

Planetary Health Strategy



ABOUT BC RENAL



Photo by Melody Charlie

In partnership with BC's regional health authority renal programs (HARPs), BC Renal funds, plans and coordinates kidney care services in BC. It works in collaboration with health authorities, kidney health professionals, researchers, patients and their families living with chronic kidney disease (CKD) to ensure high-quality kidney care throughout the province. Our main office is located on the unceded, occupied, traditional and ancestral territories of the *x^wməθkwəy̓əm* (Musqueam), *Sḵwxwú7mesh Úxwumixw* (Squamish) and *səlilílwətaʔt* (Tsleil-Waututh) Nations. As a provincial network, we operate on the traditional and ancestral lands of First Nations and provide services to diverse Indigenous Peoples, including First Nations, Métis and Inuit people throughout BC.

This strategy has been approved by the BC Renal Executive Committee on November 29, 2024.

ACKNOWLEDGEMENTS

The development of this strategy is informed by a diverse working group comprised of clinical champions from a range of kidney care professions across all HARPs, an Indigenous leader, patient and family partners, and BC Renal staff. The content is derived from a comprehensive environmental scan that includes feedback from participants of a network-wide survey on planetary health and a series of conversations with members in the provincial kidney care network, including kidney health professionals, patient and family partners, and others. We also received valuable input from:

- Health Quality BC
- PHSA Indigenous Health
- PHSA Planetary Health
- Regional Energy & Environmental Sustainability team



IMPORTANT INFORMATION

This BC Renal guideline/resource was developed to support equitable, best practice care for patients with chronic kidney disease living in BC. The guideline/resource promotes standardized practices and is intended to assist renal programs in providing care that is reflected in quality patient outcome measurements. Based on the best information available at the time of publication, this guideline/resource relies on evidence and avoids opinion-based statements where possible; refer to www.BCRenal.ca for the most recent version.

For information about the use and referencing of BC Renal guidelines/resources, refer to BCRenal.ca/health-info.



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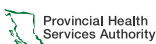


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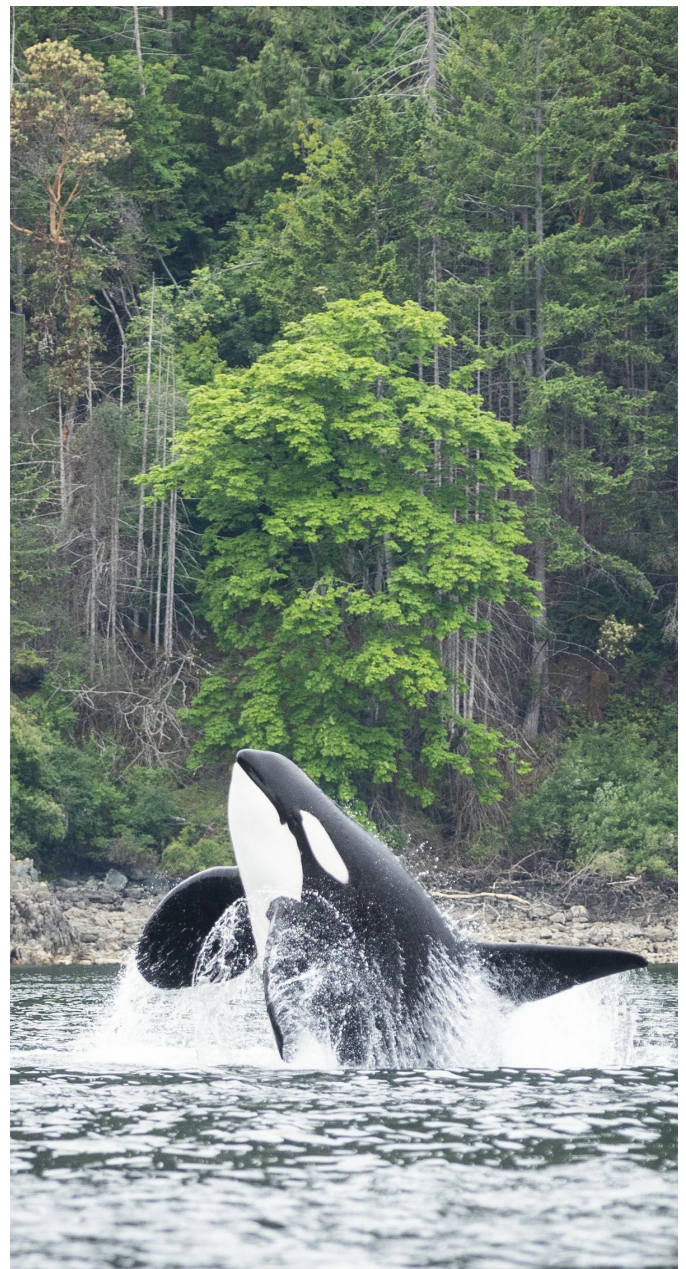
INTRODUCTION

Planetary health embodies the interdependency of human health and the well being of ecosystems. It emphasizes the need for environmental sustainability while fostering people-centred care. While recognizing that those most impacted by the climate emergency are often the least responsible for the decline in Earth's ecosystems, particularly Indigenous communities on Turtle Island—the lands known as North and Central America—health equity is a key focus of planetary health.

BC Renal is committed to integrate the foundational principles in our [Strategic Action Plan](#)—including equitable and optimal, people-centered care, Indigenous wellness, and planetary health—in everything we do. Our commitment to planetary health involves advancing resilient strategies that honour and safeguard the environment for future generations. We embrace the [Coast Salish teachings](#) gifted to PHSA and are responsible for implementing the foundational commitments in the [BC Declaration on the Rights of Indigenous Peoples Act \(DRIPA\)](#) (Declaration Act). Recognizing the vital relationship between the land and Indigenous peoples, who are the original caretakers, this commitment is also about caring for the land together in the spirit of reconciliation and healing.

We will embed the PHSA Planetary Health guiding principles in our path forward for planetary health. Further, this planetary health strategy is both strategically aligned with and complements other provincial and regional planetary health strategies and roadmaps in BC, while supporting the [Quintuple Aims](#) for better patient experience, population health, provider experience, value for money, and enhanced health equity. Importantly, to integrate environmentally sustainable kidney care into quality improvement initiatives at BC Renal, this strategy supports the application of the [CASCADES's adaption](#) of the [BC Health Quality Matrix](#) to advance quality of kidney care.

This strategy is intended to practically guide the integration and advancement of planetary health and promote environmentally sustainable kidney care (ESKC) through BC Renal committees and key activities.



Specifically, the strategy will apply across:

- BC Renal committees
- BC Kidney Days and other educational events sponsored by BC Renal
- Regional renal program (RRP)/ peritoneal dialysis (PD) value-add support funded provincial and regional projects
- Contract agreements with suppliers
- Patient Records and Outcome Management Information System (PROMIS)
- Research, and other key activities supported by BC Renal



WE AIM TOWARDS A STRETCH GOAL OF A 40% REDUCTION IN KIDNEY CARE ORIGINATING GREENHOUSE GAS EMISSIONS BY 2030, IN ACCORDANCE WITH CANADA'S 2030 EMISSIONS REDUCTION PLAN AND CLEANBC

PLANETARY HEALTH

STRATEGIC PRIORITIES AND OBJECTIVES

Four planetary health strategic priorities and objectives were identified from the environment scan and iterative discussions with network members. The strategic priorities are built upon the action areas in the [CASCADES Sustainable Kidney Care Playbook](#) and in a framework articulated by [Thomas et al.](#) (2024). The action areas have been adapted to reflect the BC Renal context. Table 1 (see right) summarizes the planetary health strategic priorities and objectives that apply to BC Renal committees and key activities.

These strategic priorities can be categorized into priorities for climate mitigation and for climate adaptation and resilience.

CLIMATE MITIGATION

Climate mitigation priorities focus on reducing our network's impact on planetary health.

Kidney care design and delivery coordination

Integrating the work of the BC Renal core modality committees and collaboration with research and community partners, this strategic priority focuses on promoting early detection and timely diagnosis, along with increasing the uptake of preventative medical and lifestyle therapies. The priority will also include promoting environmentally informed medication use.

Operations and procurement

BC Renal's business operations team will work with PHSA Supply Chain in adopting sustainable procurement practices, including embedding PHSA planetary health specifications in request for proposals (RFPs) and prioritizing low-carbon, circular products and services — those designed to be reused, refurbished, or recycled to

reduce waste and environmental impact—where clinically appropriate. Partnerships with suppliers to increase uptake of products with low carbon and circular economy principles will be strengthened. Additionally, the core administration at BC Renal will reduce the environmental impact of our operations, e.g., sustainable event planning, and limit office supply purchase.

Culture cultivation and capacity building

Working with our network members and partners, we will strengthen planetary health expertise through education. Together, we will raise awareness among clinicians and patients by sharing ESKC practices and developing patient resources. Provincial and regional quality improvement efforts are supported through project funding and connecting ESKC clinical champions. Furthermore, we will continue to advocate for ESKC practices beyond those we can directly influence.

CLIMATE ADAPTATION AND RESILIENCE

Climate adaptation and resilience focuses on ensuring the delivery of reliable, high-quality kidney care in climate emergencies. The BC Renal Emergency Management Committee will work together with the HARPs and BC Renal's business operations to continue to enhance climate emergency preparedness by strengthening the dialysis nursing workforce, refining emergency response plans and ensuring suppliers have climate disruption strategies. This priority also includes the work by the BC Renal Kidney Services-Infrastructure and Capacity Planning Committee in standardizing the planning of dialysis equipment, facilities and infrastructure per the latest policy and standards.

While the strategy aims to be nimble and flexible in providing overall direction and focus, detailed action and project ideas are outlined for each of the objectives in a separate living document. This approach ensures that

our actions are practical and responsive, allowing us to adapt to the evolving context and demands in the policy environment, any climate emergencies that may arise, and other factors.

TABLE 1

CLIMATE MITIGATION				CLIMATE ADAPTATION AND RESILIENCE
KIDNEY CARE DESIGN AND DELIVERY COORDINATION	OPERATIONS AND PROCUREMENT	CULTURE CULTIVATION AND CAPACITY BUILDING		
OBJECTIVES	Promote early detection and optimal uptake of preventative therapies	Shift to sustainable procurement	Strengthen planetary health expertise and capacity through education and training	Enhance preparedness for climate emergencies
	Optimize use of dialysis and non-dialysis therapies	Enhance partnerships with suppliers on circular business models and environmentally sustainable operations	Enhance awareness among clinicians and patients with ESKC-informed resources	Standardize approach to and guidance for dialysis equipment, facility and infrastructure planning
	Adopt environmentally informed prescribing strategies	Reduce the environmental impact of BC Renal operations	Support provincial and regional quality improvement and research efforts that help advance ESKC	
		Enhance advocacy for ESKC practices beyond the direct control of BC Renal		



MOVING FORWARD
TOGETHER IN PARTNERSHIP

To advance planetary health in the provincial kidney care network, BC Renal will depend on collaborative relationships to achieve the planetary health strategic priorities and objectives. A collective commitment from each of the following groups is required, leveraging the strategic roles and strengths of each:

BC RENAL

BC Renal will lead the strategic priorities through coordination and funding. Our roles will include:

Information curation: Curating and keeping our staff and network members informed of relevant planetary health resources, including tools and training opportunities.

Strategic coordination: Providing technical expertise and support to bridge and align efforts led by BC Renal committees with this strategy so that planetary health along with equitable, optimal people-centred care, and Indigenous wellness, the other two foundational principles, are embedded in the committee efforts.

Communication and knowledge dissemination: Ensuring consistent promotion and messaging of action-oriented information related to ESKC practices via social media, Renal News, BC Kidney Days, Province-Wide Rounds and other communication channels.

Quality improvement support: Providing guidance, and coordinating provincial activities to promote and advance ESKC practices including funding and dedicating resources for approved initiatives.

Procurement: Working with PHSA Supply Chain to have provincial contracts in place for sustainability related services, and making relevant planetary health recommendations to existing suppliers.

Engagement and advocacy: Engaging with other provincial, national and international planetary health communities for shared learning in advancing ESKC practices, and collectively advocating for change toward more sustainable health systems. Further engagement may include partnerships with patients and family caregivers living with CKD, as well as First Nations,

Inuit, and Métis organizations and communities, as appropriate.

Evaluation: Coordinating the activities to ensure comprehensive evaluation as outlined in the next section.

PHSA CORPORATE

As a provincial clinical program within PHSA, BC Renal will continue to work closely with various departments within PHSA to advance the planetary health and its ESKC strategic priorities. We will lean on the Planetary Health department for overall guidance and coordination of various planetary health priorities across PHSA, specific supply chain expertise related to emissions reduction, and the reporting of province-wide environmental impacts across PHSA programs. The Energy & Environmental Sustainability Team will continue to advise on regulatory facility-based compliance including reporting as well as resource and project planning for facilities. PHSA Supply Chain will standardize the supplier code of conduct and procurement process embedding planetary health principles and considerations.

RENAL PROGRAM LEADERSHIP AND FRONTLINE HEALTH PROFESSIONALS

Commitment of the HARPs is vital to the success of both climate mitigation and adaptation strategies. Frontline health professionals play a pivotal role in promoting and adopting ESKC practices in clinical procedures and encounters. This includes educating patients about environmental sustainability in their care, and communicating with patients about appropriate treatment options that have lower environmental impacts. Health professionals can begin by learning more about planetary health through training opportunities offered by CASCADES and other organizations. Furthermore, health professional champions can identify and implement opportunities to advance planetary health in alignment with regional priorities. Programs may consider using the RRP/ PD value-add fund for targeted improvement activities. It is recommended that the process and outcomes of the targeted improvement activities are documented and shared to promote accountability and



foster shared learning across the provincial kidney care network.

PATIENTS AND FAMILY CAREGIVERS

Patients and family caregivers living with CKD have opportunities to lead the way in advancing planetary health. Like health professionals, they can begin by learning more about planetary health. Those interested in working alongside with health professionals can participate as patient partners in planetary health and ESKC projects and initiatives at BC Renal and/or the HARPs. In the community, patients and their families can serve as ambassadors, raising awareness of planetary health, educating their peers, and advocating for ESKC practices.

RESEARCHERS

Many aspects of planetary health in the context of healthcare require robust research to address knowledge gaps. We will rely on researchers, including both Indigenous and non-Indigenous thought leadership, to generate new knowledge that informs and then guides evidence-based planetary health actions at BC Renal.

SUPPLIERS

We call on suppliers to engage and collaborate with us in opportunities to advance planetary health through their products and services. Suppliers will be asked to report on relevant key performance indicators for ESKC.



EVALUATION

To ensure accountability in planetary health at BC Renal, we will develop a comprehensive approach to evaluate our progress during the strategy's implementation. To assess our current carbon impact, we will begin by identifying the relevant quality indicators and data sources.

Specifically, we will continue to build on existing work underway including:

- Life cycle assessments for the kidney replacement therapy options
- In-person meeting carbon footprint data tracking and monitoring
- Understanding how perceptions, practices and challenges related to ESKC change over time from multiple perspectives via periodic administration of a planetary health survey

Furthermore, the comprehensive approach will include, but will not be limited to the following:

- Seek regular reporting of supplier planetary health kidney performance indicators
- Integrate ESKC quality indicators in routine reporting

The evaluation plan will serve as a guide for continuous improvement of planetary health as we work toward our ambitious goal. We will also develop a dissemination plan for the evaluation findings to ensure transparency and enhance awareness. Our integrated climate mitigation and adaptation strategies, along with a robust evaluation approach, will help keep us accountable to our goal of reducing greenhouse gas emissions in kidney care by 40% across BC by 2030.



Photo by Melody Charlie



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APPENDIX A

EXAMPLES OF INITIATIVES THAT ALIGN WITH THE PLANETARY HEALTH OBJECTIVES

INITIATIVE/ PROJECT	DESCRIPTION
PROVINCIAL	
<u>Better Together: A Strategy to Advance Collaborative Patient Goal-Setting in Kidney Care</u>	<p>Goal-setting was consistently identified as a process that should be developed across all modalities of kidney care and all renal programs. To advance collaborative patient goal-setting as a provincial renal network, a provincial strategy and a worksheet were developed based on a series of focus groups and a provincial workshop with kidney health professionals and patients and family members living with kidney disease across BC. Fostering collaborative patient goal-setting promotes planetary health by enabling more tailored, effective care that mitigates resource overuse and aligns treatment with what matters most to the patients.</p>
<u>Hemodialysis Emergency Response Team (HEST)</u>	<p>BC Renal and five regional HARPs has developed an innovative solution: specialized emergency teams of registered nurses in hemodialysis. These teams are strategically stationed across their regions to respond quickly, ensuring continuous and high-quality hemodialysis services during emergencies and environmental disasters. Their goals include supporting large-scale emergencies, maintaining safe staffing levels, preventing hospital admissions, and minimizing patient transfers between regions. In non-emergent times, the HEST nurses are updating emergency plans, educating patients about emergency procedures, and working with Health Emergency Management BC to ensure emergency preparedness for climate emergencies are in place.</p>
Integrated Palliative Nephrology	<p>A provincial strategy to effectively integrate advance care planning and a palliative approach for all patients with CKD receiving care in a renal program in BC. Focusing care on what matters most to patients promotes planetary health by reducing unnecessary interventions, and supporting sustainable, person-centred care.</p>
<u>Kidney Check</u>	<p>Can-SOLVE CKD Network, First Nations Health Authority, BC Renal, and HARPs collaborate to bring kidney health, diabetes, and blood pressure screening to First Nations communities in BC. This mobile screening program supports early detection and timely follow-up care. Screening requiring a few drops of blood and urine is conducted using point-of-care devices. Individuals receive instant feedback on personal level of risk for kidney disease, hypertension, and diabetes. Values are based on Kidney Failure Risk Equation (eGFR and urine ACR), blood pressure, and hemoglobin A1C. It is a community-led initiative that respects the self-determination and traditions of each participating First Nation.</p>
<u>Transplant First</u>	<p>A joint initiative between the BC Renal Kidney Care Clinics Committee and BC Transplant to promote pre-emptive transplants through living donation. The first goal of this initiative was focused on working with staff and patients at the 14 Kidney Care Clinics (KCCs) across BC to inform them of the advantages and safety of living donation and give tools to assist in finding willing donors.</p> <p>In the second phase of this initiative, the focus has been more about implementing and sustaining enhanced pre-transplant clinical processes to ensure every patient at KCC who is a potential kidney transplant candidate is identified, assessed and supported along the path toward transplantation as the treatment of choice, including assistance in finding a living donor.</p>

INITIATIVE/ PROJECT	DESCRIPTION
HEALTH AUTHORITY RENAL PROGRAM	
IV push for iron to minimize waste of minibags and tubing (Fraser Health)	A clinical process change to reduce the use of minibags and tubing for the administration of IV iron was implemented. This initiative has prevented 36 kg of medical waste from going to landfill after only one month rollout at the hemodialysis unit at Surrey Memorial Hospital. An annual 1900 kg of medical waste prevention in hemodialysis units across Fraser Health sites is anticipated once the initiative is scaled in 2024.
Linen utilization project (Island Health-Nanaimo Regional General Hospital (NRGH) Renal Unit)	Island Health's Sustainability Department initiated a pilot project to reduce the environmental impact of laundering hospital linen while improving patient experience. The NRGH Renal Unit collaborated with the Process Improvement team and successfully completed the project in June 2018. By engaging both staff and clients, innovative solutions like using heavier-knit blankets and developing guidelines for personal blanket use were implemented. Communication efforts included creating posters and handouts to raise awareness about the project's goals and the environmental impact of linen use. The campaign, 'Warm Up, Power Down,' resulted in a 30% reduction in heated flannel use and a 28% increase in thermal comfort among high users, leading to plans for broader adoption and expansion of the new approach.
Reverse osmosis (RO) heat disinfection frequency (Fraser Health)	At Royal Columbian Hospital's hemodialysis unit, the RO disinfection frequency was reduced from three times to once weekly disinfection without any negative impact on water quality or patient safety yielding both energy and cost saving. The reduced frequency is being trialed in other community dialysis units that are using Baxter CWP100 RO systems.

APPENDIX B**LIST OF ACRONYMS**

ACR	urine albumin to creatinine ratio
CASCADES	Creating a Sustainable Canadian Health System in a Climate Crisis
CKD	chronic kidney disease
eGFR	estimated glomerular filtration rate
ESKC	environmentally sustainable kidney care
IV	intravenous
KCC	Kidney Care Clinic
HARP	health authority renal program
HEST	Hemodialysis Emergency Response Team
PD	peritoneal dialysis
PHSA	Provincial Health Services Authority
PROMIS	Patient Records and Outcome Management Information System
RFP	request for proposals
RO	reverse osmosis
RRP fund	regional renal program fund
NRGH	Nanaimo Regional General Hospital