The Royal Melbourne Hospital

Environmental Report

2019-2020

Strive for Sustainability
Towards 2025

The Royal Melbourne Hospital

Introduction
About the Royal Melbourne Hospital

As one of Victoria's largest public health services, The Royal Melbourne Hospital (RMH) provides a comprehensive range of specialist medical, surgical, and mental health services; as well as rehabilitation, aged care, outpatient and community programs. We are a designated state-wide provider for services including trauma, and we lead centres of excellence for tertiary services in several key specialties including neurosciences, nephrology, oncology, cardiology and virtual health.

In 2019/20 our staff provided care to over 560,000 patients at RMH with over 89,000 emergency department attendances and more than 208,000 outpatient appointments. RMH employs over 10,000 and manages more than 1,400 beds.

This report highlights some of our achievements in 2019-20 and reports our consumption data in line with Department of Health and Human Services guidelines.

Highlights 2019-20

- New Environmental Sustainability Strategy endorsed by the RMH Executive Committee and Board
- Winner of the Premier's Sustainability Awards 2019 – Health Category
- Anaesthetists led project reduces emissions from anaesthetic gases by 43% and costs by 50%
- Energy and cost savings through installation of LEDs at 2 NWMH sites
- Recycling rates have increased substantially

Winner Premier's Sustainability Awards 2019

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Environmental Sustainability Strategy 2020-25
Towards 2025

The Royal Melbourne Hospital commenced environmental sustainability initiatives in 2009. Over the past ten years we have improved our waste segregation, increased our recycling rate and decreased clinical waste generation. Water and energy usage have remained relatively stable in spite of significant increases in patient presentations. The sustainability program has largely been implemented by over 200 committed Green Champions who have nominated themselves to lead initiatives in their departments. For the development of our new strategy 2020-25 we requested and received support from our Executive to ensure sustainability initiatives will be embedded organisation wide going forward.

In 2019, we developed our new Environmental Sustainability Strategy 2020-25. Strategic targets focus on organisational leadership, emission reductions, waste minimisation and paper use reductions. The baseline to measure our progress going forward was established by averaging the consumption data of the past three financial years.

The new Strategy 2020-25 was endorsed by the RMH Executive Committee and the RMH Board in October 2019.

Premier’s Sustainability Awards
Winner Health Category 2019

Reducing hunger and food waste in our community

In October 2019, Melbourne Health was named the winner in the Premier’s Sustainability Awards Health Category for the entry Reducing hunger and food waste in our community.

This initiative was led by the Food Services Production Manager of our Production Kitchen in Footscray. Every day surplus meals have to be prepared in case of unplanned events. These meals are being donated to OzHarvest since February 2019, helping feed members of the community and removing over 9 tonnes of food waste from landfill and reducing emissions by 17 tCO2e per year.

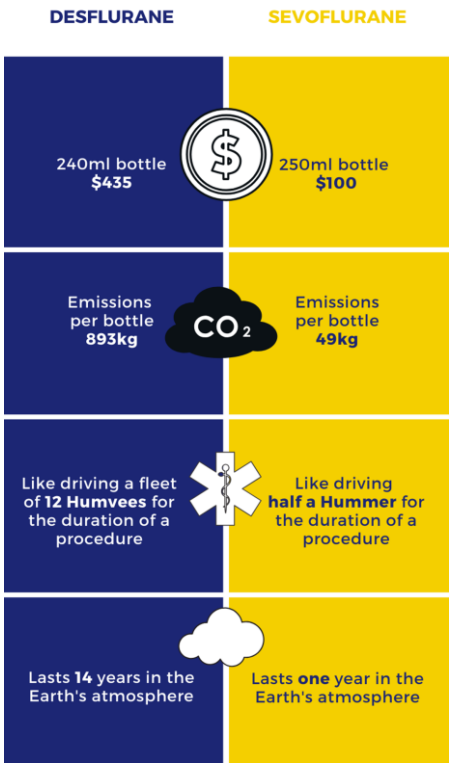
Medical Gases

Initiative led by our Anaesthetists

Anaesthetic gases vary greatly in both emission intensity and cost.

RMH Anaesthetists started replacing Desflurane with Sevoflurane or Propofol, when medically possible, in 2018.

They were able to reduce emissions from anaesthetic gases by 43% and costs by 50%.



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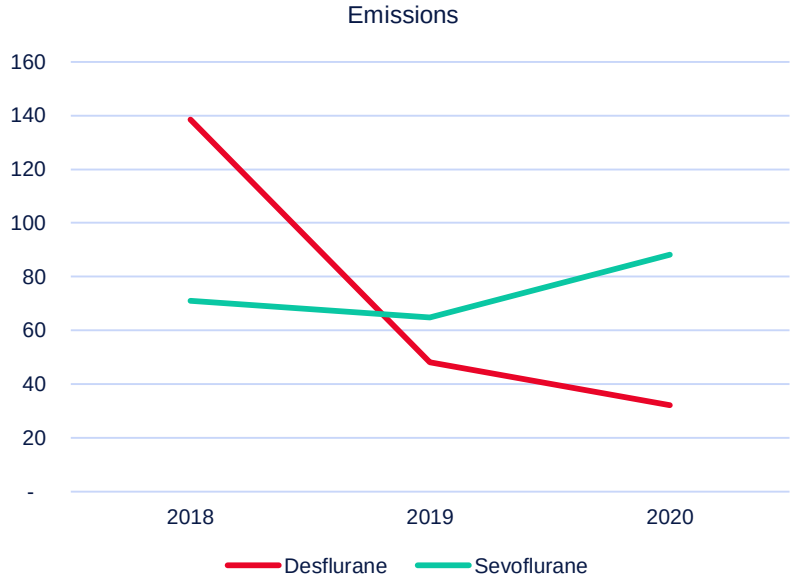
Medical gases
Emission and cost reduction results



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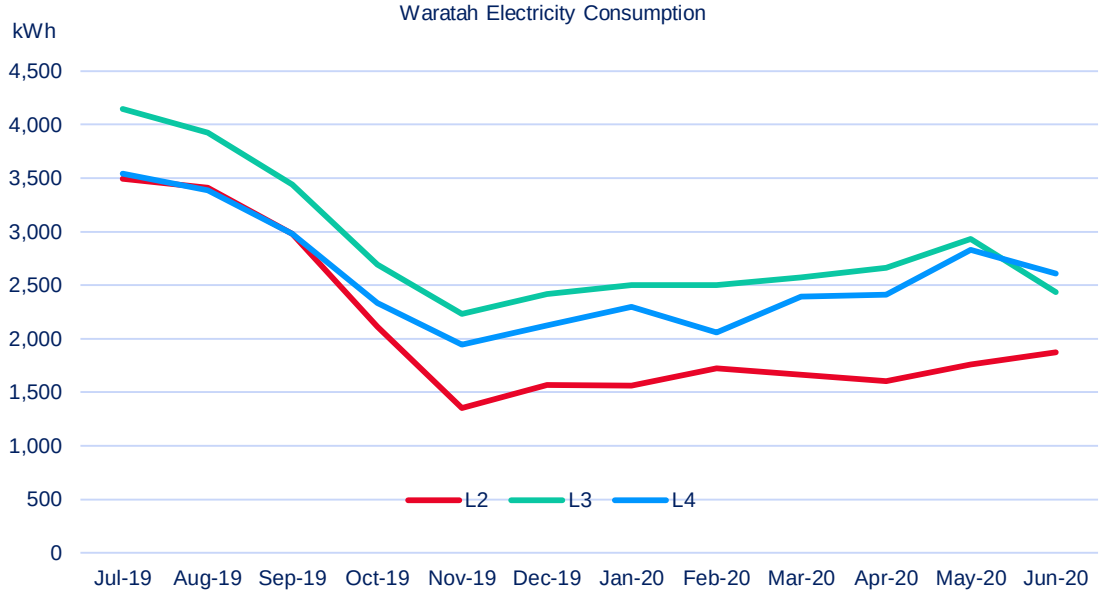
Energy Efficiency Project

Waratah Clinic light replacement

- Lights replaced with LEDs on all 3 levels of Waratah Clinic in Moonee Ponds
- Installation completed in September 2019
- Significant and sustained reduction in energy consumption achieved
- Over 35% reduction in consumption on average
- Savings of $10,000 in first year



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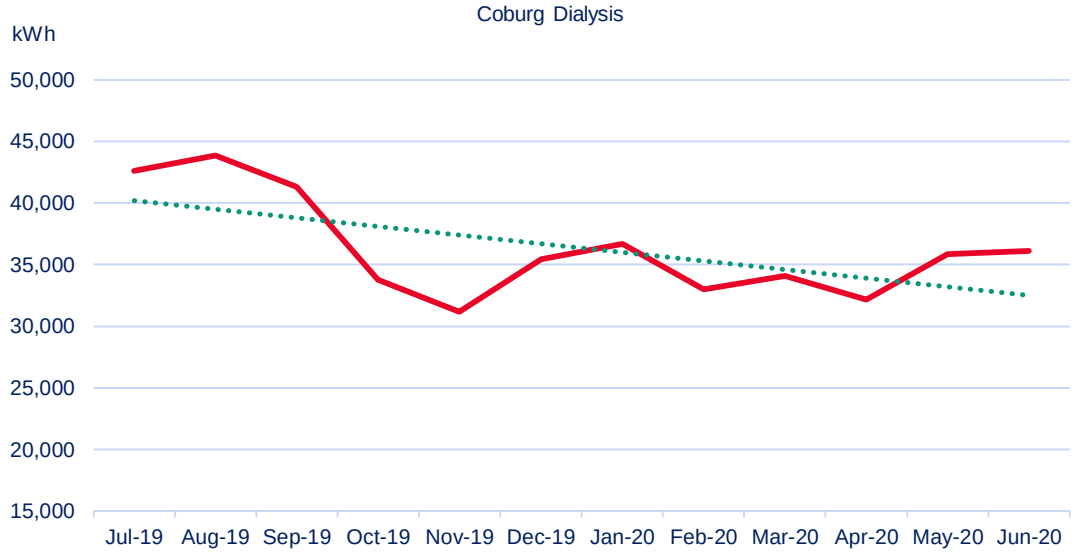
Energy Efficiency Project

Coburg Dialysis light replacement

- Lights replaced with LEDs at Coburg Satellite Dialysis Unit
- Installation completed in October 2019
- Significant and sustained reduction in energy consumption achieved
- 20% reduction in consumption on average
- Savings of $18,500 in first year



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2019-2020

Consumption Data

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Normalising Factors

Normalising factors refer to indicators that are used to compare environmental performance over time and to allow for any changes in service delivery. These factors are used throughout this report.

Bed days

The number of in-patient bed days for the reporting period

Separations

The number of separations for the reporting period

Floor area

Metre squared of floor space, excluding car parks

Recycling Rate

The Recycling Rate is the total weight of recycled material divided by the total weight of general waste and recycled material

Patients treated

The number of in-patient bed days, the number of emergency presentations and the number of out-patients for the reporting period

Normalising Factors
RMH City and Royal Park Campus

Factors City Campus	Baseline (average FYs 2016-19)	2019-20
Bed days	256,039	262,569
Separations	98,193	101,135
Patients treated	529,739	560,767
Floor area m^2	127,799	127,799

Factors Royal Park	Baseline (average FYs 2016-19)	2019-20
Bed days	66,483	50,994
Separations	3,987	2,728
Floor area m^2	27,357	25,395

Energy
City Campus

Energy consumption RMH City Campus		
	Baseline (average FYs 2016-19)	**2019-20**
Electricity (Grid)	33,622	41,504
Electricity (Cogen)	72,927	66,275
Natural gas and LPG	11	10
Other (e.g. steam, diesel)	82,820	106,876
Total (GJ)	189,380	214,665
Normalised energy consumption		
Energy per floor area (GJ/m^2)	1.48	1.68
Energy per bed-days (GJ)	0.74	0.82
Energy per separations (GJ)	1.93	2.12
Energy per patients treated (GJ)	0.36	0.38

Energy
Royal Park Campus

Energy consumption RMH Royal Park Campus		
	Baseline (average FYs 2016-19)	**2019-20**
Electricity (Grid)	13,402	12,150
Natural gas and LPG	17,250	16,091
Other (e.g. steam, diesel)	19	19
Total (gigajoules)	30,671	28,260
Normalised energy consumption		
Energy per floor area (GJ/m^2)	1.12	1.11
Energy per bed-days	0.46	0.45
Energy per separations (GJ)	7.69	8.36

Emissions
City Campus

Greenhouse gas emissions RMH City Campus		
	Baseline (average FYs 2016-19)	**2019-20**
Scope 1	4,259	5,497
Scope 2	23,023	24,701
Total (tonnes CO2e)	27,282	30,198
Normalised greenhouse gas emissions		
Emissions per floor area (kgCO2e/m^2)	213	236
Emissions per bed-days (kgCO2e)	107	115
Emissions per separations (kgCO2e)	278	299
Emissions per patient treated (kgCO2e)	52	54

Emissions
Royal Park Campus

Greenhouse gas emissions RMH Royal Park Campus		
	Baseline (average FYs 2016-19)	**2019-20**
Scope 1	890	831
Scope 2	3,947	3,443
Total (tonnes CO2e)	4,838	4,273
Normalised greenhouse gas emissions		
Emissions per floor area (kgCO2e/m^2)	177	168
Emissions per bed-days /patients treated (kgCO2e)	73	68
Emissions per separations (kgCO2e)	1,213	1,263

Water
City Campus

Water consumption RMH City Campus		
	Baseline (average FYs 2016-19)	2019-20
Potable water	169,767	167,887
Reused/recycled water	0	0
Total (kilolitres)	169,767	167,887
Normalised water consumption		
Water per unit of floor space (kL/m2)	1.33	1.31
Water per bed days (kL)	0.66	0.64
Water per separations (kL)	1.73	1.66
Water per patients treated (kL)	0.32	0.30

Water
Royal Park Campus

Water consumption RMH Royal Park Campus		
	Baseline (average FYs 2016-19)	2019-20
Potable water	27,888	21,346
Reused/recycled water	0	0
Total (kilolitres)	27,888	21,346
Normalised water consumption		
Water per unit of floor space (kL/m2)	1.02	0.84
Water per bed days/patients treated (kL)	0.42	0.34
Water per separations (kL)	7.00	6.31

Waste
City Campus

Waste generation RMH City Campus		
	Baseline (average FYs 2016-19)	**2019-20**
Clinical waste	311	336
General waste	1,106	928
Recycled waste	574	770
Total (tonnes)	1,991	2,034
Normalised waste generation		
Waste per bed-days (kg)	7.78	7.75
Waste per separations (kg)	20.27	20.11
Waste per patient treated (kg)	3.76	3.63
Waste recycling		
Waste recycling rate %	34	45

Waste
Royal Park Campus

Waste generation RMH Royal Park Campus		
	Baseline (average FYs 2016-19)	**2019-20**
Clinical waste	18	19
General waste	246	229
Recycled waste	54	82
Total (tonnes)	318	331
Normalised waste generation		
Waste per bed-days / patients treated (kg)	4.79	5.25
Waste per separations (kg)	79.85	82.94
Waste recycling		
Waste recycling rate %	18	26

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Glossary

Report Boundaries

The consumption data in this report reflects environmental performance at the RMH City Campus and RMH Royal Park Campus.

A full set of accurate consumption data is not available for other Melbourne Health sites, as some sites are either co-located within other organisations or utility costs are charged as a flat rate under lease agreements and metering is unavailable

Acknowledgements

Data presented in this report was provided by suppliers, contractors, utility invoices, sub-metering and the Victorian Department of Health and Human Services.

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