

Reducing the environmental impact of providing healthcare

George Regional Hospital- South Africa

Global Green and Healthy Hospitals (GGHH) Agenda Goals

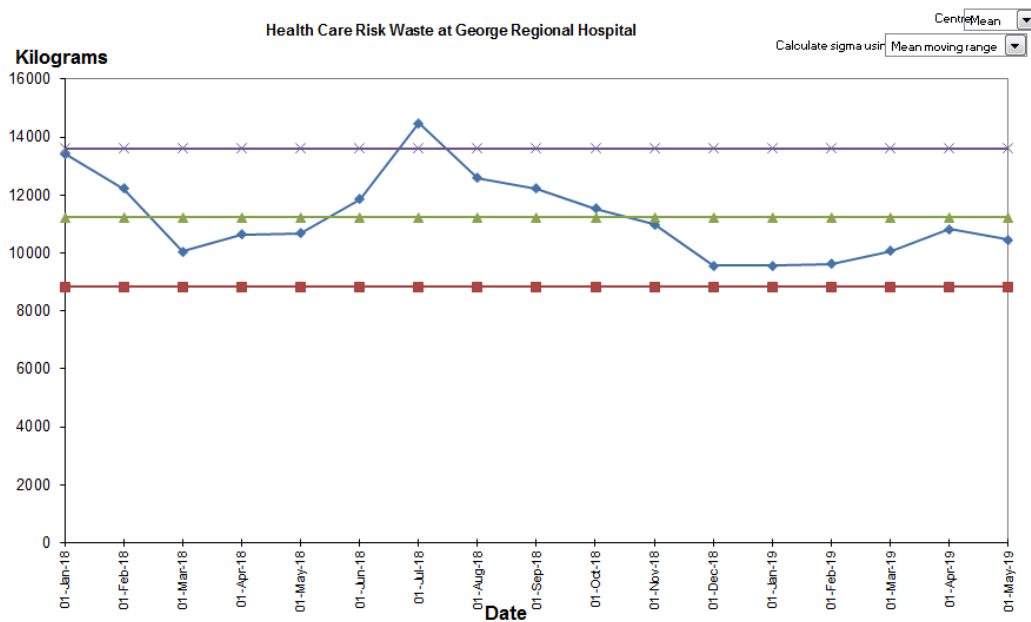
- Leadership
- Waste

Hospital Goal

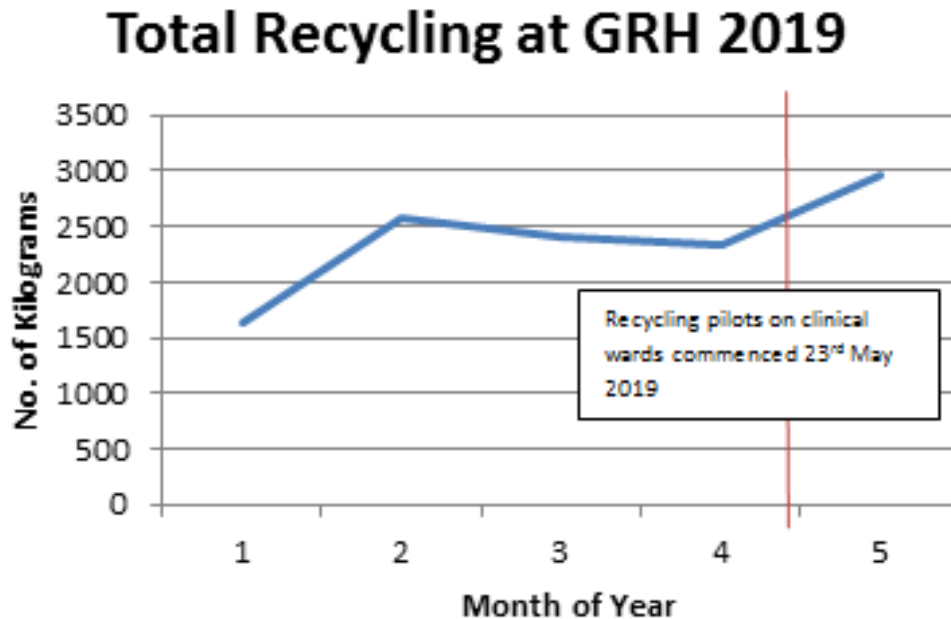
- Raise awareness of the impact of waste on the environment
- Reduce the amount of unnecessary Health Care Risk Waste (HCRW) being sent for disposal.
- Introduce recycling practices across hospital and reduce general waste sent to municipal landfill.
- Save money and reprioritise funds to deliver improved health care services to patients (create public value).

Progress achieved

Although GRH is still above the WHO benchmark for HCRW usage per bed per day, through interventions a statistically significant reduction in monthly HCRW has been obtained. The interventions led to an initial reduction and subsequent stabilisation in HCRW usage (see graph below). Further gains are expected as the project is implemented hospital wide. This was achieved following training to staff. It is important to note that it was also during a time when additional beds were added to the hospital bed capacity. *“SUCCESS IS A SERIES OF SMALL WINS - Karl Weick”*.



Increase in recycling practices at point of segregation which has led to an increase of overall recycling for the hospital, please see graph below.



Instilled culture of recycling, “*CULTURE EATS STRATEGY FOR BREAKFAST* –Peter Drucker” which enabled staff to further influence the people they come in contact with for example patients and visitors.

Identified Issues

Across the Western Cape, GRH was one of the highest 3 hospitals for generation of HCRW, when standardised by number of Kilograms (KG) of HCRW per bed per day. Although there may be some issues pertaining to the validity of the data, used for these comparisons, there is still a significant opportunity to address the high production of HCRW. Doing so will support GRH’s to move towards a more sustainable approach helping to reduce its environmental impact.

Limited Staff knowledge about waste segregation: Staff knowledge about correct segregation (i.e. which bin to use) is an important driver of behaviour. A pre-intervention survey on two pilot wards highlighted that on the medical ward 50 % had received waste management training, and on the surgical ward 35% had received training. Educating staff about segregation of waste can take place at multiple levels, (e.g. training or signage on bins at the point of disposal). Without the required knowledge staff will not be able to act correctly; however, knowledge in itself is unlikely to create sustainable behaviour change and reduce HCRW.

Availability of appropriate HCRW and recycling bins at the point segregation: The availability of an appropriate-sized, correctly labelled and coloured bin with a functional operating mechanism emerged as an important driver of staff attitudes and behaviour. The placement of bins in the clinical areas was another challenge. There is insufficient space in the wards / theatre for the

required number of bins. If the bin is too far from the point of generation, staff are less inclined to walk and correctly dispose of waste. Staff were not enabled to take responsibility for segregation of recycling at point of generation.

Signage across GRH for waste segregation was inconsistent resulting in confusion regarding correct procedures to follow.

Availability of valid HCRW Data: Accurate HCRW data is essential to understand and manage the process. Within the hospital there was no data routinely collected at department or ward level to help prioritise locations for intervention. Snapshot audits have been conducted, but reliability of manual counts by cleaning staff was a concern.

Strategy implemented

A group of staff, 'Creative Waste Group' was established, meeting every second week to address the issues identified, and to lead on the 'George Goes Green' campaign. This group also monitors and tracks progress.

Interventions

- In January 2019 an onsite recycling scheme was introduced to the hospital. This was recognised as creating employment, and meant that the complications of segregation at source, time of staff and space were mitigated.
- A pilot introducing mixed recycling to clinical areas was implemented on two wards, one medical and one surgical. This included:
 - -All staff including Ward Clerks, Doctors, Nurses and Housekeeping staff on two pilot wards (one surgical, and one medical) were given training on the impact of improper waste management on the environment, training about what bins they should use for which waste and an introduction of recycling in the clinical environment.
- Recycling bins and new signage have been designed by Multidisciplinary Teams within the hospital to support staff, patients and visitors with the introduction of recycling and proper waste segregation on the wards. These were introduced onto the wards on the 23rd May 2019.
- Intra-Venous (IV) Vacolitre Bags that have not contained antivirals or antibiotics are now being recycled by the pilot wards. This is in addition to mixed recycling introduced to the wards for paper, packaging, plastics that have not been contaminated by bodily fluids.
- Administrative areas have seen their recycling streamlined through empowering leadership in these areas, and listening to staff suggestions. There has been a specific focus on duplex printing in administrative areas through education and encouragement. This has been successful due to the senior commitment and leadership.

A review of the location, size and material of the HCRW bins being used across the hospital was undertaken. On one of the pilot wards the container size has been amended so that the containers we use are practical for the wards and also cost effective.



Challenges and key learning

It is important to bring the wider context when training staff groups. This helps put the issue in perspective for staff, and then introducing a solution for them to be part of brings it to life.

Empowering housekeepers in the clinical wards has been a key part of the pilots being successful. Where the housekeepers are driving this forward the engagement and communication on the ward and with patients and visitors is higher.

Onsite recycling was a great first step to ensuring mixed recycling was sorted on site but it did not empower the individual at point of generation. This is why we have piloted introducing mixed recycling at point of generation.

Next steps

A review of recycling practices/opportunities in Theatres is underway.

Roll out of the pilot across the other clinical areas incorporating key learning.

Continual review of bins being used across the hospital to ensure they are in the most optimal location and that they are fit for purpose.

Demographic Information

George Regional Hospital (GRH) provides provincial health care services to patients living in the Garden Route and Central Karoo Districts. This is a largely rural area with a population of approximately 650 000 and a catchment area 62 185 km².

George Regional Hospital is the only public hospital in George and offers secondary and some tertiary level services. The hospital employs 700 staff members. It has 275 beds, on average the emergency centre assists more than 4000 patients per month and 5400 outpatients. George Hospital supports district hospitals in rural and outlying sub-districts, where they consult referred patients and train medical officers and professional nurses.

Submission Date: June 2019