



Singapore Healthcare
Management 2019

What's coming around that corner?

Reducing Risk of Collision Hazard in SGH Ward Corridors



Singapore
General Hospital
SingHealth

Neo Yan'E Elizabeth¹, Kam Wai Kuen¹, Yeoh Seng Hong², Jass Lim Wei Chen³

¹Workplace Safety & Health, Division of Organisation Planning & Performance

²Facilities Management & Engineering, Division of Estate Management

³Nursing Administration, Division of Nursing

Background

Nurses gave feedback that they had several near miss collisions when turning around the blind corners at ward corridors. Although no actual incidents were reported, the high traffic of staff, patients and visitors in wards highlighted the need to investigate high risk corners in ward corridors, and evaluate the use of convex mirrors to reduce potential risks of collisions.

Methodology



Physical observation of the existing situation on the use of convex mirror in all SGH wards' corridors and corners


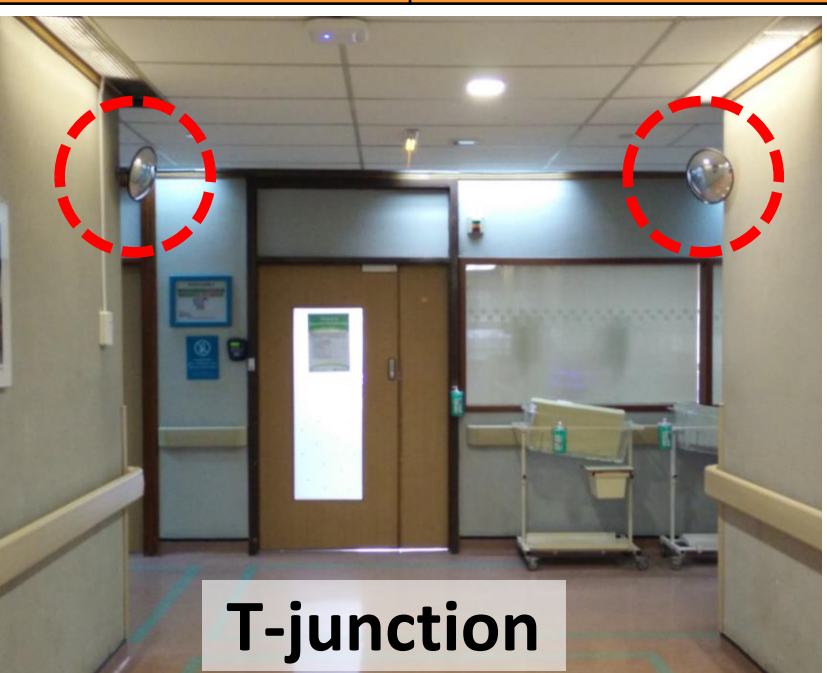
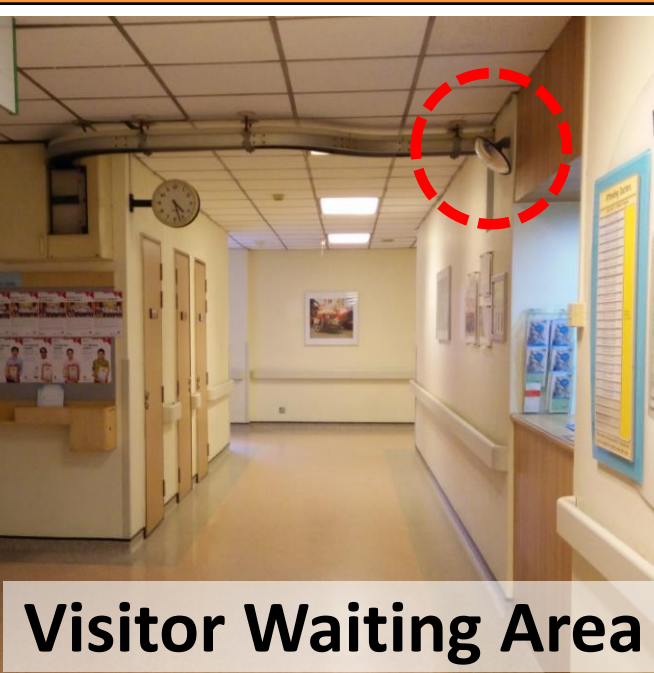


Calculation of the viewing distance of different sized convex mirrors based on formula (1 inch of circular mirror for every foot in viewing distance) and evaluation of its effectiveness



Self-administered online survey to gather ground sentiments from nurses and porters on the blind corners in wards

Results

Ward	W42/RDC	W47	W53A/C	W57
Type of junction	 L-junction	 T-junction	 Visitor Waiting Area	
Diameter of mirror	40cm	32cm	25cm	25cm
What is the view?	Both sides of the corridor	Only one side of the corridor	Only one side of the corridor	
Calculated Viewing distance	5 m	4 m	3m	3m
Viewing distance in application	Up to 7m	Up to 2m (due to the positioning of mirror)	Up to 3m	Up to 3m

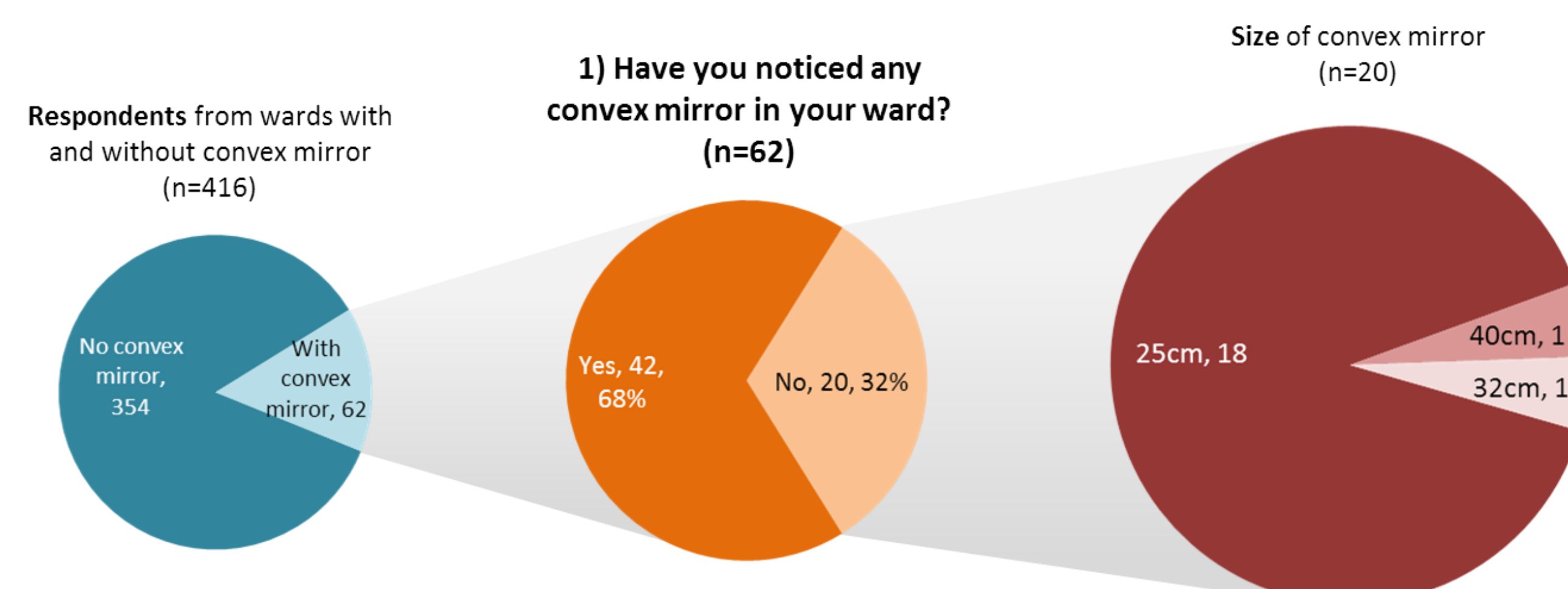
There were 4 wards (W42, W47, W53 and W57) where convex mirrors were found. These convex mirrors came in different sizes, with diameters of 40cm, 32cm and 25cm. That translated to a calculated viewing distance of 5m, 4m and 3m, respectively.

A viewing distance of 5m would be ideal especially for staff transporting long equipment (e.g. bed) where they can look out for obstructions before reaching the corner

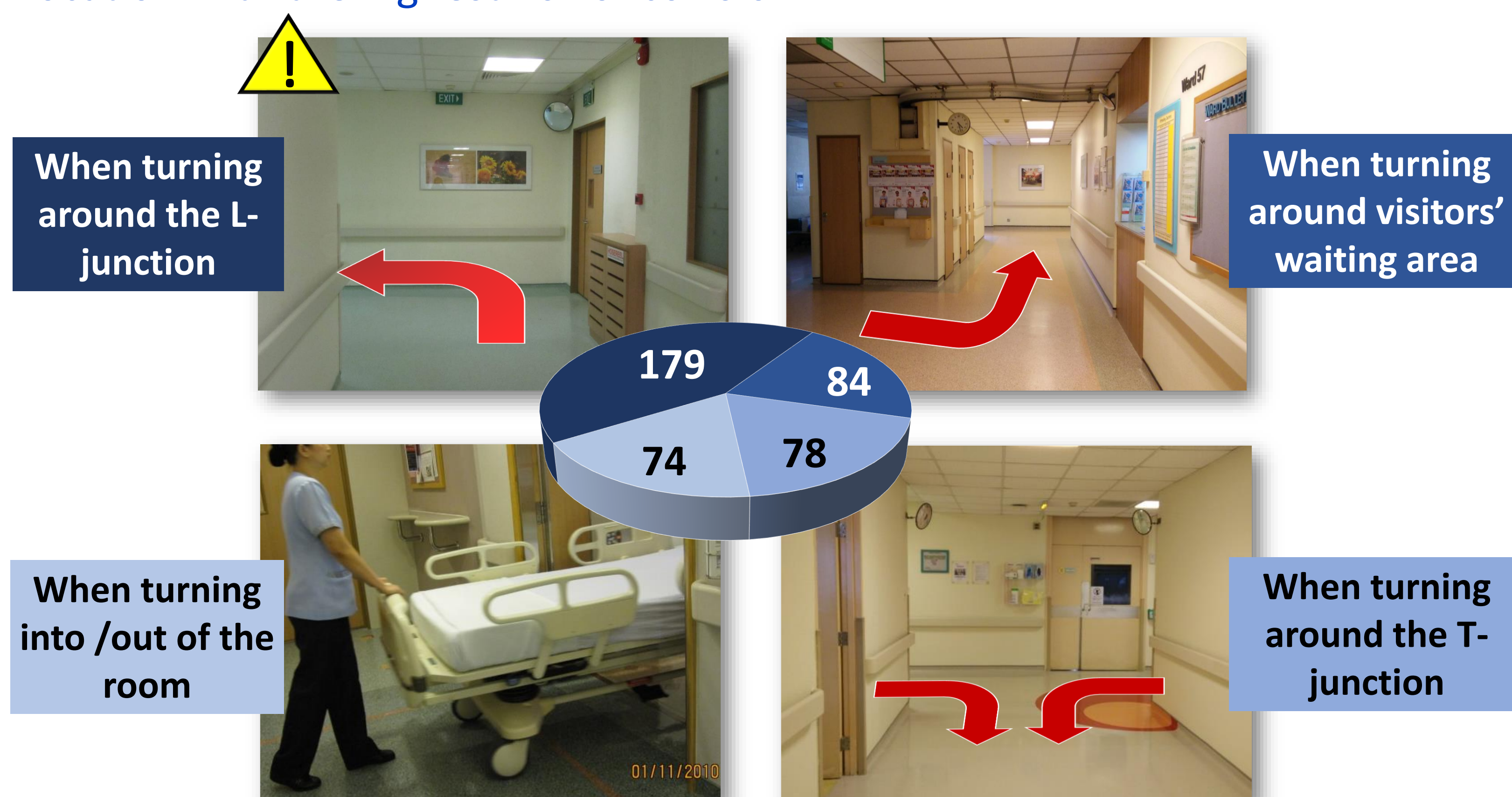


The survey garnered a total of 416 responses from ward nurses and 47 responses from porters

i) Answers to questions on **AWARENESS** indicated that majority of nurses who did not notice the mirror came from wards with the 25cm diameter mirror



ii) Answers to questions on **INCIDENT /NEAR MISS LOCATION** showed that both nurses and porters were in agreement that the L-junction was the location with the highest risk of collision



Actions taken & Conclusion

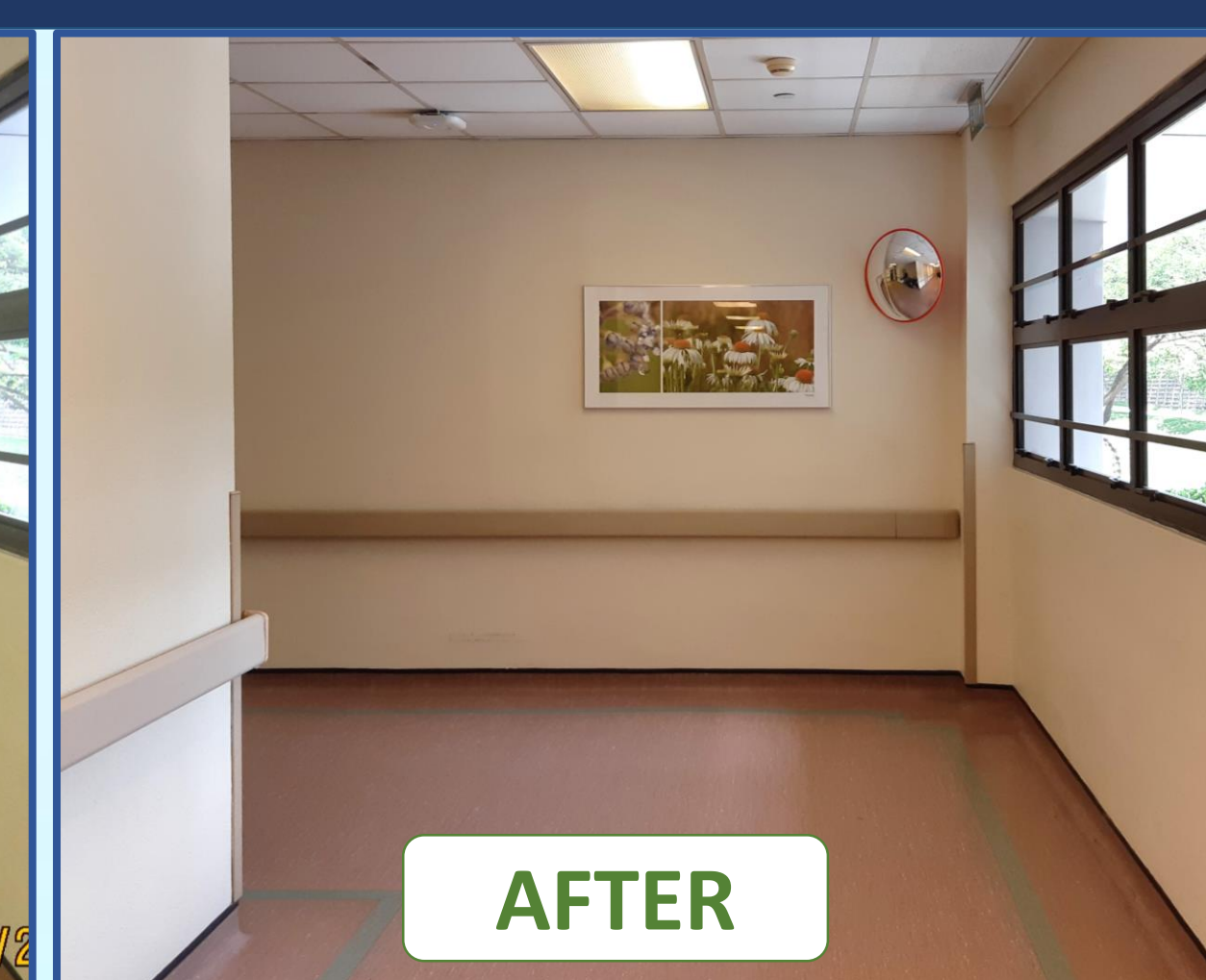
Based on the results, a bigger 40cm diameter convex mirror was proven to be more noticeable and the L-junction of wards should be prioritized for convex mirror installation.

In 2018, 33 convex mirrors of 40cm diameter were installed at the L-junctions of 17 wards.

Spot the difference!



BEFORE



AFTER