### 2024 VIZIENT CONNECTIONS SUMMIT

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# **Stayin' Alive: Keys to Sustaining Inpatient Mortality Improvement**

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## Learning Objectives



- Explain the importance of tracking and reducing non-ICU code blue events.
- Discuss the impact of systemwide structures and processes on sustained success with inpatient mortality index.







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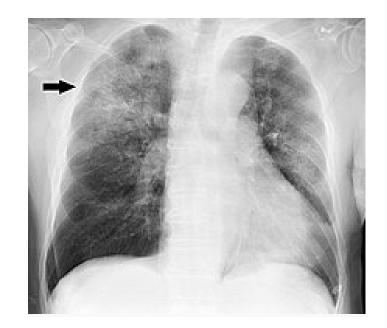
# **Stayin' Alive: Keys to Sustaining Inpatient Mortality Improvement**

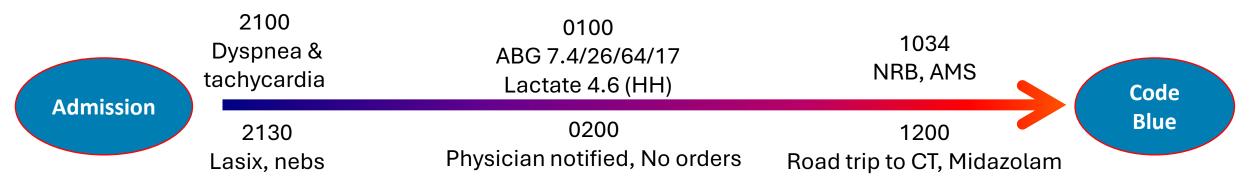
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### Failure to Rescue







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(Public Domain) "Chest Radiograph" by Mikael Häggström is used under public domain

### Aren't Codes Inevitable?



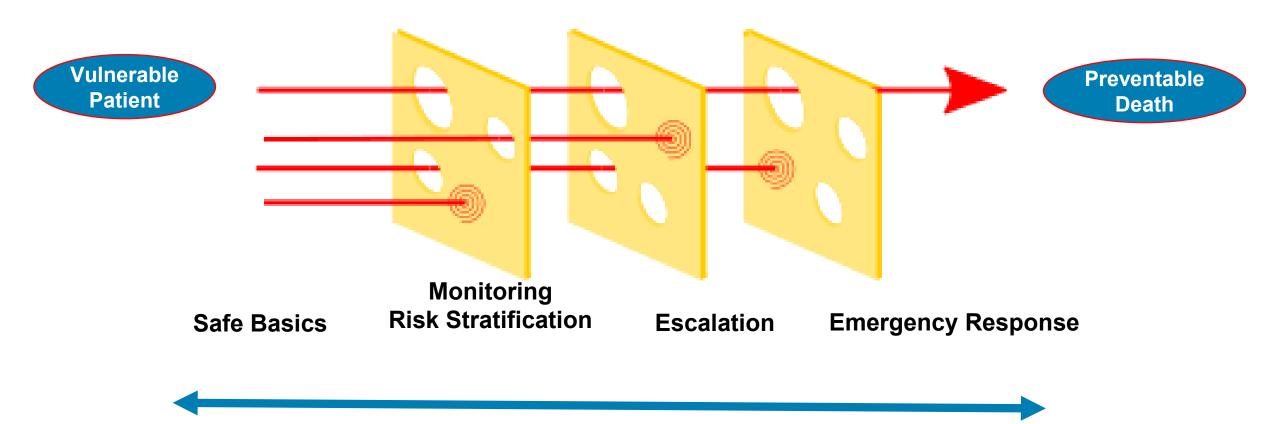
# Cardiac Arrests/1000 admissionsVery Low<br/>0.9-2.8Low<br/>2.8-3.5Average<br/>3.5-4.6High<br/>4.6-6.1Very High<br/>6.1-18.4

Chen, L. M., Nallamothu, B. K., Spertus, J. A., Li, Y., Chan, P. S., & American Heart Association's Get With the Guidelines-Resuscitation (formerly the National Registry of Cardiopulmonary Resuscitation) Investigators (2013). Association between a hospital's rate of cardiac arrest incidence and cardiac arrest survival. JAMA internal medicine, 173(13), 1186–1195. https://doi.org/10.1001/jamainternmed.2013.1026



### Why did this patient die?





#### Culture, Teamwork, and Communication

(Public License) "The Swiss Cheese Model of Accident Causation" by Ben Aveling is used under a CC BY-SA 4.0 license, modified by adding labels

### Why did this patient die?





Culture, Teamwork, and Communication

**Dyads & Committees** 

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# Expected Rapid Response Team Calling Criteria (badge backer)

#### Rapid Response Expected Adult Calling Criteria Team member concerned about patient

HR change	<30 bpm or > 140 bpm
SBP change	< 80mm HG or > 200 mmHG
RR Change	< 8 or > 25 breaths per minute
Oxygen	Sustained increase in O2 needs
O2 Sat change	< 90% with O2 administration
ETCO2	> 55 after interventions
Mentation / GCS	Acute change in Mental status / Glasgow Coma Score change of > 2 pts
Neuro changes	New Seizure or S/S of Stroke

Additional reasons for calling: Acute significant bleeding, sudden onset or increase in pain, positive screen for sepsis/septic shock, failure to respond to treatment. Family member concern.

#### **SBAR for Rapid Response**

#### Situation:

- I Am Concerned!
- The Rapid Response was called because of (low BP, changes in HR, change in mental status, oxygen desaturation, etc.)
- The changes started at ....

#### **Background/Assessment:**

- Use phrases to explain concerns such as: "I feel uncomfortable because..." "This is a safety issue because..."
- Provide pertinent hospital course
- (why they are here, code status)
- What are the relevant vitals and assessments?

#### Recommendation

- What would you like to see done?
- Any additional diagnostics tests or labs?
- Any medications to give?
- What are next steps if patient doesn't improve?

#### Primary Nurse Role

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Stay bedside for entire Rapid Response Communicate with RRT using SBAR Documents under "Critical Event" in Cerner If patient transitions to another unit. RN handoff

### Who comes to the Rapid Response?

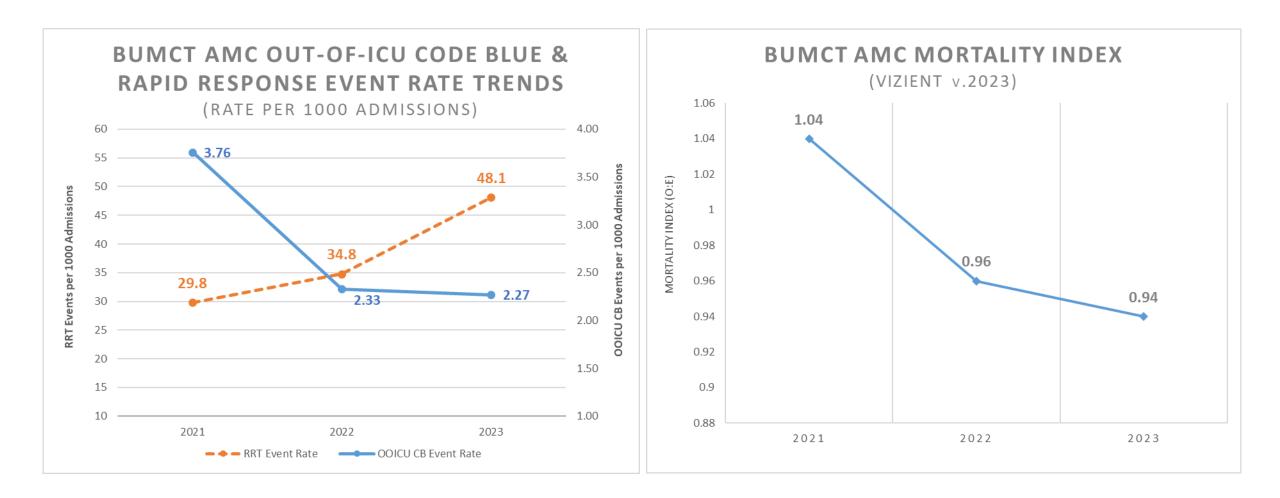
SWAT RN or Critical Care RN Respiratory Therapist Nursing Supervisor Provider if available



HR= Heart Rate; SBP= Systolic blood pressure; RR= Respiratory Rate; O2= Oxygen; ETCO2= end tidal carbon dioxide

### **AMC Results**

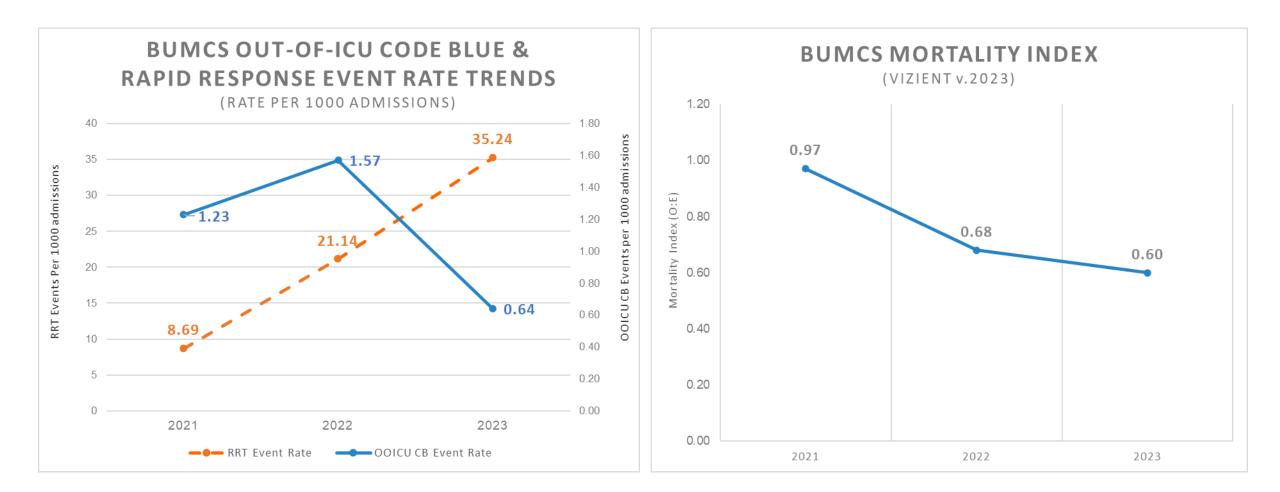




BUMCT=Banner UMC Tucson; RRT=Rapid Response Team; OOICU CB=Out of ICU Code Blue

## **Community Results**

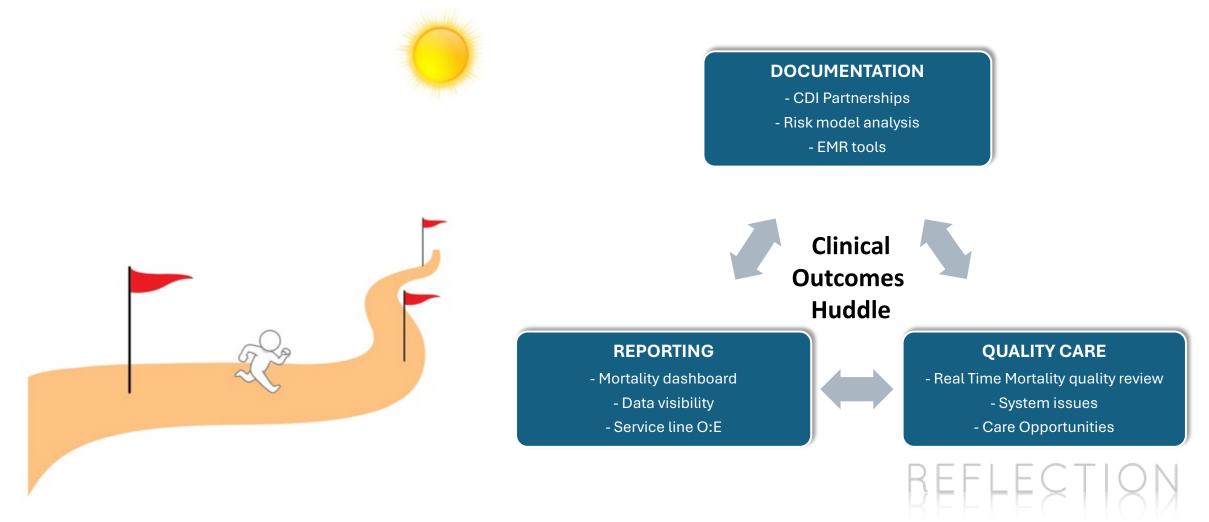




BUMCS=Banner UMC South; RRT=Rapid Response Team; OOICU CB=Out of ICU Code Blue

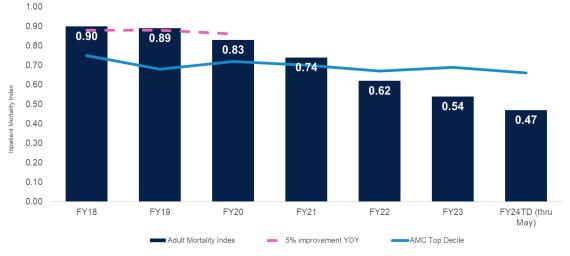


# When Meeting Goal is Not Enough

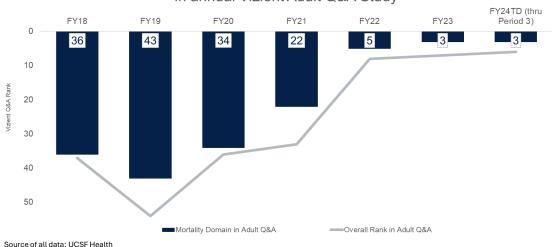


### Outcomes

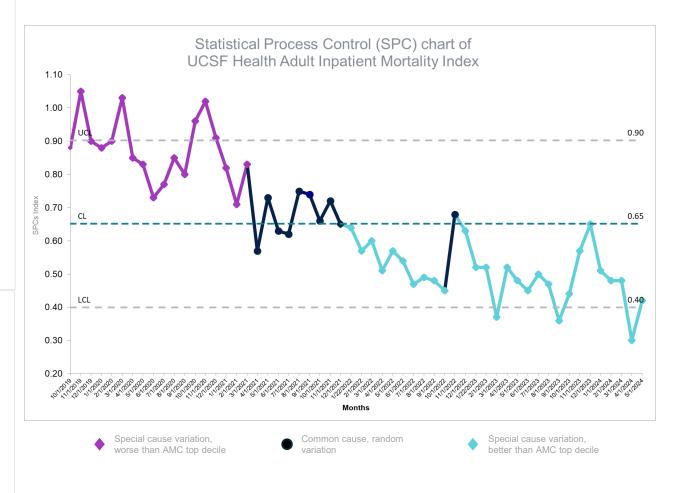
UCSF Health Adult Inpatient Mortality Index vs 5% improvement year over year and AMC top decile



#### UCSF Health's Mortality Domain rank vs Overall rank in annual Vizient Adult Q&A Study



# UCSF Health vizient.



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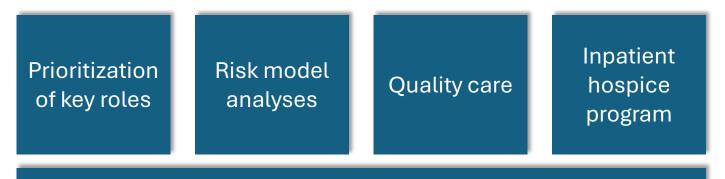


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- Failure to Rescue (FTR) is not inevitable
- Prevention relies on teamwork and a proactive approach
  - Process
  - Culture
- Multidisciplinary team-based learning drives culture change
- The Inpatient Chain of Survival is a good framework to guide improvement efforts
- Rapid Response Team (RRT) calling criteria can optimize RRT utilization and reduce cardiac arrests

### Lessons Learned

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Clinical, operational, and intra-quality partnerships

Data infrastructure and governance

"Improving Clinical Outcomes" meeting

Organizational and environmental change

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# Key Takeaways

- Safe basics
- Monitoring and risk stratification
- Escalation
- Emergency response
- Foundational culture and leadership





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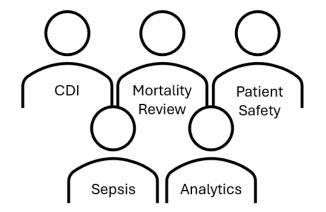


- Embrace aspirational goals to drive excellence
- Connect with others working on mortality
  - Real Time Mortality Review, Sepsis Mortality, Patient Safety, Clinical Documentation Integrity, Analytics
  - Clinical partnerships for documentation, education, and shared goals
- Simplify and standardize

Key Takeaways

- What reports are generated/what data are being shared?
- Where can we streamline and automate processes?













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