Growing and nurturing a grassroots sustainability team in a clinical centre

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How can medical writers get involved in sustainability projects?

In an age of rapid climate change, it can be easy to despair. Even when following recommendations to improve personal sustainability, such as giving up the car, reducing or eliminating meat from one’s diet, and avoiding flights, the powerlessness as an individual can lead to eco-anxiety. As a medical writer in a teaching hospital, I (Sarah Kabani) did not feel that I had the capacity to drive sustainability practices at work, so I focussed on improving the carbon footprint in my personal life. I wished to do more, but did not feel qualified to influence and how their research projects have demonstrated that healthcare practices that are not only eco-friendly but are also future-proof.
people. I felt lonely in my drive for change, but I soon found out that I was not alone. People at work had noticed that I arrived each day by bike, went for the vegetarian options, and took the train to conferences rather than fly (even to Prague from the South of France!). This led to general conversations with colleagues about climate change, which snowballed into us creating a team with this common interest, with a range of backgrounds and expertise. With an organically created team of researchers and a shared passion in sustainability, it did not take us long until we started thinking about the research that we could perform.

Health economics meets eco-responsibility

Our team’s first project was led by hospital pharmacist Virginie Chasseigne, who, with vast experience in the management of sterilisable and implantable medical devices, was at the forefront of observing numerous ways to reduce waste in the operating room. A preliminary study highlighted the extent of waste in surgery and the potential for improvement, prompting Chasseigne to launch the DURABLOC project, which aimed to broaden the range of eco-friendly actions in the operating room. The project team selected 13 initiatives to target, identified through staff surveys, literature reviews, and suggestions from societies. Sihame Chkair was asked to perform an economic analysis of the sustainable practices that they wished to target, and I became involved at the publication stage of the article. The integration of sustainable measures in operating rooms has important ecological benefits, with positive economic outcomes. This more eco-responsible approach should be considered in all healthcare establishments that generate a significant annual volume of waste.

Following this, the DURABLOC working group performed an ecological and economic impact evaluation of switching from single-use to reusable laryngoscope blades. They performed a life-cycle assessment (LCA), whereby the ecological impact of the blades was measured from cradle to grave, taking into account the materials used (e.g., metal), and the resources to manufacture (e.g., chemicals), transport, and dispose of the blade. The LCA showed that the reusable blades were better for each of the ecological indicators, from lower CO₂ emissions, toxic chemical production, and water use. These benefits were observable after just three uses, and the economic analysis also showed some considerable savings (estimated at around €5800 per year). These compelling results prompted the key players, i.e., the anaesthetists (technical feasibility), the sterilisation unit manager (human resources feasibility), and the purchasing department to make the decision to switch over to the reusable blades. Importantly, this project was entirely spearheaded by the pharmacy team, without institutional request, although the direct benefits to the institute are manifold. Today, in our hospital, the DURABLOC working group is very active, holding meetings every two months with different hospital departments to discover which processes staff members believed could be made more environmentally friendly.

Many organisations are keen to lower the environmental impact, but all organisations are keen to save money. This is where the input of a health economist is transformative. Indeed, budgetary and financial constraints weigh heavily on organisations, and implementing certain actions can generate significant expenses. In our studies, we have been able to demonstrate that we are not only reducing expenses, but also initiating eco-responsible actions. However, this is not the rule in all situations, and in such cases, it is important to calculate the initial cost to fully inform the decision-maker.

Expanding the network: Europe and beyond

After working with the pharmacy team on their eco-responsibility project, we had a list of other projects as well. For example, we have an ongoing collaboration with a like-minded bio-statistician to calculate the economic effects of mitigation strategies for a hospital that had recently been flooded. We also have started a mixed-methods study on the effects of extreme heat events on emergency room management. In addition to the economic impact, the HOTPOINT study will compare focus groups...
before and after the summer to describe the expectations and reality for the hospital management team and the clinicians during a heatwave. It will also consider the impact of ambient temperatures on hospital admissions and ambulance call-outs. Such large-scale projects might once have seemed out of reach to us as none of us are formally trained in sustainability. However, it has been gratifying to experience how, with teamwork and a strong will to apply our skills to environmental research topics, we are succeeding.

Even more ambitiously, we next found a Horizon Europe grant programme, Water4All (https://www.water4all-partnership.eu), offering funding to projects on water security. Our hospital is in the South of France, an area at risk of water scarcity, so this subject is a pressing concern for us. As a nascent sustainability group, our network was limited, yet the grant emphasised the importance of a global team. European partners were easier to find among contacts-of-contacts and some successful cold-calling, but the grant also covered South Africa. A previous Crofter article4 had published an interview with Gomotsegang Fred Molelekwa, PhD, whose biography listed interests in environmental health and environmental management. He is also a member of EMWA's Sustainability-Special Interest Group (SUS-SIG), so I did not hesitate to contact him and suggest a collaboration. This project, called PHOENIX 2, now comprises members from five countries (France, Netherlands, Spain, Lithuania, South Africa, and Turkey). The study aimed to optimise management of healthcare organisations during hydrometeorological stress events, evaluate the cost-benefit analysis of preparing for these extreme events, and perform a LCA of extreme heat events on hospital water consumption. We also wished to perform qualitative analysis to learn hospital workers’ perspectives on how to conserve water. Finally, we would work with specialists in green nudge techniques to develop ways to encourage water saving methods at work and home. Although we passed to the second round of selection, unfortunately, the project was not successful in the final round. However, the positive feedback we received has encouraged us to maintain this new collaboration and we will continue working together on other projects in the future.

The positive outcomes of this collaboration between members of the SUS-SIG and our hospital has inspired us to create a portal where researchers with interests in sustainability can find each other, share knowledge, and work together. Launching this portal is one of the aims of the SUS-SIG for this year, and I hope it will lead to many more fruitful collaborations.

Towards a greener future
It is hard to imagine how, in just a couple of years, we have gone from concerned citizens with climate-anxiety to piloting projects at different stages of completion with a global team of experts. However, I discovered that our story is not unique. Other hospitals have found ways to save resources, including time and money, with modest sustainability changes, initiated by staff members. In a recent issue of the British Medical Journal, Florence Wedmore reported a number of initiatives that were discussed at the 2023 Royal College of Physicians conference. These initiatives ranged from switching from pre-packaged saline to offering patients telemedicine meetings rather than in-person consultations for those with stable symptoms, and demonstrated the capacity to save money and staff time whilst also providing a direct benefit to patients.5 At the end of this article, Wedmore lists suggestions for climate-friendly gestures in the workplace and offers resources for further information. If you are feeling powerless about climate change, the chances are that there are others around you feeling the same. From something as simple as a chat around the coffee machine, you might find the collaborators you need to start your own green projects in your workplace. Don’t forget that these projects often save money and lead to publications, in addition to their environmental credentials, making them attractive prospects to employers. And keep an eye out for the SUS-SIG portal – we would love to have you join us.

Disclosures and conflicts of interest
The authors declare no conflicts of interest.

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