Institute for Healthcare Improvement

NPSF

TOGETHER FOR SAFER CARE

Vital Signs Project*

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*** Project name; does not reflect technology name**

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***Note: The is an example of the accompanying Business Case PowerPoint Template filled out with a business case for a sample safety project. Use this tool in conjunction with *Optimizing a Business Case for Safe Health Care: An Integrated Approach to Finance and Safety*. © Institute for Healthcare Improvement, 2017. All rights reserved.**

This sample project is adapted from a project implemented at the Hospital Corporation of America (HCA). Data and project details, including project name, are illustrative and provided as examples only.

Executive Summary

Objective:

Reduce preventable mortality and morbidity and improve care coordination by implementing an innovative, cost-effective solution to provide near real-time information flow of vital signs from the bedside into the current electronic health record (EHR) for clinician notification

Recommendation:

- Install innovative vital signs middleware technology throughout all non-critical care units of the hospital
- Enable Clinical Decision Support (CDS) utilizing Modified Early Warning Scores (MEWS)
- Transmit MEWS alerts to Rapid Response Team

Key Decision Points

- Approve funding to replace fully depreciated monitoring equipment

- Provide resources to ensure safety and support implementation of technology, decision support, and improved workflow

Current Challenge/Problem

- Failure to recognize patient deterioration on a timely basis is a significant safety issue
- During the last 12 months:
  - XX patients have died as a result of failure to identify deterioration on a timely basis
  - XX patients have been admitted (or readmitted) to the ICU
  - Timely detection and response has been identified as a common root cause of this problem
- Improving detection and response times will reduce these undesirable outcomes and is explicitly aligned with our strategic commitment to improve safety and reduce harm to patients

Vital Signs Project: Benefits

- Patient Safety
  - Reduce morbidity and mortality
  - Patient data error avoidance (i.e., transcription errors)
  - Timely vital signs available for physicians and clinicians to improve patient care decisions
- Improved Outcomes
  - Increase timeliness of Rapid Response Team activations
  - Decrease Code Team activations
  - Improve failure to rescue metrics
- Workflow Efficiency
  - Reduce charting steps
  - Average time for vitals available <1 min (changed from previous 41 min)
  - Provides more direct care time supporting improved patient care and satisfaction

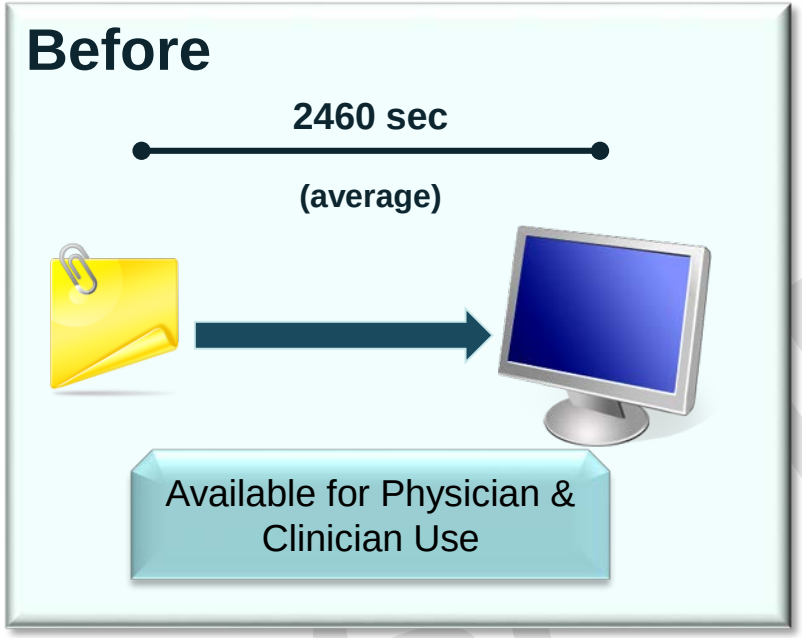
Financial Estimate

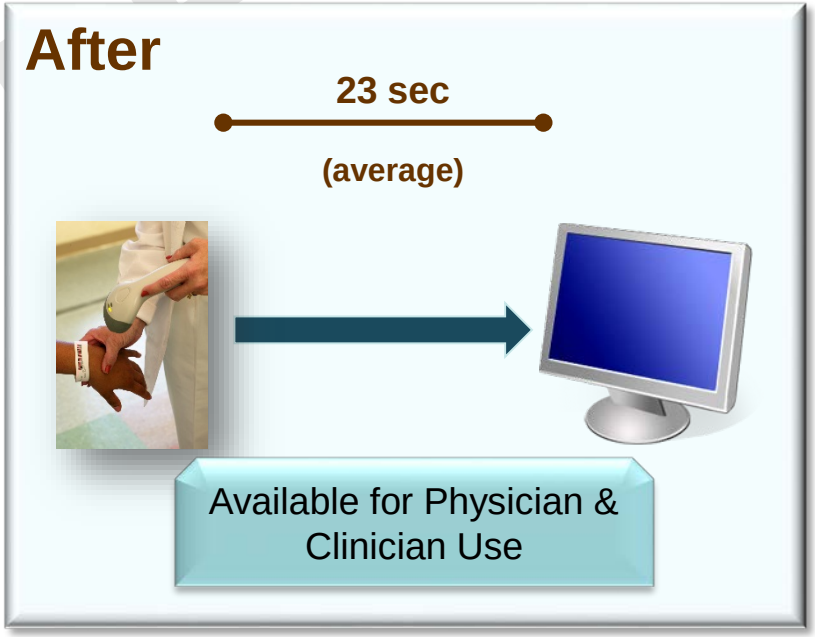
- Overall implementation cost (pilot + hospital-wide implementation) = $xxx,xxx
- Equipment costs balanced by improved nursing productivity and decreased care costs
- Potential impact on pay for performance

Note: Appendix C provides more detail about financial estimates and resource impacts

Vital Signs Project

Workflow Impact Analysis and Pilot Results





Facility	Go Live	Utilization
Medical Surgical Unit	8/15/16	Average 86%
Behavioral Health Unit	8/16/16	Average 91%

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Appendices

- Appendix A: Value Drivers
- Appendix B: Project Assumptions
- Appendix C: Estimated Financial Impact
- Appendix E: Implementation Timeline

Appendix A: Value Drivers

- Reduce mortality and morbidity from failure to rescue by improving timeliness of team response to patient deterioration
- Faster access to critical patient data with timely alerting to intercept and minimize risk of patient deteriorations
- Timely, safer, and more effective care
- Better utilization of nursing time, Rapid Response Teams
- Decreased care costs with earlier intervention
- Potential impact on pay for performance if failure to rescue is added to payer contracts; reduced liability and reputational risk
- Staff satisfaction, more time to spend on other patient care activities

Appendix B: Project Assumptions

- Wireless infrastructure is sufficient to support new technology on all units
- Rapid Response Team beepers will be able to receive alert messages
- Current Rapid Response Team staffing will be sufficient to meet increased demand
- Current biomed processes and resources will be sufficient to maintain new devices
- Performance dashboard available to monitor impact

Appendix C: Estimated Financial Impact

Expenses	Description	Amount	Comments
Operating Expenses			
• Labor (pilot)	Training (pilot)	$xxx(1 hour)	23 employees
• Labor	Training	$xxx,xxx	324 employees
Total Operating		$xxx,xxx	
Capital Expenses (pilot)	Technology & equipment	$xx,xxx	$x,xxx/unit(4)
Capital Expenses	Technology & equipment	$xxx,xxx	$x,xxx/unit(34)
Total Capital		$xxx,xxx	
Total Expenses		$xxx,xxx	

Appendix E: Implementation Timeline

- Anticipated start date: October 1, 2017
- Go Live: January 10, 2018
- 60 day check point: March 10, 2018
- Data Analysis: April 2018
- Estimated 2-year tracking period and ongoing Resuscitation Committee reports