

# Improving Mortality Rates: Cultivating Connections to Understand Key Drivers

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## Learning Objectives

- Explain successful strategies to identify potentially preventable deaths within your institution (e.g., frontline provider perspectives, incident reports, etc.).
- Identify methods to display mortality data and case review findings that allow for meaningful multidisciplinary review.

## Significance and Background

### Background:

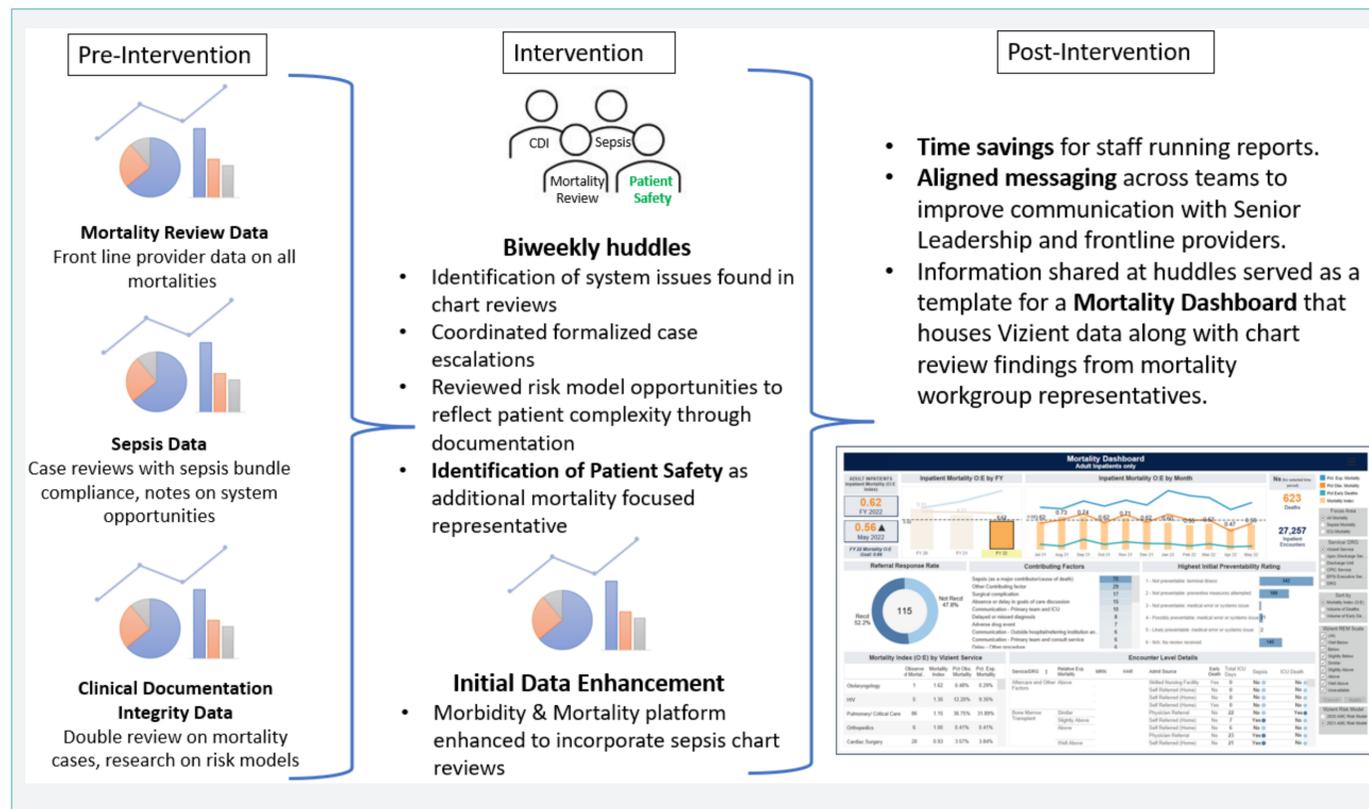
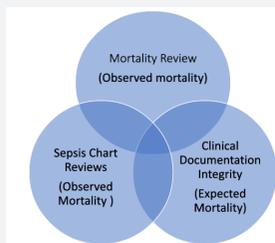
- UCSF senior leadership set aspirational goals of achieving top decile for Group A (Q+A group + others) in mortality O/E (observed over expected) performance.
- An initial attempt was made to gather representatives from mortality-focused work within UCSF and report out on themes monthly, however, this was found to be too infrequent and high-level.

### Problems/Issues:

- Opportunities were lost to understand granular details such as frontline perspectives and results of patient level mortality reviews.
- While the risk adjusted, comparative database provided valuable information, most frontline clinicians found it challenging to understand the complexity of the data.

### Goal:

- To create a structure and process that can help answer the question "Are we preventing deaths that are preventable?"



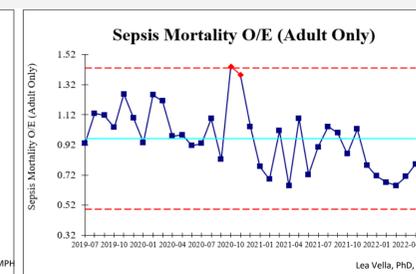
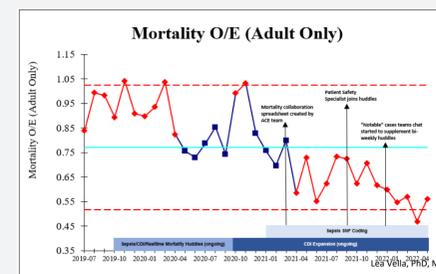
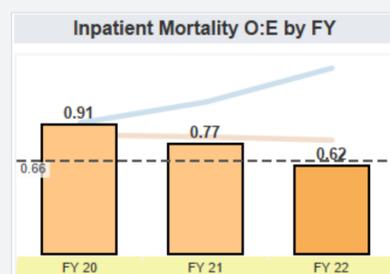
## Key Takeaways

- **Successful Collaboration:** Having CDI, Sepsis Leadership, and Mortality Workgroup all working within the same Department of Quality helped to build connections and reduce duplication of work.
- **Efficiency:** Mortality case reviews are completed more efficiently, and frontline providers receive less notifications on the same mortality case.
- **Loop Closure:** Improved workflows surrounding patient case escalations have resulted in the ability to track responses from frontline staff, escalate appropriately, and close the loop on case findings.
- **Enhanced Data:** Later inclusion of Patient Safety Specialists has helped with identification of themes from the Incident Reporting system, RCAs, and ACAs.
- **Prevention:** Work is now shifting so that there is less time focused on mortality review and shifting to a more proactive approach to prevention of events.

\*Information related to UCSF's Mortality Review System and Sepsis data process furnished by request

## Outcomes

- **Mortality O:E Improvement:** The success of this collaboration has been seen in a consistent reduction in both overall Mortality O:E as well as the Sepsis Mortality O:E over the last three fiscal years.
- **Improved Visibility and Understanding of Mortality Data:** The combination of data and key clinical case review resulted in a common data source that provided valuable insight into the trends and drivers of performance for both observed and expected mortality data points.
- **Actionable Change:** Instituting biweekly huddles amongst the key stakeholders provided the venue to communicate and escalate issues swiftly to senior leadership, resulting in remediation of systems failures.



## Acknowledgements:

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### Speaker Contact Information:

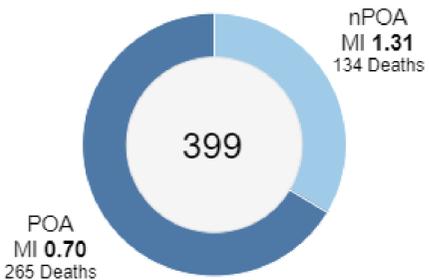
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### Mortality Review Data

- Provider perspective
- Preventability rating

### SEPSIS - POA vs nPOA



### Sepsis Data

(Visible when utilizing the filters on the right)

### Comparative Data

- Mortality Index
- REM
- Risk Model

### Sepsis Audit

- Bundle compliance
- Detailed case review
- POA status

## Mortality Dashboard Adult Inpatients only

ADULT INPATIENTS Inpatient Mortality (O:E Index)

**0.62**  
FY 2022

**0.56** ▲  
May 2022

FY 22 Mortality O:E Goal: 0.66

#### Inpatient Mortality O:E by FY

#### Inpatient Mortality O:E by Month

Ns (for selected time period)

**623**  
Deaths

**27,257**  
Inpatient Encounters

**Legend:**

- Pct. Exp. Mortality
- Pct Obs. Mortality
- Pct Early Deaths
- Mortality Index

#### Referral Response Rate

#### Contributing Factors

Sepsis (as a major contributor/cause of death)	70
Other Contributing factor	29
Surgical complication	17
Absence or delay in goals of care discussion	15
Communication - Primary team and ICU	10
Delayed or missed diagnosis	8
Adverse drug event	7
Communication - Outside hospital/referring institution an..	6
Communication - Primary team and consult service	6
Delay - Other procedure	6

#### Highest Initial Preventability Rating

1 - Not preventable: terminal illness	342
2 - Not preventable: preventive measures attempted	189
3 - Not preventable: medical error or systems issue	1
4 - Possibly preventable: medical error or systems issue	21
5 - Likely preventable: medical error or systems issue	2
6 - N/A: No review received	145

Mortality Index (O:E) by Vizient Service	Encounter Level Details								
Service	Service/DRG	Relative Exp. Mortality	MRN	HAR	Admit Source	Early Death	Total ICU Days	Sepsis	ICU Death
Otolaryngology	Aftercare and Other Factors	Above			Skilled Nursing Facility	Yes	0	No	No
HIV		Above			Self Referred (Home)	No	0	No	No
Pulmonary/ Critical Care		Above			Self Referred (Home)	No	0	No	No
Orthopedics	Bone Marrow Transplant	Similar			Physician Referral	No	22	No	Yes
Cardiac Surgery		Slightly Above			Self Referred (Home)	No	7	Yes	No
		Above			Self Referred (Home)	No	6	No	No
		Well Above			Physician Referral	No	23	Yes	No
					Self Referred (Home)	No	21	Yes	No

#### Filters

Focus Area:  All Mortality,  Sepsis Mortality,  ICU Mortality

Service/ DRG:  Vizient Service,  Apex Discharge Ser...,  Discharge Unit,  CPIC Service,  EPSI Executive Ser...,  DRG

Sort by:  Mortality Index (O:E),  Volume of Deaths,  Volume of Early De...

Vizient REM Scale:  (All),  Well Below,  Below,  Slightly Below,  Similar,  Slightly Above,  Above,  Well Above,  Unavailable

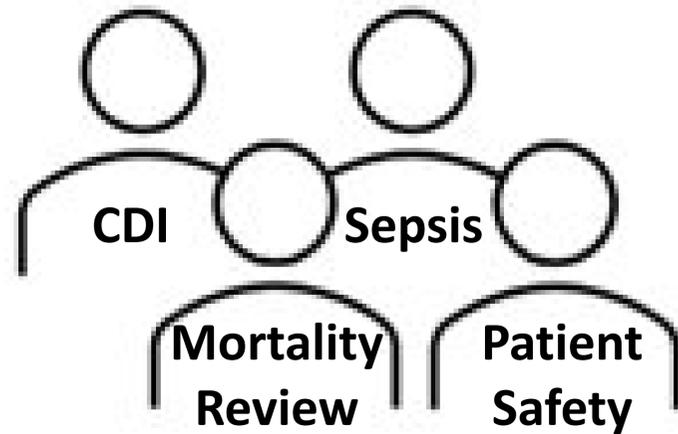
Vizient Risk Model:  2020 AMC Risk Model,  2021 AMC Risk Model

### Service/ DRG Filter

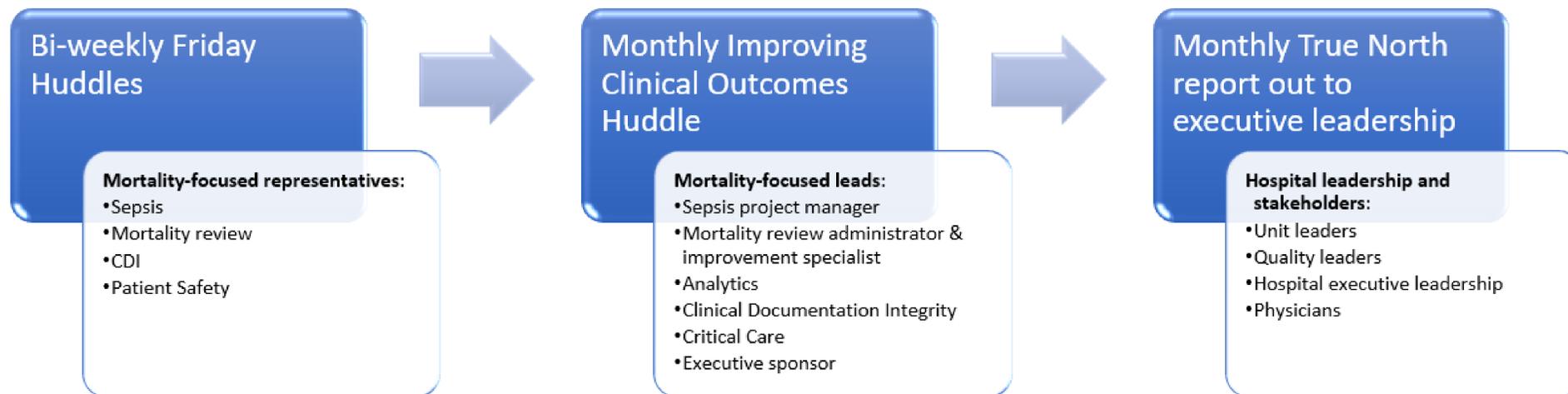
- Users can filter by
- Database-defined service line
  - UCSF service line
  - DRG

# Evolution of Collaboration Huddles and Beyond

- **Bi-weekly huddle**



- **Information sharing**



- **Challenges and Barriers - Data**

- Defining the UCSF service line
- Determining which data elements to include on the dashboard
- Varying metric definitions
- Identifying who will be utilizing the dashboard and how

- **Lessons learned – Process and Data**

- For your interdisciplinary mortality-focused workgroup, consider those who work directly *and* indirectly on mortality.
- Combining data sources from different divisions provided a more robust analysis into opportunities
- Ensure definitions are consistent between working groups by creating a metric dictionary.

- **Key takeaways – Process and Data**

- Streamlined processes with mortality representatives limited the number of queries to providers
- Consider the level of information included on the dashboard (PHI) as this may limit who has access