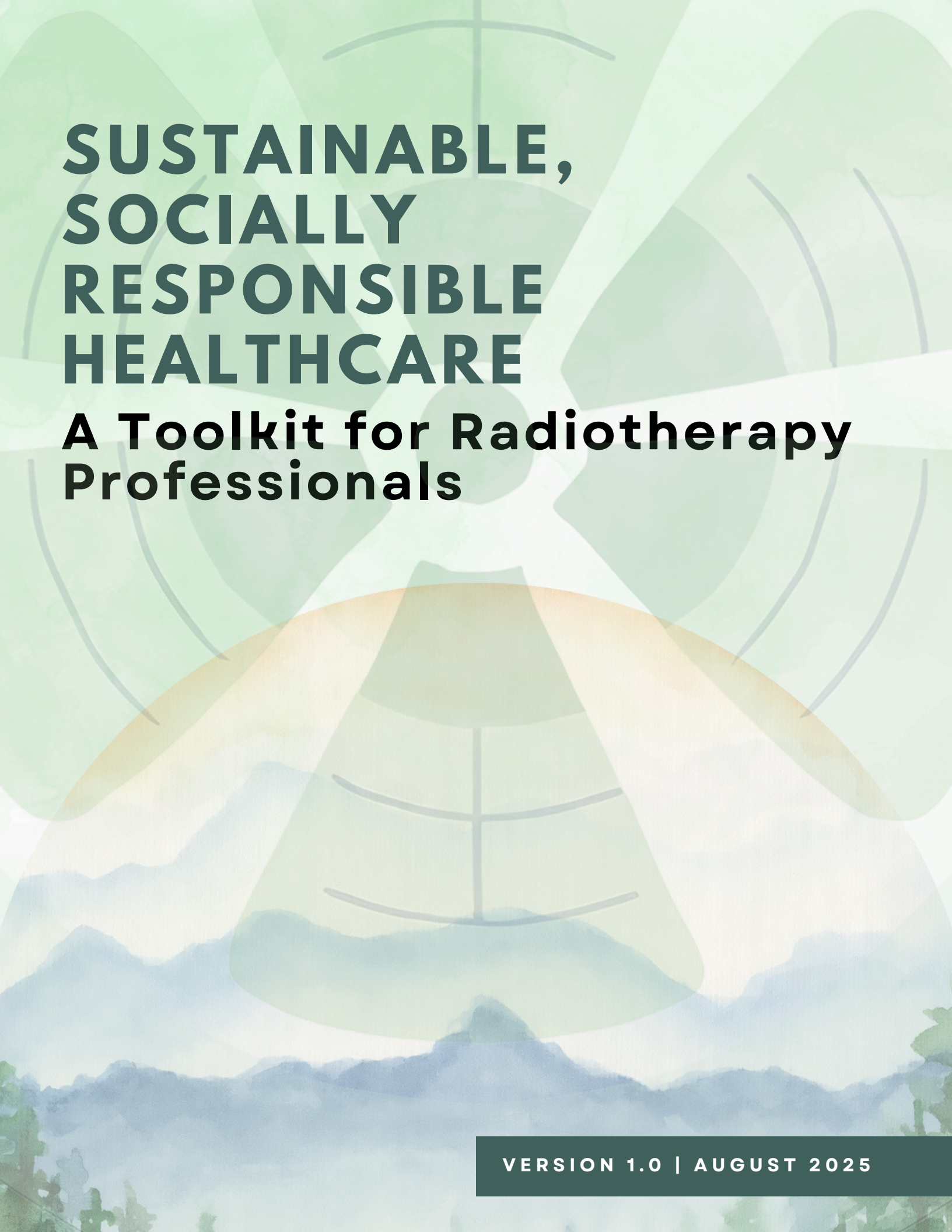




SUSTAINABLE, SOCIALY RESPONSIBLE HEALTHCARE

A Toolkit for Radiotherapy Professionals

VERSION 1.0 | AUGUST 2025

PURPOSE AND SCOPE



Climate change has been identified as the greatest public health threat of our time. This concern is not confined to international borders and is increasingly relevant here in Canada as well.

Several key pathways link environmental changes associated with climate change to increased cancer risk including increased air pollution, increased ultraviolet (UV) radiation exposure, water contamination, increased vector borne diseases, and disruptions in food supply and optimal nutrition. In addition, the consequences of climate change will impact the delivery of cancer care at every level. Severe weather events for example can disrupt treatment schedules. These effects result in a substantial cost to our patients and healthcare systems, as well as to health equity as climate change disproportionately affects our more vulnerable populations.

To effectively address these challenges, it is imperative that our endeavors transcend the confines of clinical practice. As healthcare professionals, we occupy a privileged position that enables us to catalyze constructive transformations and assume a comprehensive support role for our patients. The ramifications of climate change, exemplified by escalating wildfires, worsening droughts, increasing periods of extreme heat and increasing frequency of extreme weather events like destructive atmospheric rivers and hurricanes in Canada, underscore the pressing need for our active engagement to improve planetary health and the health of our patients.

This toolkit represents a call to action for Radiation Medicine health professionals, including physicians, nurses, radiation therapists, medical physicists, and trainees to educate ourselves and advocate for sustainable healthcare solutions within our areas of influence. It offers a framework to empower individuals within our community to engage in this vital discussion and implement locally relevant solutions in our clinics, departments, hospitals and personal spheres.

ACTION ITEMS



LEADERSHIP

- ☐ Appoint a sustainability lead and committee to create and implement a sustainability strategy



FOOD

- ☐ Plant-based food options for patients, visitors and staff are offered as the preferred choice



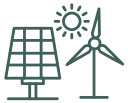
PROFESSIONAL EDUCATION

- ☐ Incorporate planetary health into Radiation Medicine training and Continuing Medical Education



DRUGS, DEVICES AND WASTE

- ☐ Pharmacy has a sustainable prescribing strategy
- ☐ Facility uses reusable gowns and linens
- ☐ Eliminate use of examination table paper



BUILDINGS AND ENERGY

- ☐ Conduct periodic energy audits of the radiation department and implement recommended improvements



RADIATION MEDICINE

- ☐ Apply Choosing Wisely Canada principles to educate clinicians on minimizing unnecessary investigations
- ☐ Consider hypofractionation when appropriate and patient outcomes not compromised
- ☐ Consider same day consult, radiation simulation and treatment (treatment-related travel is the largest source of radiation therapy related greenhouse gas emissions)
- ☐ Minimize healthcare provider travel by offering virtual clinic days, remote meetings, and administrative work-from-home options
- ☐ Use reusable or recyclable immobilisation devices
- ☐ Encourage sustainable procurement discussions
- ☐ Review energy use and radiation machine operation; utilize standby mode during idle time and optimize machine use to maximize efficiency
- ☐ Sustainable operating room practices for brachytherapy
- ☐ SF6 gas - track and reduce usage and ensure safe disposal

CONTRIBUTORS

This guidebook was adapted from **"ENVIRONMENTAL STEWARDSHIP: AN IMPLEMENTATION GUIDE FOR BOARDS, EXECUTIVE LEADERS, AND CLINICAL STAFF: MEETING HOSPITAL STANDARDS AND BEYOND."** By Neil Ritchie, Myles Sergeant, Curtis Lavoie, Kim-Chi Tran,, Richard Webster, Sujane Kandasamy, Luz Paczka Giorgi and Linda Varangu.

PEACH Health Ontario.

https://www.peachhealthontario.com/_files/ugd/f36758_36b3231280844f359f1ffc21fa238a04.pdf

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THIS IS A LIVING DOCUMENT WHICH WILL BE REVISED AS THIS FIELD EVOLVES. WE WELCOME COMMENTS AND SUGGESTIONS.

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REFERENCES

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