



VANCOUVER COASTAL HEALTH PLANETARY HEALTH STRATEGY 2024-2029

Becoming a climate resilient and sustainable health system

MARCH 2024

TERRITORIAL ACKNOWLEDGMENT

Vancouver Coastal Health acknowledges that the land on which we gather is on the traditional and unceded territory of the Coast Salish Peoples, including the Musqueam, Squamish, and Tsleil-Waututh Nations. Vancouver Coastal Health lies on the traditional homelands of the fourteen First Nation communities of Heiltsuk, Kitasoo-Xai'xais, Lil'wat, Musqueam, N'Quatqua, Nuxalk, Samahquam, Skatin, Shishálh, Squamish, Tla'amin, Tsleil-Waututh, Wuikinuxv, and Xa'xtsa.

Indigenous Peoples have served as the original stewards of the land since time immemorial, protecting land and water as sources of sustainable food systems, traditional medicines, and community identity^{1,2}.

Research shows that where Indigenous Peoples have control of the land, the biodiversity flourishes³; that inclusive decision-making with Indigenous communities is integral to successful adaptation across ecosystems; and that climate literacy and information informed by Indigenous Knowledge can accelerate positive change⁴.

“Indigenous Peoples steward 80% of the world’s remaining biodiversity and, therefore, the wellbeing of Indigenous Peoples is an explicit determinant of planetary health. The Indigenous determinants of health are not only for Indigenous Peoples, but also have a benefit that is intimately connected to the future survival of all humanity and the planet.”¹

Vancouver Coastal Health honours its commitment to supporting the journey of reconciliation with Indigenous Peoples in our region. We are committed to improving the health and access to culturally safe health care of the Indigenous Peoples in our region, and we recognize that we all have a contribution to make in reconciliation and healing. With this recognition comes the responsibility to ensure authentic and intentional engagement and collaboration with Indigenous Peoples.

TERMINOLOGY

While navigating through this document, various key terms will be used that are fundamental to understanding the strategies and actions outlined within. Please see the [definitions page](#). We recognize that in any rapidly accelerating field of work, the terminology will change – this is the terminology that is used today and it may not be the terminology used tomorrow.

We anticipate this strategy will evolve over time, along with the terminology in this field. As updates are necessary, we will update documents accordingly, ensuring continued relevance and usefulness as a resource for all stakeholders involved.





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INTRODUCTION

Climate change is as one of the most profound and urgent challenges that humanity and our planet face today. The effects of climate change on health, health-care infrastructure and health-care delivery are clear. Increased illness, damage to facilities and disruptions in supply chain all impact our ability to provide quality care.

While climate change is impacting our system, we know that through current unsustainable practices the health system has a significant environmental footprint and contributes to climate change. The need to embed planetary health into health systems is evident and urgent.

A planetary health approach acknowledges the interdependent relationship between the health of our communities and the health of the environment. Connection to land is an understood Indigenous determinant of health; in fact, it is a determinant of health for all. As original stewards of the land, Indigenous Peoples have worked to protect the land, understanding it to be “a source of identity, healing, health and wellness”². A planetary health approach is a commitment to joining this stewardship.

Planetary health includes reducing the climate impact of the health system, particularly through reduced greenhouse gas (GHG) emissions. It is also a commitment to protecting the natural environment through reduced resource use and depletion and minimized use of toxins. Planetary health is about ensuring our systems and services are able to continue to deliver high quality care through climate shocks and stressors, and that sustainable community development supports health for all.

Planetary health care expands the duty of care beyond an individual patient to include the whole population, and to the ecosystems that sustain us.

VCH is committed to embedding planetary health principles in all that we do, from business practices, to managing our facilities, to delivering care, and supporting climate mitigation and adaptation efforts across communities and First Nations in the VCH region.

This strategy is framed, with adaptations, using the CASCADES [Organizational Readiness Playbook](#)⁵, a valuable tool that makes the complex conversation of health and climate change easier to understand and plan for. VCH is proud to partner with CASCADES, a leader in building capacity across Canada’s health-care community to promote and deliver sustainable health care.



RATIONALE



Climate impacts on individual and community health and wellbeing

The impacts of climate change on health are unmistakable. Extreme temperatures; air quality impacts including wildfires; floods and storms; food and water safety and security; and changes in infectious agents have already had negative impacts on patients, communities, facilities and services across VCH, e.g. the deaths that occurred in VCH after the 2021 heat dome. Other impacts have occurred or are expected in future (see Table 1 below).

The vulnerability to these risks is not distributed equally. Certain individuals and communities experience greater exposure to climate shocks and stressors, and at the same time, have differing capacity to respond to climate risks. Some factors that lead to these inequalities are, those facing poverty, governance challenges, limited access to resources, and climate-sensitive livelihoods, bear the brunt of these impacts⁶. While factors like gender, ethnicity, and low income contribute to their vulnerability⁶.

Indigenous Peoples in BC are often uniquely and disproportionately impacted. Destruction of the land can affect personal and community identity, disrupt cultural practices and ceremony, and affect food sovereignty and security, all of which are integral to physical, mental, emotional and spiritual health and well-being².

The climate impacts on individual and community health and wellbeing will continue to increase as global temperatures are projected to continue to rise.

FIGURE 1: CLIMATE IMPACTS

EXTREME WEATHER EVENTS	HEAT STRESS	AIR QUALITY	WATER QUALITY AND QUANTITY	FOOD SECURITY & SAFETY	CHANGING ECOSYSTEMS
<ul style="list-style-type: none"> • Injuries • Mental health impacts • Disruption of health-protecting infrastructure 	<ul style="list-style-type: none"> • Heat-related illness and death • Mental health impacts 	<ul style="list-style-type: none"> • Premature mortality • Respiratory and cardiovascular disease • Mental health impacts • Allergies 	<ul style="list-style-type: none"> • Water shortages • Water-borne diseases 	<ul style="list-style-type: none"> • Under-nutrition • Access to traditional foods and medicines • Food-borne diseases (e.g. marine shellfish poisoning) • Adverse birth outcomes • Mental health impacts 	<ul style="list-style-type: none"> • Threats to livelihoods • Cultural impacts • Displacement • Mental health impacts • Vector-borne and zoonotic diseases

Adapted from [Health in a Changing Climate 2022](#)⁸

Climate impacts on health care delivery

Climate-influenced hazards like extreme heat and flooding are impacting VCH infrastructure, operations, and supply chains. As a consequence of these challenges, the health system will be increasingly strained, potentially impacting our ability to offer quality care, and increasing the cost of care delivery. Longer-term warming and chronic stressors will only serve to exacerbate the impacts we are seeing.

ACUTE CLIMATE SHOCKS AND CHRONIC STRESSORS REDUCE SYSTEM CAPACITY

- Health infrastructure, such as building envelopes, can be damaged or destroyed by wildfires, floods, and severe storms or experience power outages or other service disruptions.
- Increasing temperatures and extreme heat events will likely lead to overheating and challenges for HVAC systems, compromising patient and staff comfort and safety.
- Access to critical support services, including transportation, power, water supply, and telecommunications may be disrupted.
- Access to supplies and services, such as medications, devices, food, linen, waste disposal, may be challenged by severe weather events – occurring locally or globally.
- Capacity and availability of health workforce may be compromised by physical or mental health impacts, or disruptions from extreme weather events.
- Care quality and safety may be compromised by disrupted access to health services, e.g., surgery, radiation therapy, dialysis, medications.

Adapted from the [CASCADES playbook](#)⁵

Climate impacts of health systems

Not only are we facing the consequences of climate change, but it is also evident that certain aspects of our current health care delivery model are unsustainable and have avoidable adverse effects on the environment. These effects occur through the use of consumable materials and supplies; electricity, natural gas, and water use; and the transportation and manufacturing of the materials, supplies and equipment needed to deliver care. The 24-hour a day, 7-day a week nature of health care delivery results in a significant environmental footprint.

In addition, population growth, an aging population, and increasingly complex diagnostic and treatment methods contribute to the increased environmental footprint of the health-care sector.



HEALTH CARE CONTRIBUTES TO CLIMATE CHANGE

Health care has made significant changes to lower waste, introduce sustainable building practices and reduce our carbon footprint. While transformation is underway, the sector contributes an estimated 5.2 per cent of global greenhouse gas (GHG) emissions⁵.

Canada has the second highest health-care emissions per capita relative to other high-income countries⁷.

OUR COMMITMENT

The VCH strategic framework has four pillars: Indigenous Cultural Safety; Anti-Racism; Equity, Diversity and Inclusion; and Planetary Health. Together, our pillars uphold our commitment to delivering safe, quality care and our focus on taking an equity-led, intersectional approach to caring for our people and our planet. They also represent how we bring ourselves to work every day, how we care for patients and families, how we work with our colleagues, and how we live our values as an organization that cares for people. VCH has adopted and is working towards the [Global Diversity, Equity & Inclusion Benchmarks](#), which ensures the sustainability strategy recognizes the linkage between Equity, Diversity & Inclusion (EDI) and sustainability.

Embedding these pillars across the organization is the collective responsibility of all staff and medical staff. It requires both individual-level behaviour change, as well as policy and process changes to support staff in taking planetary health related action.

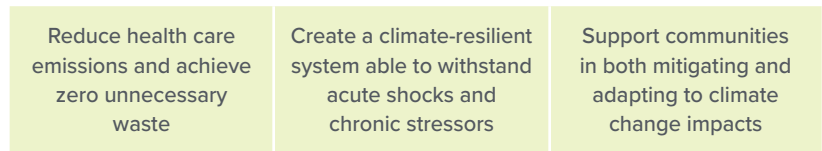
Vancouver Coastal Health pillars

The VCH strategic framework has four pillars:

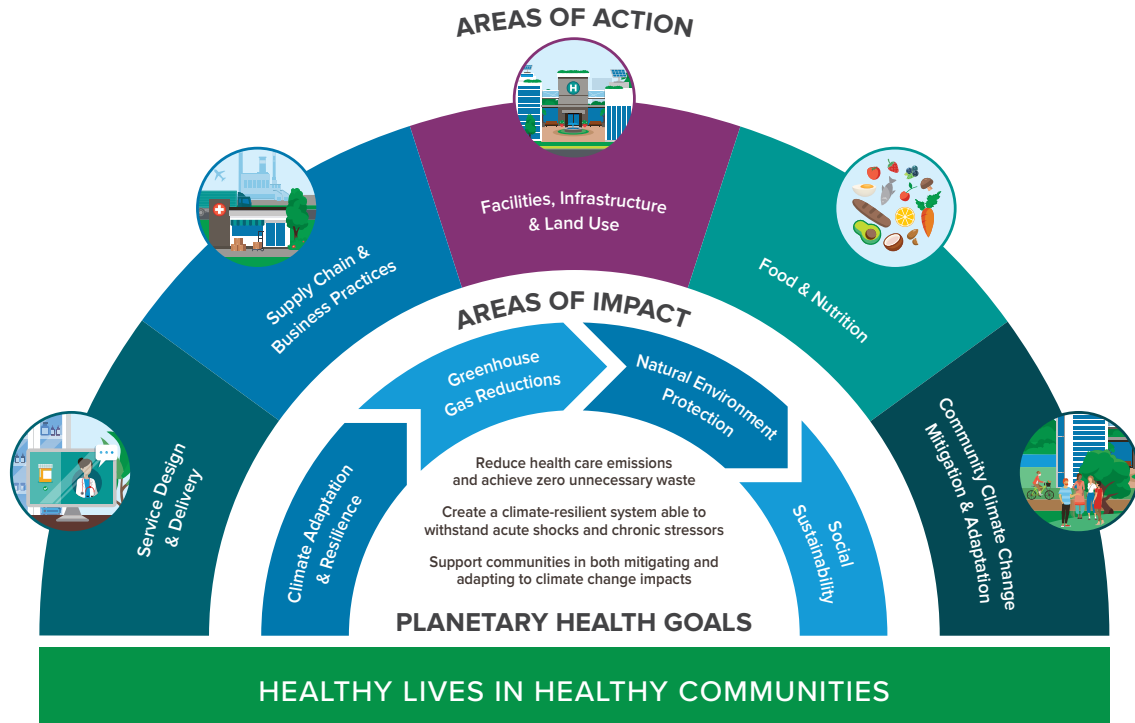


Planetary health goals

VCH is working towards the following goals:

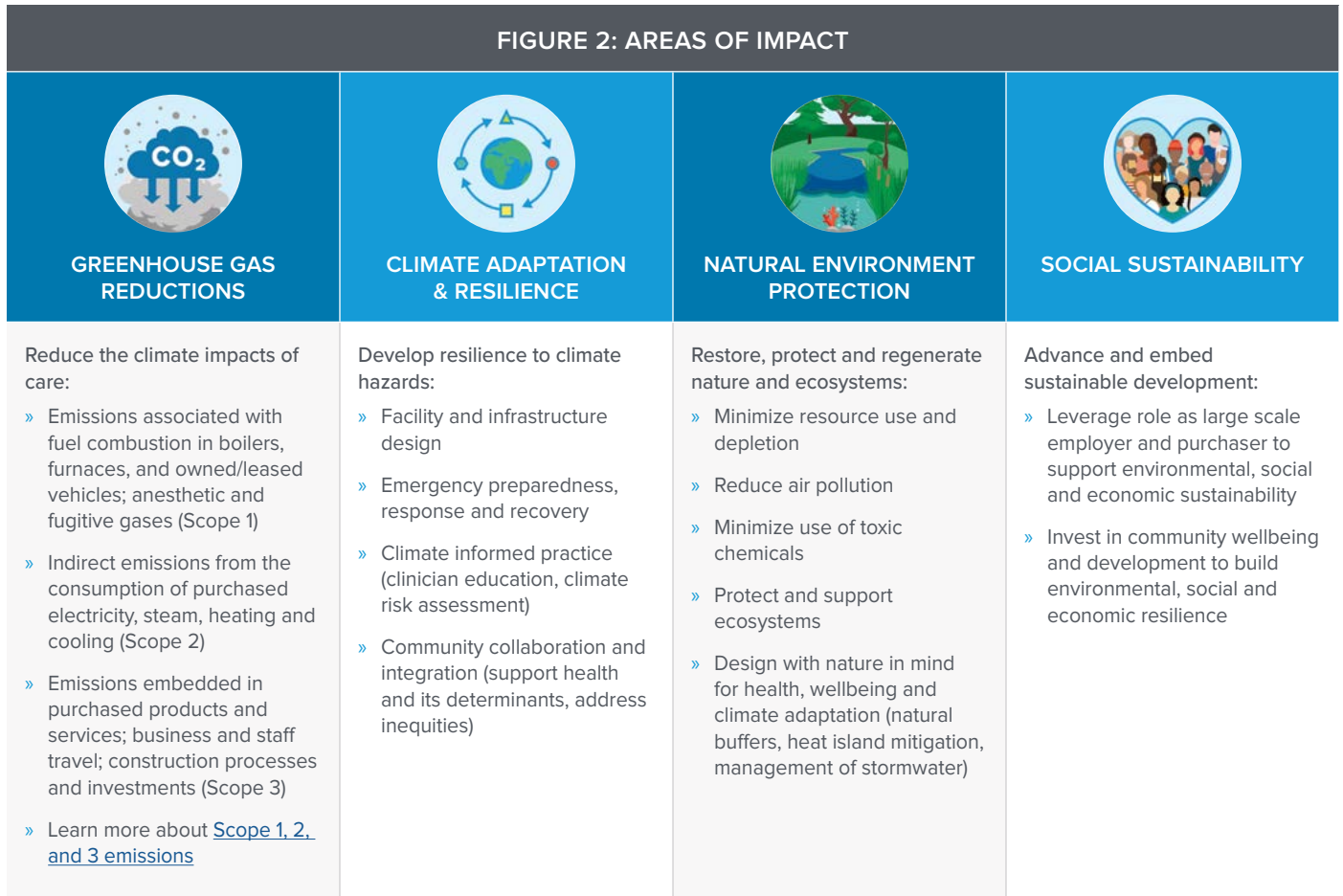


This document primarily addresses the first two goals, specific to the infrastructure of VCH as part of the health-care system. VCH Medical Health Officers and the Healthy Environments and Climate Change Team are leading work on Goal 3, as part of their broader public health mandate (<https://www.vch.ca/en/health-topics/climate-change-health>). This work is not detailed in this report.



Areas of Impact

VCH aims to have impact in the following areas:



Adapted from the [CASCADES playbook](#)⁵



Areas of Action & Key Objectives

Achieving our goals will require embedding planetary health principles across all aspects of the organization and coordinating a whole-system transformation. Below are the priority areas of action and key objectives that will move us towards our goals.

FIGURE 3: AREAS OF ACTION & KEY OBJECTIVES	
AREAS OF ACTION	KEY OBJECTIVES
 <p>SERVICE DESIGN & DELIVERY</p>	<ul style="list-style-type: none"> » Improve time and resource efficiency of care pathways » Ensure appropriate and optimized use of medicines, consumables, & other clinical resources » Implement low carbon, sustainable clinical products & services, e.g., anesthetic gases; devices & supplies » Enhance seasonal readiness, with adaptation against climate hazards » Leverage the climate benefits of health system transformation, e.g., digital health, integrated health and community-based care, investments in social determinants
 <p>SUPPLY CHAIN & BUSINESS PRACTICES</p>	<ul style="list-style-type: none"> » Move towards low carbon, sustainable products and services, including through logistics » Reduce emissions and pollution, promote circular economy principles, reduce consumption and waste » Work towards a more resilient supply chain » Embed planetary health principles in business practices
 <p>FACILITIES, INFRASTRUCTURE & LAND USE</p>	<ul style="list-style-type: none"> » Design, construct and operate low-carbon, climate resilient and environmentally sustainable facilities; smart energy & water design and demand management; exploring therapeutic incorporation of nature into facilities; avoid unnecessary waste and toxic chemicals, and minimize necessary waste and toxins » Foster accessible green space, protect and support ecosystems and natural buffers » Support active travel, car sharing, carpooling and, invest in ultra-low and zero emission vehicle and cycling infrastructure
 <p>FOOD & NUTRITION</p>	<ul style="list-style-type: none"> » Reduce emissions from food when made, processed, served, and disposed » Ensure healthy, culturally appropriate, sustainable menus for patients, staff and visitors » Reduce food waste
 <p>COMMUNITY CLIMATE CHANGE MITIGATION & ADAPTATION</p>	<ul style="list-style-type: none"> » Support communities with a public health and equity perspective in actions to decrease GHG emissions » Contribute to climate adaptation and emergency management activities across the region (in collaboration with local, regional, and First Nation governments, health sector partners, and community organizations). » Support healthy environments that include low-carbon and climate-resilient housing, active transportation options, improved air, food and water quality, and abundant greenspaces. » Work with researchers and community partners to reduce the the physical and mental health impacts associated with extreme weather events, slower changes to our ecosystems, and other public health impacts of climate change.

Adapted from the [CASCADES playbook](#)⁵

TRANSFORMATION ENABLERS

Transformation enablers play a crucial role in facilitating change throughout VCH as we work to embed planetary health across the organization. They aid in encouraging and enabling behaviour change, while providing tools, frameworks, and support necessary to integrate these principles into various areas throughout the organization.

This is not an exhaustive list of transformation enablers within VCH, but a snapshot of some of the fundamentals, all of which will evolve and expand over time.



RESEARCH & INNOVATION

Research and innovation act as enablers through providing the knowledge, tools, and opportunities necessary for organizations to embrace and embed planetary health principles into their operations. This includes growing our knowledge and understanding of the impacts on our environment and where to focus our energies from developing baselines to find efficiencies.



PARTNERSHIPS

VCH is grateful to be working with other health-care organizations, locally, nationally and globally. These partners include the First Nations and local governments in the VCH region, the academic sector, the energy and sustainability sector, and health-care industry organizations. Together, we are working towards similar goals which enables us all to move more efficiently towards our objectives.



COMMUNICATION & ENGAGEMENT

Communication and engagement serve as powerful enablers by creating an informed, inspired, and collaborative environment necessary for embedding planetary health into the organization's ethos and practices.



EQUITY, DIVERSITY, & INCLUSION

EDI plays a crucial role in driving positive transformation within our organization to be a more inclusive and equitable workplace. It is also a guiding enabler in planetary health work to ensure an intersectional lens is applied when caring for VCH's patient population. There are key benchmarks⁷ to ensure that our EDI initiatives align with our broader Planetary Health goals.

⁷ The organization is involved publicly, supports financially, and advocates for one or more EDI and sustainability initiatives, whether global, regional, or issue-specific. The organization makes a concerted effort to integrate diverse voices and perspectives early and often in all sustainability efforts. EDI results reflect action in at least one of the following aspects of sustainability: people, planet, prosperity, peace, or partnership.

NEXT STEPS

As we continue to work towards embedding planetary health throughout VCH and making strides towards providing low-carbon, high quality care, our next steps include:

- VCH's refreshed Strategic Plan for 2024-2029 will enable our Planetary Health Strategy to move forward.
- VCH is developing a Planetary Health Roadmap for the next three years that will dive further into the details of key priority work. By focusing on specific projects and the work involved, we can then move the dials on the key areas of action as noted above. This will guide us in achieving our planetary health goals.
- VCH is working on developing key metric measurements and reporting to assist us in understanding how we are making an impact. These metrics will enable VCH to utilize storytelling and define where we can further focus our work, continuing to build a stronger, more resilient health-care system.

LEARN MORE

Learn about ways to bring planetary health principles to your workplace:

- Find training and playbooks at [CASCADES](#)
- Become a [Green+Leader](#)
- [Planetary Health](#) at Vancouver Coastal Health



DEFINITIONS

ADAPTATION

Adaptation is the process of adjusting to the current impacts of climate change and preparing for ongoing climate-related shocks, disruptions, and trends.

CARBON FOOTPRINT

An estimate of greenhouse gas emissions of a product or process over a given time period, ideally encompassing the entire life cycle.

CIRCULAR ECONOMY

A model based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. It prioritizes the reuse, sharing, and repurposing of goods, discourages and delays disposal of goods, and creates new economies for sharing and recycling.¹³

CLIMATE CHANGE

A change of climate that is attributed directly or indirectly to human activity and alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

CLIMATE JUSTICE

Climate justice that links development and human rights to achieve a human-centred approach to addressing climate change, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly.¹⁴

CLIMATE RESILIENCE

The capacity to prepare for, withstand, recover and grow from climate-related stressors, shocks, and disruptions.

ENVIRONMENTAL HEALTH

Environmental health focuses on the reciprocal relationships between people and their environment; promotes human health and well-being; and fosters healthy and safe communities.¹⁵

GREENHOUSE GASES

“Greenhouse gases are gases in the atmosphere such as carbon dioxide, methane nitrous oxide and water vapor, that can absorb infrared radiation, trapping heat in the atmosphere.”¹⁶

LOW CARBON

Low carbon refers to options that are associated with lower carbon emissions than the conventional option.

MITIGATION

Mitigation is ongoing process of preventing or reducing the emission of greenhouse gases and enhancing the natural capacity to capture of greenhouse gases which can help to lessen the impacts of climate change.

NET ZERO

“Net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.”¹⁷

PLANETARY HEALTH

Comprehensive definition

“The achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems—political, economic, and social—that shape the future of humanity and the Earth’s natural systems that define the safe environmental limits within which humanity can flourish.”¹⁸

Simpler definition

“Planetary health refers to the interdependent relationship between the health of our communities and the health of the environment.”

SUSTAINABLE FOOD / FOOD SYSTEM

“A sustainable food system (SFS) is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised.”¹⁹

SUSTAINABLE FOOD MENU

“A sustainable menu is one that provides [people] with sustainable diets” and involves a multi-criteria approach (Nourish Guide to Sustainable Menus, 2019; p8). The Nourish Guide draws on recommendations by Mason and Lang (in turn based on the UN Food Agriculture Organization’s definition of food sustainability) and recommends the following criteria: quality; social values; environment; health; economy; and governance.²⁰

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