

# HEALTHCARE WASTE MANAGEMENT BEST PRACTICES RESEARCH SUPPORT

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The consolidated Lower Mainland Health Organizations (LMHOs: Fraser Health, Providence Health Care, Provincial Health Services Authority, and Vancouver Coastal Health) have an environmentally-focused team to advocate for sustainable practices in healthcare. One of its focus areas is Zero Waste and Toxicity. The current waste target is aligned with Metro Vancouver's waste diversion target of 70%. Waste management, however, faces unique challenges in the healthcare industry. My role within the organization was to support the Recycling Renewal Project in both creating news stories based on interviews with Recycling Champions and researching best waste management practices in healthcare.

## GOOD NEWS STORIES

The first component of my project was to interview 6 Recycling Champions and write news stories which were shared on GreenCare's website and health authority news. During the project, I interviewed 5 recycling champions, 1 Green Team, 1 Green+Leader, 1 GreenCare Hero, 1 LEAN Project Coordinator, 1 Support Services Manager, and 1 Buyer. All 4 Health Authorities were represented in the stories, as well as 2 key partners. These stories not only promoted recycling and environmental sustainability, but they had other positive outcomes: (a) acknowledging the great work Recycling Champions (and other leaders) do in working towards these goals; (b) inspiring interviewee's continuing engagement; and (c) maintaining open lines of communication.

## QUESTIONS THAT WERE ASKED FOR RECYCLING CHAMPION PROFILES (AND WHY)

- Q. What inspired you to become a recycling champion?**  
Speaks to their motivations
- Q. What do you enjoy most about being a recycling champion?**  
Why remain engaged?
- Q. What has been your biggest challenge yet?**  
Identifies target areas, future opportunities for improvement
- Q. What do you consider successful?**  
What makes it worthwhile?
- Q. How do "green behaviours", such as recycling, affect patient care?**  
Creates reflection on how recycling contributes to GreenCare's Vision of health and wellness.
- Q. What are your future goals as a recycling champion?**  
Inspiration for future actions, continued engagement.
- Q. Any final words of advice you would like to share with your colleagues?**  
Opportunity for summary, final comments.



## RESEARCH COMPONENT

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### LMHO WASTE SNAPSHOT

Literature on negative impacts often focuses on developing countries, and does not apply in the context of the Lower Mainland. I created an internal document summarizing the waste impact of the Lower Mainland Health Organizations, including the environmental and health impacts, and mitigations specific to the BC Lower Mainland. Data was drawn from information available on recycling and waste vendor websites, as well as relevant Canadian government websites and academic literature. Our waste impact includes nitrous oxide, mercury, and dioxin and furan emissions – all recognized for their deleterious health effects. These emissions are minimized through technological upgrades.

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### WASTE DIVERSION IN CANADIAN HEALTHCARE

Examples of environmental sustainability initiatives in healthcare are easy to find in the context of the United States, but what are other Canadian health care organizations doing in regards to waste management? I compiled information on waste diversion rates and waste management efforts across Canadian provincial health care organizations. Initial information was drawn from healthcare websites, and clarification was sought with individuals responsible for waste management.

There is more information and initiatives readily available in British Columbia, Ontario, and Quebec. This is because: (1) greater volume and therefore better access to recycling markets, and (2) regulatory impetus. This research also supported site-specific comparisons (rather than averaging across the authority) because it shows that unique diversion opportunities exist in each site.

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### MEDICAL DEVICE REPROCESSING

This was exploratory research to determine what was already being done in the LMHOs and whether medical device reprocessing should be explored further as a waste-reduction opportunity. I created an overview PowerPoint presentation of the regulations and ethical issues surrounding Medical Device Reprocessing, especially around reprocessing of devices sold as single-use.

## KEY FINDINGS AND RECOMMENDATIONS

Many of the negative impacts from waste are a result of improper waste segregation. Continuing efforts should be focused on training and awareness of what goes in which stream.

In addition to waste diversion, waste intensity should be tracked. This will capture waste *reduction*, an important next step in reducing negative impacts from waste creation.

Continue to interview Recycling Champions (and other Green+Leaders and GreenCare Heroes) to maintain engagement and open lines of communication.

Continue to explore Single-Use Medical Device Reprocessing and whether it is a viable option to further minimize waste impacts.