

VALUE-BASED HEALTHCARE CONFERENCE 2024

22-23 AUGUST 2024



National Dental
Centre Singapore
SingHealth

Application of value-based healthcare in third molar surgery service in a dental hospital

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Abstract

Aim: To apply the concepts of value-based healthcare in third molar surgery service.

Value-based transformation in healthcare aims to enable a healthcare system to create more value to its patients. This involves improving patient's health outcomes in the most cost-efficient way possible. Currently, this concept has not permeated into dental healthcare. Thus, we selected third molar surgery as a condition to apply the principles of value-based healthcare.

Methodology

The population in this transformation process were patients who underwent surgical removal of one impacted third molar under local anaesthesia at the National Dental Centre Singapore from 2021 to 2024. Clinical Quality Index (CQI) indicators were determined. These were: wait time to consultation less than 60 days (WTA), wait time to surgery less than 42 days (WTS), surgery duration less than 30 minutes and absence unscheduled return (Figure 1). Interventions such as the specialist-led clinics (SLC) were introduced to improve various aspects of the CQI.

Key Findings

The baseline average CQI in 2021 was 39.7%. This was attributed to the high percentages of WTA and WTS (Figure 2). SLC was introduced in July 2022, increasing the number of consultation sessions and thus, lowering WTA significantly by 18.6% from 2021 to 2023. In addition, optimization of operating theatres also lowered WTS. Between July 2022 to February 2024, the average CQI increased by 13.2%. As a measure of clinical outcomes, surgery duration and the absence of unscheduled returns were measured during the same period. These indicators remained constant, indicating maintenance of good clinical outcomes (Figure 3).

Conclusion:

The results of our transformation showed that value-based healthcare is viable for application in third molar surgery service. Interventions to improve outcomes should be designed with the goal to improve overall value. The CQI indicators used in this project can potentially be used as benchmarks for future transformations in third molar surgery.

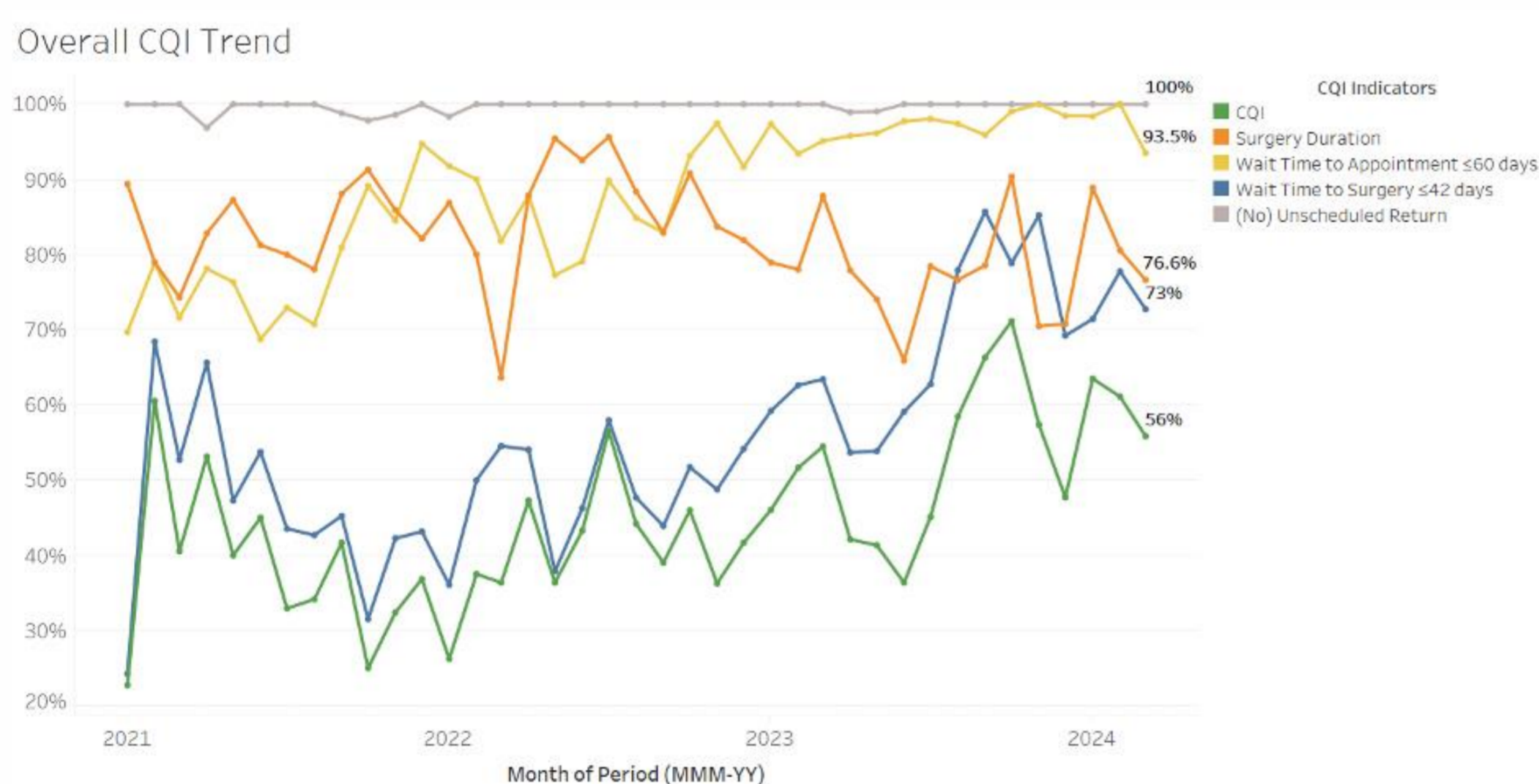


Figure 1. CQI trend from 2021 – 2024

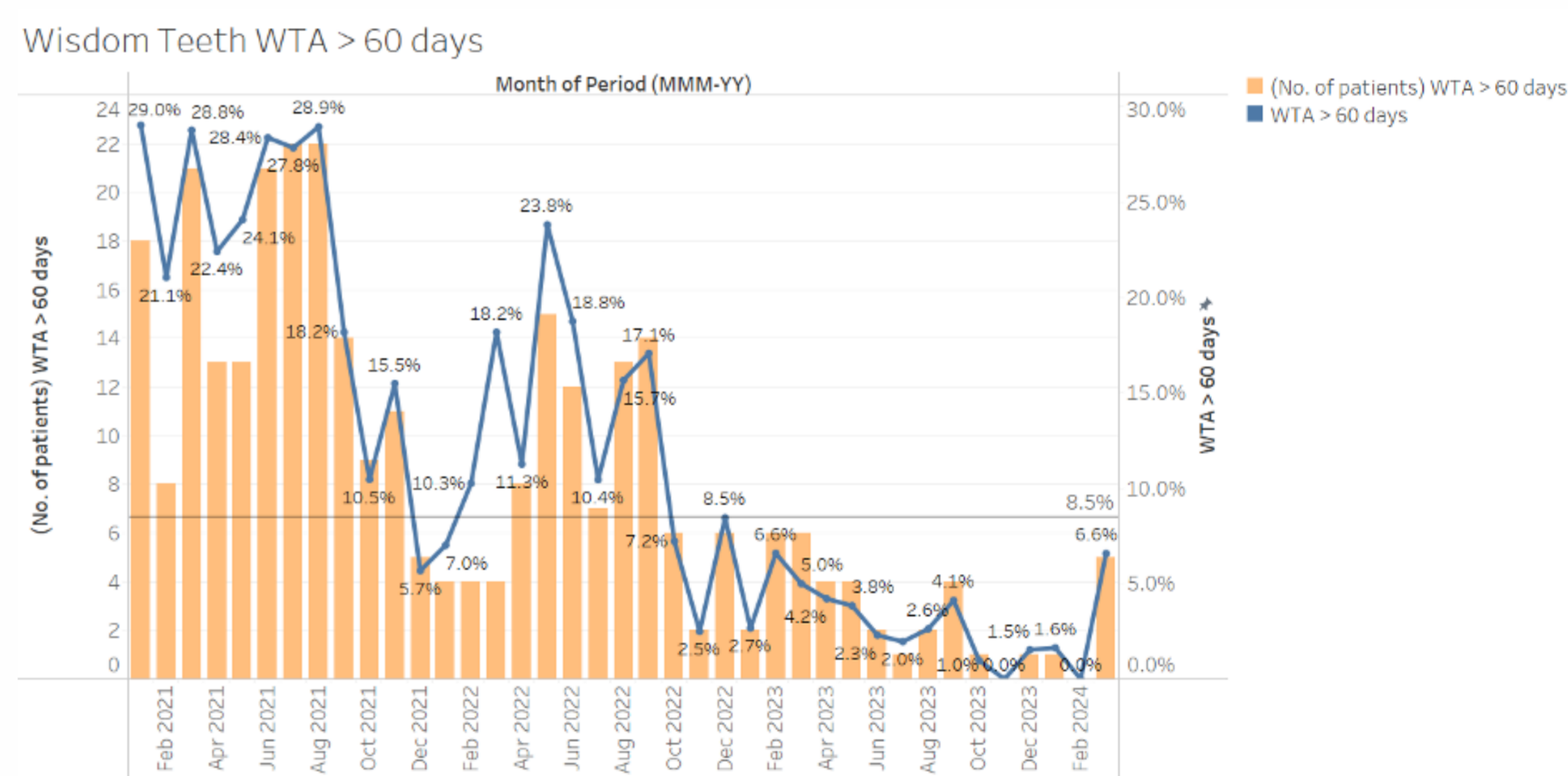


Figure 2. Percentages of wait time to appointment more than 60 days

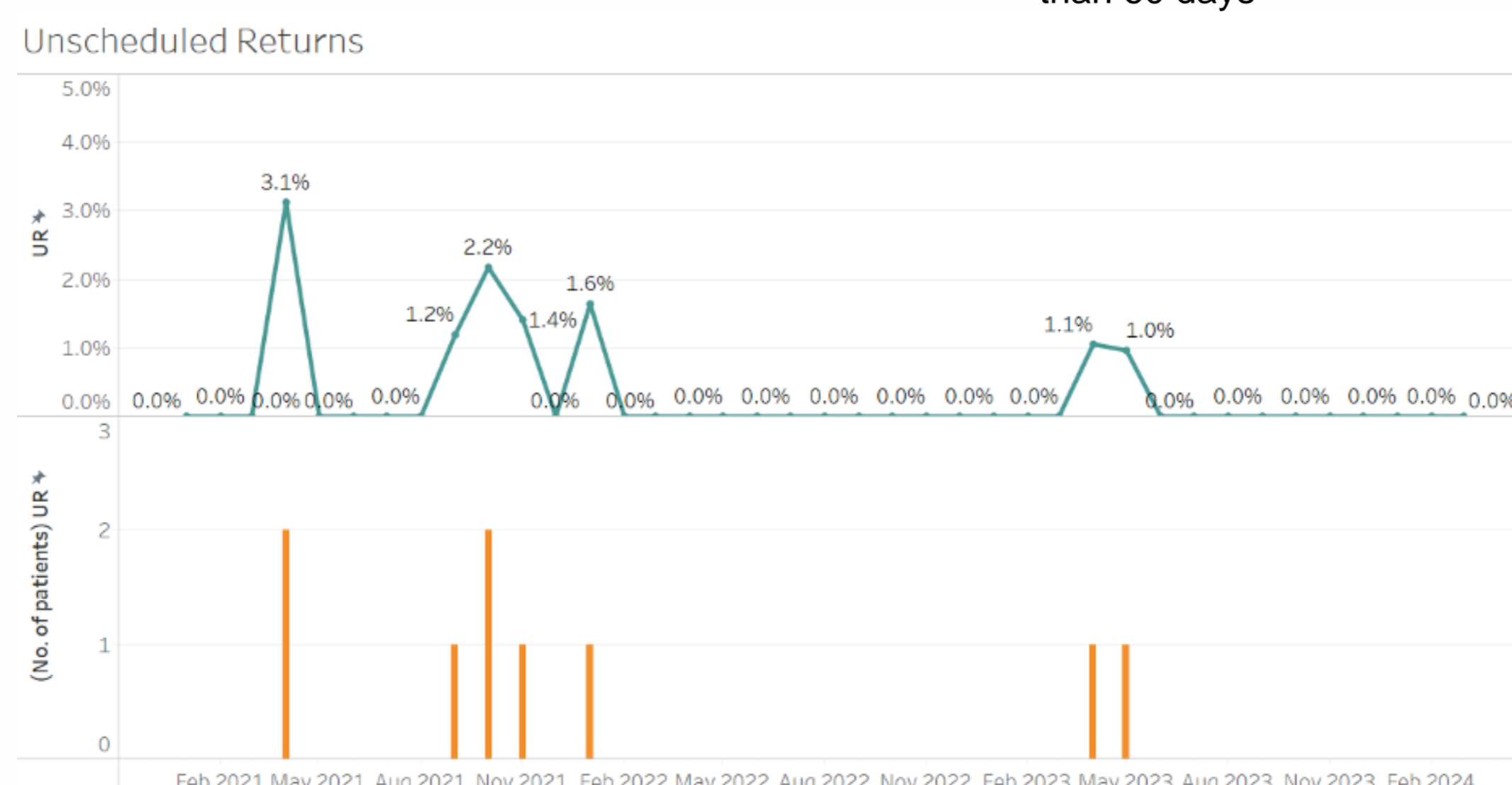


Figure 3. Rate of unscheduled return