

TARGETED GREENING MEASURES TO REDUCE WASTE IN OUTPATIENT HAND SURGERY

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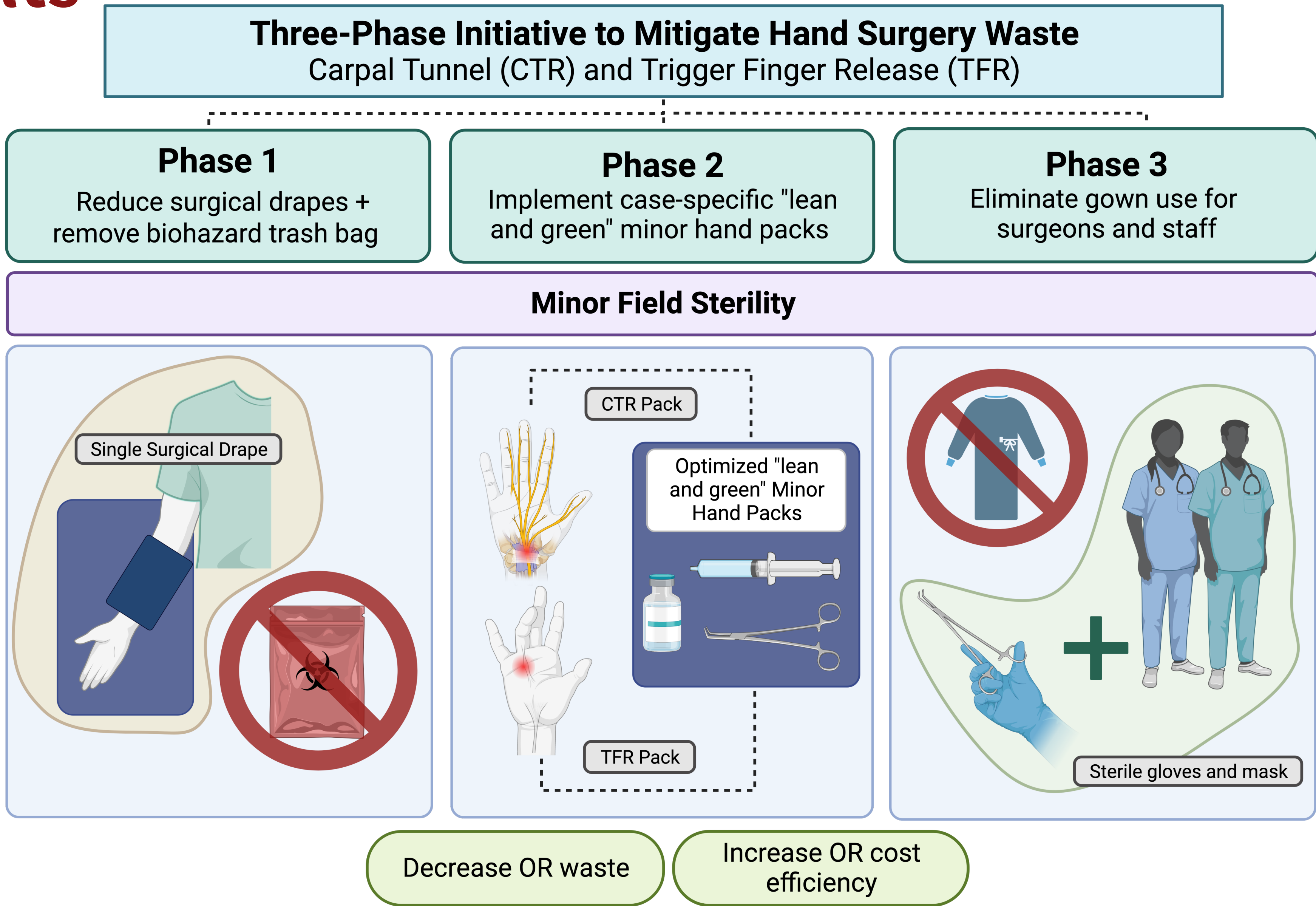
Introduction

- Healthcare produces **8% of greenhouse gas emissions**
- ORs produce **70% of hospital waste**
- Greening strategies **reduce the environmental impact of surgery while maintaining patient safety and outcomes**
- Aim of study: to strategically **reduce waste and cost** associated with **carpal tunnel** and **trigger finger release** over a 1-year period in a high-volume tertiary referral hand surgery division.

Methods

- A three-phase greening initiative for hand surgery was designed and implemented in ambulatory carpal tunnel and trigger finger release cases, including:
 1. Introduction of **minor field sterility**
 2. Design of a **“lean and green” minor hand surgery pack**
 3. **Eliminating gown use** by surgeons and OR staff
- Surgical supply usage and costs were tracked and compared to control**
- Each stage lasted 4 months**

Results

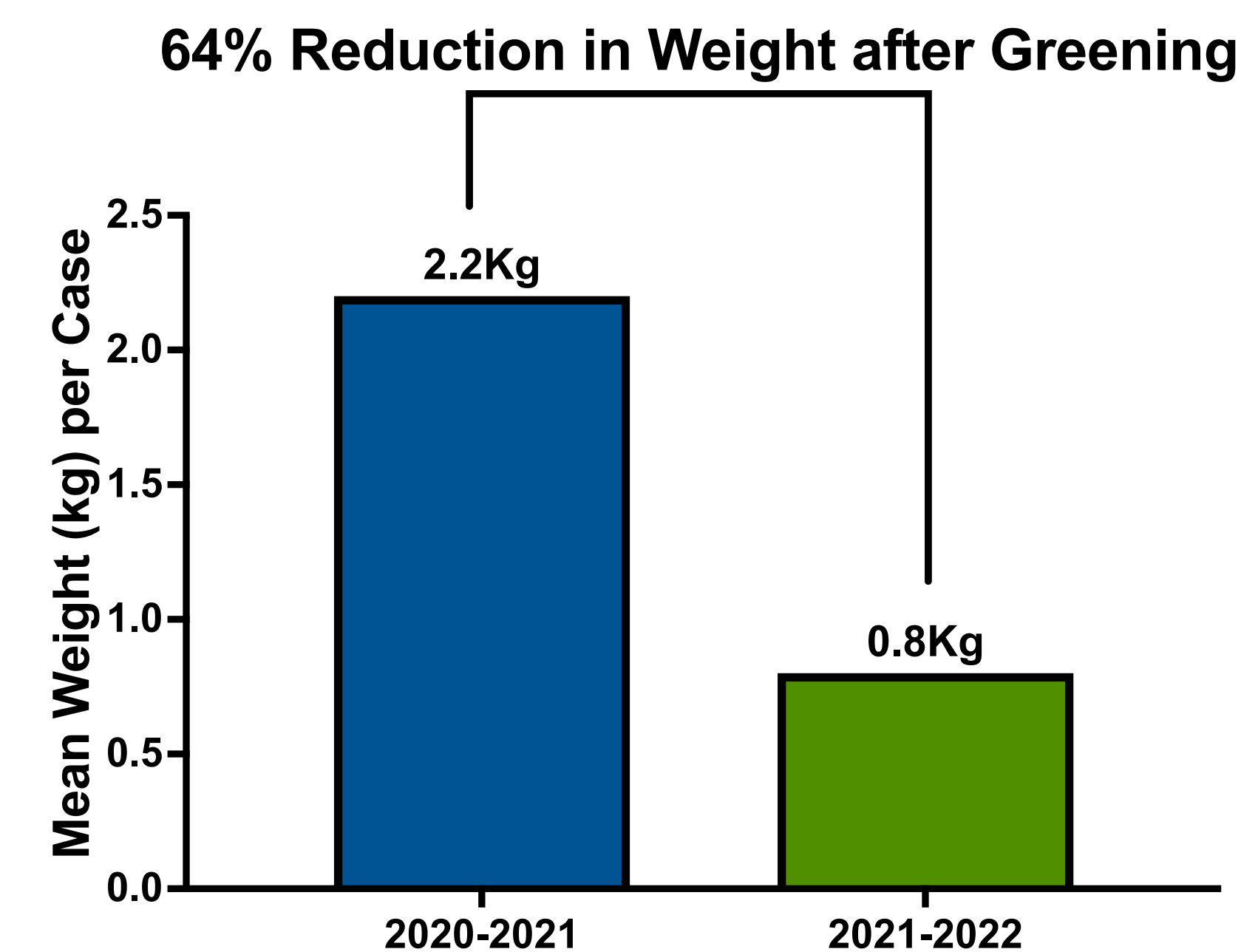
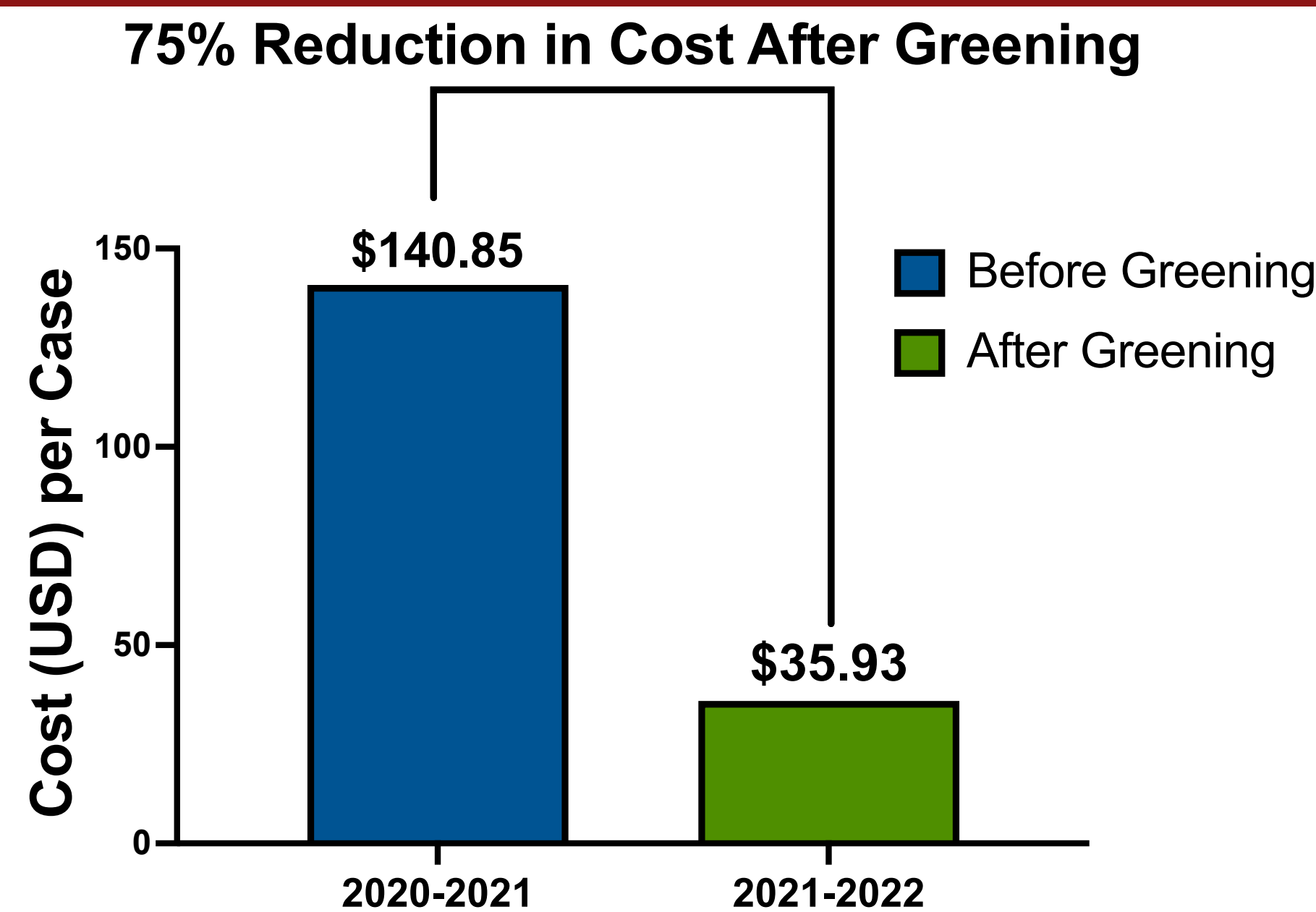


- Lean and Green hand pack design:**
1. **Environmentally conscious design**
 2. **Targeted removal of unnecessary disposable** items from the hand set including:
 - Plastic **basin**
 - Plastic **emesis basin**
 - Graduated **pitcher**
 - Polypropylene **plastic bag**
 - **Labels**
 - 1x Surgical **skin marker** (2/pack)
 - Biologic **specimen container**

Minor hand pack



“Lean and green” hand pack



Conclusions

- Each “green case” resulted in savings of **\$105** and **at least 1.2kg of waste**
- Equates to a minimum institutional annual saving of **\$36K** when used for carpal tunnel / trigger finger release
- Recycling is an imperfect energy intensive solution → need to strategically evaluate and reduce unnecessary OR waste
- Surgeons are leaders in OR → Do we have a responsibility to evaluate supplies and waste production generated in our cases?

Future Directions

- With the success of the program, the greening initiative will expand to include excision of ganglion cysts and soft tissue masses.
- Greening initiatives are now rolling out to include outpatient clinics, craniofacial surgery, and general surgery.

