

S.T.A.R.S.

(Safety Tracking and Reporting System)

Creating Culture and Capacity for
Improving Patient Safety

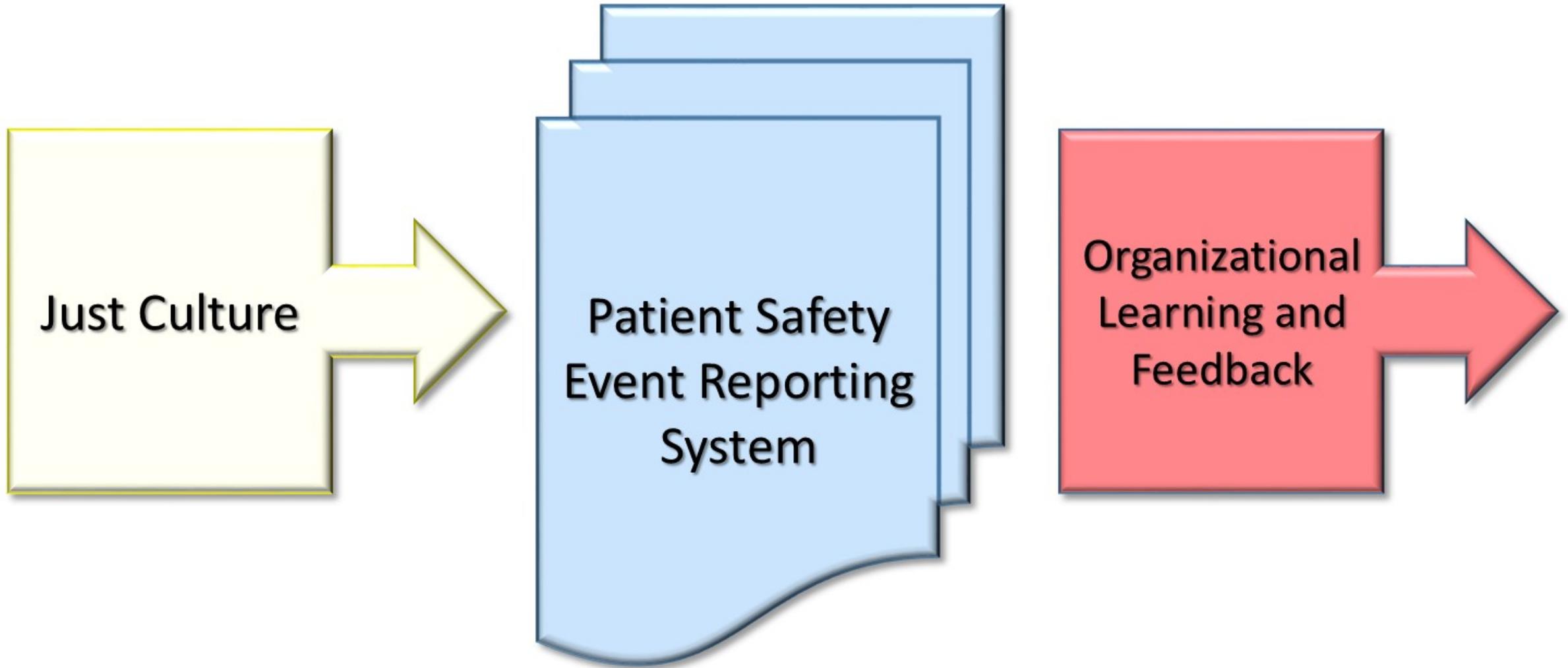


Link to the Principles of High Reliability

- Preoccupation with Failure
 - Emphasis on reporting near misses and process issues
- Sensitivity to Operations
 - STARS reports play a central role in daily patient safety huddles and in unit/department/Institute patient safety and quality activities
- Deference to Expertise
 - Reporting occurs at all levels of the organization; most are generated by front line staff



Patient Safety Event Reporting Framework



Historical Perspective

- Occurrence Reporting System
 - Implemented in mid-1980's
 - \approx 350 - 400 reports per month
 - Inflexible architecture – follow-up documentation capacity limited
 - Data analytics capacity non-existent
 - Limited organizational learning occurred
 - Punitive culture existed

“.....I will ‘ORS’ you!!”



Objectives of a New System

- User-centered, intuitive design
- Robust intra-system follow-up and communication capacity
- Feedback loop for the submitter
- Dynamic data analytics and reporting functionality



“On Time and Under Budget!”



Implementation Strategies

- Early focus groups of users and non-users
- “Burning platform” in late 2015 facilitated change
- Benchmarked academic medical centers
- Extensive market research
- Culture of safety awareness raising
- Nurse Informaticist & Nurse Consultant with reporting experience joined team
- Convened Advisory Group
 - Interdisciplinary – Clinical Center and Institute representatives
 - Respected organizational change agents
 - Sounding board for patient safety team



Implementation Strategies

- Extensive planning sessions with Advisory Group and stakeholders
 - Workflow analysis and re-engineering
 - Role of the “file manager”
 - System testing, system testing, system testing..
- Promised to not replicate the ORS
- Branding/naming campaign
- Leveraged vendor user community
- Innovative (and intensive) educational strategies



System-related Outcomes

- System Implementation

- Hit all key implementation milestones
 - Organizational will
 - Experienced/expert staff
 - Engaged Advisory Group
 - Solid product
- Invited platform speakers at annual Congress highlighting our innovative use of the system's capabilities as well as our educational approaches
- NIH CC team deemed "Influencer Status" with vendor users' group

- System Use

- Number of monthly reports increased from 350 to >500 per month
- Reports used in daily patient safety huddle and at Unit/IC/Dept level
- Physician-submitted reports trending up

Patient Safety Event Data





Dashboard

Risk, 90-Day Organization-Wide Events as of July 05, 2017 06:37 PM

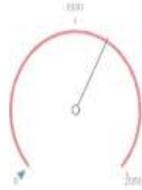
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Count of Files

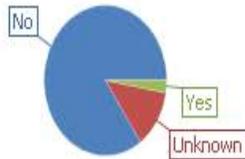
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1214

+12040.00 %
+1204

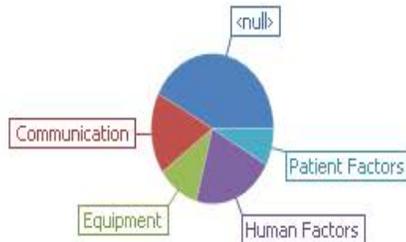


Injury Incurred?



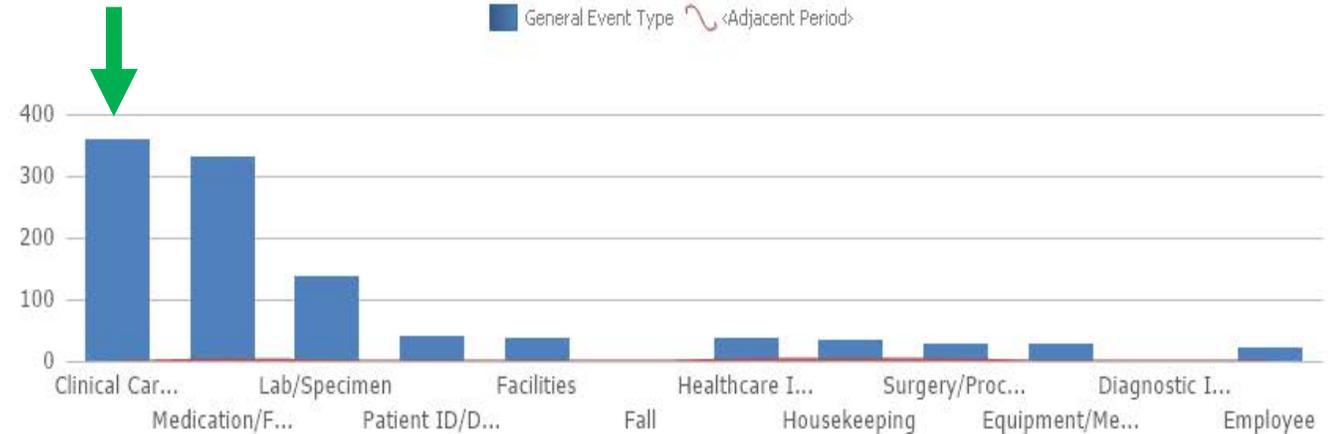
No: 84.76 %
Yes: 12.60 %
Unknown: 2.64 %

Top 5 Contributing Factors

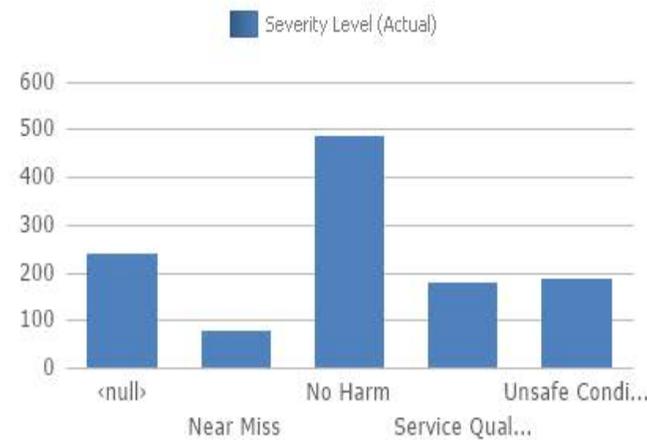


<null>: 42.29 %
Communication: 17.50 %
Patient Factors: 10.97 %
Human Factors: 21.32 %
Equipment: 7.92 %

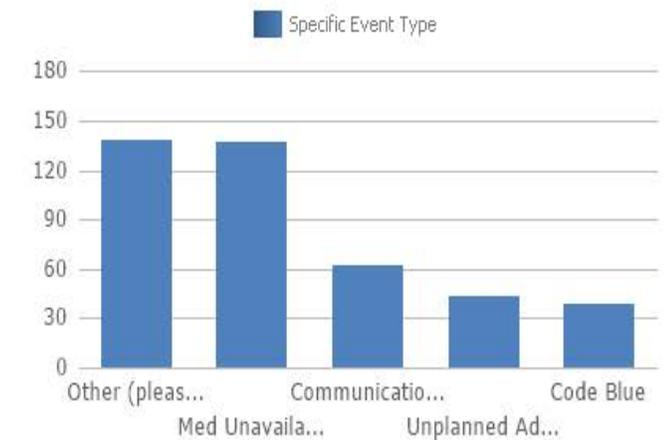
Top 10 Event Types



Top 5 Actual Severities



Top 5 Specific Event Types





Dashboard

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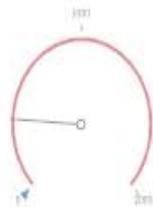
Clinical Care/Treatment/Service

Top 10 Event Types Clinical Care/Treatment/Service

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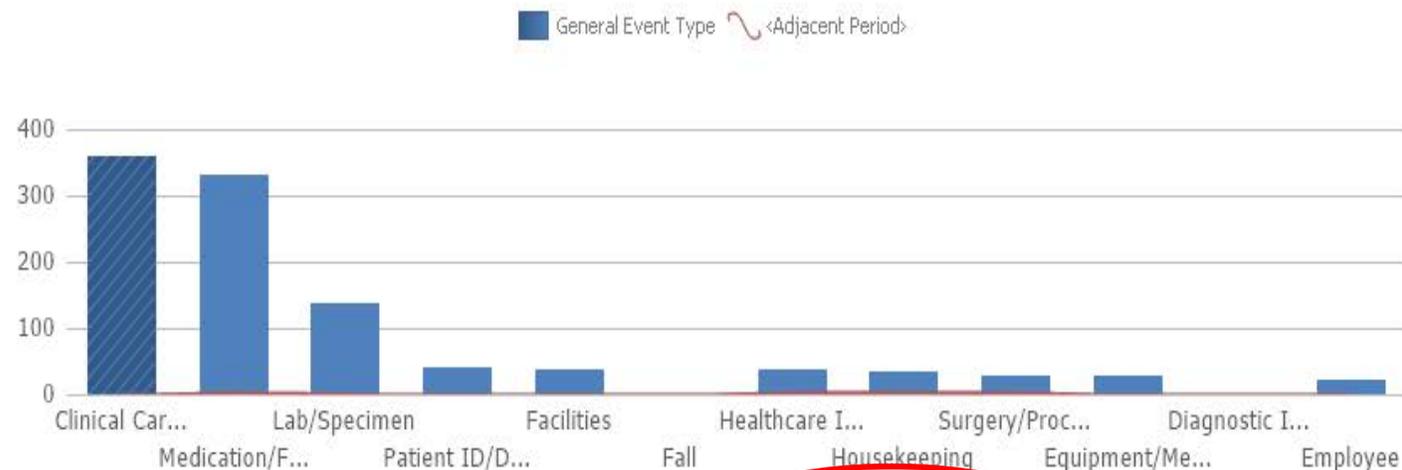
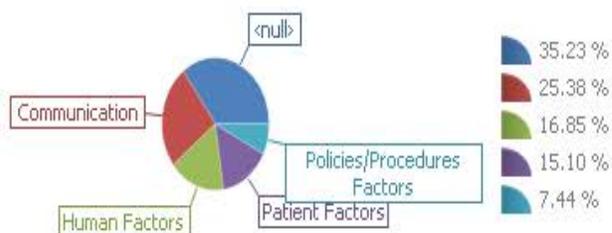
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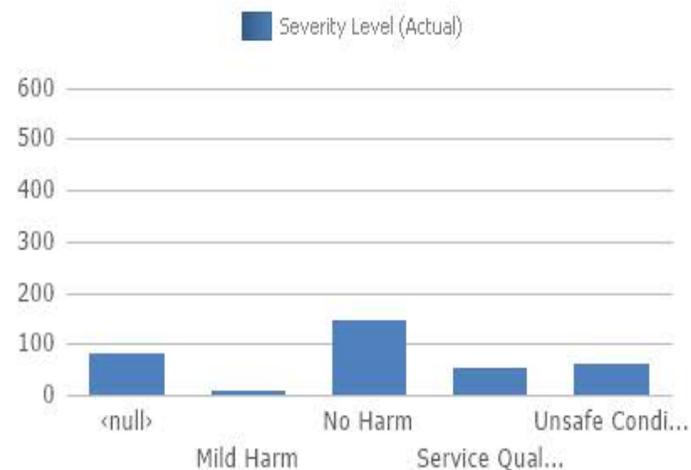
Injury Incurred?



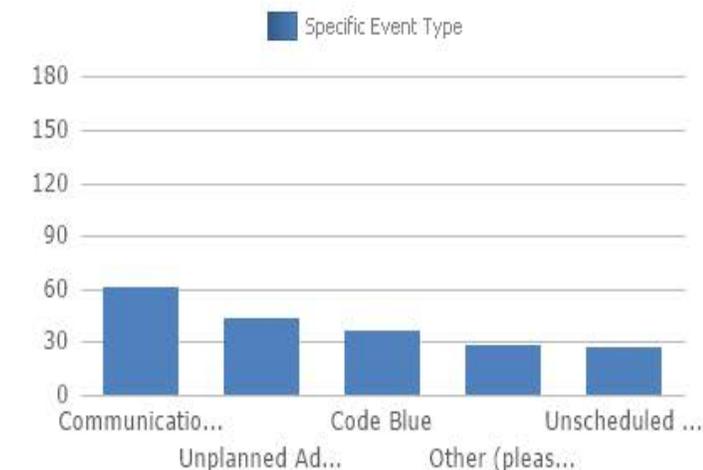
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Top 5 Specific Event Types



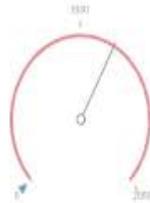
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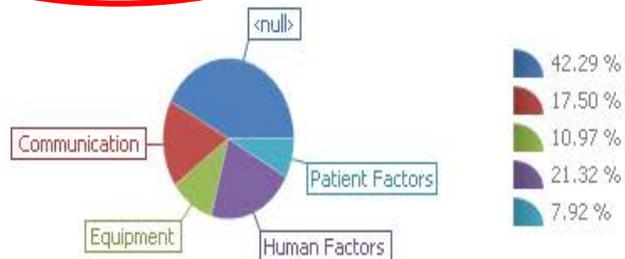
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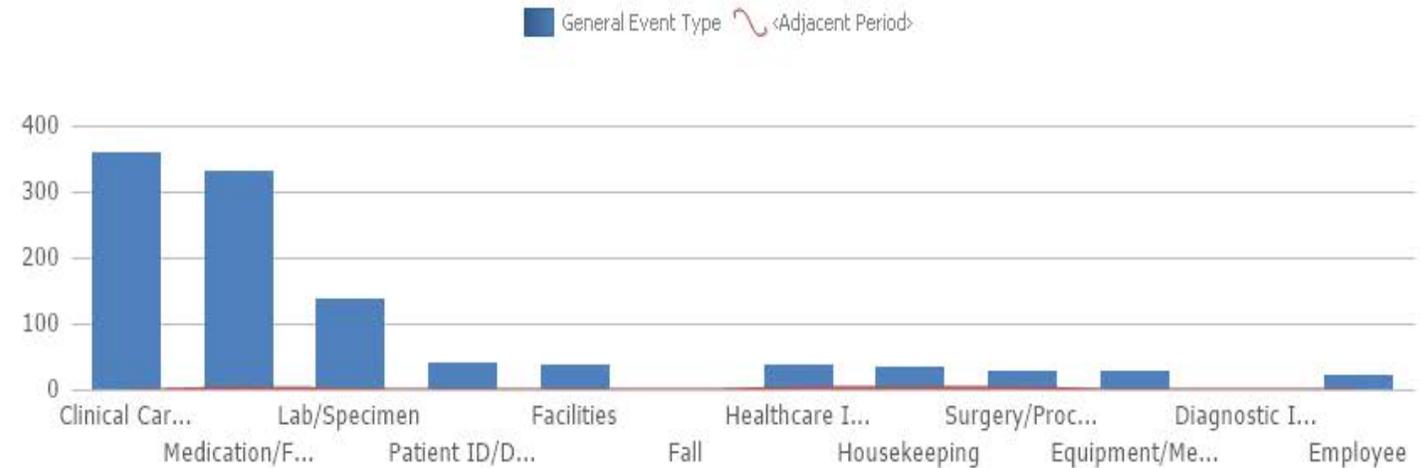
Injury Incurred?



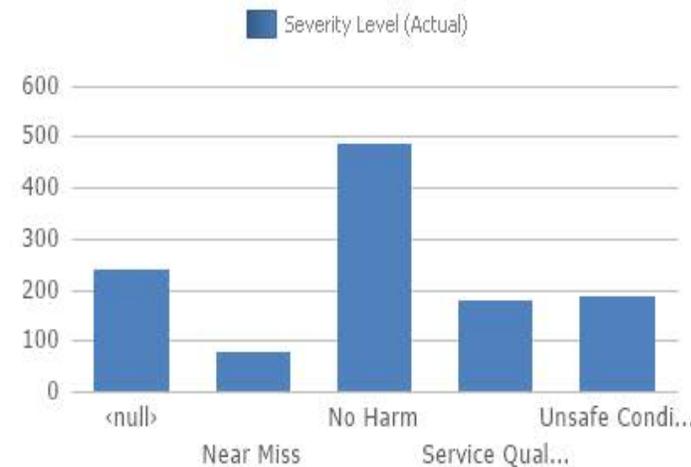
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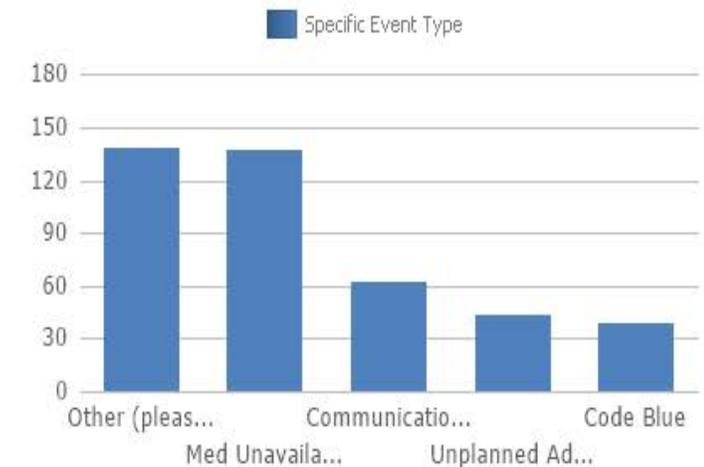
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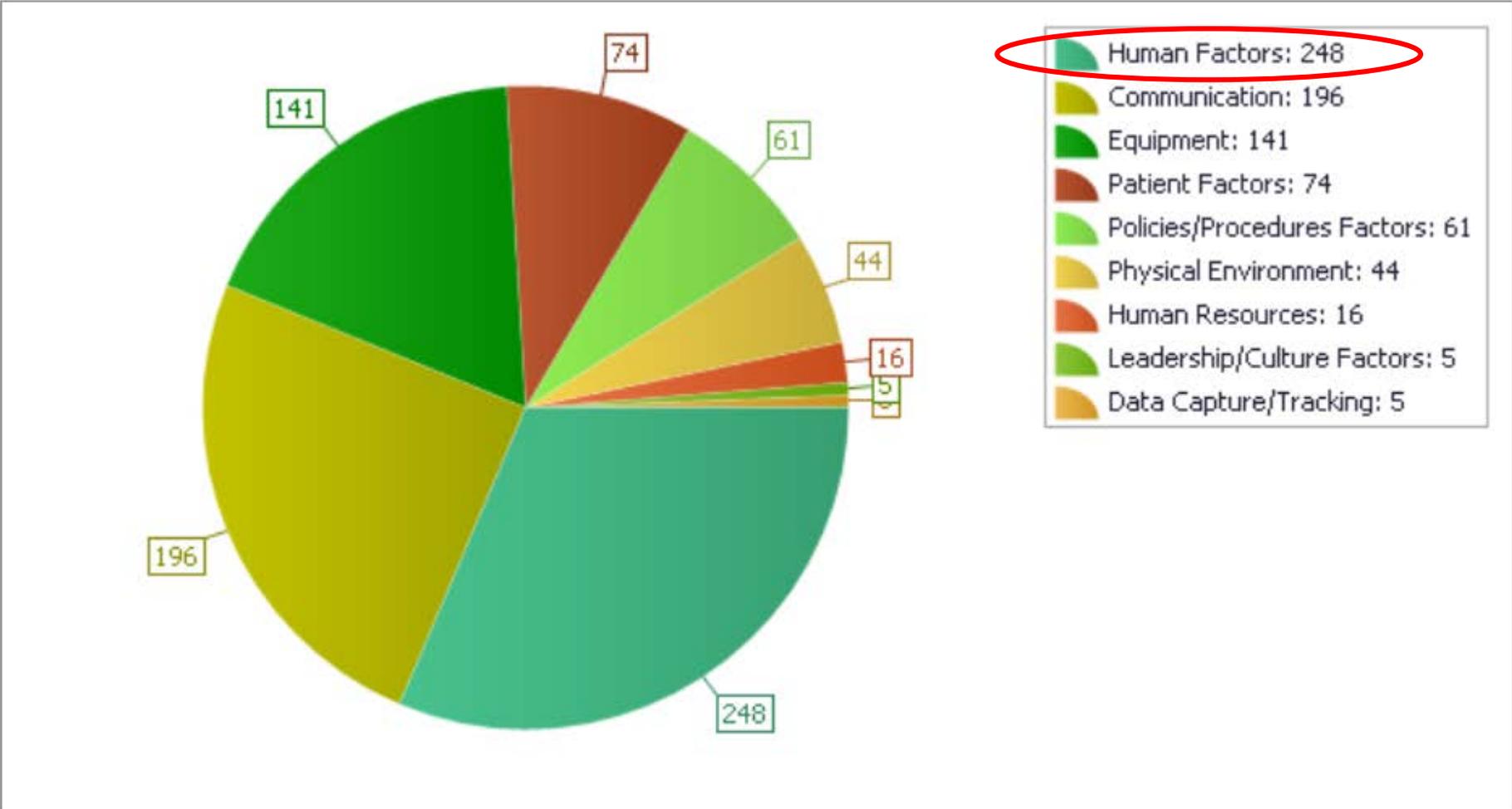


NIH Clinical Center: Safety Tracking and Reporting System (STARS)

Contributing Factors

(All dates) and ((Contributing Factors is not equal to empty) and (File State is equal to "Closed") and (General Event Type is not equal to "System Change Request/Feedback")) and (((Scope is equal to "All")))

Grand Total: 790

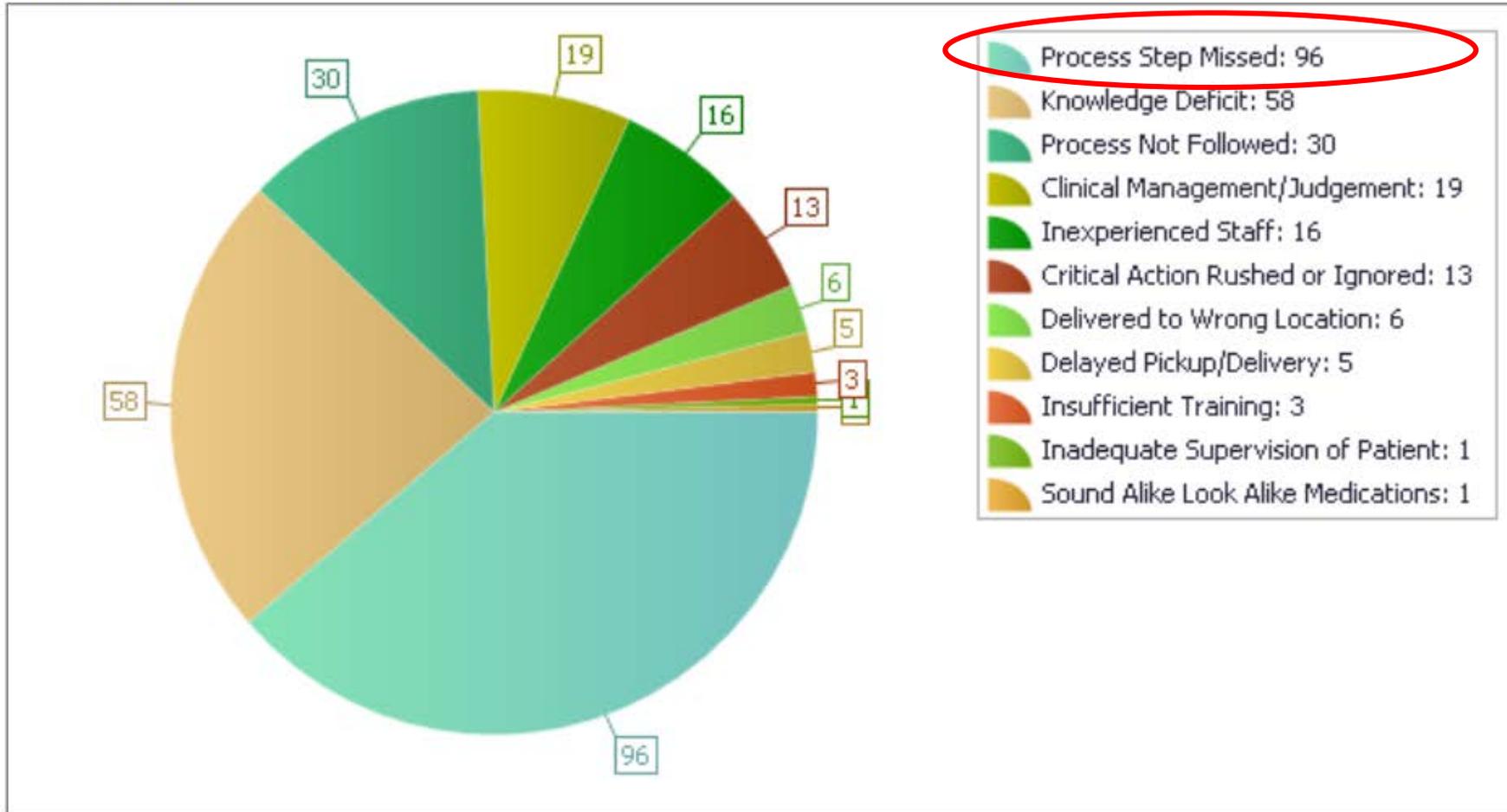


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Contributing Factors

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Grand Total: 248



Patient Safety Opportunities Identified

- MOOG Pump Over/Under Infusion
- Communication/Transitions of Care Lapses
- Pharmacy Delays
- Pneumatic Tube System Failures
- Unprofessional Conduct
- Service Excellence

Challenges

- Organizational learning/Feedback
 - Constraints related to peer review protection limits feedback to users
 - Strategies for sharing information/data house-wide
- Volume of reports
 - Impact on workflow (and workload) of file managers and patient safety and quality staff
 - Balance between effort focused on “closing” reports versus focusing on improvement
- Organizational quality improvement capacity
 - Lack formal quality/process improvement infrastructure (e.g. Lean, Six Sigma)
- Lingering pockets of punitive culture
 - *You've been “STARRED”*

Looking Forward

- Leverage robust data analytics capacity
- Six month check-in with users and file managers
- Engage Institute partners in system use, data analysis and improvement activities
- Integrate clinical research-related events
- Improve physician usage
- Launch culture of safety training re: managing events (systems failure vs personal culpability)

Special Thanks

- Office of Patient Safety and Clinical Quality

Gina Ford

Josanne Revoir

Theresa Jerussi

Mary Sparks

Karla Platt

- Advisory Group

Diane Aker (Nursing Transplant/ Hem-Onc)

Wade Atkins (DTM)

Kathy Baxley (SWD)

Caitlin Brennan (Nursing Outcomes Management)

Krista Cato (Nursing Pediatrics)

Laura Cramp (Nutrition)

Heather Crum (DLM)

Georgie Cusack (NHLBI)

Andrew Demidowich (NICHD)

Dachelle Johnson (Pharmacy)

Christine Lafeer (NIAID)

Helen Mayberry (Nursing Outcomes Management)

Amanda Ramsburg (HES)

Caryn Steakley (NCI)

Questions?

Comments?