

# Medical Waste Diversion: Recycling of Non-Contaminated, Single-use Gloves At BC Cancer - Vancouver

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## Background

- The health care sector is a significant contributor to industrial waste in Canada. This has serious implications for human health, green house gas emissions, and even the psychological wellbeing of health care workers.
- Single-use, non-contaminated gloves are a high contributor to medical waste. A single nitrile glove (~3.2g) has a carbon footprint of 26g CO<sub>2</sub>e, and may take over 100 years to decompose in a landfill.

## Questions

- I. What proportion of used single-use gloves in BC Cancer – Vancouver’s RT ACU, PR East, and PR West are non-contaminated?
- II. Will the introduction of a purpose-built recycling box for non-contaminated single-use gloves change the proportion of gloves that are disposed of for recycling?

## Approach

- We established a weight-based method for measuring the total number of gloves that were used in the RT ACU, PR East and PR West at the Vancouver Centre:
  - **First**, we audited glove use twice a day in each of the care areas for one week.
  - **Second**, we introduced (A) a purpose-built recycling box, and (B) a communication intervention to raise awareness about the recycling of single-use, non-contaminated glove recycling among clinicians and staff.
  - **Last**, we audited glove use twice a day in each of the care areas for an additional one week period.

## Results

- **The majority of single-use gloves that are used in RT ACU, PR East, and PR West were non-contaminated and, therefore, are eligible to be recycled.**
- **We diverted 247 (830g) of single-use, non-contaminated nitrile gloves from the landfill.**
- During the second week of auditing, the proportion of non-contaminated gloves that were eligible to be recycled was consistently over 90%.

## Learnings & Next Steps

- Staff are willing to engage in new practices that disrupt the production of medical waste.
- Decreasing medical waste is one strategy – in concert with other actions across different levels – to address the health care industry’s impact on the climate and environment.
- **Next Steps:**
  - Expansion to other areas of Vancouver Centre
  - Expansion to other regional Centres

