



The New Royal Adelaide Hospital: designed to manage safer handling of bariatric patients

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NewRAH (Model of Care)



**Government
of South Australia**

SA Health

New Royal Adelaide Hospital

Commenced 2011. Occupation April 2016



‘Built for a new century of medicine’

- Aging population
- Infection control
- Managing Bariatric patients
- Increased Theatre, ICU and ED capacity
- Specialist areas: Spinal. Burns.
- Acute Mental health
- Single patient rooms
- Environment –green spaces for patients



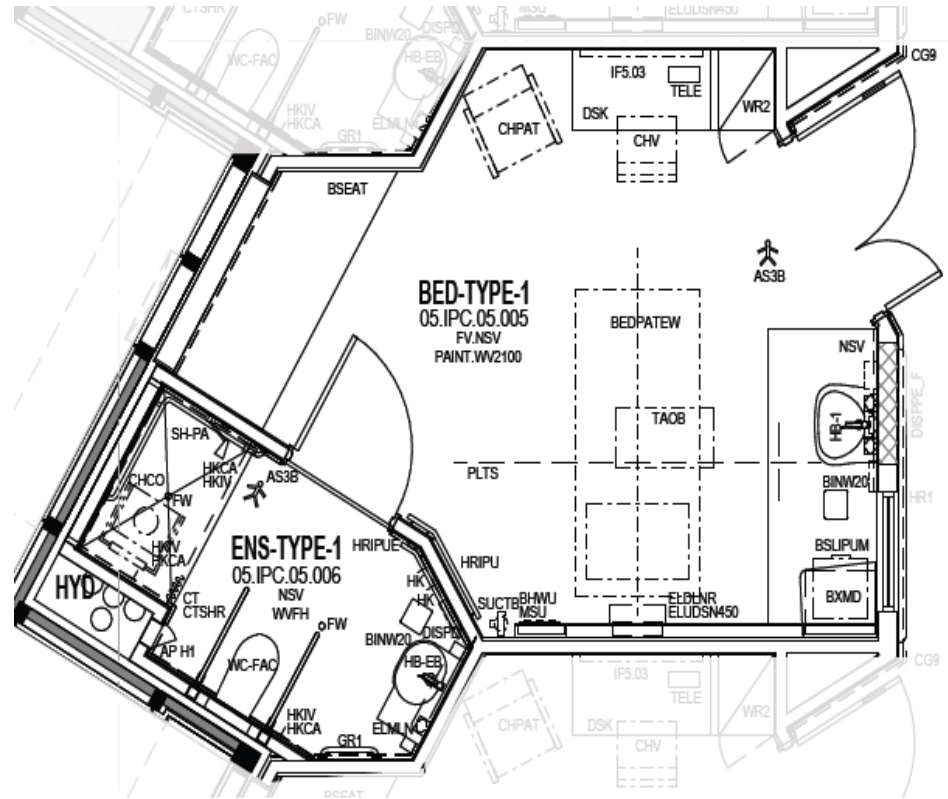


Inpatient bed rooms

- All single rooms
- 60 ICU rooms (25m²)
- 600 general beds (18m²)
- 40 acute mental health beds (15m²)
- 16 general patient rooms per pod
- 1 larger patient room per pod (1:19 ratio)
- Total of 7 designated bariatric rooms and potential for access to other larger rooms

Inpatient Bedroom

All single rooms
Room- at least
18sqm
Ensuite-5sqm
Single gantry. 1:8
(access to mobile
motor 250kg)
Reduced falls risk
Doors : 1.3 and
910mm



Inpatient areas



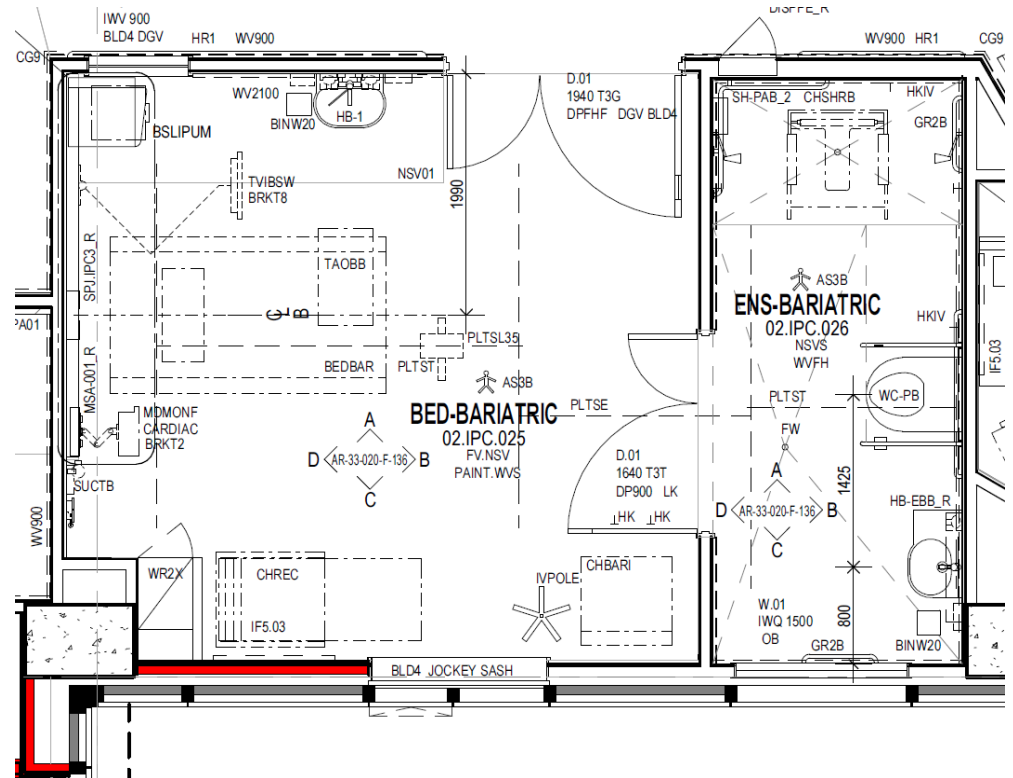
Bariatric inpatient room

20.5 m²
Ensuite 7m²

H tracking
Fixed motors

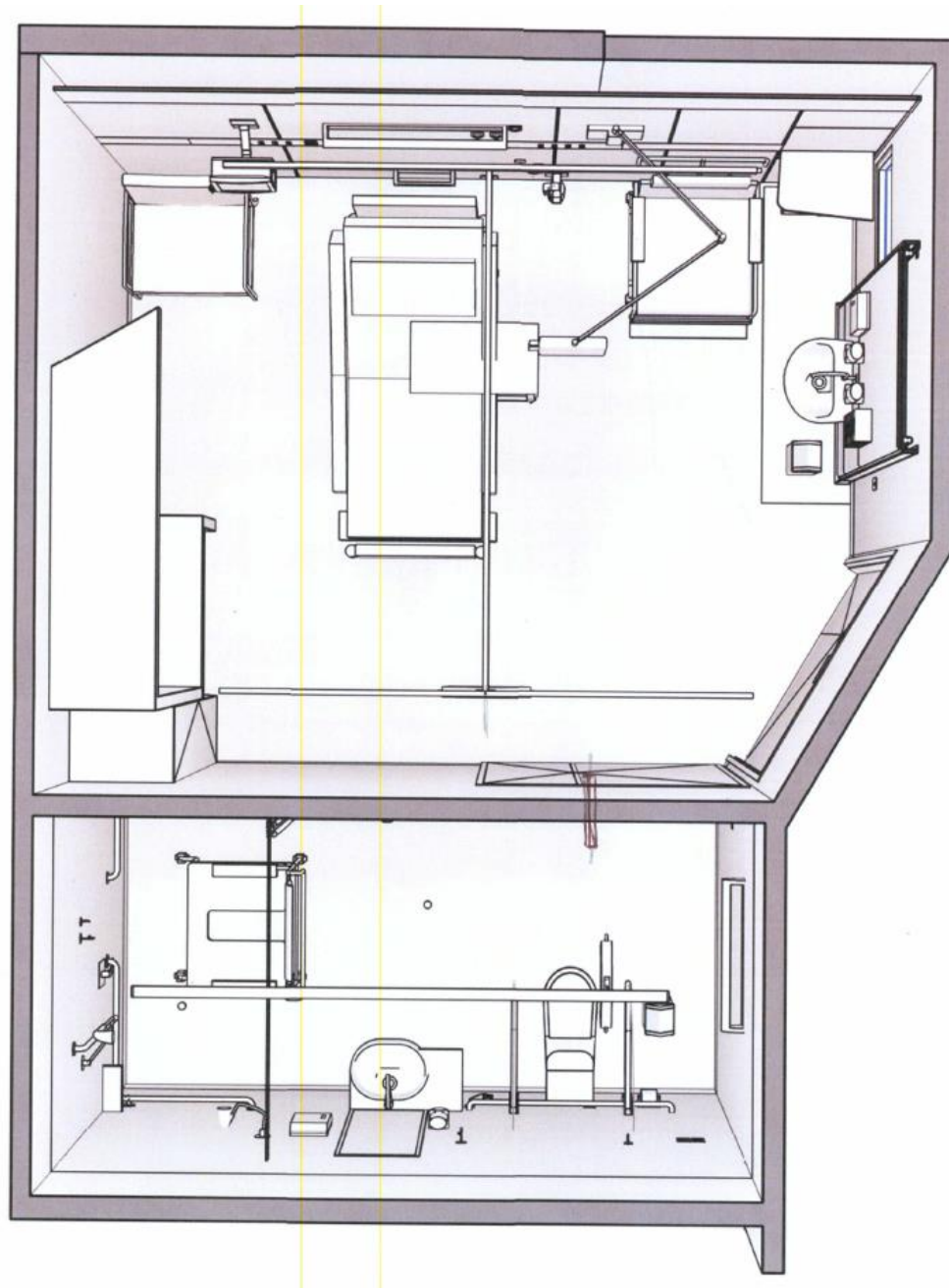
1.5m on 2
sides of bed
Doors:
1520mm

Heavy duty
rails/reinforce
sink



Villeneuve 2007. 1.8m on 3 sides of the bed

Other studies: H tracking



Bariatric rooms-FFE

- Patient bed. SWL-450kg. 900mm→1040mm wide
 - H tracking in patient room and ensuite.
 - 1 room fixed 450kg capacity motor.
 - 7 rooms fixed 350kg capacity motors
 - Patient chairs- SWL 350kg and 700mm wide.
- Bariatric overways.
- Visitor chairs. (20% wider and 300kg SWL)
 - Central Equipment Pool access to 'super bariatric' equipment

Lifter motors

Motors	Fixed	Fixed	Fixed	Mobile
	250kg	350kg	450kg	250kg
Mortuary			1	
Spinal	14		2	
Ortho 5 pods 1&2	32			
Ortho 6 pods 1&2	32			
Stroke	16			
ICU	59		1	
Burns ICU	2		1	
2 per pod				66
other bariatric			7	1
Totals	155		12	1 66

Outpatient areas

- Treatment/consulting rooms 16m² with one 20²m room per pod
- 20% all seating wider with ↑SWL
- 2 seater couch option likely in waiting areas
- 20% treatment couches 700mm wide with SWL 300kg
- Access to wider chairs with ↑SWL in consulting rooms



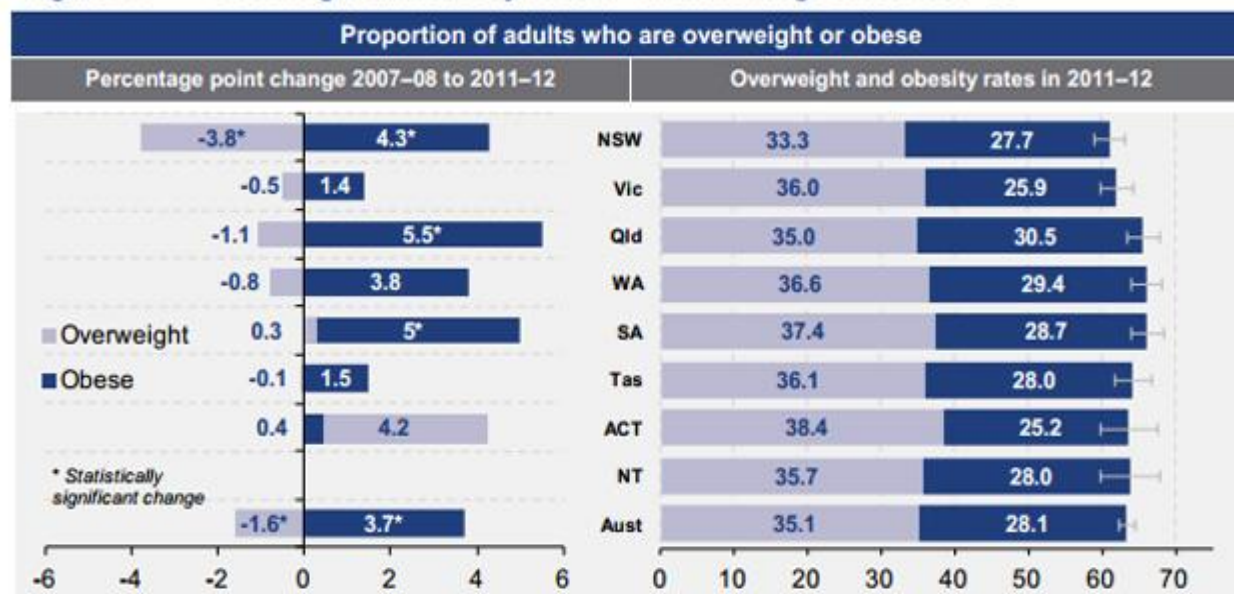


Bariatric readiness-NOT just design and equipment

- How big is the obesity problem?
- Length of stay
- Discharge barriers
- Worker resources

Obesity in Australia

Figure 2.1 Overweight and obesity in 2011–12 and change since 2007–08



Notes:

1. Data for the Northern Territory are not comparable over time.

Source: ABS—see Appendix C.

<http://www.abc.net.au/news/2013-05-24/number-of-obese-reaches-staggering-proportions/4709520>

Interesting Obesity stats

- > 2011/12- **28%** Australian were obese i.e. BMI 30+ ¹
- > Obesity greater in many rural areas
 - SA Country health 40%
 - Central Queensland-39%
 - Townsville McKay-38%
 - Perth South Coast-38%
- **Metropolitan Areas:** wealthier suburbs 2/10 obese , poorer city suburbs 3/10 obese

¹ Health Communities: Overweight and obesity rates across Australia 2011-12



Bariatric Patient Management

> **True number of bariatric patients accessing health care facilities is unknown**

> **Bariatric Definition SA Health**

Person fits at least 2 of the following criteria

- 120kg or greater
- BMI of 40 or greater
- Seated hip width of 51cm or greater

SA Health-Bariatric Stats

- > 2.3% inpatients at RAH and FMC where 120kg+ (². 2010-12)
- > RAH- *Snap survey Sept 2013- 7% patients 120kg+*
- > TQEH- *Podiatry snap survey 9-16 April 2014- 8 % podiatry outpatients were 150kg+ , 15% were 100-149kg*

² Thompson,C. Obesity Facts. 2013;Vol 6, Suppl.1; pg 211

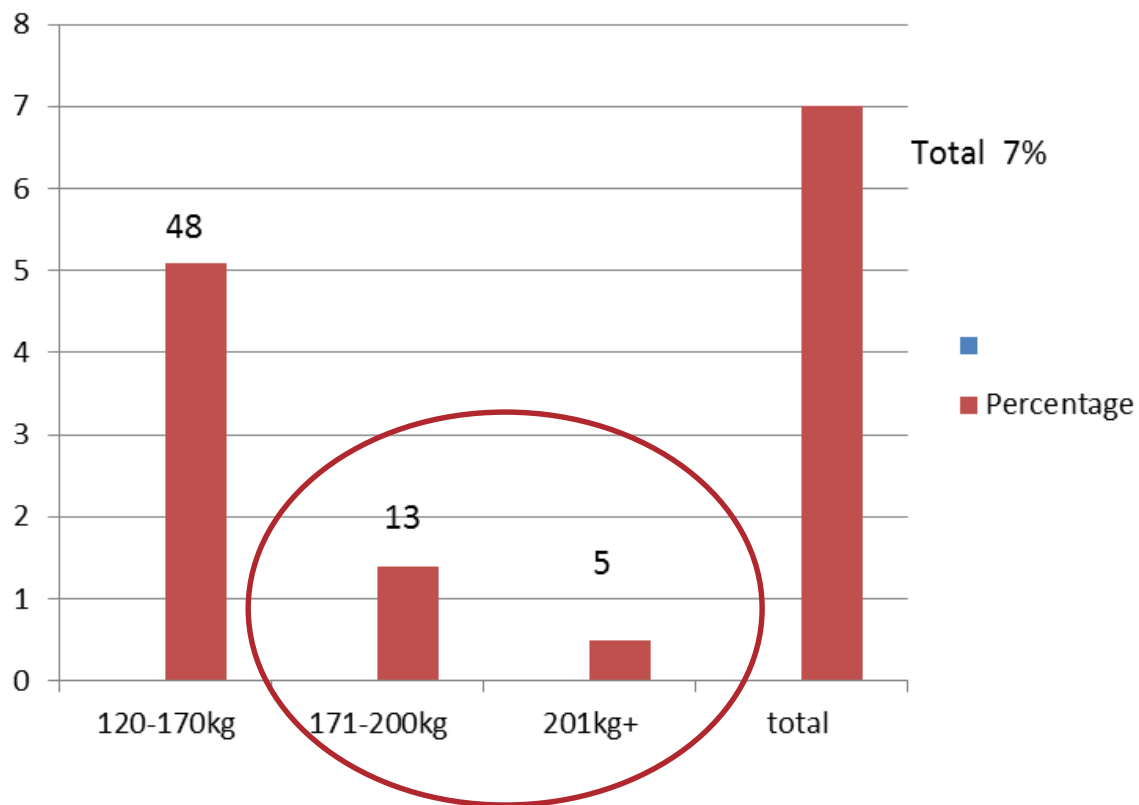


Super obese

- > 2-3% Australian pop est. to have BMI>50 ³
- > Av inpatients RAH (2010-12)
 - Who were 170kg+ 7 per month
 - 200kg+ averaged 2 a year

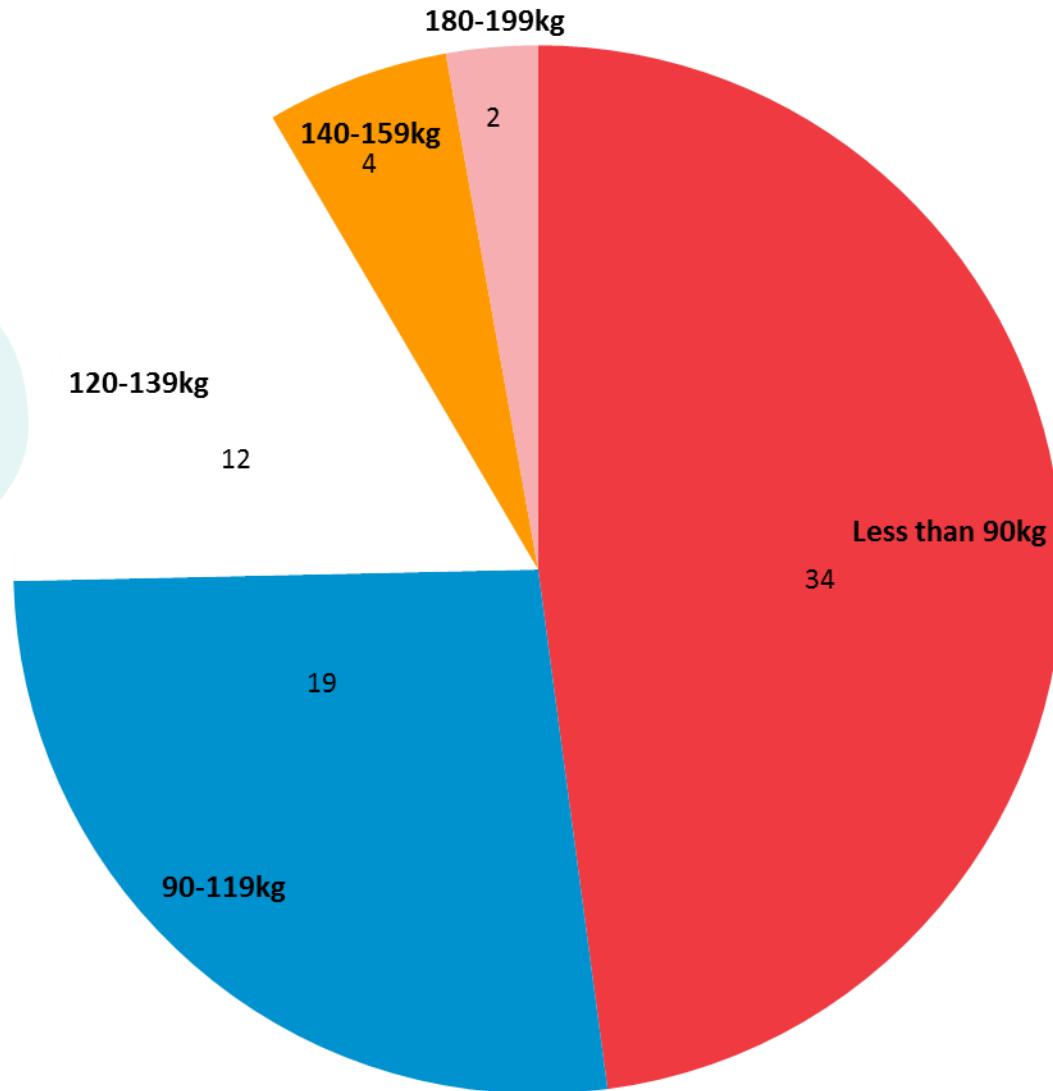
³Sydney Morning herald . Lifestyle 5/3/14

RAH Bariatric Patients: Sept 2013



Total patients 924

RAH Incidents by Manual Tasks - estimated weight of the patient 1/7/13-1/4/14



Clinical outcomes for the Obese hospital patient-RAH, FMC 2010-12

- > Obese patients younger (average 57)
- > More likely to be admitted electively
- > Overall more frequently admitted
- > More likely to be admitted to ICU (17.2% cf 7.6%) and be readmitted 8.1%cf 5.4%)
- > LOS –elective 10% increase (emergency admissions was higher)
- > LOS –ICU admission rate 51% increase¹
- > RAH Maintenance LOS- 5% patients 120kg+ awaiting Aged care placement ²

¹ Thompson,C. Obesity Facts. 2013;Vol 6, Suppl.1; pg 211

² H Robertson. RAH data. 2011

Dependent vs independent

- > *Example 1:* 220kg BMI 61. Deconditioned. 4-5 minimum staff to roll and get out of bed using gantry lifter.
- > *Example 2:* 200kg. BMI 69. Early rehab. 2 physios with gantry, walking harness and walking frame to mobilise

*Early and safe
mobilisation essential*





Discharge from acute hospital:

Dependent obese patient

- > Acute hospitals- currently struggle to manage dependent patient over 200kg
- > Larger Aged Care facilities and difficult to place dependent person over 150kg
- > Smaller ACF- difficult to place dependent person over 120kg
- > Community-difficult to place dependent person over 100kg

Space, Equipment, Staffing



In Summary

New RAH- better designed to manage larger patients with placement of bariatric rooms

Better resourced with FFE for larger patients in multiple areas

Design and access to appropriate equipment will *hopefully* promote early and safe patient mobilisation



BUT

Increased worker numbers will still be required with managing dependent obese patients. (With high risk of staff injury)

Discharge- is dependent on community/aged care/rehab facilities having capacity to receive and safely manage bariatric patients



My message

- **Need data for BMI 40+ for future planning. How can we share this information?**
- **Need to resource Aged Care Facilities, Rehab and Community agencies to **safely manage** larger patients/clients**
- **PREVENTION Programmes-
Obesity Management-for all age groups**

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WorkFit Services SA health



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