Environmental Sustainability at Western Health

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The long and winding road...

Phase 1 – Starting the dialogue
- 2007 - Forbes McGain joins Western Health
- 2009 - First Sustainability Collective is formed

Phase 2 – Governance, experimentation and low hanging fruit
- 2011 – Environmental Sustainability Officer employed
- 2011 - Sustainability Committee / Reporting structure endorsed
- 2011 – 2013 Environmental Sustainability Plan
- 2013 – 2015 Environmental Sustainability Plan

Phase 3 – Strategic direction
2015 – 2020 WH Environmental Management Roadmap
GOAL # 1: LEADERSHIP
Prioritize Environmental Health as a Strategic Imperative

- Governance around environmental sustainability
- Engaging in issues that are too big for us to solve
- Green Ward Competition
- Calendar of internal events
- Environmental research
- HES Forum annually
Staff Communications

Sustainability News

February / March 2017

Green Champions in Paper Reduction

I would like to recognise Medical Records and Coding Services for their efforts to reduce the paper impact associated with their tasks. They have re-engineered processes that required printing and enabled electronic forms for direct upload to remove the need for carbon copies. Not only did this reduce printing and paper by approximately 150,000 sheets per year, it has enabled coders to work remotely.

Green Champion - Pharmacy

I would like to recognise Grace Wong of Footscray Pharmacy Department. Grace volunteered to assist in the development of a Local Sustainability Action Plan across all Pharmacy Departments in 2016 and continues to support its implementation. She is passionate about environmental issues and well versed in ways a pharmacy can reduce its environmental impact. Inspiring stuff, thank you for your input Grace!

Other Western Health projects starting to quantify paper savings are also revealing positive results:

- Paperless Ward Trial: 18,800 sheets
- Inpatient systems in ED, Community, Outpatients and Infection Prevention: 31,200 sheets
- E-forms conversion - paper to electronic: 284,600 sheets
- Interface/Integrating integration of other hospital systems eg EDIS, ProVention, ICCA: 934,400 sheets
- Coding Audit Protocol: 13,800 sheets
- Electronic Discharge Summaries: 59,700 sheets
- Clinical Alerts Module: 72,200 sheets

Do you have an Espresso Machine in your area?

If so, you should think about recycling the pods that they use. Nespresso runs a ‘pod recycling program’ for hospitals who are also able to be recycled in our commingled recycling stream (the blue bin). If you would like to arrange a special ‘pod recycling bin’ for your area, please contact sustainability@wh.org.au

‘The Green Feed’

‘The Green Feed’ is a chance to meet with others and chat about environmental sustainability at Western Health. BYO lunch... look forward to seeing you there!

Events
- Sunshine - Zone: Wed 29th March 12noon - 1pm
- Footscray - Café Oscarata - Thurs 30th March 12noon - 1pm
- Williamstown - Zone 14 1st March 12noon - 1pm

Any ideas can also go to sustainability@wh.org.au

Environmental and Sustainability

Western Health acknowledges that its operations contribute towards climate change and has other impacts on our environment. We are committed to taking actions which ensure activities undertaken by the healthcare sector are sustainable.

Latest Environmental Research

[Image of Western Health logo]
GOAL # 2: CHEMICALS

Substitute Harmful Chemicals with Safer Alternatives

✓ New contract for more environmentally friendly chemicals, and 80% less waste
✓ E-water piped through the kitchen has managed to abolish a variety of cleaning and sanitising chemical agents
GOAL # 3: WASTE
Reduce, Treat and Safely Dispose of Healthcare Waste

- 38% diversion of waste from landfill
- More than 20 recycling streams
- Clinical Waste Segregation Campaign
- Partner with Donations In Kind for reusable items
- Environmental research (Life Cycle Analysis)
  - Single use versus reusable: dressing packs; breathing circuits; and CVC kits
  - Audit operating theatres to improve recycling rates
  - Surveys on staff perceptions of environmental sustainability and recycling
CLINICAL WASTE SEGREGATION

HIGH RISK

- Cerebrospinal
- Biliary
- Lymph
- Wound exudate

LOW RISK

- Vomitus
- Urine
- Faeces

ONLY IF blood stained or infectious
RIGHT WASTE, RIGHT BIN
SAVES RESOURCES

- Empty glass vials
- Containers
- Towels & baby clothes
- Baxter IV bags, O2 masks & tubing
- Huck Towels
- Toners & cartridges
- Sterile wrap
- Batteries
- Blade and suture set packaging
- Diathermy cabling and electrical leads
- Mobile phones
- Furniture
- E-waste
- Broken furniture

- COMMINGLED
  - New glass containers, roads and sand in golf bunkers
  - Molded plastic furniture

- BABY BUNDLES
  - Baby bundles to Papua New Guinea

- PVC RECYCLING
  - Hosing, garden furniture, kids' play grounds

- LITTLE BLUE TOWELS
  - Cartons and boxes

- TONER RECYCLING
  - Remade into cartridges, Enviro-liners and rulers

- STERILE WRAP
  - Outdoor furniture, signs, e-wood

- BATTERY RECYCLING
  - New batteries

- ALUMINIUM PEEL PACKS
  - New drink cans

- METALS RECYCLING
  - New cabling

- MOBILE MUSTER box at Info Desk
  - Recycled in the Mobile Muster Program

- DONATIONS
  - Reused in third world countries

- CONTACT ICT DEPARTMENT
  - Most components can be recycled.

- CONTACT HEALTH SUPPORT SERVICES
  - Plywood, steel sections
Staff Education

PVC RECYCLING

Place these articles only into this bin
NO hard plastics. NO giving sets.
NO infected waste.
IF IN DOUBT, CHUCK IT OUT!
Polypropylene Recycling - Two days of Sterile Wrap at Footscray
What happens to the non-PVC plastic?

One tonne per month = 12 theatres
Reuse: Furniture and Equipment
GOAL # 4: ENERGY
Implement Energy Efficiency and Clean, Renewable Energy Generation

✓ Various energy efficiency projects
  - LED lighting throughout all sites
  - Computer sleep mode after 5 minutes
  - Zip boil kettles on timers
  - Seasonal swing on BMS
  - Research the energy footprint of operating theatres / ICU
  - Energy research project on sterilisers

✓ SwitchOFF Campaign
✓ Local metering to benchmark area types
✓ Staged rollout of Dyson Airblade hand dryers throughout organisation over 2 years, just commenced
✓ 300kW Solar electricity system approved for Sunshine
GOAL # 5: WATER
Reduce Hospital Water Consumption and Supply
Potable Water

- Installed water-efficient tap / shower fixtures
- Installed water tanks with new builds
- Ensure leaks are repaired quickly
- Drought tolerant landscapes
- Dialysis and harvested water onto the gardens
GOAL # 6: TRANSPORTATION

Improve Transportation Strategies for Patients and Staff

✓ Bicycle User Group
✓ Car pooling
Carpool the West
GOAL # 7: FOOD
Purchase and Serve Sustainably Grown, Healthy Food

- Plate waste is turned into soil amendment
- Lots of organics waste recycling projects within healthcare
- Large scale organics currently being scoped by DHHS
GOAL # 8: PHARMACEUTICALS
Prescribe Appropriately, Safely Manage and Properly Dispose of Pharmaceuticals

- PVC Recycling Program authored in 2009
- Pharmacy - Local Sustainability Action Plan 2015/16
- LCA of the environmental impact of one vial of morphine
- Research on the carbon footprint of anaesthetic gases
- Reducing the landfill associated with packaging
GOAL # 9: BUILDINGS
Support Green and Healthy Hospital Design and Construction

- ESD informing Master Planning exercise at Footscray
- Business case approved for 300kW solar electricity at Sunshine Hospital
- Currently building the Joan Kirner Womens and Childrens Hospital at Sunshine Hospital with recommended ESD considerations (shading; double glazing;
GOAL # 10: PURCHASING
Buy Safer and More Sustainable Products and Materials

- Sustainable procurement drive: governance; templates and significant procurement stakeholders
- RFX documents, Contracts, and Business Case Templates contain sustainable procurement requirement
- Weighting rewards suppliers with environmental cred
- KPI’s in contracts to monitor and measure sustainable procurement
- Work with suppliers to reduce packaging and provide ‘back of house’ systems to minimise waste
WH Environmental Management Roadmap 2015 – 2020 (‘the Roadmap’)

- A key enabler to Objective 1 of Strategic Aim 4 to optimise constrained resources
- Act in accordance with our social, environmental and economic responsibilities
- To become an environmental leader in healthcare sustainability
The Roadmap

Purposeful actions are implemented to achieve key aims of the Roadmap, thereby reducing the environmental impacts throughout Western Health operations.

Specific tools are employed as vehicles of change:

- *Local Sustainability Action Plans* (LSAPs) in Departments;
- *Local Clinical Action Plans* (LCAPs) in clinical areas, and
- Resource efficiency in operations
The Strategy

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• Resource efficiency in operations
Health Support Services

- Upgrade BMS to develop capacity in building analytics (Andrew)
- Redesign dosing system for hydrotherapy pool (Lou)
- FH cleaners, PSA’s and waste management team support excellence in recycling practices in their role (Deb)
- Mobile Muster supported by Communications staff on the Information Desks at each site (Tracey)
- Recycle 100% of organics via the Gaia organics dehydrator (Jane)
- Complete LED lighting retrofit of WT & SH (Cath)
Public Affairs

✓ Produce annual Sustainability Report (Catherine)
✓ Published environmentally focused story in Health Victoria Magazine (Kate)
✓ Published staff awareness for annual campaigns that promote a culture of environmental sustainability at WH (Cindy)
✓ Published 2 Pulse stories: the Green Ward Competition contestants; the solar installation at 9-11 Eleanor St by Anaesthetics Department (Cindy)
✓ Promote HES Forum via social media (Kate)
ICT Department

✓ Institute action to have monitors assume low power and sleep mode when not in use (Andrew)

✓ Configure eligible inactive computers and monitors to shut down out of business hours (Andrew)

✓ Donate or recycle computers through e-waste management (Cath / John)

✓ Institute recycle of mobile phones through the Mobile Muster Program (Cath / Miranda)

✓ Purchase replacement computer assets with benchmark energy efficiency rated models (Mickael)

➢ Rationalise personal printers (Cath / Andrew)

➢ Follow Me Printing (Cath)
Anesthesics Department

- Ongoing research project with UoM to study the energy efficiency of the operating theatres (Forbes)
- Self funded 10kW solar electricity to offset the impact of energy impact of anesthesiology services (Rick)
- ‘Overage Project’ collects unused consumables from the operating environment and packages them to a third world need via student volunteers whom are travelling and working overseas (Marty)
- Endorse a policy to use anesthetic agents with less greenhouse warming potential where patient care considerations are uncomplicated (Forbes)
Cardiology Labs and Cardiac Wards

✓ Commenced five new recycling streams in each area: (Fiona)
  ✓ electrical wire,
  ✓ aluminium,
  ✓ PVC,
  ✓ single use metal instruments and
  ✓ commingled recycling
✓ Scoping platinum recycling from wire and catheter tips (Dianna)
✓ Submitted an entry for the Green Ward Competition in 2015/16 (Fiona)
Going forward…break down the barriers

• Sustainable Procurement
  - Need policy, procedures, and practical mechanisms endorsed
  - Major stakeholders: Finance Department; Contracts Management and Procurement Services (CMPS); Capital Development; WH Executive; CEO and Capital Committee
  - Education for Executive, Management and Business Analysts,
  - Resources for staff to follow throughout the procurement process

• Revise WH Clinical Waste Policy
  - Need policy and procedures endorsed
  - Major stakeholders: Infection Prevention; Clinical Divisional Directors; Director of Nursing; Clinicians: Safe Care Committee
  - Mandatory education for Clinicians
  - Resources for staff
Lessons learned…

- There’s no ‘right’ way to do this
- Listen to others
- Be flexible
- Engage as broadly as possible for feed in
- Tap into what’s already happening
- Pilot with a view to rollout across the organisation
- Support your Green Champions to support their team
- Politic for a better accounting system
- In the interim, follow the marginal cost curve to develop projects
- Enjoy the journey (it’s a long one, and we’re all on it together)
Thank you!