Nym Medical Coding Engine 2023

Automating the Medical Coding Process Through Clinical Language Understanding Technology

Performance Report | **June 2023**

nym

Nym Medical Coding Engine: Automating the Medical Coding Process Through Clinical Language Understanding Technology

Why This Spotlight?

Interest in autonomous coding solutions is growing as healthcare organizations seek to ease staffing shortages and improve revenue cycle performance. Automated coding simplifies workflows and saves provider organizations time and money. Nym aims to meet market needs by providing a medical coding engine that accurately interprets clinical language and brings automation, speed, and accuracy to the medical billing process. This report offers a look at executive experiences from large-hospital health systems that are using Nym's medical coding engine.

What Does the Nym Medical Coding Engine Do? (a customer explains)

"We utilize Nym's product for the coding in our emergency department. The vendor provides us with autonomous coding services; the vendor takes the records and data for our emergency department and processes those things through their engine. The vendor codes emergency department records with a high level of accuracy without needing a human being." —VP/other executive

Bottom Line

Respondents feel that Nym's medical coding engine succeeds at meeting healthcare organizations' needs by improving revenue cycle efficiency, reducing labor costs, and providing quick, accurate, automated coding. Nym's strong development and technology team, partnership, and openness to feedback are noted as key strengths. While all interviewed customers are highly satisfied with the product, they say Nym could develop more tools to help improve clinical documentation and provide more transparency as to why, for example, the engine does not code certain charts.

Key Competitors (as reported by Nym)
CodaMetrix, Fathom, other outsourced coding services (e.g., Omega Healthcare, GeBBS)

Top Reasons Selected
Established market success, partnership, strong technical development team, cultural fit, product offering (transparent coding, ED gap fix, driving labor savings, and other results)

Number of Customers Interviewed by KLAS
4 individuals from 4 unique organizations (Nym shared a list of 6 unique organizations; the list represents 100% of the customers that were eligible for inclusion in this study at the time of data collection.)

Survey Respondents—by Organization Type (n=4)
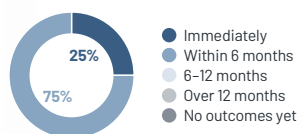
■ Large-hospital health systems

100%

0%   100%
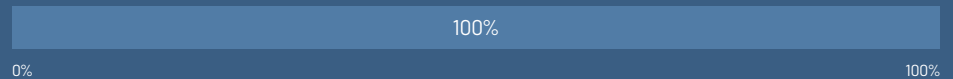
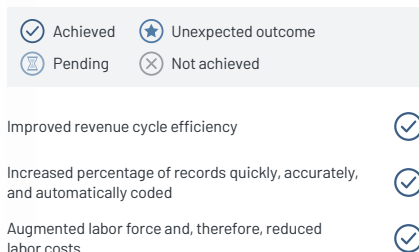# Nym Medical Coding Engine
Customer Experience: An Initial Look
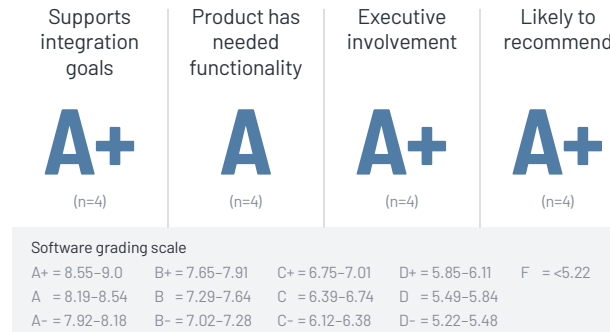
Overall Customer Satisfaction (n=4)

100%

(100-point scale)
- ● Highly satisfied (90.0+)
- ● Satisfied (70.0–89.9)
- ● Dissatisfied (<70.0)

Time to See Outcomes (n=4)

25%
75%

- ● Immediately
- ● Within 6 months
- ● 6–12 months
- ● Over 12 months
- ● No outcomes yet

Outcomes Expected by Customers

⊘ Achieved	★ Unexpected outcome
⊗ Pending	⊗ Not achieved

Improved revenue cycle efficiency — ⊘

Increased percentage of records quickly, accurately, and automatically coded — ⊘

Augmented labor force and, therefore, reduced labor costs — ⊘

Key Performance Indicators (1–9 scale)

Supports integration goals	Product has needed functionality	Executive involvement	Likely to recommend
A+	**A**	**A+**	**A+**
(n=4)	(n=4)	(n=4)	(n=4)

Would you buy again? (n=4)
● Yes   ● No

100%

Software grading scale

A+ = 8.55–9.0	B+ = 7.65–7.91	C+ = 6.75–7.01	D+ = 5.85–6.11	F = <5.22
A = 8.19–8.54	B = 7.29–7.64	C = 6.39–6.74	D = 5.49–5.84	
A- = 7.92–8.18	B- = 7.02–7.28	C- = 6.12–6.38	D- = 5.22–5.48	
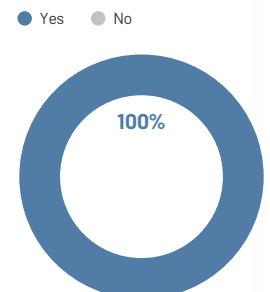
Adoption of Key Functionality—by Organization
Percentage of interviewed organizations using functionality (n=4)

Accurate provider attribution: Assignment of providers for billing/reimbursement is meant to be highly accurate
100%

Coding automation with zero human intervention: ICD-10 codes, CPT codes (including E&M), and modifiers are accurately assigned to medical records and sent straight to billing
100%

Fully transparent audit trails: There is clear coding rationale for every code assigned for use in denials and appeals cases and physician education
100%

Integration with EMR/billing system and workflow: Use of HL7 and FHIR standards enables seamless integration with EMRs, billing systems, and coding workflows
100%

Standard operating procedure (SOP)/guideline customization: Engine is customized and adapted to customer-specific SOPs and payer-specific guidelines, including all guideline updates
100%

0%   100%
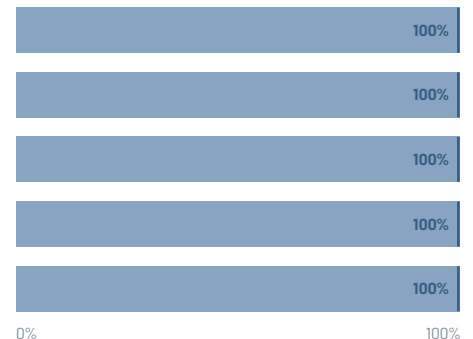
Strengths

> **Strong development and technology teams that offer quality and preparedness**
>
> *"Nym's development and technology teams are extremely strong and help guide our IT team through interface work and any reporting things that we need. The vendor is very technical, respectful, organized, and easygoing. They come in with a plan and ensure we stay within the timelines. Nym is a top-notch company in terms of quality and preparedness." —VP/other executive*

> **Nym is a good partner and is open to receiving feedback and providing accommodation**
>
> *"Nym is really easy to work with, and they are a very good vendor partner. If people have that partnership, they can almost put up with anything, but there isn't a lot to put up with. The vendor is very communicative, transparent, and nice, and we have enjoyed those things. We don't always get those things from vendors. Also, the vendor wants feedback, and they address any feedback that we give them. Even the people who were the vendor's biggest skeptics are now fans. Our management is very pleased with Nym, and I want other vendors to be like them." —VP/other executive*

> **Accurate, automated solution that relieves coding burden**
>
> *"Being able to code records without human intervention is an unbelievable achievement. . . . When Nym came along and said their system could code things without requiring our review, we wanted to see the product. The system can pretty consistently maintain extremely high accuracy. We do periodic audits to make sure that the accuracy is still high." —VP/other executive*

Opportunities

> **Vendor could provide clarity into why some codes cannot be done autonomously and charge coded items in subsets**
>
> *"The vendor hasn't been able to identify for us what things are missing or what their engine can't decipher due to things the engine can't code. Some problems are due to missing signatures or documentation. There is a third bucket where the engines just aren't confident. If the system could elaborate on why it isn't confident, then we would be able to build on things." —VP/other executive*

> **Vendor could develop clinical documentation and improve clarity around issues**
>
> *"Nym should develop some kind of clinical documentation or information on improvements. I don't think the vendor has a solution for that in particular quite yet, but it would be a significant improvement if the vendor could ever offer documentation of issues back to us so that we could address the issues by educating the providers or developing other documentation templates that the providers could use. We often glean those kinds of opportunities when our human coders code records, but it would improve things if the system had that ability." —VP/other executive*

> **ICD-10 diagnosis coding could be improved**
>
> *"There are some opportunities in Nym Medical Coding Engine for their ICD-10 diagnosis coding, but they have worked on that and it's much better than it was." —VP/other executive*

Points to Ponder

What does a customer need to do to be successful with this solution?

Customers explain

- **Prepare for a two-part engagement:** *"Be prepared because the engagement has two parts. The vendor will definitely provide the technology and the resources on their end to get things live, but the customers need to be prepared to do some auditing up front to ensure comfort with the vendor's accuracy level and compliance. . . . Do ongoing audits to ensure that they are still seeing compliance-related results." —VP/other executive*
- **Set up prior operational structures:** *"Set up the operational structures ahead of [implementation] time or at least take into account all the different elements of implementing the product. . . . Identify where the staff needs to shift and train them ahead of time and whether [customers] will need any temporary coding and staffing support. Have good project managers on the IT and organizational sides." —VP/other executive*
- **Own the solution:** *"Within the automated solution, you have to own it. Build it right and make it customizable to do everything you need it to do. You have to have a significant number of resources on this project in order to get it going." —VP/other executive*
- **Get buy-in on what is required and take advantage of the shadow period:** *"When we were setting up the system, Nym also had us go through what they called the shadow period. We sent our records to the system to be coded, and we also manually coded things to compare the results. That period was so critical in refining the system's engine. Customers need to understand what they need to do and to review enough records to give the system ample examples of disagreements. The disagreements are what customers should discuss intently with Nym. . . . Get IT team's involvement and buy-in." —VP/other executive*

Nym explains

- **Define goals and desired outcomes** of implementing Nym's autonomous coding solution, and ensure alignment across all stakeholders.
- **Align on and document relevant coding SOPs and guidelines** to inform the Nym configuration.
- **Secure IT resourcing bandwidth and project management assignment** in alignment with target timelines.
- **Define and secure resourcing for core coding team members** and ensure alignment on goals of implementing solution.
- **Review and prioritize in-flight or planned efforts/projects** that will impact introducing automation (e.g., finalizing updates to E&M coding guidance, reviewing existing process/workflow issues such as multiple charge sources, etc.).

Nym: Company Profile at a Glance

Year founded
2018

Headquarters
New York, NY

Number of customers
Unique live customers: 7
IDN-level customers: 14

Number of employees
90+

Funding
Seed, June 2019: $6M. Series A, October 2020: $16.5M. Series A-1, July 2021: $25M.

Revenue model
Customers pay a per-chart price for the charts successfully coded by Nym's engine. The price is based on the specialty area, the type of coding required (ProFee and/or facility), and customer volumes.

Target customer
Medium to large health systems, hospitals, and physician groups

Healthcare Executive Interview

Julien Dubuis,
CCO

What is your background?
I have 11 years of experience in healthcare technology, driving commercial growth for companies that develop innovative tools to solve complex challenges for hospitals, health systems, and physician groups. Prior to joining Nym, where I currently lead sales and marketing, I held senior roles in high-growth startups and worked as a project leader in healthcare management consulting. Delivering better, more affordable, and accessible healthcare is something I am deeply passionate about professionally and personally, which is why I am actively involved in collaborative industry networks across the ecosystem, including as an advisor to NYC Health Business Leaders, ELabNYC, and Weill-Cornell's Bench to Bedside programs.

What is the biggest differentiator of Nym's medical coding engine?
Nym's medical coding engine is powered by our clinical language understanding (CLU) technology, which leverages clinical expertise, computational linguistics, and explainable AI to translate physician notes within patient charts into structured clinical narratives. Using that narrative and the latest coding guidelines, Nym's engine instantly and accurately assigns medical charge codes for billing. This consistent, rules-based approach enables our engine to provide fully transparent audit trails for every code it assigns. The underlying CLU technology also enables Nym to successfully automate coding for complex outpatient specialties like emergency medicine and quickly expand into new specialties without requiring historical data.

Solution Technical Specifications (provided by Nym Medical Coding Engine)

Cloud environment
AWS

Development platform
Python

Database environment
PostgreSQL

Security platform
SOC 2 (Type 2) (mapped to HITRUST)

Confidentiality
HIPAA compliant

Data encryption
AES-256 at rest; TLS 1.2/1.3 in transit

Integration approach
HL7v2, FHIR

HITRUST certification
No

AI
Yes

Report Information

Nym Medical Coding Engine Performance Overview
All standard software performance indicators

Culture

Keeps all promises (percent of respondents who answered yes)	(n=4)	**100%**
Proactive service (1–9 scale)	(n=4)	**A+**
Product works as promoted (1–9 scale)	(n=4)	**A+**

Loyalty

Forecasted satisfaction (1–9 scale)	(n=4)	**A+**
Likely to recommend (1–9 scale)	(n=4)	**A+**
Overall satisfaction (1–9 scale)	(n=4)	**A+**
Part of long-term plans (percent of respondents who answered yes)	(n=4)	**100%**
Would you buy again (percent of respondents who answered yes)	(n=4)	**100%**

Operations

Ease of use (1–9 scale)	(n=4)	**A+**
Quality of implementation (1–9 scale)	(n=4)	**A+**
Quality of training (1–9 scale)	(n=4)	**A+**

Product

Delivery of new technology (1–9 scale)	(n=4)	**A+**
Overall product quality (1–9 scale)	(n=4)	**A**
Product has needed functionality (1–9 scale)	(n=4)	**A**
Supports integration goals (1–9 scale)	(n=4)	**A+**

Relationship

Executive involvement (1–9 scale)	(n=4)	**A+**
Quality of phone/web support (1–9 scale)	(n=4)	**A+**

Value

Avoids charging for every little thing (percent of respondents who answered yes)	(n=4)	**100%**
Drives tangible outcomes (1–9 scale)	(n=4)	**A+**
Money's worth (1–9 scale)	(n=4)	**A+**

Software grading scale

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A = 8.19–8.54	B = 7.29–7.64	C = 6.39–6.74	D = 5.49–5.84
A- = 7.92–8.18	B- = 7.02–7.28	C- = 6.12–6.38	D- = 5.22–5.48

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