

SUSTAINABLE OCCUPATIONAL THERAPY

Why • The Case for Change
What • The Tools for Change
How • The Strategy for Change

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Canada

 **CASCADES**





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INTRODUCTION

This Playbook is intended for Canadian occupational therapy professionals, including occupational therapy practitioners (occupational therapists, occupational therapy assistants), researchers, educators, and trainees, as well as referring practitioners, managers, and healthcare and social service planners. It was developed in collaboration with partners, through a compilation of a literature review and experiences from practicing occupational therapy professionals and guidance from experts in the field.

Sustainable healthcare is a mindset. Enacting this mindset into practice may offer the transformation needed to ensure healthcare systems in Canada are responsive to the challenges ahead. The intention is to avoid being reactive and retrospective and instead be proactive and anticipatory in our actions to provide sustainable, climate-resilient occupational therapy.

This Playbook is intended to do the following:

- a) Provide background information, resources, and considerations to guide more sustainable and climate-resilient occupational therapy.
- b) Highlight the contributions that occupational therapy can make in transitioning current healthcare systems towards [high-quality, low-carbon, sustainable and climate-resilient care](#).



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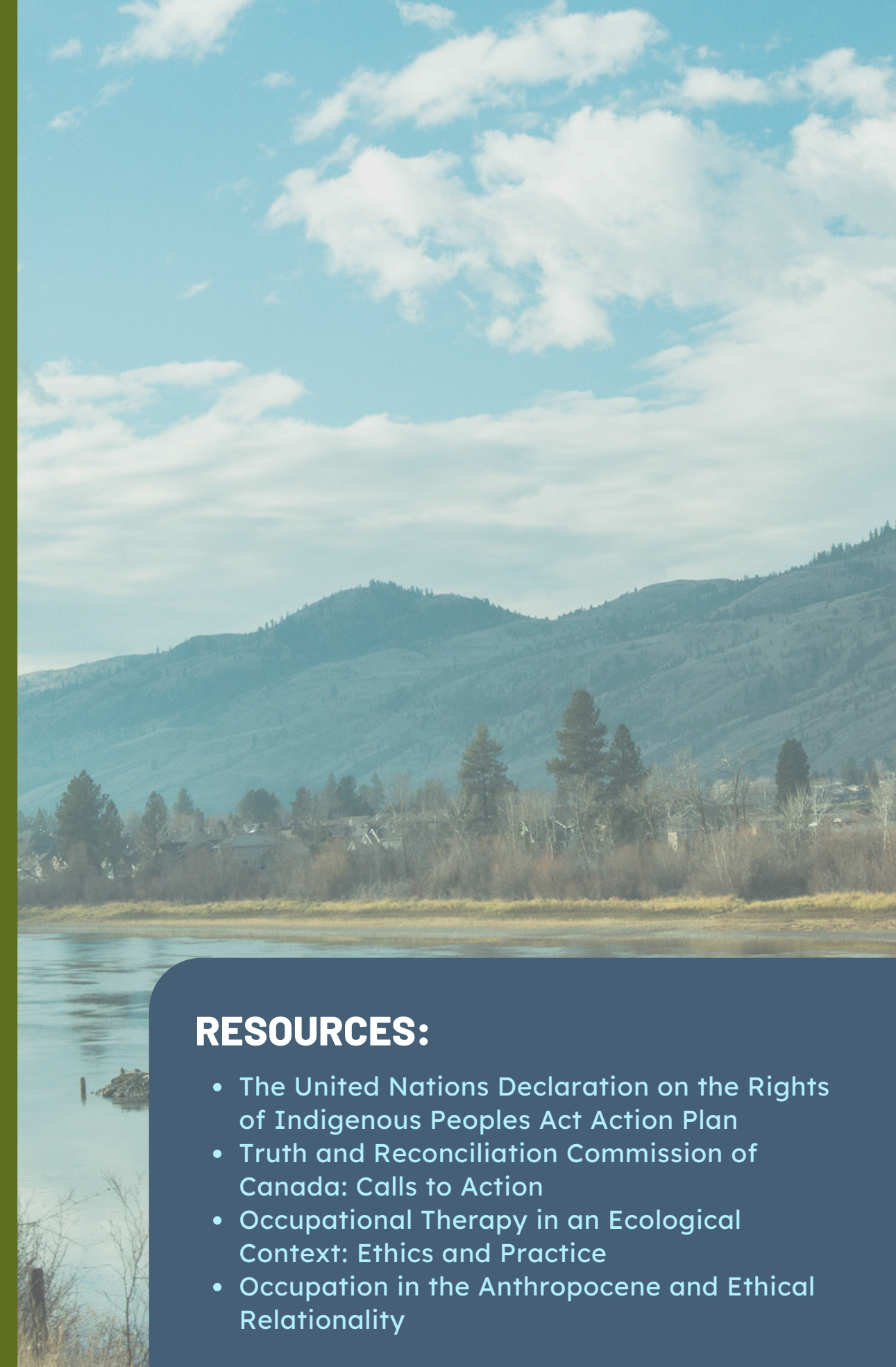
ACKNOWLEDGEMENT

It is acknowledged that this playbook draws largely on knowledge from a Western worldview. Further work is needed to learn and collaborate on solutions that draw on the traditional knowledge, and social and environmental adaptability of Indigenous Peoples in Canada.

It is also acknowledged that Canadian healthcare systems are colonial systems built on the traditional territories of more than 630 Indigenous communities - First Nations, Inuit, and Métis - each with their own distinct languages, laws, lifeways, cultural practices, and protocols. Health inequities experienced by First Nations, Inuit and Métis are a result of narratives, policies and practices since time of settlement to the present. We recognize and regret that harms are many and are still felt by many Indigenous Peoples and in communities today.

Beyond acknowledging these facts, healthcare institutions and practitioners have responsibilities to advance reconciliation using the United Nation's Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Truth and Reconciliation Commission (TRC) of Canada Calls to Action as a minimum framework. This includes

- Respecting and upholding Indigenous rights and self-determination.
- Establishing and maintaining ongoing respectful relationships that nurture intergenerational health equity (as defined and evaluated through Indigenous knowledge systems).



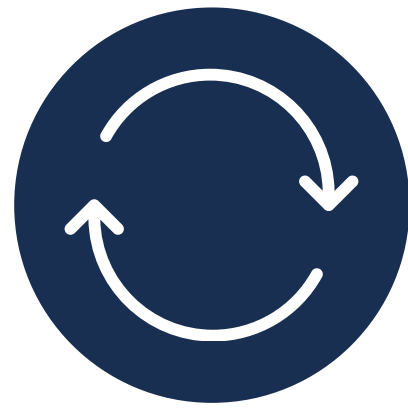
RESOURCES:

- The United Nations Declaration on the Rights of Indigenous Peoples Act Action Plan
- Truth and Reconciliation Commission of Canada: Calls to Action
- Occupational Therapy in an Ecological Context: Ethics and Practice
- Occupation in the Anthropocene and Ethical Relationality





PLAYBOOK STRUCTURE



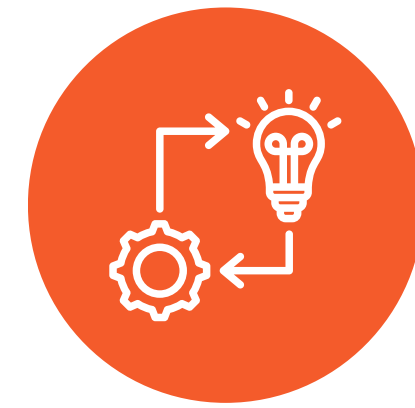
WHY

The Case for Change



WHAT

The Tools for Change



HOW

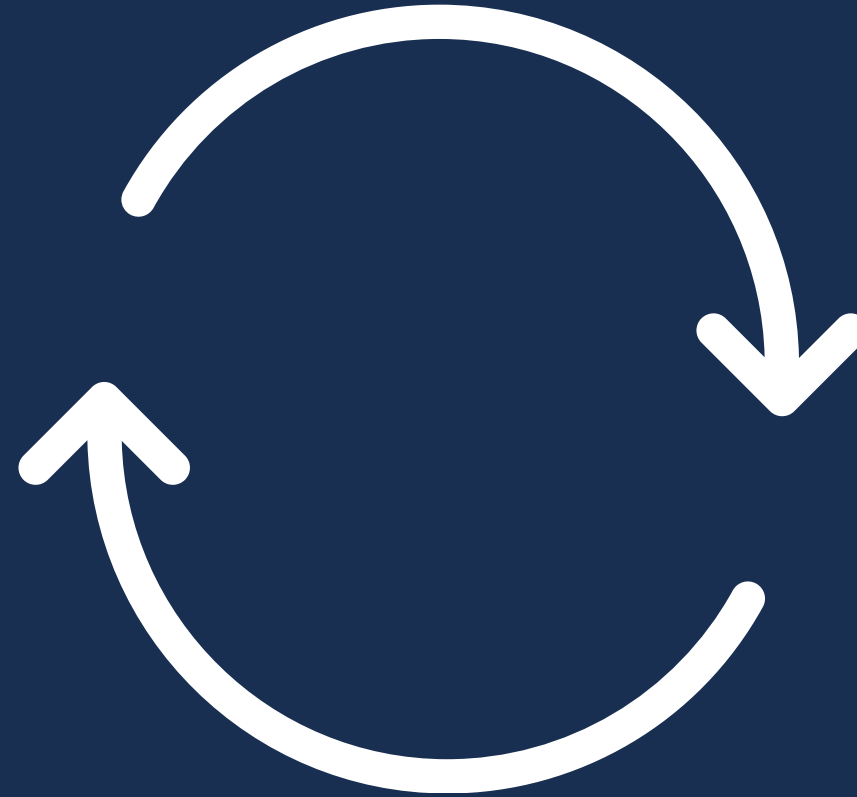
The Strategy for Change



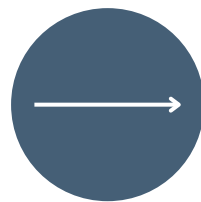


WHY

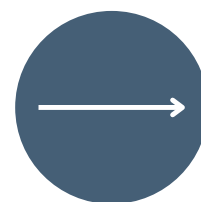
The Case for Change



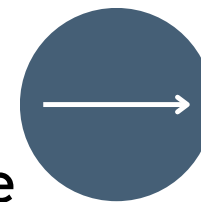
Call to Action
for Sustainable
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Resilient Care



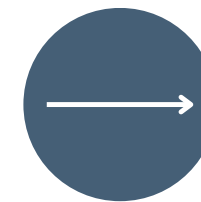
Climate Change,
Occupation and
Health Equity



Occupational
Therapy and
Climate Change



Occupational
Therapy as a
Means to
Sustainable Care



Occupational Therapy
can Prevent
Downstream, Carbon-
Intensive Care





Call to Action for Sustainable and Climate-Resilient Care



Our health and well-being are intrinsically linked to the health of the planet, yet health systems are contributing to carbon emissions that are adversely impacting human health (1).

Climate change is recognized by the World Health Organization (WHO) as a significant threat to human health in the 21st century with harms already evident and accelerating (2). Access to care and health services and systems are threatened by the impacts of climate change, including extreme weather events and climate-related stresses (3). The healthcare sector is a contributor to carbon emissions, further intensifying the effect of climate change. Canada has the second highest climate-intensive health system, on a per capita basis (1) estimated at 4.6% of national total greenhouse gas emissions (4).

Because healthcare and its services are carbon-intensive, it must play a part in curbing emissions. There is a critical need to mitigate a wide range of environmental harms from healthcare, while adapting to the health threats from these human-induced risks (1,5). Such actions can include front lining public health and health promotion services, conserving energy and resources conservation, optimizing waste management (including plastics), advocating for low-carbon transportation and service delivery methods and promoting use of sustainable materials/equipment for therapy sessions (6, 7). A shift towards sustainable health systems requires delivering care that mitigates harms to the health of the population and minimizes the depletion of resources that may hinder future health professionals from providing care (8).

CLIMATE-RESILIENT HEALTH SYSTEMS

Climate-resilient health systems “have the ability to anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stresses, so as to bring sustained improvements in population health, despite an unstable climate” (9, p. 44).

It is crucial to mitigate the risks associated with climate change by adopting a comprehensive approach that addresses both anticipatory and reactive measures. There is a call by the Canadian government to ensure the health of citizens through a climate-resilient and adaptive health sector (10).

RESOURCES:

- [WHO-Civil Society Working Group to Advance Action on Climate Change and Health: A Call to Strengthen Climate Change Education for all Health Professionals](#)
- [The 2023 report of the Lancet Countdown on Health and Climate Change: The Imperative for a Health-Centred Response in a World Facing Irreversible Harms](#)
- [International Hospital Federation: Navigating the Language of Environmental Sustainability](#)





Climate Change, Occupation and Health Equity



There is a bidirectional relationship between human occupation and climate change. Human occupation is the main driver of climate change and is pushing ecosystems to their limit (11).

Climate Change has Disproportionate Impact on Equity-Deserving Communities, Further Exacerbating Health Disparities. (3)

The June 2021 heat dome in British Columbia resulted in 619 deaths. 67% were over 70 years old, 56% lived alone, most had multiple chronic conditions, most died in homes with inadequate cooling systems and many lived in socially or materially deprived neighbourhoods (13).

See: [Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021](#)

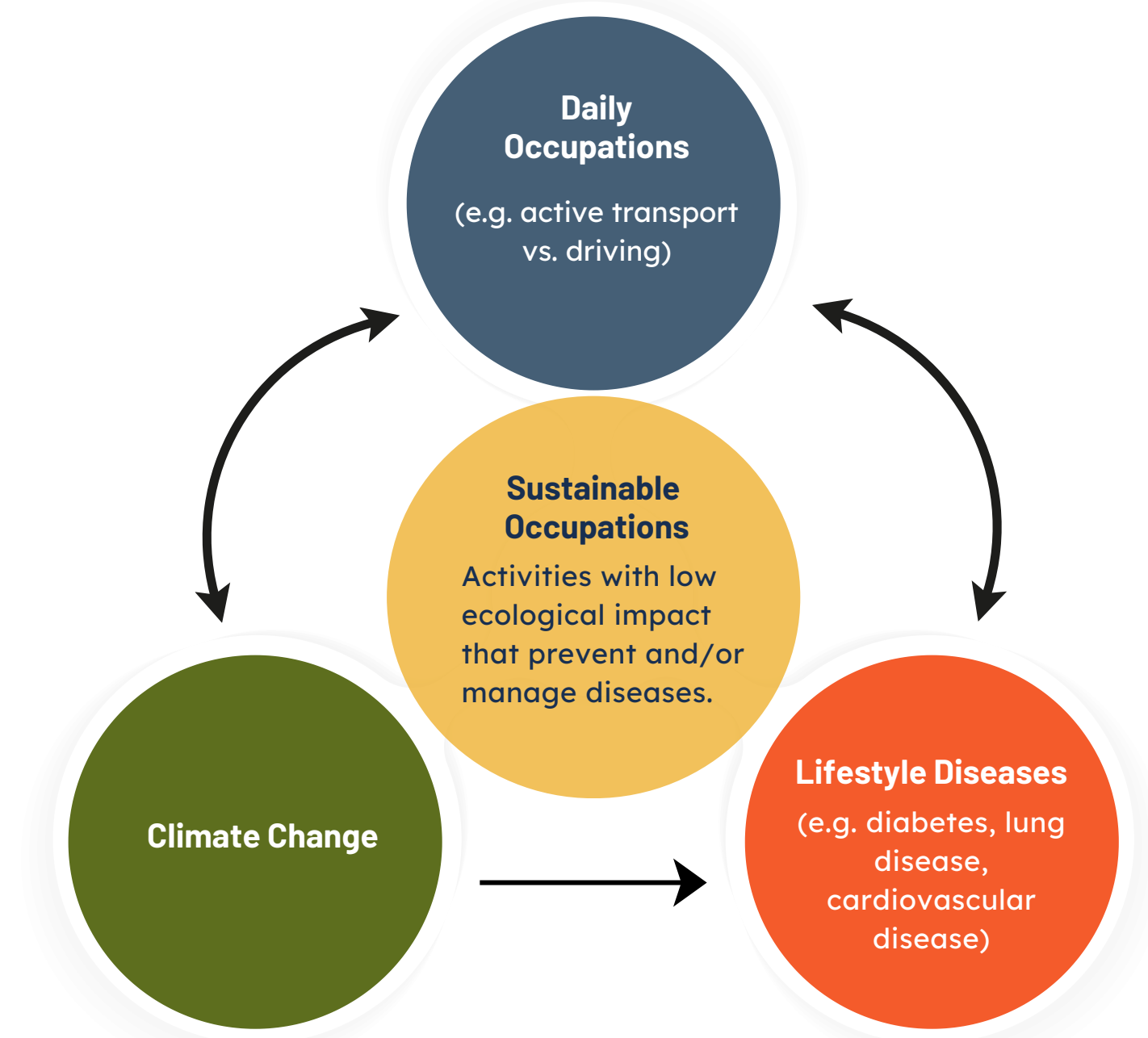


Figure 1. Highlights the relationship between daily occupations, climate change and disease prevention and management while emphasizing sustainable occupation as an adaptation strategy to mitigate carbon impact. Adapted from Garcia Diaz and Richardson (12, p. 993).





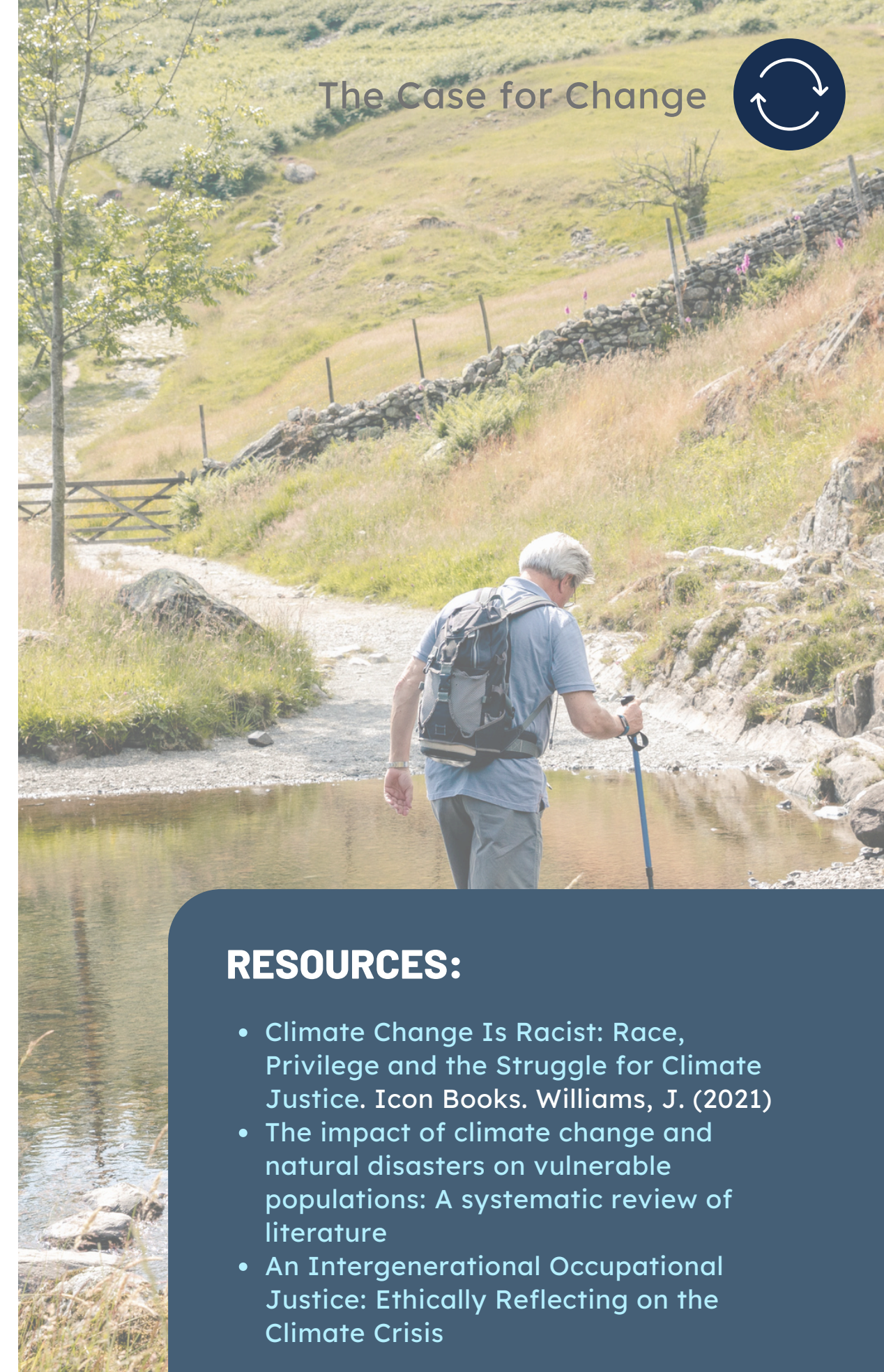
CLIMATE CHANGE AFFECTS SOCIAL AND ENVIRONMENTAL STRUCTURES

Individuals living in Canada face a wide range of direct and indirect health risks associated with climate change. These climate-related exposures include extreme heat events, floods, wildfires, ice storms, and droughts (14). Vulnerable groups face additional burdens as climate change can amplify existing health inequities already at play due to colonialism, racism, and inequitable distributions of resources (3).

These climate events can in turn affect environmental and social structures, impacting the following:

- Local/surrounding infrastructure
- Client safety and injury risk
- Water quality and security
- Infectious disease
- Food safety and security
- Air quality
- Mental health
- Health system resilience (14)

It is important to recognize that climate change poses a threat to the environmental and social structures, in which individuals engage in and may impede one's ability to participate in occupation (12).



RESOURCES:

- [Climate Change Is Racist: Race, Privilege and the Struggle for Climate Justice](#). Icon Books. Williams, J. (2021)
- [The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature](#)
- [An Intergenerational Occupational Justice: Ethically Reflecting on the Climate Crisis](#)





CLIMATE CHANGE IMPACTS ON OCCUPATIONAL PERFORMANCE & PARTICIPATION

Climate change can result in numerous modes of occupational disruption and dysfunction. The chart below outlines examples of how climate change can obstruct an individual's ability to perform and participate in occupation (15):

Occupational Alienation & Occupational Meaning	With the sheet ice melting, Inuit are not able to participate in culturally significant and life-supporting occupations such as travel and hunting (16). The occupations that remain available in their environment may not hold the same collective cultural significance or personal meaning.
Occupational Choice, Identity & Role	With fish stocks depleting, people living in maritime communities may need to find other income sources (17) and are forced to relinquish former occupational identities.
Occupational Deprivation & Occupational Participation	Climate change is projected to affect global food availability, as rising temperatures, changing precipitation patterns, extreme weather, droughts and rising sea levels could all directly damage crops and decrease yields (18). The resultant food insecurity can cascade to lost participation in vital daily occupations.
Occupational Balance/Imbalance	Extreme weather events can limit availability of outdoor and social activities (19), leading to an unbalanced, limited, or constrained occupational repertoire (20).
Occupational Injustice/Justice	Outdoor workers exposed to extreme heat (19) need protection and rights to ensure that they work under safer conditions.
Occupational Restructuring & Occupational Reconstruction	Displacement from homes and community, due to floods, fire, and other natural disasters (21), requires people to restructure patterns of daily living and reconstruct occupational identities and roles.
Occupational Performance & Occupational Engagement	An expected increase in traumatic musculoskeletal injuries relating to extreme weather conditions may limit performance of and engagement in important daily occupations of people (22).
Occupational Vulnerability & Occupational Resilience	The heat domes disproportionately impact the daily performance and participation of people of lower socioeconomic status (23), as they do not have infrastructure or financial resources to meet stressors due to heat.
Occupational Possibilities	In several Indigenous communities, climate change is depleting fresh water, traditional foods, and crucial resources, impacting emotional, mental, and spiritual well-being and contributing to the further disruption of cultures and ways of life (24).





Occupational Therapy and Climate Change

Occupational therapy deals with occupations (activities that occupy us) and assists people to restore their performance and participation in the occupations of their choice that have been disrupted.

Occupational therapy can offer services across the healthcare continuum including education on health promotion and injury prevention to public (e.g. older driver safety education and training, falls prevention education (25), sustainable lifestyle redesign (26)), acute & post-acute/maintenance treatment in hospital, home and community, including schools and workplaces (27).

Performing and participating in occupation results in resource consumption (28), and occupational therapy interventions can have short lifespans contributing to production of waste (29). For example, when occupational therapists support people to perform their self-care activities, additional consumption of water and energy is often required as well as reliance on products that may have a high carbon footprint (e.g. use of disposable incontinence products (30) or single use disposable meal packaging (31)). Fabricating a custom orthosis for someone who has sustained a hand injury will consume water and energy resources and rely on thermoplastic materials that have a high carbon footprint (32).

Occupational therapy is an area of opportunity for implementing sustainability practices and integrating climate conscious infrastructure. Occupational therapy practitioners have the opportunity to adapt services to mitigate healthcare's environmental impact, by, for example, helping clients co-create more sustainable occupational forms*/ patterns and exploring occupational choices and the relationship between occupation and ecology (33, 34).

* Occupational form consists of materials, meanings, and competencies. Materials are objects, infrastructures, tools, hardware, and the body itself; Meanings have social and symbolic significance of participation at any one moment in time; and Competencies are understanding, skills, and practical knowledge, ability and/or know-how (35).

The Case for Change



RESOURCES:

- [Why Occupational Therapists should Join the Fight Against Climate Change](#)
- [A Call for Sustainable Practice in Occupational Therapy](#)
- [Planetary Health & Sustainable Occupations](#)
- [World Federation of Occupational Therapists \(WFOT\): Sustainability Matters: Guiding Principles for Sustainability in Occupational Therapy Practice, Education and Scholarship](#)
- [The Adoption of Sustainable Occupational Therapy Practices to Combat Climate Change](#)





Occupational Therapy as a Means to Sustainable Care



Occupational therapy practitioners play a critical role in delivering sustainable care that promotes health to individuals and populations and protects the natural and social environment on which human health and well-being depends. Occupational therapy practitioners can promote a climate-resilient, low-carbon and sustainable health system, in four ways:

- 1) Reduce downstream healthcare expenditures (e.g. address [proximal, intermediate, and distal determinants of health](#)).
- 2) Reduce environmental harms of care and waste generated.
- 3) Design and create environmentally informed services that utilize nature-informed practices.
- 4) Adapt to the stresses of climate change, to build climate-resilient occupational therapy and provide anticipatory guidance to clients on occupational performance and participation. (6, 7, 26,28, 33, 34)

Four Principles of Sustainable Clinical Practice

UPSTREAM



DOWNSTREAM

These principles aim to decrease use of healthcare resources while enhancing client care. They are ranked based on their influence and significance:

Prevention: Efforts should be focused on preventing the need for healthcare by addressing the root causes of illness and inequalities. Providing upstream care can effectively reduce and prevent hospitalization and other healthcare costs.

Self-empowerment: Encouraging clients to actively participate in managing their own health and illness is crucial for better healthcare outcomes.

Lean service delivery: Professional services should be optimized for high value and efficiency, with a focus on minimizing wasteful activities.

Decarbonize services: Environmental impact should be taken into account when deciding on treatments and technologies. Consider low-carbon alternatives (8, 36)

RESOURCES:

- Sustainable Occupational Therapy Practice: Resource Map
- OT Conversations that Matter: The Podcast



PODCAST: EP 22
Planetary Health:
What role do we
play?



PODCAST: EP 24
How to practice
occupational
therapy sustainably?





SUSTAINABLE OCCUPATIONAL THERAPY TERMINOLOGY

Terms appearing in the occupational science and occupational therapy literature give descriptors of important concepts for occupational therapists to consider when delivering sustainable, climate-resilient services:

Ecopation

When the doer accounts for the environment in the relationship between occupation and eco-systems (37).

Intergenerational Occupational Justice

A vision that humans of today need to consider the occupational rights of future generations (38), which is acknowledged as a way of living that Indigenous Peoples have engaged in for centuries (39).

Sustainable Occupations

“Human activities with a low ecological impact that help to prevent and/or manage lifestyle diseases” (12, p. 993).

Occupational Stewardship

To advocate for a justice-oriented approach to promoting occupation for health without compromising the ecology (40).

A systems approach to making healthcare services more sustainable requires thinking more broadly and expanding efforts to shift towards system transformation. This involves considering what, who, when and where the service is delivered. There have been calls for healthcare reform in Canada, emphasizing health promotion strategies and optimizing a diverse range of non-physician, health human resources in supporting innovative and collaborative models of care (41). Some studies demonstrate the need for tools and resources to support occupational therapy practice as it relates to climate change (29, 42). The World Federation of Occupational Therapists (43) urges occupational therapists to offer sustainable care and states that addressing sustainability in occupational therapy is necessary to facilitate clients’ well-being and global well-being.



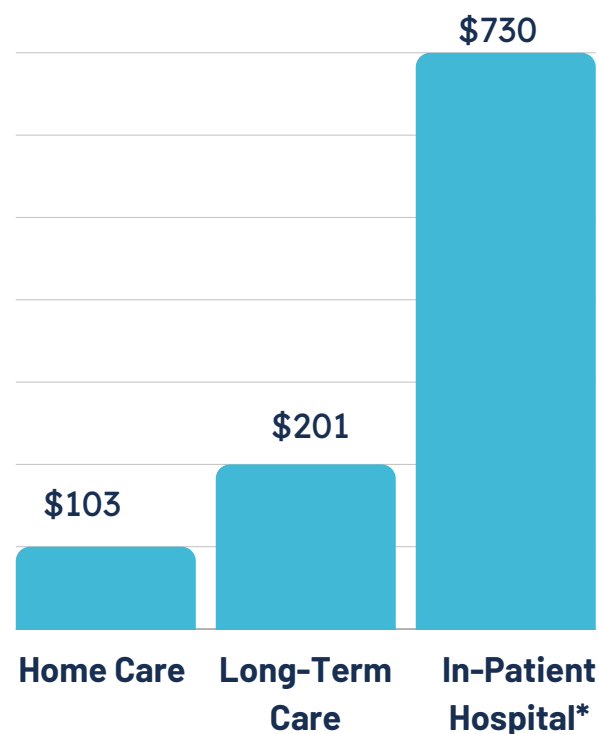


Occupational Therapy can Prevent Downstream, Carbon Intensive Care



When illness, injury or other life circumstances interrupt one’s ability to do what they need to and want to do in their daily life, occupational therapy can offer solutions to everyday things such as caring for themselves and/or others. Occupational therapy services offer upfront care, preventing downstream expenditures associated with higher carbon-intensive services such as acute hospital-based care (44, 45). Occupational therapy can reduce recovery time, prevent complications from acute and chronic conditions, and improve physical and mental well-being. It plays a crucial role in re-integrating people into work, community, and family life, reducing social isolation (46, 47, 48).

Cost of Care per Day for Individuals with Complex Needs in Canada



*Refers to the cost to support alternate level of care (ALC) patients in hospital. ALC patients stay in hospital until transferred to appropriate setting (e.g. LTC, chronic or complex continuing care) (49).

Challenges to Investing in Occupational Therapy

Limited Prioritization: Occupational therapy services are not at the forefront of healthcare. Approximately 10% of adults admitted to long term care (LTC) homes across Canada could potentially have remained at home if adequate home care and community-based supports were available (50).

Canada Health Act: The [Canada Health Act](#) ensures funding for 'medically necessary' services, but occupational therapy is often not considered medically necessary by provinces and territories.

Funding Challenges: Many essential occupational therapy services are not covered, leading to out-of-pocket payments or reliance on private insurance (51).

Barriers to Access: The reliance on private funding creates barriers to access, exacerbating health inequities and increased resource use within healthcare (52).

A Canadian study found that the carbon footprint of one hospital bed equals that of five households (53).





UTILIZATION OF OCCUPATIONAL THERAPY MAKES HEALTH SYSTEMS MORE SUSTAINABLE

“Prevention is widely recognized to be the most effective means of ensuring healthcare sustainability... but requires a paradigm shift away from a system focused on the treatment of illness to one dedicated to promoting health” (54, p.8).

The underutilization of occupational therapy services such as in cancer care (55) needs to be addressed. Embedding occupational therapy into interdisciplinary teams can be effective in prevention of downstream healthcare needs. There is an urgent need for accessible occupational therapy for the 8 million or 27% of Canadians aged 15 and older living with disabilities and also the growing aging population and those living with chronic and mental illness.(56) Occupational therapy interventions are cost effective and associated with clinical benefits, potentially reducing need for unnecessary carbon- intensive healthcare resources.

Canadian Association of Occupational Therapists (CAOT)

The annual cost of treating a hip fracture ranges between \$26 000 - \$47 000 (57) - falls are the leading cause of hospital admissions for people 65 years and older in Canada, yet fall-related injuries are preventable (58). The use of occupational therapy assessments and interventions are associated with a 25 to 41% reduction in falls and accidents at home. (57)

Royal College of Occupational Therapists (RCOT)

A 2016 report from Britain found that utilizing occupational therapy can do the following:

- Reduce hospital stay from 9.5 days to 1 day on acute floors.
- Reduce falls by 67% in care homes.
- Prevent 70% of patients from transferring from the emergency room (ER) to acute floors. (59)



RESOURCES:

- Occupational Therapy: Improving lives, Saving money and Reducing Carbon

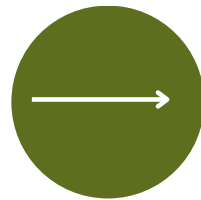




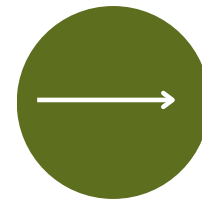
WHAT

The Tools for Change

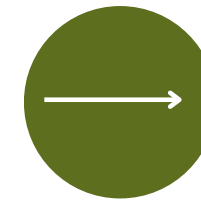
Prevent Health Service Use



Reduce Impact of Resource Use



Design and Create Environmentally Informed Practices



Adapt Practice





Action Areas for Sustainable Occupational Therapy



This section provides an overview of sustainability opportunities in occupational therapy listed below as ‘action areas’ and organized into four broad categories.

Prevent Health Service Use

Action 1: Understand and promote the role of occupational therapy in preventing the need for downstream health service use

Action 2: Use an anti-oppressive lens when designing and implementing services

Action 3: Build individual, community, and population resilience

Reduce Impact of Resource Use

Action 4: Sustainable operations

Design and Create Environmentally Informed Practices

Action 5: Connect people to nature

Action 6: Use biophilic design

Action 7: Use biomimicry

Action 8: Promote sustainable occupational performance

Adapt Practice

Action 9: Prepare your practice for climate events

Action 10: Provide anticipatory guidance





Prevent Health Service Use



ACTION 1: UNDERSTAND AND PROMOTE THE ROLE OF OCCUPATIONAL THERAPY IN PREVENTING THE NEED FOR DOWNSTREAM HEALTH SERVICE USE

Any occupational therapy service that reduces expenditures downstream (e.g. minimizing visits to the emergency room, hospital admissions, pharmacological and/or surgical interventions) will have a lower carbon impact.

HEALTH PROMOTION & INJURY PREVENTION

Utilization of occupational therapy can contribute to reducing use of carbon-intensive health services by means of providing upstream care and can consequently reduce and prevent hospitalization and other healthcare related costs. Some examples are lifestyle redesign for healthy population (60), falls prevention (46), stroke rehabilitation, early intervention in developmental disabilities and childhood mental health, respiratory rehabilitation, home care (47), and older driver assessment and retraining (61).

DISEASE SELF-MANAGEMENT

Chronic conditions are the leading cause of death and disability (62). Occupational therapy services can aid in preserving occupational performance and participation for people living with chronic diseases, as well as hospital avoidance (63). Some examples include lifestyle redesign (64), metacognitive performance-based approaches (48), energy conservation techniques, pacing, stress management, exercise, sleep hygiene, and pain management (65, 66).



Occupational Therapy in Chronic Disease Management

In 2015, the Norwegian Parliament mandated that all municipalities employ occupational therapy professionals to help manage long-term chronic health conditions in the community (67).





HOSPITAL (RE)ADMISSION AVOIDANCE (INCLUDING ERS)

Increased spending on hospital-based occupational therapy services is associated with lower readmission rates. Research indicates that increased spending on occupational therapy is the sole category that lowers hospital readmission rates for heart failure, pneumonia, and acute myocardial infarction.(44) This finding may be attributed to occupational therapy’s distinct and prompt attention to patients’ functional and social needs, critical factors that could drive readmission if neglected.

Mobile Integrated Health (MIH): MIH teams may help avoid unnecessary hospitalization. The Niagara Region has been successful in the delivery of a falls intervention team that responds to 9-1-1 calls with a paramedic and an occupational therapist. These teams offer low cost, high impact care, minimizing paramedic off-load delays, ambulance usage, and reducing hospitalizations. (68)

Geriatric Rapid Rehab Programs (GRRP): GRRP offer promising practice to avoid readmission and repeat visits to the ER. Occupational therapy services embedded into a multidisciplinary rehab team high-intensity program provides a s successfully transition from the emergency department and back to their homes, remain living independently, and avoiding admission and repeat visits to the emergency department.(69)

Activities of Daily Living (ADL) Training Programs: The Community Aging in Place, Advancing Better Living for Elders (CAPABLE) offers evidence-based model of care that decrease falls and hospitalizations.(70) CAPABLE is a 16-week structured program delivered by occupational therapists, nurses and a handy person conducts home visits to offer ADL training, install devices, make environmental modifications, and perform home repair.(70)



Enabling Occupation in Children

An occupational therapist observed that many students, who were referred to her services due to difficulties in the classroom came to school with lunches with low nutritional value. She subsequently founded P.R.O.D.U.C.E (Providing Remarkable Opportunities Dedicated to Unearthing Children’s Education), a program that offers fresh, nutritious food options, as well as promote life skills development. (71)





OCCUPATIONAL THERAPISTS AS MENTAL HEALTH SERVICE PROVIDERS

Climate change increases existing mental illness (3, p. 26). Occupational therapists can offer community-based, non-pharmacological mental health interventions to prevent overextending emergency rooms and hospitalizations (72).

Occupational Therapy and Mental Health

Recently, South Korea revised legislation to include occupational therapy services as required mental health service personnel (67).

The Ontario Association for ACT and FACT (OAAF) is a voluntary organization of Assertive Community Treatment teams (ACT) and Flexible Assertive Community Treatment (FACT) identifies occupational therapists as required members of ACT teams (73).

Mental Health Management Care

- Support employment/ education
- Performance-base metacognitive strategy
- Psychoeducation
- Creative occupation/activity groups
- Time use/occupational balance skills training
- Skills/habit development
- Group/family approaches
- Animal-assisted therapy (72)
- Connect people to nature (see: [Action 5](#))

RESOURCES:

- Public Health and Prevention, NHS
- Exploration des rôles actualisés et potentiels de l'ergothérapeute dans la gestion de l'écoanxiété [essai de maîtrise en ergothérapie, Université du Québec à Trois-Rivières]. (Dec 2021)
- Exploration des rôles actualisés et potentiels de l'ergothérapeute dans la gestion de l'écoanxiété : Implications pour la profession [essai de maîtrise en ergothérapie, Université du Québec à Trois-Rivières]. (Dec 2022)
- Accompagner les personnes éco-anxieuses : perceptions d'ergothérapeutes du Québec. Revue ergOTHérapie, la revue de l'Association nationale française des ergothérapeutes. Drolet, M-J., Demers, S., Hurtubise, C., & Falardeau, M. (in press).





ACTION 2: APPLY AN ANTI-OPPRESSIVE LENS WHEN DESIGNING AND IMPLEMENTING SERVICES



“Existing health inequities could be made worse unless future adaptation and greenhouse gas mitigation efforts are designed to address them. Redressing inequities and strengthening determinants of good health, such as improving access to health care and housing quality, can help reduce the impacts of climate change on individual health” (3, p. 12).

Recent competencies for occupational therapy practice in Canada emphasized the need to promote equity through anti-oppressive, and culturally safer practices, stressing the importance of occupational therapists being conscious of their personal identities that result in both privilege and oppression. Occupational therapists need to address inequity and oppression within the domains they can influence. (74)

Occupational therapists must understand how social, structural, political, and ecological determinants of health impact occupational possibilities and how climate change disproportionately impacts people in marginalized communities. For example, colonialism has affected ecological systems, which Indigenous Peoples relied on for health, economies, cultural practices, and self-determination.(3) Occupational therapists must understand that First Nations, the Métis, and Inuit each experience disproportionate impacts from climate change (e.g. lack of clean drinking water, food insecurity, health inequities) caused in part by historic and ongoing government practices and policies that disrupt occupational possibilities.

Addressing climate change through an anti-oppressive lens can be enacted by the following:

- Identifying the effects of colonization and settlement on occupational possibilities and services for Indigenous Peoples.
- Analyzing the effects of historical and ongoing systemic factors on people, groups, and their occupational possibilities.
- Challenging biases and social structures that privilege or marginalize people and communities.
- Responding to the social, structural, political, and ecological determinants of health, wellbeing, and occupational possibilities.
- Working to reduce the effects of the unequal distribution of power and resources on the delivery of occupational therapy services.(74)





“Climate change is not the only dimension of sustainability... but also inequity, poverty and injustice... vulnerable and disenfranchised people are most exposed to disaster [from climate events]” (75, p.2).

Consider using a sustainability lens when planning new services or evaluating current services. For example, consider how services are designed, who does it serve and don't serve, who can access the service, and what societal patterns of privilege and oppression are reinforced (e.g. racism, ableism, ageism). How might you alter the delivery and/or redesign of the service to be more equitable? Planning can also include partnering with underserved populations (See: [My role in tackling health inequalities A framework for allied health professionals](#)).

Ask, if your services do the following,

- Prevent downstream care?
- Promote self management/self empowerment?
- Offer lean, minimal waste services?
- Minimize carbon emissions?
- Create net positive outcomes in human and environmental wellbeing, for now and in the future?

(Adapted from 8, 38)



RESOURCES:

- Indigenous Peoples and Occupational Therapy in Canada: A scoping review
- My role in Tackling Health Inequalities: A Framework for Allied Health Professionals
- Repérer et combattre le capacitisme, le sanisme et le suicidisme en santé
- Occupational Justice—Colonial Business as Usual? Indigenous Observations from Aotearoa New Zealand.





ACTION 3: BUILD INDIVIDUAL, COMMUNITY AND POPULATION RESILIENCE

The health impacts of climate change will be “determined mainly by the vulnerability of populations, their resilience to the current rate of climate change and the extent and pace of adaptation” (76).

Occupational therapy can play a role in increasing community resilience and promoting local assets by:

- Connecting people to transit and community spaces,
- Helping people with transitioning living supports to ensure they can live in the community of their choice,
- Working with communities to reduce structural barriers in society, which limit people’s ability to participate in meaningful occupations (77).

Occupational therapists can work with community partners to build resilience and promote sustainable occupational performance and participation by:

- Increasing community access to health and sustainable food sources (3),
- Maximizing social inclusion in playgrounds (78) and in community cycling (i.e. Cycling Sisters program (79),
- Modifying built environments in public spaces to enhance occupational participation (80),
- Addressing homelessness (81),
- Addressing social isolation and exclusion and physical and cognitive accessibility for older adults (82),
- Promoting and advocating for active transit such as bike matching programs (83), walking programs (84), and public transportation training programs (85),
- Modifying vehicles to achieve greater social and economic inclusion for people with disabilities (86).



Community Garden Builds Inclusion

French occupational therapists created a partnership between a mental health day hospital and an urban agriculture association. They proposed gardening within a shared space as a tool for social inclusion. People attending the day hospital participated in the community garden as a therapeutic approach to health and wellbeing, and they were encouraged to continue post discharge.

RESOURCES:

- The Participatory Occupational Justice Framework as a Tool for Change: Three Contrasting Case Narratives





Reduce Impact of Resource Use



ACTION 4: SUSTAINABLE OPERATIONS

Many changes need to occur in the delivery of services to reduce their impact on the climate. These changes include offering low waste, high value, low-carbon services and preparing for extreme climate events. High value care is what is necessary, what matters, and what is relevant, as well as minimizing unnecessary care (87).

Occupational therapy professionals need to consider the financial, environmental, and social costs of care and identify and act on sustainable practice opportunities (7, 12, 29). Consider how to reduce inputs (energy, time, social costs) and minimize waste outputs. To reduce the effects of climate change and its health impacts, services must be implemented that reduce harm to individuals, communities, and the environment, recognize systems of oppression, and challenge discrimination and inequity (6, 7, 26, 28).

ELIMINATE LOW-VALUE ACTIVITIES

Ensure the services delivered are of high value and will deliver optimal results for your clients. For example, consider where/when it is appropriate to offer digital/virtual care to reduce travel needs and other social and financial costs (88).

Why being admitted to hospital in B.C. may soon mean being sent home instead

Digital transformation and the application of technology





REDUCE ENVIRONMENTAL IMPACT OF RESOURCES AND EQUIPMENT

- Switch from high environmental impact products to lower impact alternatives where appropriate (89).
- Incorporate environmental considerations when prescribing assistive devices (89).
- Adopt green purchasing strategies (89).
- Conduct energy audit of workspace (89).
- Go paperless (90).
- Consider virtual care where appropriate (90).
- Consider low-carbon transport (i.e. public transit, cycling, electric car) (89).
- Implement best practices in infection control and cleaning (89).
- Understand the carbon impact of choices on data storage, e.g. consider hosting data in low-carbon efficient data centres (typically cloud), consider how long data is stored for (particularly imagery and video) (90).
- Provide education to clients about what to do when assistive devices are no longer needed. For example, donate to local society that accepts medical equipment, such as the Red Cross, ALS Society of Canada (91).

Occupational therapists may need to consult with suppliers for less environmentally harmful products (non-plastic alternatives). Splinting materials can cause environmental harm. These harms include the carbon footprint of the thermoplastics manufacturing, the shipping of thermoplastics, and the energy and emissions of gases when heating and working with thermoplastics. Occupational therapists may need to consider alternatives for clients who live 'plastic-free'. Such alternatives include prefabricated splints and splints made from non-plastic materials (post-consumer recycled materials) (32).



Sustainable Orthoses

An occupational therapist from France used an alternative method to create orthoses, eliminating the need for water use in the process. It was reported as being more energy efficient, having less risk of bacterial contamination among clients, being better for joint health of therapists while cutting the material and avoiding the use of plastics.

Occupational therapists at a hand therapy clinic in the UK reduced thermoplastic waste by 54% after introducing a wood-based material for splinting.





REUSE AND/OR RECYCLE DURABLE MEDICAL EQUIPMENT

Reusing walkers, bath benches, wheelchairs, and other durable medical equipment provides an excellent opportunity for carbon savings due to the high greenhouse gas intensity of aluminum and plastics manufacturing. In addition to reducing carbon emissions, increasing the amount of medical equipment that are returned and reused can also help improve access for clients and save money (6, 92).

Red Cross Health Equipment Loan Program

The Canadian Red Cross [Health Equipment Loan Program \(HELP\)](#) offers health equipment to individuals recovering from illness or injury. Healthcare professionals can make referrals to the Canadian Red Cross, where clients can receive the health equipment needed to meet their safety needs.

The Tools for Change



RESOURCES:

- [Reducing the Environmental Impact of Equipment, Medicines and Resources, NHS](#)
- [Aides Techniques](#)
 - French text, English version will be published soon
- [Impression 3D d'aides techniques en ergothérapie](#)
- [Prescription des aides techniques par les ergothérapeutes](#)
- [Green Office Toolkit: For Clinicians and Office Managers](#)
- [The Path to Carbon Neutral: A Guide to Building a Climate-Smart Health Care System](#)
- [Being a Greener AHP](#)
- [Climate Action Embedded into OT practice: Thoughts for your OT Students](#)
- [Greening Placements and Practice: Occupational Therapists' Guide to Reducing Plastic Use](#)





Design and Create Environmentally Informed Practices

ACTION 5: CONNECT PEOPLE TO NATURE

Creating well-designed green spaces and encouraging people to use it can provide a triple win, by improving environmental sustainability, improving health, and improving health equity (93).

Learning from and interacting with nature has numerous benefits to our health and well-being. Just as occupational therapy uses occupation as the means and outcome of our therapy, we can look to nature as a therapeutic agent (e.g. connecting people with nature) and for designing solutions to lessen the impact of occupational performance and participation on the planet.

There are documented benefits to health and well-being from participating in outdoor natural environments (94, 95, 96). Occupational therapists can enable people living with disabilities to participate in occupations in natural spaces by:

- Improving accessibility to and within blue and green spaces (97),
- Adapting occupations such as paddling (98) and sailing (99),
- Promoting and implementing therapeutic activities within outdoor spaces, such as green walking programs and gardening (100).



The Tools for Change



RESOURCES:

- [Engaging with Nature and the Outdoors: A Scoping Review of Therapeutic Applications in Contemporary Occupational Therapy](#)
- [Green Walking Program, Centre for Sustainable Health Systems](#)
- [Children Nature Network](#)
 - [Resources to Connect Children, Families and Communities to Nature](#)
- [Park Prescription](#)
 - [Sign up as a prescriber can give your clients free or discounted passes to nature parks and attractions](#)
- [The Many Benefits of Being Active in Ontario's Greenspace \(infographic\), Mood Walks](#)
- [The Benefits of Nature, Mood Walks](#)
- [Communauté ergothérapique engagée pour l'équité et l'environnement](#)





ACTION 6: USE BIOPHILIC DESIGN

Biophilic design “can reduce stress, improve cognitive function and creativity, improve our well-being, and expedite healing” (101).

Biophilic design incorporates nature into built environment. It includes environmental modifications that considers the nature **of** the space and nature **in** the space. Occupational therapy can incorporate the fourteen patterns of biophilic design in treatment spaces, schools, and places of employment to improve health and well-being through the built environment (101).

SPACE TO BREATHE: STUDY SHOWS VALUE OF NHS GREEN SPACE FOR STAFF WELLBEING

“Large majority of staff (83-89%) said they would like to spend more time in green space at their site than they currently did”

Research from the Centre for Sustainable Healthcare highlights that presence of green spaces on hospital grounds plays a crucial role in promoting the well-being of staff members (102).

14 Patterns of Biophilic Design

Nature in the Space Patterns

1. Visual Connection with Nature
2. Non-Visual Connection with Nature
3. Non-Rhythmic Sensory Stimuli
4. Thermal & Airflow Variability
5. Presence of Water
6. Dynamic & Diffuse Light
7. Connection with Natural Systems

Natural Analogues Patterns

8. Biomorphic Forms & Patterns
9. Material Connection with Nature
10. Complexity & Order

Nature of the Space Patterns

11. Prospect
12. Refuge
13. Mystery
14. Risk/Peril

Adapted from [Terrapin Bright Green](#)



RESOURCES:

- [Biophilic Design Toolkit](#)



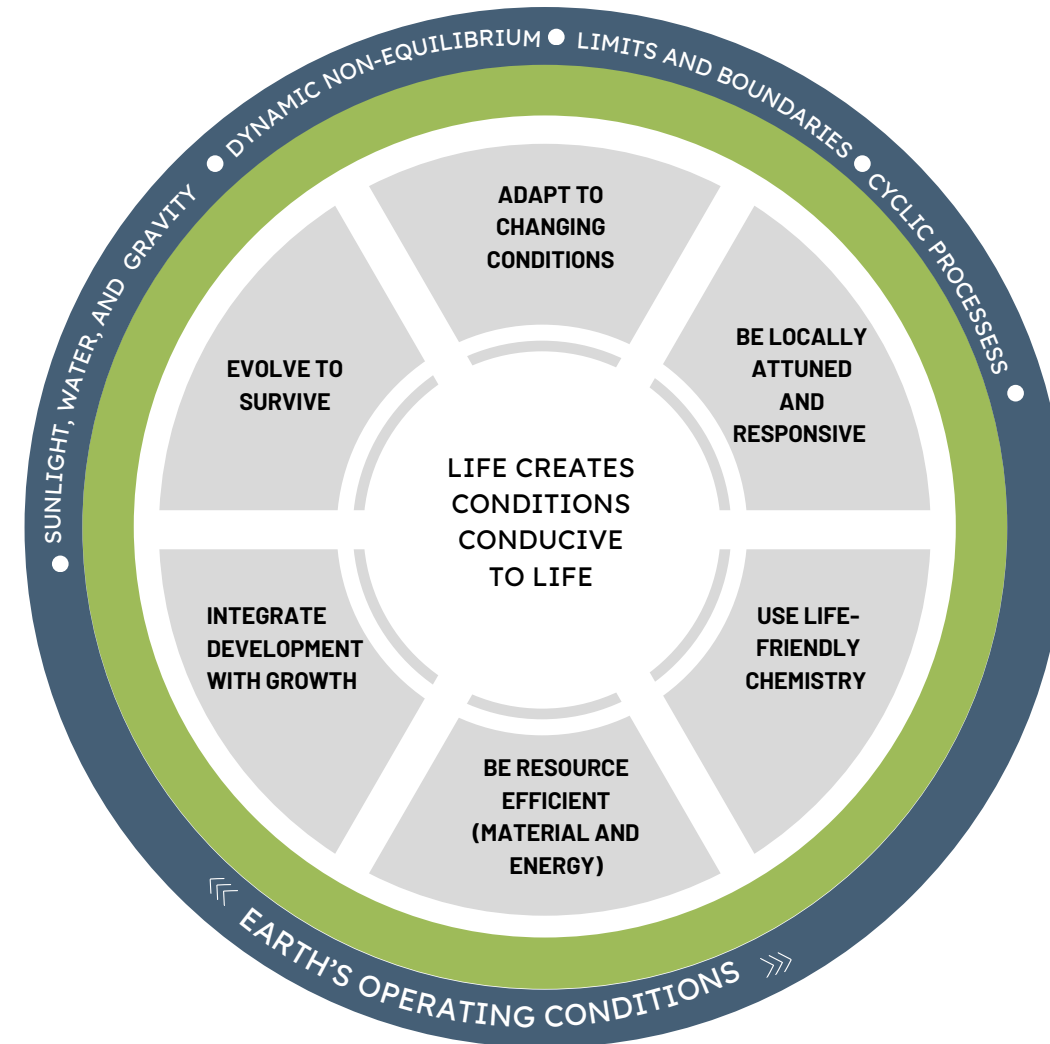


ACTION 7: USE BIOMIMICRY

Biomimicry is the practice of applying lessons from nature to the invention of healthier, more sustainable technologies for people (103). It is a (re) emerging discipline rooted from ancient practices prevalent in many Indigenous cultures (104).

Through the science and practice of biomimicry, occupational therapists can draw upon nature's features and life strategies to design treatment programs that promote occupational participation and self-management of conditions within an ecological context (e.g. children observing how insects in a natural environment move into sheltered spaces to protect themselves from harm). Children living with anxiety disorders have used these observations to create their own self-management strategies to be applied in their settings (school, home) when under stressful situations (105).

Biomimicry and biophilic design are practices that are designed to reconnect people with nature: biophilic design is about bringing nature and its health benefits inside; and biomimicry is about reconnecting with nature to learn from nature and how to design healthier and sustainable produces, processes and systems. Both biomimicry and biophilic design can be used to create innovative approaches to occupational therapy, e.g. NatureBrain TM (106).



Adapted from [The Biomimicry Life Principles](#)



RESOURCES:

- [The Biomimicry Life's Principles Explained](#)
- [The Complete History of Biomimicry \(with Examples\)](#)





ACTION 8: PROMOTE SUSTAINABLE OCCUPATIONAL PERFORMANCE

Environmentally informed occupational therapy is an approach rooted in the evidence showing that what’s good for the environment is also good for human health and well-being. (26) Occupational therapists can help “find parts of people’s goals, routines or contexts that can be more environmentally sustainable, while also improving health” (26, p. 32). Expanding this view of environmentally informed occupational therapy to include social and economic dimensions into professional reasoning will enable the promotion of sustainable occupational performance (92). Considering the complex environmental (e.g. energy use, greenhouse gas emissions), economic (financial costs), and social (client, key stakeholders, social determinants of health) dimensions will help deliver services to meet clients’ occupational needs without negatively impacting others, or the environment now or in the future (107).

“When a client’s goals align with sustainable actions, the occupational therapist can help people understand the sustainability impact of their actions and occupations which may increase their motivation for adapting and engagement in healthier lifestyle patterns” (26, p. 32). Occupational therapists can help people examine the occupational form of their daily activities and co-create more sustainable ways of doing that support increased occupational performance (for example, see figure : The case for laundry).



RESOURCES:

- Sustainable Occupational Responses to Climate Change through Lifestyle Choices





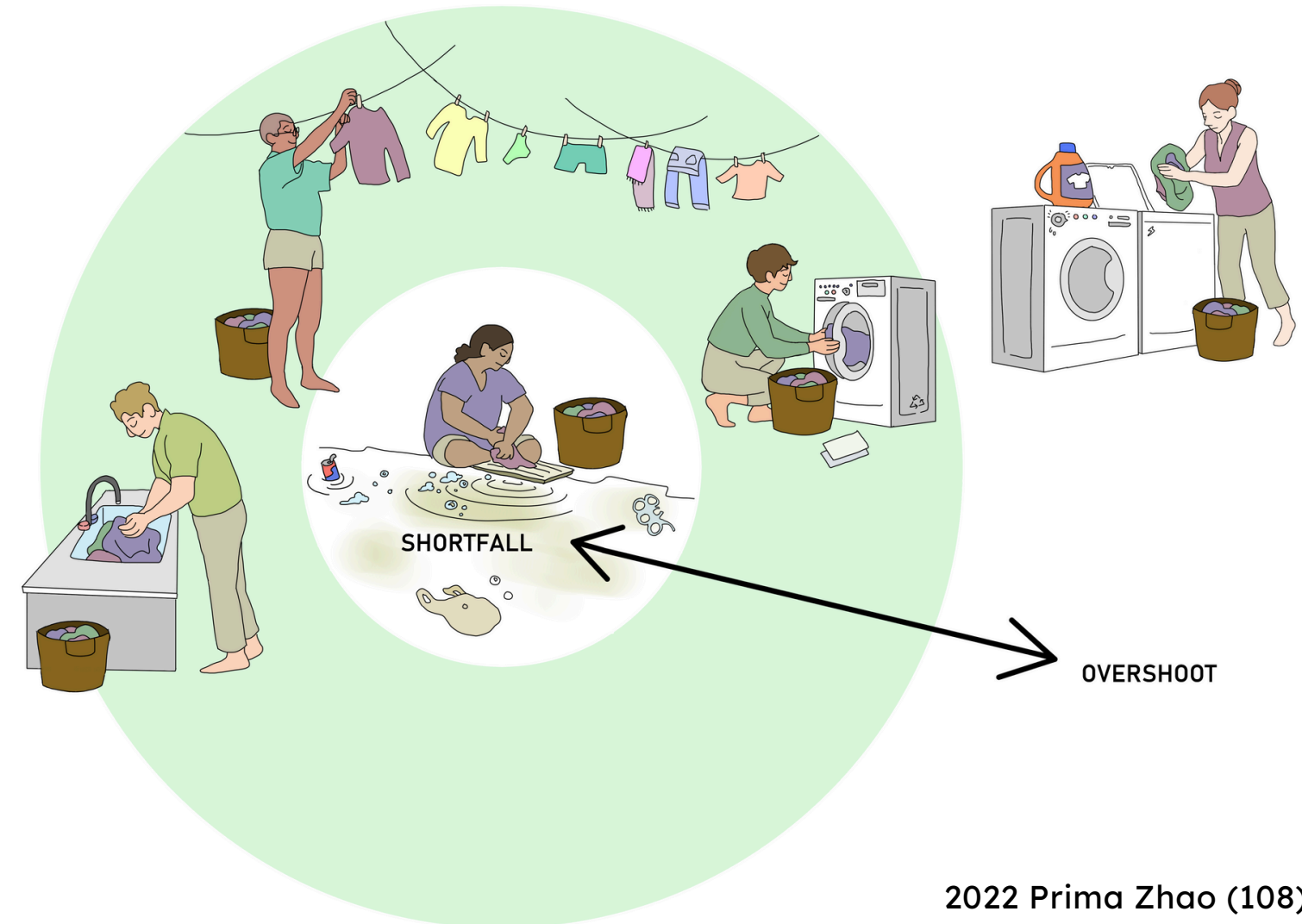
ASSESSING OCCUPATIONAL FORM THROUGH A SUSTAINABILITY LENS



Using [Raworth's Doughnut Model](#), the occupational performance of laundry in its various forms can be mapped out, and one can examine the potential social shortfall and ecological overshoot of each occupational form.

The occupational form (35) in the green ring (place for safe and sustainable living) shows people washing laundry by hand in a sink, using laundry detergent sheets in the washer, and hanging clothes to dry. These images demonstrate how 'laundry' can be done keeping within the ecological ceiling by reducing energy use and being supported by social and economic systems. Hanging laundry to dry is an example of using nature, sun and wind, to do the work of a dryer.

The image in the centre demonstrates a person doing laundry in a polluted river; the potential harms and exposures in performing this occupation may exacerbate health problems, occupational potential, and reproduces stigma and oppression. She uses little energy and therefore stays within the ecological ceiling, but she is not supported by social systems (access to clean running water in the home) to allow her to do laundry in a safe and just place. The person in using the electric washer and dryer is supported by social systems and has the economic means to do laundry with an electric washer and dryer but is at risk of overshooting the ecological ceiling.



2022 Prima Zhao (108)





“In order to build a sustainable future, we have to think about both how to use and how not to use our limited energy and resources” (109 p.27).

Focusing on the occupational form or the elements of occupations (materials, meanings, and competences) shifts focus away from problematizing the individual to examining occupational practices and their elements (35). Occupational therapists can help people change the elements of occupation to ensure occupational performance and participation occurs within the ecological ceiling and social foundations (108).

In addition to promoting environmentally sustainable occupational performance and participation, the NHS England suggests allied health professionals, including occupational therapists enable the use of sustainable food systems and be agents for change by reducing food waste and promoting healthy and low-carbon diets (110).

Occupational Engagement Intervention: Lifestyle Redesign®(LR)

LR is an occupational therapy intervention that enables the acquisition of health-promoting habits and routines in daily life (111). LR was originally designed as a prevention intervention for healthy older adults and has been used to serve people living with chronic pain, obesity, diabetes, and mental health conditions and is now used to build healthier and sustainable lifestyles (26).



RESOURCES:

- One Blue Dot
 - the British Dietetic Association’s Environmentally Sustainable Diet Project





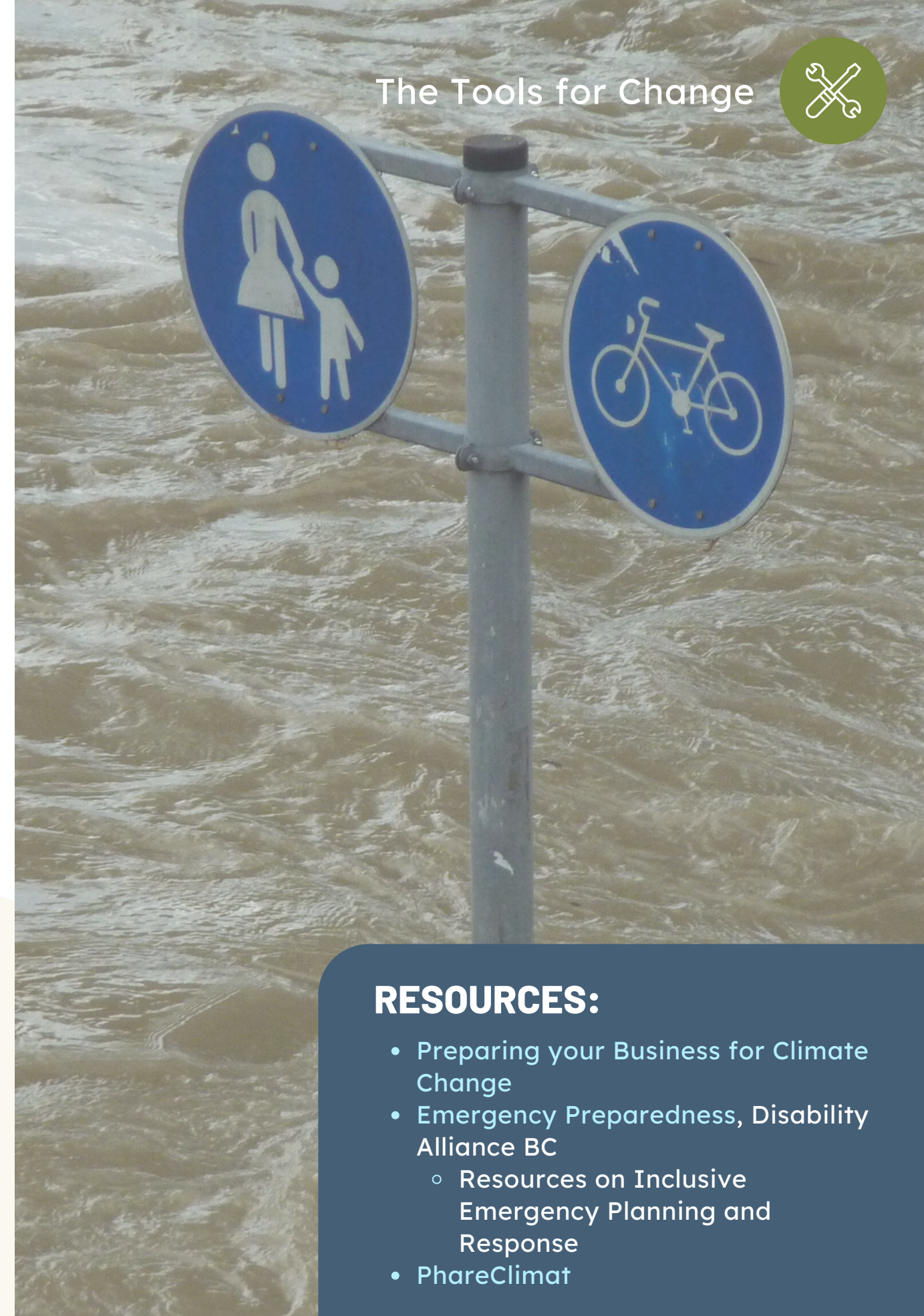
ACTION 9: PREPARE YOUR PRACTICE FOR CLIMATE EVENTS

Review your services emergency preparedness plan to ensure continuity of care during or after climate events.

Educate yourself of the impacts of climate change on your services and occupational performance and participation of the clients and communities you serve. Educate yourself and share knowledge with teams and clients, anticipate how climate events may impact occupational performance and participation and what guidance you can provide clients to prepare for the event (10).

Ice storms prompt changes at CAOT

With an increase in climate events, such as ice storms, the CAOT changed existing policies and practices to ensure all staff had a laptop and all documents were moved to a cloud-based server. These changes enabled all staff to work from home during climate events with minimal disruptions to services provided (112).



RESOURCES:

- [Preparing your Business for Climate Change](#)
- [Emergency Preparedness, Disability Alliance BC](#)
 - [Resources on Inclusive Emergency Planning and Response](#)
- [PhareClimat](#)





ACTION 10: PROVIDE ANTICIPATORY GUIDANCE

“Persons with disabilities face greater climate risks, including increased fatality rates from extreme weather events ... take proactive, risk-based measures to reduce climate impacts before they occur” (10).

The Government of Canada encourages all people to be prepared to cope for at least 72 hours following an emergency (113).

Occupational therapists may help people living with a disability to create bespoke plans for emergency preparedness and evacuation (including access to emergency alert systems) (40). Occupational therapists can ensure people have adequate home maintenance to reduce the risk of extreme heat, flood, or fire. Occupational therapists can ensure people have access to operations to control heat and airflow, such as windows, AC/heating units, and window coverings (114).

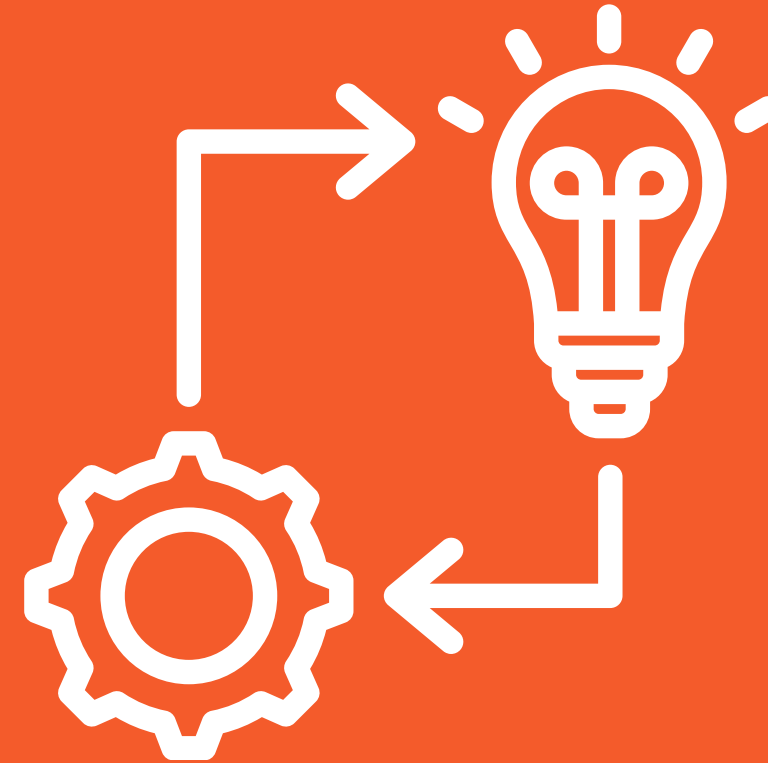
Consider the need for backup power for people who rely on power mobility devices and assistive technology in their homes, work and school when recommending equipment and technology. When occupational therapists are involved in major home modifications or new builds, they should factor in heating and cooling systems for extreme heat, flood/fire protection (114) for those with limited mobility.



RESOURCES:

- [Disability Rights in Canadian Climate Policies.](#)
 - [Emergency preparedness guide for persons with disabilities/special needs](#)
- [World Federation of Occupational Therapists \(WFOT\)](#)
- [Get Prepared, Government of Canada](#)
- [Intact Centre on Climate Adaptation \(Infographics\)](#)
- [Coping with Crisis, Canadian RedCross](#)





HOW

The Strategy for Change





Six action domains provide guidance for how occupational therapy can promote health for individuals and populations and protect the natural and social environments, on which human health and well-being depend, and build resilience for sustainable health systems:

Educate

Learn about climate change and how it impacts health, well-being and occupational participation.

Advocate

Raise awareness of climate change and support health system transformation.

Incentives

Reward and recognize exceptional efforts in sustainable care.

Collaborative Partnerships

Amplify your climate action efforts by joining others to create and act on solutions for a better future.

Quality Improvement

Embed sustainability as a quality measure in quality improvement frameworks.

Leadership & Governance

Lay the foundation for high-quality, low-carbon, sustainable, and climate-resilient health systems.





Educate

“...it may be appropriate for occupational therapy practitioners to expand their way of knowing to encompass multiple epistemologies, including non-Western ways of thinking” (115, p.3-4) .

Lack of knowledge or awareness among those working in healthcare systems is the most described barrier to sustainable practices in health systems (116, p. 7). Therefore, every health profession needs to embed sustainable healthcare education in entry- level curricula and continuing professional development. Pathways to enable this include the following:

- Prepare educators to teach sustainable healthcare.
- Thread sustainability into core entry-level education. Not as an elective or separate module but embedded throughout the curriculum.
- Incorporate [WFOT Sustainability Guiding Principles](#) in occupational therapy curricula.
- Include in accreditation standards (in knowledge domains and value domains).
- Offer continuing professional development in sustainability through national and provincial associations.
- Incorporate non-Western knowledge and practices.



RESOURCES:

- [The Sustainability Tracking, Assessment & Rating System \(STARS\)](#)
 - is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance
- [Planetary Health Report Card Initiative](#)
- [The Planetary Health Education Framework](#)
- [Education for sustainable healthcare within UK pre-registration curricula for allied health professions, Council of Dean's Health](#)
- [Sustainable Healthcare Education Network, The Association for the Advancement of Sustainability in Higher Education \(AASHE\)](#)





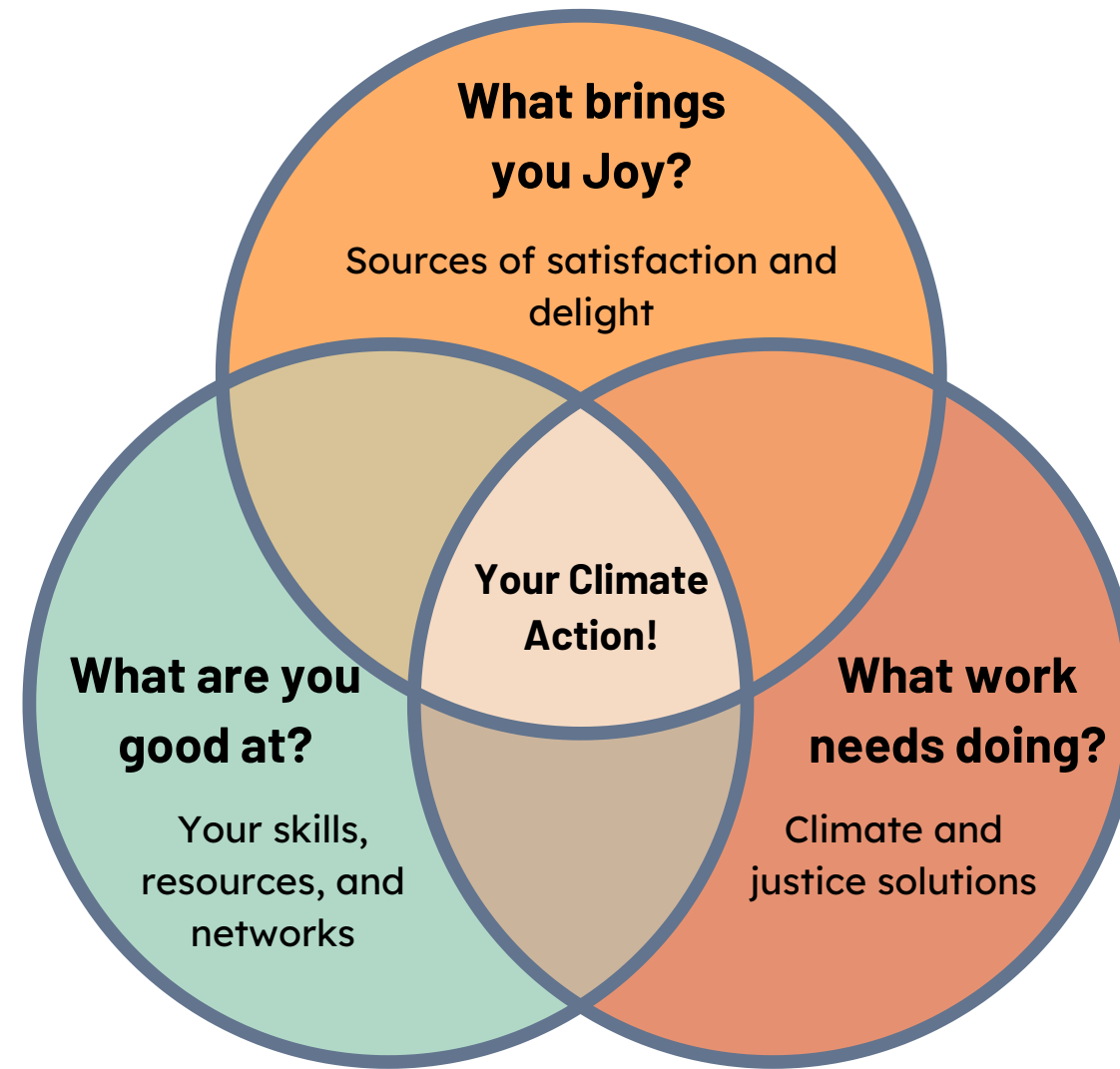
ECO-ANXIETY

Learning about climate change and its impacts can be overwhelming. Addressing eco-anxiety will help you manage your personal well-being as well as preparing you to assist clients who express distressing mental health symptoms caused directly/indirectly by climate change.

Addressing Eco-Anxiety

Eco-anxiety refers to the anxiety people experience that is triggered by awareness of ecological threats facing the planet due to climate change (117).

- Acknowledge your feelings, and don't try and suppress your feelings.
- Take action (e.g. self-care activities to manage the distress); become involved in climate action and social justice activities, talk with others.
- Connect with nature.
- Seek out help if you are feeling overwhelmed.



Adapted from - [Climate Action Venn Diagram](#) (118)



RESOURCES:

- Programs and Interventions to Address Climate Grief, UBC Sustainability
- Climate Action Venn Diagrams
- Project Inside Out
- Mental Health Support: Get Help, Government of Canada
- Climate Psychology Alliance North America
- Eco Distress for Parents and Carers, Royal College of Psychiatrists
- Ecological Grief as a Response to Environmental Change: A Mental Health Risk or Functional Response?
- Ecological Grief as a Mental Health Response to Climate Change-related Loss





Collaborative Partnerships



With the existential crisis of climate change impacting everyone and the urgency to act now, building collaborative partnerships to innovate and scale up is imperative (107). Sustainability is a team sport and cooperation is needed to design, build and transform current health care systems to be more sustainable in the future.

- Engage with service users in service development and evaluation.
- Join an occupational therapy network with a climate action strategy.
- Join/create a sustainability team at work or in your community.
- Engage in collaborative, cross-sectoral research to investigate ways to reduce the carbon footprint of services, enhance the social value of services, and develop tools to support people and communities in the adaptations required to cope with climate change.

International Collaboration

The Université du Québec à Trois-Rivières (UQTR) offers a [Community Intervention Project \(PICOM\)](#) course in association with the [Occupational Therapy Community Committed to Equity and the Environment \(C4E\)](#) and the [Réseau pour le Développement Durable en Ergothérapie \(R2DE\)](#). As part of this project, numerous fact sheets have been created to allow occupational therapists, and the public, to easily find out how to calculate their carbon footprint. They also offer concrete solutions to adopt greener behaviours, whether in a clinic, individually or in the school environment.

RESOURCES:

Occupational Therapy Networks

- [Communauté ergothérapique engagée pour l'équité et l'environnement, Université du Québec à Trois-Rivières](#)
- [Thinking About Sustainable Occupational Therapy](#)
- [Réseau pour le Développement Durable en Ergothérapie](#)
- [Occupational Therapy Climate Action Network \(OT-CAN\)](#)
- [Occupational Therapists for Environmental Action](#)
- [Occupational Therapy Sustainability Network, Centre for Sustainable Healthcare](#)

Sustainable Health Networks/Initiatives

- [Collaborative Centre for Climate, Health & Sustainable Care, University of Toronto](#)
- [Healthy Populations Institute, Dalhousie University](#)
- [Planetary Healthcare Lab, Vancouver Coastal Health](#)
- [Canadian Coalition for Green Healthcare \(CCGHC\)](#)
- [Centre for Sustainable Healthcare](#)
- [Disability-Inclusive Climate Action Research Programme \(DICARP\)](#)
- [Health Care without Harm](#)
- [Health and Climate Network](#)
- [Geneva Sustainability Center, International Hospital Federation](#)
- [Global Green and Healthy Hospitals Network](#)





Advocate

For sustainable system transformation, we need to advocate for newer models of care that focus of prevention and health promotion (41). These models include advocating for more occupational therapy services across the health care spectrum. Additionally, results from a large, multinational survey of health professionals found that health professionals have a responsibility to bring the health effects of climate change to the attention of the public and policy makers (119).



AUDIENCE	ACTIONS	RESOURCES
Workplace, (teams, organization, funder, ministry) professional associations, regulatory bodies	<ul style="list-style-type: none"> • Sustainability as a core value of the organization • Sustainability integrated into strategic plan and priority activities • Divest in fossil fuel investments • Ensure environment friendly operations • Organize sustainable conferences 	<ul style="list-style-type: none"> • NHS England Green Allied Health Professionals Hub • NAM Key Actions to Reduce Greenhouse Gas Emissions by U.S. Hospitals and Health Systems • Climate for Health Moving Forward: A Guide for Health Professionals to Build Momentum on Climate Action • EcoAmerica Let's talk health and climate: Communication guidance for health professionals. Climate for Health • Climate Outreach Core Principles of Climate Change Communication • NHS England Health and Care Professions Council (HCPC) Sustainability Statement • International Hospital Federation Ideas to Improve the Sustainability of Conferences
Organization, funder, ministry	<ul style="list-style-type: none"> • Embed occupational therapy into primary health teams, Mobile Intergrated Health teams, rehabilitation teams 	<ul style="list-style-type: none"> • Canadian Association of Occupational Therapists (CAOT) Advocacy
Regulators	<ul style="list-style-type: none"> • Sustainability incorporated into core competencies, code of ethics of the profession • Sustainability integrated into accreditation standards 	<ul style="list-style-type: none"> • Association for Medical Education in Europe (AMEE) Consensus Statement: Planetary Health and Education for Sustainable Healthcare • Environmental Physiotherapy Agenda 2023 • World Federation of Occupational Therapists (WFOT) Sustainability Matters: Guiding Principles for Sustainability in Occupational Therapy Practice, Education and Scholarship





Quality Improvement



Integrating sustainability into quality improvement is intended to deliver the best possible outcomes with “minimal financial costs and harmful environmental impacts, while adding positive social value at every opportunity” (8, p. 90).

Occupational therapists can use tools such as Sustainability in Quality Improvement (SUSQI) or the World Federation of Occupational Therapists’ (WFOT) Quality Evaluation Strategy Tool (QUEST) to integrate quality improvement methodologies into their practice. For example, the SUSQI tool was used to design a sustainable occupational therapy care intervention and measure its impact (88).

Identifying the Sustainable Value of Virtual Care in Occupational Therapy

SCENERIO 1: IN PERSON		COMMENTS ON RESOURCE USE	SCENERIO 2: VIRTUAL		KEY
Activity	Resource Impact		Activity	Resource Impact	
Travel by car to hospital	1, 2, 1,2,3 1,2	<ul style="list-style-type: none"> Can travel be eliminated to save time for clients, caregivers, and staff, reducing the carbon footprint? Can time be reinvested to offer more services for more positive health outcomes for more people? Can we reduce clients’ out-of-pocket expenses? Can we reduce the need for administrative staff and volunteers? Can the clinic space be repurposed for other hospital activity? Can we reduce the need for PPE and office supplies? Is there a need for face-to-face or hands-on therapy? Is client is highly educated and computer literate? Does attending the clinic pose any social challenges for the client? 	Connect to health services	3 1,2 1,3	Environmental impacts 1. Client & caregiver travel (greenhouse gases, air pollution) 2. Staff travel (greenhouse gases, air pollution) 3. Energy use (electricity, heating) 4. Medical supplies (manufacturing and procurement of PPE) 5. Non-medical supplies (office supplies) 6. Waste disposal Social impacts 1. Client and caregiver time 2. Staff time 3. Risk of client harm Financial impacts 1. Equipment purchased and disposed 2. Travel costs (gas) 3. Staff wages 4. Parking fees
Park the car	3, 1,2,3 1		Engage in occupational therapy consult	3 1,2 1,3	
Check in at reception	3,4,5 1,2,3 1,3		Disconnect from tele-health services	1,2 1,3	
Wait at reception	3,4,5,6 1, 2,3 1,3				
Engage in occupational therapy consult	3,4,5,6 1,2,3 1,3				
Return to the car	3 1,2,3 1,4				
Drive home	1, 2, 3 1,2,3 1,2				

Table 1 adapted with permission from Centre for Sustainable Healthcare (n.d.) (88)

RESOURCES:

- Integrating Sustainability into Healthcare Quality Improvement Education playbook, CASCADES
- Sustainability in Quality Improvement (SusQI), Centre for Sustainable Healthcare
- WFOT’s QUEST





Incentives

Support and recognize innovations and best practices in sustainable design and implementation of sustainable practices (43).

Support the development for incentives that recognize sustainable actions including the following:

- Financial incentives (grants): consider sustainability as a priority area for funders, (e.g. [Canadian Occupational Therapy Foundation](#))
- Non-financial incentives: consider environmental awards and certifications.
 - Consider nominating an occupational therapist for [CAOT's Innovation or Leadership awards](#).
 - Consider acquiring other designations such as the [Canadian College of Health Leaders Sustainable Health Systems certificate](#).
 - Consider nominating your healthcare organization for an award from [Health Care without Harm](#).
 - Consider participating in the [Green Hospital Scorecard](#) initiative.



RESOURCES:

- Innovation or Leadership awards, CAOT
- Health Care Climate Challenge Award, Health Care without harm
- Health Leadership Specialties Partners, Canadian College of Health Leaders
- Green Hospital Scorecard Award, The Canadian Coalition for Green Healthcare





Leadership & Governance

It is not enough to teach sustainability, but we need to:

- Embed sustainability into institutional frameworks (29, 43) (i.e. vision, mission, values, key priorities areas, and policies, e.g. CAOT 2023-2026 priorities include “Mobilize strategic partners for equitable, sustainable, and accessible health and social systems” (120)).
- Re-evaluate practice models and expand professional reasoning about occupational performance and participation to include sustainable practice (43). Consider sustainability and the global environment in our models, activity and occupational analysis and interventions. (121)
- Root the profession in ecological and humanist values. (96)
- Move sustainable healthcare off the side of people’s desks. Appoint portfolios to address organizational sustainability actions (7, 29).
- Invest in climate change science research, sustainable practice intervention research (37).

The Canadian competency document for occupational therapists does not explicitly reference sustainable health care, but it includes indicators that address the four principles of sustainable health care, as well as the triple bottom-line approach (112).

Competencies relating to sustainable occupational therapy (67)

- “respond to the social, structural, political, and ecological determinants of health, well-being, and occupational opportunities” (p. 13)
- “support clients to make informed decisions (p. 10)...raise clients’ awareness of the role of and the right to occupation . . . facilitate clients’ participation in occupations supporting health and well-being” (p. 14)
- “consider the social, economic, and ecological costs of care” (p. 15)
- “stay aware of political, social, economic, environmental, and technological effects on occupational therapy practice” (p. 15)

The Strategy for Change



RESOURCES:

- [Organizational Readiness for Sustainability Playbook, CASCADES](#)
- [Organizational Readiness for Sustainability Infographic, CASCADES](#)
- [American Occupational Therapy Association’s \(AOTA\) policy on “Occupational Therapy’s Commitment to Sustainability and Climate Change”](#)
- [Royal College of Occupational Therapists Sustainability Action Plan](#)
- [Competencies for Occupational Therapists in Canada, ACOTRO, ACOTUP & CAOT](#)





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