

Linus Chan, Genevie Ting, Chong Chin Yin, Goh Boon Kwang, Christina Lim SingHealth Polyclinics, Singapore









BACKGROUND

Plastic bags cause a variety of environmental problems. Its production creates large amounts of greenhouse gases.

It also contaminates our soil and water sources when it breaks down. Chemicals used in the printing process for plastic bags also causes depletion of the ozone layer.

OBJECTIVE

This project aimed to reduce the use of plastic bags at SingHealth Polyclinics (SHP) Pharmacy, as part of SHP's 'Go-Green' initiatives.

METHODOLOGY

- This project was carried out in stages as it required time to change patients' behavior.
- Various measures were used to reshape patients' behavior and expectations on going green:
 - i) The team designed a SHP recyclable bag and brought a sample to Bukit Merah Polyclinic where 60 patients were surveyed on their preferences such as functionality, size and price:
 - √ 91.7% of respondents found the size acceptable.
 - ▼ 98.3% of respondents found the recyclable bag functional as it had the following features seen in *Figure 1*.
- ii) In conjunction with 'World Environment Day' on 5 Jun 2021, the sale of SHP recyclable bags was launched at all clinics. Posters at dispensing counters:
- → encouraged patients to purchase a SHP recyclable bag or bring their own bag to collect their medications.
- → informed patients plastic bags would no longer be provided for single-item collection.
- iii) After dispensing, pharmacy staff encouraged patients to purchase a SHP recyclable bag or bring their own bag to collect medication. Plastic bags were no longer provided for collection of a single drug.
- iv) MediFund patients were given a free SHP recyclable bag for a limited period when they purchased insulin-related consumables.
- v) Small-sized plastic bags were phased out in 2023, and only medium & large sized plastic bags were kept at reduced quantities.
- vi) In early 2024, the team decided to move towards the supply of plain plastic bags without any printed SHP logo to minimize visual reminders of SHP providing plastics bags for collection of medications and to reduce cost of purchase of plastic bags (*Figure 2*).

Figure 1: Features of SHP Recyclable Bag

| Insulation padding | For drugs which need refrigeration |
| Back pocket | For documents |
| Back pocket | For docu

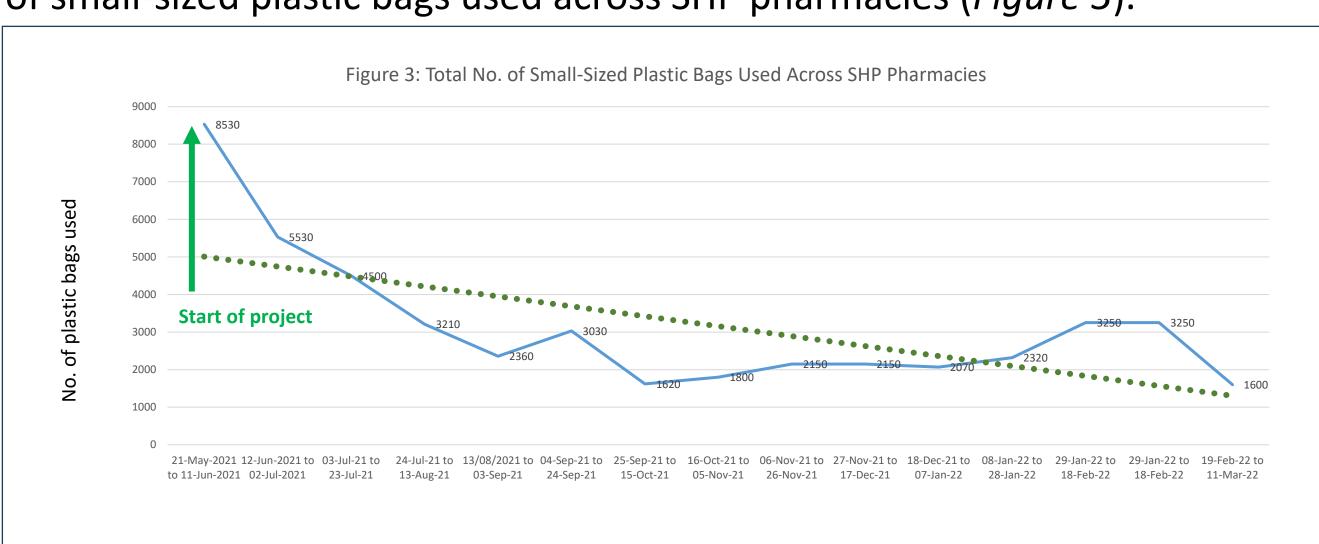
Figure 2: Printed SHP vs Plain Plastic Bag



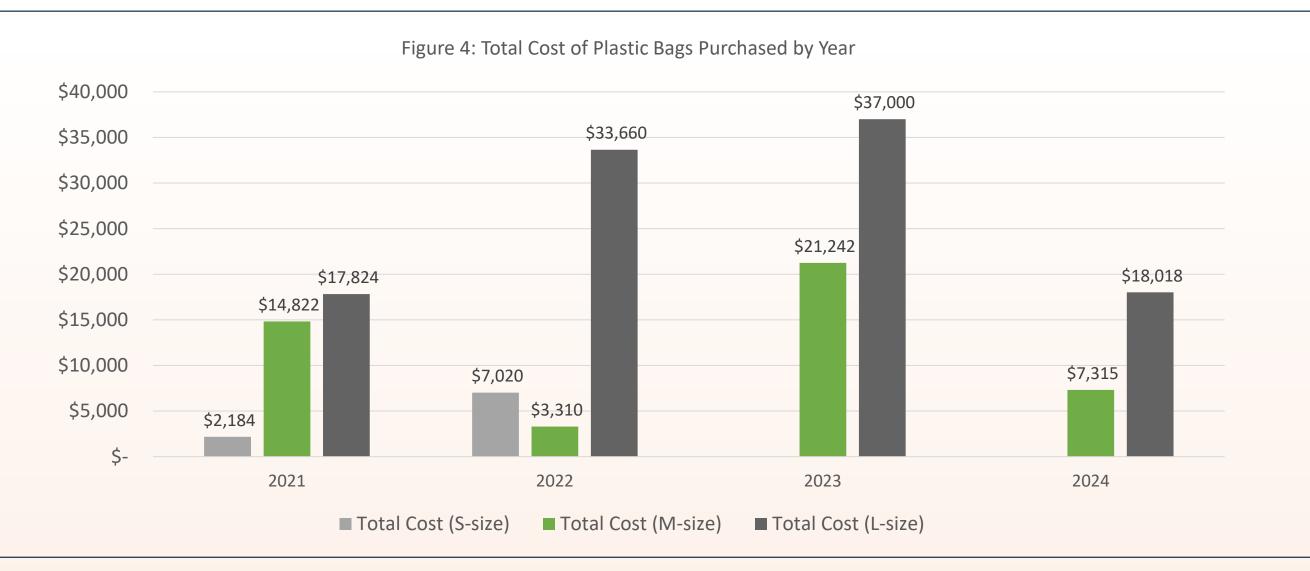


RESULTS/DISCUSSION

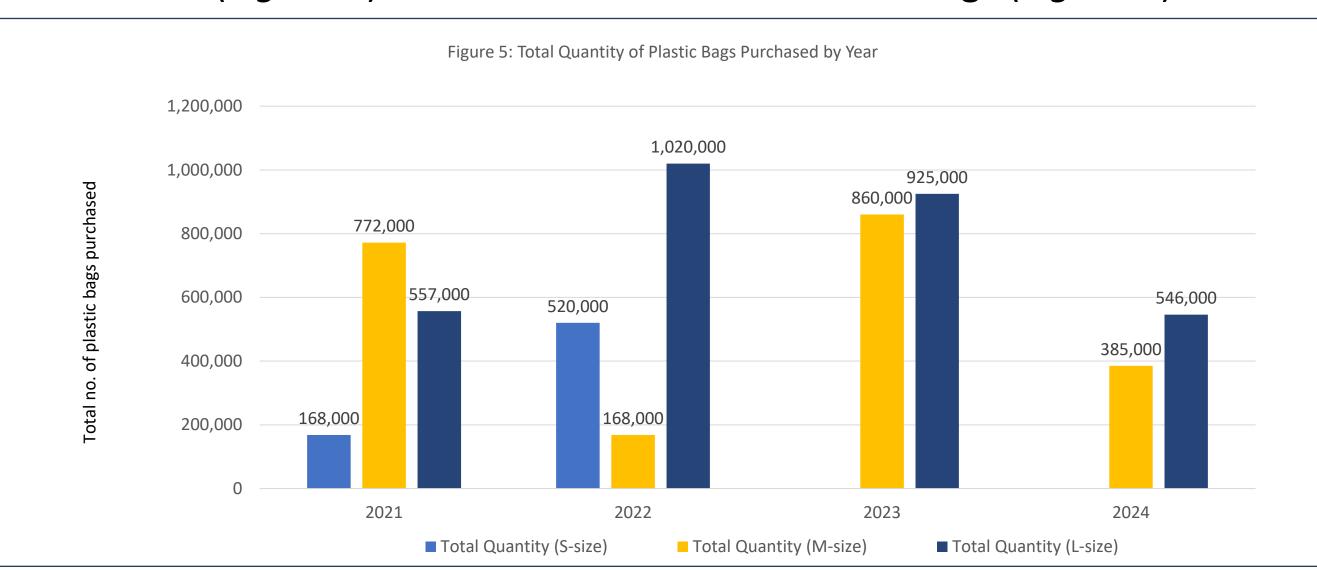
From May 2021 to Mar 2022, there was an 81.2% reduction in the number of small-sized plastic bags used across SHP pharmacies (*Figure 3*).



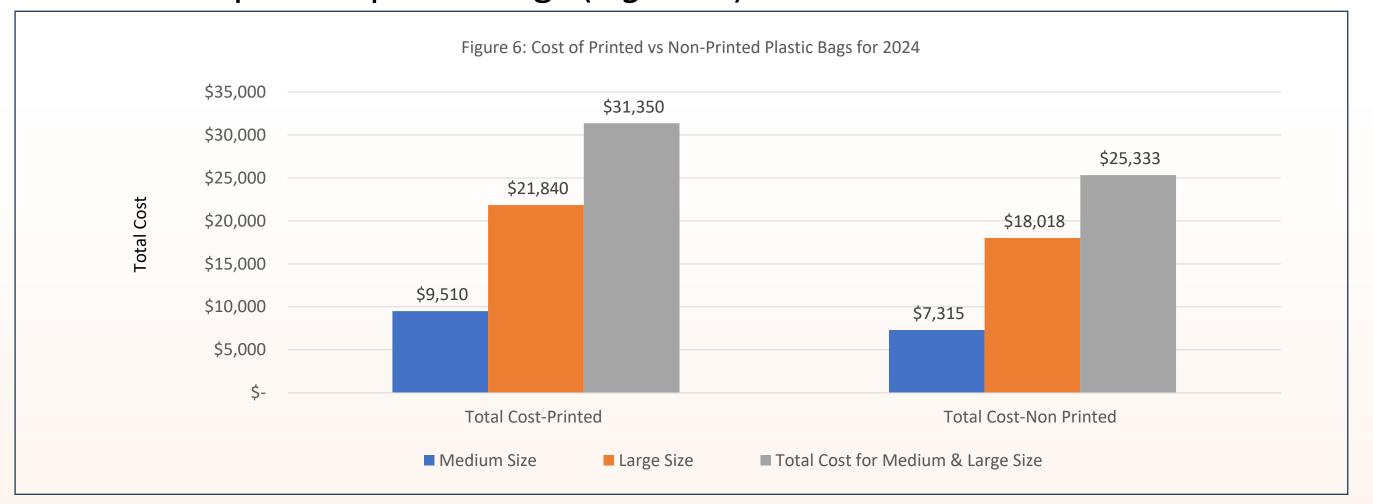
With subsequent discontinuation of small-sized plastic bags in 2023, estimated cost savings of about \$5000 per year was achieved (*Figure 4*).



A 30% reduction in use of medium and large-sized plastic bags overall from 2021 to 2024 (*Figure 5*) led to around \$7000 in cost savings (*Figure 4*).



Further cost savings of about \$6000 annually are expected in 2024 as we move towards non-printed plastic bags (*Figure 6*).



The reduction in use of plastic bags at SHP Pharmacy contributed to environmental sustainability, with direct cost savings as well as lower inventory costs.

CONCLUSION

SHP Pharmacy was able to reduce the use of plastic bags since the start of its 'Go-Green' initiatives in 2021, with ongoing efforts in 2024. These ongoing efforts in environmental sustainability include plans to subsequently charge for the provision of plastic bags during medication collection.

ACKNOWLEDGEMENTS

We would like to acknowledge Mr. Tang Woh Peng for his kind inputs and all SHP Polyclinic Pharmacy staff for their collective effort in reducing plastic use.