

Greening Grey's

Grey's Hospital

GGHH Agenda Goals

- Waste

Hospital Goals

- Reduce average monthly volume and disposal cost of **infectious waste** (red-lined boxes only, see Figure) by 10% in 12 months. Baseline 12-month average April 2015-March 2016 = 2413 units/R67 237. Thus target = 2172 units/R60 513 by March 2017.
- Reduce average monthly volume and disposal cost of all **Health Care Risk Waste (HCRW)** by 10% in 12 months. Baseline 12-month average April 2015-March 2016 = 2966.33 units/R87 477. Thus target = 2669.7 units/R78 729 by March 2017.
- Eradication of mercury containing products by August 31, 2016.
- Promotion of correct waste segregation at source.
- Increase in the proportion of waste recycled (still to be implemented in due course)

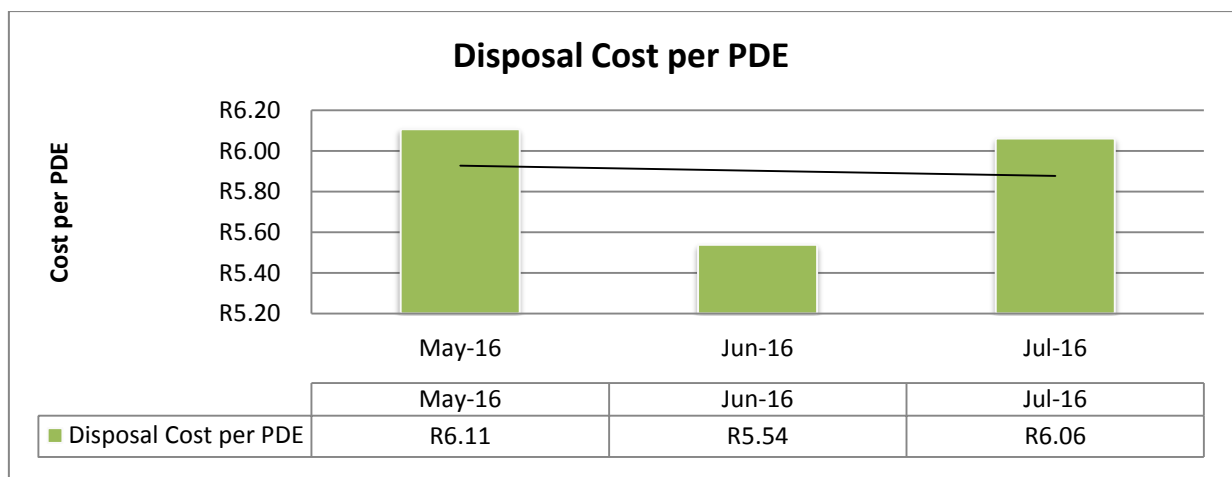


Progress Achieved

- Financial benefits

Our total spend and reduction on all **HCRW** was as follows:

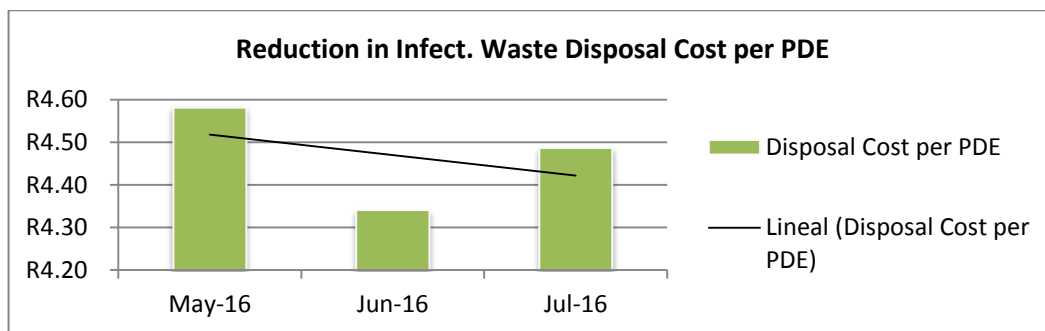
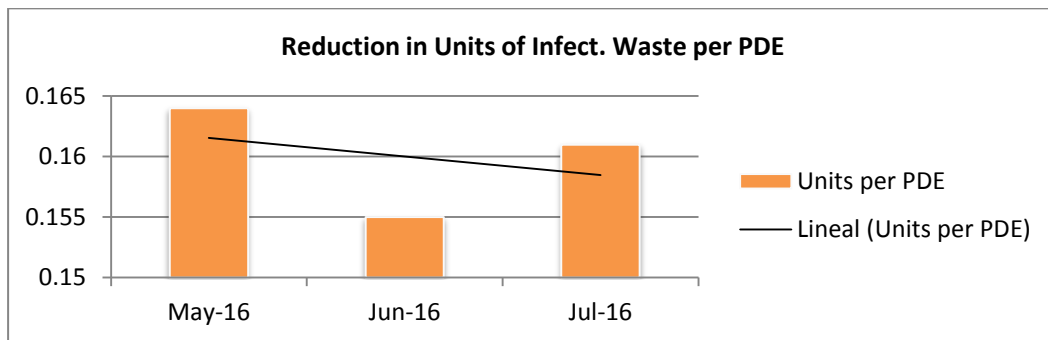
Baseline avg (April 2015- Mar 2016)	May-16	Jun-16	Jul-16	Current average as at July 2016	% reduction from baseline avg
2966.33	2990.8	2639	2966.6	2865.5	3.40%
R 87 476.83	R 89 871.00	R 77 810.00	R 88 005.00	R 85 228.67	2.57%



NB: PDE is Patient Day Equivalent, calculated as $\frac{1}{3}$ OPD headcount + Inpatient days). It reflects the patient activity of the facility

Our total spend and reduction on **Infectious waste (red-lined boxes only)** was as follows:

INFECTIOUS WASTE (RED-LINED BOXES ONLY)					
Baseline avg (April 2015- Mar 2016)	May-16	Jun-16	Jul-16	Current average as at July 2016	% reduction from baseline avg
2413	2417	2184	2341	2314	4.10%
R 67 237.32	R 67 430.22	R 60 976.45	R 65 148.35	R 64 518.34	4.04%



- Environmental benefit (reduce volume of infectious waste and eradication of mercury-containing items/devices)
 - As per the above graphs, there is a slow but steady decrease already seen in the volumes of HCRW and infectious waste.
 - Mercury-containing items in the hospital have been eradicated already, well before the target deadline.

The Issue

A waste management audit revealed the following concerns at the facility:

- High infectious waste (red-lined boxes) volumes generated.
- Poor waste segregation practices by staff and patients alike.
- Unnecessary expenditure on excessive and/or inappropriate waste disposal (no recycling programme at facility).
- Insufficient knowledge of negative environmental and social impacts.
- Decreased staff engagement with waste matters.

Due to improper waste segregation, we put our clients, staff and the community at large at risk.

Sustainability Strategy Implemented

To meet our goal objectives to reduce waste production and consumption of natural resources with particular reference to our GGHH goal, a range of waste management initiatives form part of Grey's Hospital waste management strategy. We have placed much emphasis on staff training and awareness building at the facility as we identified the root cause of our problem was lack of knowledge, and if addressed, we would empower clients and staff alike on the benefits of

“doing the right thing right, right away”.

- We commenced our “Greening Grey’s” waste management campaign in May 2016 by being transparent in all aspects of waste management, by conducting feedback sessions on the volume of generated waste streams as classified by provincial legislation namely anatomical, infectious, sharps, pharmaceutical, cytotoxic and general waste streams.
- An expenditure feedback report is given on each of the waste streams. In this way, staff are sensitized on the financial implications.
- Waste management audits are conducted and a feedback report is given on the results.
- Waste management presentation by Mrs Makhaya (Waste Officer) is added to the staff orientation programme to promote correct segregation practices to ensure diversion of waste from landfill and compliance with environmental regulations.
- Weekly internal communication on proper waste segregation and paper saving tips are emailed from the Office of the CEO to all personnel.
- Due to the vast number of illiterate clients we see at the hospital, signage with pictures was introduced that will be placed on all bins in the clinical areas.
- A walk through of the hospital ensured the eradication of mercury containing items.
- “Bringing the resource closer to the user” initiative involved mounting sharps containers nearer to procedure areas for easy access to the sharps containers.
- A “Greening Grey’s” pledge was introduced at all functional committees.

Implementation process

We aim at becoming more conscientious about our practice and instill a culture of environmental awareness. A waste management task team was formulated that would focus on all waste management issues at the facility and the implementation and roll out of “Greening Grey’s” campaigns/projects and initiatives. The task team comprised of the Waste Officer, Quality Manager, Nursing Matron, Infection control, Pharmacy and procurement.

We began by identifying the volume of waste we generate monthly and the cost implication for disposal. A waste management audit was conducted in 31 wards and departments to establish a baseline and to identify concerns and shortfalls.

We decided to first sensitize personnel on our intent, therefore a campaign named “Greening Grey’s” was born. We began by presenting our ideas and intentions to Executive Management for approval and buy-in from top management.

Extensive training on correct waste practices, sharps disposal, waste storage, waste collection and waste disposal commenced throughout the hospital, including addressing newly appointed personnel. The Waste Officer became a standing item on all orientation and induction programmes as well as the Infection Control and Prevention and the Hospital Quality Improvement committee meetings.

A “Greening Grey’s” pledge which includes our goals as mentioned above was introduced, and is recited at the beginning of all functional committees. Weekly email prompts were sent from the Office of the CEO, advising personnel on proper waste management practices.

The CEO, Dr K. B Bilenge, was the first to purchase a Greening Grey’s badge the task team had introduced to create awareness of the “Greening Grey’s” campaign amongst staff. Executive management support proved vital in obtaining participation and compliance from personnel.

Awareness empowered personnel. Clear instructions and directives allowed personnel to be confident that their practice was correct, eliminating doubt and uncertainty.

Procurement and mounting of additional sharps containers, bringing the “resource closer to the user”, allowed for improved compliance to disposal of sharps, decreased number of needle stick injuries and compliance to the National Core Standards requirement. This campaign led to the replacement of infectious waste cupboard boxes with stainless steel peddles bins in all clinical areas. Picture signage on the waste bins improved compliance to proper waste segregation and compelled adherence from patients and staff alike.

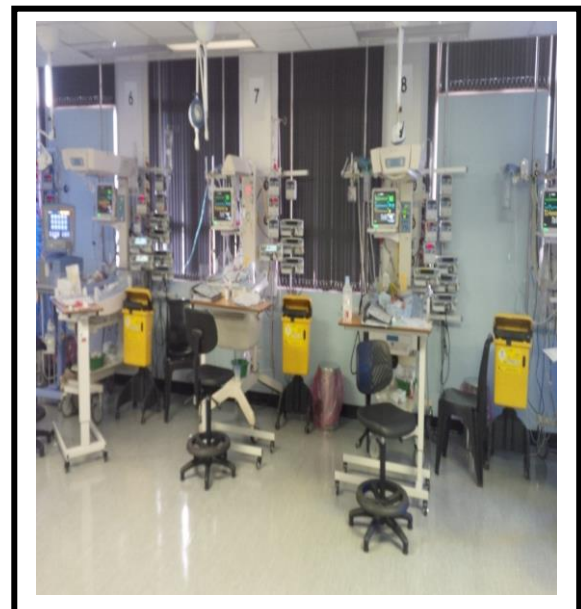
Tracking Progress

A monitoring tool which involved a record of volume of waste and sharps containers that was generated at site was introduced to wards and departments. This gave us insight into identifying the areas that generated high volumes of waste.

Record of the volume of hazardous waste produced per month as classified by provincial legislation was our indicator used to monitor our progress and success. Expenditure for waste disposal each month was another indicator used to monitor our progress.

Challenges and lessons learned

Grey’s hospital does not have a recycling programme in place and that proved to be a major challenge and in turn restricted our plans to fully implement recycling at the hospital. We are currently in the process of procuring recycling bins for the different waste streams.



We also face a purchasing and procurement challenge, in terms of procurement of recyclable products and biodegradable items. As a public service hospital, certain products/equipment/devices purchasing is strictly controlled by the Department of Health.

Lessons learnt:

- By having in place clear directives and instructions we have learned that there is no limit to empowering people.
- Creating awareness on our shortfalls as an institution with regards to our contribution to environmental harm has enabled staff and patients alike to become more conscientious in their role they play.
- A continuing educational programme allows for sustainability.
- Information transparency played a major role in gaining participation.

Next Steps

To sustain our standards, a continuous education programme is in place. Waste management audits will be conducted quarterly to monitor progress. Newly appointed employees will also be our target group for continuity of good practice. A “Greening Grey’s” awareness day event is planned to be held yearly, where we plan to share “greening” ideas and bench-mark from each other.

We plan to reach out further to our community and therefore will be implementing Public training sessions in the Out-patient department. Currently, Grey’s hospital attends to an average of 10 500 clients per month in the Out-patient department. The training sessions will cover topics on proper waste disposal at the hospital and at home and will create awareness on the negative impact we unknowingly cause.

Furthermore, the following is planned:

- Initiate the purchasing of recyclable and bio-degradable products/items/equipment and devices where possible.
- Purchasing recycle waste bins and initiating a recycle program at the facility.
- We plan to formulate a “Greening Grey’s” policy, which will provide guidelines to more “greener” practice and purchasing.
- We plan to reduce dependence on paper by linking computer to mobile phones to receive e-mails rather than hard copies.
- We plan to create a “Greening Grey’s” hospital webpage.

Demographic information

Grey’s hospital is a public Tertiary level hospital situated in Pietermaritzburg, Kwa-Zulu-natal, South Africa. Grey’s size of ground/erf in sq.m is 17 Hectares and size of buildings in sq.m 170 000m². We have 505 usable beds. We provide services to 5 districts namely, Amajuba, uThukela, Umzinyathi, Umngungundlovu, Sisonke, with a total drainage population of an estimated population of over 3.5 million. Grey’s hospital has an establishment of 2,300 personnel.

Quotes:

“This moment is ours, to change our own practices and lead our staff & patient to change”