



# Artificial Intelligence Gaps: Concurrent Coders to the Rescue — Traditional CDI, Nontraditional Methods

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## **Learning Objectives**

- Describe the use of a clinical database to improve documentation of the risk of mortality and increase revenue capture.
- Use artificial intelligence to address the increased need for Clinical Documentation Integrity (CDI) review.



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## Intermountain by the Numbers





**32 Hospitals** 





1,089,000+ SelectHealth Members



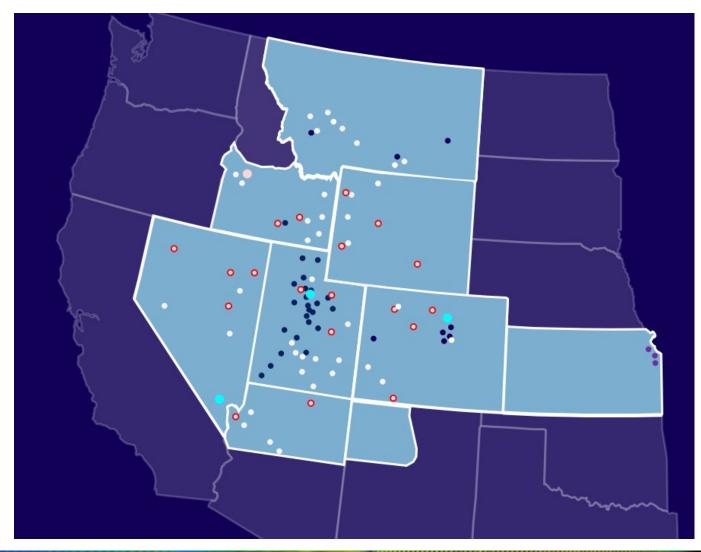


63,000+ Caregivers





## Intermountain Health's Current Footprint



- Hospitals
- Region HQ
- Saltzer Health
- Affiliate/Outreach Partnerships
- Classic Air Medical Bases
- Peaks Region safety net clinics

#### Supporting Teams in Clinical Excellence

#### **Executive Team**



VP Chief Quality and Safety Officer AVP Clinical Excellence Operations Executive Director Nursing

**System Led • Locally Deployed • Caring and Learning Together** 



Safety & Clinical Risk



Experience



Quality



Infection Prevention



Patient Advocacy



Regulatory Affairs



Clinical Data



Physician Advisor Services / CDI



Human
Factors &
Clinical
Performance



Clinical Policies

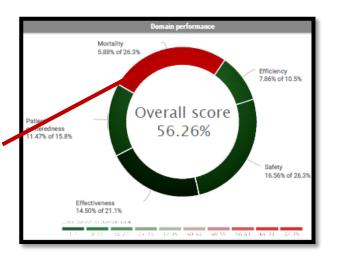


Local Care Site Leader

Quality and Accountability (Q&A) in 2018 – Period 4

(Annual)

St. George
Regional Mortality
5.88% of 26.3%



Domain performance

Mortality
14.76% of 26.3%

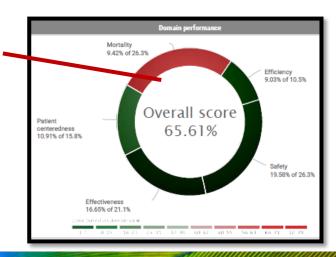
Patient
centeredness
11.19% of 15.8%

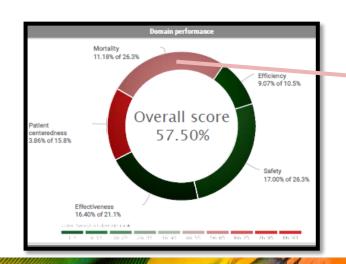
Effectiveness
16.15% of 21.1%

Line is seed at January 13 A

Utah Valley Mortality 14.76% of 26.3%

McKay-Dee Mortality 9.42% of 26.3%





IMED Mortality 11.18% of 26.3%

Source: Vizient

#### **Overview**

- Opportunity in 'Expected' and 'Observed' Mortality
- Clinical Documentation Integrity (CDI) Core-curriculum Education for providers
- Clinical Data Base (CDB) guided prioritization for CDI nurses to review charts
- Al tools to help augment CDI chart reviews
- Concurrent coders to bridge the gap

#### **CDI Prioritization**

- MS-DRG prioritization (Auto-suggested; New; Concurrent; Post Discharge)
- Artificial Intelligence (AI) for opportunity risk variables (Physician facing nudges and CDI facing evidence sheets)

#### Challenge:

Prioritization is only as accurate as Auto-suggested DRGs by computer assisted algorithm

Often, reviewed cases do not yield queries and hence no impact!

## **Ideal CDI Process**



#### **CDI Process – with CDB data**

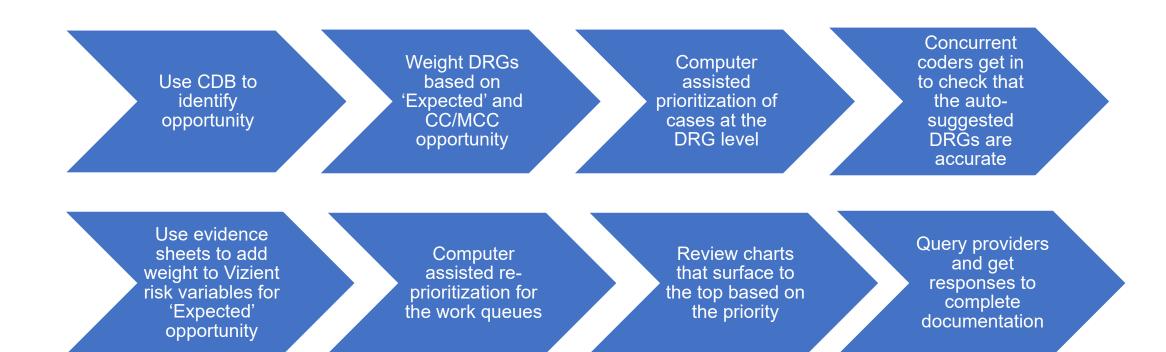
Use CDB to identify opportunity

Weight DRGs based on 'Expected' and documentation opportunity

Computer assisted prioritization of cases Review charts that surface to the top based on the priority

Query providers and get responses to complete documentation

#### **CDI Process – with AI and Concurrent Coders**



# **Concurrent Coders – Standard Operating Protocol**

- Case Prioritization
  - Review all cases that need a follow up
  - Review all cases with new documents
  - Review highest weighted new cases
  - Conclude with highest DRG inaccuracy list
- New Case Selection
  - Select only new cases that are NOT reviewed by a concurrent CDI already
- Concurrent Coding
  - Calculate the Working DRG by assigning appropriate diagnosis and procedure codes
  - Be sure to include all CC/MCCs, HCCs, and procedures
  - Assign accurate POAs to all diagnosis codes
  - Assign dates to any procedures performed
  - If there is not enough documentation to assign the Working DRG correctly schedule a follow-up



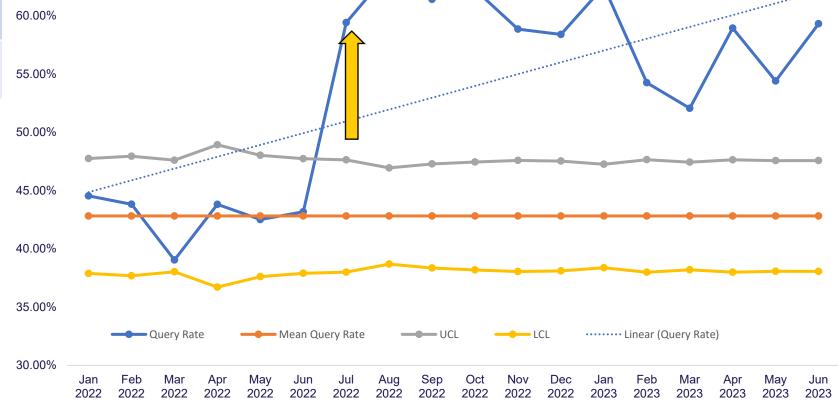
# **Outcomes – Query Rate**

70.00%

65.00%

Month	Avg. Query Rate
Jan 22 – Jun 22	42.62%
Jul 22 – Jun 23	58.79%

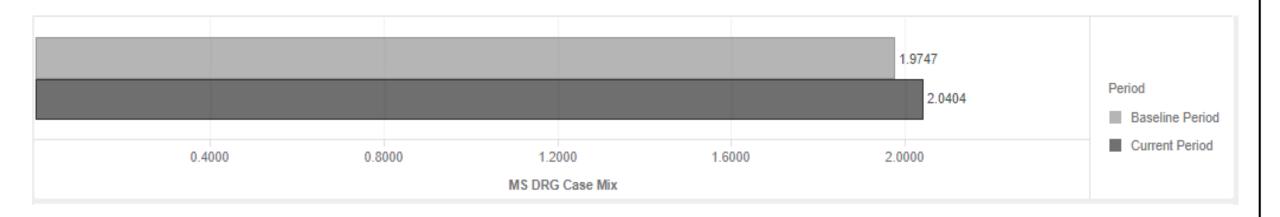
\* July 2022 – Started the concurrent coder program



# **Outcomes – Impact on Case Mix Index (CMI)**

Baseline Period: 01/01/2022 - 06/30/2022

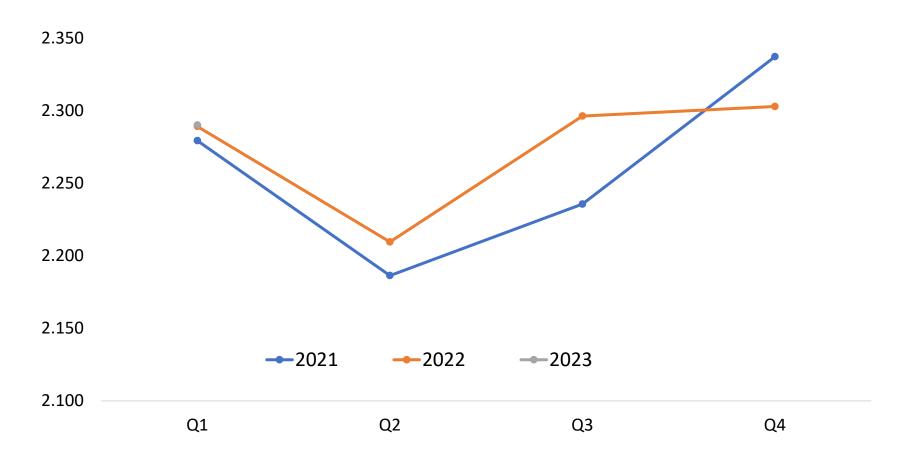
Current Period: 07/01/2022 - 06/30/2023



<sup>\*</sup> July 2022 – Started the concurrent coder program

## **Outcomes – Impact on CMI**



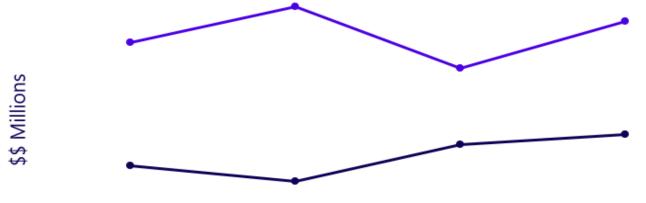


Excluded Cohorts: Transplant services, Ob/Gyn, Rehab, Psych, Burns, Neonates, Normal Newborns, BMT

# **Outcomes – Financial Impact**

Month	Avg. Financial Impact per month
Jan 22 – Apr 22	\$ XX M
Jan 23 – Apr 23	\$ (XX + 53.4%XX )M

\* July 2022 – Started the concurrent coder program





# **Outcomes – PSI Improvement**

PSIs REMOVED 2022			PSIs REMOVED 2023 (YTD – 6/30/23)				
CONCURRENT	PREBILL	2022 TOTAL	FINANCIAL IMPACT	CONCURRENT	PREBILL	2023 TOTAL	FINANCIAL IMPACT
212	145	357	\$6.1M	143	105	248	\$5.05M

*PSI 03	14,506
*PSI 06	18,000
*PSI 09	21,431
*PSI 10	20,529
*PSI 11	24,659
*PSI 12	17,367
*PSI 13	29,507
*PSI 14	31,963
*PSI 15	15,334

<sup>\*</sup>Per Vizient – Pay for Performance impact is shown in the table above

#### Outcomes - Q&A

#### Intermountain System

2018 Period 4: Vizient Quality and Accountability Opportunities

Overall Percentile Ranking



2023 Period 3: Vizient Quality and Accountability Opportunities

Overall Percentile Ranking



## **Additional Tactics and Next Steps**

- Coding DRG Mismatch Reviews
- Low Acuity DRG Reviews
- Unreviewed Cases Prioritization

#### **Lessons Learned**

- Prioritization of cases is only as accurate as the computer assisted coding algorithm that is working in the background.
- Use AI to elevate CDI program to cover more than standard CC/MCC documentation opportunity.
- Using a small team of concurrent coders helps improve the prioritization and makes sure the reviews that are done are impactful.

## **Key Takeaways**

- Think outside the box to review the cases that are most impactful.
- All may be used to stretch the scope of traditional CDI to go beyond standard CC/MCC review.
- Concurrent coders can ensure that the prioritization is working as it is supposed to.
- Query rates and financial impact are improved by the creative utilization of Al and a small team of concurrent coders.

#### **Questions?**



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