Showcase for Hopkins Inquiry and Nursing Excellence

SHINE

Conference **2023**

Preventing Surgical Pathology Specimen Loss

Presented by: Becky Qualey, RN, MA

April 18, 2023

JOHNS HOPKINS NURSING

Project Purpose

Implement barcode scanning of all surgical pathology specimens (SPS) obtained from patients undergoing surgery in the Johns Hopkins Bayview Medical Center Operating Rooms (JHBMC ORs)

Surgical Pathology Specimen Loss

- National Quality Forum serious reportable event
- Adversely affects patients, staff, and the healthcare organization
- JHBMC ORs:
  - November 2020-April 2022: 1 loss and 1 near miss
  - 2% of specimens collected were not resulted
  - Direct specimen handoff not documented in Epic

Evidence

- Specimen errors can be decreased by:
  - formal chain of custody processes
  - standardized, documented handoffs
  - specimen tracking
  - improved communication
  - clear, standardized specimen handling policies and protocols

- Barcode scanning
  - can standardize SPS tracking
  - has been used successfully to track people and items, including surgical sponges in the OR

Implementation

Goals

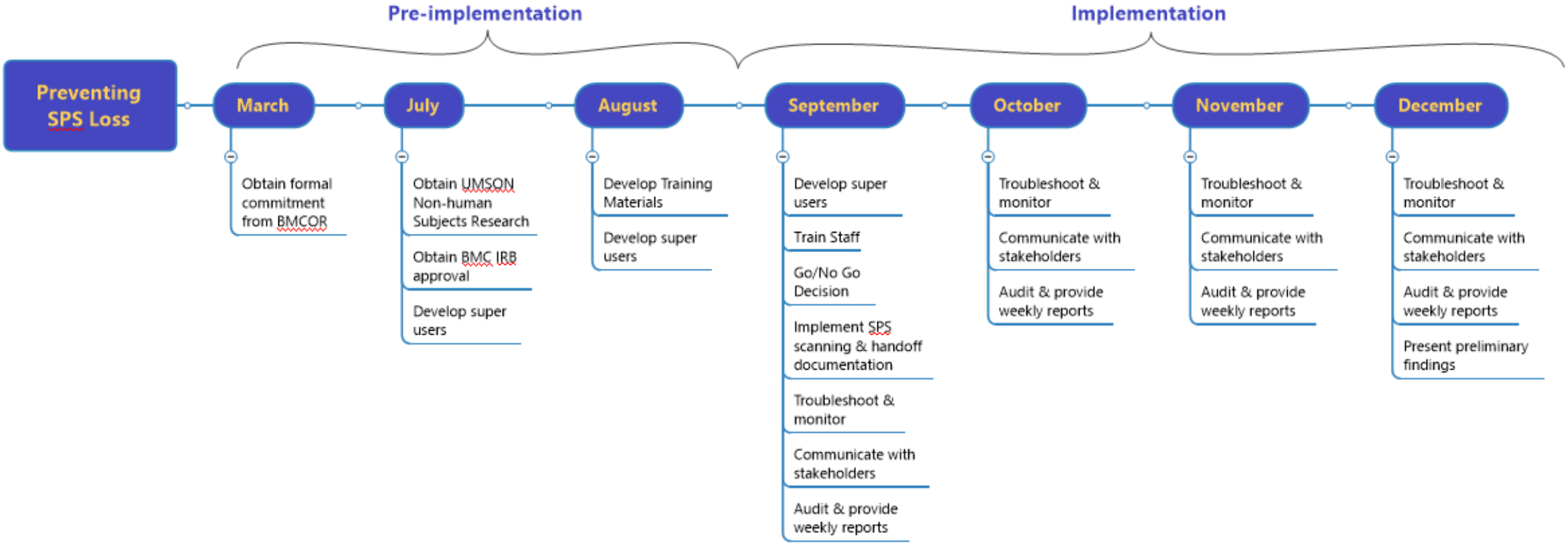
Process Goals:

- All SPSs will be barcode scanned to checkpoints in the OR
- All SPSs scanned to Staff Picked Up checkpoint will include the name of transporting staff

Outcome Goals:

- All SPS handoffs are documented in the EHR
- All SPSs are accessioned by the lab
- No SPS reported lost following implementation of tracking

Timeline: 2022

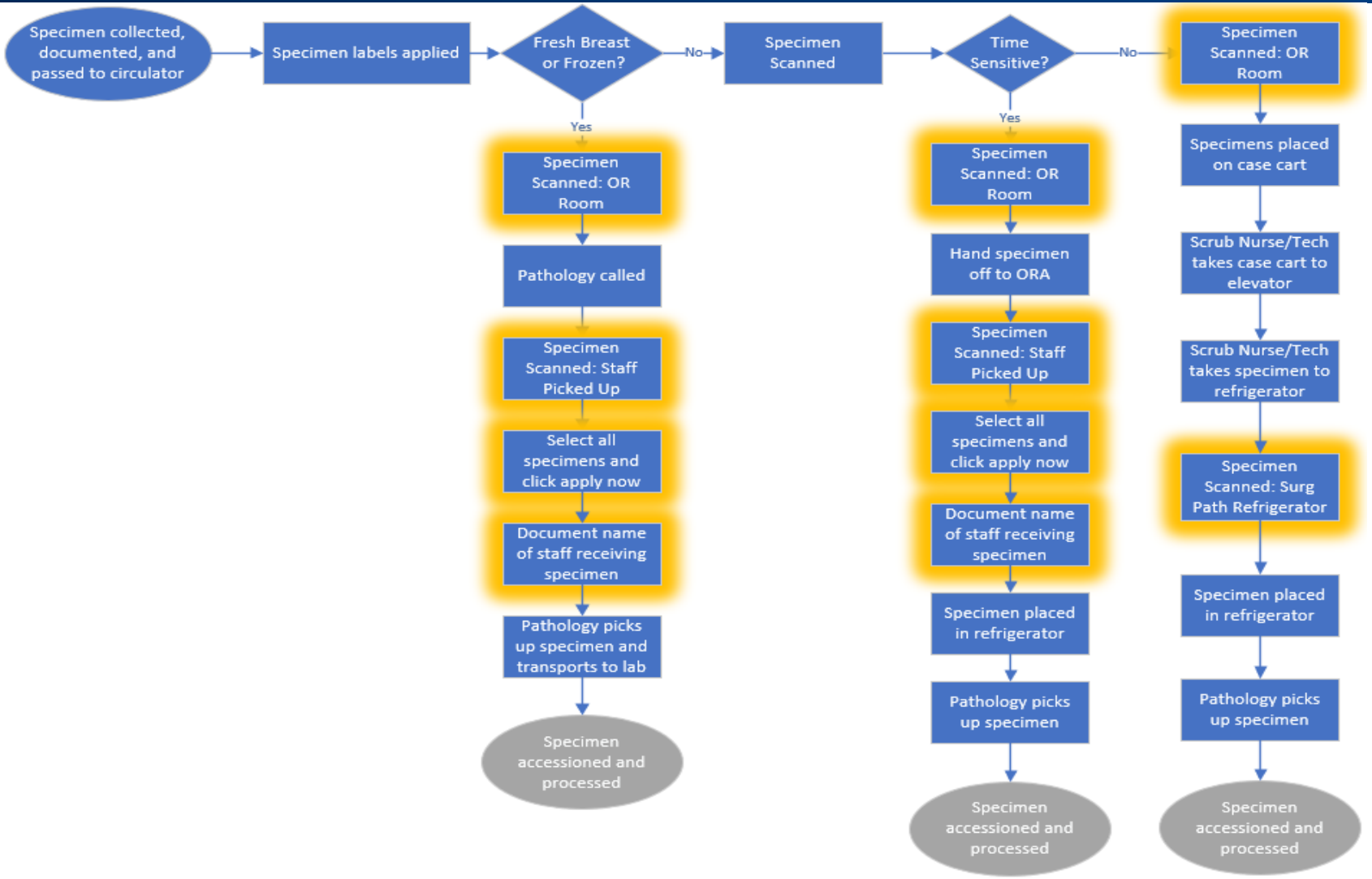


Implementation Plan

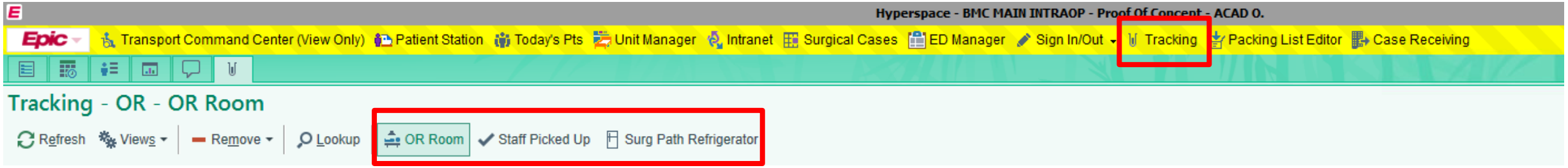
- **Structural changes**
  - Tracking functionality available in the JHBMC OR
  - Pathology Refrigerator Checkpoint:
    - Workstations available
    - Barcode scanner installed
  - Data columns added to Epic OR Scanning Compliance report
  - Visual cues posted at each checkpoint

- **Process changes**
  - Implementation of scanning process for all surgical pathology specimens to checkpoints within the JHBMC OR
  - Development of new workflow for documenting direct specimen handoffs in Epic

New Process


Specimen collected, documented, and passed to circulator
Specimen labels applied
Fresh Breast or Frozen?
No
Yes
Specimen Scanned: OR Room
Pathology called
Specimen Scanned: Staff Picked Up
Select all specimens and click apply now
Document name of staff receiving specimen
Pathology picks up specimen and transports to lab
Specimen accessioned and processed
Specimen Scanned
Time Sensitive?
No
Yes
Specimen Scanned: OR Room
Hand specimen off to ORA
Specimen Scanned: Staff Picked Up
Select all specimens and click apply now
Document name of staff receiving specimen
Specimen placed in refrigerator
Pathology picks up specimen
Specimen accessioned and processed
Specimen Scanned: OR Room
Specimens placed on case cart
Scrub Nurse/Tech takes case cart to elevator
Scrub Nurse/Tech takes specimen to refrigerator
Specimen Scanned: Surg Path Refrigerator
Specimen placed in refrigerator
Pathology picks up specimen
Specimen accessioned and processed

Epic Changes



- **OR Room** – Indicates the specimen(s) is in the OR room. This should be the first reason documented and should be documented on all cases.
- **Staff Picked Up** – Indicates that the specimen(s), for example a frozen section, was handed directly to another staff member for transport. You can document the staff name in the Comment section.
- **Surg Path Refrigerator** – Indicates when the specimen(s) is placed in the Pathology refrigerator.

Strategies & Tactics

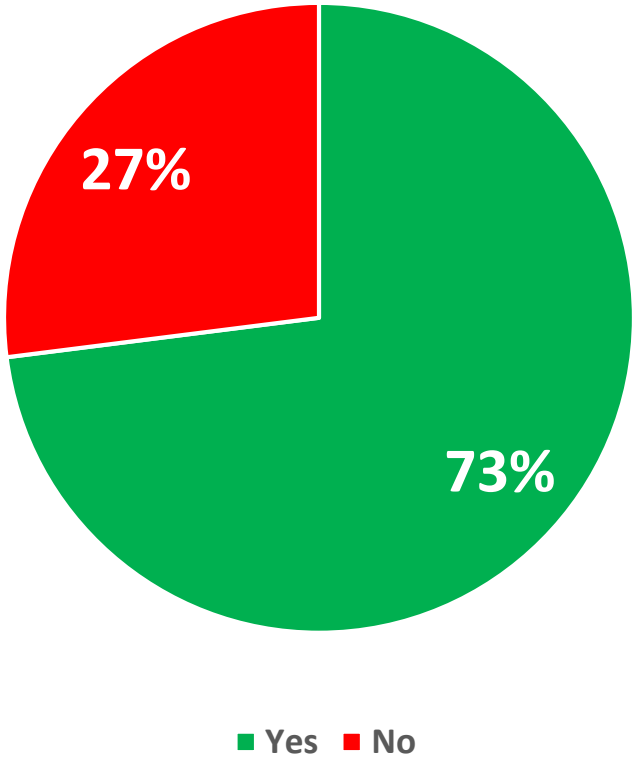
Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

- Change structures
  - Reconfigure Epic
  - Workstations & scanners at all checkpoints
  - Reminders at checkpoints
- Modify staff roles to include SPS scanning and handoff documentation in BMCOR
  - Develop new workflow
  - Super users & champions
  - Audit metrics & provide feedback
- Provide training
  - Formal training on scanning
  - Tip sheet, definition document, visual reminder
- Provide weekly data reports on outcome measures

Training

- Total number of staff trained: 61/83

- Training methods:
  - Formal Inservice
  - 1:1 sessions
  - Voice over Powerpoint on MyLearning



Visual Reminder & Tip Sheet

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

Tip sheet for pathology specimen tracking available by scanning QR code below

OpTime | Intra-op RN

Epic

Specimen Tracking – Anatomical Pathology and Cytopathology Specimen Tracking in Epic

At locations set up for specimen tracking, pathology and cytopathology specimens obtained in the OR will be barcode scanned and tracked between the OR and Pathology. Users can also set their defaults for the Tracking, Case Receiving, and Packing List activities.

Barcode Tracking of Pathology & Cytopathology Specimens

Setting System Defaults

Barcode Tracking of Pathology and Cytopathology Specimens

Basic Tracking of an Individual Specimen

The basic tracking of an individual specimen is performed as follows:

1. Click **Tracking** activity on the main toolbar.

2. Select a reason from the available quick buttons across the top of the Tracking activity window.

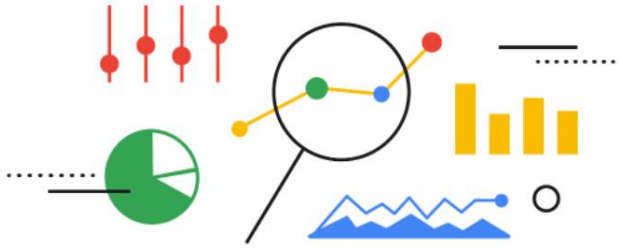
   a. **OR Room** – This tracking event should always be documented. It indicates the specimen(s) is in the OR room.
   b. **Staff Picked Up** – This tracking event is used for frozen sections handed directly to Pathology for transport. (This was changed from Pathology Picked Up)
   c. **OR Holding In** – This tracking event is used when a specimen(s) is brought to the control desk and placed in the holding bin to await transport to Pathology.
   d. **OR Holding Out** – This tracking event is used when a specimen(s) is removed from the holding bin to be taken to Pathology.
   e. **Pneumatic Tube In** – This tracking event is used when a specimen(s) is placed in the pneumatic tube and sent to Pathology.
   f. **Pathology Holding In** – This tracking event is used when the specimen(s) is brought to Pathology and placed in the holding bin.
   g. **Surg Path Refrigerator In** – This tracking event is used when the specimen(s) is brought to Pathology and placed in the refrigerator.
   h. **Picked Up/Research** – This tracking event is used to account for the research specimens leaving the OR.
3. **Scan** the barcode on the specimen. It will populate on the left side of the window.
4. On the right side, you can see the OR Room reason appears and the specimen was tracked.

© 2022 Epic Systems Corporation

Data Analysis & Results

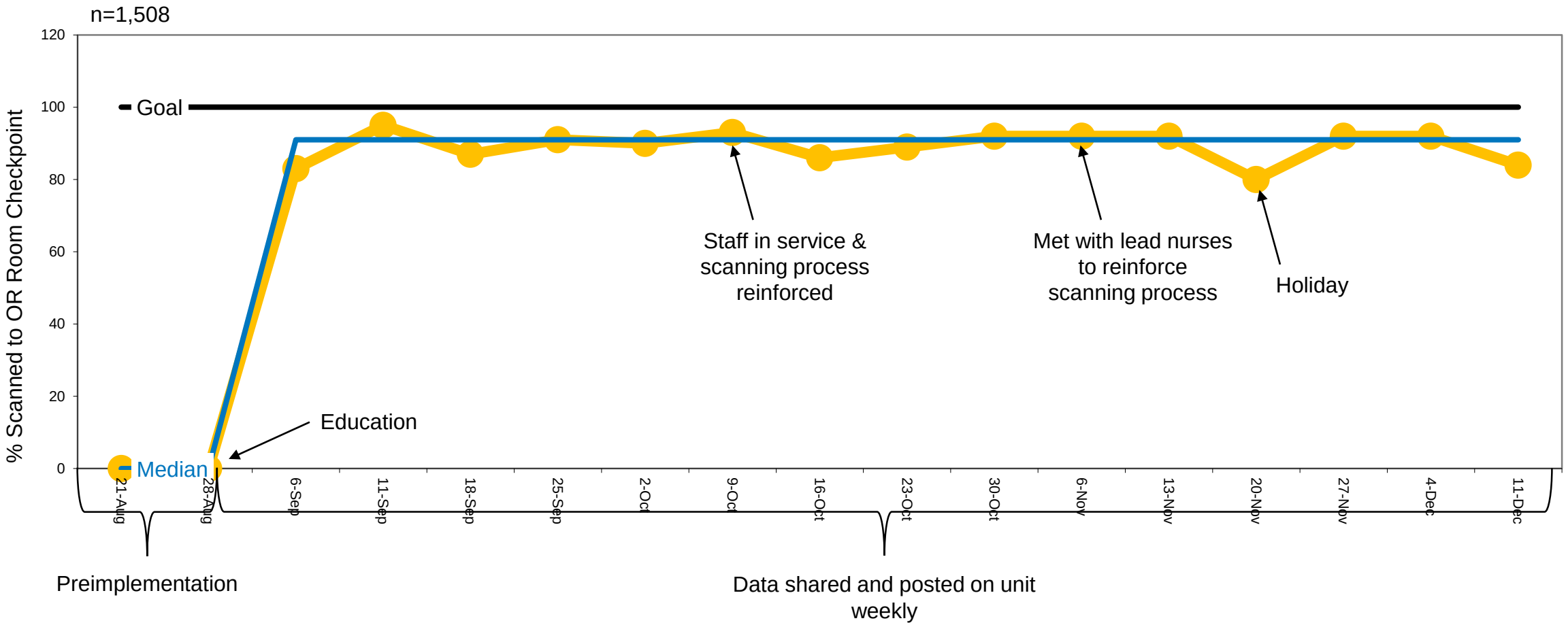
Data Analysis

- Epic Report Data:
  - Percentage of SPSs scanned to specific checkpoints
  - Percentage of SPSs scanned to Staff Picked Up checkpoint that include handoff documentation
  - Percentage of SPSs accessioned by lab
- HERO Custom Report Data
  - Total number of SPSs reported lost in HERO



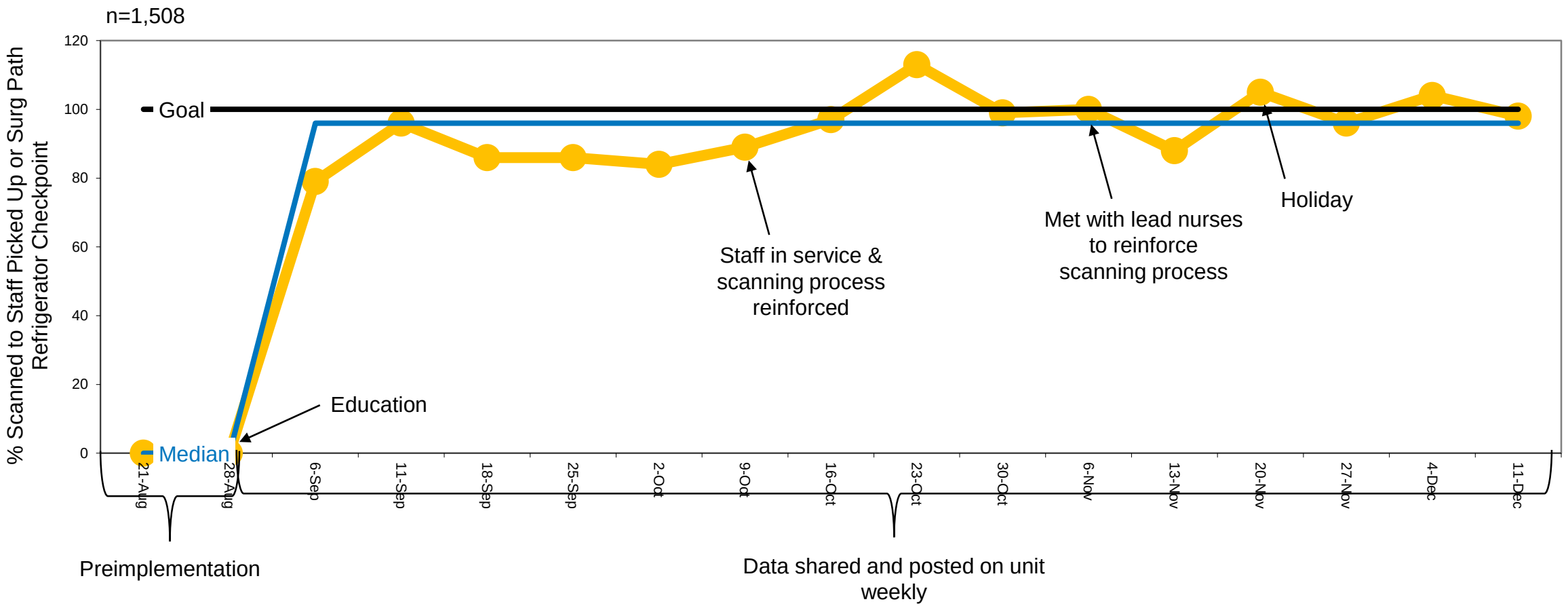
Specimen Scanning Compliance: OR Room

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023



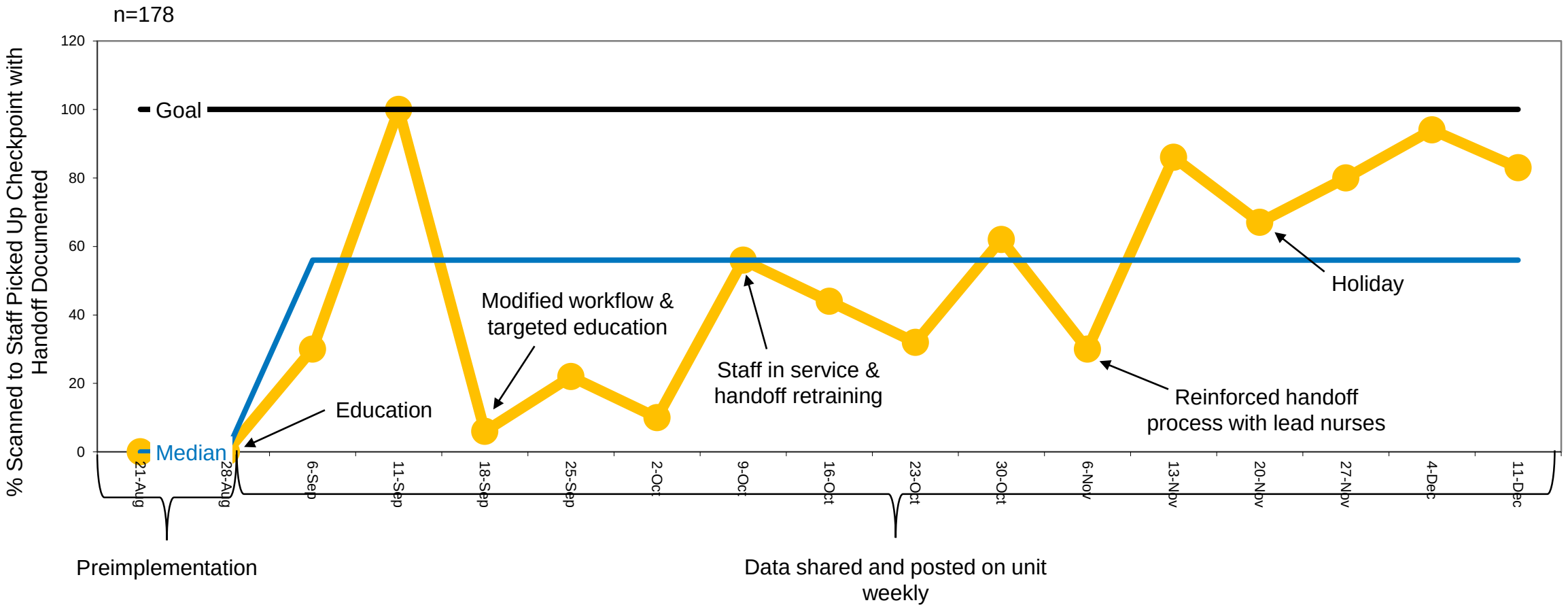
Specimen Scanning Compliance: Staff Picked Up or Surg Path Refrigerator

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

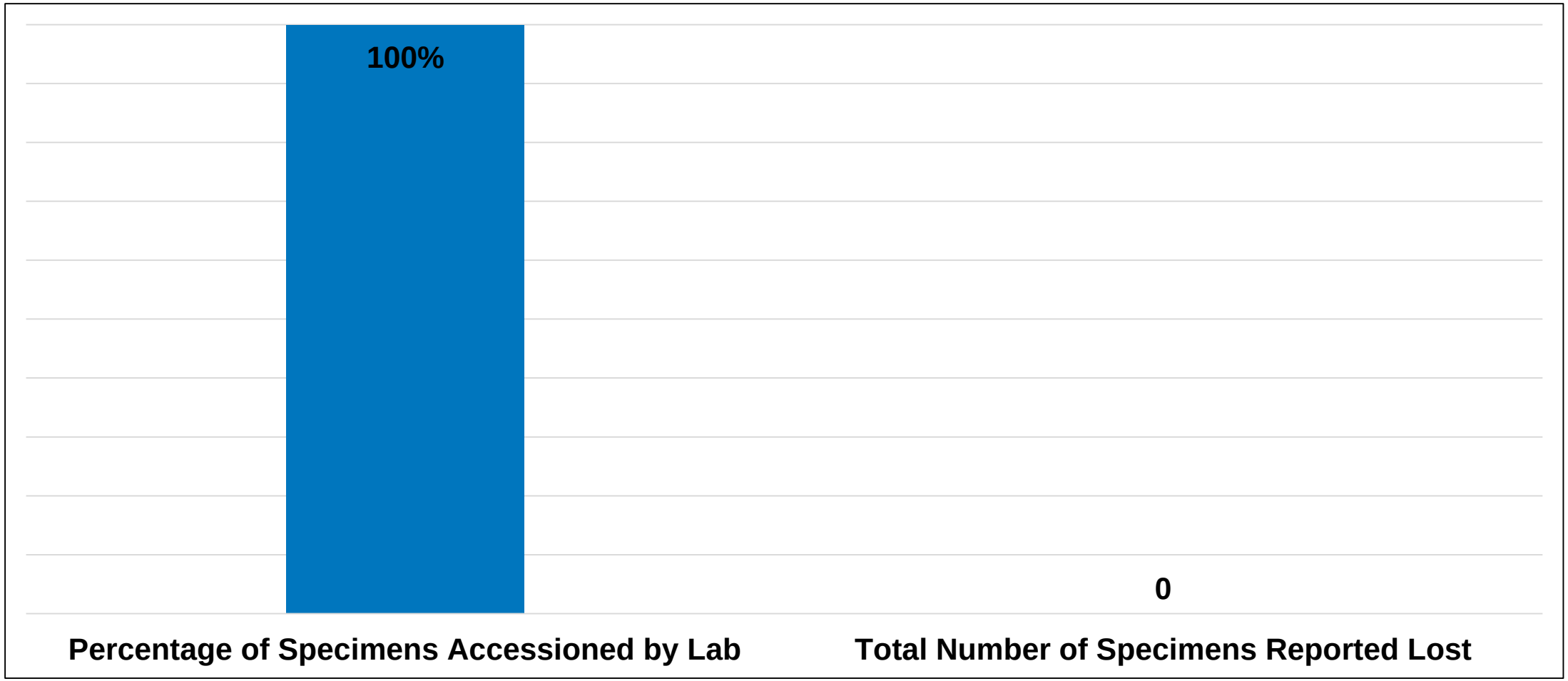


Handoff Documentation Compliance

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023



Specimen Loss



Results

- Staff are performing checkpoint scanning:
  - OR Room- 89%
  - Staff Picked Up or Surg Path Refrigerator- 94%
- Handoff documentation- 49%
- All SPS collected were accessioned by the lab
- No SPS were lost

Limitations

- Delay in availability of online training
- Documenting handoff of multiple SPSs
- Accuracy of SPS scanning to the Surg Path Refrigerator or Staff Picked Up checkpoint metric
- 15 week duration of project

Practice Implications

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

- SPS scanning can be used to track physical location and support accessioning by lab
- SPS scanning is associated with improved handoff documentation in the EHR
- SPS scanning may help prevent SPS loss

"The very first requirement in a hospital is that it should do the sick no harm."

Florence Nightingale

Future Recommendations

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

- Track metrics over longer period of time
- Leverage more Epic functionality to:
  - limit scanning of checkpoints
  - utilize decision support to facilitate workflow
- SPS scanning by Pathology upon pick from the Surg Path Refrigerator

References

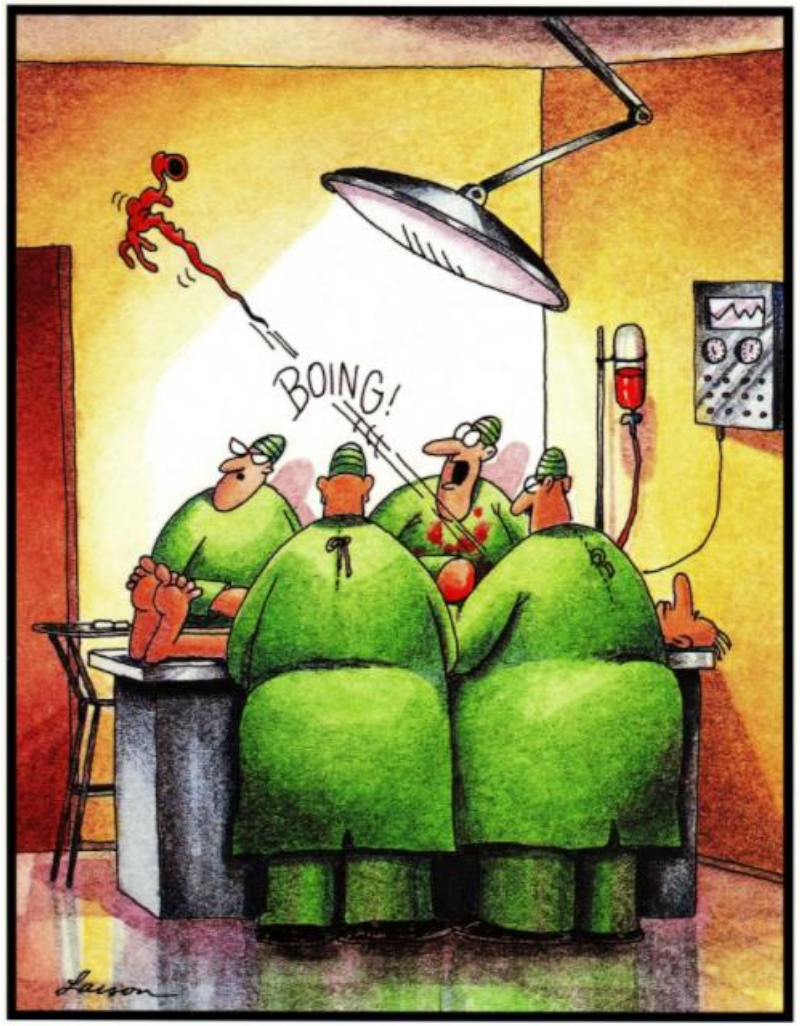
Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

Acknowledgements

Showcase for Hopkins Inquiry and Nursing Excellence
SHINE
Conference 2023

- **Project Sponsor: Laurie Saletnik, DNP, RN, CNOR**
- **Clinical Site Representative: Kim Goldsborough, DNP, RN, CNML**
- **Faculty Advisor: Tracey Wilson, DNP, ACNP**
- **JHBMC OR Staff**
- **Epic OpTime & Beaker Teams**

Questions?



"Whoa! Watch where that thing lands—
we'll probably need it."

(Copyright Gary Larson)