

# Waste Reduction Toolkit

## Recycling and beyond

### Goal:

To start conversations that will help identify opportunities to avoid, reduce, reuse and recycle waste and create systemic change to address waste in health care.

### What you will find in this toolkit:

1. Identifying opportunities in your workplace:
  - a. Guiding questions for you and your colleagues
  - b. Actions that can be taken
  - c. Stories from the Network
2. Why should you care: Starting the conversation with your colleagues on environmental health and wellness and the impacts of waste
3. Ways to think about impact: hierarchy of waste approaches
4. Next Steps

### Who this toolkit is for:

This toolkit is for Green+Leaders and all interested health-care staff. We have attempted to make this toolkit for anyone in the health-care system, whether you work in an administrative, clinical or support service area.

***Help us make it more specific to your unit/department. If you have ideas, notice gaps or things that don't make sense, please contact [info@bcgreencare.ca](mailto:info@bcgreencare.ca)***

## 1. Identifying opportunities to reduce waste in your workplace:

### a. Guiding questions for you and your colleagues:

*Consider the product you would like to eliminate from the waste stream. Below are some questions to help you and your colleagues have waste reduction conversations in your workplace:*

#### Better Processes:

- Do we need the product in the first place?
- Does it have a clinical use? Is there another way to offer quality patient care?
- What are other options?

#### Better Purchases:

- Is there an option with less packaging?
- Is it recyclable? How many times can you use it?
- Is it made *from* recyclable materials? If yes, what percentage of it is made with those materials?

#### Repurpose it:

- Is it on/could it be on the reprocessing list<sup>1</sup>?
- Can I reuse or repurpose it?
- Can it be donated?

#### Recycle It:

- Is it recyclable? In health care facilities paper, cardboard, hard plastic, tin and aluminum can be recycled
- Do I have the bins I need in my area?

#### Landfill/Incineration:

- 1) How can I avoid this option next time?

**Check out the conversation starter poster on the next page (click on it for the pdf):**

#### Helpful Hints!

Don't know where to start?  
Use BCGreencare's [Green Workplaces Opportunities Guide](#) to conduct a step-by-step baseline audit to identify the products you'd like to have waste reduction conversations about

<sup>1</sup> Usually used in the OR or clinical setting, reprocessing a medical device encompasses cleaning, reconditioning, function testing, and disinfection or sterilization to ensure that a medical device can safely be reused.

# TOO MUCH GARBAGE?

## LET'S START A CONVERSATION.

### 1. BETTER PROCESSES

Do we need it in the first place?  
Does it have a clinical use?  
What are other options?

### 2. BETTER PURCHASES

Is there an option with less packaging?  
Is it recyclable? Is it durable?  
Is it made with recyclable materials?

### 3. REPURPOSE IT

Is it on the reprocessing list?  
Can I re-use or re-purpose it?  
Can it be donated?

### 4. RECYCLE IT

Is it recyclable?  
Do I have the bins I need?

### 5. LANDFILL / INCINERATION

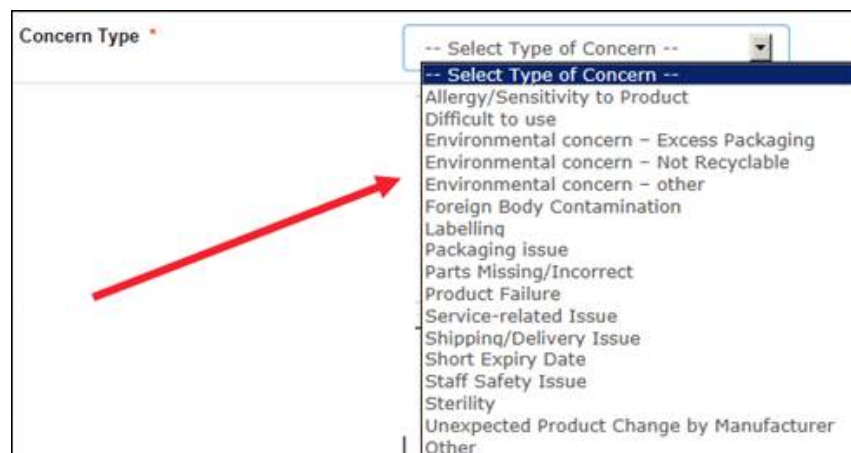
How can I avoid this?



## b. Actions that can be taken

Consider the following **purchasing actions** when looking to reduce waste in your work place:

- Review the epro/meditech catalogue for environmentally preferable options. Environmentally Preferable Purchasing is the act of purchasing products/services whose environmental impacts have been considered and found to be less damaging to the environment and human health when compared to competing products/services. Use the above *Purchasing Questions* above to evaluate your options.
- Ask questions to PHSA Supply chain: [scm\\_cs@phsa.ca](mailto:scm_cs@phsa.ca)
- Submit a '[Product Concern Form](#)' to PHSA Supply Chain: choose from 3 environmental concerns



- Work with your manager/quality improvement/professional practice lead to include the six waste reduction criteria below into the procurement process to evaluate the **product /equipment** you are purchasing for your department:

1) Quantity/volume of waste generated:

- Which option generates the least amount of packaging waste?
- Which option generates the least amount of waste at the end of life?

2) Hazardous waste generated:

- Which option generates the least amount of hazardous waste?

3) Reusability:

- Which option could be reused at the end of its life?

Helpful Hints!

The BCGreencare's *Green Workplaces Opportunities Guide* can help you identify goals for your waste reduction plan and select metrics that can help quantify the impact of your actions

- 4) Post-consumer recycled content<sup>1</sup>:
  - Which option was produced with post-consumer recycled content?
- 5) Recyclability:
  - Which option will be recyclable at the end of its life? (mixed paper, mixed containers, organics, batteries, furniture, electronics)
- 6) Durability:
  - Is it single use or reusable? If it is reusable, how long does it last/ how many times can you use it?

*NOTE: There may be alternatives on the market that will help us meet our waste reduction goals. Please also consider any consumables necessary to make the product or equipment work*

### c. Stories from the Network

#### Clinical items:

#### Reduce the volume of product waste with in Maternity at BC Women’s Hospital

5220 sitz basins, with gradient bags that were never used and discarded, were used in the BC health authorities during 2018/19, over half of which were used at Women’s Hospital (BCWH). With involvement from Maternity RNs and Purchasing Clerk, BCWH Patient Safety, GreenCare Energy & Environmental Sustainability, PHSA Supply Chain Clinical Coordinator and Sourcing Buyer, the investigation extended to other Lower Mainland hospitals.

A [Product Concern](#) was completed to inform the manufacturers of product issues. From here the manufacturers supported the team's concern and are now offering the sitz basin without the gradient bag. Savings include: 287kg of plastic waste and 17.3% cost savings.



### Using purchasing power to reduce environmental impact in the lab

The anatomic pathology lab uses equipment in the testing and diagnoses of cancer. The equipment uses a chemical called DAB, which is a known carcinogen and produces carcinogenic waste, which is unavoidable in the application of this testing method. Through purchasing, a new kind of equipment was bought which reduces the amount of this waste 13x. It also results in a cost savings for VCH and is easier for the staff to use. The estimated savings for VCH per year are \$19,677, and 8,286 litres of carcinogenic waste to transport and incinerate.



### Non-clinical items:

#### Save trees by eliminating cover page from patient status faxes

A Clinical Pharmacist, noticed that with each routine fax from drug companies, a cover page was always included, which proved non-informative, wasted paper and also meant thicker charts which took up space in the medical record storage area. They took action and connected with the drug company’s representative, sharing what they had observed and requested that the representative discussed eliminating this cover page. As a result, the company agreed to eliminate the cover page and saved an estimated 6.2 trees worth of paper in one year. This equates to 68 trees worth of paper saved since 2013!

#### Eliminating report printing in the NICU at RCH

2250 NICU lab reports were printed on a weekly basis, which had no clinical purpose. An Electronic medical record (EMR) provided better info. To make the switch to EMRs, the team worked with



Lab Site Supervisor and Regional Lab Info Systems Coordinator. As a result, NICU Clerk no longer prints reports. Money is saved on paper, toner & waste disposal, 53,477 gallons of water is saved, nine tonnes of trees are prevented from being harvested and carbon emissions are reduced by 5.8 metric tonnes

Helpful Hints!

Complete the brief [“Sustainability Story Survey”](#). Our team is always looking for stories to inspire others!

## 2. Why should you care: Starting the conversation with your colleagues on environmental health and wellness and the impacts of waste

Health care is a **material intensive industry** that requires the generation of some biomedical waste and garbage in order to provide the best patient care possible. As health-care workers, our priority is to keep individuals and communities healthy. This priority requires us to understand our environmental impact and look for opportunities to contribute to a healthy environment – clean air, food and water.

**Garbage waste that goes to landfill and incineration can negatively impact the health of our environment through soil, water, air and carbon pollution.** And when waste is sent to landfill and incineration, it requires the extraction of additional raw materials from the environment which can be energy, water and carbon intensive activities that contribute to the depletion of non-renewable resources.

Recyclable waste, on the other hand, reduces the amount of waste going to landfill or incineration, and prevents raw resource extraction. However, even though the overall impact is reduced, processing and manufacturing using recycled materials still requires energy, water consumption and carbon pollution, which results in negative impacts on the health of our environment.

**Reducing and/or avoiding waste should be our first step.** It decreases the healthcare sector's negative impact on the environment and brings us closer to living in harmony with earth's planetary systems, which in turn improves human health and wellbeing.

### Helpful Hints!

Use the above information in a conversation or email to leadership to get them onboard!

### 3. Ways to think about impact: hierarchy of waste approaches

When we talk about reducing waste in the workplace, we are talking about more than just recycling. In order of impact:

(1) **AVOID** the generation of waste

- When we prevent the need to manufacture items in the first place, we prevent carbon pollution, unnecessary energy and water use, as well as the depletion of non-renewable resources.

(2) **REDUCE** the amount of waste that can't be avoided

- When we only use what we need, we send less waste to landfill, incineration and recycling, and we eliminate the need to further extract more raw materials from the environment.

(3) **REUSE** materials and prioritize sharing, repurposing, repairing and refurbishing over recycling and disposal.

- In health care, reuse refers to a number of different things. For instance, labs might reuse plastic ziploc bags, renovation projects might repurpose furniture in good condition, or instruments could be reprocessed through sterilization by the MDRD or a 3<sup>rd</sup> party. Reuse helps delay an unavoidable disposal which happens when the item eventually becomes unsafe or unsuitable to be used again, and therefore will need to go to recycling, landfill or incineration.

(4) **RECYCLE** and maximize the recovery of food and green waste for composting

- When we ensure the products we purchase in health care are recyclable, recycling bins are in place and staff is educated, we reduce the need to extract more raw materials from the environment and reduce the amount of waste sent to landfill and incineration. This is called waste diversion.

The City of Vancouver has a great graphic to show this strategic approach to Zero Waste:



## It's time to shift our thinking about waste.

### ZERO WASTE APPROACH FOR VANCOUVER



*\*Recovering energy from organic materials such as food and, in the case of single-use items, compostable packaging*

#### 4. Next steps

Here are some links to the resources mentioned in the guide:

1. GreenCare Green Workplaces Opportunities Guide:  
<https://bcgreencare.ca/resource/green-workplaces-opportunity-guide>
2. Sustainable story survey:  
[https://phsa.ca1.qualtrics.com/jfe/form/SV\\_4NhXe7nTQr4Pg7b](https://phsa.ca1.qualtrics.com/jfe/form/SV_4NhXe7nTQr4Pg7b)

If you feel ready to kickstart a conversation about waste, our team does support and facilitate waste reduction workshops. Reach out to [info@bcgreencare.ca](mailto:info@bcgreencare.ca) to share ideas/ questions about the workshop or the toolkit!