

### **Project Title**

Staircase to Safety

### **Project Lead and Members**

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- Gary Tan

### **Organisation(s) Involved**

KK Women's and Children's Hospital

### **Healthcare Family Group Involved in this Project**

Healthcare Administration

### **Specialty or Discipline**

Facilities Development

### **Project Period**

Start date: 2017

### **Aims**

- To provide pedestrians a safe, direct and convenient link
- To eliminate recurring water-ponding at basement 1 footpath beside the vehicle ramp

### **Background**

See poster appended / below

### **Methods**

See poster appended / below

**Results**

See poster appended / below

**Lessons Learnt**

See poster appended / below

**Conclusion**

See poster appended / below

**Additional Information**

Singapore Healthcare Management (SHM) Conference 2018 – Shortlisted Project (Risk Management Category)

**Project Category**

Care & Process Redesign, Build Environment, Facilities Management Improvement

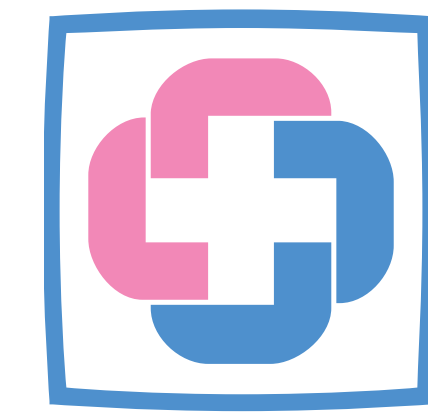
**Keywords**

Enterprise Risk Management, Pedestrian Slips and Falls, Vehicular Ramp, Anti-Slip Tiles

**Name and Email of Project Contact Person(s)**

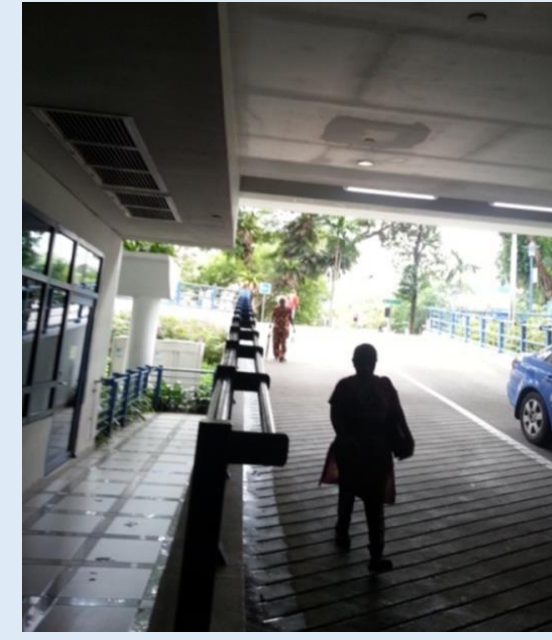
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## 1. Introduction

Recurring slips and falls, especially during wet weather, on the vehicle ramp linking street level and basement 1 access at Women's Tower. There was no direct pedestrian access from street level to the basement 1.



## 2. Objectives

To provide pedestrians a safe, direct and convenient link.

To eliminate recurring water-ponding at basement 1 footpath beside the vehicle ramp.



## 3. Methodology

Identified the causes of recurring pedestrian slips and falls.

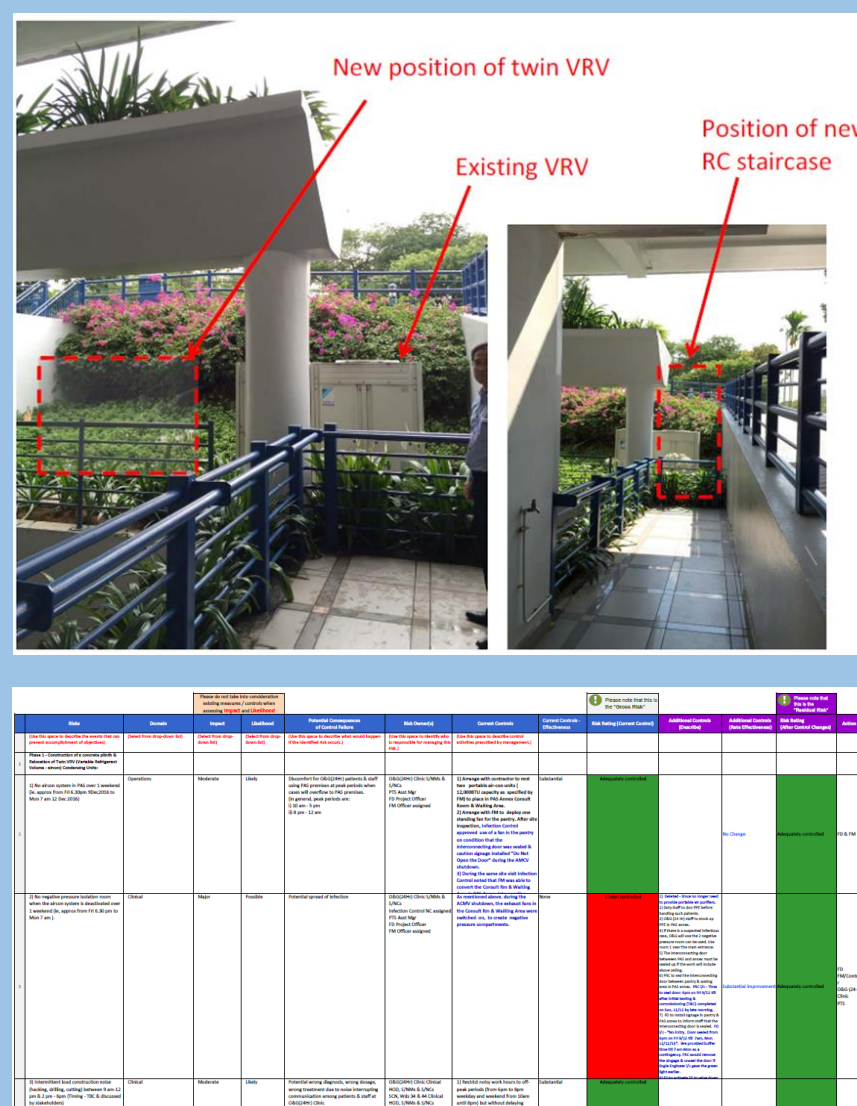
Surveyed the site and found that we could not safely fit a pedestrian ramp in the tight space.

Decided to build a staircase beside the vehicle ramp and improve drainage at the base of the proposed staircase and along the footpath.



### 3a. Plan

Assessed risks, conducted Enterprise Risk Management (ERM) and addressed site constraints during construction, viz relocation of clinic VRVs and need to keep the vehicle ramp accessible 24x7 for ambulances and taxis.



### 3b. Do

Implemented strict infection and noise control measures to safeguard well-being of occupants in adjacent clinics and nearby wards, plus operations of the nearby KKIVF Lab.



### 3c. Check

Assessed anti-slip tiles and tested drainage provisions to ensure rapid drain off even during prolonged, heavy rain.

Assessed various designs for signage to advise pedestrians to use the new staircase and avoid using the vehicle ramp.

Monitored the occurrence of slips and falls since the completion of the staircase.



### 3d. Action

Installed clear, eye-catching signage at street level and basement 1 to alert and advise pedestrians to use the new staircase.

Broadcasted the completed staircase as a safe, direct and convenient path. Strongly encouraged its use.

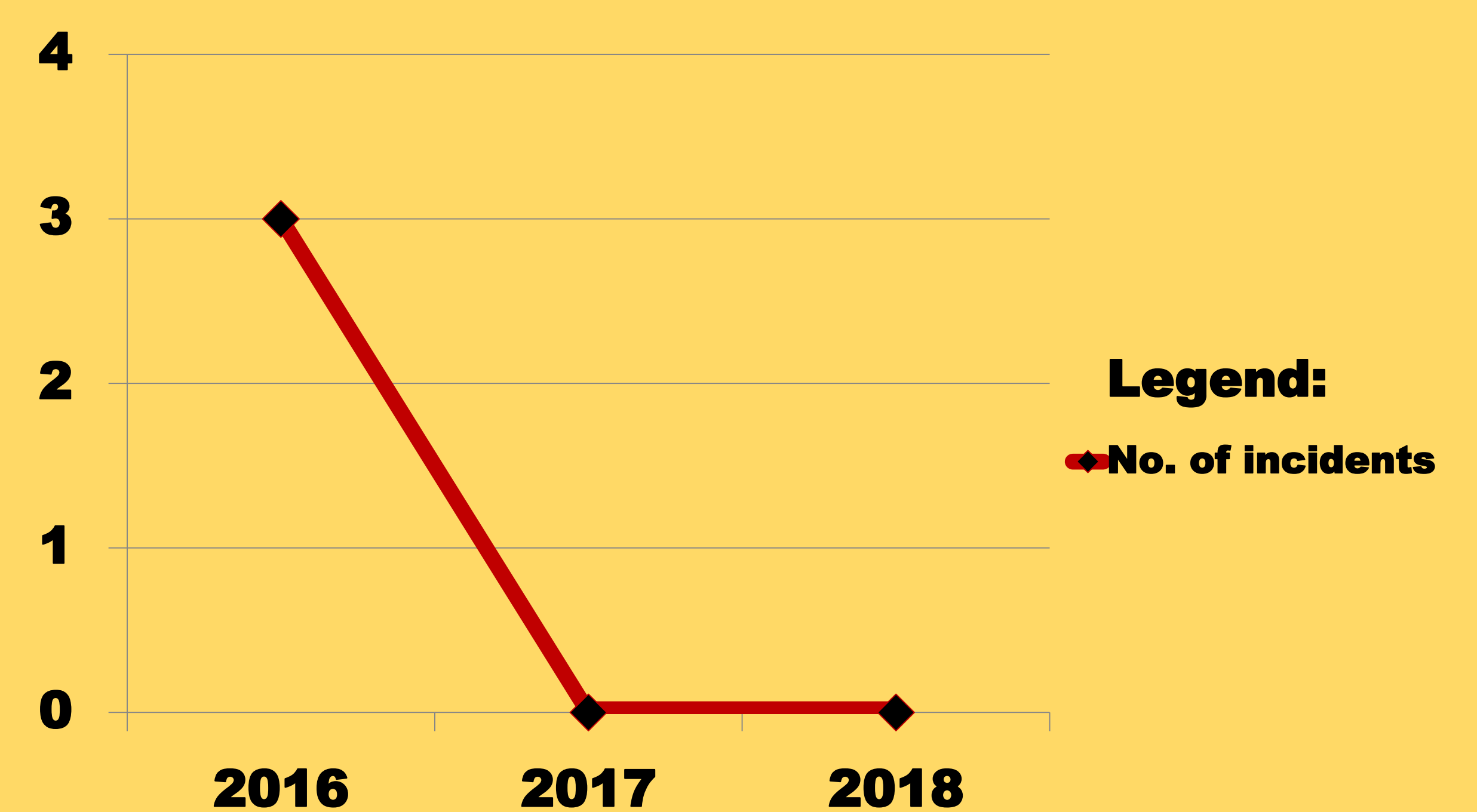


## 4. Results and Conclusion

4a. Provided pedestrians with a direct, well-lit, anti-slip staircase linking street level & basement 1 at the entrance of Women's Tower.



4b. Reduced the number of slips & falls on the vehicular ramp from 3 reported cases in 2016 to 0 in 2017 & in 1st quarter 2018.



4c. Improved drainage along the footpath beside the ramp to eliminate potential slips & falls due to water-ponding. Resurfaced the footpath with anti-slip tiles to improve pedestrian safety during wet weather.

