

# Reducing Mortality Through Systemwide Collaboration

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## Learning Objectives

- Describe interdisciplinary strategies and data-driven approaches to reduce mortality rates and improve patient outcomes.
- Explain the use of a clinical database in identifying areas of opportunity and driving targeted interventions within a large hospital system.

## The Problem

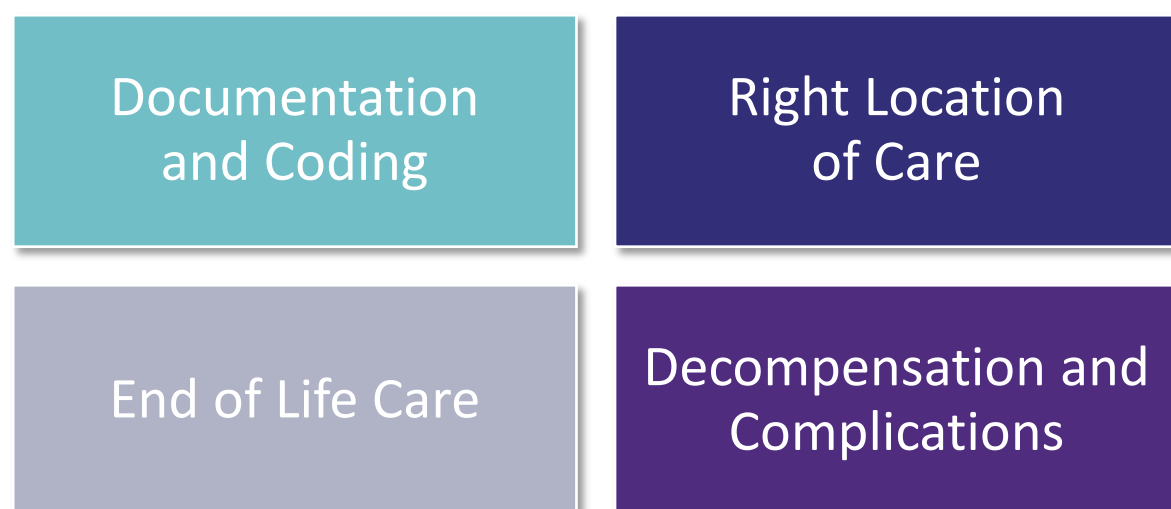
- High mortality rates signal coding and administrative opportunities as well as critical issues in care delivery, including response to patient deterioration.
- ECU Health experienced a dramatic drop in performance rankings—from #19 to #89—during a three-year period without Vizient support.

## The Aim of the Project

The aim of the project was to decrease the mortality index (observed/expected) by 15% by December 2024.

## Overview

- Strengthened documentation and clinical decision-making using tools and electronic medical record (EMR) triggers
- Improved mortality outcomes through targeted, system-level interventions organized across four focus areas:

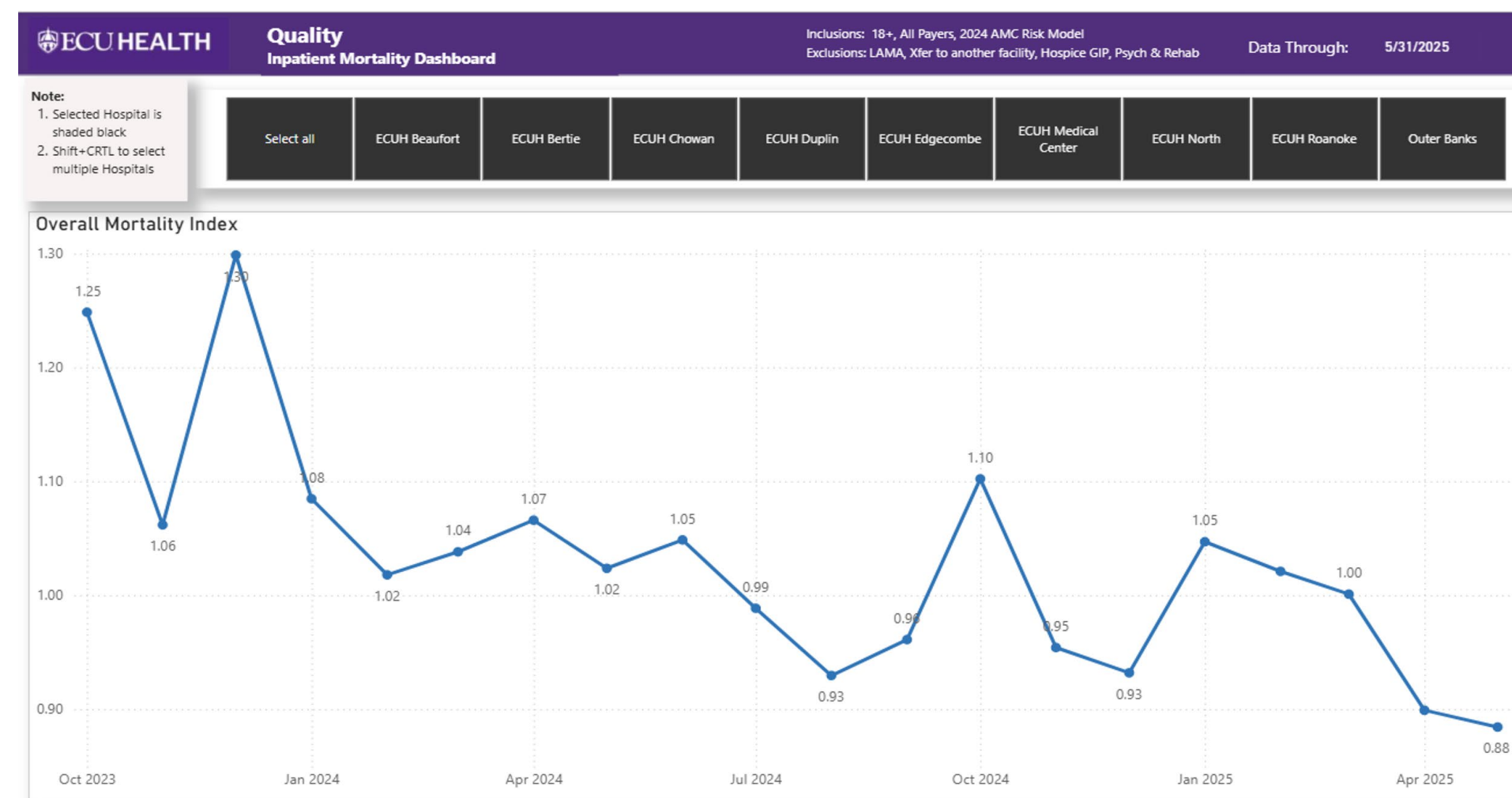


## PDSA Cycles

PDSA Phase	Summary
Plan	Improve end-of-life care, documentation accuracy, and mortality metrics through focused efforts and subcommittee-driven strategies.
Do	<i>Doc &amp; Coding:</i> Used a EHR note advisor to improve clinical documentation <i>Right Location of Care:</i> Launched severity assessments and transfer pilot <i>End of Life:</i> Expanded hospice beds, started goals-of-care talks, and added EMR triggers <i>Decomp &amp; Complications:</i> Implemented Patient Safety Indicator (PSI) review, length of stay & intensive care audits, and new protocols
Study	Tracked mortality, PSI, hospice use, transfers, and documentation quality
Act	Refined EMR tools, expanded training and interventions systemwide

## Results

The project led to a **20% reduction** in the mortality index, decreasing from 1.20 (Oct–Dec 2023) to 0.96 (Oct–Dec 2024). This included a 10.6% decrease in observed mortality and an 11.5% increase in expected mortality. Improvement continued beyond the project period, with a mortality index of 0.86 in quarter 2 of calendar year 2025.



## Lessons Learned

- Data-Driven Decision-Making Is Critical**  
Leveraging data and dashboards enabled tracking of process measures, identification of high-risk patients, and mitigation of critical gaps in administrative data.
- Capturing Quality in Clinical Documentation Integrity (CDI)**  
CDI had to shift beyond financials to ensure ICD-10 coding accurately reflected quality metrics, not just reimbursement.
- Early Identification Saves Lives**  
Risk stratification and observation status in emergency department allowed for earlier recognition of deterioration, reducing preventable mortality.
- End-of-Life Planning Improves Quality of Care**  
Adding hospice residential beds and initiating goals of care conversations ensured patients received compassionate care.
- Pilot Programs and Rapid Improvement Event (RIE) are Effective**  
Focused, time-bound interventions like the transfer pilot and RIE validated processes and accelerated change.
- Reducing Complications Through Proactive Reviews**  
Robust review processes helped identify and address preventable complications, improving patient safety and outcomes.

## Key Takeaways

- Strong analytics partnerships are essential** for identifying gaps and guiding interventions.
- Accurate clinical documentation** is key to reflecting true patient quality and outcomes.
- Leadership support at the executive level** is crucial for driving system-wide change.
- Technology integration (EMR, dashboards)** enhances visibility and accountability.



**Mortality reduction is achievable** through structured, data-informed, and compassionate care strategies

Data Source: ECU Health EPIC, Vizient CDB. Visualizations: Power BI

Hale, S., & Spatafora, N. (2025, July 17). *Mortality: A systemwide approach to reducing mortality* [Audio podcast episode]. In Vizient Knowledge on the Go. Podbean. <https://knowledgeonthego.podbean.com/e/mortality-1750425379/>  
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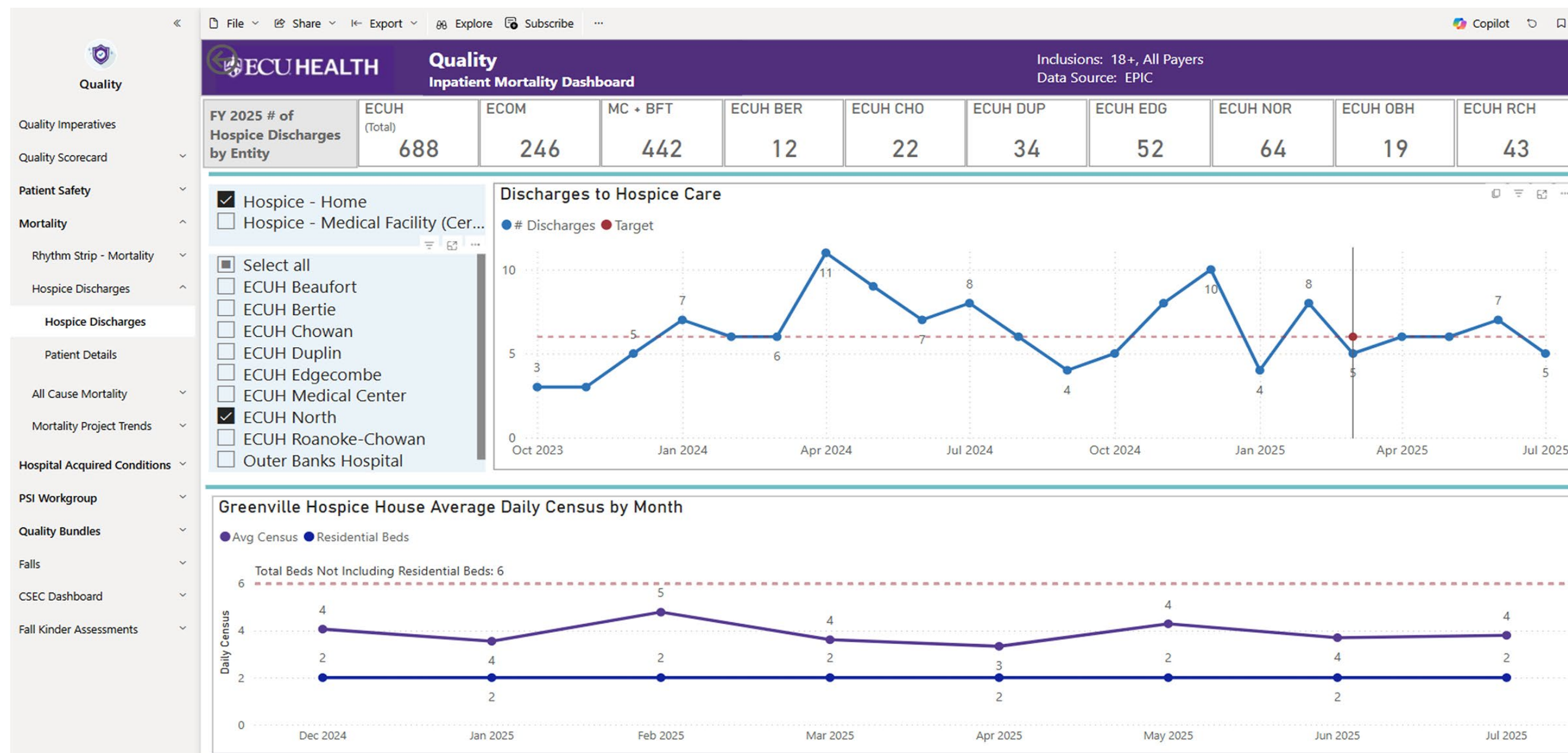
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## Getting Started

- Formation of a dedicated mortality committee with charter
- Utilization of tools for identifying improvement areas structured into four subgroups: Documentation and Coding, Right Location of Care, End of Life Care, and Decompensation and Complications.
- Create Dashboard to support the work

## Example Hospice Dashboard to support End-of-Life team



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## Innovation

**Risk Stratification for Early Intervention:** Use of advanced reporting systems to identify high-risk patients early, preventing readmissions and reducing mortality.

**Patient-Centered End-of-Life Care:** For patients likely to face mortality, ECU Health ensures a peaceful death by honoring patient autonomy and providing comprehensive support services to patients and families. Use of the surprise question, “Would you be surprised if they pass in 6 months.”

**Data-Driven Innovation:** Partner with Clinical Documentation Integrity team for operationalization of natural language processing to identify key predictors of death to increase ICD-10 capture. Integration of reports with a custom-built dashboard enhances decision-making and performance monitoring.

**Tele-health Integration:** Virtual consults with tele-ICU specialists expanded access to critical care expertise, improving outcomes for high-acuity patients.

**Emergency Department Optimization:** The development of an observation status in emergency departments allows for more appropriate patient triage and care planning, reducing unnecessary admissions and improving resource utilization.

## Key Takeaways

- **Analytics partnerships** are essential to identify gaps and interventions.
- **Accurate clinical documentation** is key to accurately represent patient conditions and treatment.
- **Leadership support at the executive level** is crucial for driving system-wide change.
- **Technology integration (EMR, dashboards)** critical for operationalization, visibility, and accountability.

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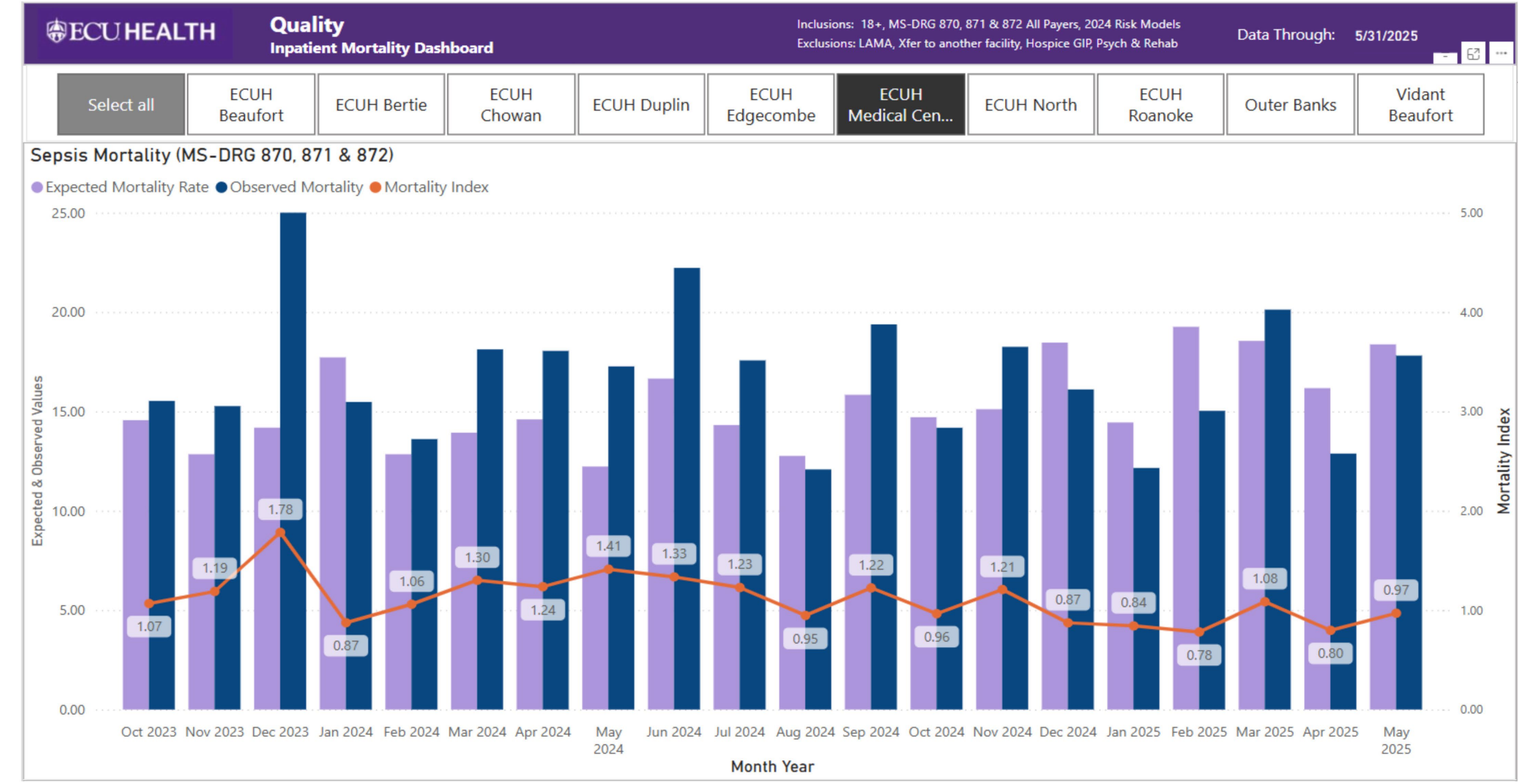
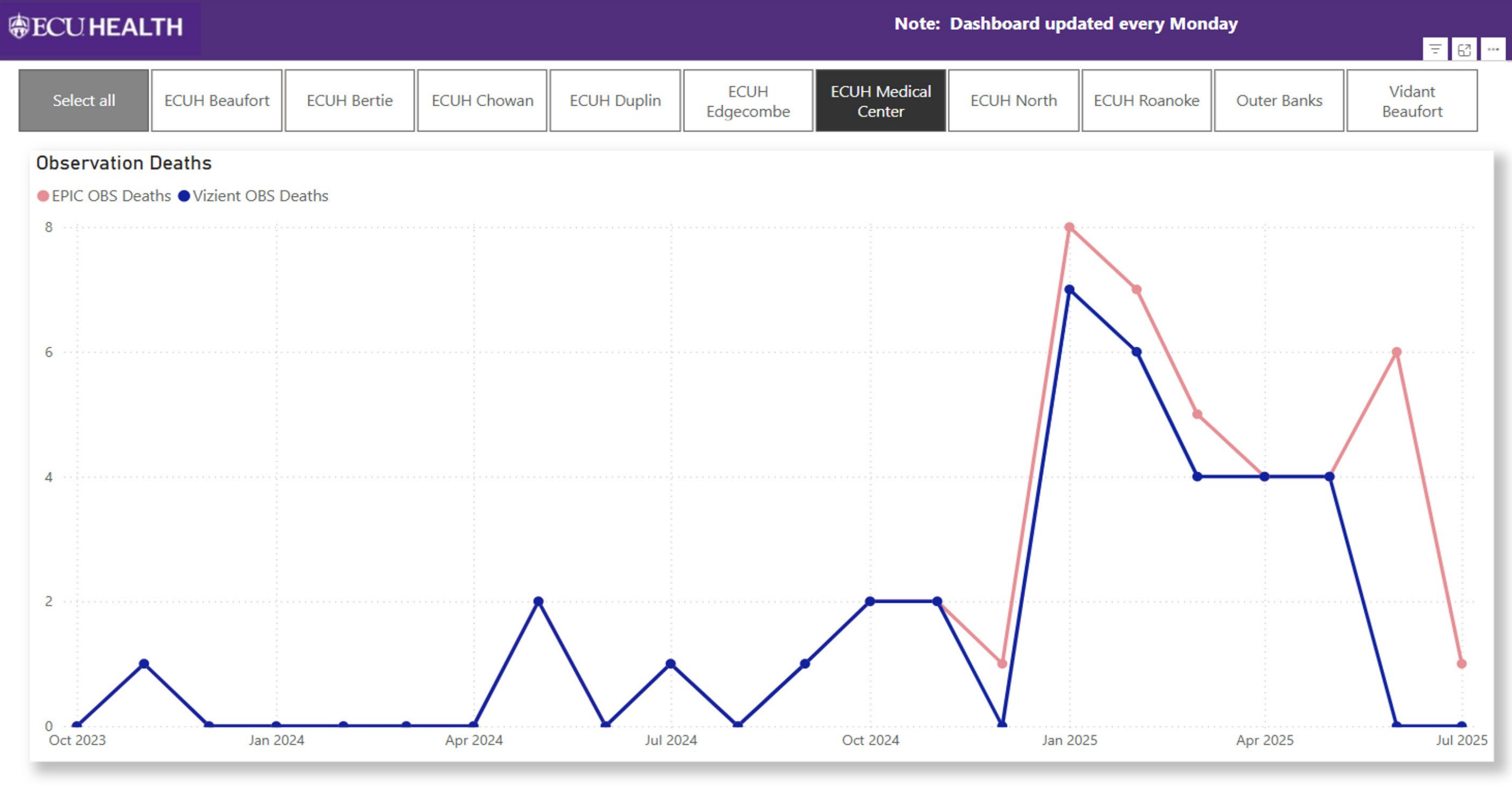
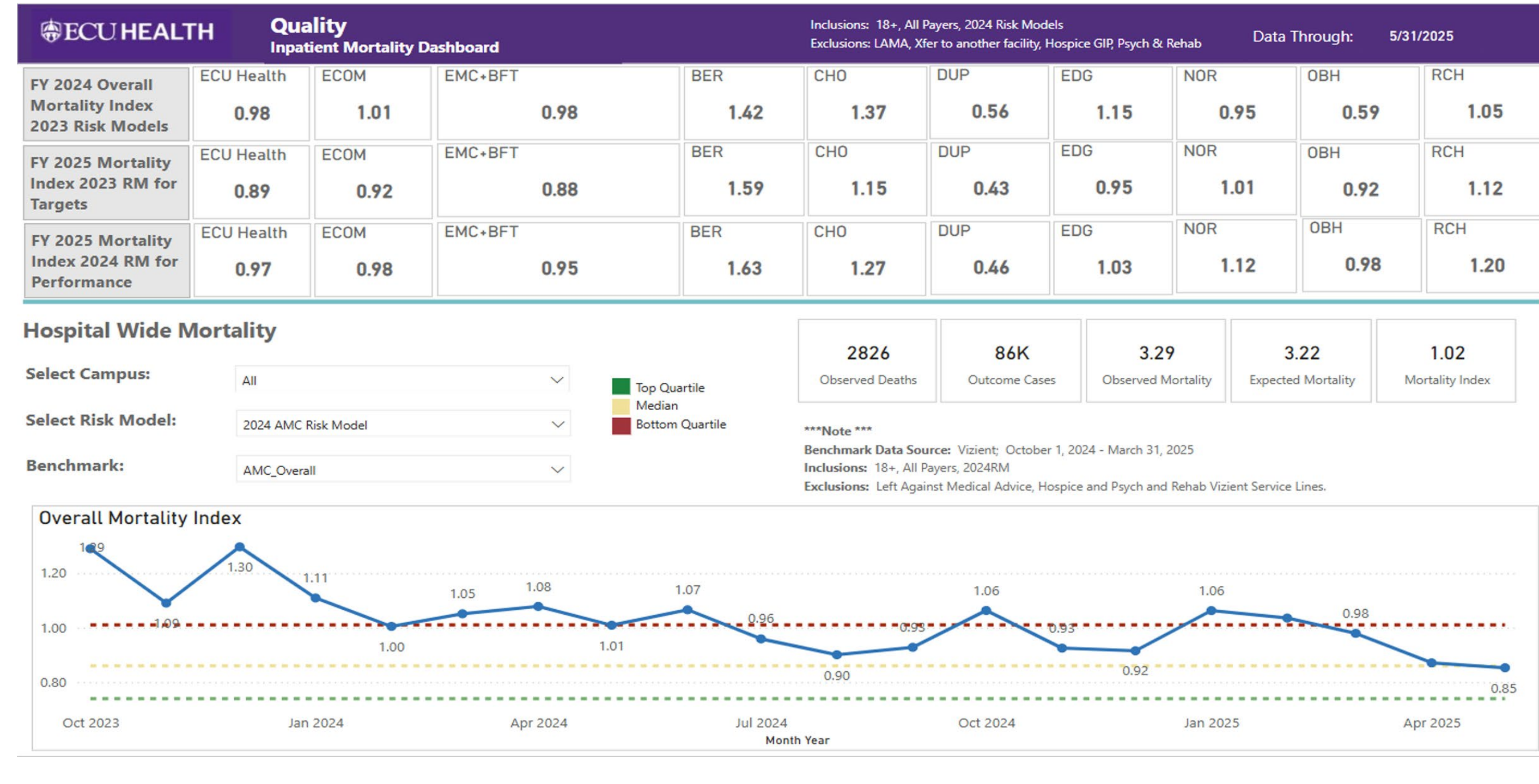
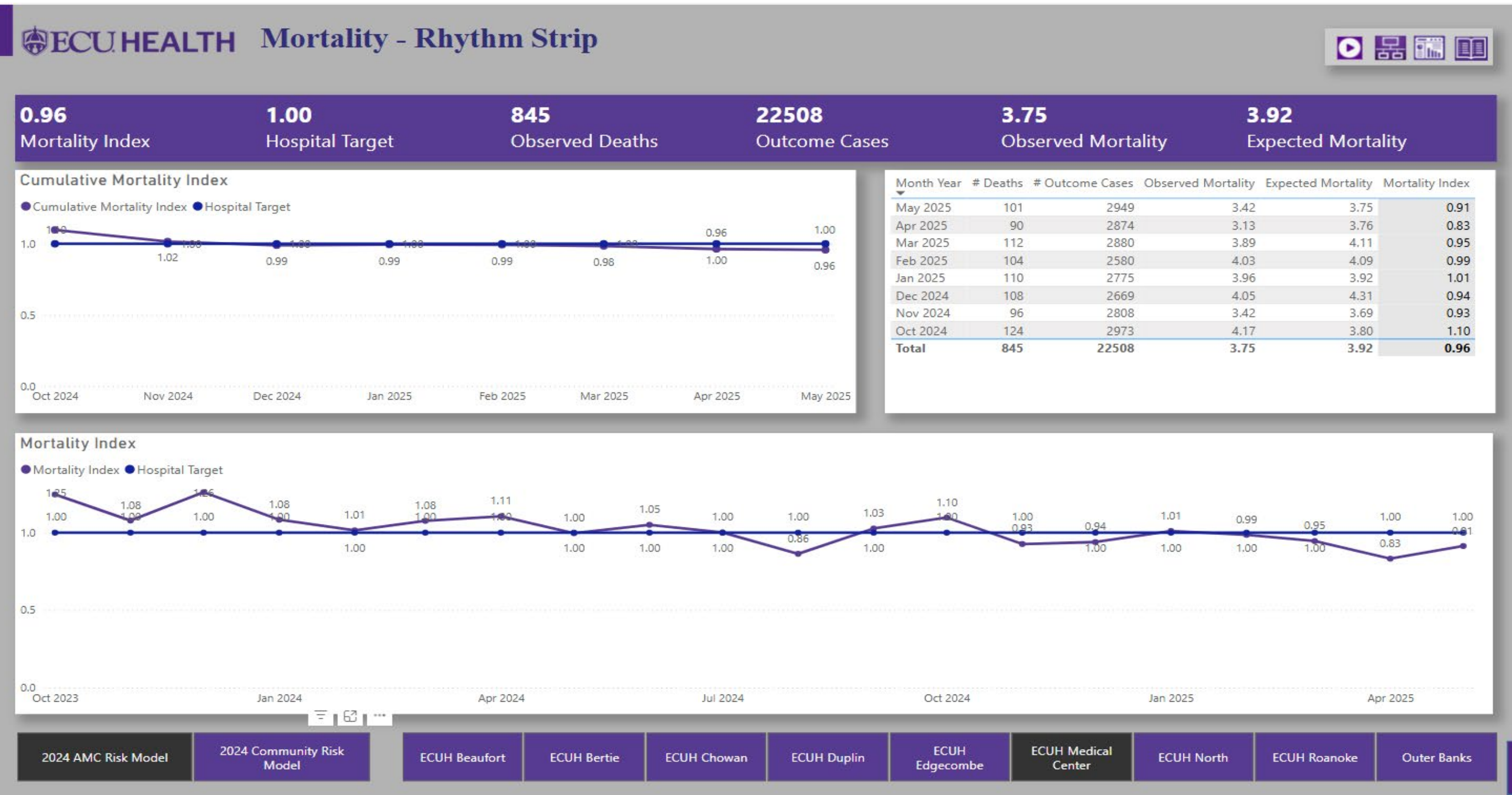
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