Royal Australasian
College of Surgeons

2.03.23

250–290 Spring Street
East Melbourne VIC 3002 Australia
Telephone +61 3 9249 1200
www.surgeons.org
ABN 29 004 167 766

The Sustainable Development Unit
WA Health
SDU@health.wa.gov.au

Re: Western Australian Strategic Framework for a climate resilient and sustainable health system

The Western Australian State Committee of the Royal Australasian College of Surgeons (RACS) acknowledges the efforts of the Sustainable Development Unit (the Unit) in developing the discussion paper and we thank you for the opportunity to participate in the consultation process.

The effects of climate change are already impacting on the health of individuals across the world. Counter-intuitively, the health sector itself represents a significant source of pollution and is a major contributor to national carbon emissions world-wide. In Australia it is estimated that health care in contributes to seven per cent of the entire country's carbon emissions, with around half of this contribution coming from hospitals alone.[i]

Environmental sustainability is one of RACS' key advocacy priorities. Due to being one of the most resource-intensive areas of the hospital, strategies which target the operating theatre have the potential to have the highest impact within the health-care industry. RACS is committed to working with the Government and the Unit to ensure that the strategy initiatives which reduce the impact that surgical practice has on the environment, while also ensuring patient safety or quality of care is not compromised.

Please see our responses below to some of the key areas highlighted throughout the discussion paper.

Building and energy use

RACS supports all of the actions identified in the discussion paper aimed at reducing the environmental footprint of buildings and facilities and supporting sustainable, green and healthy hospital design and construction. A particularly important action will be the state's transition to 100 percent renewable energy supply in health facilities by 2030. This was highlighted by a 2020 study, which included the observation:

In 2019, only 14 percent of electricity generation in Queensland was from renewable sources, rising to 23.9 percent in Victoria; in contrast, 95.6 percent of electricity generation in Tasmania was from renewable (hydro) sources. Thus, a hospital in Tasmania that was identical in every other respect to a counterpart in Queensland would record Scope 2 emissions that were six times lower simply by the good fortune of its location.[ii]

In addition to the source of energy used, hospitals and health facilities can reduce their carbon footprint by investing in energy-efficient equipment and practices, such as LED lighting and low-power electronics. The final

framework must also place a responsibility of health services to ensure that their facilities are adequately maintained to minimise the impact on the environment – such as through leaking nitrous oxide supply pipes and energy inefficiency

A report commissioned by the Royal Australasian College of Physicians and endorsed by RACS highlighted that by adopting sustainable practices, hospitals can not only reduce their environmental impact, but also improve patient outcomes and create a healthier, more resilient healthcare system. RACS ask that the recommendations of this report are also taken into consideration as part of this review.[iii]

Reducing solid waste

RACS' position paper on the environmental impact of surgical practice recommends implementing initiatives underpinned by the five Rs:

- Rethink
- Reduce
- Recycle
- Reuse
- Research

Each of these initiatives are equally relevant to the Western Australian health context.

Rethink

The Western Australian framework is a prime example of rethinking the way we approach healthcare, by recognising the important leadership role that government must play in reducing carbon emissions and promoting environmental sustainability.

RACS and other professional bodies also have an important role to play in this area. From a surgical perspective, many initiatives that aim to reduce the environmental impact of surgical practice will require small changes to how staff perform their roles and how surgical departments operate.

It is essential to emphasise to those within the health sector and the broader community that these changes are not just symbolic gestures but vital steps towards creating a more sustainable and healthy future. The social, logistical, and institutional barriers to implementing these initiatives may be significant, but they are not insurmountable. It will require a rethinking of how health care is provided at the departmental, institutional, and national levels.

RACS is encouraged that many other states and territories, and the federal government have also begun or will shortly commence developing similar frameworks. This shared goal and responsibility presents an opportunity for ongoing collaboration and promotion of key initiatives, but also a risk of duplication and fragmentation. While RACS appreciates the importance of each state and territory having their own framework, it is important that within each jurisdiction there is an acknowledgement of the shared national ambition and responsibilities, and the benefits of collaboration.

Reduce

The central concept of initiatives which aim to reduce health sector waste is to avoid using

resources which are not needed to ensure patient or staff safety. This can include reducing electrical expenditure by powering down devices when idle, reformulating operating room kits to reduce overage, and embracing and supporting programs such as *Choosing Wisely* which is aimed at eliminating unnecessary and low value care.

Recycle

Proper waste segregation also plays a large role in reducing resource use. Compared with normal solid waste, biohazard or regulated medical waste requires high energy processing, and is estimated to cost up to eight times that of normal solid waste. The improper segregation of waste can increase the amount that undergoes high energy processing, with some studies suggesting that up to 92 per cent of a hospital's biohazard waste may be nonhazardous.[iv]

Surgical procedures produce large volumes of plastic waste in addition to cardboard and paper, much of which can be easily recycled. To improve this situation, RACS recommends that the government works with the health sector to implement better recycling and segregation practices by investing in more efficient waste management systems, increasing staff education and awareness, and partnering with waste management companies.

Reuse

From a surgical perspective most waste in the operating theatre comes from single-use surgical supplies and instruments, most commonly textiles (e.g. personal protective equipment (PPE), drapes and operating table sheets), sterile and non-sterile packaging, and various consumables and perioperative equipment including surgical scissors, plastic suction bottles, packs etc. Single use, disposable products, may be preferred over re-usable alternatives for sterilisation, infection control, or cost purposes. However, single use items and their packaging contribute to a considerable proportion of operating room waste and have a significant carbon footprint over their life-cycle, from manufacture through to disposal.

Compared by their up-front cost, reusable products are an expensive alternative to disposable products. However, when the whole life-cycle of these products are compared, including supply chain and waste disposal costs, reusable items are typically not only more environmentally friendly, but have a cost benefit over disposable items.
This is the case even after accounting for sterilisation and laundering. As Western Australia shifts to a cleaner energy mix, with 100 per cent renewable energy sources, the comparative sustainability of reusable items only increases.

Research

Ongoing, evidence-based research into the environmental impact of surgical practice and healthcare is needed, both to measure the effects that the provision of health care has on the environment, and to further develop technologies and practices to mitigate this impact. Research into the environmental impact of particular procedures, life cycle analyses and cost comparisons of materials, and the on-going development of devices which can maintain quality of care while minimising the environmental impact of the operating theatre are also needed.

As an example, the COVID-19 pandemic has exacerbated the use of single-use disposables in healthcare, as many hospitals and clinics have opted for disposable equipment and PPE to

minimise the risk of infection. While the use of disposable items can be necessary in certain circumstances, it is important to note that in many cases, reusable items are just as effective in terms of sterilisation and infection control. A role of the unit could be to facilitate and/or advocate for education and training in this area, as well as further research.

Targets across the health sector

RACS commends the Government's policy of ensuring that all government agencies source 100 per cent of their electricity from renewable sources by 2030, and we believe this will make a significant contribution to meeting emissions reduction targets. The framework details a further commitment for the health sector to reduce emissions by 80 percent by 2030 in order to achieve net zero emissions by 2050. While RACS supports the net zero goal, we encourage a more ambitious approach.

In 2022 RACS became the first medical College in Australia to sign up to the newly developed Green College Guidelines development by the Australia Medical Association (AMA) and Doctors for the Environment Australia (DEA). As part of our commitment to the Green College Guidelines, RACS also committed to emissions reduction targets of 80 per cent by 2030 and net zero emissions by 2040. This approach is supported by other peak bodies and organisations within the health sector. As highlighted earlier, RACS was one of ten medical College that endorsed the comprehensive report commissioned by the Royal Australasian College of Physicians. The report recommended that Australia commit to net zero healthcare by 2040.

RACS appreciates that the framework's goal of net zero by 2050 is consistent with the broader Government targets across all portfolios. However, given the widespread support for more ambitious reductions across the medical community, we believe that there is scope to achieve these targets much sooner, and that this ambition should be reflected in the framework.

Furthermore, the consultation survey states that the targets only apply to Scope 1 and Scope 2 emissions, with Scope 3 emissions excluded. RACS understands the complexities with developing and enforcing Scope 3 targets, however, given the significant proportion of these types of emissions we believe it is crucial that accountability for these types of emissions is incorporated as part of the framework.

The leadership role played by the UK National Health Service (NHS) provides the most successful example of this, as they have incorporated Scope 3 targets into their net-zero emissions plan. The plan acknowledges that the NHS's supply chain is a major source of emissions and outlines a framework for evaluating the carbon footprint of their supply chain and working with suppliers to reduce emissions.[v]

By setting a net-zero target for Scope 3 emissions, the Western Australian Government can encourage organisations to work with their suppliers, customers, and other stakeholders to reduce their carbon footprint.

In summary, RACS is very pleased by the action taken by the Western Australian Government to address the health sector's role in combatting and adapting to climate change. However, we believe the framework should strive for more ambitious targets as well as take greater responsibility for Scope 3 emissions. Recognising and emphasising the 5Rs will be a crucial element if the framework is to be successful.

We thank you once again for the opportunity to participate in this consultation.

Yours Sincerely,

Dr Paul Bumbak
RACS WA Chair

[1] Singh H., Eckelman M., Berwick D., Sherman J. *Mandatory Reporting of Emissions to Achieve Net-Zero Health Care* N Engl J Med 2022; 387:2469-2476

---

[i] Malik A., Lenzen M.,McAlister S., McGain F. *The carbon footprint of Australian health care* The Lancet Planetary Health, Volume 2, Issue 1, 2018; 2542-5196
[ii] Hensher M, McGain F. *Health Care Sustainability Metrics: Building A Safer, Low-Carbon Health System*. Health Aff 2020; 2080-2087.
[iii] Bragge P, Armstrong F, Bowen K, Burgess M, Cooke S, Lennox A, Liew D, Pattuwage L, Watts C, Capon T. *Climate Change and Australia's Health Systems: A Review of Literature, Policy and Practice*. Monash Sustainable Development Evidence Review Service, BehaviourWorks Australia, Monash University. Melbourne, 2021.
[iv] Kagoma YK, Stall N, Rubinstein E, Naudie D. *People, planet and profits: the case for greening operating rooms*. CMAJ. 2012
[v] Improvement NEaN. Delivering a 'Net Zero' National Health Service. 2020