

IMPROVING ORTHOPAEDIC INPATIENT CASEMIX INDEX

- SAFETY
- PRODUCTIVITY
- PATIENT EXPERIENCE
- QUALITY
- VALUE

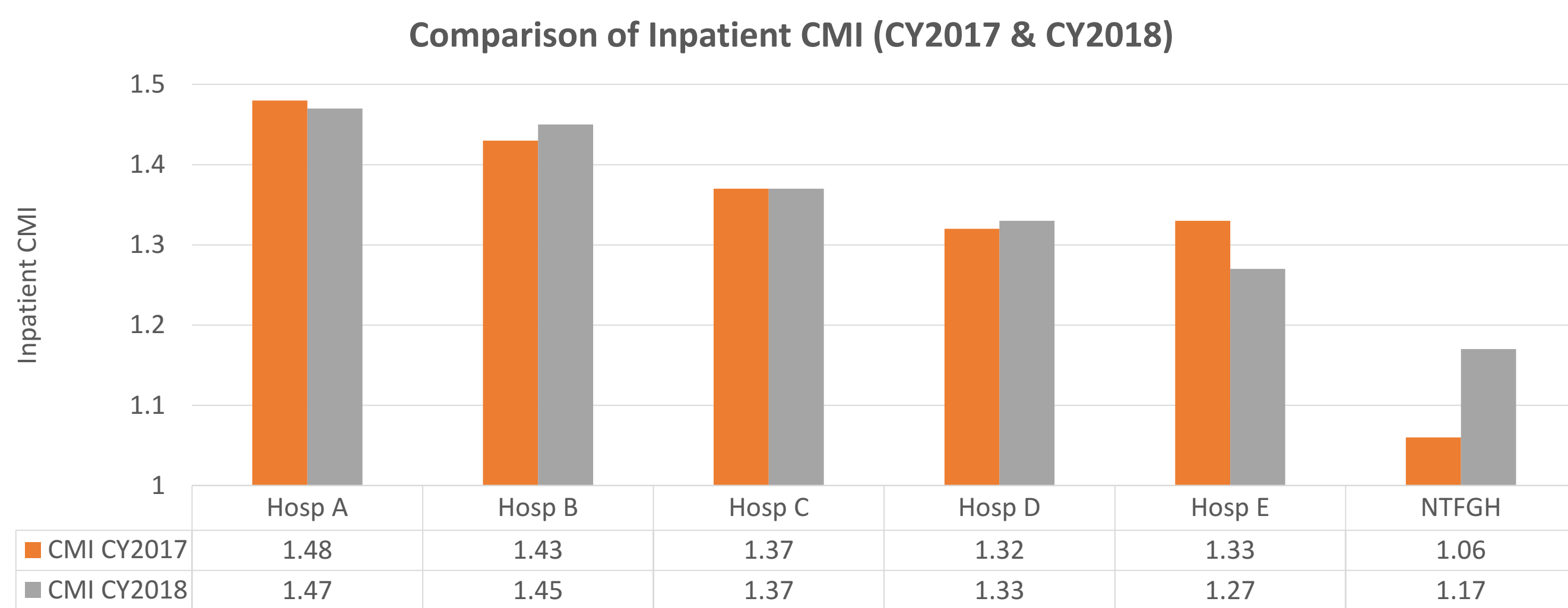
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Define Problem/Set Aim

Opportunity for Improvement

Casemix Index (CMI) is the cost weight per admission episode. It is a measure of the subvention that the hospital receives per patient treatment episode.

NTFGH's inpatient casemix index at 1.06 and 1.17 were the lowest among the restructured hospital in CY2017 & CY2018 respectively.



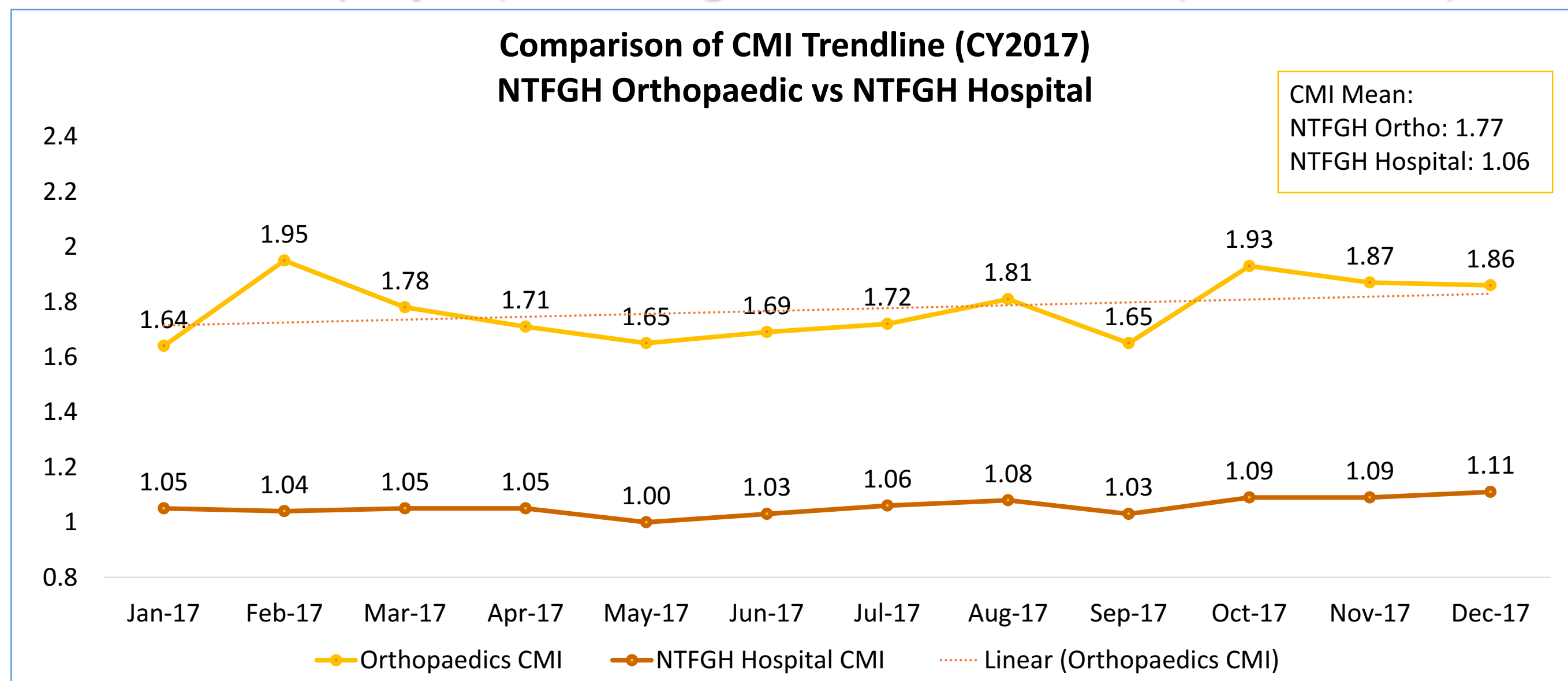
Aim

- To benchmark the inpatient CMI of NTFGH Department of Orthopaedics with comparable Orthopaedic department of another hospital.
- To potentially further improve the department CMI, and eventually contributes to the overall growth of NTFGH's inpatient CMI.

Establish Measures

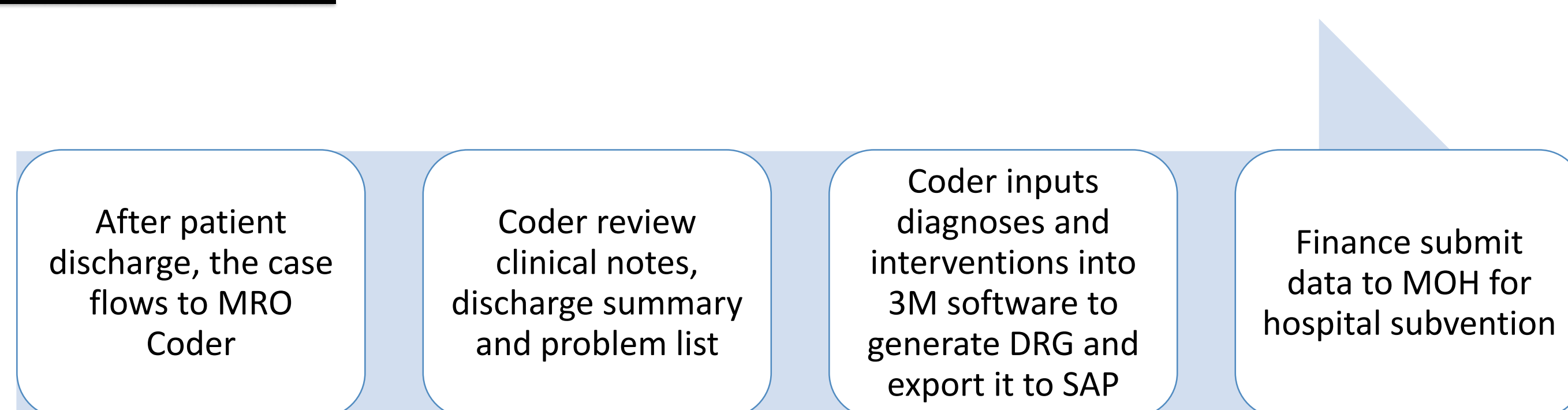
Baseline Performance

The Orthopaedic Inpatient Casemix Index in CY2017 (12 months before commitment of project) was range from 1.64 to 1.95 (Mean: 1.77).

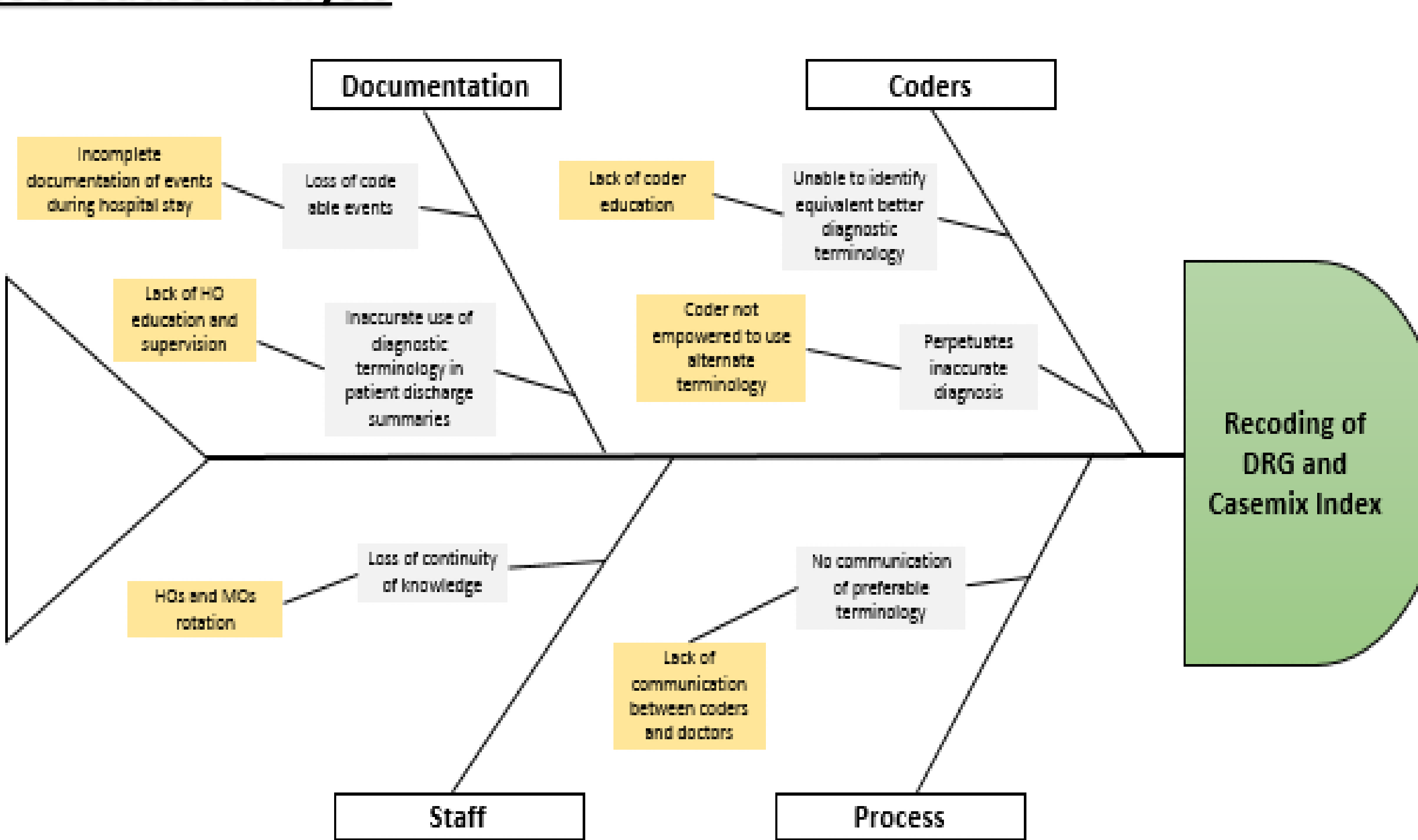


Analyse Problem

Current Process



Root Cause Analysis



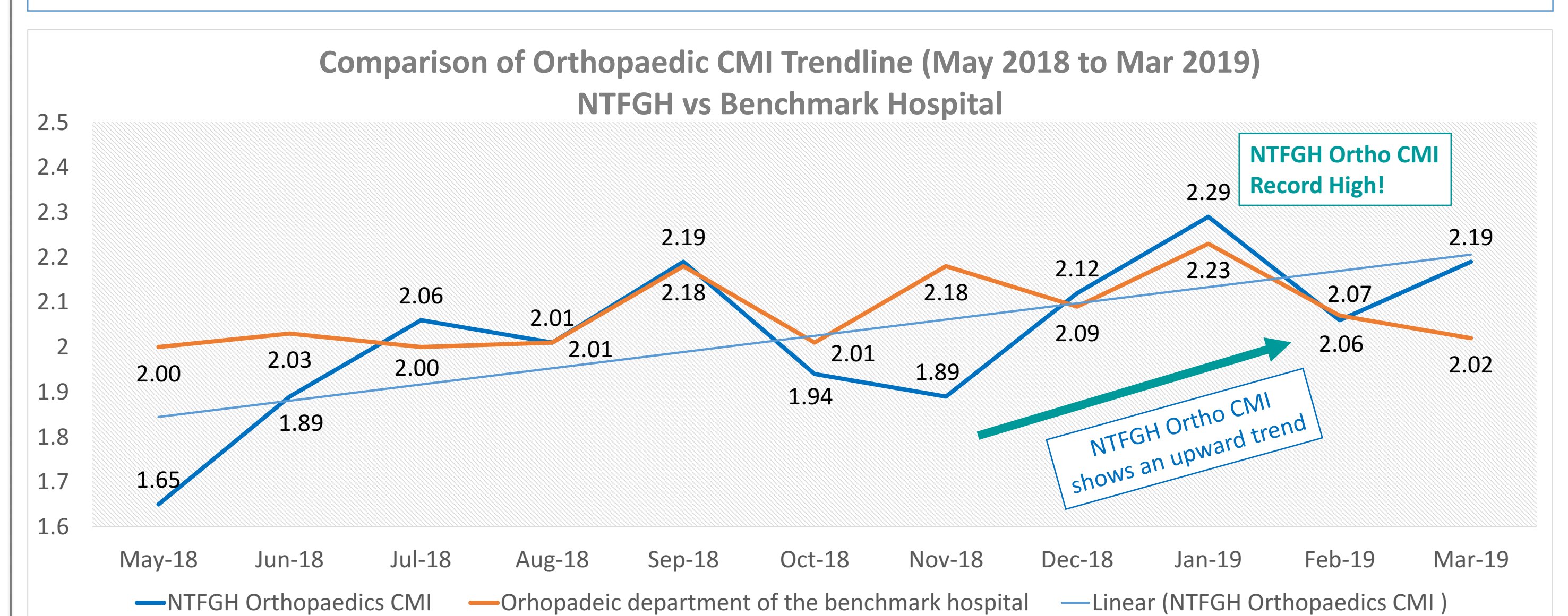
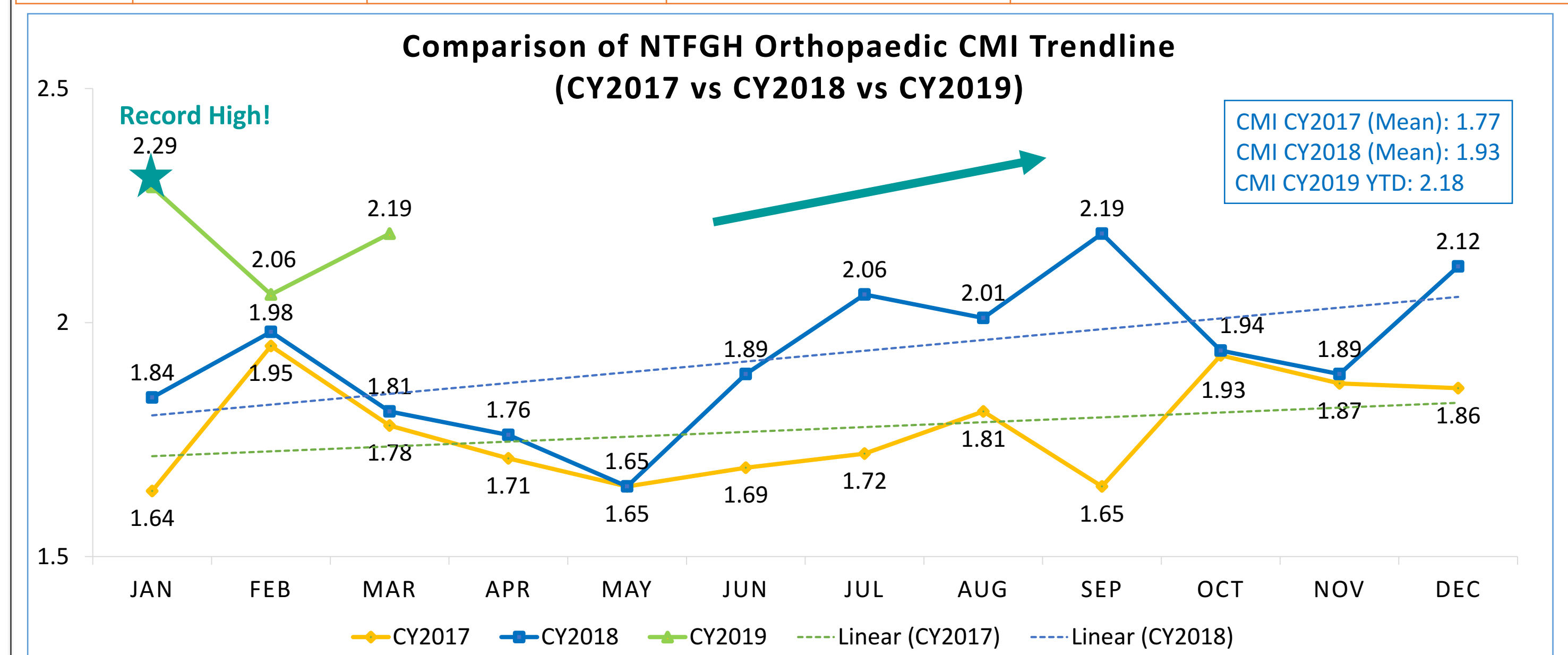
Select Changes

Probable Solutions

Root Cause	Solution
No communication on the preferable terminology used	Continuous improvement of clinical documentation and DRG coding through regular case reviews.
Coders are unable to identify equivalent better diagnostic terminology	
Inaccurate use of diagnostic terminology in clinical documentation	Emphasising on "Co-sign by Specialist" and sharing of guidelines for clinical documentation at the department level.
Loss of continuity of knowledge due to HO and MO rotation	Continuous education of HOs and MOs

Test & Implement Changes

Cycle	Plan	Do	Study	Act
1	Retrospective review of Inpatient DRG coding exercises in CY2018.	A clinician lead was assigned to review 107 cases together with MRO, Finance and Clinical Operations.	14 (13.1%) cases were re-coded to higher acuity DRGs (an estimated subvention of \$66k).	Clinical documentation guidelines were shared with the department (hard copy are placed at the Orthopaedic Ward Office).
2	Conducted the same exercise in Q1CY2019	8 cases with high cost and low cost weight were selected for review	2 (25%) complex cases were re-coded to higher acuity DRGs (an estimated subvention of \$12k).	Department of Orthopaedics has taken the proactive approach for on-going case review instead of retrospective exercise with effective from July 2019.



Spread Change/Learning Points

Spread Change

- Continuous improvement in clinical documentation and DRGs coding.
- Educate all staff on importance of recording diagnoses and interventions, including surgeries accurately.

Learning Points

- It is important that the process starts at the start of patient journey with accurate posting of diagnosis from clinic visits and operating notes.
- Diagnosis needs to be accurately communicated by senior staff.
- Clear instructions, timely reviewing of cases and performance measurement, strong leadership from department HOD, enthusiastic participation from Orthopaedic team, and good support from stakeholders such as MRO, Finance & Clinical Operations are key contributing factors to success of the department casemix index improvement project.