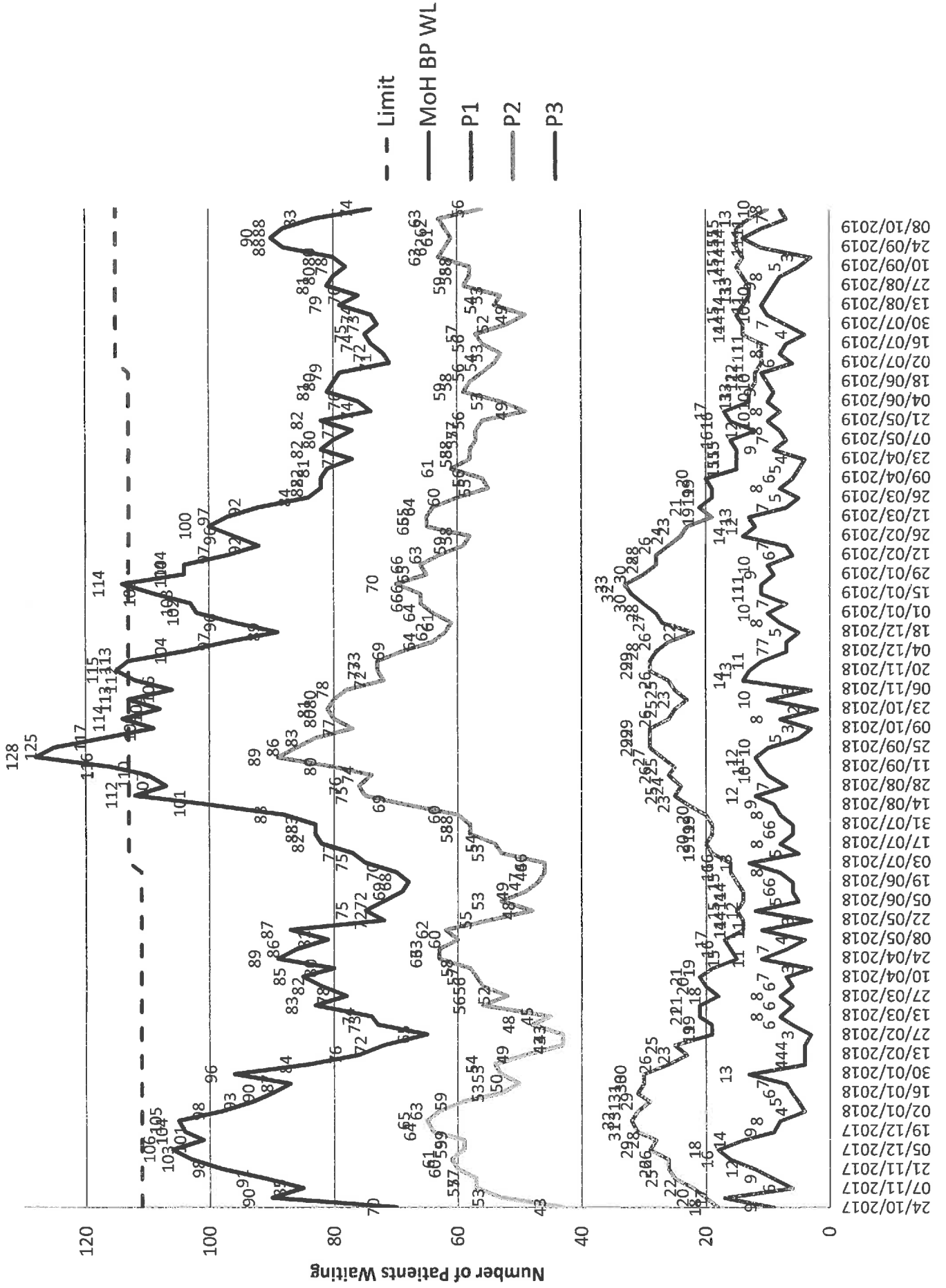
CTSU

	Targets
↘ Bypass Wait List: 74 (Total 121) ↗ 8 P1 ↘ 56 P2 (Longest wait 89 days) ↘ 10 P3 (Longest wait 94 days)	115 patients (MoH); 85 (ADHB) 10 days (MoH) 30 days (MoH) 120 days (ESPI5)

CTSU MoH BP WL Breakdown



CTSU MoH BP Waitlist

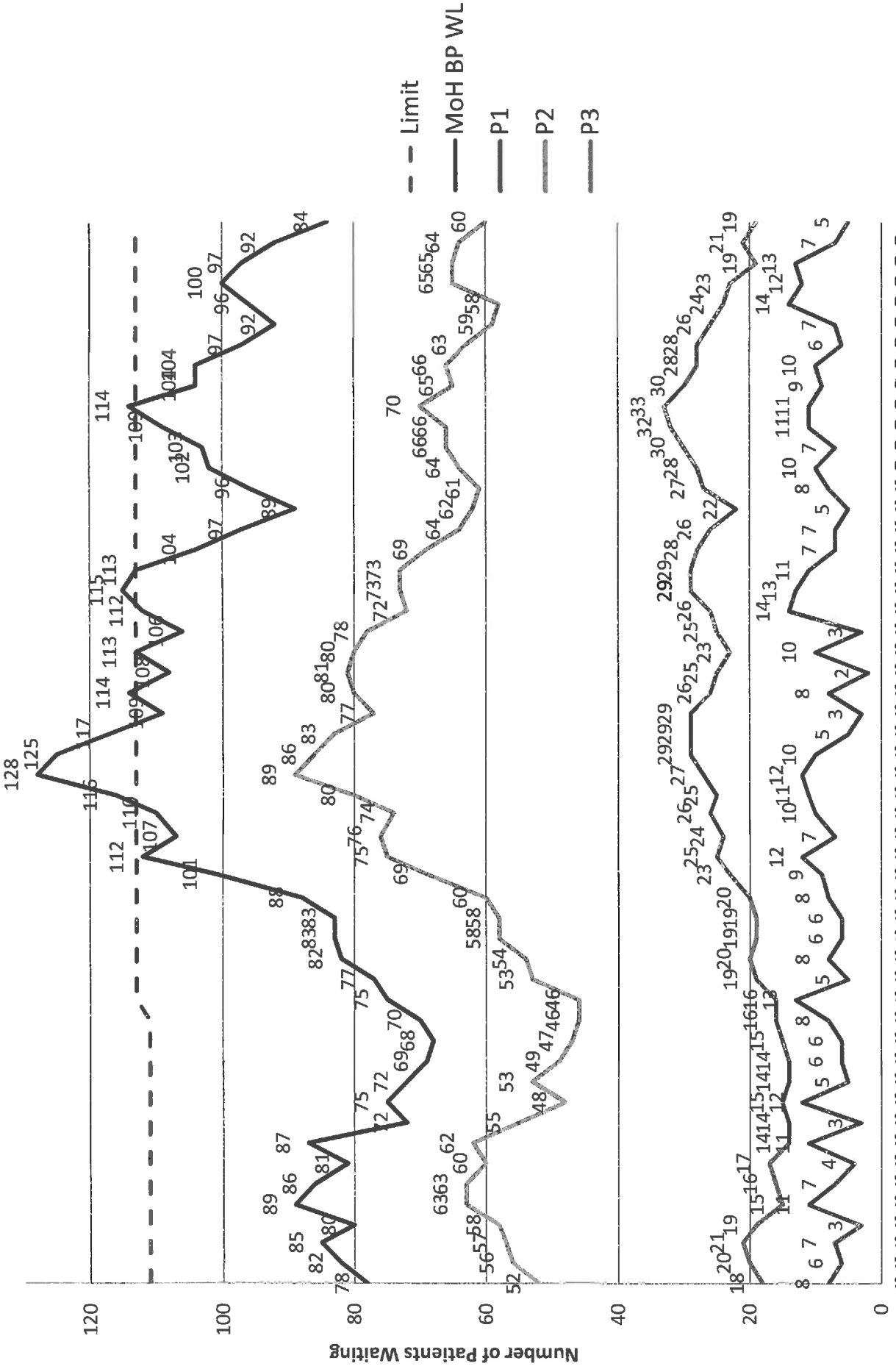


Waitlists

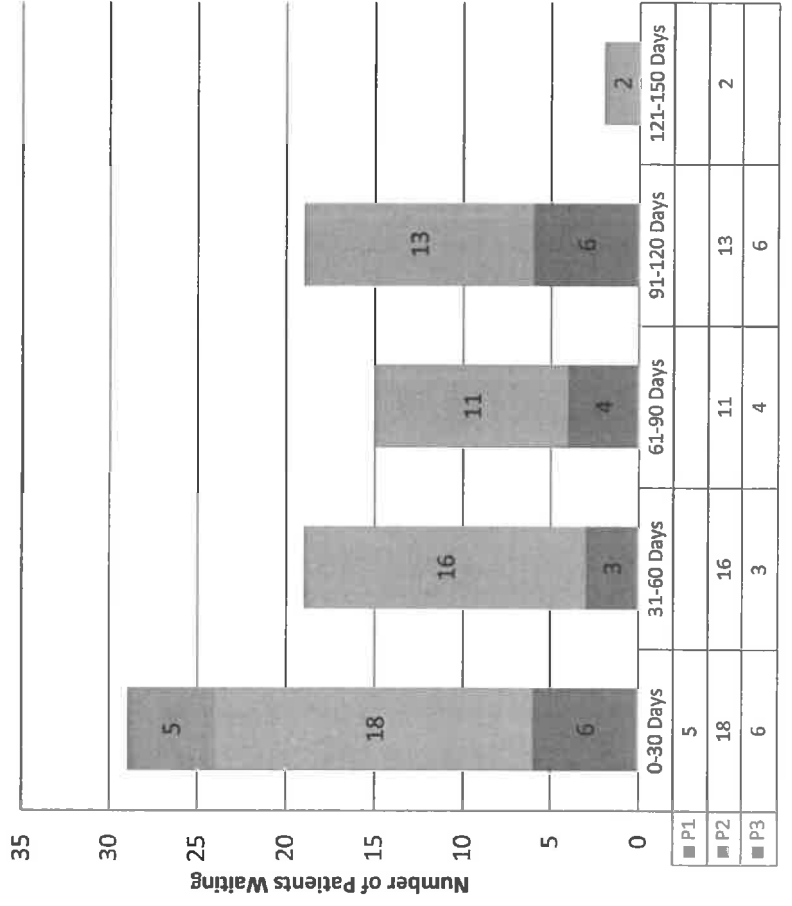
CTSU		Targets
↳ Bypass Wait List: 84	(Total 125)	113 patients (MoH); 85 (ADHB)
↳ 5 P1	(Longest wait 4 days)	10 days (MoH)
↳ 60 P2	(Longest wait 131 days)	30 days (MoH)
↳ 19 P3	(Longest wait 115 days)	120 days (ESPI5)

CTSU MoH BP Waitlist

Updated 25th March 2019



CTSU MoH BP WL Breakdown

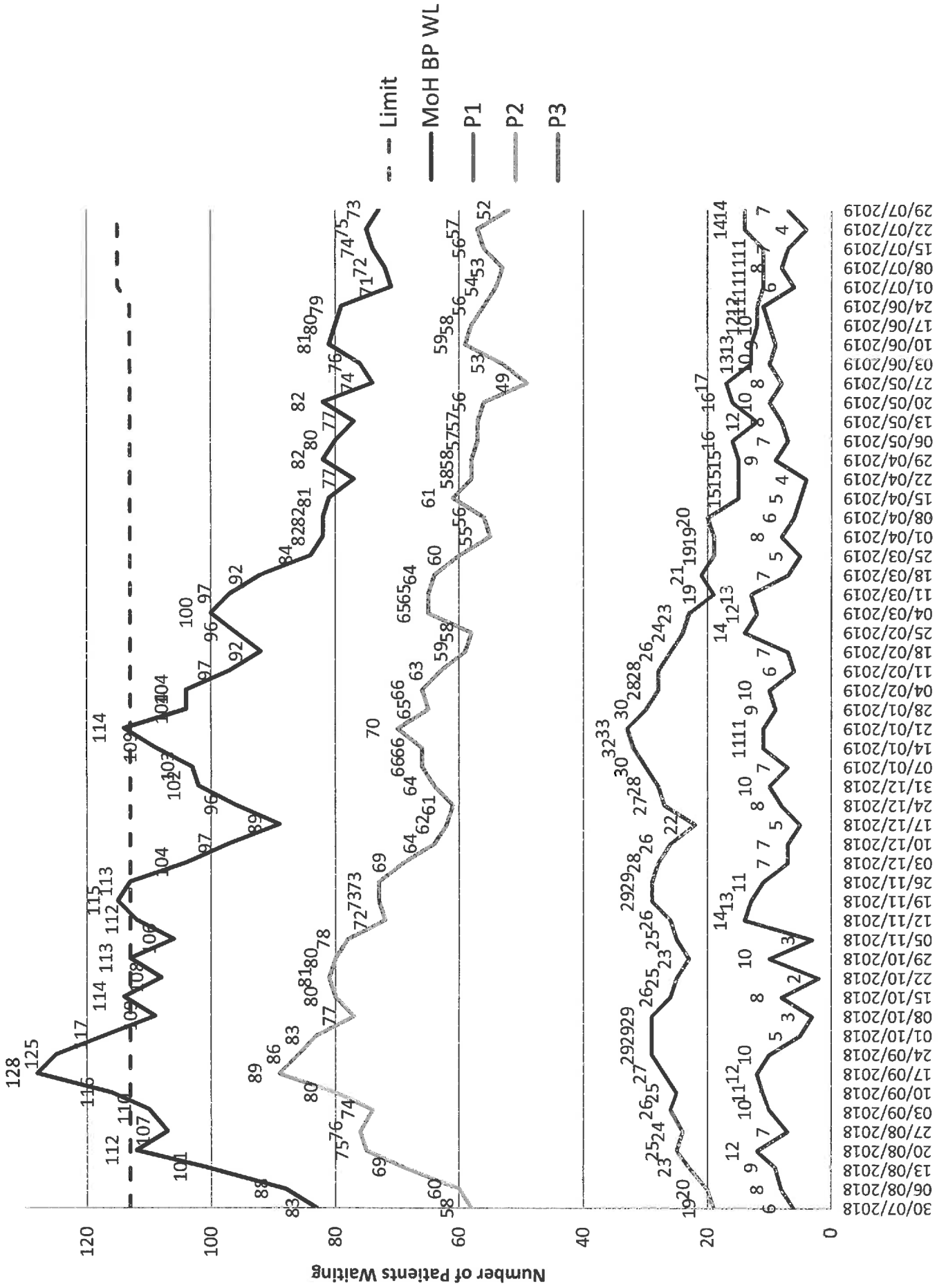


Waitlists

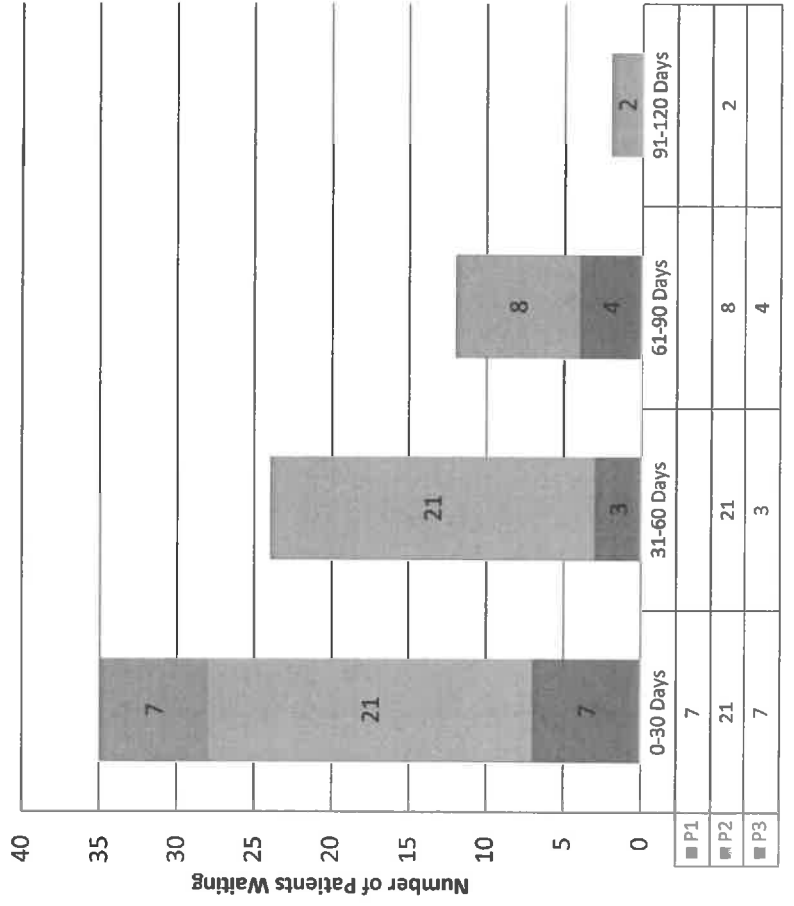
CTSU

	Targets
↳ Bypass Wait List: 73 ↳ 7 P1	115 patients (MoH); 85 (ADHB) 10 days (MoH)
↳ 52 P2	30 days (MoH)
→ 14 P3	120 days (ESPI5)

CTSU MoH BP Waitlist



CTSU MoH BP WL Breakdown



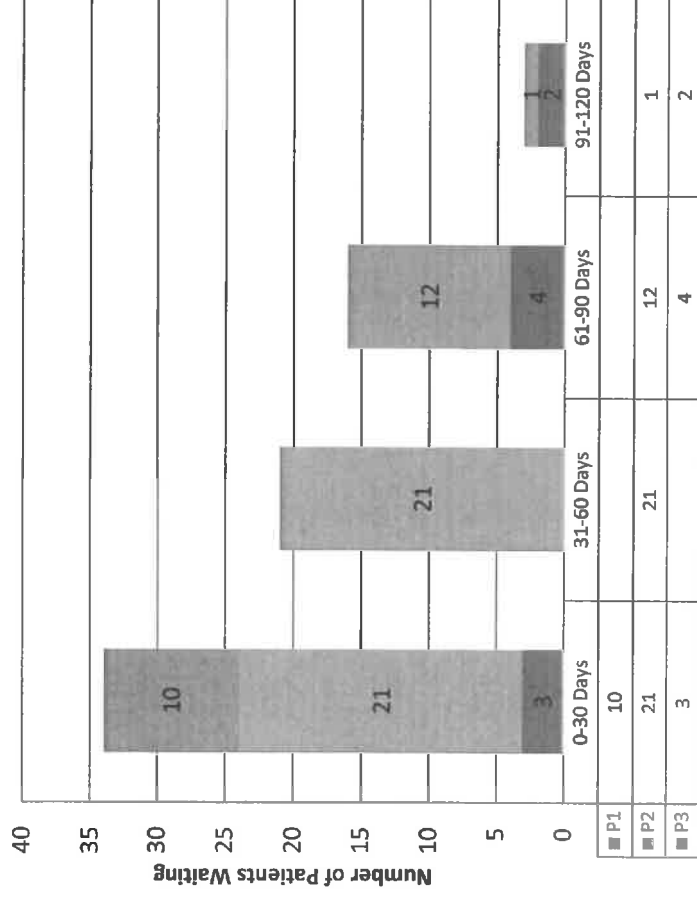
Waitlists

CTSU

Targets

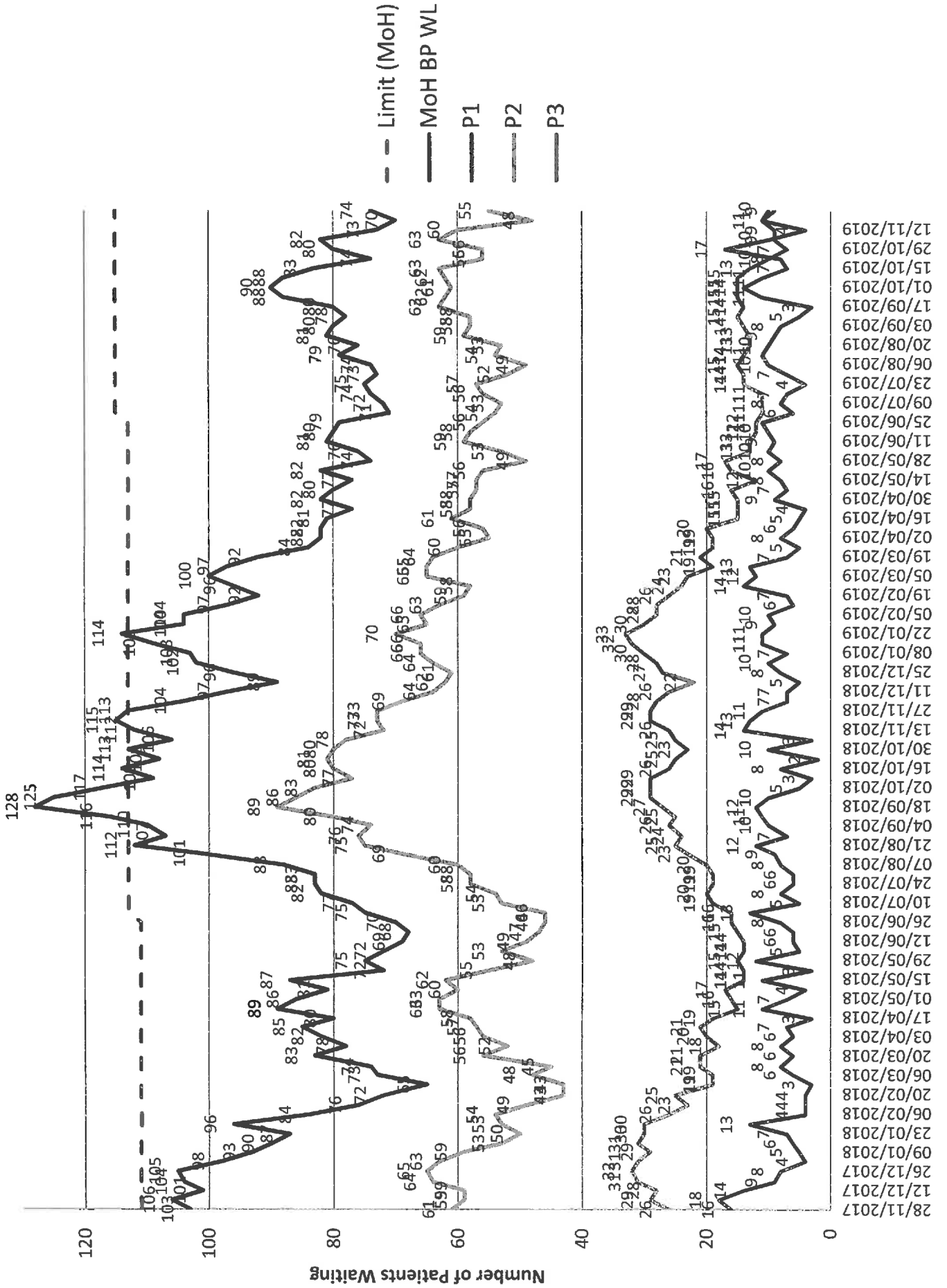
↗ Bypass Wait List: 74	(Total 109)	115 patients (MoH); 85 (ADHB)
↘ 10 P1	(Longest wait 13 days)	10 days (MoH)
↗ 55 P2	(Longest wait 96 days)	30 days (MoH)
↘ 9 P3	(Longest wait 97 days)	90 days (MoH)

CTSU MoH BP WL Breakdown



CTSU MoH BP Waitlist

Updated 25th November 2019



Weekly Cardiac Reporting

All cardiac providers must supply **weekly** reporting to the Ministry of Health's electives team by 12pm Tuesday at the latest, for the week just completed (Monday to Sunday). This information must be submitted in this template to Rachel_Pearce@MoH.govt.nz.

The template is required for you to **report only patients from your regional Domicile treated in your facilities (public and private)**. Patients domiciled to your region treated by another Cardiac provider will be included in your template by the Ministry once each financial quarter and this information will be sent to you. These patients will be counted to your regional delivery against your target.

As in 2017/18, the frequency of reporting will be determined by three key areas of performance. A DHB will remain on weekly reporting until the following three requirements are consistently met.

1. Waiting list management – the cardiac surgery waiting list remains below the agreed maximum
2. Treatment timeframes – patients consistently and reliably receive treatment within maximum waiting times
3. Delivery against plan – weekly delivery is consistently and reliably at or above plan, and overall delivery remains ahead of plan

If all three of the above requirements are met for a sustainable period of time your reporting remain at four weekly.

Definition of Cardiac Surgery

Cardiac surgery is defined as coronary artery bypass graft (CABG), valve replacement or repair, and CABG plus valve replacement or repair, and Aortic Root valve sparing procedures for people aged 15 and over.

All admission types; publicly funded (including publicly funded, provided in private)

Age is 15 years or greater; Open chest procedures only with ICD10 (version 8) codes and **TAVI**:

3845601	3847701	3848700	3848807	3849701	3850004	3855601	3863700
3845610	3847702	3848800	3848811	3849702	3850300	3855602	3865304
3845611	3848000	3848801	3848900	3849703	3850301	3855603	3865305
3845615	3848001	3848808	3848901	3849704	3850302	3856200	3865306
3845616	3848002	3848802	3848902	3849705	3850303	3856201	3865307
3845617	3848100	3848803	3848903	3849706	3850304	3856202	3850005
3845618	3848101	3848809	3848904	3849707	3855300	3856203	9020100
3847500	3848102	3848804	3848905	3850000	3855301	3856500	3850305
3847501	3848300	3848805	3849000	3850001	3855302	3856501	9020101
3847502	3848500	3848810	3849300	3850002	3855303	3856502	9020102
3847700	3848501	3848806	3849700	3850003	3855600	3856503	9020103

Aortic Root valve sparing procedures

3855000 Repair of ascending thoracic aorta
3855001 Replacement of ascending thoracic aorta
3855900 Repair of aortic arch and ascending thoracic aorta
3855901 Replacement of aortic arch and ascending thoracic aorta

Tanscatheter Aortic Valve Implantation (TAVI)

The TAVI code is included in the above list:

3848808 Percutaneous replacement of aortic valve with bioprosthesis

If you have any questions please contact:

Rachel Pearce
Senior Advisor - Funding and Monitoring
Electives and National Services
Service Commissioning
DDI: 04 816 2119
Mobile: 021 538 342

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 21 eligible procedures against a plan of 25.

As of 28/01/19:

- There are 9 P1 patients, longest waiting 12 days, planned for 29/01/19
- There are 10 lung cancer patients, longest waiting 20 days, planned for week of 04/02/19
- The longest waiting P2 patient is at 125 days, planned for week of 04/02/19
- The longest waiting P3 patient is at 131 days, planned for week of 04/02/19

The waiting list decreased from 112 to 104 patients over this period.

In this week, the service completed 13 acute and 8 elective eligible bypasses, 3 non-Northern Region bypasses, 1 other cardiac, 16 non-bypass, 1 heart transplant, 2 TAVI, and 42 procedures in total. There were 3 cancellations in this period: 1x Patient unfit, 2x Anaesthetist not available (overnight acute).

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
30/12/2018	8	10	1	1	2	0	0	4	14	57%	43%
06/01/2019	11	11	0	1	13	0	0	14	25	44%	56%
13/01/2019	16	18	1	0	10	3	0	14	32	50%	50%
20/01/2019	20	21	1	3	15	1	1	21	41	51%	49%
27/01/2019	21	24	0	1	16	1	2	20	42	55%	45%

- The following table shows the breakdown of completed eligible operations over the period of 21/01/19 – 27/01/19. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1		3	3		7	13
Aorta including aortic root with or without AV Surgery		1	1			2
AV Surgery					3	3
Isolated CABG		2	2		2	6
Valve(s) + CABG					2	2
P2		1	3		2	6
Aorta including aortic root with or without AV Surgery			1			1
AV Surgery		1	1		2	4
Isolated CABG			1			1
P3				1	1	2
Aorta including aortic root with or without AV Surgery				1		1
MV Surgery					1	1
Grand Total		4	6	1	10	21

- The following table shows the breakdown of the WL as of **28/01/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total	
	Auckland	Counties Manukau	Northland	Waitemata		
P1	2		3	3	1	9
AV Surgery			1			1
Double valves			1			1
Isolated CABG	2		1	2		5
MV Surgery				1	1	2
P2	17		19	14	15	65
Aorta including aortic root with or without AV Surgery	1		4	2	1	8
AV Surgery	4		3	2	6	15
Double valves	1		2		1	4
Isolated CABG	4		6	4	2	16
MV Surgery	4		2	4	1	11
Valve(s) + CABG	3		2	2	4	11
P3	8		6	4	12	30
Aorta including aortic root with or without AV Surgery			1		2	3
AV Surgery			1		3	4
Double valves			1			1
Isolated CABG	6		2	2	5	15
MV Surgery	2		1	2	1	6
Valve(s) + CABG					1	1
Grand Total	27		28	21	28	104

Patients Waiting Longer than 90 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	1	Delayed due to high acute and P1 demand	Patient has received treatment as an outsourced case to private provider
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	0		
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CVICU beds	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment. 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days) 1x Patient availability (Cook Islands patient).	3x Patients have received treatment. 2x planned (24/01/19). 1x planned for week of 04/02/19.
31	27 Jan 19	4	High patient load (high inflows in September + 120 days) 1x Patient availability (Cook Islands patient).	1x Patient planned for week of 28/01/19. 3x planned for week of 04/02/19. (Includes Cook Islands patient).
32	3 Feb 19	0		
33	10 Feb 19	0		
34	17 Feb 19	0		
35	24 Feb 19	0		
36	3 Mar 19	0		
37	10 Mar 19	0		
38	17 Mar 19	0		
39	24 Mar 19	0		
40	31 Mar 19	0		
41	7 Apr 19	0		
42	14 Apr 19	0		
43	21 Apr 19	0		
44	28 Apr 19	0		
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	0		
49	2 Jun 19	0		
50	9 Jun 19	0		
51	16 Jun 19	0		
52	23 Jun 19	0		
53	30 Jun 19	0		

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 21 eligible procedures against a plan of 25.

As of 25/02/19:

- There are 14 P1 patients, longest waiting 7 days, planned for 26/02/19
- There are 12 lung cancer patients, longest waiting 14 days, planned for 26/02/19
- The longest waiting P2 patient is at 122 days, planned for 02/03/19
- The longest waiting P3 patient is at 125 days, planned for 02/03/19

The waiting list increased from 92 to 96 patients over this period.

In this week, the service completed 16 acute and 5 elective eligible bypasses, 1 non-Northern Region bypass, 3 ECMO, 3 other cardiac, 18 non-bypass, 1 lung transplant, 1 TAVI, and 47 procedures in total. There were 4 cancellations in this period: 1x Anaesthetic tech unavailable, 1x Perfusionist and OR Nursing unavailable, 1x Substitution by Acute, 1x Anaesthetist not available.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
27/01/2019	21	24	0	1	16	1	2	20	42	55%	45%
03/02/2019	17	17	0	4	9	2	2	17	32	59%	41%
10/02/2019	23	25	0	1	10	1	2	14	37	68%	32%
17/02/2019	25	26	2	2	11	2	3	20	43	65%	35%
24/02/2019	21	22	3	3	15	1	1	26	47	47%	53%

- The following table shows the breakdown of completed eligible operations over the period of **18/02/19 – 24/02/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1		6	6	4	16
Aorta including aortic root with or without AV Surgery			1		1
AV Surgery	1			2	3
Isolated CABG	4		4	2	10
MV Surgery	1				1
Valve(s) + CABG			1		1
P2			1	2	3
Isolated CABG			1	2	3
P3	1		1		2
Aorta including aortic root with or without AV Surgery			1		1
Isolated CABG	1				1
Grand Total	7	7	8	2	21

- The following table shows the breakdown of the WL as of **25/02/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	1	5	4	4	14
Aorta including aortic root with or without AV Surgery		3			3
AV Surgery			1	1	2
Isolated CABG	1	2	2	3	8
MV Surgery			1		1
P2	17	21	8	12	58
Aorta including aortic root with or without AV Surgery	1	5	2	1	9
AV Surgery	5	4	2	5	16
Double valves	2	4	1	1	8
Isolated CABG	3	5	1	2	11
MV Surgery	3	1	2	1	7
Valve(s) + CABG	3	2		2	7
P3	8	3	3	10	24
Aorta including aortic root with or without AV Surgery				2	2
AV Surgery	1	1		2	4
Isolated CABG	5	1	1	3	10
MV Surgery	2	1	2	1	6
Valve(s) + CABG				2	2
Grand Total	26	29	15	26	96

Patients Waiting Longer than 90 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	1	Delayed due to high acute and P1 demand	Patient has received treatment as an outsourced case to private provider
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	0		
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CVICU beds	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment. 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days) 1x Patient availability (Cook Islands patient).	3x Patients have received treatment. 2x planned (24/01/19). 1x planned for week of 04/02/19.
31	27 Jan 19	4	High patient load (high inflows in September + 120 days) 1x Patient availability (Cook Islands patient).	1x Patient planned for week of 28/01/19. 3x planned for week of 04/02/19. (Includes Cook Islands patient).
32	3 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for week of 04/02/19. 1x Patient upgraded to P1.
33	10 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for w/o 11/02/19. 1x Patient planned for w/o 18/02/19
34	17 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients have received treatment
35	24 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients are planned for 02/03/2019.
36	3 Mar 19	0		
37	10 Mar 19	0		
38	17 Mar 19	0		
39	24 Mar 19	0		
40	31 Mar 19	0		
41	7 Apr 19	0		
42	14 Apr 19	0		
43	21 Apr 19	0		
44	28 Apr 19	0		
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	0		
49	2 Jun 19	0		
50	9 Jun 19	0		
51	16 Jun 19	0		
52	23 Jun 19	0		
53	30 Jun 19	0		

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 21 eligible procedures against a plan of 23.

As of 01/04/19:

- There are 8 P1 patients, longest waiting 5 days, now suspended as patient requires workup
- There are 15 lung cancer patients, longest waiting 28 days, not yet planned (patient wishes to see surgeon in clinic first)
- The longest waiting P2 patient is at 119 days, not yet planned (patient to undergo review by Renal first)
- The longest waiting P3 patient is at 105 days, planned for week of 08/04/19

The waiting list decreased from 84 to 82 patients over this period.

In this week, the service completed 14 acute and 7 elective eligible bypasses, 2 ECMO, 15 non-bypass, 2 transplants (1 heart and 1 lungs), 3 TAVI and 40 procedures in total. There were 6 cancellations in this period: 1x Previous list overrun, 4x Anaesthetic tech not available (transplants + sick calls), 1x Substitution by Acute (also Perfusionist not available).

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
03/03/2019	21	25	0	1	10	1	2	14	37	62%	38%
10/03/2019	21	22	1	0	15	0	2	18	38	61%	39%
17/03/2019	22	23	1	0	10	2	2	15	36	67%	33%
24/03/2019	25	26	1	0	12	2	3	18	41	68%	32%
31/03/2019	21	21	2	0	15	2	3	22	40	60%	40%

- The following table shows the breakdown of completed eligible operations over the period of 25/03/19 – 31/03/19. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI	Column Labels				Grand Total
	Counties				
Row Labels	Manukau	Northland	Waitemata		
P1		4	3	7	14
AV Surgery			1	3	4
Double valves	1				1
Isolated CABG	3	2	4		9
P2	3	3			6
Aorta including aortic root with or without AV Surgery			1		1
Double valves	1				1
Isolated CABG	1	1			2
MV Surgery		1			1
Valve(s) + CABG	1				1
P3		1			1
MV Surgery		1			1
Grand Total	7	7	7	7	21

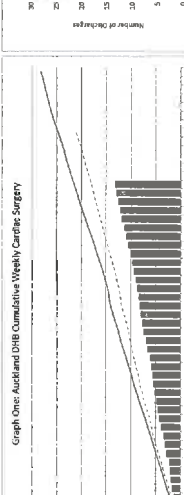
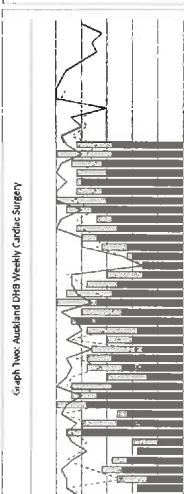
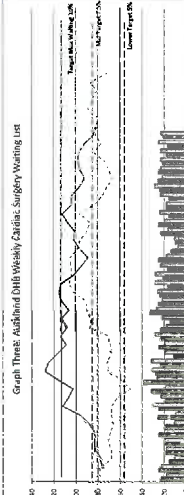
- The following table shows the breakdown of the WL as of **01/04/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total	
	Auckland	Counties Manukau	Northland	Waitemata		
P1			4	2	2	8
Aorta including aortic root with or without AV Surgery				1		1
AV Surgery			2		1	3
Isolated CABG			2	1		3
Valve(s) + CABG					1	1
P2	19	13	9	14	55	
Aorta including aortic root with or without AV Surgery	1	4				5
AV Surgery	7	4	3	6		20
Double valves		2	1	3		6
Isolated CABG	3	1	2	1		7
MV Surgery	5	1	2	2		10
Valve(s) + CABG	3	1	1	2		7
P3	8	3	1	7	19	
Aorta including aortic root with or without AV Surgery			1		1	2
AV Surgery	1				1	2
Double valves	1					1
Isolated CABG	5	1		2		8
MV Surgery	1	1	1	1		4
Valve(s) + CABG				2		2
Grand Total	27	20	12	23	82	

Auckland DHB

Week Ending: 11 May 15

Week No.	Voice ending	INBLOW			OUTBLOW			PLAN			ACTUAL DELIVERY			Waiting List	Admission	Active Patient	Total Actual Discharge (Number)	Target Discharge (Number)	Mortality (USIC, 0-100)	Length of Stay (Days)
		Planned	Active	Effective	Discharge	Received (or other reason)	Planned	Effective	Cancelled	Other Provider (Other DHB)	Total	Cancelled	Other							
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
TOTAL		1129	529	318	812	135	17	865	137	1179	529	137	705	1367	108	3	3	3	3	3
TOTAL		1129	529	318	812	135	17	865	137	1179	529	137	705	1367	108	3	3	3	3	3



wk = Public Holiday
 27 Winter
 28 New Year
 29 Good Friday
 30 Easter Monday
 31 Good Friday
 wk = School Holiday
 12 Autumn Recess
 13 Winter Recess
 14 Christmas
 15 School Holiday

Patients Waiting Longer than 90 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	1	Delayed due to high acute and P1 demand	Patient has received treatment as an outsourced case to private provider
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	0		
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CVICU beds	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment. 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days)	3x Patients have received treatment. 2x planned (24/01/19).
			1x Patient availability (Cook Islands patient).	1x planned for week of 04/02/19.
31	27 Jan 19	4	High patient load (high inflows in September + 120 days)	1x Patient planned for week of 28/01/19. 3x planned for week of 04/02/19.
			1x Patient availability (Cook Islands patient).	(Includes Cook Islands patient).
32	3 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for week of 04/02/19. 1x Patient upgraded to P1.
33	10 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for w/o 11/02/19. 1x Patient planned for w/o 18/02/19
34	17 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients have received treatment
35	24 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients are planned for 02/03/2019.
36	3 Mar 19	5	High acute inflows delaying elective cases	2x Op complete, 1x Patients planned for 08/03/19, 2x Patients planned for w/o 11/03/19
37	10 Mar 19	2	High acute inflows delaying elective cases	1x Op complete. 1 x Patient planned for week of 11/03/19
38	17 Mar 19	5	High acute inflows delaying elective cases	2x Op complete, 3x Patients planned for week of 18/03/19
39	24 Mar 19	2	High acute inflows delaying elective cases	2x Op complete
40	31 Mar 19	0		
41	7 Apr 19	0		
42	14 Apr 19	0		
43	21 Apr 19	0		
44	28 Apr 19	0		
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	0		
49	2 Jun 19	0		
50	9 Jun 19	0		
51	16 Jun 19	0		
52	23 Jun 19	0		
53	30 Jun 19	0		

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 25 eligible procedures against a plan of 20.

As of 15/04/19:

- There are 5 P1 patients, longest waiting 10 days, planned for 16/04/19
- There are 11 lung cancer patients, longest waiting 27 days, planned for 17/04/19
- The longest waiting P2 patient is at 133 days, suspended as not fit
- The longest waiting P3 patient is at 102 days, planned for 18/04/19

The waiting list decreased from 82 to 81 patients over this period.

In this week, the service completed 13 acute and 12 elective eligible bypasses, 1 non-Northern Region bypasses, 4 ECMO, 15 non-bypass, 2 TAVI , 1 TAVI (non-eligible) and 45 procedures in total. There was 1 cancellation in this period: 1x Anaesthetic tech unavailable.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
17/03/2019	22	23	1	0	10	2	2	15	36	67%	33%
24/03/2019	25	26	1	0	12	2	3	18	41	68%	32%
31/03/2019	21	21	2	0	15	2	3	22	40	60%	40%
07/04/2019	21	23	2	2	18	0	4	26	45	56%	44%
14/04/2019	25	26	4	0	15	0	2	21	45	60%	40%

- The following table shows the breakdown of completed eligible operations over the period of **08/04/19 – 14/04/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1		3	3	4	3	13
AV Surgery		1			1	2
isolated CABG		1	3	2	2	8
Valve(s) + CABG		1		2		3
P2		3	1	1	2	7
Aorta including aortic root with or without AV Surgery			1			1
AV Surgery		2		1	1	4
Isolated CABG		1			1	2
P3		2	2		1	5
Aorta including aortic root with or without AV Surgery					1	1
Double valves			1			1
Isolated CABG		2				2
MV Surgery			1			1
Grand Total		8	6	5	6	25

- The following table shows the breakdown of the WL as of **15/04/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total	
	Auckland	Counties Manukau	Northland	Waitemata		
P1			2	1	2	5
Aorta including aortic root with or without AV Surgery					1	1
Double valves			2			2
Isolated CABG					1	1
MV Surgery				1		1
P2	22	12	8	19	61	
Aorta including aortic root with or without AV Surgery	3	5		2		10
AV Surgery	10	3	2	7		22
Double valves		2	1	3		6
Isolated CABG	2		2	1		5
MV Surgery	5	2	2	4		13
Valve(s) + CABG	2		1	2		5
P3	6	3	6	15	15	
Aorta including aortic root with or without AV Surgery			1			1
AV Surgery	1			1		2
Double valves	1					1
Isolated CABG	3	2		2		7
MV Surgery	1			1		2
Valve(s) + CABG				2		2
Grand Total	28	17	9	27	81	

Patients Waiting Longer than 90 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	1	Delayed due to high acute and P1 demand	Patient has received treatment as an outsourced case to private provider
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	0		
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CVICU beds	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment. 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days)	3x Patients have received treatment. 2x planned (24/01/19).
			1x Patient availability (Cook Islands patient).	1x planned for week of 04/02/19.
31	27 Jan 19	4	High patient load (high inflows in September + 120 days)	1x Patient planned for week of 28/01/19. 3x planned for week of 04/02/19.
			1x Patient availability (Cook Islands patient).	(Includes Cook Islands patient).
32	3 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for week of 04/02/19. 1x Patient upgraded to P1.
33	10 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for w/o 11/02/19. 1x Patient planned for w/o 18/02/19
34	17 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients have received treatment
35	24 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients are planned for 02/03/2019.
36	3 Mar 19	5	High acute inflows delaying elective cases	2x Op complete, 1x Patients planned for 08/03/19, 2x Patients planned for w/o 11/03/19
37	10 Mar 19	2	High acute inflows delaying elective cases	1x Op complete. 1 x Patient planned for week of 11/03/19
38	17 Mar 19	5	High acute inflows delaying elective cases	2x Op complete, 3x Patients planned for week of 18/03/19
39	24 Mar 19	2	High acute inflows delaying elective cases	2x Op complete
40	31 Mar 19	0		
41	7 Apr 19	1	Awaiting confirmation if patient fit to proceed	Book or suspend as appropriate once confirmed by cardiologist
42	14 Apr 19	1	Awaiting confirmation if patient fit to proceed	Patient suspended
43	21 Apr 19	0		
44	28 Apr 19	0		
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	0		
49	2 Jun 19	0		
50	9 Jun 19	0		
51	16 Jun 19	0		
52	23 Jun 19	0		
53	30 Jun 19	0		

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 24 eligible procedures against a plan of 25.

As of 06/05/19:

- There are 7 P1 patients, longest waiting 10 days, now op complete
- There are 9 lung cancer patients, longest waiting 39 days, now op complete
- The longest waiting P2 patient is at 119 days, now suspended as patient is not available
- The longest waiting P3 patient is at 118 days, planned for 08/05/19

The waiting list remained at 80 patients over this period.

In this week, the service completed 17 acute and 7 elective eligible bypasses, 3 non-Northern Region bypasses, 3 ECMO, 16 non-bypass, 4 TAVI and 46 procedures in total. There were 3 cancellations in this period: 2x Previous list overrun, 1x Anaesthetist not available.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible					Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%	
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)				Total
07/04/2019	21	23	2	2	18	0	4	26	45	56%	44%
14/04/2019	25	26	4	0	15	0	2	21	45	60%	40%
21/04/2019	14	16	4	1	11	2	2	20	34	47%	53%
28/04/2019	11	11	1	2	10	0	2	15	24	54%	46%
05/05/2019	24	27	3	0	16	0	4	23	46	61%	39%

- The following table shows the breakdown of completed eligible operations over the period of 29/04/19 – 05/05/19. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1		5	5	2	5	17
Aortic Root Replace			1			1
AV Surgery		3	1		2	6
Double valves		1	2			3
Isolated CABG		1	1	2	1	5
MV Surgery					1	1
Valve(s) + CABG					1	1
P2		4	2			6
AV Surgery		1	1			2
Double valves		1	1			2
MV Surgery		1				1
TV Surgery		1				1
P3					1	1
AV Surgery					1	1
Grand Total		9	7	2	6	24

- The following table shows the breakdown of the WL as of 06/05/2019. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total	
	Auckland	Counties Manukau	Northland	Waitemata		
P1			4	1	2	7
AV Surgery			1	1		2
Double valves			1			1
Isolated CABG			2		1	3
Valve(s) + CABG					1	1
P2	18	12	6	21	57	
Aorta including aortic root with or without AV Surgery	2	5		1		8
AV Surgery	8	3	1	6		18
Double valves		1	1	3		5
Isolated CABG	1	1	1	1		4
MV Surgery	3	1	2	5		11
Valve(s) + CABG	4	1	1	5		11
P3	6	4	1	5	16	
Aorta including aortic root with or without AV Surgery			1			1
AV Surgery	1					1
Double valves	1					1
Isolated CABG	2	3	1	3		9
MV Surgery	2			1		3
Valve(s) + CABG				1		1
Grand Total	24	20	8	28	80	

Patients Waiting Longer than 90 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	1	Delayed due to high acute and P1 demand	Patient has received treatment as an outsourced case to private provider
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	0		
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CVICU beds	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment. 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days;	3x Patients have received treatment. 2x planned (24/01/19).
			1x Patient availability (Cook Islands patient).	1x planned for week of 04/02/19.
31	27 Jan 19	4	High patient load (high inflows in September + 120 days;	1x Patient planned for week of 28/01/19. 3x planned for week of 04/02/19
			1x Patient availability (Cook Islands patient).	(Includes Cook Islands patient).
32	3 Feb 19	5	High patient load (high inflows in September + 120 days;	4x Patients planned for week of 04/02/19. 1x Patient upgraded to P1
33	10 Feb 19	5	High patient load (high inflows in September + 120 days;	4x Patients planned for w/o 11/02/19. 1x Patient planned for w/o 18/02/19
34	17 Feb 19	2	High patient load (high inflows in September + 120 days;	Both patients have received treatment
35	24 Feb 19	2	High patient load (high inflows in September + 120 days;	Both patients are planned for 02/03/2019.
36	3 Mar 19	5	High acute inflows delaying elective case;	2x Op complete, 1x Patients planned for 08/03/19, 2x Patients planned for w/o 11/03/19
37	10 Mar 19	2	High acute inflows delaying elective case;	1x Op complete. 1 x Patient planned for week of 11/03/19
38	17 Mar 19	5	High acute inflows delaying elective case;	2x Op complete, 3x Patients planned for week of 18/03/19
39	24 Mar 19	2	High acute inflows delaying elective case;	2x Op complete
40	31 Mar 19	0		
41	7 Apr 19	1	Awaiting confirmation if patient fit to proceed	Book or suspend as appropriate once confirmed by cardiologists
42	14 Apr 19	1	Awaiting confirmation if patient fit to proceed	Patient suspended
43	21 Apr 19	0		
44	28 Apr 19	1	Patient cancelled from earlier booking due to Anaesthetic Tech shortage	Patient has received treatment
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	0		
49	2 Jun 19	0		
50	9 Jun 19	0		
51	16 Jun 19	0		
52	23 Jun 19	0		
53	30 Jun 19	0		

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 21 eligible procedures against a plan of 20.

As of 03/06/19:

- There are 10 P1 patients, longest waiting 6 days, planned for 05/06/19
- There are 10 lung cancer patients, longest waiting 27 days, now suspended at patient request
- The longest waiting P2 patient is at 103 days, planned for week of 10/06/19
- The longest waiting P3 patient is at 97 days, not yet planned (pending dental check)

The waiting list increased from 74 to 76 patients over this period.

In this period, 3 patients were suspended or removed from the waiting list: 2x Patient not available, 1x no longer for surgery (palliative)

In this week, the service completed 16 acute and 5 elective eligible bypasses, 1 non-Northern Region bypass, 2 ECMO, 13 non-bypass, 2 TAVI, and 37 procedures in total. There were 5 cancellations in this period: 2x ICU staff not available, 2x Previous list overrun, 1x Surgeon + Perfusionist not available (overnight acute).

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
05/05/2019	24	27	3	0	16	0	4	23	46	61%	39%
12/05/2019	23	24	3	1	16	0	2	22	44	57%	43%
19/05/2019	22	23	3	0	16	2	2	23	44	55%	45%
26/05/2019	23	24	4	0	12	0	2	18	40	63%	38%
02/06/2019	21	22	2	0	13	0	2	17	37	62%	38%

- The following table shows the breakdown of completed eligible operations over the period of 27/05/19 – 02/06/19. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI Row Labels	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1		5	4	2	5	16
Aorta including aortic root with or without AV Surgery		1	1	1	3	6
AVReplace + CABG			1		1	2
Isolated CABG		4	2	1	1	8
P2				2		2
Aorta including aortic root with or without AV Surgery				1		1
MV Surgery				1		1
P3		2		1		3
Aorta including aortic root with or without AV Surgery		1				1
MV Surgery		1		1		2
Grand Total		7	4	5	5	21

- The following table shows the breakdown of the WL as of 27/05/2019. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	2		2		6
AV Surgery					4
Double valves			1		1
Isolated CABG	2		1		1
MV Surgery					1
P2	18		15	7	13
Aorta including aortic root with or without AV Surgery	4		5		1
AV Surgery	6		6	3	4
Double valves			1		1
Isolated CABG	1		1		1
MV Surgery	4		1	3	3
Valve(s) + CABG	3		1	1	3
P3	4		3	1	5
Aorta including aortic root with or without AV Surgery			1		
AV Surgery					1
Double valves					1
Isolated CABG	3		1	1	3
MV Surgery	1		1		
Grand Total	24		20	8	24
					76

Patients Waiting Longer than 90 and 120 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	0		
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	1	Delayed due to high acute and P1 demand	Patient has received treatment as an outsourced case to private provider
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CRO U bork	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment, 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days)	3x Patients have received treatment, 2x planned (24/01/19)
31	27 Jan 19	4	1x Patient availability (Cook Islands patient), High patient load (high inflows in September + 120 days) 1x Patient availability (Cook Islands patient)	1x planned for week of 04/02/19, 1x Patient planned for week of 28/01/19, 3x planned for week of 04/02/19 (In line with Cook Islands patient)
32	3 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for week of 04/02/19, 1x Patient upgraded to P1
33	10 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for w/o 11/02/19, 1x Patient planned for w/o 18/02/19
34	17 Feb 19	3	High patient load (high inflows in September + 120 days)	Both patients have received treatment
35	24 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients are planned for 03/03/2019
36	3 Mar 19	5	High acute inflows delaying elective cases	2x Op complete, 1x Patients planned for 08/03/19, 3x Patients planned for w/o 11/03/19
37	10 Mar 19	2	High acute inflows delaying elective cases	1x Op complete, 1x Patient planned for week of 11/03/19
38	17 Mar 19	5	High acute inflows delaying elective cases	2x Op complete, 3x Patients planned for week of 18/03/19
39	24 Mar 19	2	High acute inflows delaying elective cases	2x Op complete
40	31 Mar 19	0		
41	7 Apr 19	1	Awaiting confirmation if patient fit to proceed	Book or suspend as appropriate once confirmed by cardiologists
42	14 Apr 19	1	Awaiting confirmation if patient fit to proceed	Patient suspended
43	21 Apr 19	0		
44	28 Apr 19	1	Patient cancelled from earlier booking due to Anaesthetic Tech shortage	Patient has received treatment
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	1	Patient cancelled from earlier booking due to acute CRO to be done	Patient has received treatment
49	2 Jun 19	2	1x Patient unfit (open wound healing), 1x Pending dental clearance	1x Planned for week of 10/06/19, 1x Not yet planned
50	9 Jun 19	0		
51	16 Jun 19	0		
52	23 Jun 19	0		
53	30 Jun 19	0		

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 22 eligible procedures against a plan of 20.

As of 01/07/19:

- There are 6 P1 patients, longest waiting 25 days, now op complete (was pending other procedures and recovery from URTI + colonoscopy)
- There are 13 lung cancer patients, longest waiting 27 days, planned for 03/07/19
- The longest waiting P2 patient is at 91 days, planned for week of 08/07/19
- The longest waiting P3 patient is at 126 days, now op complete

The waiting list decreased from 75 to 71 patients over this period.

In this period, no patients were suspended or removed from the waiting list.

In this week, the service completed 13 acute and 7 elective eligible bypasses, 2 eligible bypasses via a private provider, 6 non-Northern Region bypasses (including 2 on behalf of Waikato DHB), 4 ECMO, 19 non-bypass, 1 lung transplant, 3 TAVI, and 52 procedures in total. There were 5 cancellations in this period: 1x Previous list overrun, 2x Surgeon not available (transplant), 2x Perfusionist not available (transplant).

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
02/06/2019	21	22	2	0	13	0	2	17	37	62%	38%
09/06/2019	18	19	3	0	13	3	2	21	38	53%	47%
16/06/2019	19	22	3	0	17	2	2	24	44	48%	52%
23/06/2019	19	23	3	0	13	0	1	17	39	51%	49%
30/06/2019	22	28	4	0	19	1	3	27	52	48%	52%

- The following table shows the breakdown of completed eligible operations over the period of **24/06/19 – 30/06/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI Row Labels	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1	1	6		8	15	
Aorta including aortic root with or without AV Surgery		1		1	2	
AV Surgery			1	3	4	
Isolated CABG	1	3		4	8	
MV Surgery		1			1	
P2	3	1	2		6	
AV Surgery	1	1	1		3	
MV Surgery	1				1	
Valve(s) + CABG	1		1		2	
P3				1	1	
Isolated CABG				1	1	
Grand Total	4	7	2	9	22	

- The following table shows the breakdown of the WL as of **01/07/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	1	2		3	6
Double valves		1			1
Isolated CABG	1			2	3
MV Surgery				1	1
Valve(s) + CABG		1			1
P2	21	15	7	11	54
Aorta including aortic root with or without AV Surgery	4	6		2	12
AV Surgery	10	4	2	2	18
Double valves	1	2	1		4
Isolated CABG	2	2		1	5
MV Surgery	1		3	2	6
Valve(s) + CABG	3	1	1	4	9
P3	5	2	1	3	11
Aorta including aortic root with or without AV Surgery		1			1
Double valves				1	1
Isolated CABG	3		1		4
MV Surgery	2	1		2	5
Grand Total	27	19	8	17	71

Patients Waiting Longer than 90 and 120 days

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	1 Jul 18	0		
2	8 Jul 18	0		
3	15 Jul 18	0		
4	22 Jul 18	0		
5	29 Jul 18	0		
6	5 Aug 18	0		
7	12 Aug 18	0		
8	19 Aug 18	0		
9	26 Aug 18	0		
10	2 Sep 18	0		
11	9 Sep 18	0		
12	16 Sep 18	0		
13	23 Sep 18	0		
14	30 Sep 18	0		
15	7 Oct 18	0		
16	14 Oct 18	1	Patient cancelled twice due to transplant and acute case	Patient has received treatment as a weekend contract case
17	21 Oct 18	1	Patient cancelled due to more acute case	Patient has received treatment
18	28 Oct 18	0		
19	4 Nov 18	0		
20	11 Nov 18	0		
21	18 Nov 18	0		
22	25 Nov 18	0		
23	2 Dec 18	1	Delayed due to high acute and FI demand	Patient has received treatment as an outsourced case to private provider
24	9 Dec 18	0		
25	16 Dec 18	0		
26	23 Dec 18	0		
27	30 Dec 18	0		
28	6 Jan 19	2	Cancelled from 13/12/18 & 15/12/18 due to CIVIC beds	Planned for the end of week ending 13/01/19, possibly as a contract case
29	13 Jan 19	3	Cancellations and patient availability, plus acute load	1x Patient has received treatment. 2x planned (17/01/19 and 22/01/19)
30	20 Jan 19	6	High patient load (high inflows in September + 120 days)	3x Patients have received treatment. 2x planned (24/01/19).
31	27 Jan 19	4	1x Patient availability (Cook Islands patient). High patient load (high inflows in September + 120 days). 1x Patient availability (Cook Islands patient).	1x planned for week of 04/02/19. 1x Patient planned for week of 28/01/19. 3x planned for week of 04/02/19 (includes Cook Islands patient)
32	3 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for week of 04/02/19. 1x Patient upgraded to FI
33	10 Feb 19	5	High patient load (high inflows in September + 120 days)	4x Patients planned for w/o 11/02/19. 1x Patient planned for w/o 18/02/19
34	17 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients have received treatment
35	24 Feb 19	2	High patient load (high inflows in September + 120 days)	Both patients are planned for 02/03/2019.
36	3 Mar 19	3	High acute inflows delaying elective cases	2x Op complete. 1x Patients planned for 08/03/19. 2x Patients planned for w/o 11/03/19
37	10 Mar 19	2	High acute inflows delaying elective cases	1x Op complete. 1x Patient planned for week of 11/03/19
38	17 Mar 19	5	High acute inflows delaying elective cases	2x Op complete. 3x Patients planned for week of 18/03/19
39	24 Mar 19	2	High acute inflows delaying elective cases	2x Op complete
40	31 Mar 19	0		
41	7 Apr 19	1	Awaiting confirmation if patient fit to proceed	Book or suspend as appropriate once confirmed by radiology
42	14 Apr 19	1	Awaiting confirmation if patient fit to proceed	Patient suspended
43	21 Apr 19	0		
44	28 Apr 19	1	Patient cancelled from earlier booking due to Anaesthetic Tech shortage	Patient has received treatment
45	5 May 19	0		
46	12 May 19	0		
47	19 May 19	0		
48	26 May 19	1	Patient cancelled from earlier booking due to acute ICMG to be done	Patient has received treatment
49	2 Jun 19	2	1x Patient unfit (open wound healing). 1x Pending dental clearance	1x Planned for week of 10/06/19. 1x Not yet planned
50	9 Jun 19	3	1x Patient unfit (open wound healing). 2x Pending dental clearance	1x Now suspended. 1x Planned for 12/06/19. 1x Planned for week of 17/06/19
51	16 Jun 19	3	3x High acute demand and clinically appropriate to wait	2x Planned for week of 24/06/19. 1x Planned for 21/06/19
52	23 Jun 19	2	1x Surgeon specific. 1x Clinically appropriate to wait	1x Planned for 27/06/19. 1x Planned for week of 01/07/19
53	30 Jun 19	14	1x High acute load. 13 High acute load	3x Planned for week of 08/07/19. 1x Patient has received treatment

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 18 eligible procedures against a plan of 23.

As of 29/07/19:

- There are 7 P1 patients, longest waiting 12 days, planned for 29/07/19
- There are 9 lung cancer patients, longest waiting 47 days, planned for 01/08/19 (patient had an URTI)
- The longest waiting P2 patient is at 105 days, planned for 02/08/19
- The longest waiting P3 patient is at 76 days, planned for 31/07/19

The waiting list decreased from 75 to 71 patients over this period.

In this period, one patient was suspended or removed from the waiting list: 1x Pt. not available until after 23/08/19

In this week, the service completed 6 acute and 12 elective eligible bypasses, including 4 eligible bypasses via a private provider, plus 6 non-Northern Region bypasses (2 on behalf of Waikato DHB, 2 on behalf of Capital and Coast DHB), 1 ECMO, 2 other cardiac, 14 non-bypass, 1 lung transplant, 3 TAVI, and 42 procedures in total. There were 7 cancellations in this period: 1x ICU bed not available + previous list overrun, 3x Previous list overrun, 1x Anaesthetic Tech not available, 1x Anaesthetic Tech + Perfusionist + Surgeon not available, 1x Surgeon not available.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
30/06/2019	22	28	4	0	19	1	3	27	52	48%	52%
07/07/2019	18	20	2	1	14	0	1	18	37	51%	49%
14/07/2019	21	27	1	1	15	0	1	18	44	50%	50%
21/07/2019	20	22	1	2	12	0	2	17	37	59%	41%
28/07/2019	18	24	1	2	14	1	3	21	42	50%	50%

- The following table shows the breakdown of completed eligible operations over the period of **22/07/19 – 28/07/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

	Count of NHI Row Labels	Column Labels				Grand Total
		Auckland	Counties Manukau	Northland	Waitemata	
P1			2	1	3	6
Aorta including aortic root with or without AV Surgery			1	1		2
Double valves			1		1	2
Isolated CABG					1	1
Valve(s) + CABG					1	1
P2		5	4	3		12
Aorta including aortic root with or without AV Surgery		2	4			6
AV Surgery		2				2
MV Surgery		1		3		4
Grand Total		5	6	4	3	18

- The following table shows the breakdown of the WL as of **29/07/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	2	3		2	7
AV Surgery	1	1		1	3
Isolated CABG	1	1		1	3
Valve(s) + CABG		1			1
P2	14	19	6	11	50
Aorta including aortic root with or without AV Surgery	3	4			7
AV Surgery	8	3	3	6	20
Double valves	1	2	1	1	5
Isolated CABG		5		1	6
MV Surgery		2	1	1	4
Valve(s) + CABG	2	3	1	2	8
P3	4	3	1	6	14
AV Surgery			1	1	2
Double valves				1	1
Isolated CABG	2	2		1	5
MV Surgery	2	1		3	6
Grand Total	20	25	7	19	71

Patients Waiting Outside of Urgency Timeframes

PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
Week No.	Week ending			
1	07 Jul 19			
2	14 Jul 19			
3	21 Jul 19	35 1x P1 Patient had a fever		
4	28 Jul 19	38 1x P1 Patient had a fever		
5	04 Aug 19	36 1x P1 Patient needs specific team (complex case)		
6	11 Aug 19	30 1x P1 Patient has influenza		
7	18 Aug 19			
8	25 Aug 19			
9	01 Sep 19			
10	08 Sep 19			
11	15 Sep 19			
12	22 Sep 19			
13	29 Sep 19			
14	06 Oct 19			
15	13 Oct 19			
16	20 Oct 19			
17	27 Oct 19			
18	03 Nov 19			
19	10 Nov 19			
20	17 Nov 19			
21	24 Nov 19			
22	01 Dec 19			
23	08 Dec 19			
24	15 Dec 19			
25	22 Dec 19			
26	29 Dec 19			
27	05 Jan 20			
28	12 Jan 20			
29	19 Jan 20			
30	26 Jan 20			
31	02 Feb 20			
32	09 Feb 20			
33	16 Feb 20			
34	23 Feb 20			
35	01 Mar 20			
36	08 Mar 20			
37	15 Mar 20			
38	22 Mar 20			
39	29 Mar 20			
40	05 Apr 20			
41	12 Apr 20			
42	19 Apr 20			
43	26 Apr 20			
44	03 May 20			
45	10 May 20			
46	17 May 20			
47	24 May 20			
48	31 May 20			
49	07 Jun 20			
50	14 Jun 20			
51	21 Jun 20			
52	28 Jun 20			

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 20 eligible procedures against a plan of 24, this lower than planned delivery was due to the number of cancellations.

As of 02/09/19:

- There are 8 P1 patients, longest waiting 14 days, no date yet as being treated for low haemoglobin
- There are 16 lung cancer patients, longest waiting 20 days, planned for 05/09/19
- The longest waiting P2 patient is at 98 days, planned for week of 09/09/19 (needs to arrange family support from overseas)
- The longest waiting P3 patient is at 77 days, not planned as yet

The waiting list decreased from 81 to 80 patients over this period.

In this period, no patients were suspended or removed from the waiting list.

In this week, the service completed 11 acute and 9 elective eligible bypasses, 1 non-Northern Region bypass (on behalf of Waikato), 4 ECMO, 4 other cardiac, 16 non-bypass, 1 transplant (1x Heart), 3 TAVI, and 46 procedures in total. There were 6 cancellations in this period: 2x Patient unfit, 1x CVICU staff & Perfusion not available, 2x Anaesthetist not available, 1x Substitution by acute (heart transplant).

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
04/08/2019	19	22	1	2	15	0	2	20	40	53%	48%
11/08/2019	23	25	0	0	21	0	3	24	46	57%	43%
18/08/2019	24	25	2	1	12	0	3	18	40	68%	33%
25/08/2019	18	18	5	2	14	3	3	27	42	50%	50%
01/09/2019	20	21	4	4	16	1	3	28	46	50%	50%

- The following table shows the breakdown of completed eligible operations over the period of **26/08/19 – 01/09/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI Row Labels	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1	1	2	4	4	11	
AV Surgery		1	1	1	3	
Double valves		1			1	
isolated CABG	1		3	3	7	
P2	4	4	1		9	
AV Surgery	4				4	
Isolated CABG		2			2	
TV Surgery		1			1	
Valve(s) + CABG		1	1		2	
Grand Total	5	6	5	4	20	

- The following table shows the breakdown of the WL as of 02/09/2019. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	2	3	1	2	8
AV Surgery				1	1
Isolated CABG	2	2	1	1	6
Valve(s) + CABG		1			1
P2	15	21	7	15	58
Aorta including aortic root with or without AV Surgery	2	3			5
AV Surgery	6	8	4	4	22
Double valves	1	1	1	1	4
Isolated CABG	3	4	1	3	11
MV Surgery	1	2	1	4	8
Valve(s) + CABG	2	3		3	8
P3	2	2	1	9	14
AV Surgery			1	2	3
Isolated CABG		2		3	5
MV Surgery	2			3	5
Valve(s) + CABG				1	1
Grand Total	19	26	9	26	80

Patients Waiting Outside of Urgency Timeframes

Week No.	PERIOD		Number of Patients	Reason(s)	Treatment plan (Schedule date/ or progress update)
	Week No.	Week ending			
1	07 Jul 19		35	1x P1 Patient had a fever	1x Planned for 15/07/19
2	14 Jul 19		36	1x P1 Patient had a fever	1x P1 Patient has received surgery, 12x tentative dates allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
3	21 Jul 19		36	1x P1 Patient needs specific team (complex case)	1x P1 Patient planned for 24/07/19, 3x P2 Patients have received surgery, 12x tentative dates allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
4	28 Jul 19		30	1x P1 Patient has influenza	1x P1 Patient awaiting test results to proceed, 2x P2 Patients have received surgery, 4x tentative dates allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
5	04 Aug 19		28	1x P1 Patient waiting for TAVI	1x P1 Patient has received surgery, 1x P2 Patient has received surgery, 1x tentative date allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
6	11 Aug 19		30		2x P2 Patients have received surgery, 3x tentative dates allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
7	18 Aug 19		35	2x P1 Patient waiting for TAVI	2x P1 Patients have received surgery, 1x P2 TAVI has received surgery, 4x tentative dates allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
8	25 Aug 19		52	1x P1 Patient needs further workup and consideration for TAVI	1x P1 Patient now suspended, 2x P2 Patients have received surgery, 4x P2 Patients planned for this week, 7x tentative dates allocated and continuing to manage according to clinical priority as appropriate, with continuous clinical oversight.
9	01 Sep 19		34	2x P1 patients currently not fit for surgery	1x P1 Patient being treated for low hemoglobin, 1x P1 Patient has received surgery, 1x P2 Patient has received surgery, 2x P2 Patients planned for 05/09/19, 5x P2 Patients planned for 09/09/19, 1x P2 Patient planned for week of 16/09/19.
10	08 Sep 19				
11	15 Sep 19				
12	22 Sep 19				
13	29 Sep 19				
14	06 Oct 19				
15	13 Oct 19				
16	20 Oct 19				
17	27 Oct 19				
18	03 Nov 19				
19	10 Nov 19				
20	17 Nov 19				
21	24 Nov 19				
22	01 Dec 19				
23	08 Dec 19				
24	15 Dec 19				
25	22 Dec 19				
26	29 Dec 19				
27	05 Jan 20				
28	12 Jan 20				
29	19 Jan 20				
30	26 Jan 20				
31	02 Feb 20				
32	09 Feb 20				
33	16 Feb 20				
34	23 Feb 20				
35	01 Mar 20				
36	08 Mar 20				
37	15 Mar 20				
38	22 Mar 20				
39	29 Mar 20				
40	05 Apr 20				
41	12 Apr 20				
42	19 Apr 20				
43	26 Apr 20				
44	03 May 20				
45	10 May 20				
46	17 May 20				
47	24 May 20				
48	31 May 20				
49	07 Jun 20				
50	14 Jun 20				
51	21 Jun 20				
52	28 Jun 20				

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 12 eligible procedures against a plan of 23, this reduction in delivery was a result of a high number of cancellations, and the inability to schedule to full capacity due to OR resource.

As of 30/09/19:

- There are 14 P1 patients, longest waiting 12 days, planned for 01/10/19
- There are 12 lung cancer patients, longest waiting 28 days, planned for 03/10/19
- The longest waiting P2 patient is at 109 days, planned for week of 07/10/19
- The longest waiting P3 patient is at 94 days, planned for week of 30/09/19

The waiting list increased from 87 to 91 patients over this period.

In this period, 2 patients were suspended or removed from the waiting list: 1x Pt family not yet in country, 1x Pt for neurology review.

In this week, the service completed 10 acute and 2 elective eligible bypasses, 3 non-Northern Region bypasses, 2 ECMO, 15 non-bypass, 2 TAVI, and 32 procedures in total.

There were 9 cancellations in this period: 5x CVICU bed not available, 2x Anaesthetist not available, 2x Substitution by acute. There were 4 surgical slots left unbooked in this period: 4x OR resource not available.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
01/09/2019	20	21	4	4	16	1	3	28	46	50%	50%
08/09/2019	24	25	2	1	17	0	3	23	45	60%	40%
15/09/2019	20	20	1	0	18	0	3	22	39	59%	41%
22/09/2019	16	19	3	0	22	4	3	32	48	40%	60%
29/09/2019	12	15	2	0	15	0	2	19	32	44%	56%

- The following table shows the breakdown of completed eligible operations over the period of **23/09/19 – 29/09/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI Row Labels	Column Labels			Grand Total
	Auckland	Northland	Waitemata	
P1	3	1	5	9
AV Surgery			1	1
Double valves		1		1
isolated CABG	3		3	6
Valve(s) + CABG			1	1
P2	2			2
AV Surgery	1			1
TV Surgery	1			1
P3	1			1
MV Surgery	1			1
Grand Total	6	1	5	12

- The following table shows the breakdown of the WL as of **30/09/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	3	4	5	2	14
Aorta including aortic root with or without AV Surgery		1			1
AV Surgery	1				1
Double valves				1	1
Isolated CABG	2	2	5	1	10
Valve(s) + CABG		1			1
P2	15	25	5	17	62
Aorta including aortic root with or without AV Surgery	1	2			3
AV Surgery	4	9	3	4	20
Double valves	1			2	3
Isolated CABG	5	8	1	4	18
MV Surgery	2	2	1	4	9
Valve(s) + CABG	2	4		3	9
P3	3	3	1	8	15
Aorta including aortic root with or without AV Surgery	1				1
AV Surgery			1	1	2
Isolated CABG	1	3		3	7
MV Surgery	1			3	4
Valve(s) + CABG				1	1
Grand Total	21	32	11	27	91

Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 22 eligible procedures against a plan of 21.

As of 28/10/19:

- There are 17 P1 patients, longest waiting 11 days, now op complete
- There are 4 lung cancer patients, longest waiting 11 days, now op complete
- The longest waiting P2 patient is at 94 days, planned for week of 04/11/19
- The longest waiting P3 patient is at 69 days, not planned as yet

The waiting list increased from 74 to 80 patients over this period.

In this period, 0 patients were suspended or removed from the waiting list.

In this week, the service completed 11 acute and 11 elective eligible bypasses, 2 non-Northern Region bypasses (including 1 bypass for Capital and Coast DHB), 2 ECMO, 18 non-bypass, 2 TAVI, and 44 procedures in total.

There were 5 cancellations in this period: 4x CVICU bed not available, 1x Previous list overrun.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
29/09/2019	12	15	2	0	15	0	2	19	32	44%	56%
06/10/2019	25	26	2	0	12	1	3	18	41	68%	32%
13/10/2019	23	26	2	0	17	0	2	21	45	56%	44%
20/10/2019	15	18	1	0	13	0	0	14	32	47%	53%
27/10/2019	22	24	2	0	18	0	2	22	44	55%	45%

- The following table shows the breakdown of completed eligible operations over the period of 21/10/19 – 27/10/19. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI Row Labels	Column Labels					Grand Total
	Auckland	Counties Manukau	Northland	Waitemata		
P1	1	5	1	4	11	
Isolated CABG	1	4		3	8	
MV Surgery				1	1	
Valve(s) + CABG		1	1		2	
P2	2	1	1	4	8	
AV Surgery			1		1	
Double valves				1	1	
Isolated CABG	1	1			2	
MV Surgery				2	2	
Valve(s) + CABG	1			1	2	
P3			1	2	3	
AV Surgery			1	1	2	
Valve(s) + CABG				1	1	
Grand Total	3	6	3	10	22	

- The following table shows the breakdown of the WL as of 28/10/2019. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	1	5	1	10	17
AV Surgery				3	3
Isolated CABG		2	1	4	7
MV Surgery		3		1	4
Valve(s) + CABG	1			2	3
P2	11	23	5	17	56
Aorta including aortic root with or without AV Surgery	1	1	1		3
AV Surgery	3	11	1	4	19
Double valves	1	1		2	4
Isolated CABG	3	7	2	3	15
MV Surgery	3	1	1	4	9
Valve(s) + CABG		2		4	6
P3	3	2		2	7
Aorta including aortic root with or without AV Surgery	1	1			2
Isolated CABG	1	1		1	3
MV Surgery	1			1	2
Grand Total	15	30	6	29	80

Actual

Head

Work

Actual

Work

Actual

Work

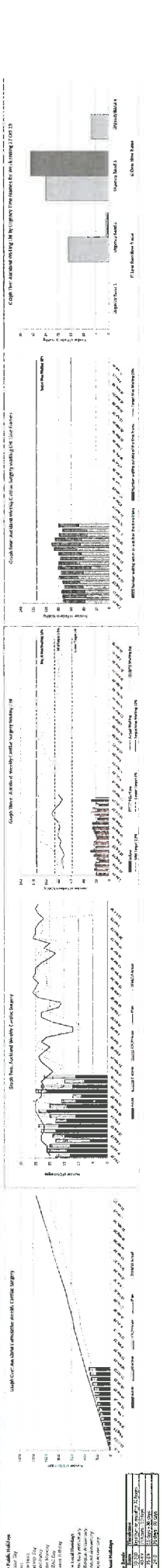
Actual

Work

Actual

Work

No.	Description	Actual		Head		Work		Actual		Work		Actual		Work		Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1



Please find attached the latest weekly report from ACH CTSU. In the last week, the service has delivered 18 eligible procedures against a plan of 22.

As of 02/12/19:

- There are 9 P1 patients, longest waiting 10 days, now op complete
- There are 5 lung cancer patients, longest waiting 12 days, planned for week of 09/12/19
- The longest waiting P2 patient is at 102 days, now op complete
- The longest waiting P3 patient is at 103 days, planned for 03/12/19

The waiting list increased from 74 to 76 patients over this period.

In this period, 2 patients were suspended or removed from the waiting list: 1x Patient not available (overseas), 1x Patient requested delay to arrange home support.

In this week, the service completed 15 acute and 3 elective eligible bypasses, 3 non-Northern Region bypass (including 1x bypass for Waikato DHB), 4 ECMO, 16 non-bypass, 2 transplants (2x lung), 5 eligible TAVI, and 43 procedures in total.

There were 9 cancellations in this period: 3x CVICU bed not available, 1x Surgeon not available (transplant retrieval), 3x CVICU bed and Perfusionist not available, 2x Substitution by acute NBP cases. There were 5 surgical slots not booked in this period: 4x All day cases, 1x CVICU bed not available.

Week Ending	Northern	All Pt's - bypass procedures	Non bypass and cardiac other eligible						Total CTSU procedural throughput	Northern bypass eligible %	Non Eligible%
			ECMO	Other Cardiac	Thoracic	Transplant	TAVI (eligible)	Total			
03/11/2019	21	22	2	0	15	0	4	21	39	64%	36%
10/11/2019	21	22	3	0	14	1	3	21	40	60%	40%
17/11/2019	23	26	3	1	18	0	2	24	48	52%	48%
24/11/2019	19	20	4	0	9	4	3	20	37	59%	41%
01/12/2019	18	21	4	0	16	2	5	27	43	53%	47%

- The following table shows the breakdown of completed eligible operations over the period of **25/11/19 – 01/12/19**. Note that patients are brought forward on the basis of clinical priority so the DHB spread of these patients will depend on how many P1 patients are presenting for surgery regardless of DHB of domicile.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	3	4	4	4	15
Aorta including aortic root with or without AV Surgery				1	1
AV Surgery				2	2
Isolated CABG	1	4		3	8
TV Surgery	1				1
Valve(s) + CABG	1		1	1	3
P2	1	1		1	3
Aorta including aortic root with or without AV Surgery				1	1
AV Surgery	1	1			2
Grand Total	4	5	4	5	18

- The following table shows the breakdown of the WL as of **02/12/2019**. As noted above the size of the total waiting list for each DHB is not comparative as it depends on the makeup of the waiting list in terms of P1, P2 and P3 patients. P1 patients will always get treated first due to clinical prioritisation.

Count of NHI Row Labels	Column Labels				Grand Total
	Auckland	Counties Manukau	Northland	Waitemata	
P1	2	3	1	3	9
AV Surgery		2		2	4
Double valves				1	1
Isolated CABG	2		1		3
Valve(s) + CABG		1			1
P2	12	24	5	18	59
Aorta including aortic root with or without AV Surgery	1	2			3
AV Surgery	2	11	2	6	21
Double valves	1	2		1	4
Isolated CABG	4	5	2	4	15
MV Surgery	3	2	1	2	8
Valve(s) + CABG	1	2		5	8
P3	2	3		3	8
Aorta including aortic root with or without AV Surgery	1	1			2
Isolated CABG		1		2	3
MV Surgery	1	1		1	3
Grand Total	16	30	6	24	76

PCCS presentation to Heart Kids

September 2019

Optimal care.....

- Surety of treatment with well defined timeline
- No avoidable complications
- Best outcomes
- Two-way co-operative and supportive interaction with families

- It takes a village to raise a child.....

It takes an army to treat a child with
congenital heart disease.....

Event

Actions

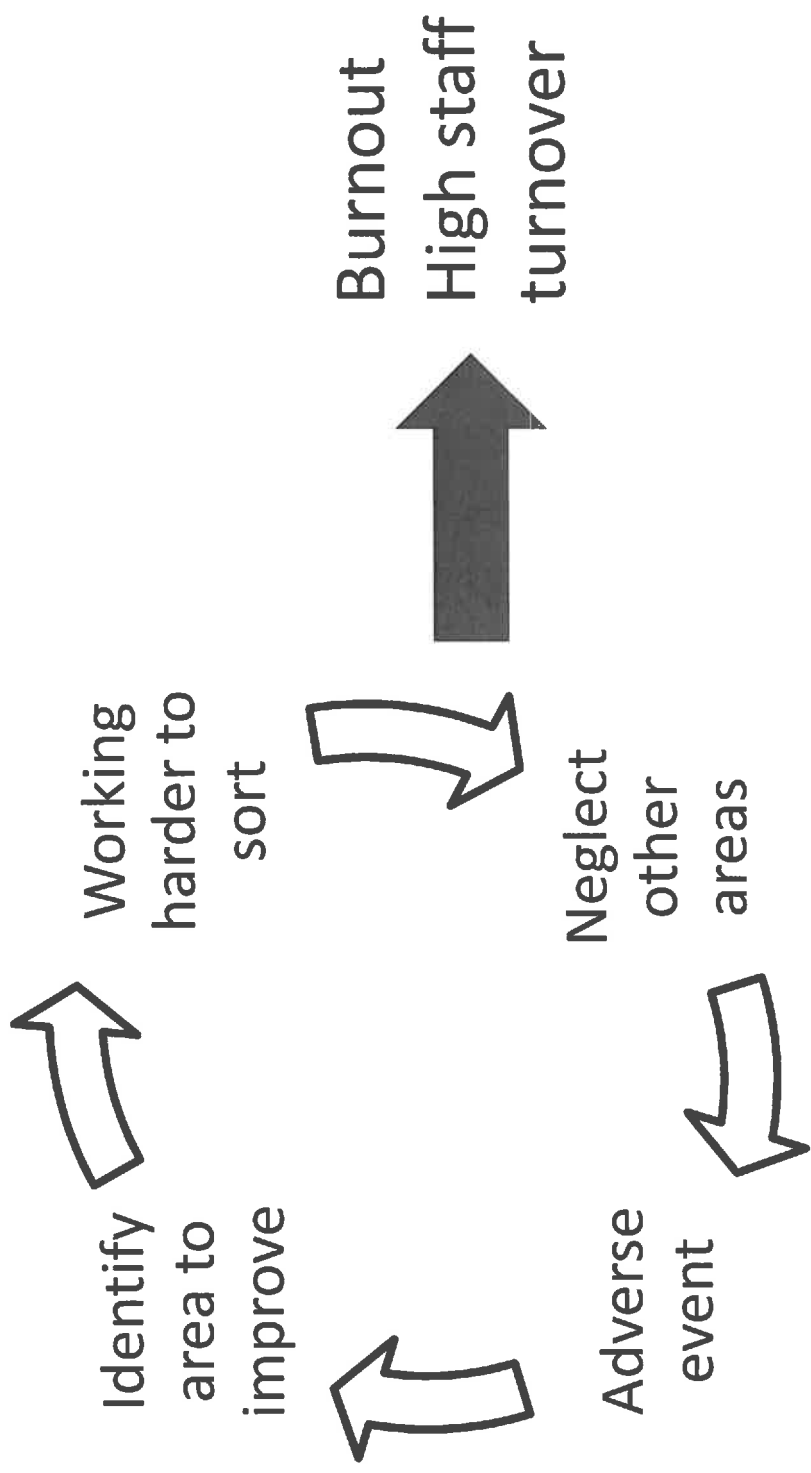
Staff

Event	Actions	Staff
Diagnosis	Secondary care diagnostics	Pediatrician with a cardiology interest Locally trained sonographer
	Acute transfer (inpatient) or scheduled paediatric cardiology outpatient clinic review (local or outreach)	Paediatric cardiologists
High level diagnostics (MRI Auckland Wellington and Christchurch, remainder Auckland only)	Tertiary level echocardiogram	Paediatric cardiac sonographer
	Cardiac MRI	Cardiac radiologist or subspecialised paediatric cardiologist Paediatric cardiac anaesthetist
	Cardiac Catheterisation	Subspecialised paediatric cardiologist Paediatric cardiac anaesthetist Physiologist Radiographer Specialised nursing staff
	Cardiac CT	Cardiac radiologist or subspecialised paediatric cardiologist Paediatric cardiac anaesthetist
Decision making and communication	Transoesophageal echocardiography	Subspecialised paediatric cardiologist Paediatric cardiac anaesthetist
	Multidisciplinary meeting	Paediatric cardiac surgeons Nurse specialists Psychologist Play Therapists Social worker
Intervention	Cardiac Surgery	Specialised scheduling staff Paediatric cardiac surgeon Subspecialised cardiac perfusionist Subspecialised Paediatric cardiac nursing staff including nurse assist Paediatric cardiac Surgical trainee Paediatric cardiac anaesthetist Paediatric echocardiologist
	Catheter Intervention	Subspecialised paediatric cardiologist Paediatric cardiac anaesthetist Physiologist Radiographer Specialised nursing staff
Recovery	Intensive Care	Paediatric cardiac intensive staff Specialised nursing staff Paediatric cardiologist Paediatric cardiac surgeon
	Cardiac Ward	Specialised nursing staff Nurse practitioners Nurse specialist Paediatric cardiologist Paediatric cardiac surgeon Speech language therapist Play therapist
Postoperative Surveillance	Discharge	Nurse specialist Social worker Local DHB paediatrician Paediatric cardiologist
	Outpatient/Outreach Clinic	Paediatric cardiac sonographer

Problems

- Funding did not recognise complexity
- Growing complexity = growing resource requirement
- Ambitious service
 - Staff often overstretched
- Insufficient staff/other resource to mitigate risk

Vicious cycle



- Poorly resourced care is expensive
 - Cancellations
 - Complications
- Very complex service with many critical staff experts in specific areas
 - High risk of system failure
- Staff working late into the evenings and in the weekend to get work done

What made a difference?

Cancellation rates

Complaints

Heart Kids NZ

What happened

- Very significant increase in funding for
 - ICU beds
 - Operating room availability
 - Senior nursing staff
 - Mid-level medical staff
 - Senior medical staff

New funding for children - year 1 (2015-16)

- Two ICU beds (= 10 nurses)
- Additional operating room time
(anesthetist, an aesthesia technician,
perfusionist, theatre nurses)
- Ward nurses (4)
- Nurse specialist
- Sonographer

New funding for children - Year 2 (2016/17)

- Cardiologists (2)
 - Electrophysiology (heart rhythm)
 - Imaging
- Nurse specialist
- Nurse practitioner
- Psychologist
- Data Analyst

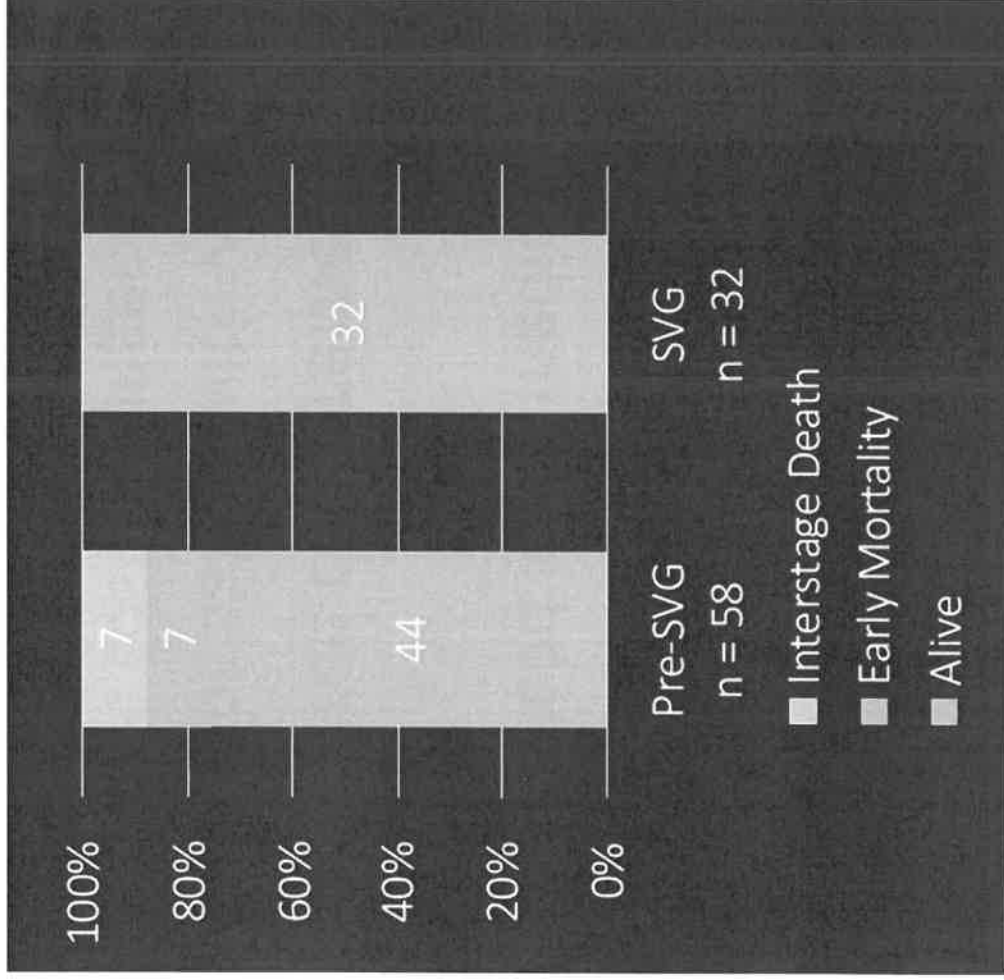
What this means

- Less out of hours surgery
- Better support for families
- More assistance from senior nursing staff
- Future proofing
- Better and more efficient running of the inpatient service

Why haven't all the issues been sorted

- Recruitment
 - 12-18 months lead in for nursing staff
 - 12-24 months lead in for medical staff – longer to train your own
- Changing resource requirements
 - Better results for babies with very complex heart problems at the cost of longer hospital stay
 - Expanding role for intensive care – increasing length of stay

2013-16 2017-18



What about kids who have

grown-up?

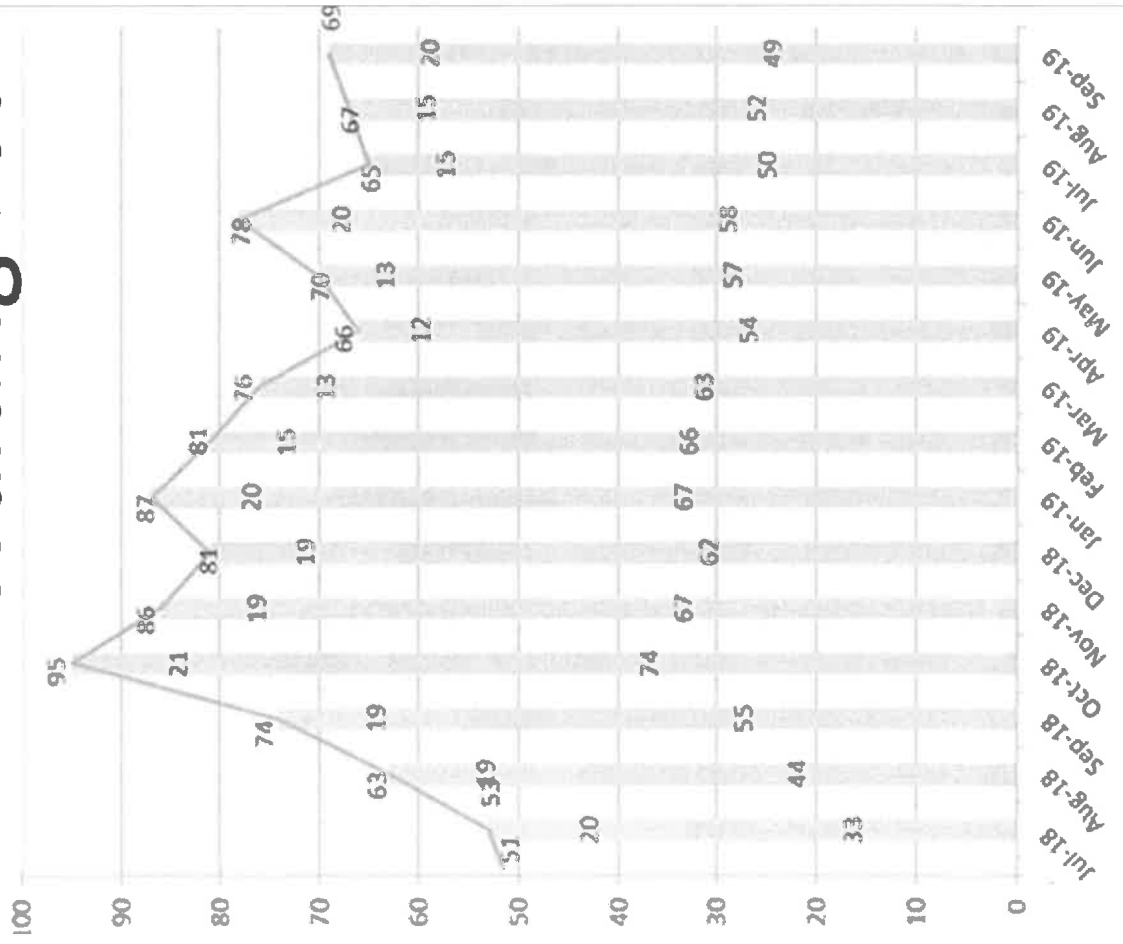
Year 1 & 2
(2016/18)

Nurse practitioner (1)
Mid level doctor (1)
Administrative staff (1)
Cardiologist (0.5)
Psychologist (0.3)

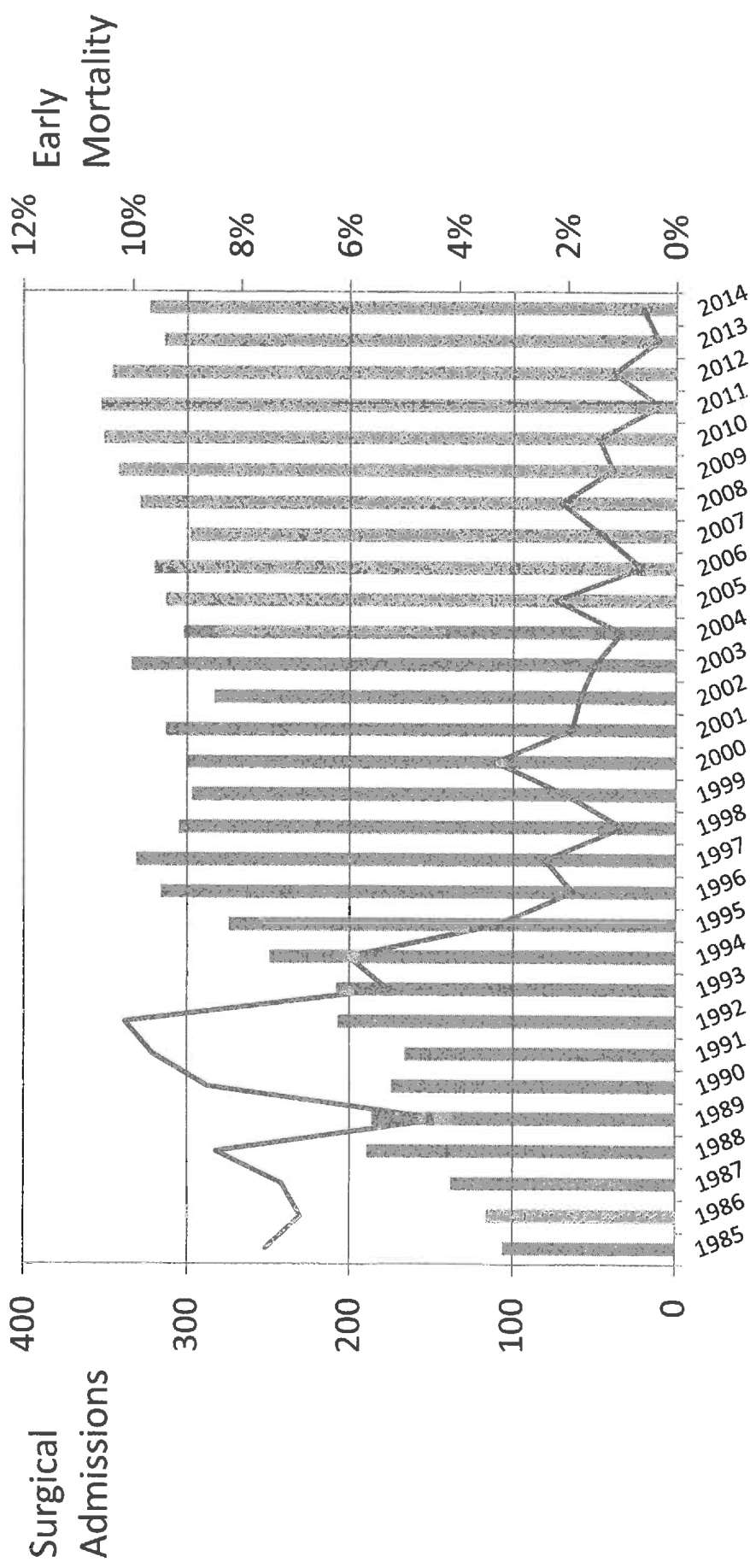
Year 3 & 4
(2018/20)

Cardiologist (1.7)
Senior Nurse (1)

Waiting list



Volume and early mortality



Cumulative Key Performance Indicators (OCT-DEC 2018)

Operation Type	Alive	Early Mortality	Late Mortality	Total
CPB	88	1		89
No CPB Cardiovascular	15			15
Other	2			2
Total	105	1	1	106

where Other includes: ECMO; Non-cardiac, Non-thoracic procedure on cardiac patient with cardiac anaesthesia; Thoracic; VAD Operation Done Without CPB

