

Pills, profits, and pollution: accountability for pharmaceuticals-related greenhouse gas emissions

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Pharmaceuticals have improved the length and quality of life for millions, if not billions, of people worldwide. However, Big Pharma has also faced claims that the industry puts profits before patient and population health.^{1,2} Further, there is increasing concern about the environmental harm associated with pharmaceuticals, from bench to bedside to bin, including their contributing 20–25% of health sector greenhouse gas emissions.^{3,4}

The imperative for Big Pharma to demonstrate its environmental, social, and governance sustainability credentials is increasingly clear. Voluntary initiatives, such as the Sustainable Markets Initiative health systems taskforce established in 2021,⁵ have been accompanied by increasing expectations and requirements by procurers and regulators.

In England, the National Health Service has taken the procurement lead by gradually increasing requirements for their suppliers to work toward net zero greenhouse gas emissions, including by publicly reporting emissions, emissions reduction targets, and carbon reduction plans.⁶ Australia has joined international initiatives to reduce emissions associated with pharmaceuticals, including a United Kingdom-led multi-country collaboration to align their health care procurement requirements, and another to harmonise measurement standards for the environmental impact of health technologies.⁷

Governments around the world are introducing mandatory public disclosure of corporate environmental, social, and governance sustainability performance. In Australia, mandatory climate-related financial disclosure reporting based on international standards began on 1 January 2025.⁸ The phased introduction starts with large enterprises (based on assets, revenue, or number of employees), and will include the large pharmaceutical companies operating in Australia.

The study by Burch and colleagues reported in this issue of the *MJA* provides a useful first analysis of the self-reported emissions reduction targets, plans, actions, and performance during 2015–23 of the ten largest pharmaceutical companies in Australia according to Pharmaceutical Benefits Scheme expenditure. The authors assessed publicly available documents, and used an evaluation framework developed from internationally recognised tools.⁹

The authors identified a range of levels of commitment, with the three leading companies scoring 28 to 30 of a possible 32 points, and six others 12 to 27 points. The definite laggard was Arrotex Pharmaceuticals, the only Australian and the only privately owned company of the ten assessed, which scored zero points. As Burch and colleagues note, interpretation of an analysis based on voluntary reports is necessarily limited; relevant information may not be publicly available, or may have been presented in an overly favourable light (“greenwashing”).⁹

Regardless of the strength of commitments and plans, what matters is the actual volume of greenhouse gases released into

our atmosphere. Nine companies reported reductions in their scope 1 (direct) and 2 (purchased energy-related) emissions. Of the six that measured scope 3 emissions (supply chain-related), four reported increases, which at least one company attributed to business growth.⁹ This finding is particularly important, given that scope 3 emissions are the predominant class of emissions,^{3,10} and the reported increases could well counteract any scope 1 and 2 reductions.

At one level, the heterogeneity in the stated commitments and actions to achieving net zero emissions shows that lower ranking companies can improve. Other health system organisations should note that they may soon find themselves subject to similar independent benchmarking of performance in moving to net zero emissions.

However, given the scale and urgency of the needed emissions reductions, and that three of the companies included in the study by Burch and colleagues achieved near perfect scores, the authors’ focus on metrics and commitments has set the bar too low. While their framework takes actions into account, the actions considered were largely related to reducing the emissions intensity of activities (emissions per unit activity), without also considering the other driver of emissions, scale of activity (number of units), which is particularly important in an industry that continues to grow. Future assessments should include criteria for achieving emissions reductions (all scopes), and weight actions more heavily, including the reduction of unnecessary activity, the most challenging aspect.

At a deeper level, we must also consider why action to reduce pharmaceuticals-related emissions is still so limited, and how we can accelerate effective action. The effectiveness of voluntary action has been limited, and market signals from investors, governments, regulators, procurers, and prescribers have been insufficient. While regulators and procurers are increasing their requirements, their initial focus on company-level emissions reporting, targets, and action plans may not necessarily lead to actual emissions reductions.

Perhaps most influential, but often under-recognised and undervalued, are the roles of prescribers and pharmacists in reducing pharmaceuticals-related emissions by reducing unnecessary use, including discouraging polypharmacy, promoting the appropriate use and disposal of medications, undertaking regular medicines reviews, and suggesting non-pharmaceutical treatment options when appropriate. More scrutiny is also needed to ensure that pharmaceutical companies are not encouraging unnecessary sales through activities that influence prescribers or patients.

Lastly, while reducing inappropriate pharmaceutical use may have financial benefits at the system level, current funding mechanisms provide incentives for increased use at both the industry and practitioner levels. Innovative financial mechanisms that support what we profess to value are needed

to achieve good pharmaceutical stewardship for people and for the planet.

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