



GreenCare™
2020
Environmental Performance
Accountability Report

**Environmental
sustainability is
everyone's story.**

Vancouver 
CoastalHealth

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Our Focus Areas



**Active & Clean
Transportation**



**Climate Risk &
Resilience**



Smart Energy & Water



Workplace Leadership



Zero Waste & Toxicity

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This is an interactive (clickable) report. You can easily navigate and link between sections and to areas that most interest you.

To view a report that is specific to one of the Lower Mainland health organizations, click on the name of the organization above. Each report details our GreenCare Focus Areas and programs, and the progress and achievements of the respective health authority.

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Welcome to the ninth annual Environmental Performance Accountability Report (EPAR). This report acknowledges the hard work, commitment, progress and success of everyone at Vancouver Coastal Health (VCH) in their continuing efforts to achieve environmental sustainability in all facets of our health system.

Given our climate reality, we all know that sustainable, low-carbon and climate-resilient health care is integral to the interdependent health of each of us, our communities and our planet. And, given the speed at which people, communities and health organizations responded to the pandemic in 2020, we know that through collaboration we can change rapidly and accomplish so much.

Over the past year, our health-care providers worked under tremendous pressure to transform our system in response to COVID-19. At the same time, and despite everything that was thrown at them, our staff and leadership continued to make

decisions that, by supporting the health of our environment, are essential to advancing human health.

Our **Green+Leaders** continued to push for and achieve environmental sustainability innovations and change. Our Capital Project and Facilities Maintenance teams prioritized and executed the design and construction of healthy and green health-care facilities and infrastructure, along with operational changes that result in tangible environmental and health outcomes. Departments across our health organizations challenged themselves to find ways to access resources and co-develop projects that stand as models of sustainability. And individuals at all levels of responsibility made decisions to expand active and clean transportation; improve energy and water-use efficiency; build greater health system climate resilience; support and strengthen opportunities for staff engagement; and develop new strategies to further reduce waste.

All of this dedicated work has marked a clear path for health care that will not simply help us to reduce the harm our activities cause to our environment and health, but allow us to build a truly healing system.

As you read this report, I encourage you to take pride in the collective efforts of everyone at VCH, consider the vital importance of continued sustainability actions, and centre your decisions on VCH's purpose: come together as one collective team to deliver an exceptional care experience for all.



Mauricio A. Acosta
Executive Director, Facilities Management
and Business Performance (VCH)

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1.1 Executive Summary

This 2020 Environmental Performance Accountability Report represents the collective work of many individuals whose impact extends beyond their immediate workplace, across the health system, and into our communities. They have made environmental sustainability, low-carbon and climate-resilient care a priority while continuing to advance health and wellness for every person.

As a regional collaborative service, the Energy and Environmental Sustainability (EES) team has had the honour of partnering with the staff of the four Lower Mainland health organizations — Fraser Health, Providence Health Care, Provincial Health Services Authority, and Vancouver Coastal Health — providing expertise and resources, and facilitating programs that promote and support healthy and healing design, construction and operations.

2020 was a particularly challenging year for health care due to COVID-19, coupled with the difficulties created by pandemic response measures. Despite this, VCH continued to take meaningful action in respect to each of the five, interdependent GreenCare Focus Areas — Active & Clean Transportation, Climate Risk & Resilience, Smart Energy & Water, Workplace Leadership, and Zero Waste & Toxicity — which provide a framework for addressing climate change and the environmental and health impacts of delivering patient care.

VCH's environmental sustainability story is always being co-created, including its successes, challenges and next steps. This report presents VCH's sustainability goals, targets and performance metrics, along with stories of partnerships and staff that are impacting our health-care sites.

This report speaks to our capacity for change; our commitment to each other, our place and our planet; and our resilience. It is a means of reflecting on what we've done and celebrating our achievements. But it's also a reminder that there is still much to be done, and that we must work together to do it.

Because environmental sustainability is everyone's story.



2020 Dashboard highlights

32.5%

decrease in greenhouse gas emissions
 intensity since 2007

15.7%

decrease in water-use intensity since 2010

2020 milestones

- ▶ Development of the Climate Resilience Design Guidelines (December 2020) for capital projects
- ▶ Implementation of infrastructure projects that are expected to reduce carbon emissions by more than 1,650 tCO₂e per year
- ▶ The VGH and UBCH Sustainability Operating Room Spark Campaign
- ▶ Cross-departmental collaboration on Planetary Health initiated: Office of Transformation, Population Public Health, Clinical representation, and the EES team
- ▶ Reducing unnecessary plastics and packaging in maternity clinical supplies, resulting in a cost savings win of 20%

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1.2 The 2020 Dashboard: Setting Sustainability Targets and Measuring Results

2020 is a milestone reporting year. The traffic lights indicate whether or not we met the targets set for 2020, helping us to reflect on what is achievable and what requires a shift in action moving forward. In some cases, we will be considering new targets, including 2025 key performance indicators, to help us assess our journey. And in others, we will be strengthening our partnership approach in order to increase impact as we move towards our 2030 targets. Captured in the 2020 Dashboard, these targets and KPIs help us all to determine challenges, recognize successes, and guide the

actions we need to take to transform our health-care system toward environmentally sustainable and climate-resilient care for healthy people, place and planet. Since targets and KPIs are still being determined for Climate Risk & Resilience, this Focus Area is not included in the dashboard.

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Active & Clean Transportation

Goal: Ensure a health-care system in which employees, patients, and visitors commute and travel in a manner that reduces pollutants and emissions, minimizes the need for onsite parking, and increases overall health and wellness.

Target*	Key Performance Indicators (KPI)	Baseline	2020 Results	Traffic Light	2020 Target	2030 Target
Increase staff commuting by active and clean transportation modes.	Percentage of staff commutes made by active and clean modes	2016	46%	●	60%	75%

* This Focus Area is currently under review, including identification of new targets and KPIs.

- 2020 target met or exceeded
- 2020 target within sight; work in progress
- 2020 target not met and requires attention

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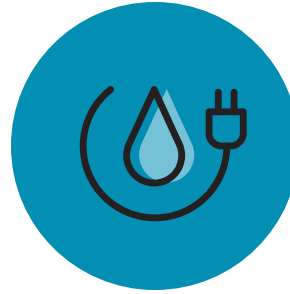
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Smart Energy & Water

Goal: Minimize energy and water consumption and GHG emissions to reduce costs and environmental impacts, helping to ensure the health and wellness of our living environments.

Target	Key Performance Indicators (KPI)	Baseline	2020 Results	Traffic Light	2020 Target	2030 Target
Reduce energy-use intensity (EUI) of core sites.*	EUI (ekWh/m ² /year)	2007	12.6%	●	15%	30%
Reduce absolute in-scope GHG emissions.**	GHG emissions (tCO ₂ e/year)	2007	18.7%	●	25%	50%
Reduce in-scope GHG-emissions intensity.	GHG-emissions intensity (tCO ₂ e/year/m ²)	2007	32.5%	●	30%	50%
Reduce building water (use) performance intensity (BWPI) of core sites.	BWPI (m ³ /m ² /year)***	2010	15.6%	●	10%	20%

* Core sites are defined as primarily owned health-care facilities that can be actively monitored for energy, water and waste data.

** Absolute emissions refers to total emissions regardless of growth change and weather variation. In-scope emissions are from owned and leased buildings, fleet travel and paper use (as defined by the *Climate Change Accountability Act*).

*** Although facility space is used as an intensity metric for water, it's important to note that total water consumption is influenced by facility staff count, processes, procedures and equipment.

● 2020 target met or exceeded
 ● 2020 target within sight; work in progress
 ● 2020 target not met and requires attention

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Workplace Leadership

Goal: Together, reach, engage and inspire health-care staff to be leaders who share a commitment to and passion for healthy, sustainable and thriving communities, workplaces and environments.

Target*	Key Performance Indicators (KPI)	Baseline	2020 Results	Traffic Light	2020 Target	2030 Target
Increase the number of Green+Leaders across the organization.**	Number of staff joining the Green+Leaders program annually	n/a	8	●	12	15

* This Focus Area is currently under review, including identification of new targets and KPIs.

** In previous years, this target was measured as a proportional increase in Green+Leaders. It was decided that using numbers will provide more accurate and meaningful information for monitoring. A refresh of the engagement metrics will take place in 2021.

● 2020 target met or exceeded
 ● 2020 target within sight; work in progress
 ● 2020 target not met and requires attention

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Zero Waste & Toxicity

Goal: Minimize waste generated and toxic chemicals used by the health-care system and supporting operations.

Target	Key Performance Indicators (KPI)	Baseline	2020 Results	Traffic Light	2020 Target	2030 Target
Increase waste-diversion rates at existing acute and long-term care sites.*	% of waste diverted (annual average)	n/a	41%**	●	50%	50%
Decrease waste-intensity rates at existing acute and long-term care sites.	Waste intensity (kilograms/m ² /year)	n/a	12.0	●	10.0	8.0

* Waste-diversion data does not include segregated bio-medical waste.

** In 2020, our waste diversion reflects only waste segregation, as our recycling provider paused the collection of recycling due to concerns for staff safety during the COVID-19 pandemic. All recycling and general garbage streams were instead taken to a local waste-to-energy facility.

● 2020 target met or exceeded
 ● 2020 target within sight; work in progress
 ● 2020 target not met and requires attention

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2.1 Vancouver Coastal Health (VCH)

Our vision

Healthy lives in healthy communities

Our values

- ▶ We care for everyone
- ▶ We are always learning
- ▶ We strive for better results

Our purpose

Come together as one collective team to deliver an exceptional care experience for all

Our strategic priorities and goals

- ▶ Exceptional care
- ▶ Innovation for impact
- ▶ Great place to work

Planetary Health

Building an integrated strategy and plan for Planetary Health has been identified as a goal within the strategic priority of exceptional care at VCH. This builds on the VCH Service Plan, which includes a commitment to providing efficient and sustainable health care, with an innovative and collaborative approach towards reducing our environmental and carbon footprint, ultimately adding to the health of clients, staff and facilities and benefiting the long-term well-being of the extended communities VCH serves.

Our commitment to sustainability

Achieving energy and environmental sustainability is a priority for VCH. To achieve this, in its **environmental sustainability policy**, VCH is mindful of the importance of developing a triple-bottom-line approach to sustainability, which balances ecological, societal and economic imperatives, and recognizes the link between a healthy environment and a healthy population. As such, we recognize our duty to minimize our environmental impact through leadership and strategic partnerships, facility construction and operations.

Our region

Established in 2001, VCH is a regional health authority that serves more than one million residents from Richmond, Vancouver, the North Shore, and the Sunshine Coast to the Central Coast. These areas encompass 12 municipalities, four regional districts and 14 Indigenous communities.

Our services^A

VCH provides extensive services, including primary, secondary, tertiary and quaternary care; home and community care; population and preventive health care; mental health services; and substance use services. It administers:

- ▶ 9 hospitals and 1 rehabilitation centre
- ▶ 7 diagnostic and treatment centres
- ▶ More than 20 community health centres
- ▶ Vancouver General Hospital, Canada's second largest hospital, which features:
 - Specialized health-care services locally and provincially
 - A teaching hospital affiliated with the University of British Columbia
 - One of the largest research institutes in Canada

Our direct-care professionals

The 16,718^B full-time equivalent employees, physicians and nurses of VCH are committed to the values of respect, caring and trust in pursuit of providing the best health care possible to every individual across the region.

Many of these individuals understand and are taking action to reduce environmental risks and increase climate resilience, particularly through their support of and participation in Energy and Environment Sustainability strategies and programs in the workplace. They have made environmental sustainability their story, as demonstrated by their participation in the Green+Leaders program and the success stories throughout this report. Given the tools and opportunity, they will continue to play a key role in transforming health care.

“
All stakeholders in the health-care system must be engaged. We need a mandate from the health system — we need patients, communities, frontline providers, administrators and senior leaders to say that Planetary Health is their business.

– Dr. Andrea MacNeill, Cancer Surgeon at VCH;
Director of the Planetary Health Care Lab (UBC)

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Senior executive team*

“

Planetary health is key to the realization of VCH's vision — healthy lives in healthy communities. We must embrace and advance environmental sustainability, while also providing safe, quality care. We all have a role to play in protecting the environment, which is why I am so proud of the work of our staff and medical staff to develop evidence-based solutions to create a more environmentally sustainable health-care system that will improve the lives of British Columbians.

– Vivian Eliopoulos, President and Chief Executive Officer



Vivian Eliopoulos
 President and Chief Executive Officer



Dr. Dean Chittock
 Vice-President, Medicine,
 and Quality and Safety



Gail Malenstyn
 Interim Vice-President,
 Richmond Acute Services



Lorraine Blackburn
 Vice-President, Professional Practice,
 and Chief Clinical Information Officer



Jennifer Beaveridge
 HAMAC Co-Chair and Executive
 Lead, Physician Engagement



Sean Parr
 Interim Vice-President,
 Coastal Community of Care



Leslie Bonshor
 Vice-President, Indigenous Health



Dr. Brenda Wagner
 HAMAC Co-Chair and Executive
 Lead, Physician Engagement



Fernando Pica
 Chief Financial Officer and VP,
 Strategic Business Services



Dr. Ross Brown
 Vice-President, Pandemic Response



Dr. Patricia Daly
 Vice-President, Public Health,
 and Chief Medical Health Officer



Darcia Pope
 Vice-President and Chief
 Transformation Officer



Bob Chapman
 Interim Vice-President,
 Vancouver Community



Michelle de Moor
 Interim Vice-President,
 Vancouver Acute Services



Ron Quirk
 Chief Information Officer



Charlene Chiang
 Vice-President of Communications
 and Strategic Partnerships



Yasmin Jetha
 Vice-President, Community Services,
 and Interim Vice-President for VCH-
 Richmond Community Services



Brett Sparks
 Vice-President, People

* As of August 2021

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**Building for energy and
 environmental sustainability**

In design and construction of new facilities (i.e. project planning, design and construction teams), VCH is supporting the highest level of human and environmental health and well-being by:

- ▶ Assessing and reducing the impacts of climate change on a facility and the surrounding community
- ▶ Determining how the design, construction and operation of a facility will impact the environment (energy, water, carbon and waste impacts) and human health
- ▶ Developing low-carbon, climate risk and resilience and environmental sustainability strategies
- ▶ Achieving LEED accreditation (a globally recognized green-building rating system administered by the [Canadian Green Building Council](#))
- ▶ Meeting and exceeding environmental and climate change regulations
- ▶ Drawing on credible evidence that links health outcomes to planning and design of the built-environment (re: [The Healthy Built Environment Linkages Toolkit](#))

Our buildings^c

722,622 m²

usable facility space

176

distinct buildings



Sechelt Hospital

Our LEED projects

Certification Date	Project Name	Certification Level	Project City	Project Size (m ²)
Pending	Creekstone Care Centre	-	North Vancouver	13,354
Pending	Hamilton Village Care Centre	-	Richmond	8,200
Pending	Paul Myers Tower – acute care facility	-	North Vancouver	21,775
Pending	Silverstone Care Centre & Hospice	-	Sechelt	8,600
2018-04-20	Joseph and Rosalie Segal and Family Health Centre	Gold	Vancouver	12,251
2016-04-15	HOpe Centre	Gold	North Vancouver	8,805
2015-01-13	Sechelt Hospital	Gold	Sechelt	5,300

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2.2 The Energy and Environmental Sustainability Team

The Energy and Environmental Sustainability (EES) team was created in 2010 to ensure that a collaborative environmental sustainability approach is taken across the Lower Mainland health organizations (LMHOs) — Fraser Health, Providence Health Care, Provincial Health Services Authority (PHSA) and Vancouver Coastal Health (VCH).

Since then, we've partnered with many departments, teams and individuals to integrate and enhance sustainability infrastructure and practices in a variety of projects and programs, and made health and wellness central to our work.

The EES team is driving the push for environmentally sustainable and resilient health care, but can't do it alone.

Embedding environmental health and wellness

Founded and led by the EES team, GreenCare is a network that unites efforts within the B.C. health-care community to transform our health-care system toward environmentally sustainable and resilient care. By connecting diverse groups across the LMHOs, GreenCare amplifies and celebrates projects, programs and staff actively working to address our climate reality. The [GreenCare website](#) acts as a home and resource to support these efforts.

Due to evolving changes to legislation and health-care priorities, in 2020 the EES team initiated a refresh of the GreenCare Strategic Framework to better meet the needs of the health-care sector. Completed in 2021, the updated framework reflects the diversity of individuals across the health system and the value in creating equity for all; the interdependent nature of people, place and planet; and the importance of building relationships that are inclusive, accountable and respectful. With this reimagined framework,

and upcoming new targets and KPIs for 2025 and 2030, we are excited to increase our focus on relationship building and collaboration, so that our health-care systems, staff, leadership and communities are empowered to meet the sustainability challenges ahead.

In spite of the new challenges that the pandemic brought in 2020, I know how hard the EES team has been working. While adapting to 2020's exceptional circumstances, they have continued to make sustainability and resilience a priority, as shown throughout this report. I also know how proud the team is of VCH staff and leadership's efforts to continue to embed environmental sustainability within our health-care system.

Given our climate reality, none of us can afford to be complacent. Our well-being, our future, and our friends, family and children depend on our ability and willingness to continue to change how we live and work. We know what to do, we know how, and we know we can. Let's move forward, together.



Robert Bradley
Director of Energy & Environmental Sustainability

Meet the EES Team.



Vancouver General Hospital

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3.1 Our GreenCare Focus Areas

To reduce the risks of our climate reality and the environmental impacts of health-care construction and operations, we must all take clear, meaningful action. The GreenCare Focus Areas are essential to this action and have been developed in consideration of the interdependent nature of healthy people, places and planet. None of these Focus Areas exists in a silo: activities and actions in one area have real impacts on the others. In this way, energy and environmental sustainability is a holistic endeavour that requires a unified, coordinated approach that engages all stakeholders in every part of the health-care system.

In order to support meaningful change, each of the following Focus Areas, with the exception of Climate Risk & Resilience, identifies a goal and a number of targets, along with measurable Key Performance Indicators (KPI) that determine our progress. In some cases, a target is influenced by but not necessarily aligned with provincial or regional mandates. By pursuing these targets and tracking these KPIs in collaboration with key partners, VCH can assess its progress and achieve environmental sustainability.



**Active & Clean
 Transportation**



**Climate Risk
 & Resilience***



**Smart Energy
 & Water**



**Workplace
 Leadership**



**Zero Waste
 & Toxicity**

* Targets and KPIs for Climate Risk & Resilience are currently under development and were not in place for 2020.

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1. Active & Clean Transportation

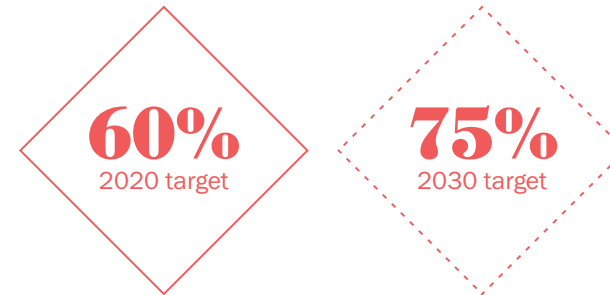
Our goal

Ensure a health-care system in which employees, patients, and visitors commute and travel in a manner that reduces pollutants and emissions, minimizes the need for onsite parking, and increases overall health and wellness.

Working towards this goal, active transportation reduces the risk of disease, the effects of psychological stress and the negative physical impact of a sedentary lifestyle. Active, or human-powered, transportation also provides environmental benefits, as an alternative to fossil-fuel-powered transportation. Modes include walking/rolling, cycling, running, and the use of human-powered or hybrid mobility aids such as wheelchairs, scooters and e-bikes. Clean transportation features modes that reduce greenhouse gas (GHG) emissions and contribute to environmental and human health by providing vehicle alternatives to single occupancy vehicles that consume gas and diesel. These include public transit, electric vehicles, plug-in hybrid vehicles, carpooling and electric scooters.

Our targets

Increase staff commuting by active and clean transportation modes.



Our partners

BC Hydro

Climate Action Secretariat

Healthy Transportation

Integrated Protection Services, Commuter Services

PHSA Supply Chain

Population Public Health

Current programs include:

The Active & Clean Transportation Focus Area is currently undergoing review and revitalization. This process will include close alignment of strategy and targets with municipal strategies, CleanBC and Canada's first national active transportation strategy (under development). The EES team will work closely with key stakeholders within VCH and across the four Lower Mainland health organizations to engage with staff, patients and visitors to increase access to and use of active and clean transportation modes when commuting, and when travelling to and between health-care facilities.

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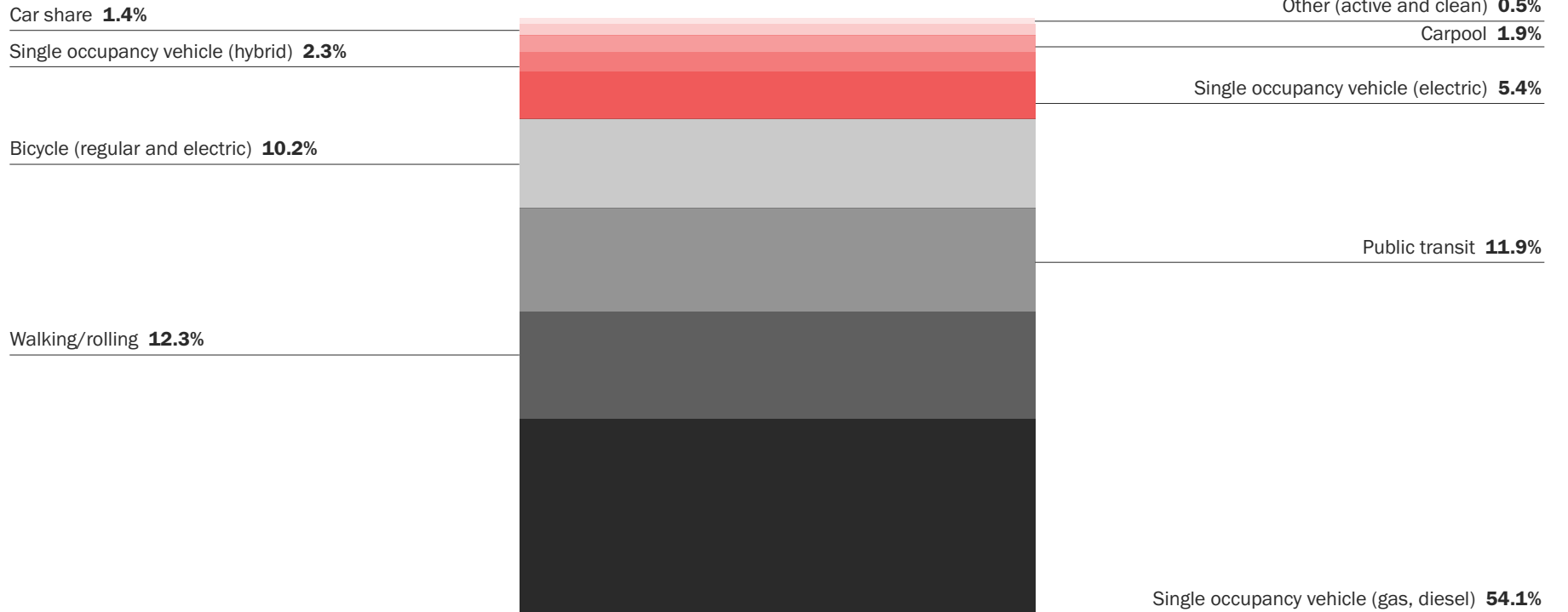
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Mode Share

Mode share* is a way to understand how staff are moving to and from home and work, by showing the proportion of transportation by different transportation types. Transportation is a major producer of GHG emissions, and transportation choices have an impact on the health and well-being of staff and communities. As such, our goal is to see a shift in mode share to a higher proportion of

commuting by modes that are active or do not require fossil fuels. Due to the impacts of and concerns around COVID-19, changes in transportation behaviours were seen in VCH, which were consistent throughout the province; there was both a drop in transit ridership^D and an increase in the number of people working from home.



54%
 of commutes taken by VCH staff in 2020
 occurred by gas or diesel single occupancy vehicle.

* Transportation mode share is determined through a biennial staff survey. With a confidence level of 95%, the survey attained a 4% margin of error for VCH. The margin of error is the maximum amount the survey's results are expected to differ from those of the actual population. 2020 results have been adjusted to remove the proportion of time staff reported working from home.

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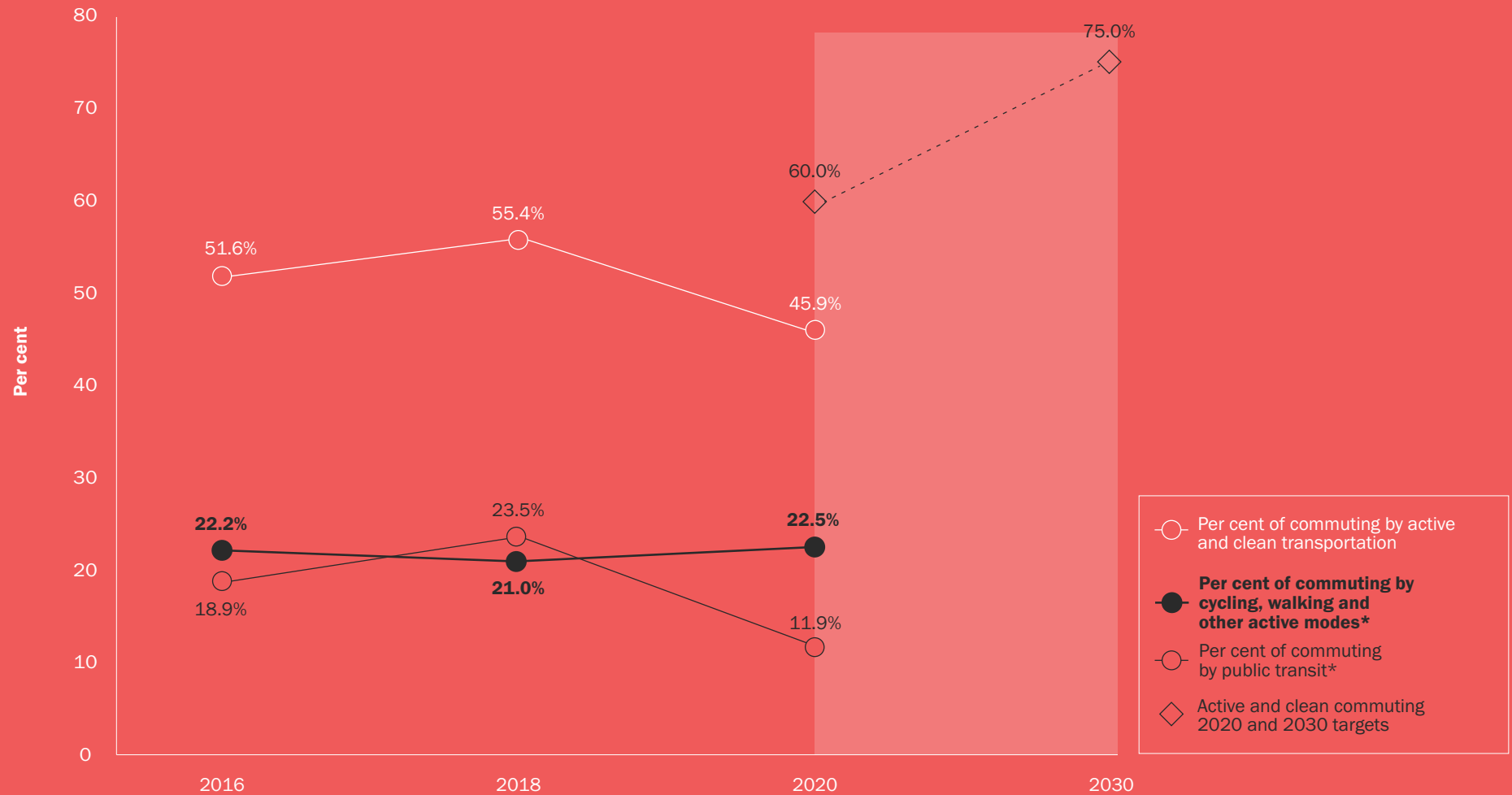
Active and Clean Commuting

Our goal is to support and encourage staff to choose alternative modes of transportation to gas or diesel single occupancy vehicles and to choose active and clean modes, such as electric vehicle, public transit, walking/rolling and cycling. By measuring commuter behaviour

and understanding how behaviour changes over time, we can more accurately direct our work and support staff in choosing commuting options that have a lower environmental impact.

10%↓

The proportion of active and clean commutes decreased by 10% in 2020. However, staff reported that 15% of commutes were replaced with working from home.



* For reference only. No associated targets.

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Accessibility matters

Understanding accessibility is a key component to understanding staff commuting behaviour. It is also an important component when considering the needs of staff, and what they require from their commuting and transportation modes.

What do staff report as accessible and practical commuting options?^E

65%

Gas/diesel single occupancy vehicle

40%

Public transit

36%

Cycling

24%

Walking/rolling

Despite active and clean modes of transportation, such as transit, cycling and walking/rolling being accessible and practical for many staff, these values are not reflected in commuting behaviour: we still see that fossil-fuelled, single occupancy vehicles are the most commonly used transportation mode (43% of commutes). Along with the VCH Healthy Transportation lead, the EES team is working to narrow the gap between what staff report as accessible and practical and what modes of transportation are actually being taken for commuting. Additionally, we are working to increase the accessibility of different active and clean transportation modes.

The EES team also recognizes that, due to different requirements related to mobility, family and work, some staff will always rely on single occupancy vehicles for transportation. Understanding the different accessibility requirements of staff allows the team to understand what types of active and clean transportation need more resources or support in different regions.



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OUR STORY

A green light for more electric vehicle charging stations

Ashok Mishra, director of Richmond Hospital Redevelopment, has a history of working on energy efficiency projects, but his work with electric vehicles in particular has brought the importance of environmental sustainability and health-care resilience into sharper focus.

“We are living in this world, breathing, and yet we keep polluting our air with GHG emissions,” Ashok says.

With the help of the EES team, Ashok initiated an electric vehicle (EV) charging station pilot project at Richmond Hospital to promote sustainable transportation. Thirty parking spots at the Richmond Hospital campus will be made into charging stations and opened in a phased approach. The idea was to provide a few stations to start and add the remaining stations as demand grew. Six stations were installed in April 2021. By July, 14 stations were in use with more on the way.

Parking can be a hot-button issue that sparks complaints and concerns about its management, and this was a challenge to the project from the beginning. But by reframing how we think about parking – that instead of taking away parking spots we’re meeting the needs of all users – the pilot project got its green light.

The project revealed the extent of the demand for charging stations, which has turned out to be much higher than first estimated. The feedback from staff – who made 96 individual requests to use the charging stations at the Richmond campus – shows the positive impact of the project, which has addressed the issues of EV range and transportation emissions.

Richmond Hospital was not the first hospital in B.C. to install charging stations, but the demand for stations at the site demonstrates the need for this technology to be available at more health-care facilities. The project has effectively opened the door to expanding charging station

infrastructure across VCH, which will increase facility access and sustainability.

“Environmentally sustainable and resilient health-care facilities contribute to high-quality care and accessibility of services, and, by helping reduce facility costs, also ensure better affordability,” Ashok says. “They are, therefore, an important component of a universal health coverage system.”

Ashok Mishra
Director, Richmond Hospital Redevelopment



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What do VCH staff have to say about electric vehicles (EVs)?^E

8%

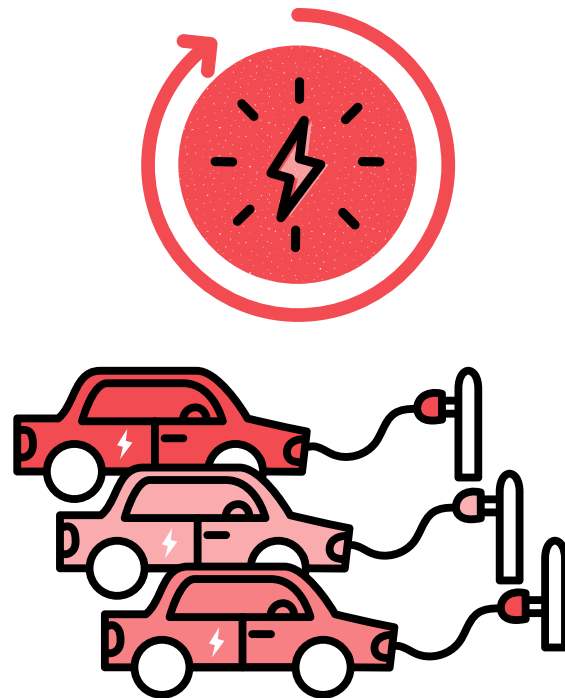
currently own an EV.

39%

plan to own an EV in the next five years.

32%

are unsure about owning an EV.



Our successes

36% and 40% of VCH staff report that cycling and public transit, respectively, are practical and accessible options for their commute to work. Ensuring that staff have access to and use active and clean transportation modes required multiple VCH departments to be successful. The EES team, working collaboratively with partners such as capital project teams and the VCH Healthy Transportation department, can ensure that access to active and clean transportation options continues to increase for staff, as well as for patients and visitors.

Challenges we face

As ownership and transportation by EVs rises, we face new challenges associated with how to best manage EV charging stations. Despite the wave of EVs, there is no standardization for charging either at a local or regional level. This challenge will require careful planning and communication with EV owners to ensure that charging infrastructure for staff is managed in a way that meets the unique needs of many health-care staff.

COVID-19 has impacted staff behaviour when it comes to transportation

The pandemic has had an impact on how VCH staff commute. 15% of the commutes that normally would have occurred were replaced with working from home, essentially eliminating the negative environmental effects associated with those commutes. Of the commutes that remained, there was a significant drop in commuting by public transportation and an increase in single occupancy vehicle use.

“

I'm more conscious of trying to walk places where possible, but ... would rather drive privately than take public transport to reduce mixing with [the] general public.

– GreenCare Survey respondent

The work isn't finished

While 36% of VCH staff reported cycling as an accessible and practical commuting option, only 10% of commutes occurred by bicycle. Similarly, although 40% of staff reported that public transit was accessible and practical, only 12% of commutes were made by that mode. Understanding why there is a discrepancy between what staff report as accessible and practical versus how they actually choose to commute is a key part in the behaviour shift to increase active and clean transportation. The EES team is working to narrow this gap by providing resources, education and support to make it easier and more desirable for staff to choose clean and/or active commuting options.

The 2030 and 2040 zero emission vehicle targets set out in the CleanBC plan (30% and 100% respectively) are an important part of VCH's roadmap to clean transportation. EV ownership has doubled amongst VCH staff since 2018: 8% of VCH staff currently own an EV. In the last two years, more VCH staff have purchased EVs and more staff have an increased interest in or are considering the option of owning an EV. With these increases, the EES team is investigating opportunities to not only support the growing demand for infrastructure but accelerate the shift to low-carbon communities. A part of this process will include the execution of a baseline and feasibility study to understand the demand, challenges and opportunities that come with EVs, and the implementation of infrastructure throughout VCH facilities.

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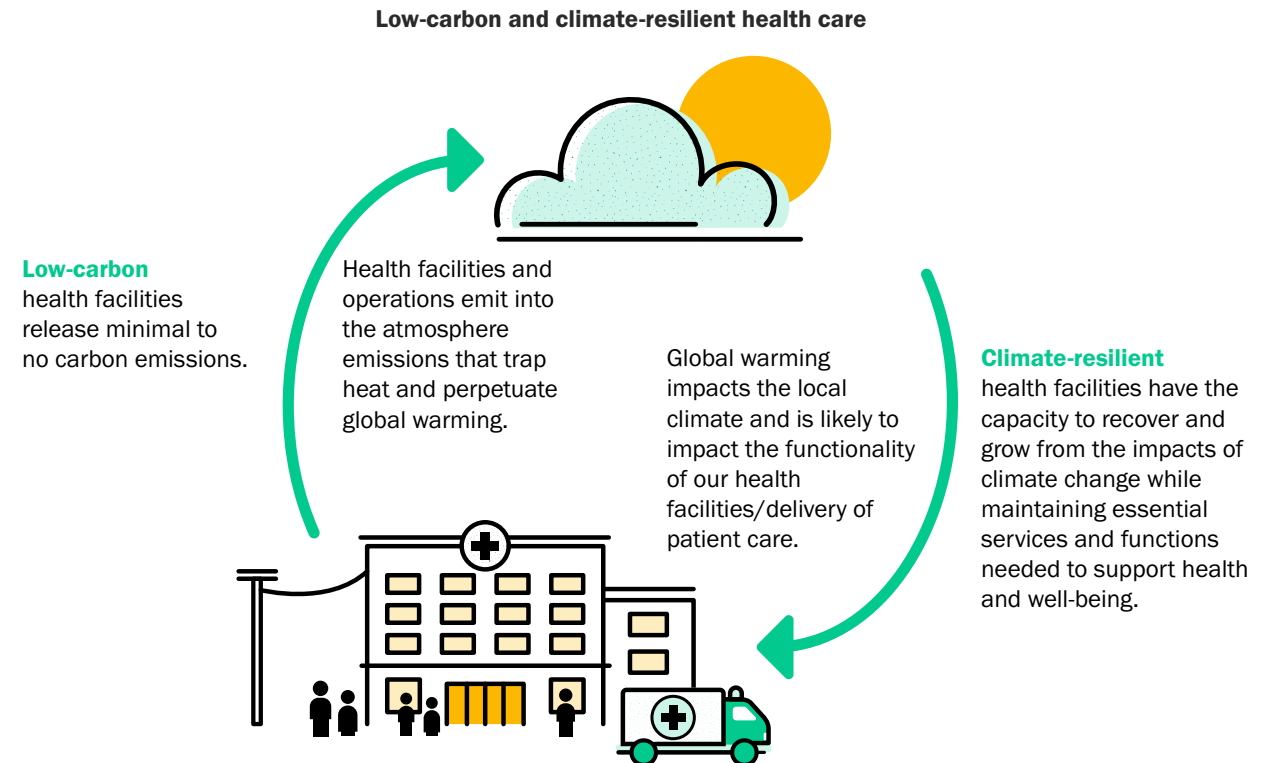
Our goal

In partnership with key stakeholders, move toward a climate-resilient health system, manage climate risks to our hospitals and long-term care homes, and break the chain of cascading impacts on the services we provide in our health-care facilities and our broader communities of care.

Our leadership role in developing fit-for-purpose information, tools and processes to reduce climate risks in planning and design enables our people, services, assets and infrastructure to better manage climate risks over the next 60 to 100 years of operations. By engaging with other leaders in climate risk management, exploring synergies and co-benefits in reducing emissions, and improving human health, our program is on the forefront of developing and translating new knowledge into low-carbon and resilient actions and plans that align with the [CleanBC plan](#) and the [Climate Change Accountability Act](#).

Our targets (under development)

We are in the process of developing climate risk and resilience metrics and targets for new major capital projects and facility operations, health system climate resilience indicators and a system for tracking progress.



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Our partners

BC Climate Action Secretariat, Climate Risk
Management Branch

BC Housing Research Centre, Mobilizing Building
Adaptation and Resilience project

Health Canada, Climate Change and Innovation Bureau

Health Emergency Management BC

Interior Health

Island Health

Local governments

Ministry of Health, Capital Services Branch and Health
Protection Branch

Northern Health

Pacific Climate Impacts Consortium

Population & Public Health

Simon Fraser University, Adaptation to Climate Change Team

University of British Columbia, Collaborative for Advanced
Landscape Planning

Various consultants



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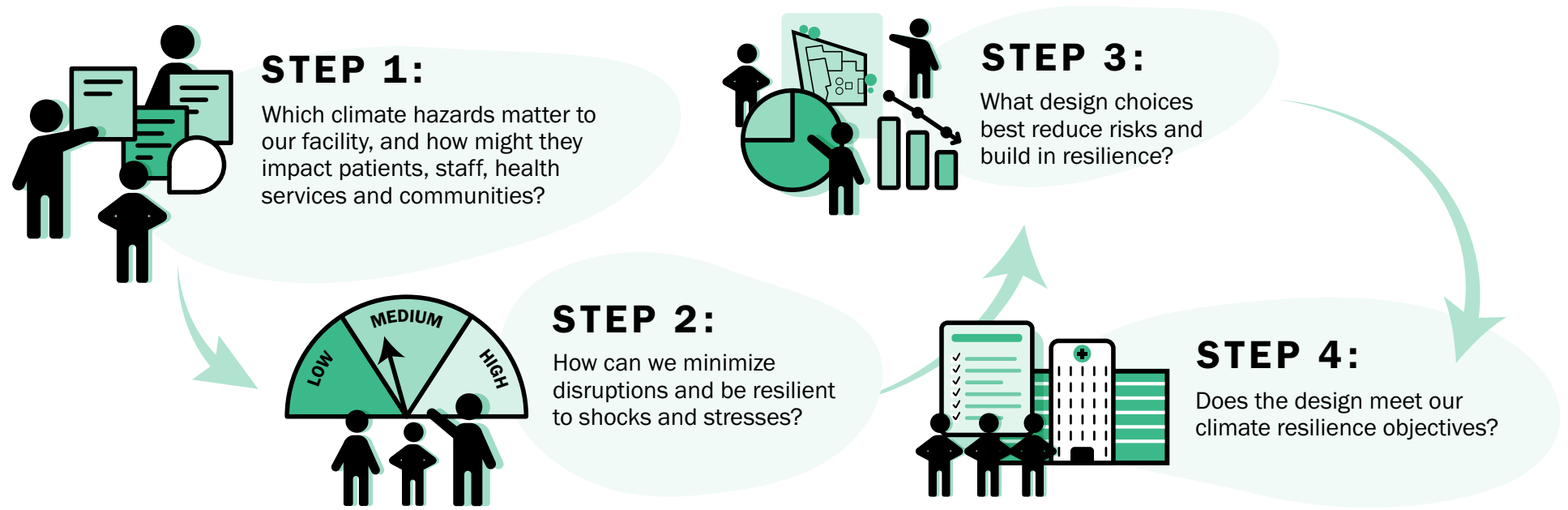
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OUR STORY

Collaborative planning for climate-resilient facilities

Climate change hazards that pose significant and growing risks to health facilities are most efficiently addressed at the stage of facility planning and design. Completed in 2020, [Climate Resilience Guidelines for BC Health Facility Planning and Design](#) will assist capital project planners and climate adaptation staff and consultants to improve the resilience of health-care facilities and operations to climate risks. This is the first set of such guidelines in Canada, positioning B.C. health authorities as leaders in climate risk management and resilience planning.

The guidelines apply to all new construction, major redevelopments and major renovation projects that require a business plan and use a design-build model. They help facility designers and operators with common and complex challenges, such as understanding risks associated with compound hazards (e.g. pandemic and seismic), which are identified by a climate risk and resilience assessment process outlined in the guidelines. Through the use of open-access online tools, process descriptions and other

information may be downloaded and customized for various projects and procurement models.

The guidelines also provide examples and checklists that may be customized and incorporated into contract, procurement and evaluation documents for capital projects, and they assist capital project teams in meeting annual reporting and information-sharing requirements.

Project partners worked collaboratively to develop the guidelines, which benefited from an advisory committee of subject-matter experts, a working group of B.C. health authority representatives, and a task force of building design and climate risk management professionals, in addition to the core project team. All regional and provincial health organizations contributed to the guidelines, and 10 consulting firms and one public sector organization (BC Housing) provided significant in-kind contributions.

As the project moved forward, the guidelines gained sufficient credibility and momentum to support the development of a

Carbon Neutral and Climate Resilient Health Care Facilities policy, as part of the Health Capital Policy Manual updated by the B.C. Ministry of Health in 2021.

“
This progressive and long-term approach to the planning process and design of our health-care facilities enables the adoption and implementation of climate resilience features that would be difficult to consider and integrate without this supportive policy in place.

– Mauricio Acosta, Executive Director,
 Facilities Management and Business Performance (VCH)

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OUR STORY

Mapping vulnerability

Some people and communities are more vulnerable than others to the health impacts of climate hazards. Our exposure to the hazard, sensitivity to it (such as from age or health status) and capacity to adapt affect our degree of vulnerability.

The Community Health and Climate Change Mapping project spatially represents such community health vulnerability. Focused on four climate hazards — heat, wildfire smoke, ground level ozone, and coastal and river flooding — it intends to advance the conversation about climate change and health equity while also providing information for adaptation planning.

“The maps produced by this project allow decision-makers to better understand communities that may be most impacted by the health effects of a changing climate,” says VCH Environmental Health Scientist Emily Peterson.

In particular, local governments, provincial health agencies and Health Emergency Management BC can use the maps to inform environment and climate change strategy.

The project also contributes to related initiatives. In Climate Resilience Guidelines for BC Health Facility Planning and Design, the maps are a component of the high-level master planning process that informs the design of new facilities.

Led by VCH Public Health, the project was supported by staff from Fraser Health, Facilities Management, and Health Emergency Management BC, as well as by UBC, BC Centre for Disease Control, municipal and regional governments, and Licker Geospatial Consulting Co.

“

The maps produced by this project allow decision-makers to better understand communities that may be most impacted by the health effects of a changing climate.

– Emily Peterson, VCH Environmental Health Scientist

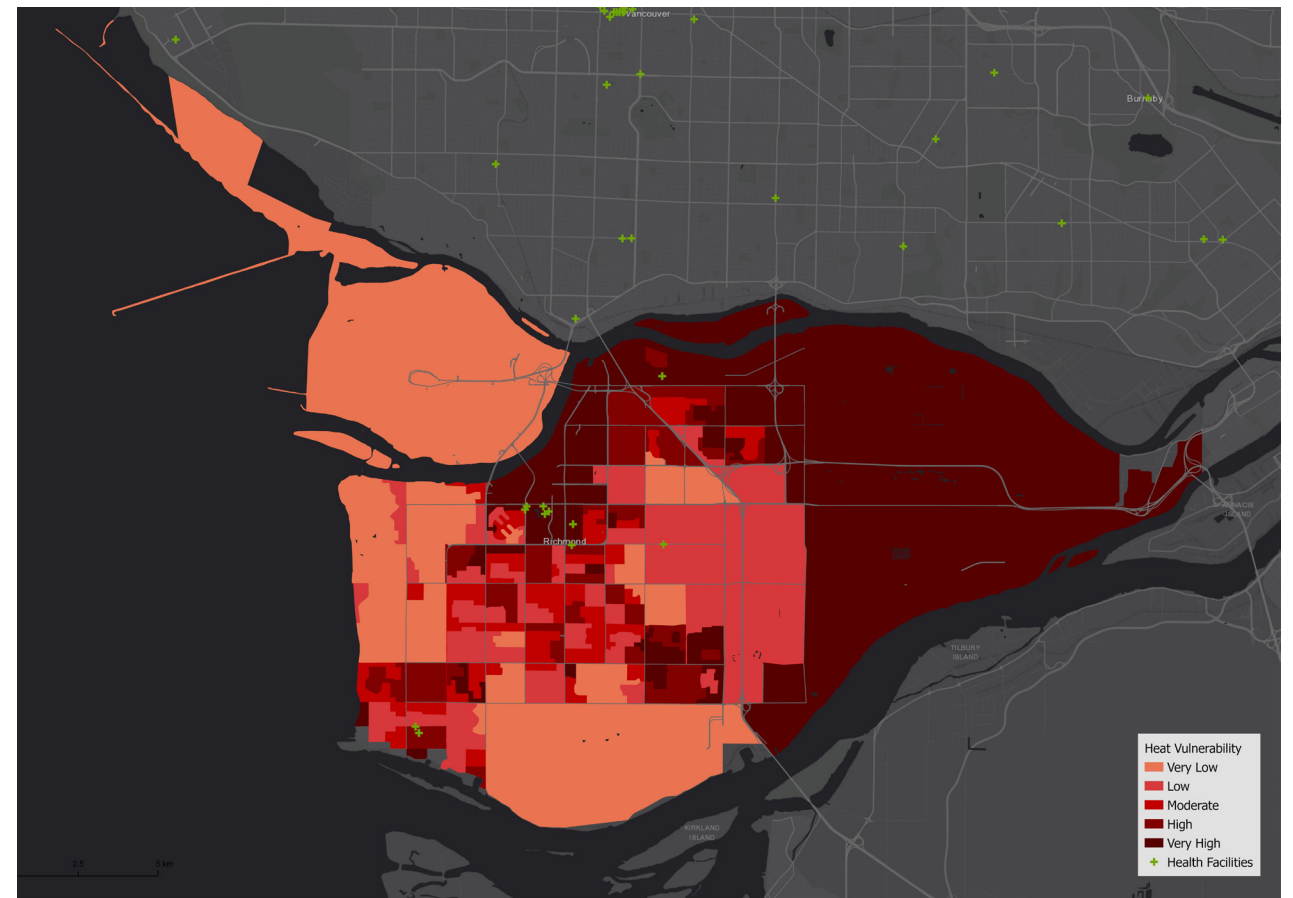


Figure 1. This example community health vulnerability map displays the heat vulnerability index in the city of Richmond. The index comprises heat exposure, population sensitivity to heat and population adaptive capacity.

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What do VCH staff have to say about the impact of climate change hazards on their work? ^E

76% of VCH staff reported that they experienced climate change hazards in the last 12 months. The most common were:

- ▶ Wildfire smoke
- ▶ Extreme rainfall and thunderstorms/lightning
- ▶ Wind storms
- ▶ Heat waves

27% of VCH staff reported that climate change hazards impacted their ability to perform their job duties in the last 12 months. The most common were:

- ▶ Wildfire smoke
- ▶ Snow or ice storms



Our successes

In 2020, we worked with numerous partners to better understand climate risks and potential cascading impacts across our health system, with a view to moving towards enterprise-wide resilience. By using a state-of-the-art geospatial platform, XDI Globe,^F we were able to shine a light on our health facilities' interdependencies on power and telecommunications infrastructure, as part of a BC Climate Action Secretariat-led project. Working with Health Canada's Climate Change & Innovation Bureau to develop and present at the biannual Adaptation Canada 2020 conference, several "stress test" scenarios better aligned VCH with international best practice for identifying and addressing service and supply chain vulnerabilities to climate shocks — such as extreme heat, flood and wind events — and stressors, such as drought. Finally, collaborating with our health system partners in public health and emergency management to carry out a health vulnerability assessment for VCH as part of our joint HealthADAPT project^G led to new information and insights that will support development of a VCH strategic adaptation plan in 2021/22. Our hope and expectation is to leverage these and other tools and mechanisms to break the chains of cascading impacts at the most effective junctures in our health facility planning and design, such that service delivery is able to withstand and “bounce forward” from both expected and unexpected events.

Challenges we face

Setting targets and tracking progress in reducing climate risks and embedding resilience is important to ensure that we're moving in the right direction. However, attributing excess damages, losses, downtime and opportunity costs to specific events or trends, such as a heat wave or rising sea levels, is a nascent field. Similarly, quantifying the returns on resilience investments is a complex process that requires the development of metrics specific to health facilities and health care.

“

Our health-care organization should be highly involved and motivated to reduce greenhouse gas emissions as climate change will have a big impact on health.

– GreenCare Survey respondent

The work isn't finished

In 2021, our intent is to work closely with capital planners and project managers to embed the climate risk and resilience assessment process into planning, design and operations at the most effective junctures. A key success factor will be to develop and provide ongoing training to support implementation of the Climate Resilience Guidelines, Establishing Design Conditions, Greening Design and XDI Globe resources.

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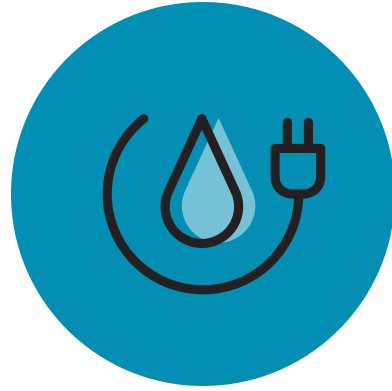
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3. Smart Energy & Water

Our goal

Minimize energy and water consumption and GHG emissions to reduce costs and environmental impacts, helping to ensure the health and wellness of our living environments.

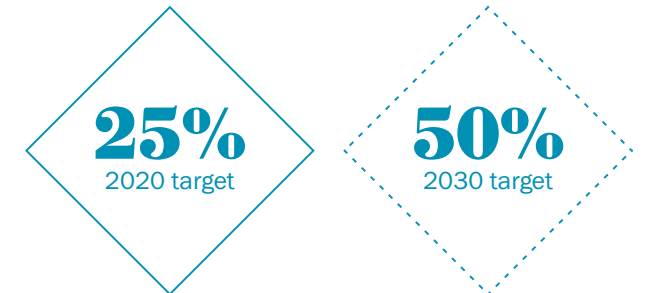
Achieving the Smart Energy & Water goals means stewarding energy and water and their utilities. VCH is continually looking for opportunities to reduce the amount and intensity of energy and water use and GHG emissions from health-care operations. Energy efficiency measures and water-conserving infrastructure achieve greater output using fewer resources, thereby lowering our environmental footprint without compromising patient care or employee comfort.

Our targets

Reduce energy-use intensity of core sites* by



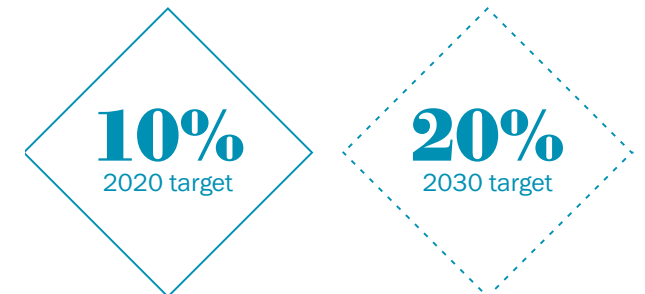
Reduce absolute in-scope GHG emissions by



Reduce in-scope GHG-emissions intensity by



Reduce building water-utilization intensity of core sites by



* Core sites are defined as primarily owned health-care facilities that can be actively monitored for energy, water and waste data.

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Our partners

BC Hydro^H

BC Emergency Health Services

Climate Action Secretariat

Facilities Maintenance and Operations

Finance

FortisBC^H

Ministry of Environment and Climate Change Strategy

Ministry of Health Capital Services Branch

Municipal governments

Projects and Planning teams

PHSA Supply Chain

Current programs include:

- ▶ Energy Management
- ▶ Carbon Emissions Management
- ▶ Water Management



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ENERGY MANAGEMENT

The Energy Management program seeks to reduce reliance on fossil fuels and overall energy consumption, thereby reducing negative environmental impacts and supporting human health.

The program develops strategic partnerships and strong relationships with a wide range of stakeholders — particularly maintenance and operations teams, project and planning teams, consultants and utility providers — to identify and implement energy conservation opportunities. It also undertakes measurement and reporting on key energy performance indicators and benchmarks, connects with internal sustainability consultants on systemic and behavioural change initiatives, and monitors and tracks project funding.

Some of the initiatives included in the energy reduction strategy are as follows:

- ▶ Energy studies to determine project opportunities
- ▶ Heating plant upgrades and renewals
- ▶ Efficient lighting upgrades
- ▶ Control-system optimization
- ▶ Cooling plant site strategies and asset management support
- ▶ Heat recovery chiller installations
- ▶ Waste heat recovery strategies
- ▶ Development of strategic energy management plans
- ▶ Low-carbon resilience strategies in high-level master plans
- ▶ Behavioural change campaigns for energy conservation

CARBON EMISSIONS MANAGEMENT

The focus of the Carbon Emissions Management program is to reduce greenhouse gas (GHG) emissions and align with the *Climate Change Accountability Act* (CCAA) and the *CleanBC plan*. The CCAA has set ambitious targets for public sector organizations, requiring a reduction in emissions by 40% by 2030, 60% by 2040, and 80% by 2050. The CleanBC plan is the pathway to achieve these targets and has set an even more aggressive target of 50% by 2030 for public sector buildings. Of the total measured in-scope emissions generated by VCH sites, over 98% are from buildings, while the remaining 2% are from supplies (paper usage) and transportation (fleet and other vehicles) combined. The GreenCare goals and targets for carbon-neutral operations will be achieved, generally, by reducing GHG (carbon) emissions and purchasing carbon offsets.

Some of the initiatives included in the program are as follows:

- ▶ Carbon emission reduction strategies for buildings
- ▶ Reduction of operational energy (natural gas and electrical) consumption
- ▶ Optimization of existing plants and controls
- ▶ Building of new facilities to rigorous energy standards and aggressive carbon targets
- ▶ Consideration of asset planning to ensure lower-carbon equipment
- ▶ Shadow engineering support of capital projects to address environmental impacts and meet future heating/cooling needs and emission-reduction opportunities

It is important to note that energy management and carbon management initiatives work hand in hand through coordinated efforts. They are not siloed programs; activities within each are planned and executed in concert.



The VCH Climate Change Accountability Report

Each year, along with all public-sector organizations, B.C.'s health authorities submit a Climate Change Accountability Report (CCAR) (formerly Carbon Neutral Action Report (CNAR)) to the Climate Action Secretariat of the provincial government. This is a mandated reporting of GHG emissions and other data, and current and planned actions to reduce GHG emissions.

In 2020, and including prior year adjustment, VCH had a total carbon footprint offset of 41,037 tonnes of carbon dioxide equivalent (tCO₂e), which was offset at a total cost of \$1,077,221. This represents a decrease of 18% relative to the carbon footprint base reporting year, 2007. This decrease is even more significant, as we assumed responsibility for more programs, services and staff over the last 13 years.

Download: [VCH 2020 CCAR](#)

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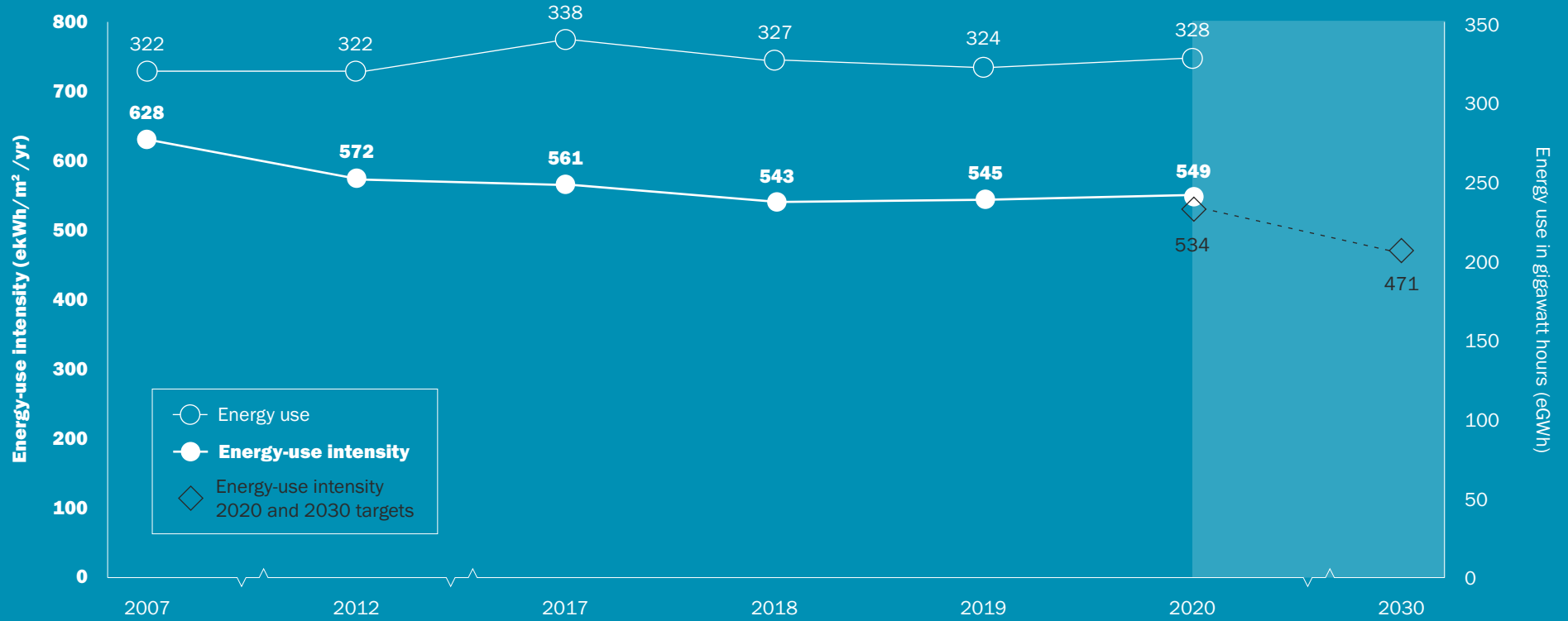
Energy Use and Intensity

Energy use at core health-care sites* is measured in equivalent gigawatt hours (eGWh) and captures the entire amount of energy used from all energy sources** on an annual basis. Energy-use intensity (EUI) is measured in equivalent kilowatt hours generated per square metre of facility space (ekWh/m²/yr). This graph is a key benchmark for progress of energy consumption since it tells us that even as we grow in facility space,*** we are reducing our energy use per building area. Since 2019, there has been a 0.6% increase in EUI for core sites. We believe this is partially due to

operational changes during the pandemic, through which we started using 100% outdoor air as opposed to a mix of return air and outdoor air for ventilation. Other events such as the commissioning of the new power plant at Lions Gate Hospital and the high amount of construction activity this year across VCH also contributed to the EUI increase.

13%↓

EUI has decreased by 13% since 2007, and, despite an increase of 16% in core facility space since 2007, our energy use only increased by 2%.



* Core sites are defined as primarily health-care facilities that can be actively monitored for energy, water and waste data.

** This includes electricity, natural gas and fuel oil, and energy purchased from district energy systems.

*** Changes to facility area through new construction and demolitions directly impact these figures.

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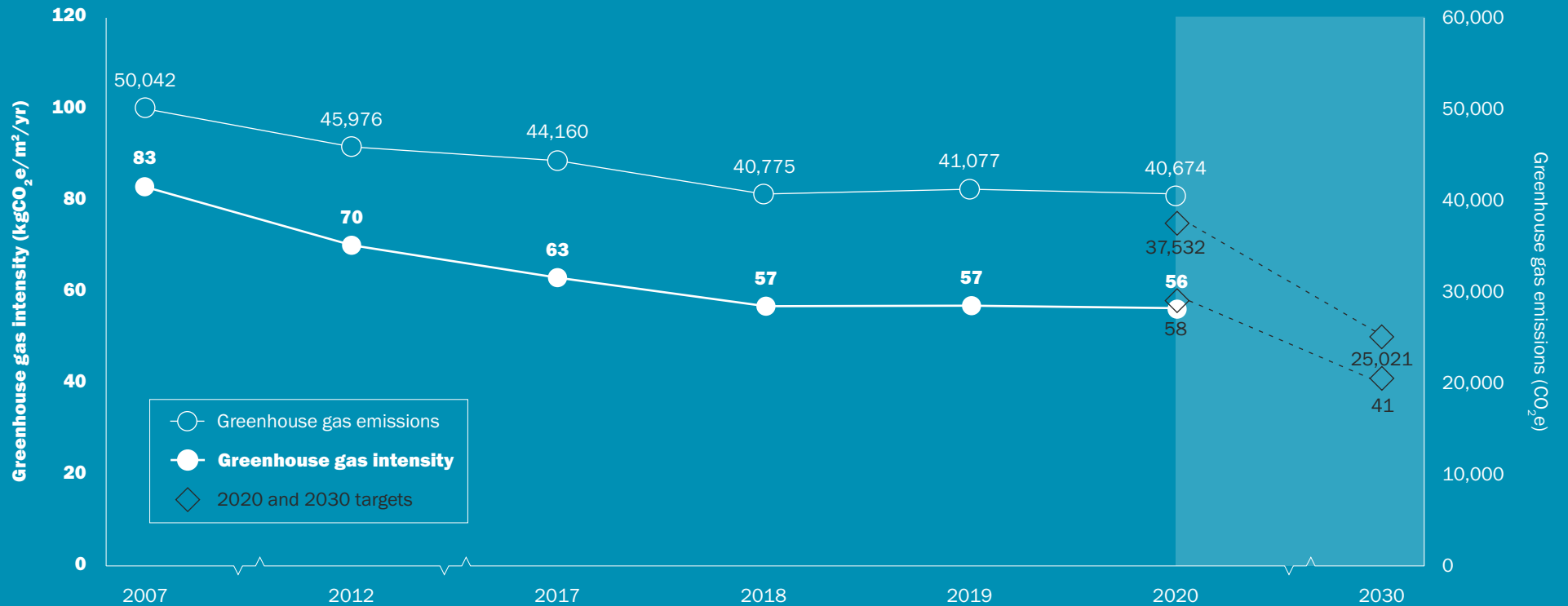
Greenhouse Gas Emissions and Intensity

Absolute emissions,* measured in tonnes of CO₂e annually, represent the total reported, in-scope emissions (energy consumption, fleet use and office paper) for all owned and leased buildings. Intensity is measured in kilograms of carbon dioxide equivalent emitted per square metre of usable facility space per year (kgCO₂e/m²/yr); this represents the emission intensity average across all owned and leased sites. Each building has a very different emission profile depending on the main fuel sources, energy infrastructure age, facility condition and clinical programs served. The emission intensity will continue to improve as we replace old emission-intensive

facilities with new, low-carbon facilities and carry out work to replace infrastructure in existing buildings with low-carbon solutions. Note that percentage differences for EUI and GHG emissions do not coincide due to factors such as weather adjustments in EUI data and different emission factors for energy sources. Since 2019, a 1% decrease in GHG emissions was mainly driven by an ongoing effort to maximize heat recovery in our sites by switching to low-carbon electricity to minimize fossil fuel heating. A reduction in paper emissions also contributed to this progress.

32.5% ↓

GHG intensity has decreased by 32.5%, and, despite a 19.9% increase in total usable facility space since 2007, absolute emissions have decreased by 18.7%.



* Absolute emissions refers to total emissions regardless of growth change and weather variation. In-scope emissions are from owned and leased buildings, fleet travel and paper use (as defined by the *Climate Change Accountability Act*).

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OUR STORY

A cooling strategy for future resilience

Lions Gate Hospital's (LGH) cooling infrastructure is in need of renewal, creating an opportunity to increase future resilience and reduce environmental impacts. Drawing from internal and external expertise, VCH began undertaking a new cooling strategy for the hospital that reduces energy consumption and associated emissions.

To build support for the planning exercise, the EES team first initiated an internal stakeholder meeting, involving Facilities Maintenance, Planning and Projects (Coastal), and Infrastructure. With the endorsement from this team, the EES team next engaged an external consultant to develop the strategy, which has been progressing collaboratively since June 2020. Asset management planning work from Infrastructure gave the consultant a base of information on which to layer energy and emission reduction opportunities.

Wanting to expedite the strategy and capture incentive funding, the EES team led an investment-grade energy audit in November 2020, which verified energy savings of the proposed retrofit. The energy audit was conducted as part of the FortisBC Commercial Custom Design Program – Retrofit, which offered financial assistance to engage a consultant to conduct the audit and for LGH to implement the recommendations from the audit. Schematic design began in January 2021, led by Planning and Projects, and is near complete.

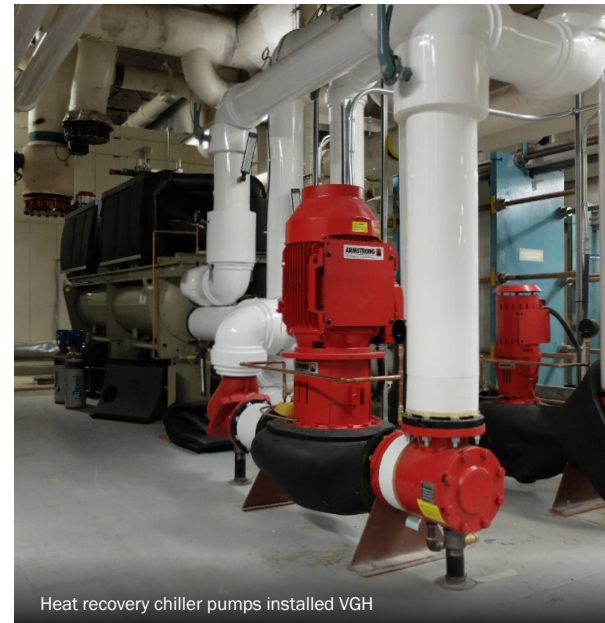
The team easily addressed a couple of challenges along the way. When they found only outdated information on the old cooling equipment, site team interviews and metered cooling loads provided the necessary data. And with pandemic restrictions affecting site access, the team held virtual meetings and smaller, distanced group site visits.

“The cooling strategy for LGH responds to estimates of peak future cooling loads for the site, based on climate projections, and outlines a phased approach to building resilience and redundancy that will reliably meet the needs

of staff and patients,” says Green+Leader Sam Orr, Director of Infrastructure.

Acute-care facilities have a significant amount of heat that can be recovered as low-carbon electricity and used for most heating needs, which reduces the use of fossil fuels for heating. The first phase of the retrofit will see the installation of two heat recovery chillers, along with an adiabatic cooler. The new equipment is estimated to result in a reduction of over 12,000 GJ of natural gas, equating to over 600 tonnes of emissions avoided per year. Replacing the conventional cooling tower with an adiabatic cooler also significantly reduces water use and minimizes chemical treatment of the water in the system.

When all phases of the retrofit are completed over the next few years, natural gas consumption is estimated to be reduced by over 29,000 GJ, thereby avoiding over 1,400 tonnes of emissions per year. This represents an emissions reduction of 30% across the LGH campus.



Heat recovery chiller pumps installed VGH

WATER MANAGEMENT

In our climate reality, the management of water use is a growing priority not only for health-care organizations but for all B.C. residents. VCH's Water Management program is an integral part of the Province's strategy to address the recurring issue of water shortage across B.C.

The Water Management program seeks to actively plan, develop, distribute and optimize the use and possible reuse of water resources by health-care sites. Much work is done in collaboration with the VCH Operations and Infrastructure teams and focuses largely on conservation programs to:

- ▶ Optimize landscape irrigation.
- ▶ Eliminate once-through cooling mechanical systems.
- ▶ Capture/reuse rainwater.
- ▶ Optimize water use through behavioural change.
- ▶ Manage sewage and wastewater, with the eventual goal of recycling or reusing grey water where applicable.
- ▶ Investigate and promote use of low-flow devices, where applicable.
- ▶ Reduce cooling tower operation by recovering waste from the cooling process.
- ▶ Assess and repair steam piping infrastructure.

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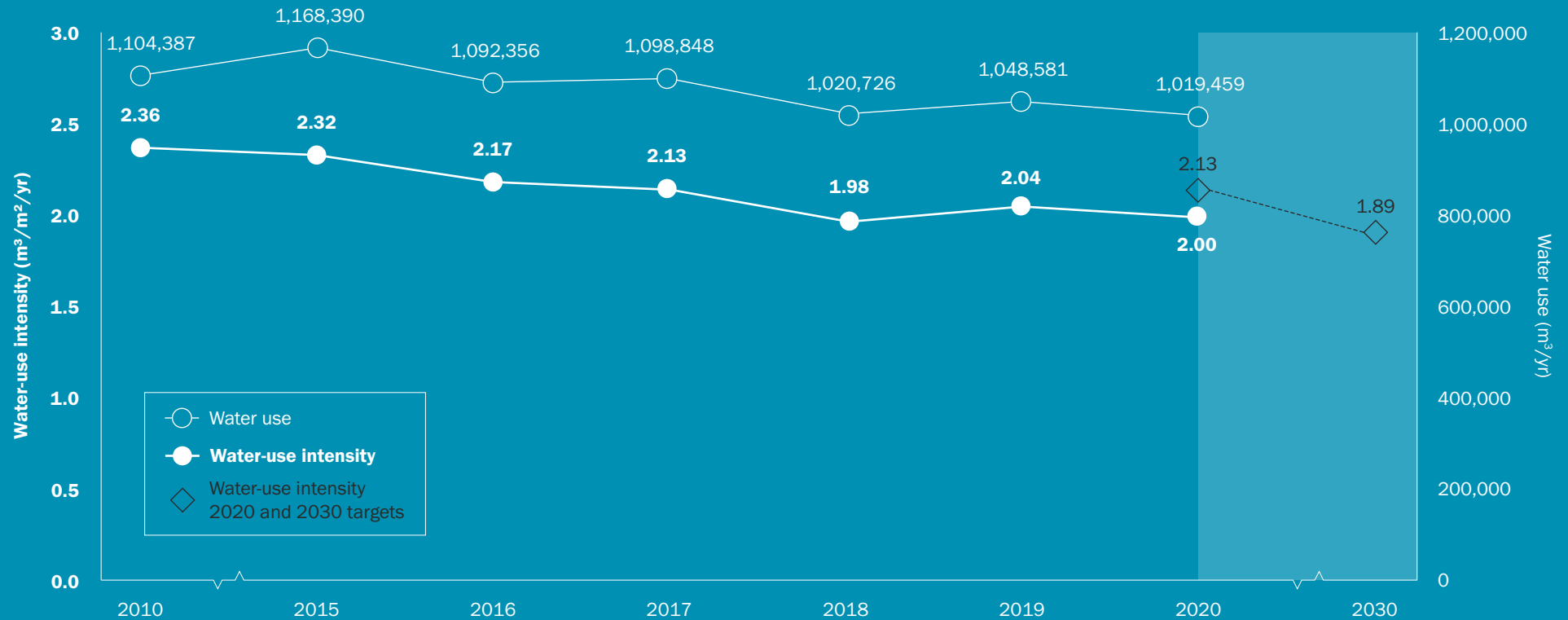
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Water Use and Intensity

Water use at core sites* is measured in cubic metres per year (m³/year). Total water-use intensity at core sites is measured in cubic metres per square metre of facility space per year (m³/m²/yr). Water use depends on operational needs, process needs and clinical equipment changes.

15.6% ↓

Water-use intensity has decreased by 15.6%, and, since 2010, despite an increase of 9.3% in core facility space, absolute water use has decreased by 7.7% (equivalent to nearly 34 Olympic-size swimming pools).



* Core sites are defined as primarily owned health-care facilities that can be actively monitored for energy, water and waste data.

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Our successes

In 2020, energy and emissions reductions projects and climate resilience and adaptation strategy work are projected to reduce electricity consumption by over 1,200,000 kilowatt-hours (the equivalent of the annual electricity consumption of 46 CT scanners) and natural gas consumption by over 33,000 gigajoules (the equivalent of the annual natural gas consumption of 444 homes). Measures such as taking a collaborative approach to cooling plant site strategies, electrical load studies to enable low-carbon electrification, and GreenCare's increased involvement and role in new construction projects are resulting in environmental sustainability in VCH facilities. In addition, 2020 will be the third year in a row that a survey on climate adaptation has been carried out by all public sector organizations as part of the Climate Change Accountability Report, recognizing the key role that adaptation must play as we face the impacts of our climate reality.

Challenges we face

In order to build on our successes, a number of challenges must be addressed. Integration is key, and an area to continue focusing on. This could be improved through more coordination between the EES team and the Facilities Maintenance (FM) teams, and by working with capital planning teams to better integrate energy, emission and water management strategies, infrastructure, and equipment into funding requests. With increases in Carbon Neutral Capital Program funding, increased coordination with the finance teams is required to ensure cost efficiency and priority capital project alignment in emission reduction projects. Further, by increasing the amount of strategic communication and engagement activities with diverse stakeholders, including executive sponsorship, we will be better positioned to meet the aggressive emissions targets set by the [CleanBC plan](#).

The work isn't finished

We know that actions speak louder than words, so we're working on the following to advance environmental sustainability at VCH:

- ▶ Low-carbon resilience infrastructure plans, which provide a roadmap for infrastructure upgrades in alignment with organizational priorities, to ensure we evaluate all emission reduction and climate adaptation options as the site and facility develops. There are multiple co-benefits, and these plans will ensure we have a path to the legislated emission targets.
- ▶ Continued efforts to upgrade to efficient lighting and build automation system optimization
- ▶ Emission-reduction and electrification projects funded by the Carbon Neutral Capital Program
- ▶ A new project to capture base data for out-of-scope GHG emissions, including refrigerants gases, anesthetic gases and organic waste
- ▶ As part of our water management plan, engagement with the Facilities Maintenance team to review the use of our once-through water cooling system to ensure compliance with City bylaw requirements
- ▶ Inclusion of budget allocation in capital projects for environmental impact assessments and energy cost pressures

“
**Climate change needs to be
a top priority.**

–GreenCare Survey respondent



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4. Workplace Leadership

Our goal

Together, reach, engage and inspire health-care staff to be leaders who share a commitment to and passion for healthy, sustainable and thriving communities, workplaces and environments.

In the workplace, leaders who lead by example and inspire others to do the same are critical to an organization's success. Fostering a culture of workplace leadership for environmental sustainability in health care presents an opportunity for better health outcomes for staff and patients. In addition, supporting and bringing leaders together – whether they are direct-care staff, corporate team members and/or executives – contributes to a more engaged and motivated workplace where values are shared and appreciated.

The Workplace Leadership Focus Area includes [GreenCare](#) and the [Green+Leaders program](#) activities. A network founded by the Energy and Environmental Sustainability (EES) team, GreenCare unites efforts across the B.C. health-care community to transform our health-care system toward environmentally sustainable and resilient care for healthy people, place and planet. GreenCare helps to bring together leaders – whether they are direct-care staff, corporate team members and/or executives – and supports them in creating a more engaged and motivated workplace where values are shared and appreciated. The GreenCare website acts as a home and resource to support these efforts, and, in collaboration with various partners, the EES team is currently in the process of refreshing the website, which should be relaunched in fall 2021.

The Green+Leaders program, a network of health-care staff who participate in projects and initiatives to advance sustainability across VCH, is a key part of environmental sustainability leadership and innovation.

Our targets

Increase the number of Green+Leaders across the organization annually by*



* In previous years, this target was measured as a proportional increase in Green+Leaders. It was decided that using numbers will provide more accurate and meaningful information for monitoring. A refresh of the engagement targets and metrics will take place in 2021.

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Our partners

BC Hydro

Clinical and non-clinical direct-care staff

Communications

Human Resources

Virtual Health

2020 Green+Leaders

In 2020, **seven** new staff registered for the program, bringing the total number of Green+Leaders at VCH to **155** since 2010. VCH has **46** active Green+Leaders.

The number of Green+Leaders trained throughout the year refers to those staff who have received online training to support their journey as a Green+Leader and is measured as a year-on-year proportional increase. This training isn't mandatory, but strongly recommended as a starting point to joining the program and having the knowledge and tools to implement initiatives that reduce the environmental impact of their workplace.

Current programs include:

GREEN+LEADERS

The Green+Leaders program provides direct engagement and support for health-care staff in their efforts to create environmentally sustainable workplaces.

Green+Leaders make a significant contribution to the improvement of the environmental performance of the Lower Mainland health organizations, with more than 500 trained staff volunteers (working in all areas of health care) now participating in the Green+Leaders program. These individuals are agents of change, encouraging environmentally sustainable behaviour, improving existing processes, and helping to create an overall culture of environmental health and wellness inside and outside the workplace.

The program focuses on behaviour change in the following areas:

- ▶ Energy & Carbon Emissions
- ▶ Water
- ▶ Materials, Waste & Toxicity
- ▶ Transportation
- ▶ Climate Risk & Resilience

It also supports Workplace Leadership efforts while providing the following benefits to staff volunteers:

- ▶ Training, tools and leadership development
- ▶ Support from a community of like-minded colleagues
- ▶ Participation in inspiring and educational events
- ▶ Opportunities for making a positive, meaningful impact on the workplace and community



Rashmi Chadha,
Physician, (Department of Family Medicine), VGH



De-Ann Chan,
Clinical Operations Supervisor,
Robert and Lily Lee Family Community Health Centre



Nicky Calvert,
BC Cancer Foundation

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OUR STORY

Igniting a sustainable future at VCH via the Spark platform

The VCH Transformation Office has long recognized the importance of grassroots innovation for supporting the evolution of excellence in health-care delivery. To that end, an innovative platform that engages staff across the organization to work together to develop solutions to pressing operational challenges was introduced in 2020. VCH called the platform Spark — the place where good ideas are sparked and brought to life.

To showcase the platform's potential, the Transformation Office was looking for a problem that met a few key criteria: alignment with strategic priorities, strong clinical leadership, and one that would benefit from the ideas and voices of a diverse group of stakeholders. In collaboration with the EES team and a number of VCH partners, the office decided to launch The Operating Room Sustainability Challenge to identify opportunities to improve the environmental footprint of the operating room.

In October 2020, the team introduced the Spark campaign to over 800 members in the perioperative community. The challenge's call to action was shared in broadcast emails, at in-person informational events, through at-the-elbow encouragement to participate, and in posters around the surgical suite. The clinical sponsor, Dr. Andrea MacNeill, launched the challenge by delivering a compelling and inspiring presentation at Surgery Grand Rounds that encouraged the community to share their voices and provide solutions. The Innovation team recorded the pitch and embedded it in an interactive campaign brief with additional information and media. The Innovation team also deputized several community moderators to become catalysts who encouraged employees to put their ideas online and who actively engaged them online, facilitating conversations and generating discussion around the ideas.

"I am thrilled with the engagement and participation from our clinical teams," says Paddy Assenheimer, Director,

Special Projects at VCH and long-standing Green+Leader. "They are already so dedicated to patient care, and the Spark platform allowed us to see how passionate our colleagues are about contributing to a sustainable future."

Some examples of the ideas put forward included eliminating harmful anesthetic gases, streamlining workflows to remove unnecessary steps/waste and sourcing reusable materials to reduce consumables.

As the ideas from The Sustainable Operating Room Challenge are implemented, future plans are already underway to continue collaborating with the EES team and Green+Leaders at VCH to engage staff in more initiatives that contribute to Planetary Health.



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Our successes

In 2020, we strengthened online engagement opportunities for Green+Leaders. This included initiating the Green+Leaders Coffee Conversations (monthly networking socials) to create a space for Green+Leaders to gather and share ideas with one another. We continue to support staff-engagement opportunities through the Green+Leader Dialogue Series (monthly webinars on sustainability topics) and quarterly e-newsletters. This year, we hosted two Lunch and Learns, two Dialogue Webinars, two training and orientation sessions and one annual recognition event. Highlights include the new Healthy and Green Buildings webinar series that supports the understanding of green design and fosters opportunities for VCH staff to get involved in design and construction processes in health care.

In 2020, we initiated conversations with the VCH Transformation Office about collaborating on providing funding opportunities for Green+Leaders across the organization via the newly launched Spark platform. Plans are underway to launch a sustainability focused campaign in 2021 for staff across VCH who have projects they would like to implement in their workplace, centred around Planetary Health.

Challenges we face

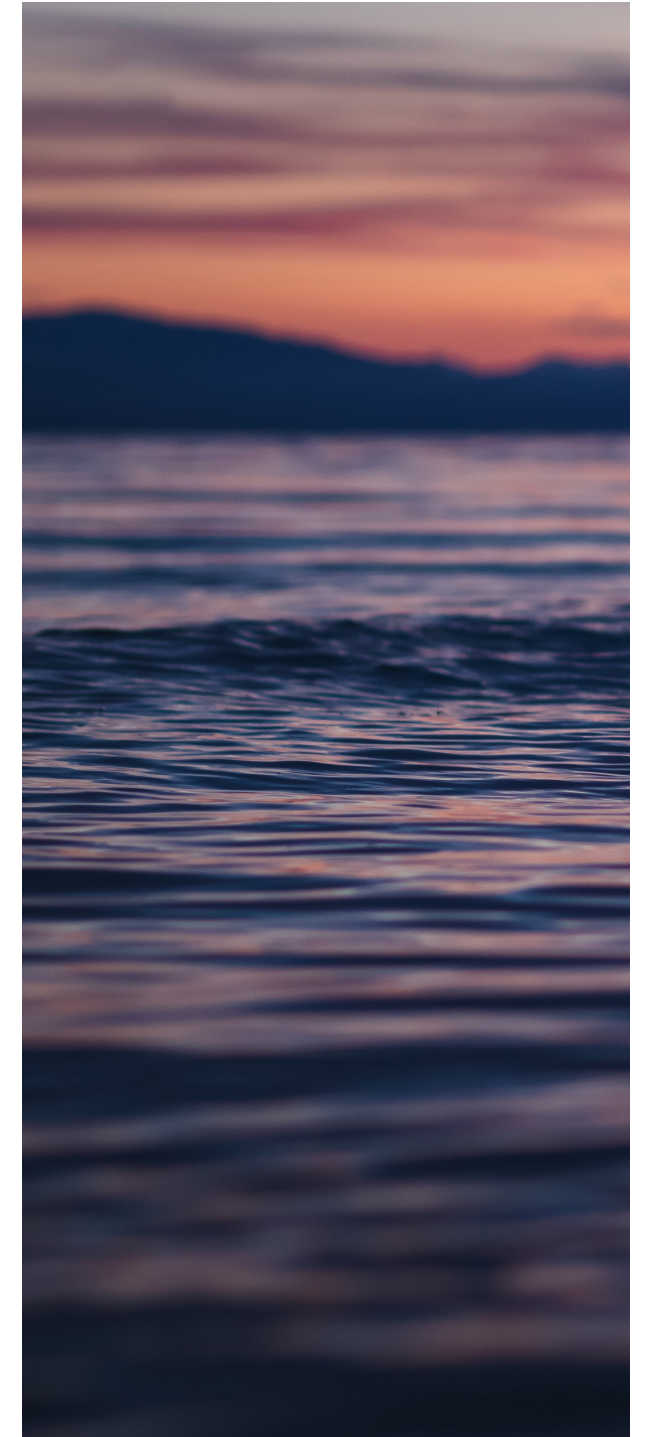
As we continue to support sustainability leadership, some of the challenges include finding inspiring, effective ways to engage staff around sustainability and provide meaningful opportunities for staff to connect with each other on sustainability matters in their workplace. In 2020, due to COVID-19, our work transitioned online to webinar-based workshops, orientations and networking opportunities. This allowed Green+Leaders from across the province to more easily join engagement events and learning sessions, and we will continue to look for ways to make our engagement efforts more accessible.

“
I think our organization has a responsibility to lead the team with [an] environmental philosophy approach throughout the organization.

– GreenCare Survey respondent

The work isn't finished

As we work towards ensuring the best support possible for VCH staff, we'll continue to engage and support leadership as it addresses environmental sustainability, refresh the GreenCare website, celebrate staff, and seek out professional development opportunities for Green+Leaders. We are currently working with a UBC sustainability scholar to analyze current targets, metrics and reporting, in order to improve engagement targets and metrics for the Green+Leader program, through best practice research.



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5. Zero Waste & Toxicity

Our goal

Minimize waste generated and toxic chemicals used by the health-care system and supporting operations.

In health-care settings, reducing waste and exposure to toxins produces better health outcomes for staff and patients, decreasing the risk of disease.

In the broader environment, scaling down the use of toxic chemicals and waste decreases GHG emissions and negative impacts on water, soil and air, thereby reducing associated health impacts such as respiratory and cardiovascular disease, cancer, endocrine disruption and birth defects.

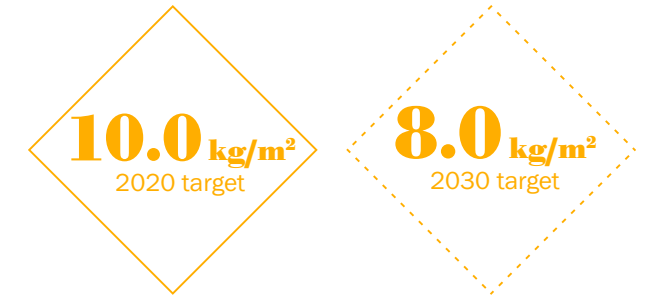
VCH is working to reduce the negative environmental and health impacts of waste and toxins by focusing on programs that reduce and avoid generation of material waste, divert material waste to recycling streams and reuse programs, and reduce and monitor the use of toxic chemicals in health-care construction, furnishings, maintenance, cleaning and patient care.

Our targets

Increase and maintain waste-diversion rates* at existing acute and long-term care sites to



Decrease waste-intensity rates at existing acute and long-term care sites to



* Waste-diversion rates show a slow increase over time; however, as is the case for other sites in the Lower Mainland, they seem to plateau at approximately 40%. In order to reach the 2020 target of 50% waste diversion, more aggressive action needs to

be taken to reduce garbage waste and look for new streams of recycling. Until we better understand what actions are feasible, we will maintain the target in 2030.

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Our partners

Business Initiatives Support Services (including the Sustainable Food Operations Committee) Environmental Vendor Services

Facilities Maintenance and Operations

Infection Prevention and Control (IPAC)

PHSA Supply Chain

Projects and Planning teams

Provincial Nursing Skin and Wound Committee (PNSWC)

Quality Improvement

Workplace Health and Safety

Current programs include:

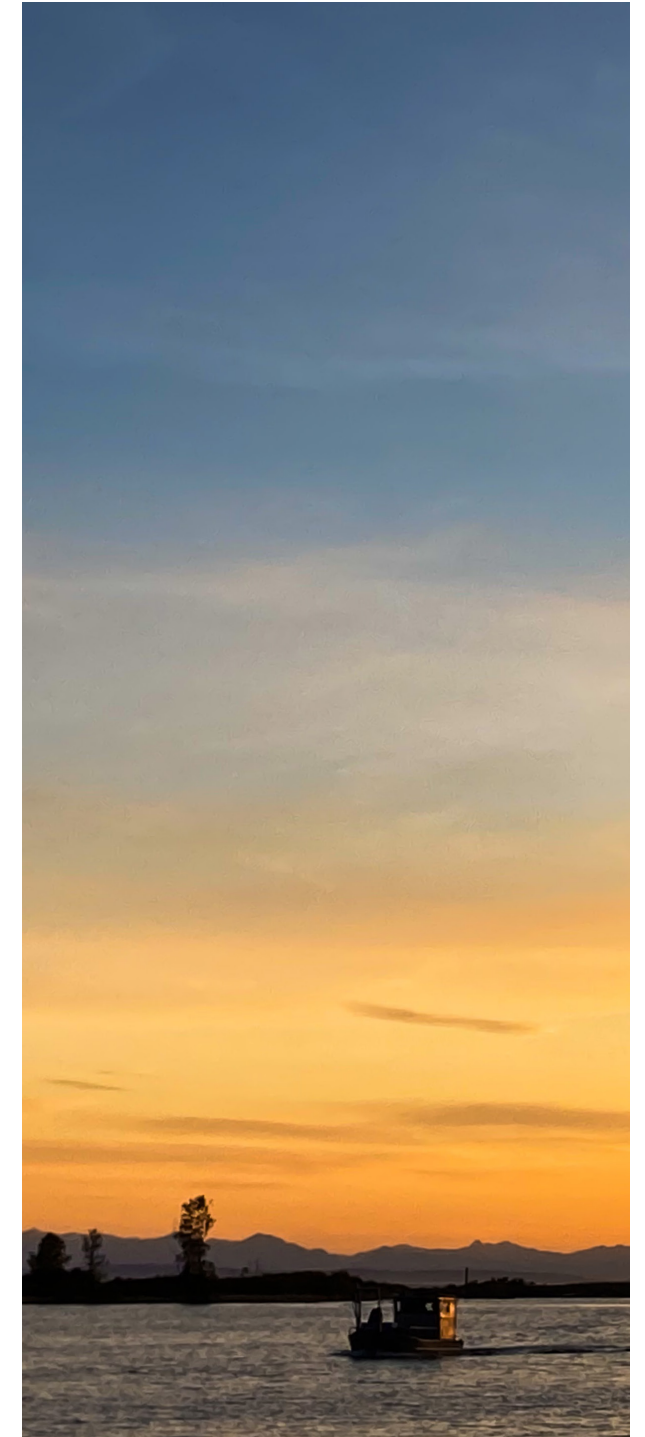
- ▶ Blue Bin
- ▶ Waste Reduction
- ▶ Environmentally Preferable Purchasing (EPP)
- ▶ Safer Chemicals¹

BLUE BIN

The Blue Bin program, administered in partnership with Business Initiatives & Support Services, aims to increase material waste diversion at all owned hospital and long-term care sites, with the target of reaching 50% waste diversion by 2020. The program provides health-care sites with recycling equipment and signage and staff education. As a standardized recycling program, it operates in the same way at every site, making it easier for staff, physicians, patients, volunteers and visitors to compost and recycle correctly. Clear signage attached to each bin helps to reduce confusion and error at the time of disposal.

Recycling is undertaken in both (appropriate) clinical and non-clinical areas of Lower Mainland sites for the following material waste streams:

- ▶ Mixed containers
- ▶ Mixed paper
- ▶ Organics



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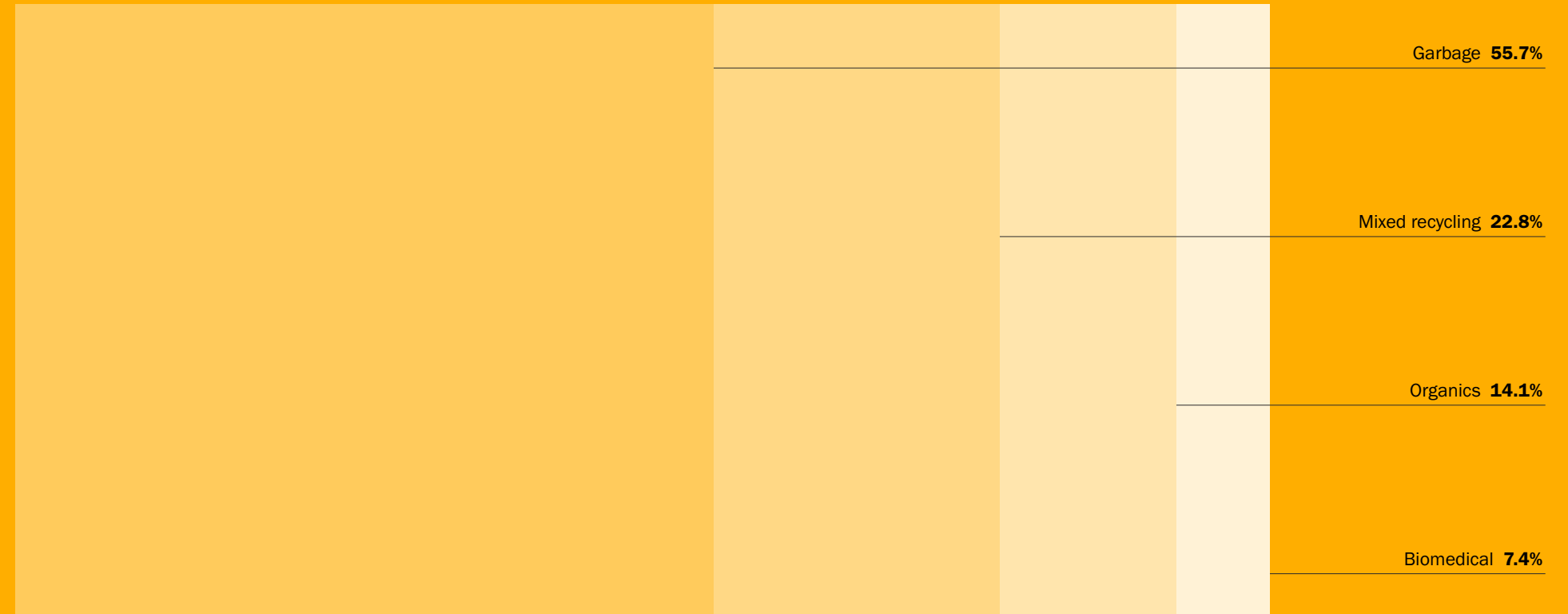
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VCH Waste Proportions

Waste proportions show most health-care waste is non-hazardous. The majority of waste produced in health care is general, non-hazardous waste that doesn't need any special treatment. This data includes all acute and residential care facilities owned by VCH.

6,410 t

VCH facilities generated a total of 6,410 tonnes of waste in 2020, which is the equivalent of approximately 1,282 five-tonne elephants.



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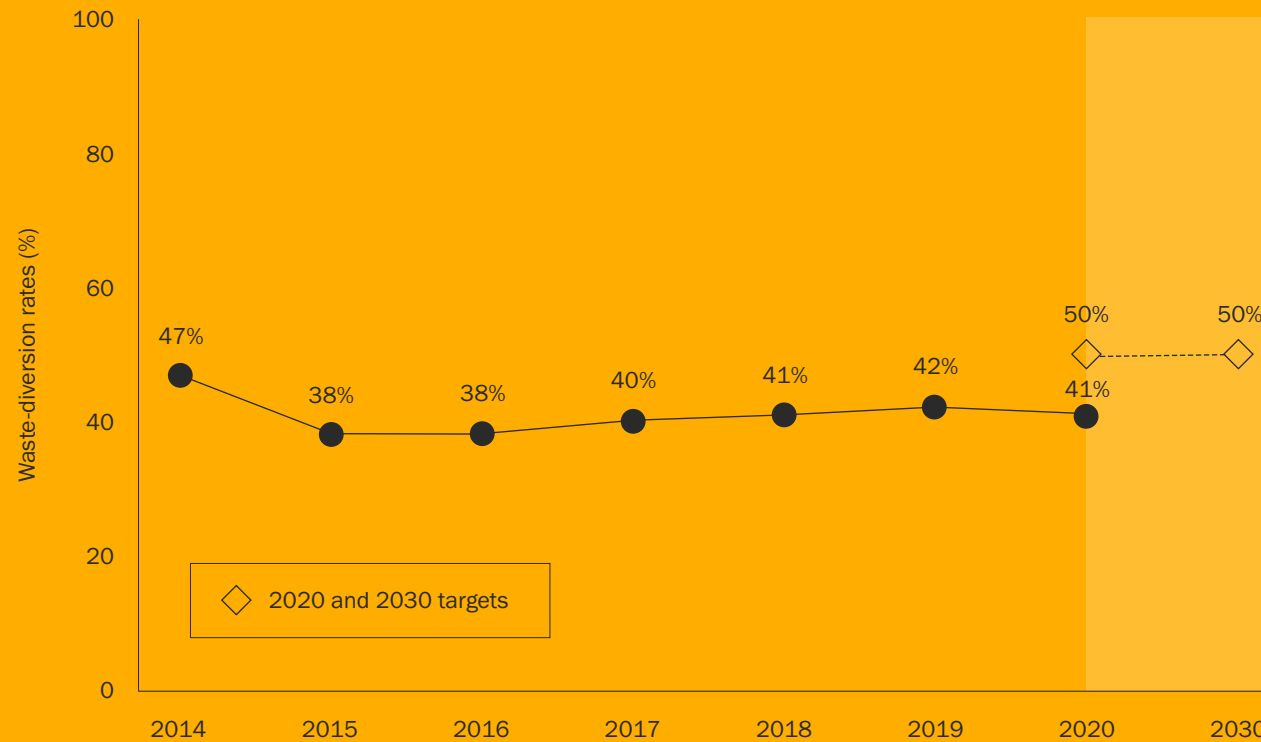
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Waste-Diversion Rates

Waste-diversion rates are for all owned VCH acute and residential care facilities and do not include biomedical waste. The waste-diversion rate is calculated by dividing total estimated weights for paper, container and organics recycling by the total estimated weight of general garbage waste and recyclables. The decrease from 2014 to 2015 is attributed to the cancellation of the Soft Plastics Recycling program, as well as a change in waste vendors and the methodology used to track data.



In 2020, our waste diversion reflects only waste segregation, as our recycling provider paused the collection of recycling due to concerns for staff safety during the COVID-19 pandemic. All recycling and general garbage streams were instead taken to a local waste-to-energy facility.

“
COVID protocols have increased our use of single-use disposable items, which feels so counteractive to the GreenCare needs/climate change response.

– 2021 GreenCare Survey respondent

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ENVIRONMENTALLY PREFERABLE
 PURCHASING (EPP)

Purchasing items that generate unnecessary packaging, contain toxic chemicals, and must be disposed of in the garbage or hazardous waste (not recyclable) contributes to the extraction of unnecessary natural resources, GHG emissions and air pollution, which are associated with health problems such as asthma, endocrine disruption and mental illness. The EPP program aims to decrease the negative impact of building materials and patient-care equipment and supplies on environmental and human health.

The program includes the following actions to support the achievement of environmental sustainability goals and targets:

- ▶ Collaboration with clinicians and key departments, such as PHSA Supply Chain (which procures goods and services for all B.C. health authorities), Infection Prevention and Control, Workplace Health & Safety, and Facilities Maintenance, in order to signal to health-care vendors the importance of environmental and human health
- ▶ Making changes to our procurement processes; in 2020, a weighted environmental questionnaire was included in the request for proposals for waste-management services.



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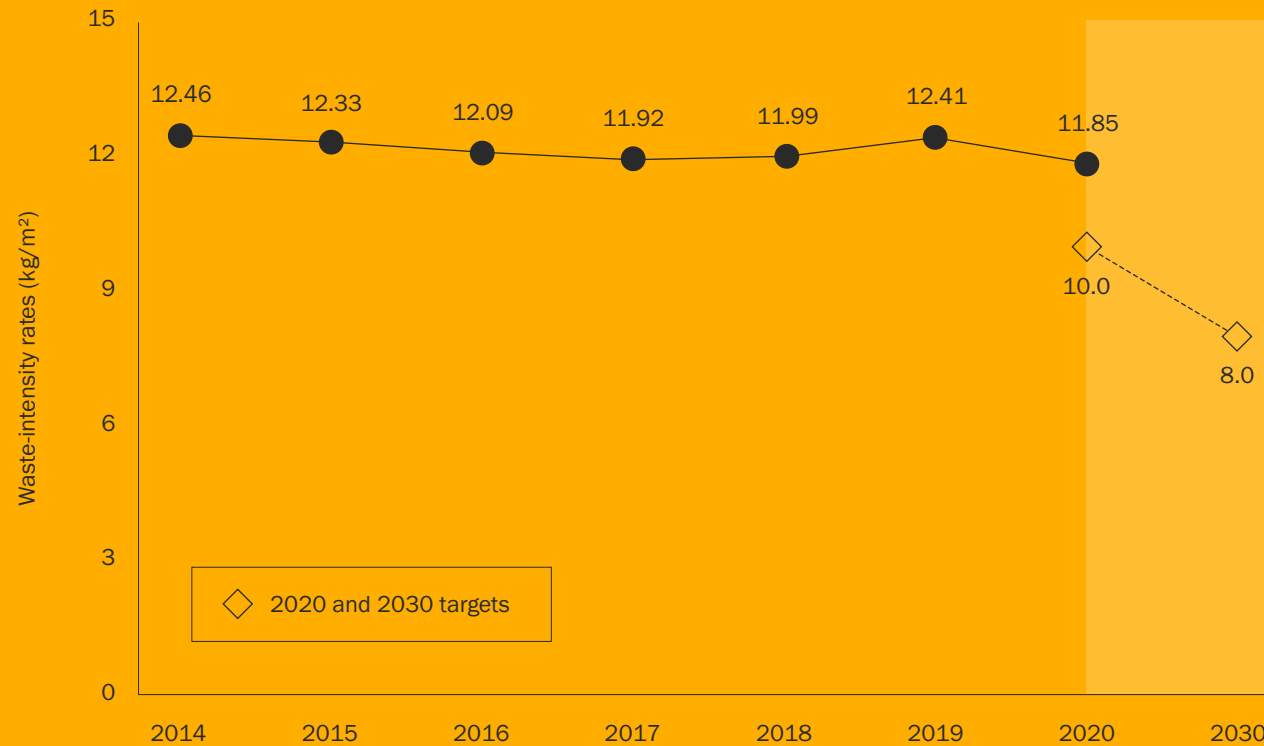
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Waste-Intensity Rates

The waste-intensity rate indicates whether or not we are reducing total waste generated for all VCH-owned acute and residential care facilities, and is measured in kilograms of waste generated per square metre of facility space (kg/m²).



2.1% ↓

Total waste generated has decreased 2.1% since 2014, despite a 2.8% increase in facility space.

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OUR STORY

Reducing plastic and saving money

Staff identifying opportunities and finding ways to reduce waste is essential to making all B.C. health authorities greener and more environmentally sustainable, says Berna Marcelino, Provincial Director, Standardization with PHSA Supply Chain. “It’s the end-users who really improve sustainability. Yes, it’s Supply Chain that purchases products, but frontline caregivers use those products, see how much waste is being generated and can identify these important opportunities for sustainability.”

One direct-care team took action to make an environmental change and cut plastic waste in their work, specifically the plastic bags and tubing that came along with sitz baths – basins commonly used after childbirth for people to sit in warm, shallow water. Province-wide, 6,220 sitz basins were used between April 2018 and March 2019. A group in the postpartum ward at BC Women’s Hospital + Health Centre noticed that care providers on the Postpartum team didn’t use them and had been concerned about the plastic waste for years: “The bags were such a waste that nobody used,” says Parm Kaila, an antepartum/postpartum RN.

PHSA Supply Chain worked with the sitz basin vendor to learn about how to customize the product to remove the unnecessary plastic. Supply Chain also reached out to all B.C. health authorities to assess clinical needs and historical usage data. The switch has not only reduced plastic waste, but also saves money for the B.C. health-care system by reducing the bag-free sitz basin cost by about 20%.



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OUR STORY

Benefits of virtual health care

Virtual health-care appointments allow patients to visit with their health-care providers by phone — audio or screen — instead of in person. Identifying those appointments suitable for virtual health care, and encouraging this method of care delivery, can offer several benefits.

The EES team worked with the Virtual Health team on a survey to gather information from patients and clinicians about virtual health-care experiences. VCH wanted to determine the organizational impacts and potential benefits of increasing virtual health-care opportunities, and the EES team was interested to know more about the environmental sustainability impacts, including patient travel emissions avoided and disposable personal protective equipment (PPE) reduced.

“Increasing access to virtual health care has myriad benefits,” says Heather Boersma, Regional Director of Virtual Health. “It makes a huge impact on the environment by decreasing the use of PPE and decreasing emissions related to travel. As well, patients save time and experience more flexibility in accessing services.”

The survey received responses from approximately 100 patients who had virtual appointments between April and July 2020, across five departments. From the data, the EES team calculated that two to five kilograms of greenhouse gas emissions were avoided per appointment. The survey also found that virtual visits helped patients save time by not travelling to providers’ offices.

From the same survey, the five departments saw an 85% reduction, on average, in the use of PPE — items that would have been destined for landfill.



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OUR STORY

Circular economy in health care

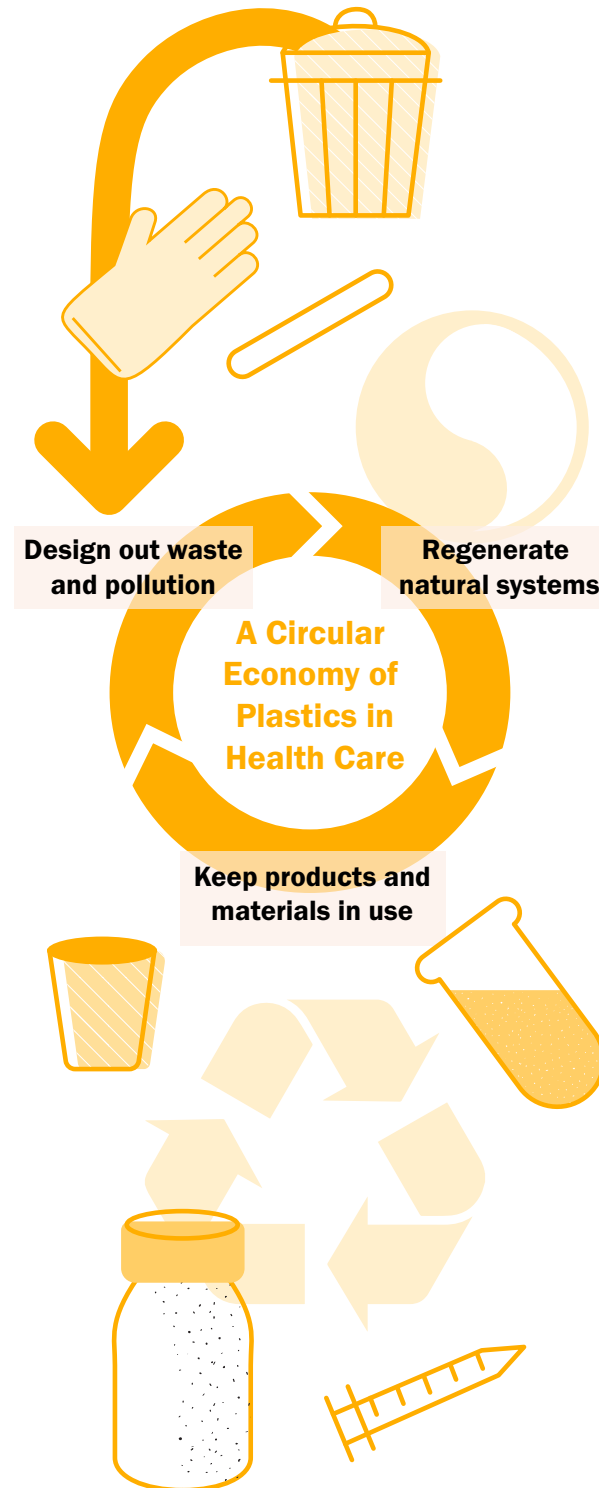
Plastics are embedded in the health-care system and used at every point of care. They are found in intravenous (IV) bags to deliver solutions and medications, airway maintenance devices, syringes, sterilization blue wrap, basins and patient garment bags, and this much plastic exposure has led to concern about adverse health effects.

To understand this better and explore recommendations for health-care practice, the EES team worked with UBC Sustainability Scholar Shayna Moore to research the circular economy framework specifically in regard to plastics. Researching a Circular Economy of Plastics in Health Care introduces potential long-term goals such as embedding circular economy principles in procurement and clinical practices.

A circular economy is based on three principles, which can be used in health care to protect, promote and restore holistic health while fostering sustainable growth and innovation:

- ▶ Design out waste and pollution.
- ▶ Keep products and material in use.
- ▶ Regenerate natural systems.

The intent of the research project was to gather information from other health systems and sectors that could inform health-care delivery in the Lower Mainland health organizations. Further, since the idea of circular economies is relatively new in health-care settings, the project findings are helping the EES team to bring awareness to the concept and encourage conversation.



SAFER CHEMICALS

The Safer Chemicals program aligns with international efforts to recognize that there are chemicals of concern contained in man-made products, including those used in our hospitals for construction, furnishing, maintenance, cleaning, disinfection and patient care. Chemicals of concern refer to chemicals that, through credible evidence, have or can have adverse health effects to people or the environment, including carcinogenic and reproductive/development toxicants, and those that are persistent, bioaccumulative and toxic to the environment.

The Safer Chemicals program aims to develop a strategy across the four Lower Mainland health organizations that:

- ▶ Aligns health-care sites with work undertaken by Workplace Health & Safety, Infection Control and other clinical stakeholders in order to develop toxicity reduction targets and create a pathway towards safer chemicals
- ▶ Identifies potential chemicals of concern, including using requests for proposals to ask vendors to declare chemicals of concern in their products
- ▶ Develops a list of chemicals of concern for health-care site construction and operations

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OUR STORY

Safer chemicals for patient care

Ingredients in skin and wound products may include chemicals of concern — chemicals that negatively affect human and environmental health. A recent collaborative project is seeking to reduce the use of hazardous skin and wound products in patient care by preventing their purchase.

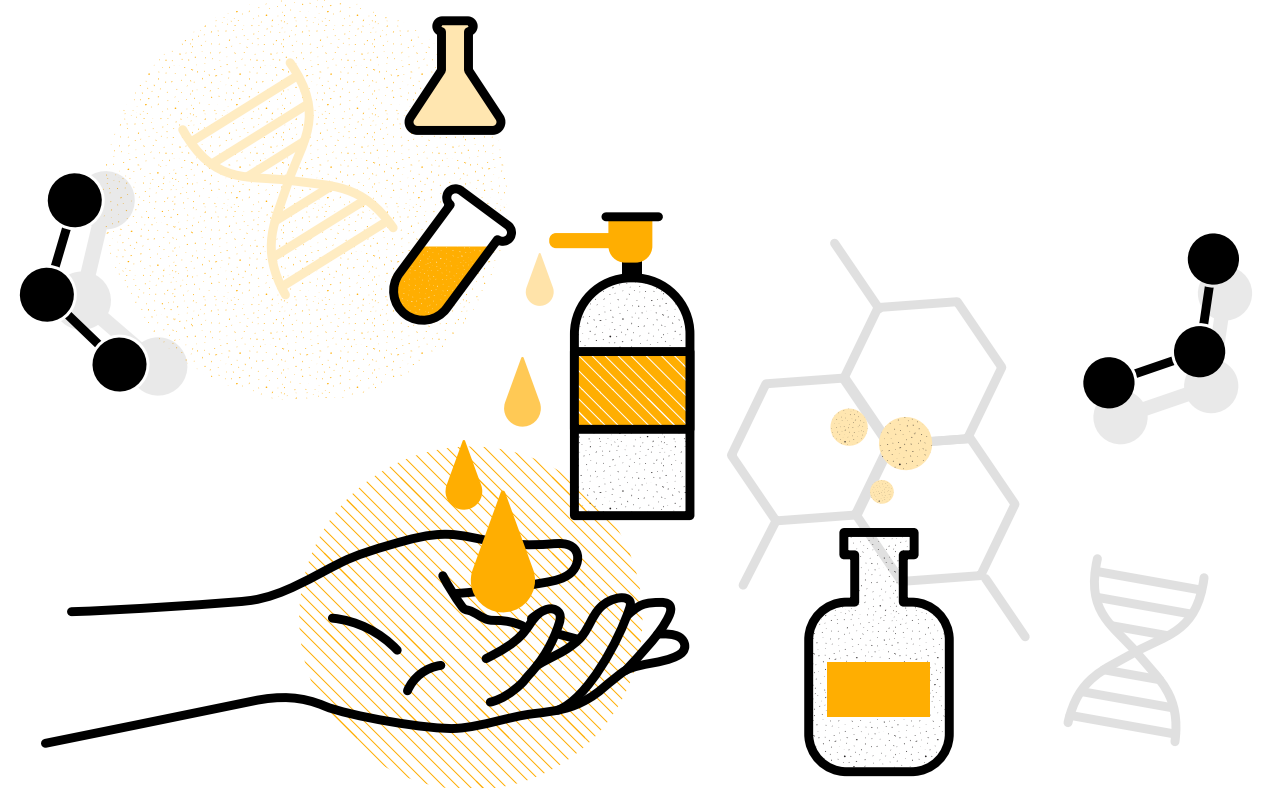
The project, Aligning Safer Chemicals with Patient Care in BC Health Care Facilities: Research, Development, Engagement, was undertaken by the EES team, a UBC sustainability scholar, and the British Columbia Provincial Skin & Wound Committee (PNSWC), and builds on the EES Safer Chemicals program.

The project considered the chemical ingredients within three types of products: skin cleansers, moisturizers and barriers. Researchers created a chemical inventory database and implemented a chemical screening framework to categorize inventoried chemicals by hazard and assessed level of risk. Co-mentor Shannon Handfield notes that UBC Sustainability Scholar Anuradha Ramachandran's work "has provided a clear, well-researched, evidence-based method of identifying high-risk chemicals of concern."

The screening framework was developed with reference to work by authorities such as the Environmental Protection Agency, the International Council of Chemical Associations and Green Screen. These authorities have documented human health concerns that range from skin irritation to toxicity and cancer, and environmental health concerns like toxicity in land and water environments, continuous buildup of chemicals in organisms, and the inability of some chemicals to break down.

Thanks to this project, PNSWC can advise which are the least harmful products at the time of procurement. "When Supply Chain brings forward a skin care product for contract consideration, the product's ingredients are run through the screening framework to identify the level of concern for each ingredient," Shannon explains.

Aligning Safer Chemicals represents the start of what is expected to be an ongoing endeavour. Of the approximately 385 ingredients in skin care projects identified by PNSWC, the project considered 60; there are many more chemicals found in skin and wound products used in clinical settings that still need to be screened and assessed. As authorities continue to research and publish new information on chemical hazards, the project's chemical inventory will be updated and expanded in order to avoid chemicals of concern in more skin and wound products. Once all ingredients have been screened, a process to keep the list up to date will be developed. The EES team and PNSWC plan to use the inventory to engage clinical staff and organization leaders about safer chemicals and their procurement.



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Our successes

Throughout 2020, two VCH sites, Lions Gate Hospital and UBC Hospital, hosted a Cafeteria Waste Campaign designed to make recycling easier for cafeteria visitors through new recycling and waste bin stickers and campaign posters and banners that are informative and easy to understand.

The EES team presented at two Team-Based Quality Improvement (TBQI) meetings to share about the recycling and waste reduction work already happening and to discuss opportunities for further collaboration.

From January 1, 2020 to December 31, 2020, a total of 1,055 VCH staff completed the online Waste Management Basics Learning Module available on LearningHub, up from 587 in 2019. This module familiarizes learners with the impacts of improper waste management and how to discard different types of waste appropriately.

Challenges we face

Waste-diversion rates seem to plateau at approximately 40%, a trend seen at all sites in the Lower Mainland. Some reasons for this stall are outside of VCH's control, such as recycling markets not accepting many of the materials produced in health care. However, VCH can also take more aggressive action to reduce garbage waste and look for new streams of recycling.

As with everything in 2020, waste reduction and recycling took a backseat to the COVID-19 pandemic. Staff who were already busy were completely dedicated to the health emergency and had little time for other considerations. Additionally, recycling was paused due to concerns for the staff at recycling facilities. The pandemic shone an even brighter spotlight on the unnecessary waste health care is generating, and our challenge became to find ways to support the pandemic response through waste reduction and conserving the resources we had.

The work isn't finished

We want to build on our 2020 successes by continuing to find opportunities to embed waste reduction into practice and by finding co-benefits, including cost savings and supply chain stability. We will also continue to engage key clinical stakeholders, such as Infection Prevention & Control (IPAC) and Workplace Health & Safety. Finally, we want to continue to work with staff in PHSA Supply Chain to understand procurement processes at VCH and work towards environmentally preferable policies and practices.

COVID-19 has impacted staff behaviour when it comes to waste.

When asked how COVID-19 has impacted the actions they take to reduce environmental impact in health care, VCH staff reported:^E

- An increased amount of waste, due to increased use of PPE and changes to work practices and protocols
- A decreased amount of paper waste, due to increased use of digital platforms and reduced printing when working from home



Hospital waste at Urban Impact recycling depot

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Thank you for your
ongoing support.

From the successes in VCH to the challenges still faced, it's clear: environmental sustainability is everyone's story. If we are to address the impacts of our climate reality, ensure that we are making responsible choices for our environment, and continue to offer our staff, volunteers and patients the very best quality of life possible, together we must all take a leading role. The EES team invites the whole health-care community to take actions that transform their workplaces and communities in order to restore and regenerate the interdependent health of people, place and planet – now and for future generations.

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This report has been compiled by Be the Change Group for GreenCare's Energy and Environmental Sustainability team.

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**There are a number of ways
in which you can make a
difference.**

LEAD BY EXAMPLE.

Look for opportunities to reduce environmental impact in the workplace.

YOUR VOICE MAKES A DIFFERENCE.

Talk to your colleagues and see how you can work together.

PARTICIPATE.

Attend and support environmental sustainability events and actions.

**LEARN MORE ABOUT SUSTAINABLE
AND RESILIENT HEALTH CARE.**

Check out the GreenCare website [here](#).

**MEET OTHERS INTERESTED IN
ENVIRONMENTAL SUSTAINABILITY.**

Find out more about the Green+Leaders program [here](#).

INSPIRE.

Share your environmental sustainability story [here](#).

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References

- A Vancouver Coastal Health fact sheet: <http://www.vch.ca/Documents/VCH-fact-sheet.pdf>
- B The full-time equivalent staff includes all designated groups reported in HSCIS [i.e. physicians (doctors on staff), executive/excluded, non-union and bargaining unit employees]. It excludes affiliate employers and BCEHS employees. (Source: Health Employers Association of BC)
- C VCH Real Estate Department
- D Pinkerton E, Desmond K. COVID-19 Impacts on Public Transit [presentation notes]. UBCM Transit Communities Forum [Internet]; 2020 Jun 16; British Columbia, Canada [cited 2021 Jun 22]. p. 1-22. Available from: <https://www.ubcm.ca/assets/Resolutions~and~Policy/Policy/Community~Economic~Development/01%20Joint%20BC%20Transit-TransLink%20Presentation%20to%20UBCM%20-%20June%2016%202020.pdf>
- E 2021 Vancouver Coastal Health GreenCare Survey [Internet]. British Columbia, Canada: GreenCare Community; 2021 [cited 2021 Jun 23]. Available from: <https://bcgreencare.ca/vchgreencaresurvey>
- F XDI Globe is a tool that allows organizations to better understand how climate hazards are likely to impact to their facilities. In the VCH portfolio, all acute care and long-term care facilities had one building on site analyzed for its likelihood of being impacted by climate hazards from 2020 to 2100. The outputs of this analysis include an understanding of the climate hazards that are likely to disrupt a facility and the financial impacts of this (e.g. cost of replacement and insurance premiums).
- G In early 2019, VCH Population & Public Health (PPH) – in partnership with Fraser Health PPH, HEMBC and Facilities Management – launched an innovative, three-year project to create a strategic climate change adaptation plan on the basis of an integrated vulnerability assessment. This initiative will help to reduce negative health outcomes for priority populations in our communities of care, and increase resilience across our health system in B.C., by bringing together the four departments' respective work to reduce vulnerability to climate shocks and stresses. Using an innovative and participative vulnerability assessment methodology, this first-of-its-kind project engages those people on the ground who are most impacted by climate change (including rural and First Nations communities) and ultimately can be change agents in their communities.
- H Program staff partner with FortisBC and BC Hydro to attract funding support for energy conservation and efficiency projects, with the incentives received from industry partners used to supplement the project funding. The implementation of these projects directly reduces operating expenses and the environmental impact of Lower Mainland health organization sites.
- I Currently, there are no targets for Safer Chemicals.

