2-2020

Central Line Buzz

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Acknowledgements

Thank you to the following...

- Unit Directors:
  - April Assee, MSN, RN, CPHON
  - Jenny Marsh, MSN, RN, CPON
- KT Scholars:
  - Bayley Conner, BSN, RN
  - Chelsi Reilly, BSN, RN, CPHON
- QI Coordinator:
  - Jennifer Sutton, BSN, RN, CPHON

A3 Overview

Focus: Central Line Adapter Change	**Owner:** Nurse Residency Program	**Date:**	**Department Director Approval:** April Assee & Jenny Marsh
A3 Team: Sarah Hightree, Rachel Lawson, Danielle Sharkey		**QIC:** Jennifer Sutton	**KT Scholars:** Bayley Conner & Chelsi Reilly

Clarify the Problem

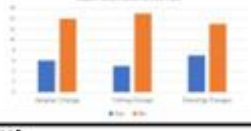
•The problem:
•100% of nurses discuss each aspect of line care during patient hand-off. This discussion includes tubing, dressing, and adapter changes, type of line and dressing, and number of lumens.
•There is no single standardized process utilized in report regarding the discussion about central line care.
•In order to reduce the risks of CLABSI's, it is imperative that each patient's central line will be discussed in detail during every patient hand-off.

•Importance/relevance of problem:
•There is no standardized CVL report process in place to help reduce patient central-line associated bloodstream infection (CLABSI) rates.
•Nurses should be using a standardized report processes and discussing the central line in detail during report.
•When a standardized discussion of the CVL does not occur critical information regarding the CVL can get missed and increase a patient's risk for CLABSIs.

•Impact of the problem:
•A CLABSI can contribute to a longer length of stay, complex complications, and increased costs for the hospital.

Break Down the Problem

4 Henson nurses do not discuss the central line in detail during shift hand-off. During data collection, it was noted that nurses from other departments discussed the central line in more detail.



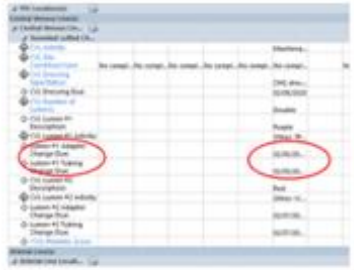
Set a Target

To increase the percentage of 4 Henson Hall nurses discussing central lines in detail from 10% to 50% by January 15, 2020.

Identify the Cause

Develop and Implement Countermeasures

Discussion with Clinical Informatics about opening a CVL Form and Task



Check Results and Process

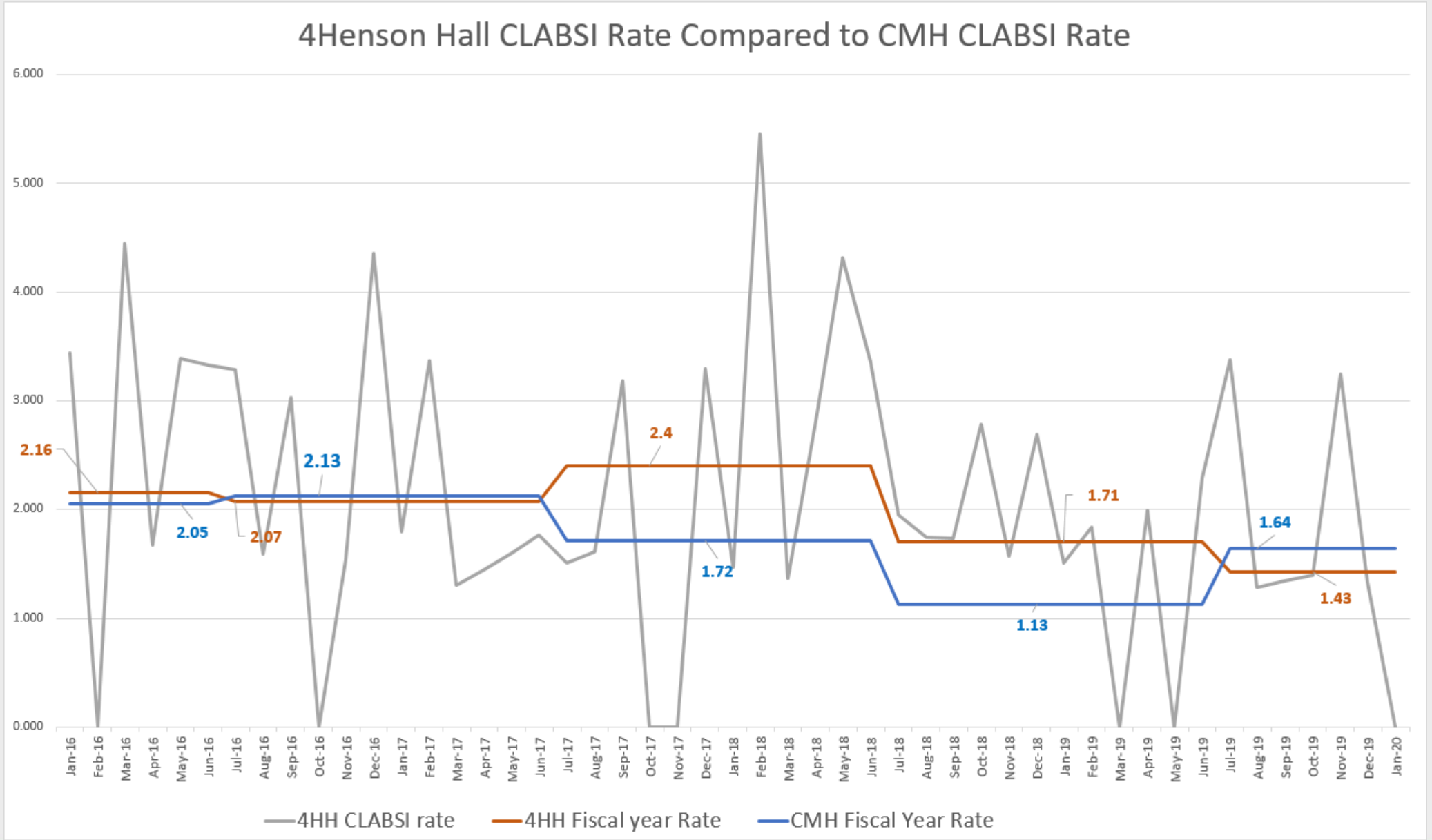
•CVL Forms cannot be created due to its dynamics group
•Phreducation
  oDynamic Groups are used for items in documentation that can be repeatable
  oAreas that this is currently used (but not limited to):
    •Peripheral IV(s) & Midline(s)
    •Central Venous Line(s) & Arterial Line(s)
    •Intraosseus Access
•Drop down tasks cannot be implemented because I-VIEW is used to chart in the moment and not to review and repeat data and dates
•Not supposed to chart due dates other than in the moment
•HOWEVER...
  oDiscussed possible solutions such as "planned due dates" for adapters but would need data to prove that charting due dates decreases the risk of CLABSI's.

Standardize and Follow Up

•Chart Audits
  oCVL data collected from 40 charts on 4 Henson
•Was AIM Statement met?
  oThe goal is to increase the percentage of 4 Henson Hall nurses discussing central lines in detail from 10% to 50% by January 15, 2020.
  oThis AIM statement was not met due to the lack of charting on CVL's which leads to less discussion on the CVL in report.
•Pediatric nursing implications
  oAlthough this project didn't implement change, it is now bringing awareness to CVL charting protocols and policy.
•Lessons learned from working on project
  oHow challenging it is to create change in policies regarding Cerner.
  oLack of knowledge hospital wide around charting due dates and the importance of standardizing charting for all.

OVERVIEW

- **4 Henson Overview:**
  - Immunocompromised children undergoing chemotherapy
  - Central Venous Lines:
    - Hickman, Porta-catheters (ports), PICC's
  - CVL Cares:
    - CVL Dressing Changes – q7days
    - Port Re-access – q7days
    - Tubing Changes: q96hrs
    - Adapter Changes: q96hrs (for continuous infusions)


4Henson Hall CLABSI Rate Compared to CMH CLABSI Rate
6.000
5.000
4.000
3.000
2.000
1.000
0.000
2.16
2.05
2.07
2.13
2.4
1.72
1.71
1.13
1.64
1.43
Jan-16
Feb-16
Mar-16
Apr-16
May-16
Jun-16
Jul-16
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Apr-19
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Jul-19
Aug-19
Sep-19
Oct-19
Nov-19
Dec-19
Jan-20
4HH CLABSI rate
4HH Fiscal year Rate
CMH Fiscal Year Rate

Previous Cohorts CLABSI Project

Central Venous Line Adapter Changes:

- **The problem:**
  - On average, 49% of central line adapters do not have recorded expiration dates
- **Contributing Factors:**
  - Central line adapter changes not being properly charted in the electronic medical record (EMR)
  - CMH central line policy not being followed
  - A general lack of knowledge regarding central line policy
- **Implementation:**
  - Created a flyer, educating nursing staff on how to create a nurse reminder task in Cerner.
  - Manually added nurse reminder tasks for 'chart adapter change dates' for patients who have CVL
- **Outcome:**
  - Average percentage dropped from 49% to 20.9% with implementation of education and creating a task for both day and night shifts.

Clarify the Problem

- **The problem**:
  - 30% of nurses discuss each aspect of line care during patient hand-off. This discussion includes tubing, dressing, and adapter changes, type of line and dressing, and number of lumens.
  - There is no single standardized process utilized in report **regarding the discussion about central line care**.
  - In order to reduce the risks of CLABSI's, it is imperative that each patient's central line will be discussed in detail during every patient hand-off.

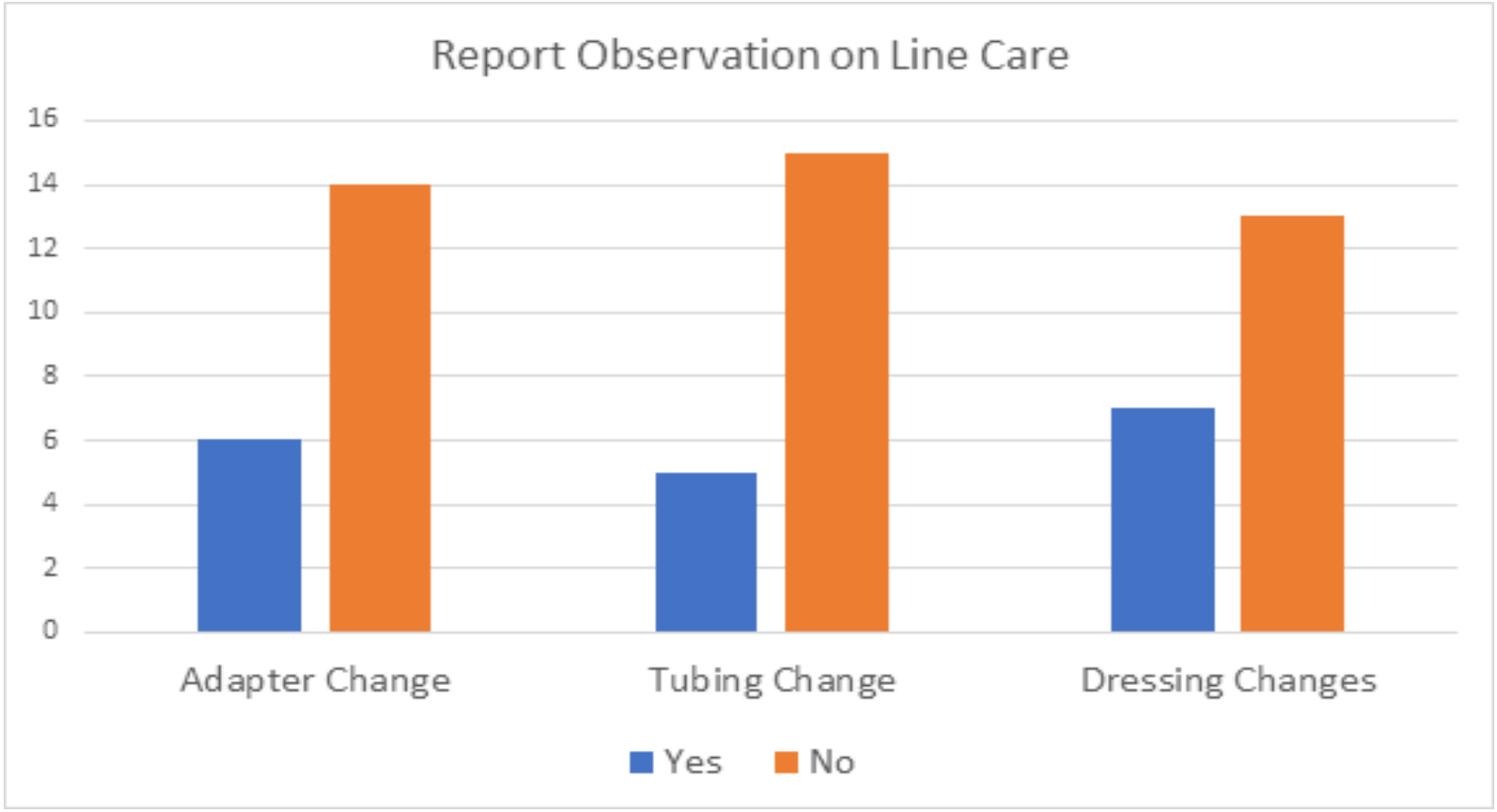
CLARIFY THE PROBLEM

- **Importance/relevance of problem**:
  - There is no standardized CVL report process in place to help reduce patient central-line associated bloodstream infection (CLABSI) rates.
  - Nurses should be using a standardized report processes and discussing the central line in detail during report.
  - When a standardized discussion of the CVL does not occur critical information regarding the CVL can get missed and increase a patient's risk for CLABSIs.

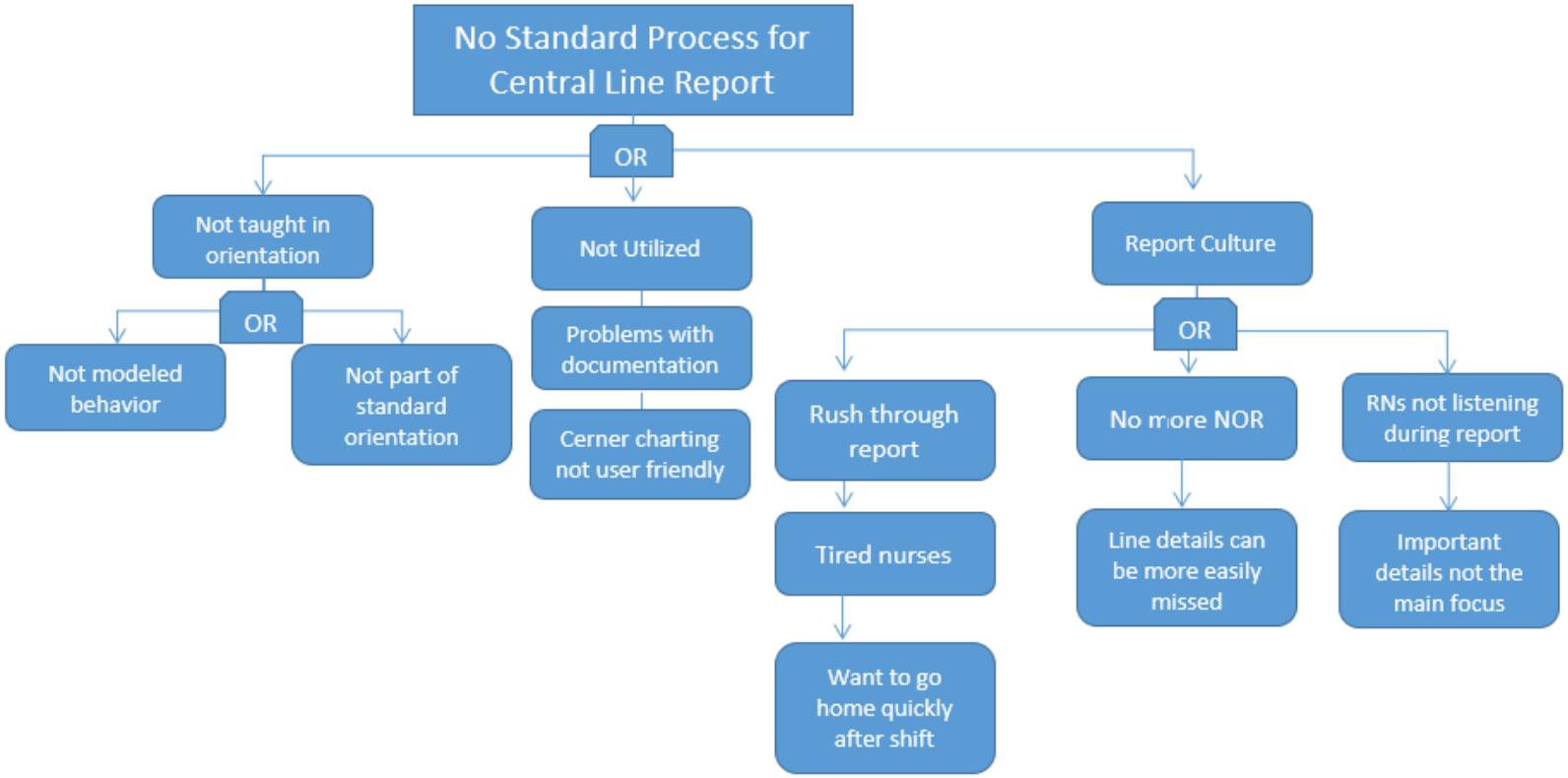
CLARIFY THE PROBLEM

- **Impact of the problem**:
  - A CLABSI can contribute to a longer length of stay, complex complications, and increased costs for the hospital.

BREAKDOWN THE PROBLEM



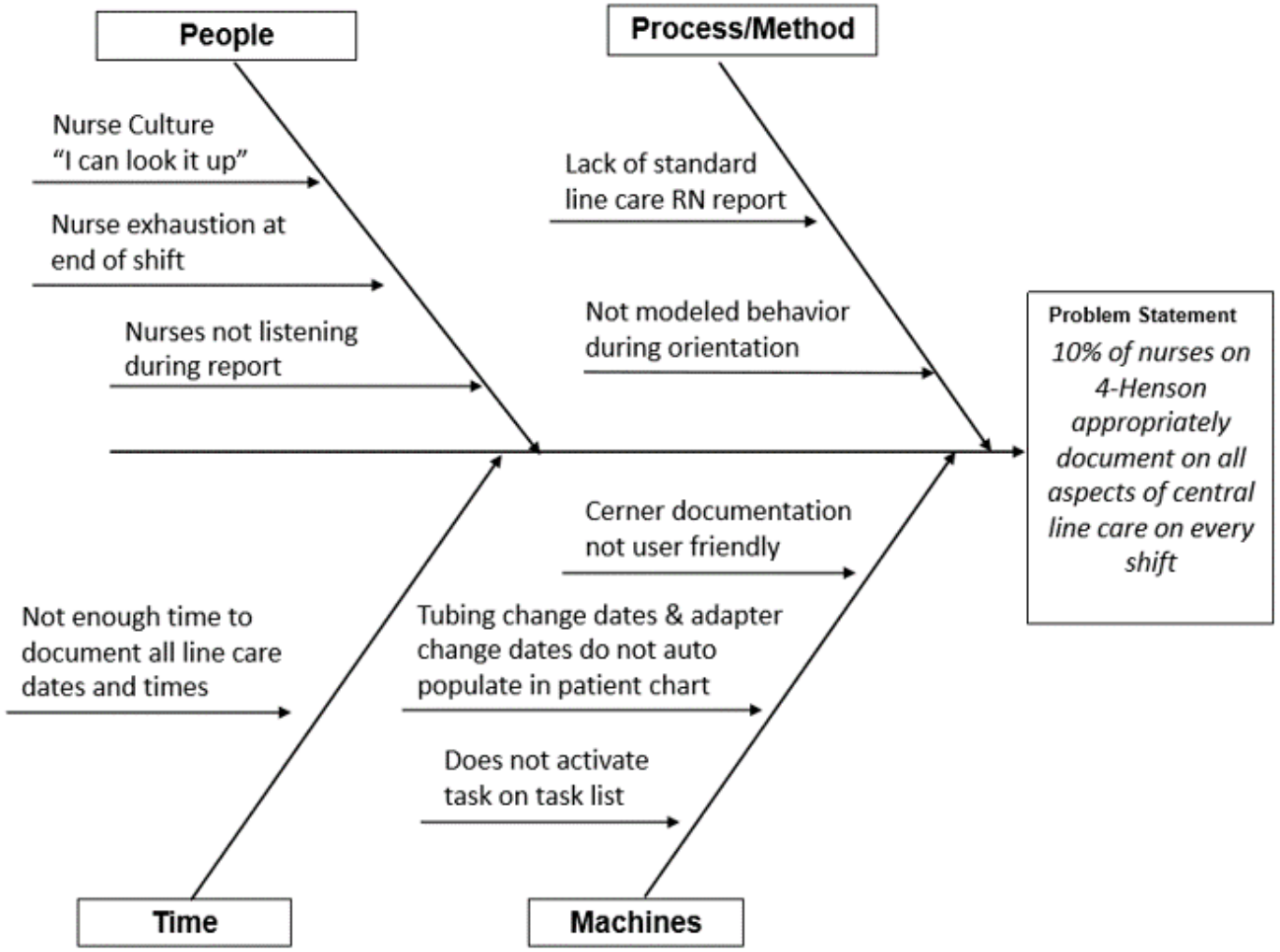
BREAKDOWN THE PROBLEM



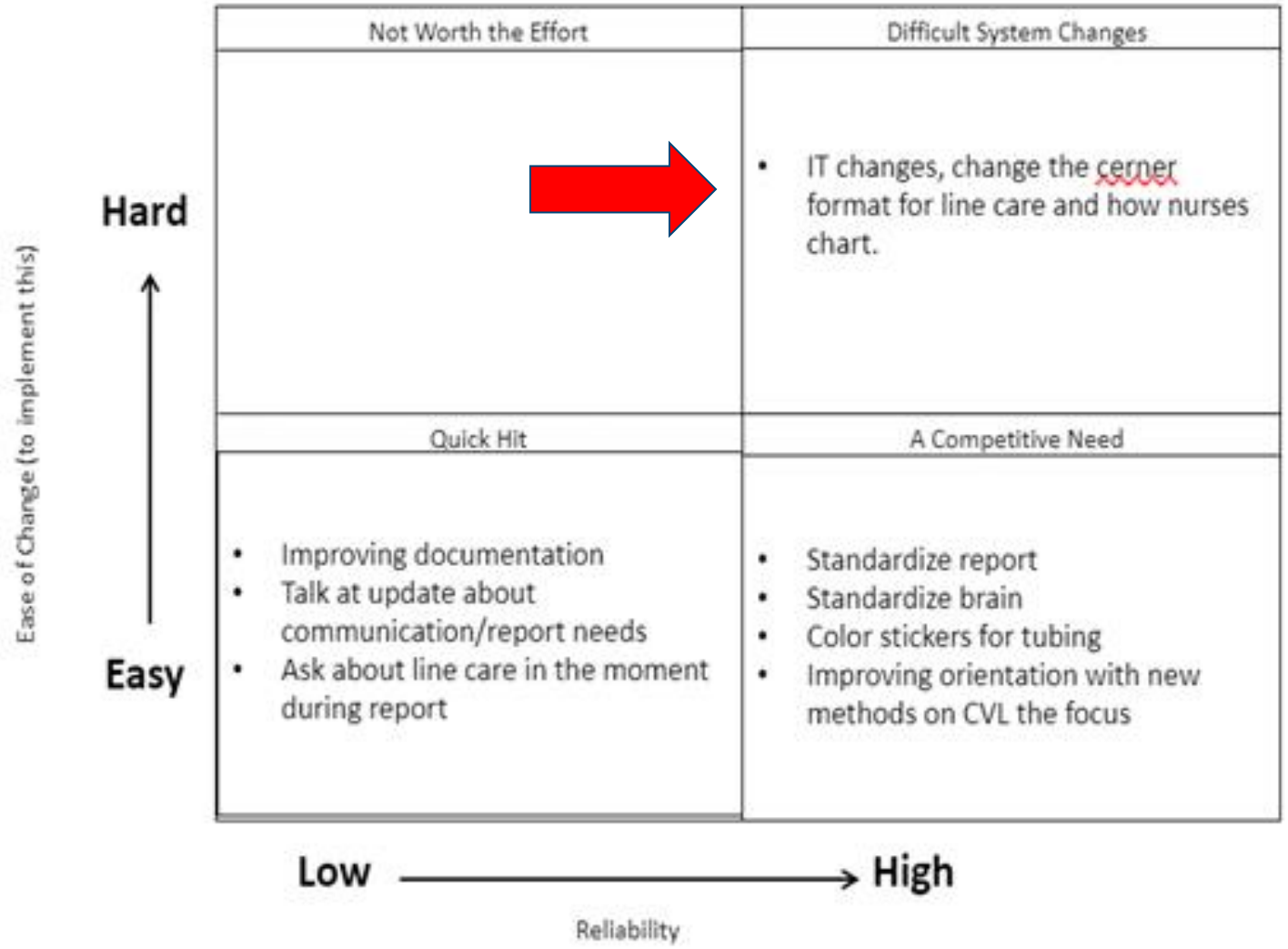
Set a Target

- Our goal is to increase the percentage of 4 Henson Hall nurses discussing central lines in detail from 30% to 50% by January 15, 2020.

Identify Root Cause



Develop and Implement Countermeasures

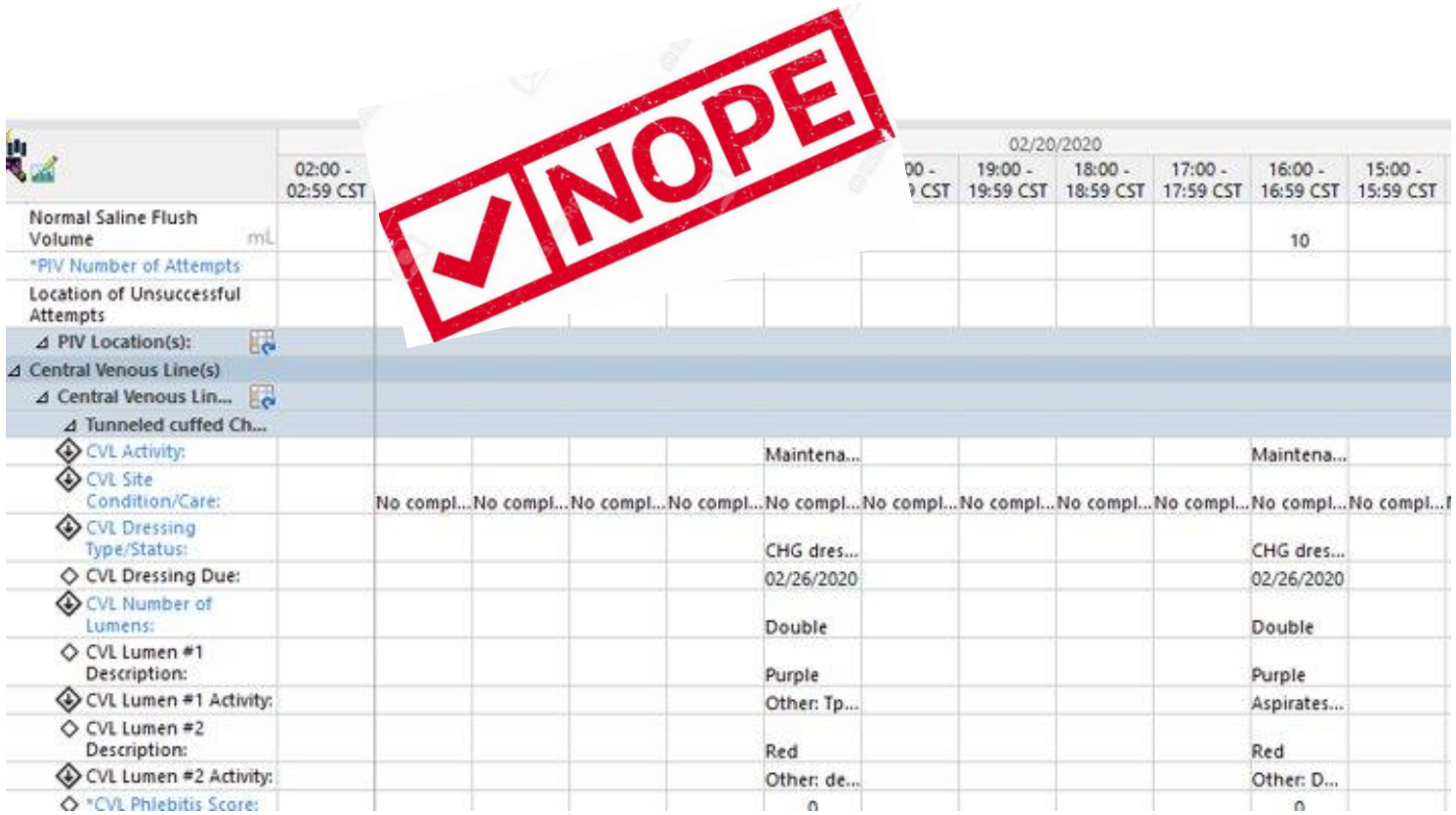


DEVELOPMENT & IMPLEMENTATION

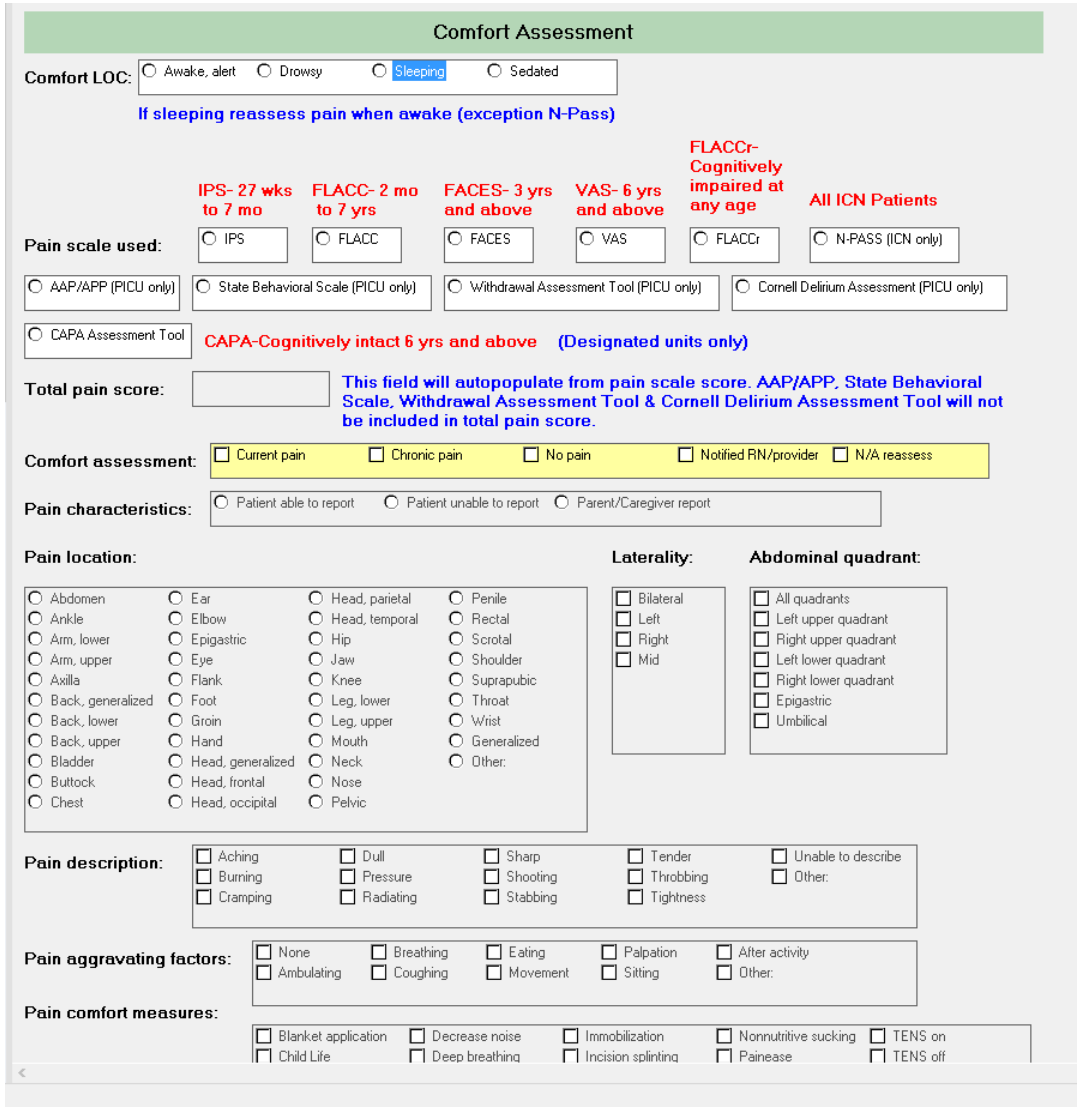
PIV Location(s):								
Central Venous Line(s)								
Central Venous Lin...								
Tunneled cuffed Ch...								
CVL Activity:						Maintena...		
CVL Site Condition/Care:	No compl...	No compl...	No compl...	No compl...	No compl...	No compl...		N
CVL Dressing Type/Status:						CHG dres...		
CVL Dressing Due:						02/08/2020		
CVL Number of Lumens:						Double		
CVL Lumen #1 Description:						Purple		
CVL Lumen #1 Activity:						Other: TP...		
Lumen #1 Adapter Change Due:						02/05/20...		
Lumen #1 Tubing Change Due:						02/05/20...		
CVL Lumen #2 Description:						Red		
CVL Lumen #2 Activity:						Other: IV...		
Lumen #2 Adapter Change Due:						02/07/20...		
Lumen #2 Tubing Change Due:						02/07/20...		
*CVL Phlebitis Score:								
Arterial Line(s)								
Arterial Line Locati...								

DEVELOPMENT & IMPLEMENTATION

- **No Adapter Dates**



Development & Implementation



MEETING

Clinical Informatics

When: December 19, 2019 at 1400-1500

Where: Children's Mercy

Why: Discussion about opening a CVL Form and Task

Check Results and Process

- **What we learned...**
  - CVL Forms cannot be created due to its dynamics group
  - **Phreducation**
    - Dynamic Groups are used for items in documentation that can be repeatable
    - Areas that this is currently used (but not limited to):
      - Peripheral IV(s) & Midline(s)
      - Central Venous Line(s) & Arterial Line(s)
      - Intraosseus Access

CHECK RESULTS and PROCESS

- Drop down tasks cannot be implemented because I-VIEW is used to chart in the moment and not to review and repeat data and dates

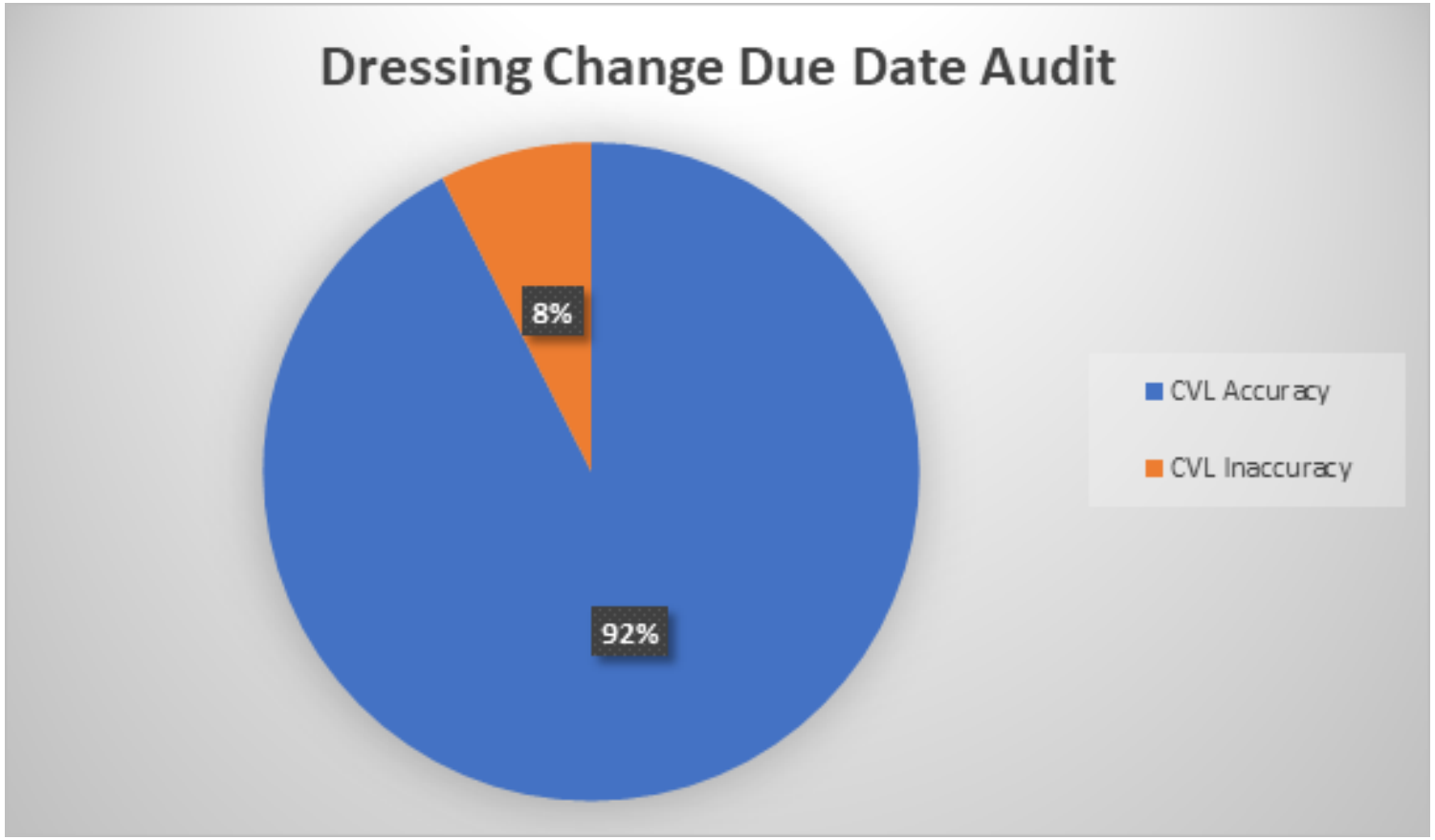
- Not supposed to chart due dates other than in the moment

HOWEVER...

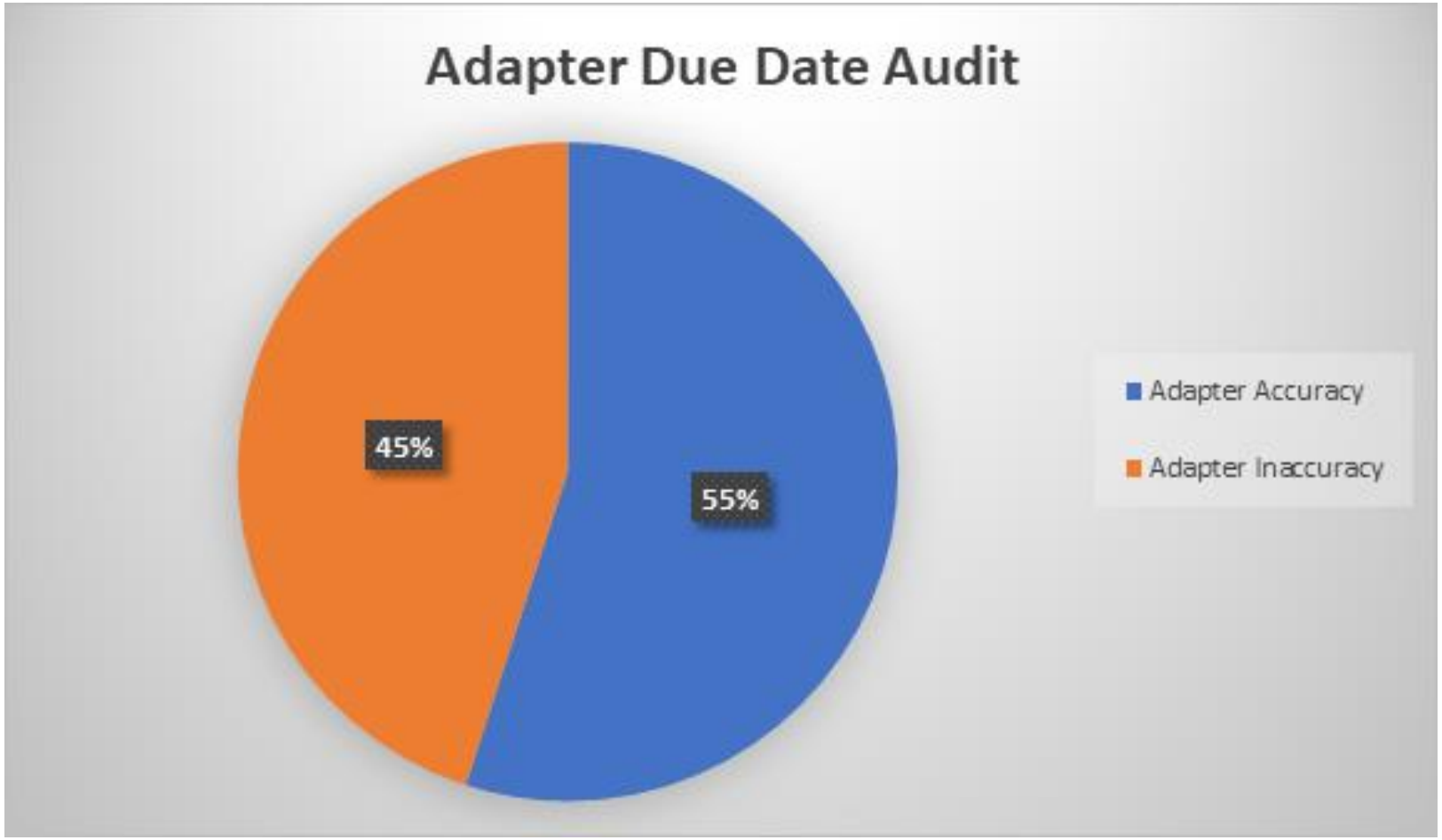
- Discussed possible solutions such as "planned due dates" for adapters but would need data to prove that charting due dates decreases the risk of CLABSI's.

STANDARDIZE and FOLLOW UP

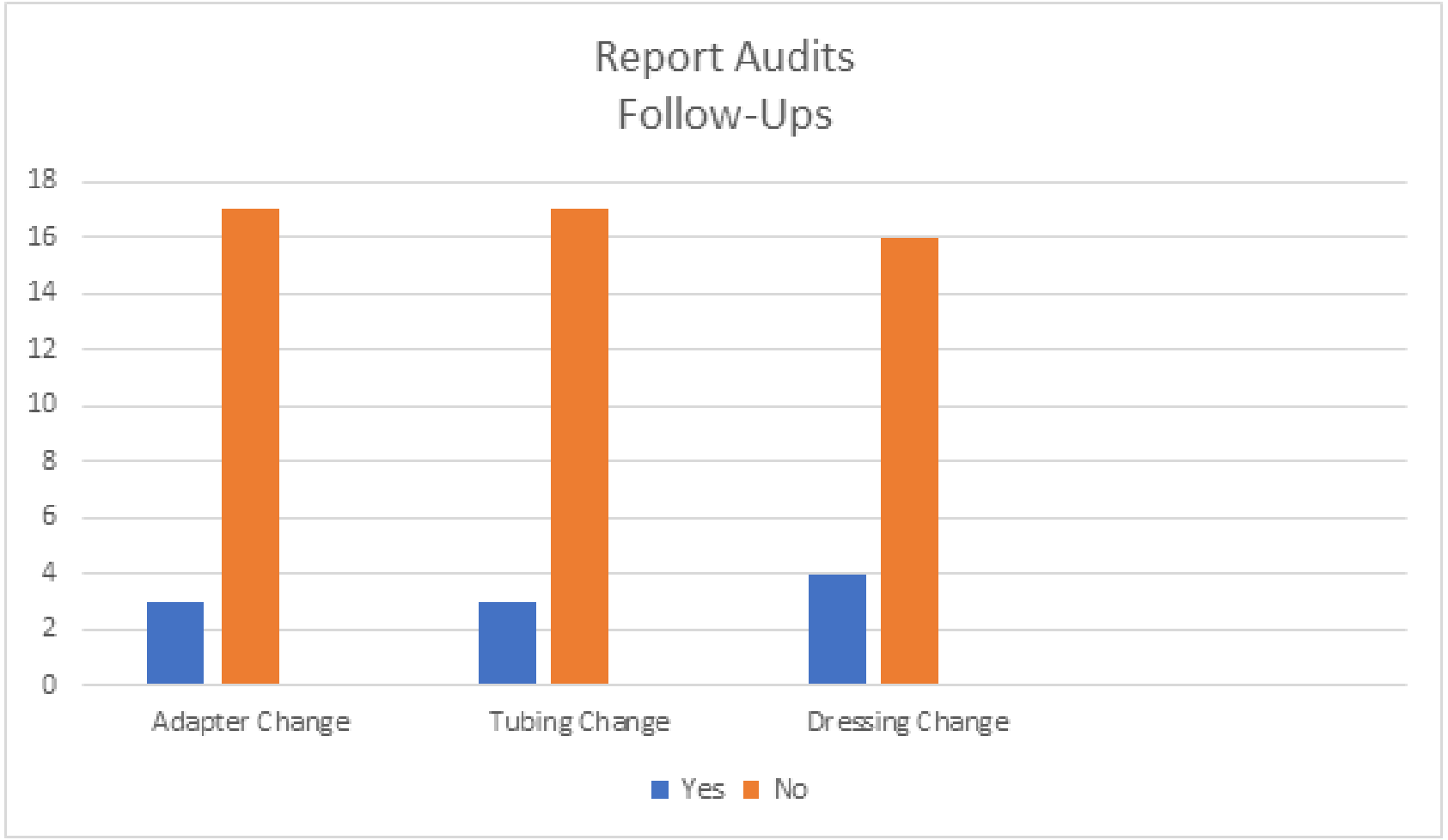
- **Chart Audits**
  - CVL data collected from 40 charts on 4 Henson



STANDARDIZE and FOLLOW UP



STANDARDIZE and FOLLOW UP



Conclusion

- **Was AIM Statement met?**
  - Our goal is to increase the percentage of 4 Henson Hall nurses discussing central lines in detail from 30% to 50% by January 15, 2020.
    - This AIM statement was not met after it was found during follow-up report audits that the percentage of nurses not discussing vital CVL information during report went down from 30% to 16%.

CONCLUSION

- **Pediatric nursing implications**
- Though our project didn't implement change, we are bringing awareness to CVL charting protocols and policy.
- **Lessons learned from working on project**
  - Our meeting with IT gave us insight on how challenging it is to create change in policies regarding Cerner.
  - Lack of knowledge hospital wide around charting due dates and the importance of standardizing charting for all.

References

- Central Line Care, (January, 2018), *CMH Patient Care Services Standards Manual*. Children's Mercy Hospital, Kansas City, Missouri.
- Morrison, T. L., Laney, C., Foglesong, J., & Brennaman, L. (2016). Color-coded labels cued nurses to adhere to central line connector change. *Clinical Nurse Specialist, 30*(2), 106-109.

Questions


Children's Mercy
LOVE WILL.