What can professional medical societies do to mitigate climate change?

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The climate emergency affects us all as individuals but also has major adverse effects on health and healthcare provision. Professional medical societies can advocate and educate, but can also lead by example. Medical societies can feel the same sense of helplessness, futility or a sense that it is not their responsibility which individuals face, but there are real and effective changes which can be implemented at organisational level. These positive changes will be multiplied as more societies engage and can be amplified with collaborative efforts. Often it can be difficult to know where or how to start, but there are examples from around the world, and some guidance, which can help with this process. As awareness and concern grows, there is a greater scientific exploration of environmental sustainability on healthcare, and this works in parallel with practical guidance on how to mitigate the adverse effects. Professional medical societies can promote and support research in this area but can also undertake practical measures within their organisations and associated activities.

The World Gastroenterology Organisation (WGO) surveyed the leaders of its 117 member societies (49% response).[1] While the majority agreed that there was a climate crisis, and that this was caused by human activity, 80% felt that their society had more pressing issues and only 16% had an education programme related to it. 49% of respondents had reduced their personal carbon emissions, but this applied to their medical society in only 26%. On a positive note, 46% were planning to form a climate change working group, although there is clearly an opportunity for others to engage in this process.

First steps

The first step for an organisation might be to acknowledge that there is a climate emergency, and that it is a threat to health. The next step would be to declare an intention to act to help mitigate the effects of climate change through the activities of the organisation. The latter step can encompass all of the various administrative aspects of the organisation as well as its educational and research activities. Publication of this declaration of intents can raise awareness and also cement the principles into the various activities of the organisation.

Implementation

Medical societies around the world, representing many specialties, have already taken initial steps towards environmental sustainability. The British Society of Gastroenterology (BSG) has led the way for gastroenterology societies with its Climate Change and Sustainability Strategy, launched in November 2021.[2] WGO established a Climate Change Working Group, more recently a full committee, and has shown leadership with numerous publications, a global webinar series with associated published

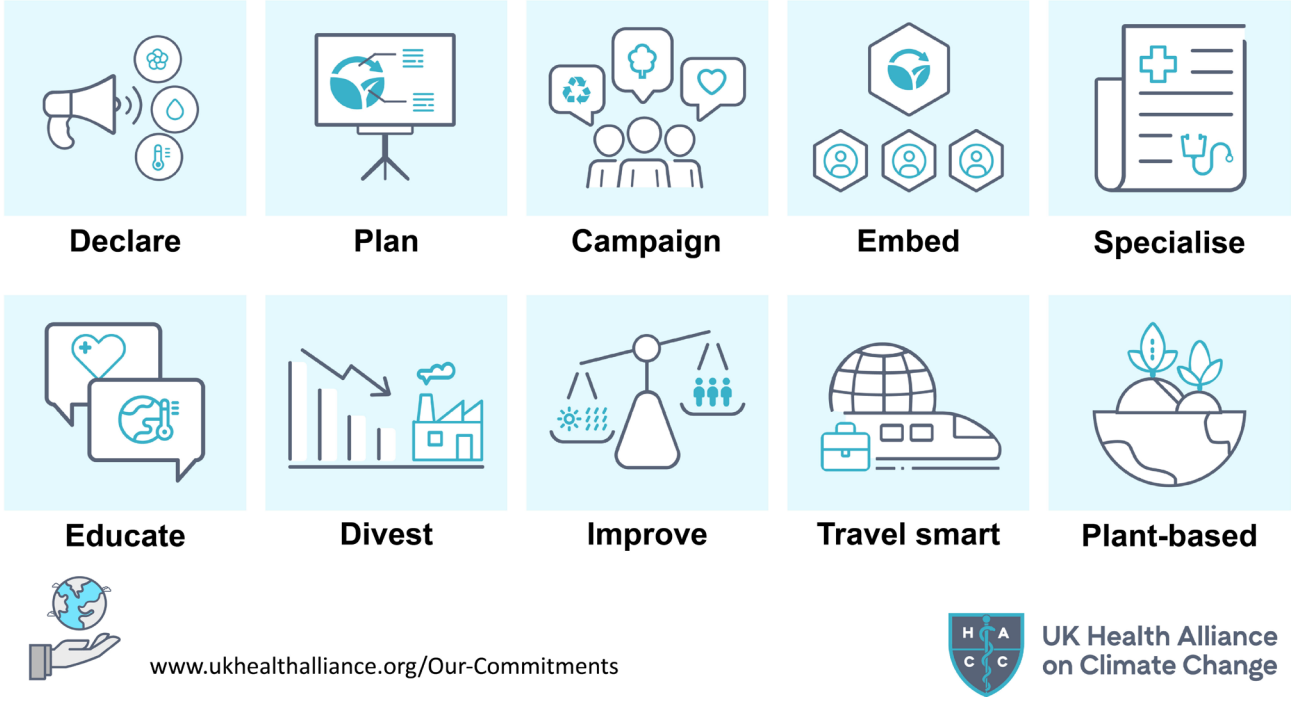

Figure 1 UK Health Alliance on Climate Change (UKHACC) 10 commitments (reproduced with permission from UKHACC https://ukhealthalliance.org/about/our-commitments/).

Box 1 Key interventions checklist for a sustainable and carbon-neutral event (reproduced from Zotova *et al*[11])

Raising awareness
⇒ Inform attendees of the eco-friendly measures implemented at the event and the reasons for these.
⇒ Advertise actions for attendees to reduce their ecological footprint.

Carbon neutrality
⇒ Reduce greenhouse gas emissions at the source, by avoiding unnecessary emissions from transportation, venue and accommodation, catering, materials and waste. Life-cycle emissions must be considered.
⇒ Maximise virtual participation and video conferencing.
⇒ Purchase carbon credits to offset emissions from flights and other event components, estimated by an emissions calculator. Budget offsetting costs in advance, and include an offsetting fee into registration as an opt-out if needed.
⇒ Choose the project to purchase carbon offsets with care. The project must be certified under an international standard such as the Clean Development Mechanism or Gold Standard and fit quality criteria to ensure real impact.

Transportation
⇒ Prioritise low emitting and public transportation such as electric buses.
⇒ Ensure that venues are accessible by public transport.

Venue and accommodation
⇒ Prioritise leadership in energy and environmental design certified venues.
⇒ Prioritise hotels implementing the Eco-Management and Audit Scheme or performing well in the Hotel Carbon Measurement Initiative.

Catering
⇒ Maximally reduce availability of meat and dairy products, while providing a comprehensive range of vegetarian meals.

Continued

Box 1 Continued

⇒ Reduce plate size to diminish food waste.
⇒ Donate all surplus food to local food redistribution organisations.

Materials
⇒ Prohibit disposable bottles, cans, cups, plates and cutlery. Ask attendees to bring their own cup and provide washable plates and cutlery on site.
⇒ Limit merchandise to none or one souvenir item per attendee.
⇒ Reuse materials from previous conferences or local education institutions.
⇒ Request minimal packaging from suppliers.

Waste management
⇒ Provide waste sorting bins (including recycling and compost) with clear sorting instructions and volunteers to assist in sorting at highly attended events.
⇒ Ask venue staff to record the amount of waste generated.

commentaries[3] and support for individual societies' actions. The four major gastrointestinal (GI) societies in the USA developed a GI multisociety plan on environmental sustainability,[4] and action plans have been developed in national societies as widespread as Portugal, Malaysia, Australia and Canada. The European Society of Gastrointestinal Endoscopy,[5] BSG[6] and American Society for Gastrointestinal Endoscopy[7] have separately published very practical guidance on implementation of 'Green Endoscopy'.

The UK Health Alliance on Climate Change (UKHACC) is an alliance of 45 health organisations, though its influence extends globally with the publication of climate change commentaries simultaneously in over 200 medical journals.[8] UKHACC has published 10 Commitments to guide health organisations to take leadership and mitigate the effects of climate change (figure 1):

- Declare that the climate emergency is a health emergency.
- Publish a plan for your organisation to get to net zero.
- Campaign on mitigating and adapting to the planetary crisis.
- Embed sustainability in governance, structure and culture.
- Develop a plan for sustainability in your specialist area.
- Educate members on the links between climate and health.
- Disinvest from fossil fuels and sign the fossil fuel non-proliferation treaty
- Acknowledge the link between climate change and inequalities and improve both.
- Develop and implement a travel policy for members and staff.
- Prioritise plant-based and sustainably sourced food

Many medical societies have already made steps along these lines. Climate change mitigations can be encompassed within an action plan, and ultimately a strategy, with defined measurable objectives across various aspects of practice.[2 4] Establishment of an environmental sustainability working group or committee can embed the process within an organisation and establishes a framework on which to build and act. Appointment of a sustainability lead to chair this committee may further embed these goals into the work of the organisation, with some accountability for delivery, and continuity of action over time.

Within the action plan, a focus on in-house activities of an organisation can include attention to the energy efficiency of office buildings, introducing recycling measures, developing a 'paperless administration' and critically examining the need to travel to the office or to meetings versus home working or remote access. Locations suited to public transport rather than car or air travel will be preferable from an environmental perspective. Most medical societies have financial investments. Divesting the organisation of investments in fossil fuel-related companies can be considered, and BSG has done this successfully for several years with no financial detriment. Many medical societies have close association with one or more medical journals, and indeed may co-own them. These societies have an opportunity to advocate for more sustainable practice with the publishers. Simple measures such as replacing plastic wrapping of journals with paper have been achieved for Gut, Frontline

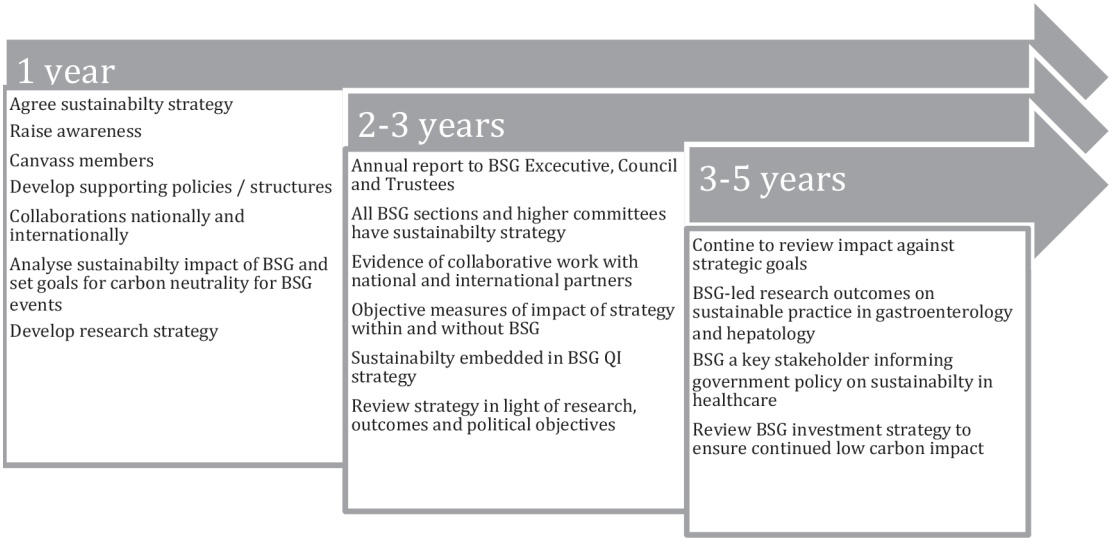

Figure 2 British Society of Gastroenterology (BSG) 5-year strategy with measurable outcomes.[2] Year 1 commenced November 2021, and all goals have been achieved. Years 2–3 objectives are in progress and om schedule.

Gastroenterology, Endoscopy and Gastroenterology, for example. Taking this further, cessation of print copies altogether and replacement with a high quality, high functioning, digital offering is an option which should be explored.

Medical societies have an opportunity to highlight the effects of climate change on health, and to advocate for measures to reduce the effects of climate change with government agencies. They can also advocate through their educational activities, and this advocacy can extend to interactions with the pharmaceutical or medical device industries who often provide support. Research strategy can be directed towards quantifying the environmental impact of healthcare measures by measuring the carbon footprint of medical activities and undertaking life-cycle analysis of medical equipment, with an opportunity to quantify the benefits of any interventions. Measuring the carbon footprint of a medical society itself, encompassing all its various internal and external activities, is an ambitious but achievable goal. The involvement of trainees and early career gastroenterologists in these areas of research can facilitate a lasting engagement with those who may increasingly experience the adverse effects as time progresses.[9]

When considering environmental sustainability for medical societies, the 'elephant in the room' is the annual medical conference. These conferences often have hundreds or indeed thousands of delegates, who have travelled various distances by various means, and include hotel stays, vast energy consumption, and incur food and plastic waste. During the pandemic, innovative and effective virtual or hybrid alternatives to a traditional large in-person event were developed. Post-pandemic, there has undoubtedly been a strong demand for in-person attendance as demonstrated at numerous national and international conferences over the past 2 years. For example, despite a high-quality virtual offering for UEGW 2022 approximately 8000 out of the 10 000 registered delegates attend in-person in Vienna. If an in-person event is considered necessary or desirable, then measures can be considered to minimise the environmental impact. Simple considerations such as the location of the conference in relation to transport links, and to the home locations of the delegates, can be important, as demonstrated by study of the travel-related carbon emissions for the Canadian Association of Gastroenterology annual conference.[10] A carbon-neutral conference is potentially feasible by reducing all sources of emissions where possible, reducing waste, increasing recycling and with the addition of some appropriate carbon-offsetting (box 1).[11] Even if all of these mitigations are not practicable at first, then many can be implemented at the planning stage of your next conference.

Assessment

Having established a strategy and action plan, it is important to review progress against defined measurable objectives, with timelines, such as those in the strategies developed by BSG[2] (figure 2) and the American GI societies.[4] Progress against the 10 UKHACC Commitments can also be monitored. These measures can be further enhanced if tools are developed to measure the carbon footprint of an organisation or its activities, to identify the areas in which most impact may be achieved, and to monitor outcomes against interventions. This is a work in progress, but it should be achievable given that the carbon footprint of the UK National Health Service (NHS), and its components, has been estimated.[12] The Greener NHS programme is world-leading with its targets for net zero, and its focus on ensuring sustainability within the supply chain embedded in legislation. UK medical societies can ally themselves to the aims and actions of the programme, and international societies have an opportunity to learn from examples where this has been effective. Simple assessments can be incorporated into routine practice. The Joint Advisory Group on Endoscopy in the UK incorporates sustainability measures into its Global Rating Scale used for accreditation of endoscopy services. A Green Endoscopy Checklist based on the BSG consensus guidelines has been piloted. The effectiveness of simple measures to improve the sustainability of endoscopy has been demonstrated,[13] and there is an international momentum growing for this movement. Research into all areas of sustainability in healthcare is developing alongside a greater awareness and a greater desire for action. Medical societies have an opportunity not only to facilitate these actions but to take leadership, to mitigate the effects of climate change for the benefit of their members, patients and wider society.

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