A late coming and prolonged Winter Surge: what happened in 2016?
Leung LH
Department of Family Medicine and Primary Health Care, Kowloon West Cluster

Keywords:
winter surge
attendance
manpower
service demand
cold weather

Introduction
Winter surge is a challenge to the HA service capacity. The winter surge profile and characteristics could be studied so as to strategically plan the manpower appropriately e.g. to schedule GOPC SHS at an anticipated surge period instead of the dip dates. In 2016, the winter surge is characterized by a late and prolonged surge. It was not uncommon for A&E to have over 6,000 attendances even 7,000 plus till as late as March in 2016. The details were studied in the project.

Objectives
To describe the characteristics of the winter surge in 2016
To explore possible factors leading to a surge of attendance (e.g. Monday effect, long Public Holiday effect, cold weather or precipitation effect).

Methodology
Data were retrieved from the “key statistics on service demand of A&E Departments” and the Hong Kong Observatory database for analysis.

Result
1. During the 2016 winter surge period, the average total A&E daily attendance was 6,226 and the average temperature was 16.8 degrees Celsius
2. A dip of the attendance 5,860 was observed on CNY PH day 1
3. The most drastic surge in 2016 was observed on the CNY PH day 2 with a surge of total daily attendance from 5,860 to 7,613 (30% rise)
4. The average daily total attendance during the 2nd day to 4th day of the Lunar New Year Period is 7,441 which is around 20% increase compared with the average figure
5. Monday effect: the average number of daily attendance on Monday (excluding the Lunar New Year PH) is 6,598, which is 6% more compared with the average
6. There were 6 days which the total daily attendance exceeding 7,000, of which 3 days were the CNY PH day 2 to 4, 2 were Mondays, and 1 was an ordinary Thursday
7. The coldest day was 2/2/2016 (average temperature of 10.4 degrees Celsius) with a 8% dip of total attendance 5,871 compared with a day before (6,390).
8. The most drastic drop of temperature occurred from 14/2/2016’s 21.7 to 13.2 degrees Celsius on 15/2/2016 with a drop of 8.5 degrees Celsius. The attendance slightly raised from 6,456 to 6,551 over the day of such temperature drop.
9. There were 18 documented rainy days during the study period with the average total daily attendance of 5,895 which is around 5% less compared with non-rainy day’s total daily average attendance.
Comment: extra manpower allocation could be considered during the long public holiday and Mondays. Rainy days may be a factor leading to reduced attendance but it is not a reliably predictable factor in advance for duty planning purpose.