



CDI IN BLOOM | **acdis 2023**

MAY 8–11, 2023



Leveraging Data to Improve CDI Outcomes Beyond \$\$\$

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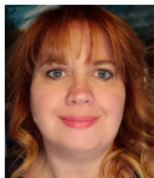
Presented By



Kearstin Jorgenson, MS, CPC, COC, is physician advisor strategy director at Intermountain Health in Bountiful, Utah. She supports operations for physician utilization review, CDI, physician education, and physician appeals and denials. She has worked at Intermountain Health for over 20 years and has held leadership roles such as starting a revenue integrity team and operationalizing a new department of 60 caregivers, including nurses, coders, and analysts.



Sathya Vijayakumar, MS, MBA, is senior clinical operations manager with the Office of Patient Experience at Intermountain Health in Salt Lake City, Utah. An engineer by background, she has almost 20 years of healthcare experience in various roles. She spearheads multidisciplinary, data-driven projects at the Office of Patient Experience and is an avid researcher and publisher/presenter. In her spare time, she mentors and judges student entrepreneurs and competitions at the Lasonde Entrepreneur Institute, reviews manuscripts for peer-reviewed journals, and chairs the education committee on the board of the Utah Association for Healthcare Quality.



Laura Ogaard, RN, MSN, is the CDI IPC manager at Intermountain Health in Murray, Utah. She leads innovation and process improvement for the CDI team as well as managing the second-level review team that focuses on optimizing expected mortality in high-risk groups and performing mortality and clinical validation reviews. She has worked in the healthcare field for over 28 years and entered the nursing field in the areas of neurology, neurosurgery, and thoracic ICU before transitioning to CDI work.

Learning Outcomes

- At the completion of this educational activity, the learner will be able to:
 - Describe how to use data to reveal areas of opportunity
 - Explain how to leverage claims data in acute care to ensure an accurate medical record

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Why CDI Matters



LEAPFROG
HOSPITAL
SAFETY GRADE



vizient®



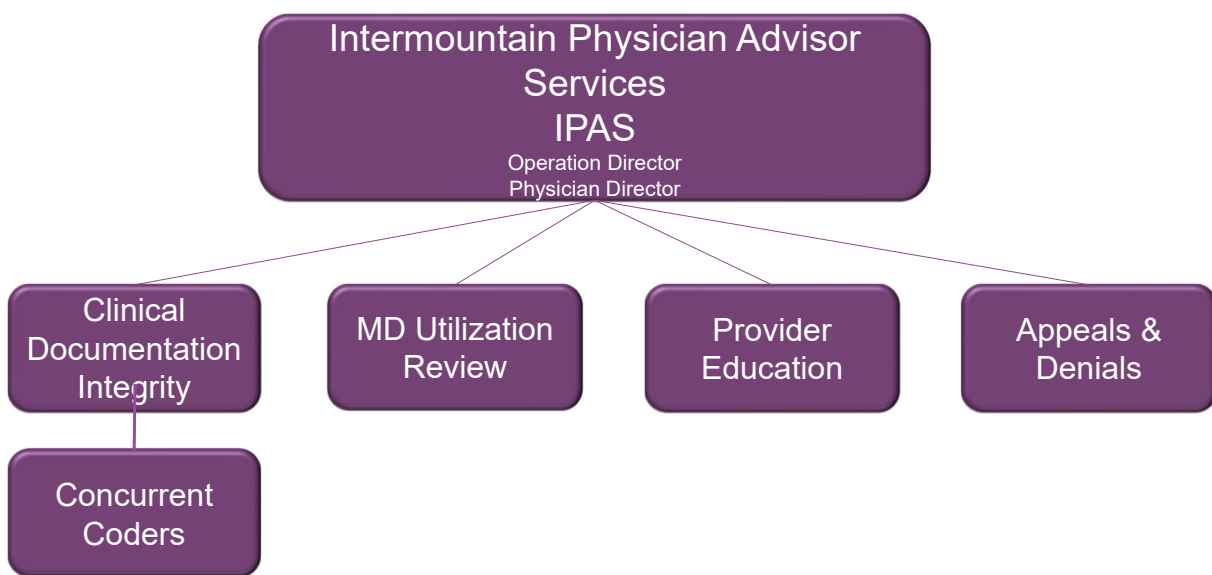
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Intermountain Health



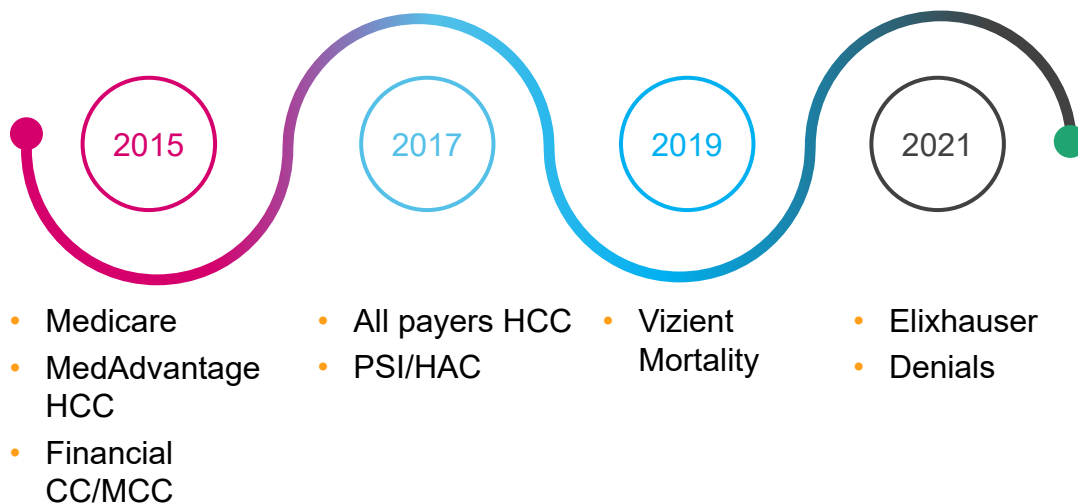
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CDI Expansion Journey



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Work Smarter – Not Harder!



- “Why” of CDI
- Basics of Risk Adjustment
- Overview of Publicly Reported Data
- Benchmarking via Vizient
- Improving CDI processes using technology
- Case Studies

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Benchmark Data

System 2018 Period 4

Overall Percentile Ranking



Domain Percentile Ranking		Selected Percentile Rankings		
Domain (Q&A We..)	Top Decile	Domain	Measure	Top Decile
Efficiency (10%)	41st	Safety	PSI-09 O/E*	0th
Mortality (25%)	47th	Mortality	Mortality O/E - Cardiology	19th
Patient Centeredness (15%)	56th	Patient C enteredness	Pain	20th
Safety (25%)	60th	Mortality	Mortality O/E - Surgery General	50th
Effectiveness (20%)	92nd	Mortality	Mortality O/E - Gastroenterol.	44th

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Mortality Observed/Expected Ratio

Observed

- Actual number of deaths
- Care delivery
- **Augmented Intelligence**

Expected

- Clinical acuity
- Severity of comorbidities
- **Augmented Intelligence**



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Identifying What Impacts the 'Expected' Opportunity

- By facility
- By Service Line
- By DRGs
- By physicians



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Identifying What Impacts the Opportunity By Facility

IMED

1. Metastatic Cancer
2. Malnutrition
3. Cachexia
4. Chronic Kidney Disease
5. Lymphoma
6. Plasma Protein Disorder
7. Calcium Disorder
8. Chronic Fatigue & Other Debilities
9. Malignant Pleural Effusion
10. Neutropenia

McKay Dee

1. Metastatic Cancer
2. Malnutrition
3. Cachexia
4. Cardiac Arrhythmia
5. Plasma Protein Disorder
6. Endocarditis, myocarditis, Pericarditis
7. Pericardial Effusion
8. Primary Lung Cancer
9. AMI/Non-STEMI
10. Calcium Disorder

Utah Valley

1. Metastatic Cancer
2. Malnutrition
3. Cachexia
4. Cardiac Arrhythmia
5. CHF
6. Coagulation Defect
7. DNR w/o Vent or ECMO
8. Chronic Kidney Disease
9. Other Pulmonary Conditions
10. Plasma Protein Disorders

St. George

1. Metastatic Cancer
2. Malnutrition
3. Cachexia
4. Cardiac Arrhythmia
5. Acute Renal Failure
6. GI Hemorrhage
7. Thrombocytopenia Incl. Purp, HIT & other defect
8. Chronic Kidney Disease
9. Calcium Disorder
10. Leukemia

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By DRGs

DRG	Volume (Ours)	% EXPECTED (Ours)	% EXPECTED (TOP)
Intracranial hemorrhage/cerebral infarction	444	4.94	9.08
Seizures	192	0.73	0.84
Other diseases of the nervous system	139	1.53	2.52
Acute ischemic stroke w thrombolytic	48	1.86	5.07
Degenerative Nervous system disorders	31	0.85	1.94
TIA	30	0.86	1.94

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By Provider

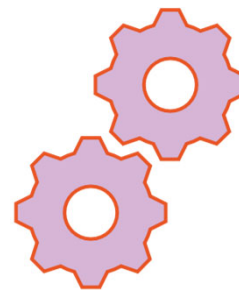
Group	Cases	# of Deaths	Death Obs. (%)	Death Exp. (%)	Mortality Index	Mortality Index Benchmark
Family Medicine	761	6	.79	2.02	.39	.90

Physician	Cases	# of Deaths	Death Obs. (%)	Death Exp. (%)	Mortality Index	Mortality Index Benchmark
	117	2	1.71	1.56	1.1	0.9
	35	0	0	2.21	0	0.9
	171	1	0.58	1.44	0.41	0.9
	143	0	0	1.73	0	0.9
	174	1	0.57	2.4	0.24	0.9
	1	0	0	0	0	0.9
	154	2	1.3	2.39	0.54	0.9

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Solutions

- Computer-Assisted Physician Documentation
- AI based evidence sheets – Potential Conditions for CDI RNs



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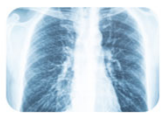
Computer-Assisted Physician Documentation



Atrial Fibrillation



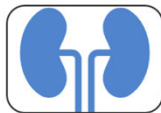
Brain Hemorrhage



COPD



Diabetes



Kidney Disease



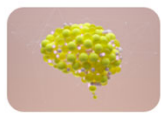
Malnutrition



Metastatic
Disease



Multiple Electrolyte
Imbalances



Encephalopathy



Heart Failure



Hypertension



MRSA/MSSA



Respiratory
Failure



Low Blood
Pressure

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Computer-Assisted Physician Documentation Example

CAPD

(Computer Assisted Physician Documentation)

Josh Amrhein

Your messages are up to date.

Heart Failure

Please specify **acuity** (acute, chronic, acute-on-chronic) and **type** (systolic, diastolic, combined systolic-diastolic).

Autogenerated Nudges

Acute Renal Failure ✕

In ICD-10 coding, renal insufficiency is not synonymous with renal failure. Does the patient meet your criteria for any of the following:

- Acute renal failure
- Acute kidney injury
- AKI on chronic kidney disease, stage
- **Acute renal failure on chronic kidney disease, stage**
- Other renal diagnosis (please specify)
- Clinically undetermined

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CDI Potential Conditions

Potential Conditions (5 Total)
CDI Evidence...

Status	Target Dx	Date Identified	Provider Nudged?
Opportunity	Blood Loss Anemia	12/29/2022 12:31 PM	No
Opportunity	Kidney Disease	12/29/2022 12:31 PM	No
Opportunity	Malnutrition	12/31/2022 01:53 PM	No
Opportunity	Other Respiratory Conditions	12/31/2022 07:23 AM	No
Opportunity

Priority Score: 170
Visit State: New
Last Updated: 01/30/2023 05:56 PM

CDI	Conc Coding
Electrolyte Imbalance	50
Review Status - Unreviewed	35
Blood Loss Anemia	32
Respiratory Failure	30
Other Respiratory Conditions	13
New Document - H&P Report	5
Low Priority DRG - Minimal Change Impact	5
Total: 170	

Areas of opportunity converted to potential conditions and priority scores assigned along with DRG priority scores to create a dynamic/flexible CDI workload

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Custom Report

IPAS-CDI Trifecta Report

Intermountain Healthcare
Putting you first

FIN: MS DRG: Vient HCD-10 Code: Elixhauser HCD-10 Code:

Vient Risk Variables

Vient Risk Variable	Previously Documented	Last Documented FIN	Last Documented Date
Brain Injury w/o Return of Consciousness	No	Null	Null
Cardiac Arrest	No	Null	Null
Coronary Artery Disease	No	Null	Null
DNR w/o Vent > 96 Hours or ECMO	No	Null	Null
Liver Failure	No	Null	Null
Multiple Rib Fractures	No	Null	Null
Shock	No	Null	Null
Traumatic Coma (GCS 3-8)	No	Null	Null

Elixhauser Comorbidity

Elixhauser Comorbidity	Previously Documented	Last Documented FIN	Last Documented Date
Coagulopathy	Yes	1245148629	12/16/2021
Hypertension Uncomplicated	Yes	1246251816	12/17/2021
Liver Disease Mild	Yes	1245148629	12/16/2021
Neurological Other	Yes	1245148629	12/16/2021
Paralysis	Yes	1245148629	12/16/2021
AIDS	No	Null	Null
Alcohol Abuse	No	Null	Null

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Custom Development of Potential Conditions for 'Observed' Mortality

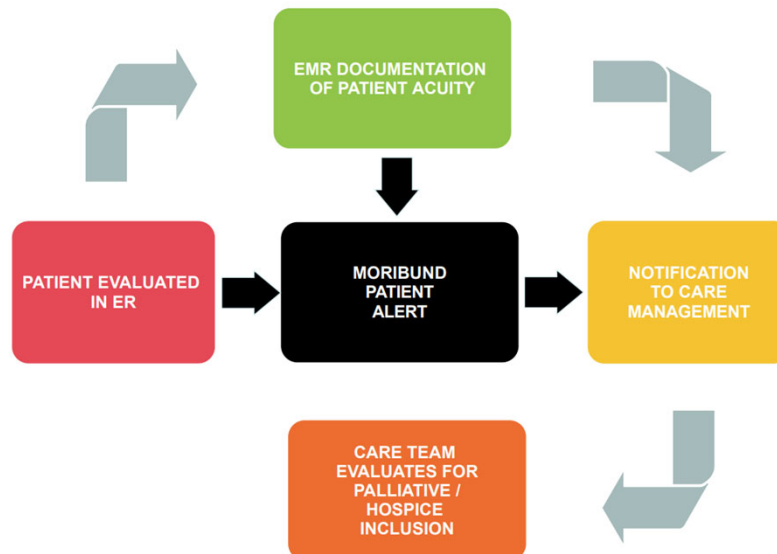
Technology Triggers:

- Moribund
- Poor prognosis
- Dying care
- Terminal care
- Dying/death measures management
- Final days pathway
- Comfort measures
- Comfort care only status
- Comfort care management
- Not for resuscitation
- Do not resuscitate / Do not intubate
- End-stage
- Late stage



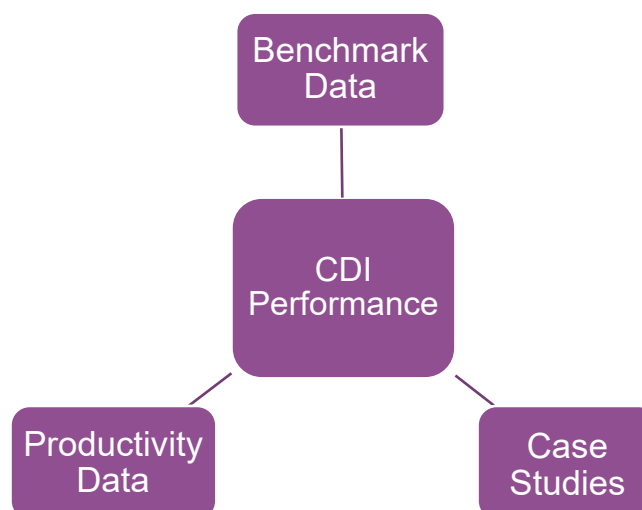
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Worklist for Case Management



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Weekly CDI Education Huddles



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Outcomes

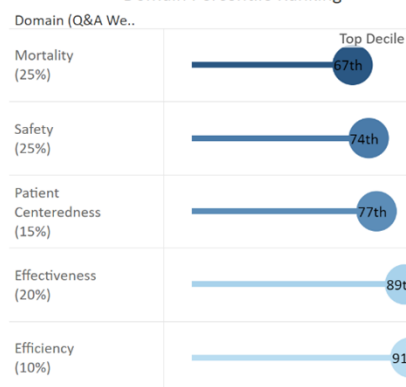
Overall Rankings 2023 – Period 1

System 2023 Period 1

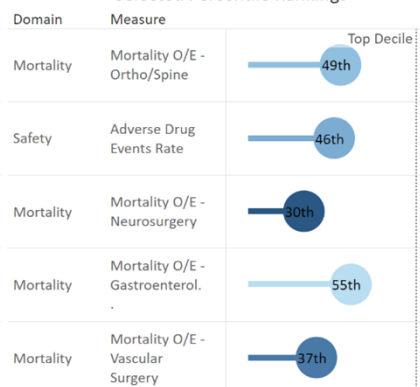
Overall Percentile Ranking



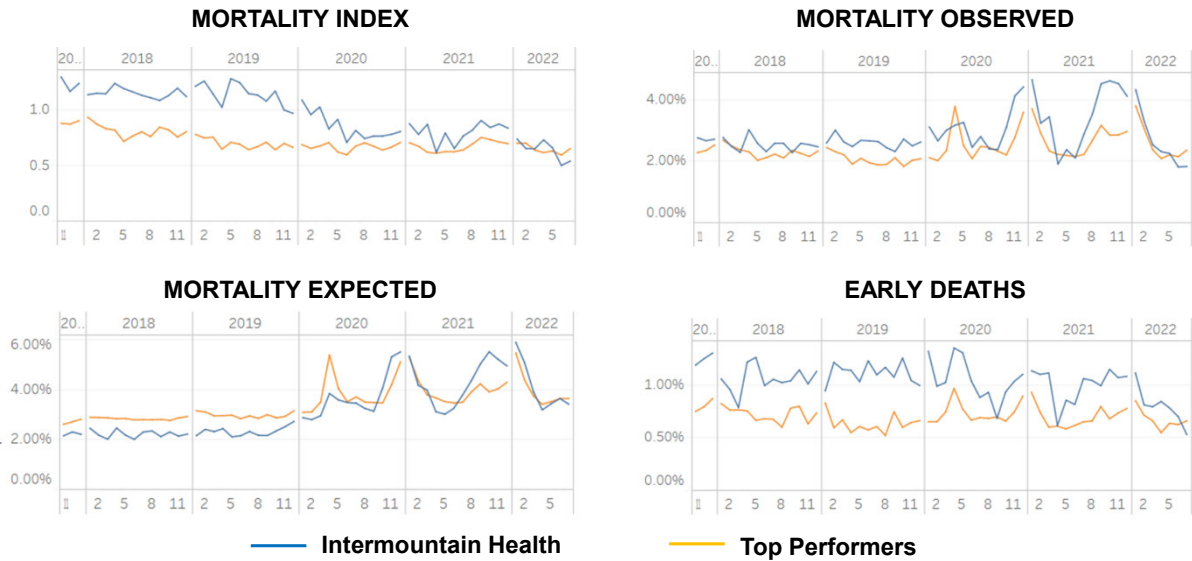
Domain Percentile Ranking



Selected Percentile Rankings

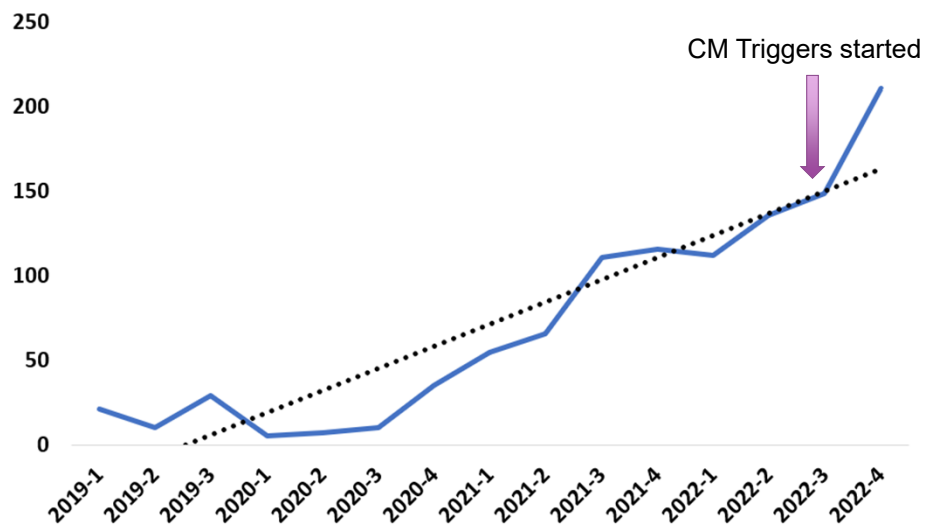


Tracking Success – Mortality Overall



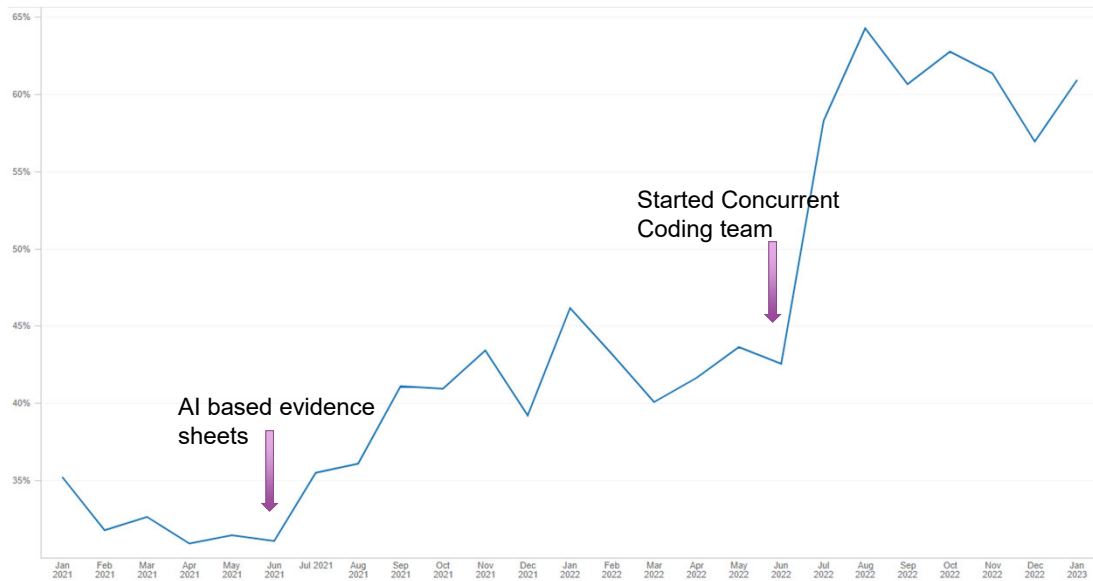
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Tracking Success – Hospice Expansion From CM triggers



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Impact on CDI Productivity – Query Rate



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CDI Value Realization

REPRESENTED IN NET REVENUE/CASH COLLECTED

— SUBSTANTIAL REVENUE IMPACT

— SIGNIFICANT REVENUE IMPACT

— MODERATE REVENUE IMPACT

New/Acute Recaptured HCCs

NEW REVENUE

HCCs captured for at-risk payers from CDI queries, CDI processes & provider education.

\$M

CDI Impact

NEW REVENUE

CDI impact from reviews, AI nudges and physician query escalations

\$M

Mismatch/Post

Discharge Reviews NEW REVENUE

CDI Impact from mismatch reconciliations and post discharge reviews.

\$M

Value Improvement Projects – Clinical Validation

REVENUE REDUCTION AVOIDANCE

COVID Lab acquisition project, Molina Sepsis Denials

\$M

PSI Reviews

REVENUE REDUCTION AVOIDANCE

PSI removals from pay-for-performance by updating documentation/coding.

\$M

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Conclusion

- Work Smarter, not Harder
- Delve into data to identify opportunity
- Use AI where applicable to augment work
- Customize prioritization for case reviews
- Think outside the box – create solutions beyond CDI
- Regular huddles/education sessions with team



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flourish
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Thank you. Questions?

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