

Dunedin Hospital: Current and future hospital capacity

The following information illustrates the capacity of the current Dunedin Hospital, the Detailed Business Case (DBC) for the New Dunedin Hospital, and the difference following the design reset undertaken in 2022 (Option 4.5a).

Option 4.5a reflects the design reset with \$110million funding (Dec 2022) and additional \$10million provided in April 2023. The \$10m includes an additional MRI, 'warm' shell fit-out of PET scanner space, complete fit-out of shelled collaborative workspaces, a review into pathology service requirements, and a review into capacity needs for mental health services for older people.

The final column on the tables below notes the differences to what was approved in the Final Detailed Business Case in April 2021.

The changes to design affect the Inpatient building only. In summary, on opening, New Dunedin Hospital will have:

- 398 beds (plus shell space for 12 more) - DBC was 410
- 23 theatres and procedure rooms (plus shell space for 3 more) - DBC was 24 (plus shell space for 4 more)
- Fit-out of shell space for 1 PET scanner - DBC was 1 PET scanner.

Overnight Beds

The following are the number of beds in each type of ward. These are beds for stays of 24 hours or longer.

Ward	Current Dunedin Hospital Capacity 2023	NDH 75% Developed Design March 2022	NDH Option 4.5a – Approved Dec 2022	Change from Final Detailed Business Case /Notes
Maternity	21	24	24	No Change Note the maternity beds cover both secondary and tertiary services
Neonatal	19	22	22	No Change
Self-care, transitional beds	4	12	12	No Change
Paediatric	19	16	16	No Change
Medical / Surgical (includes Medical HDU)	234	235	235 (including 3 beds to be delivered in the future on Level 6 with MHOP and 8	The Final DBC referred to 246 Med/Surg beds and 421 beds in total. During the redesign work it was identified eleven beds

			beds to be co-located with the rehabilitation ward)	had been inadvertently double-counted in the Schedule of Accommodation.
Mental health services of older people	12	21	21 (including 12 on opening and 9 to be delivered in future)	In total there are spaces for 12 future beds planned for Level 6 of Inpatients: 9 MHOP beds and 3 Med/Surg beds.
Rehabilitation	34	40	40	No change but will be delivered in 2 x 24 wards incl 8 Med/Surg beds
Intensive care, HDU surgical (Stage 1 and Stage 2)	24	40 (incl. 10 built as shell)	40 (incl. 10 built as shell)	No Change
Total:	367	410	410	NB: The Final DBC referred to 421 due to the double count of 11 Med/Surgical beds

Operating Theatres and procedure rooms (Inpatients and Outpatients)

Operating theatres	Current Dunedin Hospital Capacity 2023	NDH 75% Developed Design March 2022	NDH Option 4.5a – Approved Dec 2022	Change from Final Detailed Business Case
Acute and elective	9	15 (incl. 4 built as shell)	13 (incl. 3 built as shell)	There were 15 theatres in the Final DBC (including 4 built as shell)
Same day	3	5	5	No Change
DSA/ angiography	1	2 (incl 1 hybrid)	2 (incl 1 hybrid)	No Change
Cardiac catheter laboratory	1	2 (incl 1 hybrid)	2 (incl 1 hybrid)	No Change
Endoscopy rooms	3	4	4	No Change
Total:	17	28 (including 4 built as shell)	26 (including 3 built as shell)	28 in Final DBC (including 4 built as shell)

Same day and ambulatory rooms

Same day/bed equivalent refers to the number of beds or spaces for stays that are 23 hours or less.

Same day and ambulatory rooms	Current Dunedin Hospital Capacity 2023	NDH 75% Developed Design March 2022	NDH Option 4.5a – Approved Dec 2022	Change from Final Detailed Business Case
Same day/bed equivalent				
Acute dialysis unit	10	4	4	The Final DBC referred to 8 but this is now being delivered as 4 acute dialysis beds with additional capacity (8x) for dialysis function in adjacent medical HDU
Day medical	5	16	16	No Change
Day surgical	11	30 + 15 recliners in DOSA	30 + 15 recliners in DOSA	No Change
Day recovery (Outpatient)	17	21 + 14 recliners	21 + 14 recliners	No Change
23-hour unit	0	20	20	No Change The 23 hour unit is a new model of care that will seek to get greater efficiency from operating theatres and inpatient beds
Birthing rooms	7	9	9	The Final DBC referred to 10. There will be <ul style="list-style-type: none"> • 5 rooms for secondary birthing • 3 for primary birthing • 1 for Te Puna, Aroha <p>There will be an additional 3 overnight rooms in primary</p>
Maternity assessment unit	4	7	7	No Change
Paediatric assessment unit	5	4	4	No Change
Paediatric day unit (Outpatients)	2	4	4	No Change
ED bays	31	53	53	No Change

Same day and ambulatory rooms	Current Dunedin Hospital Capacity 2023	NDH 75% Developed Design March 2022	NDH Option 4.5a – Approved Dec 2022	Change from Final Detailed Business Case
Emergency psychiatric	5	5	5	No Change
Ambulatory rooms				
Clinic consult rooms	n/a	64	64	No Change Outpatient activity currently occurs in a variety of spaces including dedicated outpatient clinic rooms plus offices.
Specialty clinic rooms	n/a	20	20	No Change
Procedure rooms	1	4	4	No Change
Medical physiology labs	24	29	29	No Change
Transit care	0	12	12	No Change

Imaging

The following are the different types of imaging or scanners used within a medical environment.

Modality	Current Dunedin Hospital Capacity 2023	NDH 75% Developed Design March 2022	NDH Option 4.5a – Approved Dec 2022	Change from Final Detailed Business Case
MRI	2	3	3	3 in Final DBC
CT	2 ¹	4 (incl. 1 built as shell)	4 (incl. 1 built as shell)	No Change
Ultrasound	4	6	6	No Change
Fluoroscopy	1	1	1	No Change
OPG/cone	0	1	1	No Change
General x-ray	6	8	8	No Change
Mobile x-ray	7	6	6	No Change
Mobile image intensifiers	3	4	4	No Change
Mammography	3rd party	0	0	No Change
SPECT CT	1	1	1	No Change
DEXA	1	1	1	No Change
PET CT	0	1	1 (built as shell)	Fit-out of Shell space to be provided

¹ An additional CT scanner is primarily used as a treatment planning scanner for Southern Blood & Cancer which is out of scope of NDH project.

In-scope services included in each building²

Inpatient Building	
<p>Patients Areas Medical/Surgical Inpatient Unit High Acuity Inpatient Unit Rehabilitation Inpatient Unit Mental Health Services Older Persons Children’s Inpatient & Paediatric Assessment Day Unit Intensive Care Unit (10 Shelled Bays) Acute Renal Dialysis Unit Neonatal Intensive Care Unit Maternity Unit + Interventional Suite Primary Birthing Unit Haematology & Oncology Inpatient Unit</p> <p>Interventional Areas Operating + Interventional Suite 23 Hour Ward Emergency Department including & Satellite Radiology Emergency Psychiatric Service (EPS) Assessment Planning Unit Acute Radiology Nuclear Medicine Mortuary Day Surgical Unit Cardiac Interventional Suite</p> <p>Public & Community Areas Front of House Retail (<i>Shell Only</i>) Multi-Faith Centre Whānau Spaces</p>	<p>Labs & Processing Areas Medical Physiology Labs Pathology Laboratory (<i>Shell only</i>)³ NZBS - Blood Bank (<i>Shell only</i>)</p> <p>Supplementary Services Pharmacy⁴ CETES: Clinical Engineering Sterile Services Unit Security Information Services Building & Property Integrated Operations Centre Staff Amenities Heliport Collaborative Workspace</p> <p>Supplementary Services Back of House - Linen, Waste, Mail & Support Food Services (<i>Shell only</i>) Procurement & Supply</p>
Outpatient Building	
<p>Clinical Areas Day Procedures Unit Planned Radiology Specialist Clinics Day Medical Unit</p> <p>Public & Community Areas</p>	<p>Labs & Processing Areas Transit Care Unit Pathology Collection (<i>Warm shell</i>) Supplementary Services Back of House - Linen, Waste & Support Satellite Security</p>

² The historic Dairy Building will be now used to deliver up to 2000m² of space as part of the scope of services for the Inpatient Building.

³ The shell area for pathology has been reduced from 1300m² to 350m² under Option 4.5a – there was no size requirement for pathology included in the Detailed Business Case

⁴ The aseptic manufacturing unit for pharmacy has been deleted under Option 4.5a and will remain in its current location in the Southern Blood & Cancer Building.

Front of House Retail (<i>Shell only</i>)	Satellite CETES
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Out of scope services accommodated in residual Dunedin campus

Out of Scope	
Breast Care including BreastScreen Aotearoa Community Care Hub based Ambulatory services Sexual Health Urgent Care Centre Orthotics and Prosthetics NZ Artificial Limb Service Renal Home Training Unit Clinical and Corporate Information Management	Central Intake Service Information Services Transport Building and Property Procurement & Supply Additional carparking Creche Gibson Day Unit (Older persons' mental health)

Services change from Detailed Business Case	Justification for change	Impact on services
Reduction of 9 MHSOP and 3 med/surgical beds from the Detailed Business Case (DBC) on opening.	Detailed work on a suitable model of care (including primary and community-based services) is needed.	Funding has been provided (April 2023) to carry out a review into MHSOP capacity requirements. Once the model of care is completed it will identify where the future requirement for these beds will be, either in primary or community care, or in an acute services building, at which time funding will then follow.
Reinstatement of all beds except MSHOP beds as above.	Clinical feedback was taken on board and the proposed bed reduction was reinstated as per the Detailed Business Case.	No impact on service provision except as above.
PET scanner (warm shelled space provided)	Currently there are no PET scanners in public hospitals in New Zealand. The provision of PET scans is provided by the private sector. Pacific Radiology are planning to provide a PET scanner in Dunedin in the next year or so (tbc). As a PET scanner is a very specialised piece of equipment that requires highly trained individuals to operate it, a National Strategy is required to understand the volumes and requirements for PET scans nationally.	There is no impact on service provision of PET scans. Patients requiring PET scans will still be able to receive them, and with the addition of a PET scanner in Dunedin, albeit in a private setting, means that patients will not have to travel to receive their scan. However should results of a national plan identify the need for a PET scanner in NDH, the space designated for a PET scanner will be 'warm' shelled (preparing the space with electrics, for example) to future proof the space.
Pharmacy Aseptic Production Unit	A clinical pharmacy is included in the design of the NDH. The Pharmacy Aseptic Production Unit is currently housed within the Southern Blood and Cancer Building. The proposal leaves the production unit where it is with no change to service provision.	No change in service provision as to current service provision. Feasibility and cost of extending life of current facility needs to be determined.
Pathology Services	Pathology services were to be shell space only, with contracted provider fitting out the space to	Funding has been provided (April 2023) for a Pathology services review. This review will

	<p>their requirements. Onsite pathology services remain at acute functions only and offsite pathology provided by contracted provider with the services being possibly connected by Lansom Tube system as is standard in modern hospitals. The size of the in-hospital lab is within the Australasian Health Facility Guidelines.</p>	<p>assess the efficacy of the two-site model.</p>
<p>Removal of Pavilion Building</p>	<p>The Pavilion Building housed mainly staff amenities and collaborative workspace. Collaborative workspaces have been provided in the Inpatient Building and the reuse of the historic Dairy Building for collaborative workspaces and staff amenities has resulted in a small decrease in workspace area of 5%.</p>	<p>No change in service provision as the workspaces is now distributed rather than consolidated. The shelled collaborative workspaces will be fitted-out on opening due to funding(April 2023).</p>
<p>Removal of Logistic Building</p>	<p>The logistics that were to be housed in the Logistics Building have been relocated to the expanded Inpatient Building which has benefits of being closer to where they are needed. The Logistics Building is replaced with a generator and heat pump chiller facility.</p>	<p>No change in service provision or logistics provision.</p>
<p>Removal of one link bridge between Outpatient and Inpatient Building</p>	<p>The public link bridge between the Outpatient and Inpatient Building has been removed, leaving the patients and staff link bridge in place. During the value management exercise the patient and staff link bridge was prioritised over the public link bridge due to ensure clinical safety of surgical activity occurring in the Outpatient Building.</p>	<p>No change in service provision as the critical clinical link bridge is retained.</p>
<p>Reduction of 2 theatres.</p>	<p>Theatre numbers have been reduced by two in response to opportunities to use a 10-hour operating day compared to a more conventional 8-hour operating day for planned procedures. This will</p>	<p>No change in service provision.</p>

	<p>have a workforce FTE and cost implication. Theatre numbers are still much higher than the existing hospital and an independent clinical review stated that the building is impressive, large and future proofed and will allow for greatly enhanced safety and clinical/patient/family experience. Key colocations have been preserved.</p>	
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