



Toronto Academic
Health Science Network

SUSTAINABLE HEALTH SYSTEM
COMMUNITY of PRACTICE



Fall 2021 Sustainability Survey Results

Toronto Academic Health Science Network
(TAHSN)

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Executive Summary

- Fielded between October 13 and November 1, 2021, the survey yielded a total of 1612 completed responses from the TAHSN community
- Roughly one third of respondents (458 out of 1612) left comments about their institution’s sustainability efforts and/or comments about sustainability in health care

Table 1. Summary of TAHSN quantitative survey responses

Question	TAHSN wide percentage of agreement (% agree and strongly agree)
Please indicate the extent to which you agree or disagree with the following statement: Health care delivery organizations should reduce the environmental harms of health care by reducing greenhouse gas emissions, improving resource stewardship, and decreasing waste	96%
Please indicate the extent to which you agree or disagree with the following statement: In the health care organization with which I am most closely associated, efforts to reduce the environmental harms of health care are encouraged and supported.	40%
Please indicate the extent to which you agree or disagree with the following statement: The health care organization with which I am most closely associated could encourage efforts to reduce the environmental harms of health care if it encourages the health workforce to participate in sustainability efforts	80%
Please indicate the extent to which you agree or disagree with the following statement: The health care organization with which I am most closely associated could encourage efforts to reduce the environmental harms of health care if it embeds environmental sustainability within organizational policy and goals	80%
Please indicate the extent to which you agree or disagree with the following statement: The health care organization with which I am most closely associated could encourage efforts to reduce the environmental harms of health care if it invests in human resources with expertise in reducing the environmental harms of health care	75%
Please indicate the extent to which you agree or disagree with the following statement: The health care organization with which I am most closely associated could encourage efforts to reduce the environmental harms of health care if it includes these issues as part of orientation or training	75%
Which of the following most closely matches your professional role at the academic hospital affiliated with the University of Toronto with which you are most closely associated?	Allied health professionals (20%), support services staff (20%), registered nurses (15%)

Background

Climate change represents one of the most significant threats to health in the 21st century. Canada's health care system is a large, resource-intensive sector of the Canadian economy, responsible for approximately 4.6% of the country's greenhouse gas emissions annually.

Recognizing the urgent need to reduce the environmental harms of health care by reducing greenhouse gases and other emissions, a Sustainable Health System Community of Practice has been formed by the 14 academic hospitals of the Toronto Academic Health Science Network (TAHSN) and the seven health science faculties of the University of Toronto's Council of Health Sciences.

The survey was conducted immediately prior to the 26th meeting of the UN Convention of Parties on Climate Change (COP), which took place in Glasgow from October 31st through November 12th, 2021. COP26 aimed to advance global ambition to meet the goals of the Paris Agreement and the UN Framework Convention on Climate Change. Health and health system issues were prominent at COP26, notably through the COP26 Health Programme, which called for national commitments to low-carbon, sustainable and resilient health systems.

Survey Development Overview

The survey was modelled on the efforts of the Sustainable Development Unit (SDU) of NHS England. The SDU operated from 2008 through 2020 and laid the groundwork for NHS England's world leading commitment to net zero emissions. The intent of this survey was to 'take the pulse' of the University of Toronto academic health science community. Two parallel surveys were created, to assess attitudes and expectations about sustainable healthcare: (i) from the perspective of TAHSN hospitals, where these issues are addressed in practice, and (ii) from the perspective of the University of Toronto health science faculties, where these issues are addressed through research and education.

Gathering the views of members of the health science community on reducing the environmental harms of health care is an important component of helping to drive change. It is hoped that the results of this survey can support the work of the Sustainable Health System Community of Practice, by increasing awareness, growing the network, and generating baseline data to inform planning and action.

Survey Results - Quantitative Analysis

► TAHSN Respondents (n=1612)

Respondents' level of agreement with the statement: Health care delivery organizations should reduce the environmental harms of health care by reducing greenhouse gas emissions, improving resource stewardship, and decreasing waste.

- Strongly agree (78.2%)
- Agree (18.3%)

- Neither agree nor disagree (1.8%)
- Disagree (0.5%)
- Strongly disagree (1.2%)

Respondents' level of agreement with the statement: In the health care organization with which I am most closely associated, efforts to reduce the environmental harms of health care are encouraged and supported.

- **Strongly agree (10.9%)**
- **Agree (29.3%)**
- Neither agree or disagree (36.1%)
- Disagree (17.0%)
- Strongly disagree (6.7%)

Respondents' level of agreement with the statement: The health care organization with which I am most closely associated could encourage efforts to reduce the environmental harms of health care if it:

(The responses below are presented from highest to lowest percentage of agreement)

Encourages the health workforce to participate in sustainability efforts

- **Strongly agree (44.0%)**
- **Agree (37.7%)**
- Neither agree or disagree (8.3%)
- Disagree (6.5%)
- Strongly disagree (3.4%)

Embeds environmental sustainability within organizational policy and goals

- **Strongly agree (51.4%)**
- **Agree (28.4%)**
- Neither agree or disagree (10.7%)
- Disagree (6.2%)
- Strongly disagree (3.4%)

Includes these issues as part of orientation or training

- **Strongly agree (37.7%)**
- **Agree (35.0%)**
- Neither agree or disagree (14.1%)
- Disagree (9.2%)
- Strongly disagree (3.9%)

Invests in human resources with expertise in reducing the environmental harms of health care

- **Strongly agree (42.3%)**
- **Agree (30.4%)**

- Neither agree or disagree (15.6%)
- Disagree (8.2%)
- Strongly disagree (3.6%)

Respondents' professional roles at the academic hospital affiliated with the University of Toronto

- Physician (8.5%)
- Nurse Practitioner (0.9%)
- **Registered Nurse/Registered Practical Nurse (15.5%)**
- Pharmacist (4.0%)
- **Allied Health Professional (Occupational therapist, diagnostic medical personnel, etc.) (20.8%)**
- Trainee (clerk, resident, etc.) (0.9%)
- Patient support (family/patient advisor) (0.8%)
- Research personnel (10%)
- Management/ Senior leadership (13.5%)
- **Support Services (administrative, custodial, food services, facility management, IT, finance, HR, communications) (25.67%)**
- Other (please specify) (0%)*
- I do not have a professional role at the hospital (n=1 patient) (0.06%)

**Please note that the responses for those that indicated 'Other' for Q5. were analyzed and concluded that they all fit into the existing categories. The percentages for each respective category were adjusted accordingly. Examples of responses included: Pharmacy technicians, program assistants. educators, medical lab technologists, among others.*

Survey Results - Qualitative Analysis

General comments

28% of respondents left comments (N= 458/1612)

Overall, the comments suggest most respondents are deeply passionate and motivated to implement sustainable efforts within their respective healthcare organizations. This presents an opportunity for increased leadership, awareness, education, and implementation of sustainability efforts across TAHSN.

One of the themes that emerged was respondents' concerns regarding **waste management practices**. Respondents believed that was an increased need to reduce waste (PPE, single use plastics, food waste), a need for proper waste segregation (proper and effective recycling, composting options), the use of biodegradable materials (Styrofoam, plastic straws, food containers), and procurement and supply chain management of sustainable packaging and/or materials

To highlight the points, one respondent commented that: *"The volume of waste from PPE is challenging and needs a foundational review."*, and another respondent commented that: *"We are a significant consumer of various products, we should be driving suppliers to best practices in reducing environmental harms."*

A second theme that emerged was that of **leadership, awareness, and education**. Respondents **expressed that there is an increased need for organizational support** for sustainability efforts using a top-down approach, as well as an increased awareness of existing policies and strategies

A third theme that emerged included an increased need for **education and resources on how to implement sustainability efforts**. One respondent commented that: *"I would strongly support sustainability efforts at TAHSN hospitals.... there is definitely a need for a plan of action at the organizational and individual level. Another respondent commented that: "It'd also be wonderful if there were resources for research labs on how they can operate in more sustainable manners, as labs produce a lot of waste and trainees who care about climate change are often lost in how they can reduce carbon emissions/waste in the lab."*

Lastly, an increased need for **greening the built environment** was also described. This included renewable energy options e.g., solar panels, green accreditation such as LEED, and community gardens and green space for staff and patients One respondent commented that: *"If we could install solar panels on the roof of [Sunnybrook] to help offset some of our energy consumption."* Another respondent commented that: *"... studies that suggest that having access to nature, whether it is through a garden, having plants in the workplace, or simply images of nature, might encourage people to engage in sustainable practices."*

Discussion

This survey aimed to capture a snapshot of the attitudes and expectations of the University of Toronto academic health science community on the environmental impacts of health care. Responses were collected over the course of 3 weeks, from October 13th, 2021, to November 1st, 2021, inclusively.

The survey was promoted by participating hospitals using existing communication channels. Thus, the exact number of people that the survey reached is unknown.

Even though almost all respondents indicated that they agreed or strongly agreed that *'health care delivery organizations should reduce the environmental harms of health care by reducing greenhouse gas emissions, improving resource stewardship, and decreasing waste,'* fewer participants believed that their health care organization encouraged efforts to address these issues through research and education. That said, a plurality of respondents did feel encouraged and supported and there was strong support for efforts to deepen health care organization engagement with these issues.

Most respondents appeared to be supportive of the proposed initiatives that their respective institutions can take to reduce the impact of health care.

Conclusions and Next Steps

The information collected from this survey will be used to inform the efforts of the [Sustainable Health System Community of Practice](#) – which brings together the [University of Toronto Council of Health Sciences](#) and the [Toronto Academic Health Science Network](#) in pursuit of high quality, low carbon care. Surveying members is an important component of efforts to increase awareness and grow the network. It also generates baseline data to inform planning and action. We hope that future surveys will build on this baseline and demonstrate growing effort, commitment, and capacity across one of the world's largest and most impactful academic health science communities.