

Interruption Fatigue

What is the overall impact?



Today's Agenda

- **Introduction**
- **Saint Joseph Hospital Overview**
- **Our Interruption Story:**
 - **The Challenge**
 - **The Strategy**
 - **Our Progress**
- **What's next?**
- **Questions**

Today's Presenter



Kim Velez, BSN, RN

Clinical Informatics
Saint Joseph Hospital

Professional

BS in Psychology

ED Nurse for 14 years

- Traveled from Miami to Anchorage
- Incl. Falmouth, Newton-Wellesley, and Beth Israel here in MA
- Over 10 years in Denver
- 6 years in Clinical Informatics

Personal

- Pride and Joy: Daniel, 2, & his sister due in January
- Love to travel, rock climb, hike, and ski
- Self admitted Apple fans

Saint Joseph Hospital

A clinically driven facility utilizing the most efficient technology

New Facility opened 12/13/14

- *Denver, CO - Hospital Altitude: 5280'*
- *7 stories; 831,321 total sq. ft.*
- *\$623M hospital, intelligent architecture & green design*
- *360 private beds*
- *Technical: 55.3 miles Ethernet; 588 Wireless AP's; 2600 connected clients; 3655 phone numbers; over 600 smart phones; 200 Vocera*



Top National Rankings

*“We’re proud to provide our community quality health care that’s ranked nationally in the **top 2 percent** for clinical excellence.”*

Top National Rankings

- *America’s 100 Best Hospitals by Healthgrades in 2015*
- *Distinguished Award for Clinical Excellence, 2013-2015*
- *Beacon Award for Excellence*



Case Study
Interruption Fatigue
at Saint Joseph
Hospital

Our Challenge

- New Everything: Hospital, devices, workflows, alerts and alarms
- Goal: “Efficient and Safe”
 1. New building with departmental neighborhoods
 2. Design clinical workflows with new technologies
 3. Minimize disruption and interruptions
- When/How do we implement everything?



Simple, right?

Enterprise Technologies

Medical Devices:

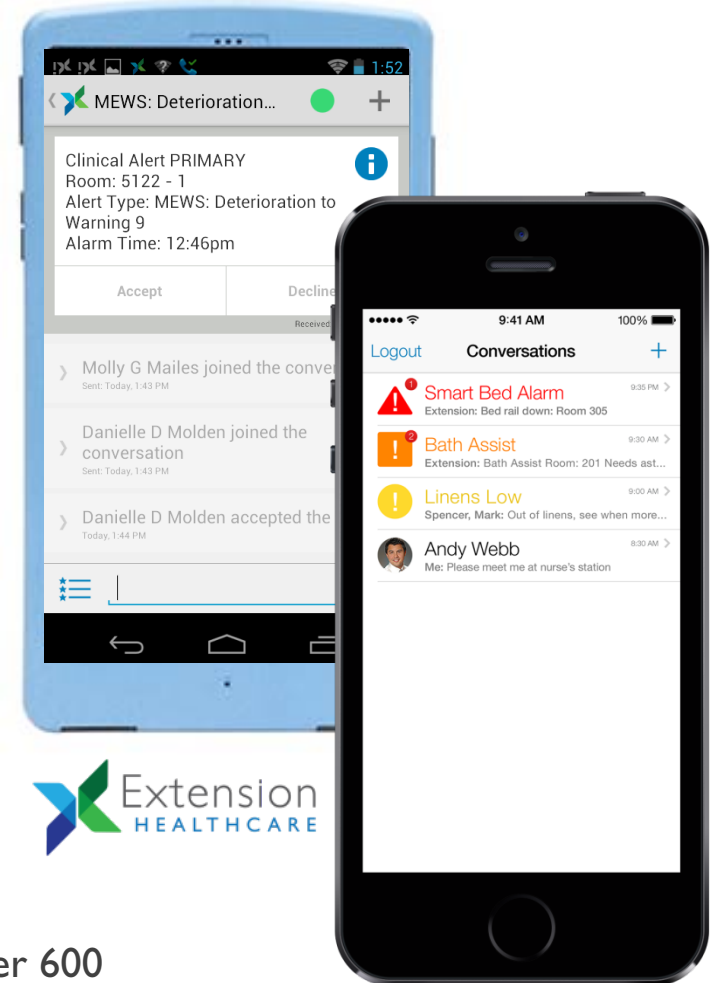
- Philips patient monitoring
- Alaris Pumps

Alerting Systems:

- Hill-Rom (Nurse Call and Assignments)
- Centrak (RTLS)
- EPIC EMR (ADT, Orders, Pharmacy)
- GetWell Networks (interactive Patient Care)
- Philips Guardian – MEWS
- Sunquest (Laboratory)

Communication Systems:

- Extension Engage Mobile (Texting and Messaging) – over 600
- Vocera (Alerting only) – 200 badges



Enterprise Strategy:

Events, Responses
and Clinical
Communication



Interruption Fatigue!

SLOW

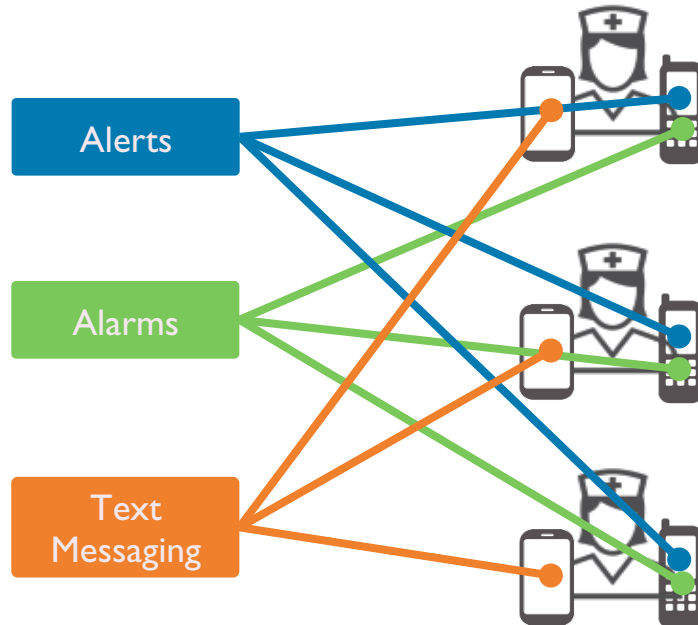
A photograph of a winding asphalt road in a rural, hilly landscape. The road is paved with dark gravel and has white dashed lines on the sides. The word "SLOW" is painted in large, white, block letters across the road. A small, light-colored animal, possibly a dog or cat, is lying on the road to the right of the word. The background shows rolling green hills under a dramatic, cloudy sky.

Coordinated Approach to Enterprise Interruptions

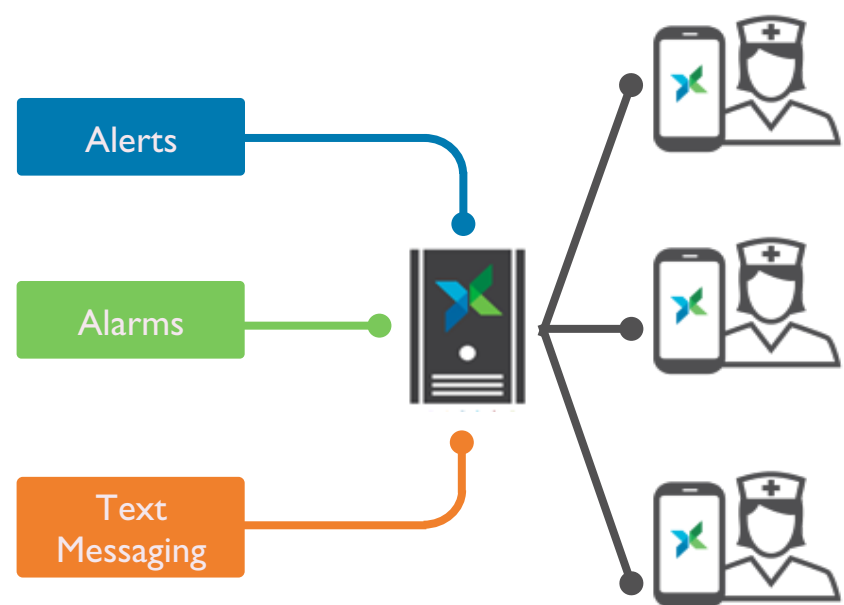
Our Approach

- Prioritize the challenges
- Identify the Interruptions - Alarms, Alerts, Texts, Verbal
- Keep it Simple... don't try to do too much too fast

Today's Situation



Extension's Approach



Implementation

Big Bang vs. Phased Approach

Phase 1 – Keep it Simple

- Communication Devices: From pagers and Cisco TO Android smart phones
- Simple text messaging: transport notifications

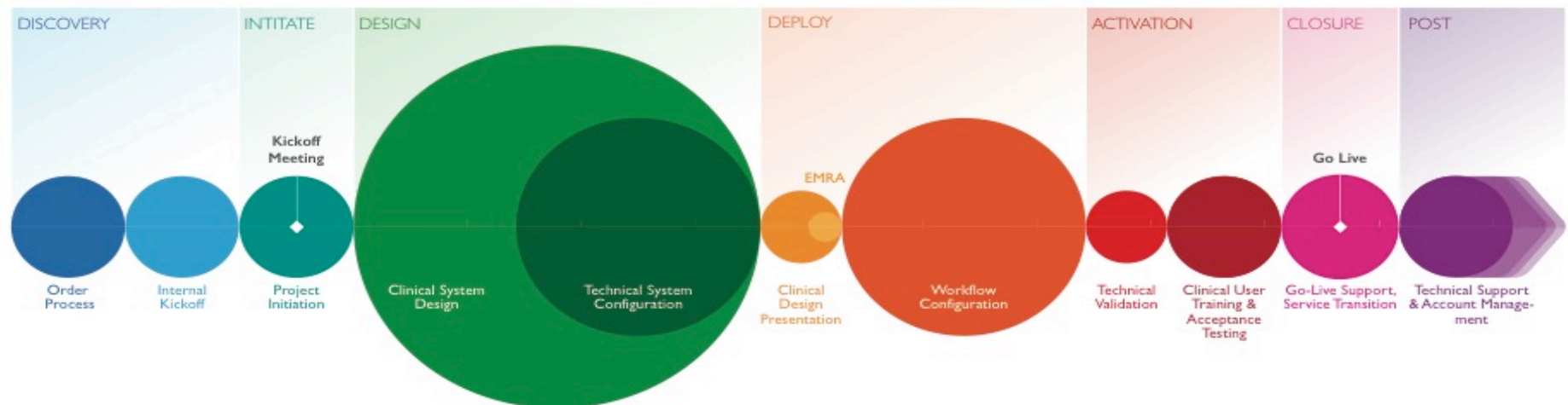
Phase 2 – Alert and Alarm Notification

- Monitoring, Nurse Call, RTLS, GetWell, etc.

Phase 3 – Advanced Alerting

- Additional Monitoring, Labs, Orders, IV Pumps

Project Implementation



Current Focus: Refinement of Interruptions

- Simple texting
- Patient Monitoring in NICU
- ADT Demographics
- Telemetry messaging
- GetWell Network – patient pain
- Philips Guardian – MEWS alerts
- **Intelligent Nurse Call Notification**
 1. 2-way with Hill-Rom and Extension
 2. Intentional delays (60 sec) – Patient, Bath, Shower
 3. RTLS integration with nurse call upon entering room
 4. Physical Integration: Solid light to blinking light
 5. Mobile devices: Role based alerts



Overall, helping nurses prioritize the Interruption

Our Progress



Progress Report

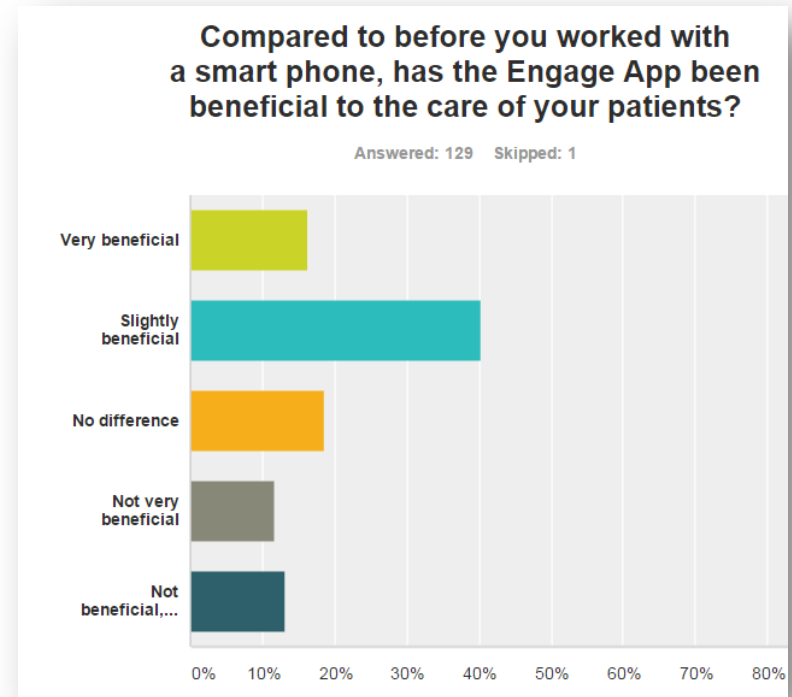
St. Joseph User Feedback

- Nursing survey results
- A story or two
- Overall Clinical Perception:

Making a positive impact!

HCAHPS

- Results vary... so many changes over last year
- Wait and see!



Nursing Interruptions

- Mixed Method Observational Study: Acute Care Focus
 - 5 nurses collecting data over 3 days (2 times)
 - 632 interruptions for all Roles (RN, C-NA, RNA)
- Most Interesting Results:
 - 85% were patient related
 - 63% were other caregivers (37% patient initiated)
 - 41% were verbal communications
 - 27% did not require action



Not every interruption is urgent.... “My Time Data”



Thank You

Kim Velez, *St. Joseph Hospital*

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UTION • CLINICAL NOTIFICATION SOFTWARE • CLINICAL WORKFLOW
ERGENCY MEDICAL ALERT • ALARM MANAGEMENT MIDDLEWARE • PATIE
FTWARE • CLINICAL ALERTING SYSTEM • ENTERPRISE SCALABILITY • REPO
TIFICATION • CLINICAL EVENT RESPONSE • LAB REPORT • EXTENSION • B
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VICE INTERFACE • REMOTE MONITORING SOFTWARE • EVENT DRIVEN SE
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