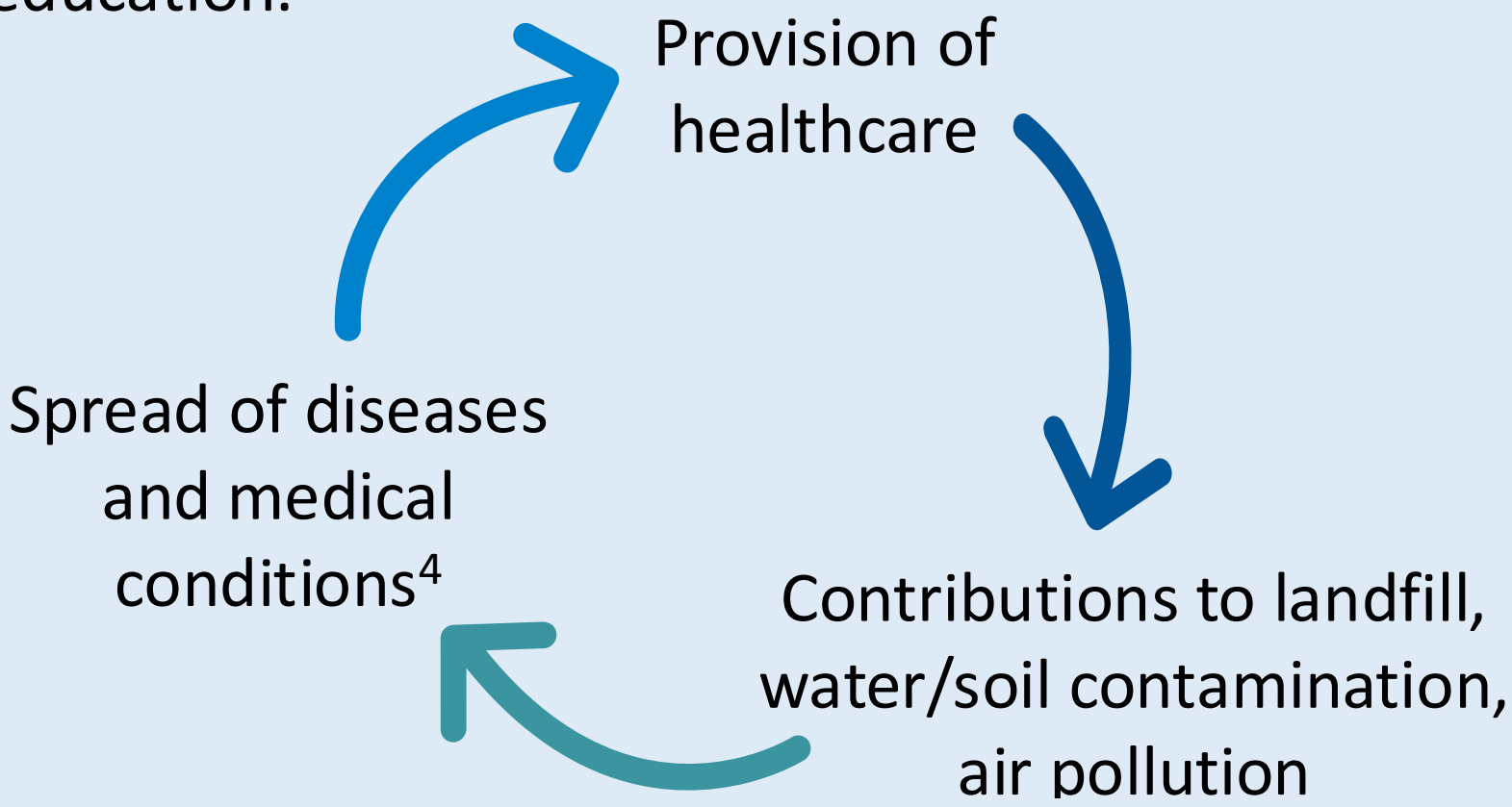


EXPLORING THE SUSTAINABILITY OF MEDICAL PROCEDURAL SKILLS TEACHING

INTRODUCTION

Background:

- Healthcare accounts for 7% of Australia’s total carbon footprint.¹
- Minimising single-use consumables in healthcare settings may reduce waste.^{2, 3}
- Limited literature exists regarding the environmental impact of procedural skills teaching within medical education.



Aims:

- Quantify the volume of consumables used for teaching procedural skills.
- Identify sustainable practices at teaching sites.
- Identify barriers to waste reduction.
- Propose opportunities for reducing the environmental impact of procedural skills teaching.

METHODS

- Quality Assurance project, guided by SusQI framework
- Online Qualtrics survey (~30 mins)
- Clinical Educators Group at Melbourne Medical School
- Survey evaluated:
 - Consumable use and procurement
 - Sustainability practices
 - Barriers
 - Capacity for change
- UOM Ethical Approval: 2026-34606-77240-4

FINDINGS

Consumable Use:

- 56,330 total consumables used for 1,368 MD students in 2025.
- Top 3 used consumables:
 - Non-sterile gloves
 - Alcohol swabs
 - Sterile gloves

Sustainability Practices:

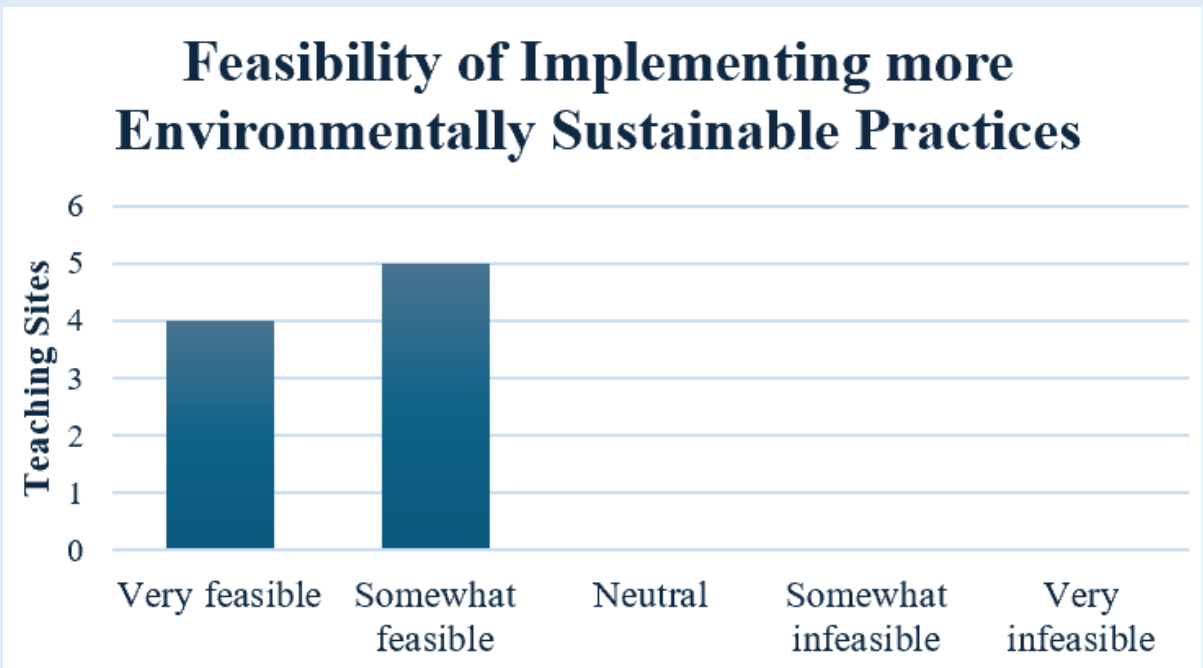
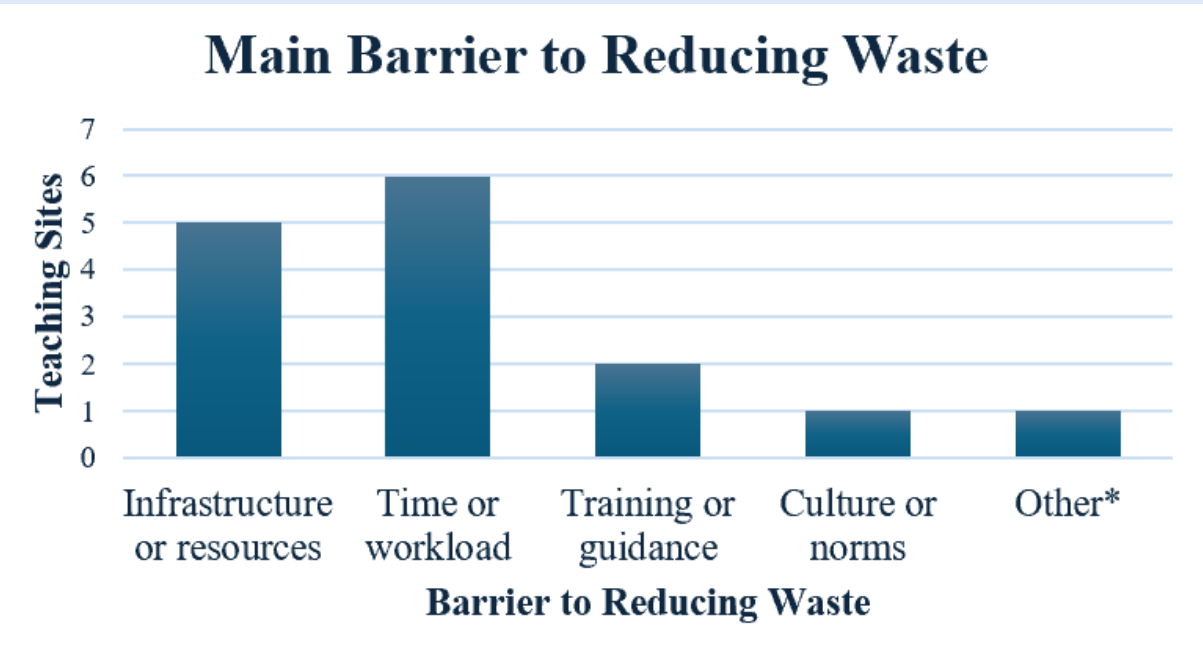
- Survey evaluated:
- Common sustainable practice: Repackaging and reuse of consumables
 - Frequently reused:
 - Catheters
 - Catheter bags
 - Nasogastric tubes
- Routine use of single-use items where reuse may be feasible contributes heavily to avoidable waste.

Barriers to Sustainability:

- Learner safety and educational quality are priorities when considering changes to consumable use.

Capacity for Change:

- Procurement influence: 7 sites reported direct influence.
- Greatest potential for waste reduction:
 - Recycling of rigid plastics
 - Reuse of syringes



DISCUSSION

- Clinical educators are willing to adopt sustainable practices, however, are limited by time pressures and resources.
- Autonomy over consumable procurement could provide leverage for implementing change.
- Learner safety and educational quality must be maintained.

RECOMMENDATIONS

- Guidelines for the repackaging and reuse of syringes.
- Centralised recycling/disposal of rigid plastics across multiple teaching sites.
- Student Sustainability Committee to help staff implement sustainable strategies.
- Formalised discussion among clinical educators → cultivate motivation, share suggestions and resources.

CONCLUSION

Despite financial and temporal barriers, changes towards environmental sustainable practices within medical education are feasible and supported by staff, provided that learner safety and educational quality are maintained.

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