



Leveraging Self-Service Analytics at OHSU

How Oregon Health & Science University (OHSU) measurably improved Case Mix Index (CMI), CC/MCC Capture Rates and Physician Engagement by partnering with MedeAnalytics

The stage was set for a real-world scenario recently with a hypothetical: two hospitals with two similar patient populations and mirroring surgical volume and capabilities. But side by side, their case mix index (CMI) suggested a different story. How could that be if the patients they treat and the care they provide are largely identical?

In today's complicated healthcare landscape, numbers help tell a story about the complexity and severity of a patient's illness and his or her subsequent treatment at a healthcare facility. More often than not, a lower CMI score indicates that a facility isn't effectively documenting its cases.

But these numbers can have significant repercussions, says Andy Dé, Vice President of Marketing, MedeAnalytics: "Eighty-five percent of healthcare leaders I've spoken with believe that incomplete or inaccurate clinical documentation and coding is the root cause for lost reimbursement and decreased revenue."

Such was the experience for Oregon's only public research university, Oregon Health & Science University (OHSU). With over 17,000 employees, 1 million+ annual patient visits, 3,400 students enrolled and 576 total licensed beds, it is the region's only quaternary care center. But back in 2015, its CMI score didn't capture the complexity of patient care and it was taking a hit on its revenue cycle.

By partnering with MedeAnalytics in 2017, OHSU leveraged self-service analytics and reporting to measurably improve its CMI, as well as its complications and comorbidities (CC) /

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ANGELA ALDAY, MD | Medical Director, Clinical Documentation Integrity | OHSU

major complications and comorbidities (MCC) capture rates. It also used these data insights to better educate and engage physicians, leading to both performance improvements and an organization-wide change in the culture of analytics. These findings were shared at a recent webinar titled "Measurably improving Case Mix Index (CMI), CC/MCC Capture Rates and Physician Engagement Leveraging Self-Service Analytics at OHSU."

According to Dé, OHSU is a leading example of what can happen when "your organization actively seeks insights into clinical documentation and coding performance to drive claims accuracy, optimize reimbursement and timing, and improve physician performance."

Bold changes to improve CDI

In 2015, OHSU was experiencing significant business challenges. The center had low CMI and CC/MCC capture rates compared to its national peers. Overall, it lacked reliable data and analytics to share with its physicians to educate, monitor and improve their scores. Additionally, the center lacked an appropriate number of Clinical Documentation Improvement (CDI) team resources, including a CDI manager, compared to its number of beds.

"It was clear that OHSU would need to make bold changes to better capture patient acuity," said Jennifer Grubb, Assistant Director of the Clinical Documentation team, Inpatient Coding team and HCC Program Manager, OHSU.

If the organization's primary goal was to increase revenue through CDI, they would need to do so by taking advantage of three main opportunities:

1. Identify and educate "high-opportunity" physicians for CDI
2. Develop and deploy CDI education modules for new faculty and learners based on OHSU data
3. Monitor, measure and improve performance through actionable analytics-driven insights

Grubb says they chose MedAnalytics' Self-Service Analytics Platform and Revenue Integrity Solutions because the program offered filter flexibility for reports, up-to-date data from weekly coding claim submissions and at-a-glance analytics and charts for cohort comparisons. Additionally, it was user-friendly and intuitive, which empowered her growing CDI team to engage with the tools.

Adopting self-service analytics

As part of their implementation process, OHSU expanded its CDI team to include a CDI manager and CDI nurse specialists for Managed/Medicare populations and brought in Angela Alday, MD, as its Medical Director for Clinical Documentation Integrity.

For Dr. Alday, the flexibility to tailor reports to individuals or physician groups, as opposed to service-line reporting, was crucial if she was going to truly engage providers. "Physicians aren't always receptive to being lumped into larger groups, so we needed to tailor and trend reports into different segments and timeframes quite easily," she said.

Through MedAnalytics, Dr. Alday could access physician-level data and show clinicians how they were performing alongside their peers.

"As soon as we showed them that their CMI scores indicated their patients weren't very sick – that's when we got buy-in," said Dr. Alday. "They were not happy that a local community hospital looked like they had more complex patients than our highly specialized pediatric oncology department."

This data also allowed her team to identify physician advisers who could serve as trusted liaisons to individual service lines in order to help resolve CDI queries and provide ongoing education. The success of this initiative eventually led Dr. Alday to develop a mandatory hospital-wide CDI online learning module as well as a physician handbook that includes definitions of OHSU's high-frequency diagnoses.



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“This has become a crucial resource for us because physicians can see what the other physicians considered to support a certain diagnosis,” she said. “And it is updated every year in conjunction with our service-line physician advisers, again ensuring that we have their buy-in.”

Catching missed opportunities within 30 days

Even with diligent education and newfound trust with physicians, missed opportunities for CDI still occurred at OHSU. This is where analytics offered powerful support.

In one of many examples Grubb articulated, she described an incident during which a patient presented with maxillary carcinoma and underwent a multi-step procedure. But when the CDI team ran reports that month, the patient didn’t have any CCs or MCCs captured. Grubb’s team sent out two queries from that review, one for acute blood loss anemia and another for opioid dependence. Their probe added two CCs to the case, which increased the financial reimbursement by \$10,000 (Figure 1).

Grubb says this is where MedeAnalytics’ up-to-date data makes a difference. “With some of our other analytics services, we get data that might be a quarter old before we can access it. But we get weekly uploads from MedeAnalytics, so the data is current,” she said. “Not only does it increase our turnaround, but it’s better than asking your physicians – ‘Hey, can I talk to you about this case that you had over Christmas?’”

Measurable outcomes

OHSU’s numbers now tell a more comprehensive story about patient care. Not only did their overall CMI score improve by 15% (and counting), but they also increased their CC/MCC capture rates by over 5%. In fact, Grubb’s team increased the average rate of return per CDI specialist by over 100%, going from roughly \$40,000 to \$90,000 every month.

To that end, Grubb and Dr. Alday offer three best practices for improving physician documentation:

- **Build trust.** Discuss your data sources with physicians and how accuracy is ensured. Physician trust in the data is vital. Work to establish an organizational culture of data-driven transparency.

Figure 1. CDI intervention in use-case scenario resulted in adding two CCs, thereby increasing reimbursement

Use-Case: CDI Secondary Review from No CC/MCC Report

Challenges:

DISCHARGE DX: monomorphic canalicular adenoma left maxilla
PROCEDURES:

1. L partial maxillectomy
2. Reconstruction with left radial forearm free flap
3. Full thickness skin graft to LUE (~5 cm x 4 cm)

Active Hospital Problems:

1. Chronic bilateral low back pain with bilateral sciatica
2. Drop in H/H with EBL of 300 ml

Solution:

CDI INTERVENTION: Queries for ABLA and OPIOID dependence

Measurable value and outcomes

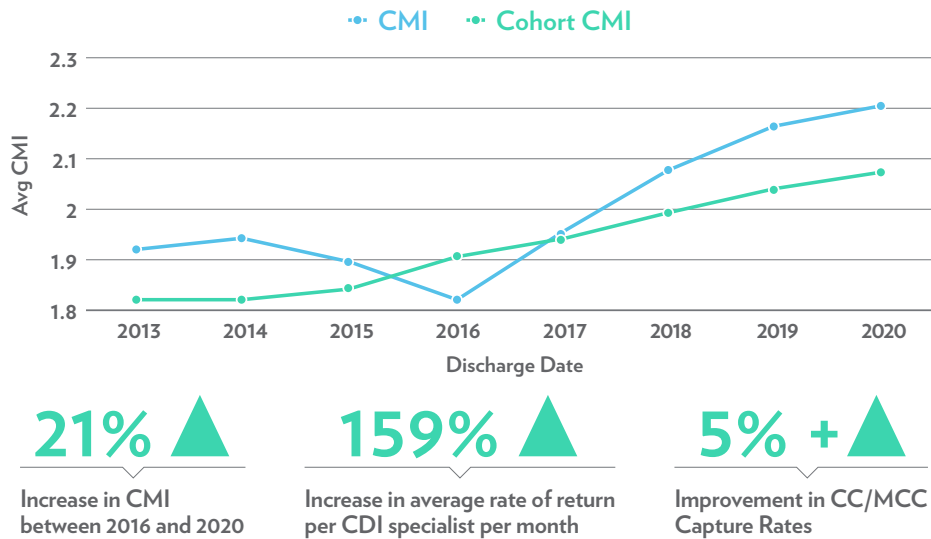
- Increased Financial Impact of **\$10,710**
- Added to 2 CCs to help prevent case being subject to Insurance Denial
- Increase in Relative Weight, SOI/ROM and GMLOS

Diagnosis DRG	Severity of Illness (SOI) & Risk of Mortality (ROM)	Relative Weight	Length of Stay (GLOS)	MS DRG (Reimbursement)
DRG 465 – Wound debridement & skin graft & wo/CC/MCC	2 & 1	1.84	2.7 days	\$18,304
Above + ABLA + Opioid dependence DRG 464 – Wound debridement and skin graft w/CC	3 & 1	2.97	5.3 days	\$29,014

Source: MedeAnalytics. 2021. *Measurably Improving Case Mix Index (CMI), CC/MCC Capture Rates and Physician Engagement Leveraging Self-Service Analytics at OHSU.* Richardson, TX: Author

Figure 2. OHSU experienced increases in CMI, average rate of return and CC/MCC capture rates using self-service analytics

Measurable value and outcomes from our analytics journey



Source: MedeAnalytics. 2021. *Measurably Improving Case Mix Index (CMI), CC/MCC Capture Rates and Physician Engagement Leveraging Self-Service Analytics at OHSU.* Richardson, TX: Author

- **Develop familiarity.** Ensure data is presented in easy-to-decipher formats/visuals, like a scorecard. Use language that is familiar to the physicians. “Sometimes coding language doesn’t translate very well to the clinical language,” said Dr. Alday. “We have to translate.”
- **Drive change.** Make your data actionable with clear objectives and encourage best-practice clinical documentation through comparative benchmarks. Keep the physician’s goal of quality of care at the forefront.

These lessons could not have been more impactful than during the COVID-19 pandemic. With staff in hybrid working conditions, during a period where elective surgeries necessarily had to drop, Grubb braced for revenue challenges: “But we were surprised to find we continue to drive our CMI up higher

through analytics. Not only did we maintain our revenue, but we also continued to improve our revenue reimbursement over the past year” (Figure 2).

To that end, she noted the value of finding a real analytics partner. “Working with MedeAnalytics has led to a lot of big wins for us,” Grubb said. “Even during a pandemic, I can demonstrate to my executives that through analytics our team can find more returns.”

To learn more about the power of self-service analytics from MedeAnalytics, visit medeanalytics.com/blog/.



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