Medical Management of S11@Punggol Dormitory Cluster

Chua Qin Xuan, A/Prof Ong Biauw Chi, Dr Winston Ong,

Sengkang General Hospital

Introduction
The S11@Punggol Dormitory is one of the largest foreign worker dormitory cluster with over 13,000 residents. At the onset of dormitory COVID-19 outbreak, 700 COVID-19 cases were confirmed within 2 weeks (1 April to 14 April). With SKH being in close proximity with S11@Punggol Dormitory, it was imperative to manage the flow of patients from the dormitory so that SKH ED and Isolation facilities would not be overwhelmed to the exclusion of other emergent patients with acute needs.

Methodology
Using the 5-step enterprise risk management (ERM) process, SKH and relevant stakeholders were able to proactively identify the risk, review the current control measures and implement additional risk controls to mitigate the risk. The appropriate key risk indicators were identified to monitor the effectiveness of the risk controls and to determine whether new risk controls need to be implemented.

Diagram 1: 5-Step ERM Process

1. Identify Objective
One of SKH's strategic objectives is to provide the right care at the right place at the right time. This means to treat patients with acute medical conditions in the hospital and to discharge patients with less acuity to the appropriate care sites.

2. Identify Potential Risk Event
At the onset of the first S11@Punggol case on 29 March 2020, SKH begun to implement proactive identification and trending of patient profiles as well as daily projections on new cases. When the number of confirmed new cases increased, dormitory operators were contacted to alert them to a possible COVID-19 cluster in their facilities.

3. Examine Current Control Measures
When the first positive local COVID-19 case was reported, SKH had already begun early preparations to manage the potential surge of COVID-19 cases coming through the Emergency Department. Specifically, the capacity of the intensive care unit and isolation wards were expanded to increase hospital capacity to manage COVID-19 patients. A dedicated holding area for dormitory workers was also demarcated while waiting for their screening test result.

4. Implement Appropriate Risk Controls
To prevent overwhelming of ED capacity, SKH collaborated with the respective agencies (i.e. dormitory operator, SDOT, SAF, MOH and MOM) to support key medical operations at S11 Dormitory, including mass testing, medical posts, planning in-situ isolation facilities for stable, mildly symptomatic or asymptomatic residents. To enhance the medical coverage for the residents, the initial day medical post was expanded to include a 2-hour night medical post and a tele-consultation service by SKH ED after the night shift had ended.

5. Monitor Results
Medical post attendances, ED attendances and admissions were monitored on a daily basis to ensure that response plans were effective. Additionally, epidemiological patterns and the spread of the disease within the dormitory was also monitored to help guide isolation plans and mass testing initiatives.

Results
With the relentless effort of the various parties to provide on-site medical support, the number of S11 residents sent to SKH ED had reduced significantly from a median of **13.0 to 2.5** and the S11 residents requiring acute care admission had also stabilised from a median of **9.5 to 1.0**.
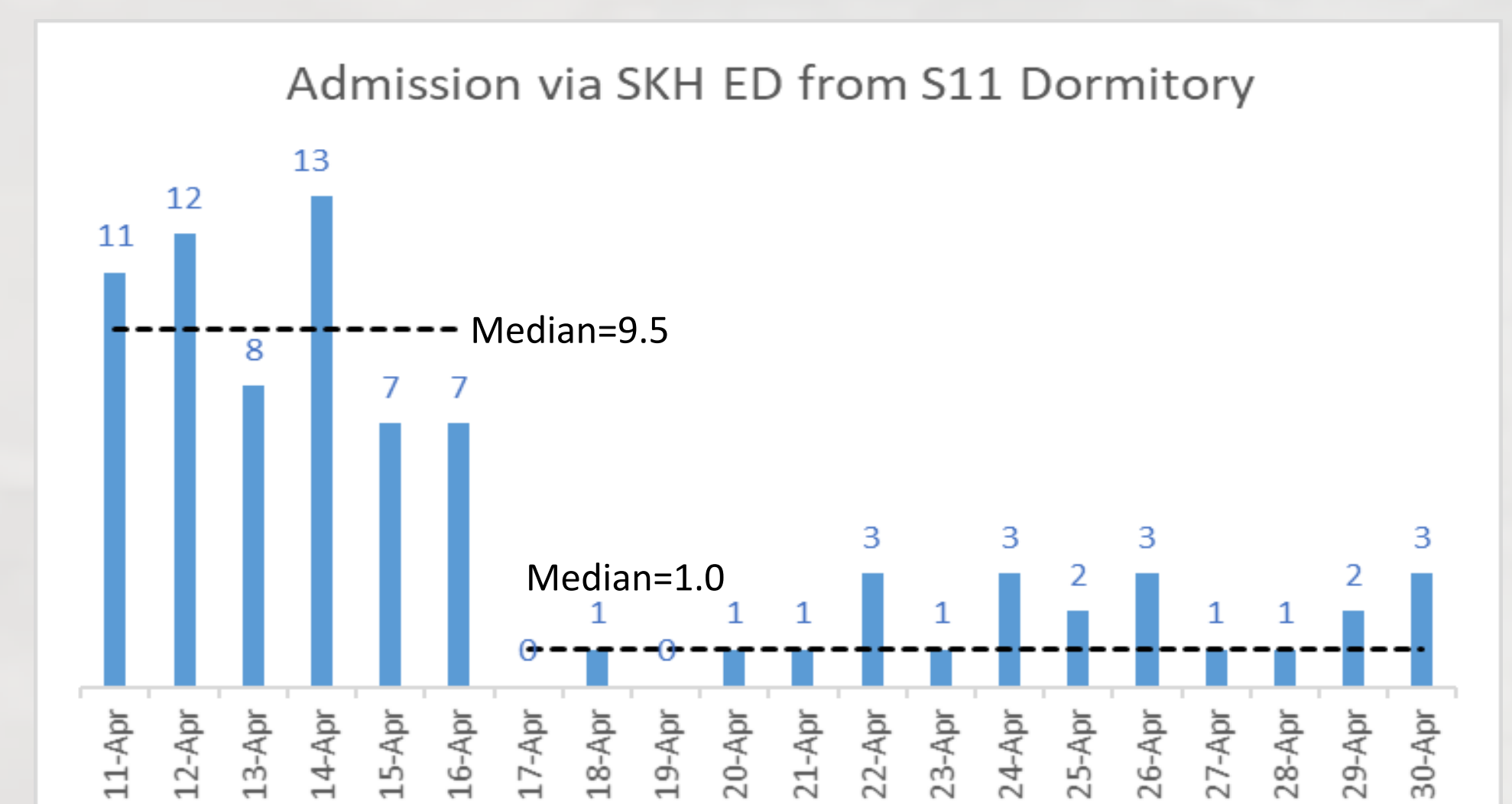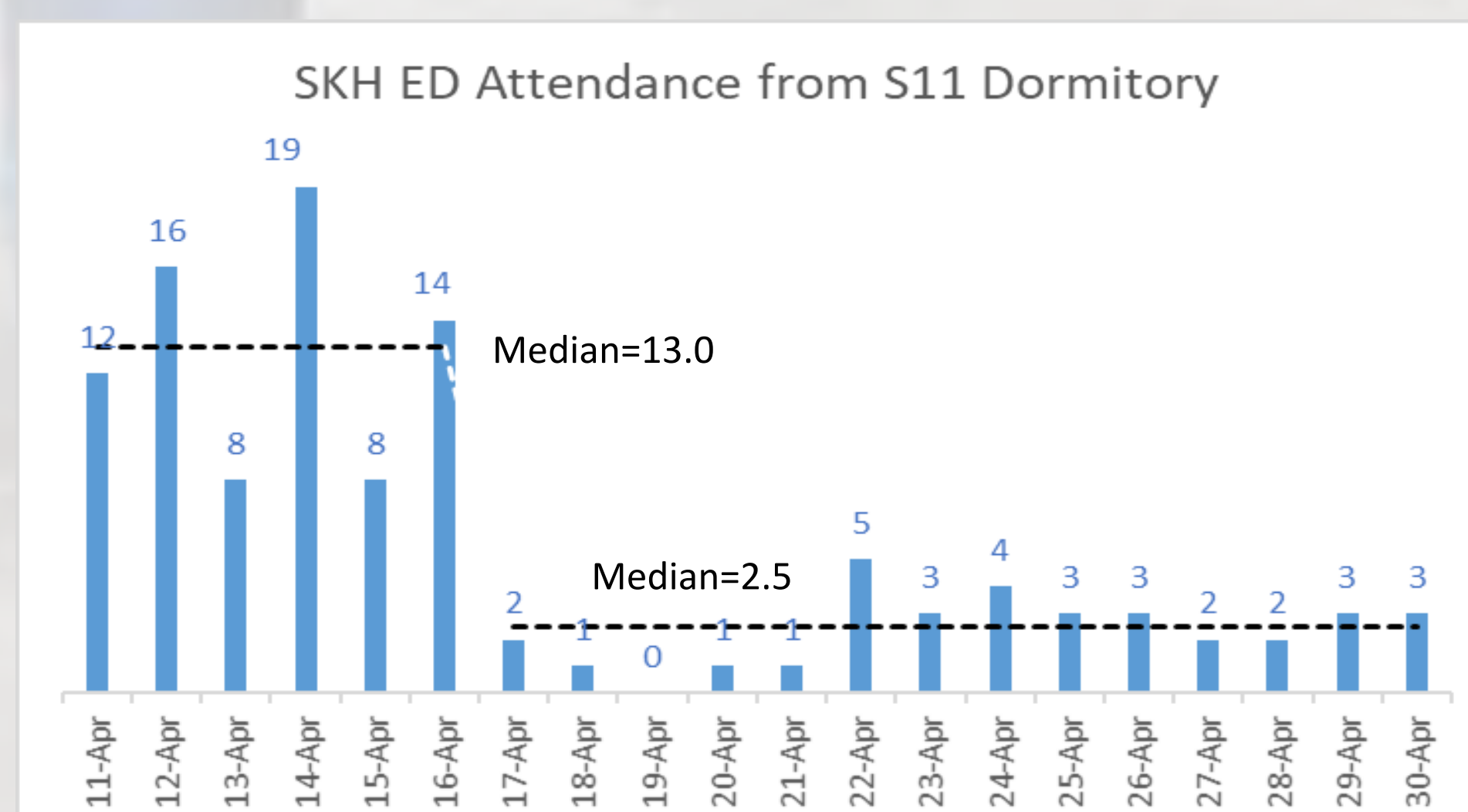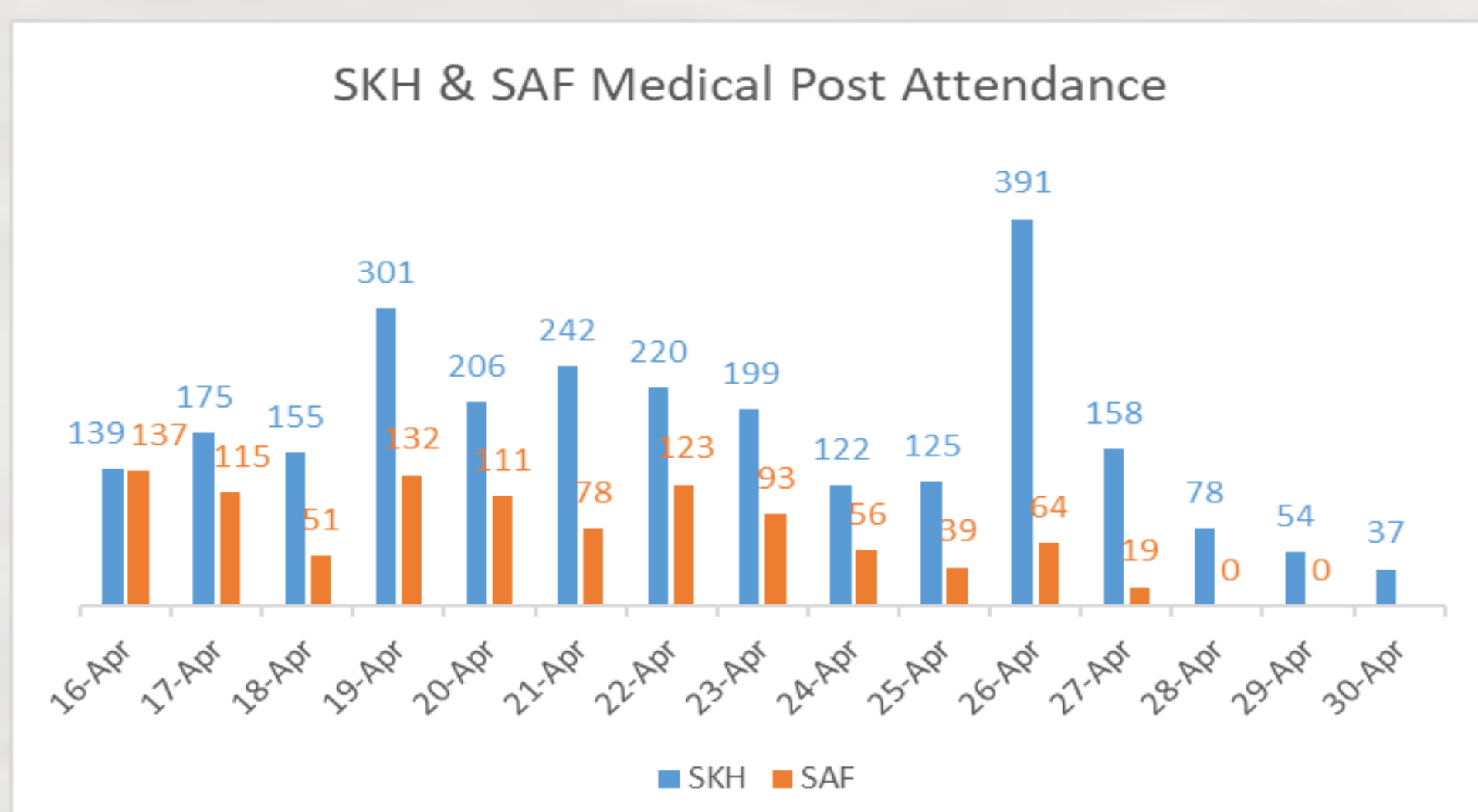
Conclusion
Forward planning and active engagement with stakeholders are necessary when identifying and managing external risks. With the close inter-agency collaborations and the forward party, medical management of the S11@Punggol Dormitory Cluster was timely, which prevented SKH ED and Inpatient resources from being overwhelmed.