SHPA's submission to the National Health and Climate Strategy Consultation via Survey, July 2023

Introduction

The Society of Hospital Pharmacists of Australia (SHPA) is the national, professional organisation for the 6,100+ Hospital Pharmacists, and their Hospital Pharmacist Intern and Hospital Pharmacy Technician colleagues working across Australia's health system, advocating for their pivotal role improving the safety and quality of medicines use. Embedded in multidisciplinary medical teams and equipped with exceptional medicines management expertise, SHPA members are progressive advocates for clinical excellence, committed to evidence-based practice and passionate about patient care.

SHPA believes there is an urgent need for the Australian pharmacy profession to take practical and strategic actions to reduce the industry's carbon footprint and has been a longtime supporter of net zero emissions. Hospitals and pharmaceuticals are jointly responsible for approximately two-thirds of the carbon footprint associated with health care in Australia[1], which is the intersection that SHPA members work in daily providing care to the most unwell patients in acute are facilities.

Climate change is widely acknowledged as the biggest global health threat of the twenty-first century, and hospital pharmacists have a clear role to play to reduce carbon emissions in healthcare. At the bedside, hospital pharmacists and the clinical pharmacy services they deliver to patients are supported by literature to sustainably improve patient outcomes, reducing the length of hospital stays, reducing the unnecessary use of medicines and supporting deprescribing practices alongside doctors.

At a systems-level, hospital pharmacists are key stakeholders in medicines procurement and inform hospital-wide policies on medicines use and governance, which is critical to minimising unnecessary wastage of medicines.

Our sector is also concerned that inaction on climate change and warming of the planet will contribute to negative health outcomes of Australians – particularly the most vulnerable. Extreme weather events such as bushfires and floods cause Code Brown external emergencies in hospitals where sudden surge in activity and capacity is required. Furthermore, warmer temperatures can also increase the transmission of many infectious diseases.

Our members in regional and rural Australia have long been concerned about logistical difficulties with cold-chain supply chains to areas of Australia with extreme heat. Temperature breaches are sadly accepted as inevitable, which often results in costly waste of cold-chain medicines such as insulins and vaccines. Global warming will further exacerbate the difficulties in delivering vital medicines, that are intact and safe to use to all parts of Australia.

We welcome the establishment of a National Health and Climate Strategy to support healthcare sector stakeholders and healthcare practitioners to reduce our carbon footprint wherever possible, and support a more sustainable healthcare sector that continues to meet the needs of Australians.

Responses to consultation questions

10. Is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?

SHPA's Pharmacy Forecast Australia 2022[2], a strategic thought leadership piece on emerging trends and phenomena forecasted to impact pharmacy practice and the health of Australian patients, designated one of the six themes to be on environmental sustainability to gauge what pharmacy leaders thought about how our sector would respond to its impacts and measures to address it. Climate and Health Alliance also partnered with SHPA to provide a partner perspective on the environmental sustainability theme.

SHPA also collaborates with other organisations in advocating for environmental sustainability, with recent endorsement provided to Doctors for the Environment Australia's (DEA) GreenCollege Guidelines and Net Zero Emissions Report, which outlines an interim emission reduction target for the Australian healthcare sector of 80% by 2030 and net zero emissions by 2040.[3]

14. Which specific actions should be considered to reduce greenhouse gas emissions from the health system?

Environmental sustainability in pharmacy curriculums

As explored in Pharmacy Forecast Australia 2022[2], half of all respondents thought it likely that all pharmacy university degrees will incorporate carbon literacy and environmental sustainability in their curriculums by 2027. This will enable future pharmacists to foster an environmentally educated and informed workforce, capable of taking a leadership role in ensuring the manufacture, supply and prescribing of medicines is as sustainable as possible.

Paper-free pharmacy departments

While steps have been made toward reducing paper in hospital systems with electronic medical records and prescribing, a large proportion of day-to-day pharmacy duties remain paper-based through generation of paper labels and printed patient information leaflets. QR codes to provide this information electronically can assist in reducing the impact of this.

In addition, medication deliveries often arrive at the pharmacy department with extraneous packaging, such as wrapping and package inserts, adding to overall waste. Manufacturers will need to assess their products to remove unnecessary packaging and have measures in place that do not comprise the integrity or viability of the medication.

Electronic devices like smartphones, tablets and desktop computers can also be used as evidence of receipts of medication across the hospital system, further reducing paper usage.

In hospital inpatient settings, the use of innovative health information technology has been introduced to achieve a closed loop medication management system using barcode scanning. At the bedside, barcode technology can be used in real time to verify a patient's identity before medication administration and to capture the care provider administering the medication. Bedside verification of medications allows nurses to check and document the medication administration to reduce administration errors.

The majority of recommended reference texts that pharmacists and healthcare staff refer to are available online, negating the need for paper and providing information that is more frequently updated than paper texts, often at a lower cost. Through the use of technology, pharmacy departments can reduce their paper volume, so that the future may see paper-free departments as potentially achievable.

Domestic manufacturing of medicines

To offset the 71% of healthcare greenhouse gas emissions resulting from the supply chain, which encompasses production, transport, use and disposal of goods and services used in healthcare[4], preference for locally made medicines to reduce the supply chain carbon footprint should be considered.

The government's National Reconstruction Fund (NRF)[5] will target investment towards areas such as renewables, low emissions technologies and medical science. The government has identified $1.5 billion of the NRF's $15 billion for medical manufacturing, with local medicines manufacturing anticipated to be a key part of this.

Comprehensive pharmaceutical waste programs in hospitals

The COVID-19 pandemic response has also increased the amount of waste sent to landfill from healthcare, such as personal protective equipment, rapid antigen tests and vaccine paraphernalia. Pharmaceutical waste may include the drug substance, the container in which it was packaged, and accessories used for administration, such as administration tubing.

Pressurised metered-dose inhalers (pMDIs) are a significant contributor to greenhouse gas emissions. Reducing pMDI prescriptions when appropriate could have a meaningful environmental impact, especially as alternate inhalers with lower carbon impact are available. [6] Pharmacists can play a key role in advising on appropriate treatments that balance the best possible outcomes for patients as well as lowering carbon impact. In addition, the proper disposal of these inhalers can reduce carbon dioxide emissions.[4]

Inventory and distribution solutions

In some Australian hospitals, technology solutions such as automated dispensing cabinets (ADCs) and dispensing robots are already in place. The data generated from these systems can be used to reduce medication wastage at a ward or hospital-wide level. Specialised or bespoke software programs may be utilised to present the data in a form that is understandable to pharmacy staff and hospital stakeholders. Reports from this data can be used proactively to reduce waste. For example, reporting on medications expiring within a particular future timeframe can be used to redistribute medications from low to high use areas. Data can also be used to note trends of medication use hospital-wide and increase or reduce stock levels accordingly. Programs can be designed to convert inventory levels from robots and ADCs into standard ward stock medication orders saving time and paper in comparison to manual ordering.

At a federal level, a proposed National Medicines Traceability Framework (NMTF) has undergone consultation during 2022. This framework will aim to track medicines more closely to improve efficiency of the supply chain and reduce wastage, among other aims.

Development of an 'Improving environmental sustainability in pharmacy and pharmaceutical industries national strategy'

To help deliver on the National Medicines Policy's (NMP) central pillar focused on building a sustainable medicines industry, SHPA recommends establishing a pharmacy and pharmacy industry aligned environmental strategy to develop key objectives, aims and goals to improve sustainability, mitigate and reduce the known environmental impacts from the pharmacy and pharmaceutical industry. This will support the Australian Government in realising their commitment to reduce emissions by 43% below 2005 levels by 2030 and reach net zero emissions by 2050.

18. In your view, are these the right enablers to inform the objectives of the Strategy? If not, please detail how they could be improved or amended.

For Enabler 1: Workforce, leadership and training, SHPA believes it is appropriate to encourage medical colleges and other education and training institutions to ensure the impacts of climate change on health form part of the training curriculum for all health care professionals. As outlined above, SHPA believes that

embedding environmental sustainability into undergraduate curriculums, will enable future pharmacists to foster an environmentally educated and informed workforce, capable of taking a leadership role in ensuring the manufacture, supply and prescribing of medicines is as sustainable as possible.

However, without appropriate funding and policies in place to facilitate the effective implementation of the Strategy, this measure may not lead to hospitals, clinics and aged care facilities undertaking the necessary systematic changes to tackle climate change. Consideration must be given to the setting of clear and achievable targets, and incentivising healthcare facilities to work towards attaining them.

Regarding Enabler 2: Research, SHPA believes that further data must be collected on the impact of inappropriate prescribing poor medicines management on climate change. This evidence could inform workforce required to target these interventions such as deprescribing and pharmacist-led medication reviews.

Enabler 3 would require empowering consumers to understand the environmental impact of wastage of medicines as well as the importance of regularly reviewing medications, both of which are key roles of pharmacists.

References

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[3] Doctors for the Environment Australia. (2022). Net zero carbon emissions: responsibilities, pathways and opportunities for Australia's healthcare sector. Available at: https://www.dea.org.au/wp-content/uploads/2020/12/DEA-Net-Zero-report_v11.pdf

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