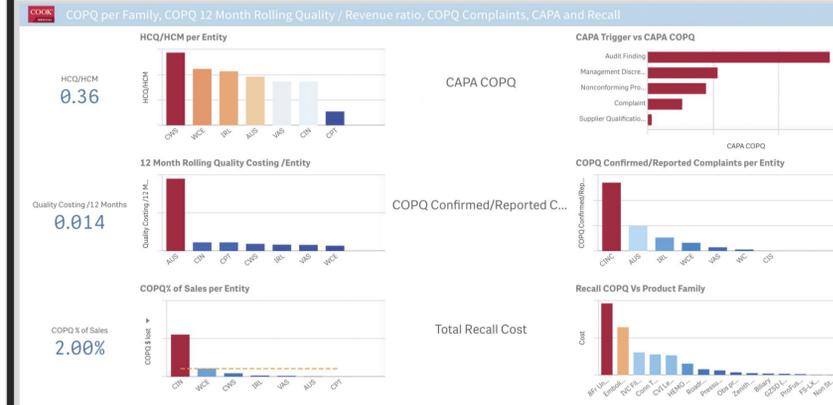


Improving Product Quality at Cook Medical

Background

- Cook Medical**
- Invents and manufactures lifesaving medical devices for healthcare systems globally
- Cost of Poor Quality**
- Cost associated with producing poor-quality products/services
- Project aim**
- Calculate the Cost of Poor Quality at Cook Medical from four metrics: CAPAs, Complaints, Recalls, and Nonconformances
 - Allow Cook to identify areas for quality improvement through CoPQ analysis

Dashboard



- Cook Medical's interactive dashboards on Qlik Sense
- Display various measures of CoPQ
 - Manufacturer
 - Triggers
 - Product families

Approach

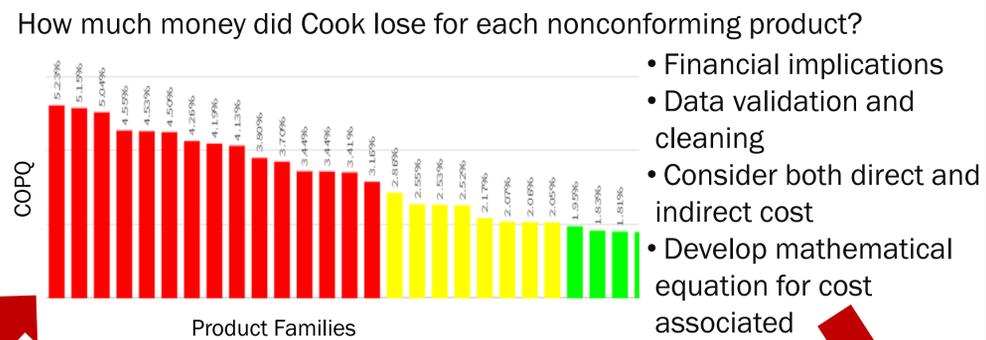
- **Datasets**
 - Provided by Cook Medical
 - Date Range: January 2022 onwards
 - Datasets include:
 - Nonconformance
 - Complaints
 - Recall
 - CAPA
- **Procedure**
 - Utilize Qlik for analysis
 - Data cleaning
 - Create interactive and insightful dashboards
 - Provide intuitive visualizations and comprehensive analytics

Product Pipeline



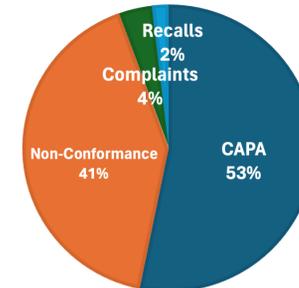
Cost of Poor Quality

Nonconformances



Total Cost of Poor Quality

$$\text{Total CoPQ} = \text{Nonconformances} + \text{Complaints} + \text{CAPAs} + \text{Recalls}$$



- The total Cost of Poor Quality involves a combination of all costs considered, including nonconformances, complaints, CAPAs, and recalls.
- Cook can use these metrics to gauge the performance of each of their product lines.

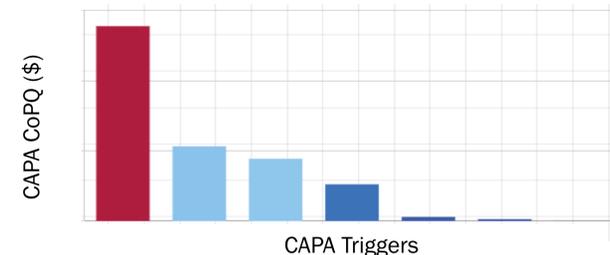
Complaints

- Goal: Calculate cost based on manufacturing costs of products affected
- Confirmed & Reported complaints considered



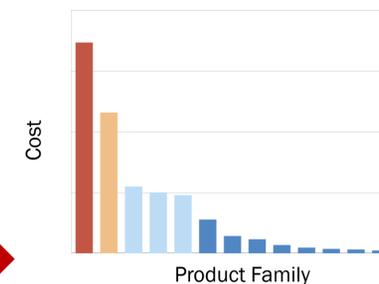
CAPAs

- CAPA = Corrective And Preventive Action
- CAPA Triggers = The source of initial CAPA Investigation
- Total number of days CAPA was open considered for cost assessment



Recalls

- Number of products recalled by specific ID
- Calculated estimated monetary loss due to these recalls



Recap

- Calculated the Cost of Poor Quality of each metric
- Reported our findings to Cook Medical
- Created a dashboard combining the results of all the metrics

Future Work

- Data Collection:
 - Collect missing data
 - Improve data labeling
- Using the results from all the metrics to lower CoPQ

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- Devon Cassidy
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