

Facilitating Environmentally Sustainable and Climate Resilient Healthcare - a collaborative project

Sunshine Coast Hospital and Health Service | Griffith University | GGHH

Demographic information (Partner Organisations)

Sunshine Coast Hospital and Health Service

Sunshine Coast Hospital and Health Service (SCHHS) is the main provider of public health and hospital services for a population of about 460,000 people in the Sunshine Coast and Gympie regions. SCHHS employs over 8000 staff across a range of facilities from the Sunshine Coast University Hospital, Nambour General Hospital, Gympie Hospital, Caloundra Health Service, Maleny Soldiers Memorial Hospital, Glenbrook Residential Aged Care and various community facilities.

Griffith University

This project was conducted under a collaborative research agreement with Griffith University's Climate Action program which aims to enable effective and just climate action throughout society, including the transition towards Climate Resilient and Sustainable Healthcare.

Global Green and Healthy Hospitals (GGHH)

Global Green and Healthy Hospitals (GGHH), coordinated by the Climate and Health Alliance in the Pacific region, provided valuable guidance to the project as a partner in the research agreement.

Background

SCHHS joined GGHH in 2020 and developed an Environmental Sustainability Strategy framed around the GGHH 10 Goal Agenda. SCHHS environmental leadership initiatives include formation of a focused leadership committee and broader network, signing of a Climate Leadership Pledge, and holding several sustainability showcase forums.

As a result of these initiatives the health service was invited to participate in a collaborative pilot project with Griffith University and GGHH Pacific region on 'Facilitating Health System Transitions - Climate Resilient and Sustainable Healthcare'

GGHH agenda goals

- Leadership

Case study summary

SCHHS participated in a collaborative research project with Griffith University and GGHH to facilitate the transition to sustainable and climate resilient healthcare and contribute to the emerging evidence base, while maintaining high quality, equitable health care. The project included two studies undertaken in 2021 - 2022.

The first study implemented a staff survey to investigate current attitudes, knowledge and practices on reducing waste and carbon emissions, and promoting climate-readiness across SCHHS. The second study involved developing and evaluating a workplace Environmental Sustainability Checklist to provide a mechanism for practice improvement at ward, unit or work-group level.

The project established a productive relationship between the university, health service and GGHH (Pacific), supported ongoing progress towards low carbon, sustainable and climate resilient health care across the SCHHS, and laid the foundation for future collaborative research. It also provided valuable opportunities for a number of post-graduate Griffith Health students to conduct practice based research in this increasingly critical area of knowledge development in health. This all helps build the skills and evidence necessary to enable health systems in the transition process.

The issue

SCHHS launched an Environmental Sustainability Strategy 2021-2024 (The Strategy), signaling a commitment 'to protect the environment in which we live, work and play by empowering every employee and visitor to our workplaces to engage in practices that safeguard our community and planet'.

Key actions within the Strategy are: 'building a culture of waste avoidance, efficiency and innovation; setting carbon and waste targets; measuring monitoring and reporting on our environmental performance; preparing for climate change impacts: growing our champions network and working with our partners'.

Understanding current staff attitudes, knowledge and practices is central to achieving the directions identified within The Strategy. However, no tools were available to gauge staff attitudes, knowledge and practice. For example the annual 'Working for Queensland' employee opinion survey administered by the public service commission and utilised by all government agencies does not ask about reducing emissions and waste, or preparing for climate change impacts.

The research aimed to address the gap in understanding, provide a baseline of current attitudes and practices, identify areas for intervention, and provide a benchmark for measuring the effectiveness of interventions over time.

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

The project team goals

This research aimed to:

- contribute to the emerging evidence base about how health services and systems can transition to low carbon, climate resilient services, while continuing to provide high quality, equitable health care to communities, and
- enhance implementation of the SCHHS Environmental Sustainability Strategy 2021-2024, towards those goals

What we did

Two studies were undertaken

- Study 1 investigated current attitudes, knowledge and practices regarding environmentally sustainable and climate resilient health care through a staff survey
- Study 2 developed and evaluated an environmental sustainability checklist for SCHHS staff to apply within their work units and teams

Study 1. Staff survey

The survey questionnaire was developed by the collaborative project team (from GU, GGHH and SCHHS), drawing on and adapting questions from previous surveys conducted by UK National Health Service (2017), an Australian study by the Climate and Health Alliance (Nov 2021), and North America Climate, Health, and Nursing Tool (Schenk 2021). Feedback from informal pilot testing with colleagues and the HHS Environmental Sustainability Committee was integrated to ensure the survey was tailored to SCHHS and could be completed within ten to twenty minutes.

Implementation process

A link (URL and QR code) to the online survey was shared via multiple communication channels. These included regular SCHHS internal communications, weekly E-News, the monthly staff magazine SCOOP, and the Environmental Sustainability Teams site. Posters with a QR code link to the survey were displayed prominently in staff tea rooms, on screensavers, and presentations given at staff meetings and forums.

Tracking progress

We had 300 complete responses, slightly fewer than a statistically representative sample but a good result in light of its timing (April and May 2022) in the midst of COVID pandemic pressures on health services.

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

Responses indicated staff across all disciplines and work units agree that improving environmental sustainability practices is important, and that the healthcare system should take immediate climate action. Responses also indicated different levels of awareness of the existing SCHHS initiatives or climate risk planning, with only a quarter reporting having seen the SCHHS Environmental Sustainability Strategy.

Practices and opportunities also varied across different HHS geographical sites. For example specialised recycling is not currently available at all sites.

Many respondents expressed that they were very positive about the research, looked forward to learning the outcomes, and were appreciative of the opportunity to participate.

Staff reported they would like more information, education and employer support for action in the workplace.

Table 1 below summarises some key findings, including strategies that would support their efforts at work. More results will be shared in a peer reviewed publication in the near future.

How important is individual behaviour (work and home) for environmental protection and climate action?	
92%	'Strongly agree' or 'Agree' that protecting the environment is important at work and outside work
90%	'Strongly agree' or 'Agree' climate change is a serious problem that we need to take immediate action on
How well informed do you feel about climate change impacts on health?	
29%	feel 'Very well' or 'Well informed'
92%	'Strongly agree' or 'Agree' the public need to be better informed about climate change impacts on health
Should healthcare organisations lead climate action / environment	
87%	'Strongly agree' or 'Agree' that health services and organisations should help lead the way on climate action
75%	Feel that is 'Very important' or 'Quite important' that healthcare organisations protect the environment

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

How can the workplace support environmentally sustainable behaviours?	
✓	Include environmentally sustainable practice as part of staff induction and training
✓	Include environmentally sustainable practice in job descriptions
✓	Senior managers leading by example and championing sustainable practice
✓	Introduce dedicated sustainability and waste management positions
✓	Encourage and recruit more green champions
✓	Explain the co-benefits and cost savings
✓	Share inspiring stories and examples of success

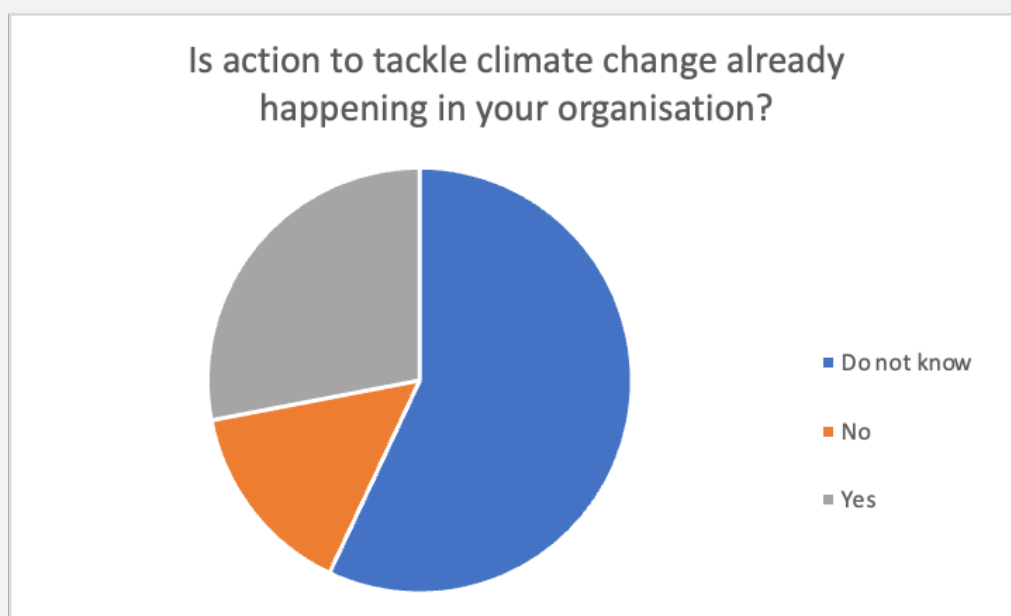


Figure 1. Most staff were unaware of any steps being taken by their organisation to prepare for the impacts of climate change.

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

Progress achieved

The survey had a number of beneficial outcomes. It raised awareness on sustainability and climate resilience goals and policies of SCHHS, and successfully engaged a broad range of staff, providing an inclusive mechanism to express opinions and suggestions for action.

It also provided 'baseline' data on staff attitudes, knowledge and actions regarding environmentally sustainable practices and climate readiness at home and at work, which will assist in monitoring change over time as implementation of SCHHS strategic sustainability and climate risk goals progresses.

It provides robust data for the SCHHS executive and board decision making to support further action for more sustainable, climate resilient/smart healthcare.

The survey clearly identified that staff across all categories and facilities highly valued taking action towards sustainable, climate resilient healthcare, and that there are high levels of staff commitment to do so despite the intense pandemic pressure being experienced.

It also provides useful insights into staff awareness of existing sustainability strategies, which was mixed and surprisingly limited.

Staff were also able to identify their needs for continued organisational and workplace support. They shared that their priorities in this area would be increased through education, information sharing, up-scaling practical strategies for waste and emissions avoidance/reduction/recycling, and making these available to all staff and facilities. Coordinated and strategic communications and action, and celebrating successes was also valued.

Importantly, the survey recruited many new members to the health service's Environmental Sustainability Champions network, increasing membership by 50%, and therefore meeting the Environmental Sustainability Strategy goals 'to grow our champions network', and 'our sustainability culture.'

Brief results have been shared internally and at the GGHH Forum in 2022 in a poster format. This case study will be shared via GGHH and SCHHS internal communications (newsletters / Teams site) and Griffith University news items.

Challenges and lessons learned

- Reaching the desired response rate was a challenge as the survey took place soon after the opening of the Queensland border (closed since 2020 due to the pandemic). There was a concurrent COVID wave and vaccination rollout occurring within the health service. The survey timeframe was extended, and a short video recorded for presentation at SCHHS Forums to aid in recruitment of participants in order to achieve the target number.
- Despite the COVID related challenges to the health system, staff remained committed to participating in both the Environmental Sustainability Committee, and membership of the Environmental Sustainability network grew substantially.
- Working with university and GGHH partners was stimulating and productive, but achieving the required research ethics approval took longer than planned!

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

Study 2. Environmental sustainability checklist

An Environmental Sustainability Checklist tool was developed by the collaborative project team (from GU, GGHH and SCHHS) to assist SCHHS staff to identify unit-based sustainability initiatives and promote more environmentally sustainable healthcare practices by individuals and work teams.

The tool was modelled on a similar instrument developed by clinicians from South Metropolitan Health Service Western Australia Health and South Eastern Sydney Local Health District (both also GGHH members), framed around the ten GGHH agenda goals and evaluated through a series of focus groups with staff across the HHS facilities.

Implementation process

The checklist was circulated to the SCHHS Environmental Sustainability Committee members for feedback and then piloted by environmental sustainability champions across the SCHHS. Staff completed the checklist in their work areas and returned them to the generic email account identified on the checklist. A series of focus groups were scheduled to review and evaluate the checklist in a facilitated online discussion with project team members.

Tracking progress

To understand staff perspectives and experiences of using the checklist, 4 focus groups were held with a total of 13 participants from different facilities. The focus group interviews were recorded and transcripts analysed thematically with the following results:

Benefits of the checklist

- Easy to complete
- Prompts thought and discussion
- Useful tool for staff engagement in sustainability
- Helps staff to identify action areas within their sphere of influence
- Raises awareness of sustainability work already underway

Challenges in using the checklist

- Access to data/information needed to answer questions
- Competing challenges/time constraints
- Some questions not relevant to some participants role/department
- May not pick up on nuances of gradual change if used for monitoring progress

Suggestions/recommendations for use of the checklist

- Complete as a work team
- Repeat periodically to maintain momentum, reflect on improvements and next steps as a team
- Develop more specific checklists relevant for different work areas.

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

There were also several comments on the specifics of the layout and content used to enhance the checklist. For example, by combining some of the GGHH goal headings, it has been reduced to a single page, and continuity was improved by reframing some items (ie answering 'Yes' would be consistently a positive response).

Progress achieved

The checklist has been updated to Version 2, circulated to the Environmental Sustainability Committee (ESC) members, and is now available on the SCHHS Intranet and Environmental Sustainability Teams site.

New graduates and students are encouraged to use the checklist tool to identify sustainability focussed projects as part of their ongoing learning and professional development.

The checklist contains a link to the quality improvement register which captures environmental sustainability related Quality Improvement projects underway across the HHS. The register is visible to all staff which enables communication, oversight and tracking of initiatives.

Challenges and lessons learned (Checklist)

Challenges in developing the checklist and gaining staff feedback included the following:

- Staff having offline time to attend focus groups was limited therefore the ES Committee meeting was utilised for one of the focus group meetings
- The checklist was intended to be broad and generic thus some elements were not applicable and some information was not readily available e.g. questions on purchasing, appliances and air-conditioning temperature
- Keeping it concise yet comprehensive was a challenge

Lessons

- It was valuable to connect identified projects to the quality improvement register with the aim of embedding processes into business as usual
- The project reinforced key elements identified within the SCHHS Environmental Sustainability Strategy eg. to engage and empower staff, and to grow our champions network.

Next steps

Survey and focus group responses indicate that sustainable healthcare practices align with personal and professional values, and that HHS staff are very supportive and interested in this work. Communicating the results of the survey and checklist studies to participants and other interested staff is important, and will include a presentation of the outcomes at staff forums and meetings.

The survey highlighted the need for more awareness, education and organisational support, better access to recycling and other waste and emissions reduction opportunities, along with dedicated sustainability resources and support staff. How and when these recommendations are implemented will

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

be influenced by decisions made at health service executive and government departmental levels in the context of prevalent fiscal constraints which continue to influence budget and staffing priorities.

Repeating the survey in future will help identify changes in staff knowledge, attitudes and practice over time. We are advocating for the inclusion of a subset of key questions (yet to be determined) on sustainable and climate resilient healthcare in the annual employee opinion survey which reaches a larger proportion of staff (>35% of the workforce in 2022). The survey will be shared publicly in the future.

The checklist tool will assist SCHHS staff and students to identify environmentally focused quality improvement projects. These will be logged on the organisational Quality Improvement Register to enable monitoring, reporting and communication of findings thus continuously growing our sustainability, safety and quality culture. The tool will be re-evaluated periodically for its effectiveness as a mechanism to raise awareness and support implementation of the SCHHS Environmental Sustainability Strategy.

Links

- SCHHS Environmental Sustainability Workplace Checklist 2022
https://assets.nationbuilder.com/caha/pages/2618/attachments/original/1676521327/SCHHS_Environmental_Sustainability_Checklist_2022_Final.docx.pdf?1676521327
- SCHHS Strategic Plan
<https://www.sunshinecoast.health.qld.gov.au/about-us/corporate-publications-and-reporting/strategic-plan>
- SCHHS Environmental Sustainability Strategy
<https://www.sunshinecoast.health.qld.gov.au/about-us/corporate-publications-and-reporting/environmental-sustainability-strategy>
- SCHHS Master Clinical Services Plan
https://www.sunshinecoast.health.qld.gov.au/_data/assets/pdf_file/0016/103750/schhs-master-clinical-services-plan.pdf
- Facilitating Environmentally Sustainable and Climate Resilient Healthcare - a collaborative project Greening the Healthcare Sector Forum 2021 poster presentation
https://assets.nationbuilder.com/caha/pages/2618/attachments/original/1676521119/PosterFinal_GGHH_2022.pdf?1676521119

Please note that the information in this case study was provided by the GGHH member named above. Health Care Without Harm (HCWH) is not responsible for the accuracy of the information/data provided.

References

- CAHA (2021) *Real, Urgent & Now: Insights from health professionals on climate and health in Australia.* <https://d3n8a8pro7vnm.cloudfront.net/caha/pages/1947/attachments/original/1637815428/caha-run-survey-report-FA-Nov-2021.pdf?1637815428>
- Cameron, A. (2017). *NHS Sustainable Development Unit Study Report December 2017.* Enventure Research. <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2021/02/Sustainability-and-the-NHS-Staff-survey-2017.pdf> Climate and Health Alliance.
- Schenk, E. C., Cook, C., Demorest, S., & Burduli, E. (2021). *Climate, Health, and Nursing Tool (CHANT): Initial survey results.* Public Health Nurs, 38(2), 152-159. <https://doi.org/10.1111/phn.12864>
- Maibach, E., Miller, J., Armstrong, F., El Omrani, O., Zhang, Y., Philpott, N., Atkinson, S., Rudoph, L., Karliner, J., Wang, J., Pétrin-Desrosiers, C., Stauffer, A., Jensen, G.K. (2021). *Health professionals, the Paris agreement, and the fierce urgency of now.* The Journal of Climate Change and Health, Vol 1. (2021) <https://doi.org/10.1016/j.joclim.2020.100002>
- Maibach, E., Miller, J., Armstrong, F., El Omrani, O., Zhang, Y., Philpott, N., Atkinson, S., Rudoph, L., Karliner, J., Wang, J., Pétrin-Desrosiers, C., Stauffer, A., Jensen, G.K. (2021). *Health professionals, the Paris agreement, and the fierce urgency of now.* The Journal of Climate Change and Health, Vol 1. (2021) <https://doi.org/10.1016/j.joclim.2020.100002>
- McGain, F., & Naylor, C. (2014). *Environmental sustainability in hospitals - a systematic review and research agenda.* J Health Serv Res Policy, 19(4), 245-252. <https://doi.org/10.1177/1355819614534836>