

1. Introduction

Daily, there are approximately **125 transfers to procedural areas** e.g. X-Ray, Endoscopy etc.

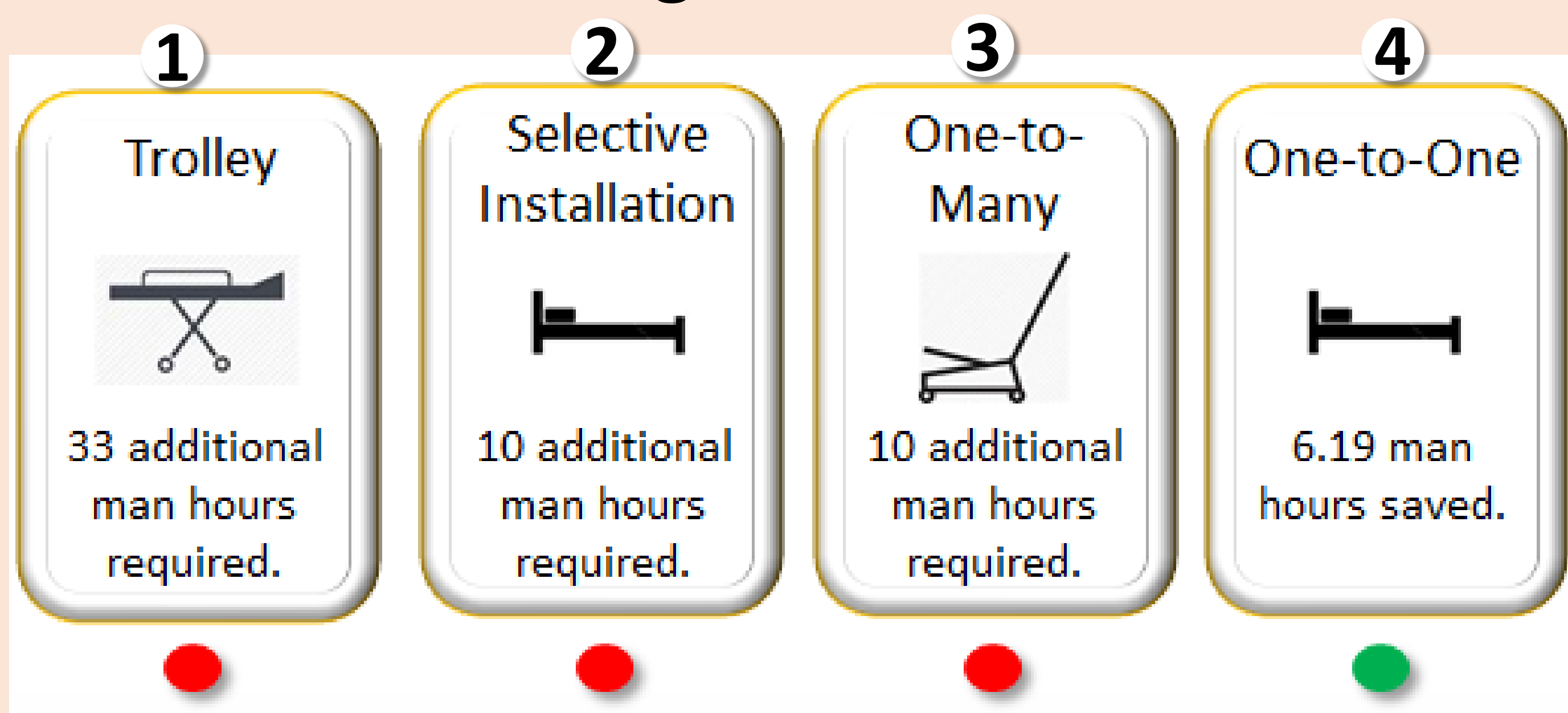
Each bed weighs **260kg -360kg** with the patient and equipment.

70% of Portering Staff are **more than 50 years old.**

2. Methodology



4 options were explored, out of which **3 options will require more man hours** instead of reducing man hours.



Option 1 and 2 will also cause patients to experience unnecessary pain when being transferred. Furthermore, not all patients can be transferred due to their conditions. Hence, a **one-to-one solution (option 4)** was chosen.

4. Conclusion

“We don’t need so much strength with this system. This is especially good for the elderly porters. Our energy can be diverted to do other work”

Mr. Teo, Portering Attendant

“The beds are heavy even when the patients are not heavy. It can save time, its easier for both the porter and nurse to transport the patient. It will definitely help a lot. “

Ms. Ivy, Ward Nurse

3. Results

138 out of 591 beds were enhanced with the system with partial MOH Health Pass funding.

| Productivity Measure | Before | After |
|--|--|---|
| Average waiting time for a 2 nd porter to support transfer back to ward | 10 mins | 0 |
| Average time saved for porter who need not perform assignment | 10 mins | 0 |
| Manual strength required to overcome inertia | <u>ICU bed</u> 21-24kg <u>Normal bed</u> 14-18 kg | <u>ICU bed</u> 10-13kg <u>Normal bed</u> 0 |
| Manual strength of pushing bed at steady speed | <u>ICU bed</u> 11-15kg <u>Normal bed</u> 10-13kg | <u>ICU bed</u> 4-5kg <u>Normal bed</u> 0 |

28.5 hours are saved per month . The intangible benefit is **better ergonomics** and **reduced fatigue in staff** when transferring patients on bed.