SmarterDx

Millions *captured.*

What three health systems realized from implementing clinical AI

UAMS
University of Arkansas for Medical Sciences

CASE STUDY 01

McLaren

CASE STUDY 02

NOVANT HEALTH

CASE STUDY 03

SmarterDx

Introduction

At SmarterDx, we spend a lot of time thinking about our clients — our North Star is providing exceptional solutions and service. That's largely because our co-founders are both physicians and data technologists themselves, and they've dealt with the frustrations that come from outdated revenue cycle workflows.

So when we think about our clients we're really putting ourselves back in the shoes of our co-founders when they set out to develop a solution that would help them and their peers. Five years later, we're continuing to help hospitals and health systems be successful again and again.

But don't just take our word for it. Here are stories from three of our 60+ delighted health system clients — **UAMS**, **Novant Health**, and **McLaren Health Care**. Keep reading to learn about the unique challenges each institution faced and how SmarterDx solutions helped them address their challenges.

We hope you enjoy their stories.

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University of Arkansas for Medical Sciences

Pgs. 5-6
McLaren Health Care

Pgs. 7-8
Novant Health

CASE STUDY | SmarterPrebill

SmarterDx

University of Arkansas for Medical Sciences

Key player

UAMS
University of Arkansas for Medical Sciences

Terri Meier, CHFP, CRCR, LSSGB
Assistant Vice Chancellor Revenue Cycle

Challenge

Clinical documentation integrity, or CDI, is a field that gets more complex by the day. That's something that Terri Meier, the Assistant Vice Chancellor Revenue Cycle at the University of Arkansas for Medical Sciences (UAMS), and her team have known for years.

Back in 2022, the CDI program at UAMS was already a point of pride for the Arkansas organization. But even with impressive statistics — boasting over 90% coverage of diagnosis-related groups (DRGs) and achieving 85th percentile in MedPAR — Meier knew that in the rapidly evolving landscape of patient care, coding, and billing, her team would need to adapt if they wanted to improve upon them.

That's because as regulatory requirements expand case documentation becomes more complex. Previously, information was isolated to a few sections within a patient chart. Now, details could be anywhere — increasing the time to fully review a patient chart exponentially.

The team soon found they were hitting the limits of people's capacity to review every data point and ensure complete capture for every chart.

"So, you can try to have broad coverage across all charts, and then take a slice of charts and have expert-driven deep dives," Meier explained. "But what happens to all the charts that don't get that deep dive?"

> If we can't support multiple levels of technology, what is the best single solution for us that could help level the playing field?
>
> — Terri Meier,
> Assistant Vice Chancellor Revenue Cycle

Solution

Initially, Meier found an interim fix: implementing technology that could help the team prioritize which charts might need that deep dive. But it was a temporary solution. The number of important diagnoses that impact quality, mortality, readmission and SDOH only continues to grow, meaning that the number of missed opportunities — or, charts that needed a more thorough review but weren't prioritized for one — would only grow.

Knowing that payers were heavily investing in AI, Meier's gut told her that there must be an AI solution that could augment her team's skills. But payers often employ five or more AI vendors to review cases for payment integrity, a level of tech stack that was out of UAMS' reach.

"How do we compete with that?" Meier wondered. For her, the answer was to work smarter, not harder. "If we can't support multiple levels of technology, what is the best single solution for us that could help level the playing field?" she wanted to know.

That solution needed to be able to sift through all of the charts at UAMS and identify any opportunities to capture missed or inaccurate diagnoses. In an ideal world, Meier thought, AI would be able to handle the labor-intensive work required to do a deep review of every data point in a patient's chart — a task that was becoming humanly impossible to perform — and then surface the cases that actually needed the clinical judgment that only UAMS CDI specialists could provide.

Oh, and if that solution could minimize the financial risks to the organization, the Vice Chancellor of Revenue Cycle would definitely be interested.

> That $5M+ is quite literally $5M we would have left on the table without SmarterDx.
>
> — Terri Meier

Solution, cont.

So, when Meier discovered SmarterPrebill — a clinical AI solution that reviews 100% of an institute's charts to ensure that every detail of patient care is accurately documented — she was more than intrigued.

"It ingests all of the data, about 30,000 data points per chart, which is just an astonishing amount," Meier said. "And while that analysis is automated, the clinical validation is not. Instead, it empowers our team by making sure they have all of the information they need to make a decision about a case."

And, Meier noted, SmarterDx had designed SmarterPrebill with contingency-based pricing. In most SaaS offerings, the client pays an upfront set fee regardless of the eventual value obtained.

$5.3M realized annual net new revenue

But with contingency pricing, UAMS only paid a small percentage of the new revenue from opportunities their team approved and billed.

"It really appealed to us that the better we got, the less we paid," Meier explained.

Results

With SmarterPrebill, the CDI team at UAMS now feels confident that 100% of the charts sent to payers are accurate. That's translated to some tremendous financial success. $5.3M in total DRG revenue per year, to be exact.

"That $5 million is quite literally $5 million we would have left on the table without SmarterDx," Meier said.

"All of those revenue opportunities that were missed before are now captured. I can't think of another solution that has had that kind of measurable impact."

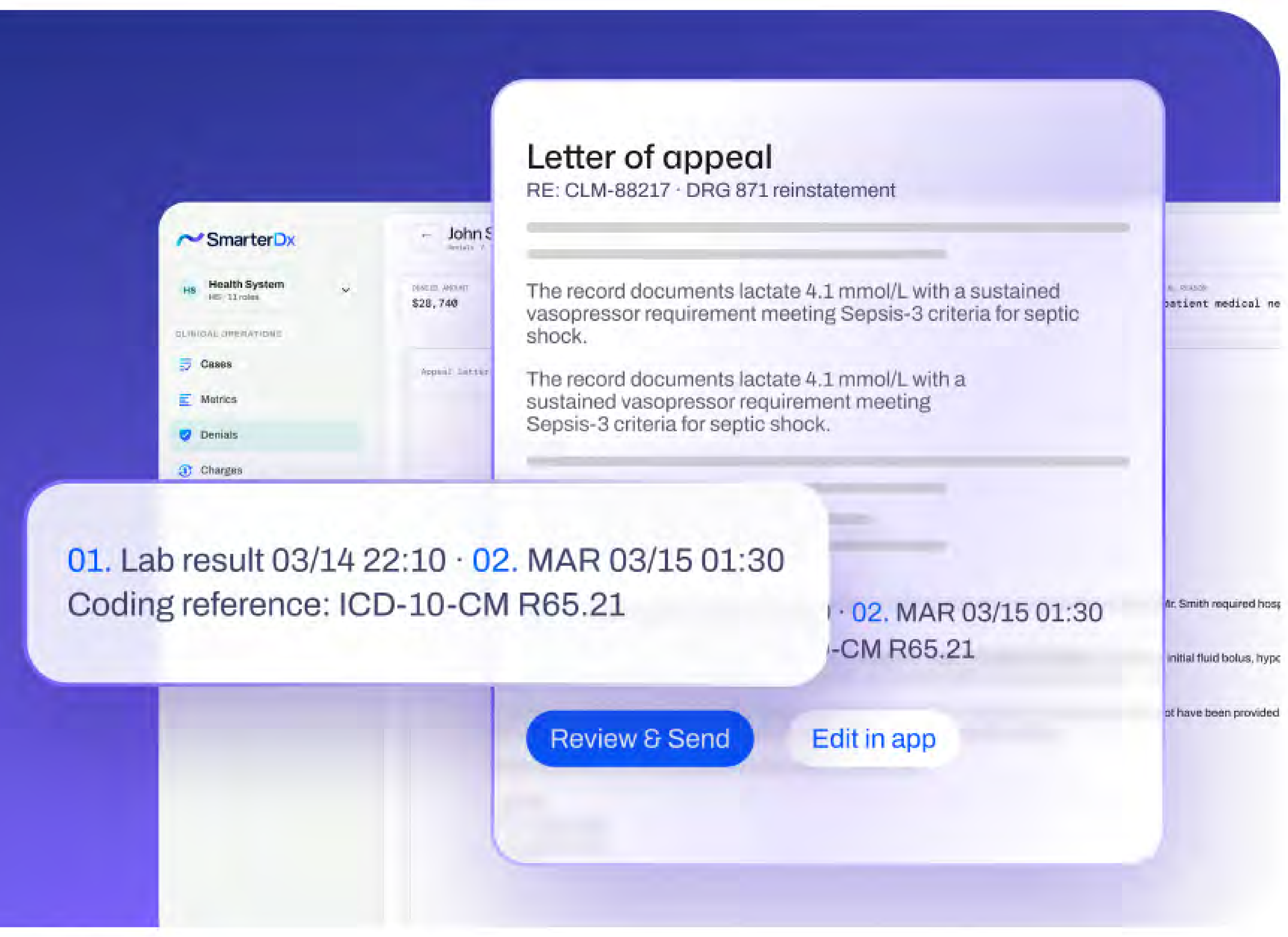
On top of that, SmarterPrebill has had a tremendous impact on UAMS' CDI team. The Sysiphian task of reviewing every data point within every chart is gone.

"AI is doing the heavy lifting on the front end, the deep review of every data point, which takes minutes or even hours of low-level administrative work out of their day," explains Meier. "It's a more productive, more satisfied team."

And, UAMS has recently expanded its footprint in Arkansas — adding two new facilities in the last year. Both now use SmarterPrebill.

What's next

For both efficiency and revenue generation standpoint, the next thorn in the CDI team's side is populating appeals letters. On average, each takes 60 minutes for the team to compile. Meier and the team are already looking to expand their collaboration with SmarterDx by using SmarterDenials, a clinical AI solution to populate appeals letters.



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CASE STUDY | SmarterPrebill

SmarterDx

McLaren Health Care

Key player

McLaren

Shawn MacPhee
MSN, RN, CCDS, CDIP
Director of CDI

Dave Mazurkiewicz
Chief Financial Officer

Katerina Serdenkovski
RHIA, ROCC,CRCR
VP Revenue Cycle

Challenge

By all accounts, in 2020 McLaren Health Care had a mature, well-functioning clinical documentation integrity (CDI) program. The team easily completed both concurrent and prebill reviews; second-level reviews of diagnosis-related groups (DRGs); and high-level DRG reconciliation while also having a retrospective post-bill audit in place.

But despite this advanced program, McLaren — a 2,246-bed health system in Michigan — struggled to keep up with evolving healthcare and coding regulations. Both teams faced growing pressure — the CDI team needed to improve case mix index (CMI) and financial results without compromising CMS compliance, and the coding team to enhance quality and recover missed revenue amid frequent external audits.

“It became increasingly clear that we needed a more powerful solution to come close to matching payer reviews and better manage the complexity of documentation and coding today,” said Shawn MacPhee, McLaren’s Director of CDI.

The CDI team adapted to this new normal by prioritizing a specific set of cases for a deep dive. But this strategy meant that only charts that met their criteria got a thorough review.

With more than a decade of experience under her belt, MacPhee knew that grouping charts this way meant that her team would have to leave dollars on the table. The McLaren team could do a lot, but analyzing 30,000 data points per patient chart — and do it with incredible speed and precision — was a task for advanced clinical AI. And they needed that AI speed.

> It became increasingly clear that we needed a more powerful solution... to better manage the complexity of documentation and coding today.
>
> **— Shawn MacPhee, Director of CDI**

Solution

With AI use in healthcare growing exponentially, McLaren’s team had options. They sought a scalable solution that could do full-population review of inpatient claims and identify opportunities before claim submission. The payment model had to reflect the value provided. And, most importantly, it needed to be a helpful tool — not a replacement for CDI or coding staff.

So, MacPhee started looking for a solution. When existing SmarterDx client Premier Inc., introduced the McLaren team to the company, they were impressed.

“We found this solution that could enhance our team’s capabilities without substantially altering workflows or replacing clinical expertise,” explained Katerina Serdenkovski, VP Revenue Cycle at McLaren.

That’s because SmarterDx’s physician-designed clinical AI platform covered all of the team’s requirements. It was a purpose-built AI that understood clinical reasoning. It was created by physicians who were also data scientists themselves. It would compliment the McLaren’s team, not replace them.

As for the details, the McLaren team learned that SmarterPrebill would automatically review every data point in every patient chart, analyze the information, and connect it all. Whether the details came from clinical notes, lab results, provider orders, medication lists, vital sign reports, radiology imaging, or anywhere else in the chart, SmarterDx’s clinical AI platform would find and identify query opportunities for the teams so they could capture any missing or incorrect diagnoses.

Solution, cont.

It would also then prompt them to approve the recommendations — all before final billing.

With SmarterPrebill, McLaren would be adopting a results-based pricing model, meaning they only pay for findings their team approves that would have otherwise been missed. That means no upfront investment was necessary to uncover a net new revenue stream, and they would pay less over time as their team continued to improve and evolve.

MacPhee was in. SmarterPrebill went live across seven of McLaren's main campuses in a short 10 weeks' time.

SPOTLIGHT ON

Checklist for success:

How SmarterDx's clinical AI platform met (and exceeded) McLaren's needs

- ✓ 5:1 ROI
- ✓ 10-week implementation
- ✓ Contingency-based pricing model
- ✓ No financial risk
- ✓ Supported CDI team, didn't replace them
- ✓ Recommended by consulting firm

$11.3M realized annual net new revenue

Results

Within the first four months of implementation, McLaren realized an impressive $3.8M in net new revenue. And, MacPhee noted, only a small percentage of McLaren's charts had findings that accounted for this increase in revenue. This validated her belief that her team was just as top-notch as she thought.

McLaren's CDI specialists agree. SmarterPrebill allows them to spend their time using their clinical judgment to review cases that need the expertise only they can provide. Plus, it removes inefficient work from their days.

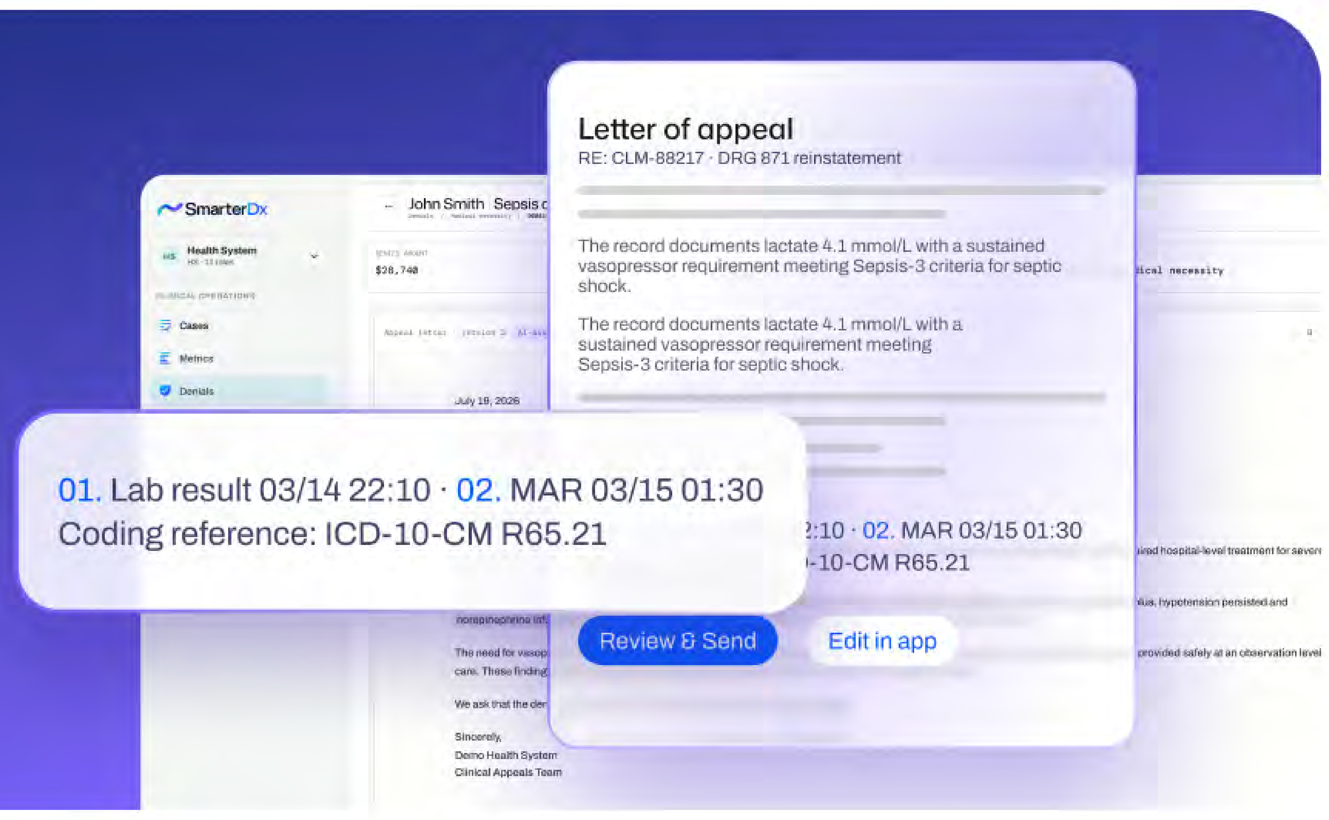
"SmarterDx has exceeded my expectations completely," said MacPhee. "The team uses and loves it, and it delivers revenue and quality results, the impact of which is felt throughout the organization. It's just been a win across the board."

With the pilot program's success under their belt, MacPhee worked alongside McLaren's leadership to expand their partnership with SmarterDx. With full implementation of SmarterPrebill across the health system, McLaren has annualized over $11M in net new revenue.

"SmarterDx has helped us achieve more than we thought possible," said McLaren Chief Financial Officer Dave Mazurkiewicz. "In the three years of our partnership, they have helped us identify missing and incorrect diagnoses before final billing. We are now reviewing 100% of clinical data across 100% of patient charts, capturing over $11 million in annualized net new revenue after fees."

What's next

With the overwhelming success of implementing SmarterPrebill, McLaren didn't hesitate to expand their AI offerings when SmarterDx announced the launch of SmarterDenials. The new solution scans the patient record and generates appeals letters backed by the clinical evidence needed to win — recovering more revenue, and faster. As of August 2025, SmarterDenials has generated over 9,360 annualized appeals for the McLaren team.



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SmarterDx

Novant Health

Key players

NOVANT HEALTH

Samara Llewellyn, M.D.
Senior Physician Executive

Elisa Sninchak, MBA, M.Ed, BSN, RN, CCDS, CDIP, CCS
Director of Clinical Documentation Excellence

Challenge

As a bedside nurse-turned-clinical documentation specialist, Elisa Sninchak knows both her clinical and her documentation stuff. So, when AI became the talk of the healthcare town, the Director of Clinical Documentation Excellence for Novant Health knew there was a way it could enhance the skills of her clinical documentation integrity (CDI) team.

The field of CDI has gotten exponentially more complex in recent years. In the not-so-distant past (about 20 years ago), a clinical documentation specialist's job was already a tough one — knowing the ins and outs of 13,000 diagnostic codes, 3,000 procedure codes, and 10 CMS quality measures was par for the course.

But, fast forward to present day and those numbers have increased dramatically. Want to stay on track now? It'll mean that more than 156,000 ICD-10 codes and over 100 CMS quality measures need to be top of mind, all the time.

"The growing complexity of CDI over the last couple of decades is becoming nearly impossible to manage," said Sninchak. "Moving from hundreds to tens of thousands of codes, even with the investments you've already made, you still have challenges. That's certainly the position we were in."

> Our team is empowered. They are doing less sifting through data and more judging and validating of relative clinical evidence.
>
> — **Elisa Sninchak**
> **Director of Clinical Documentation Excellence**

Solution

While the Novant team was excited about the possibilities inherent in AI, they found that many of the solutions simply prioritized Novant's list of cases. But prioritization didn't entirely solve the problem — with 30,000 data points per patient chart, it was still humanly impossible for the CDI team to review every single one. Starting with the charts that an algorithm deemed most important still meant leaving revenue and quality opportunities on the table.

So, Dr. Llewellyn and Sninchak came up with a plan.

"I was interested in the potential of AI, but at the time I had more questions than answers," Sninchak said. "In fact, Dr. Llewellyn and I spent three years developing a wish list that just kept growing. We learned so much by evaluating how different solutions fit with our team and our current workflows."

That wishlist of questions came in handy when Novant encountered SmarterDx. Novant's CDI team learned that SmarterPrebill™ — the company's flagship clinical AI offering — could automatically analyze all 30,000 data points in the patient chart and pinpoint missing diagnoses, even those that weren't documented by the clinician. Instead of doing this work manually, Novant's CDI team could now focus on reviewing and validating clinical findings.

And that last bit was of utmost importance to the team.

"I feel like with AI, we've brought our CDI team into the future," shared Sninchak. "Our team is empowered. They are doing less sifting through data and more judging and validating of relative clinical evidence."

Results

As documenting patient care has become more complex, having a tool that can augment the CDI team's ability to search everything in the patient chart has become critical for Novant Health. The health system completed an eight-week long go-live with SmarterPrebill, ensuring that the clinical AI solution was available across their 15 different sites.

Novant Health implemented the technology in late 2024. The amount of net new revenue they are capturing today is more than double that of when they first implemented SmarterPrebill.

And the success isn't just in the financials. SmarterPrebill helps the team increase their quality risk variable capture across the system by allowing 100% of all inpatient discharges to be evaluated. It also expands on the work that the team had already been focused on — advancing their clinical knowledge and engaging providers in continuous learning about the importance of accurate, thorough documentation.

"The team was already doing a great job," explains Sninchak. "AI just helped us get even better."

And SmarterDx is proud to be part of Novant's tremendous success. Prior to the addition of SmarterPrebill, the Leapfrog Group awarded nine of Novant Health's 11 participating facilities with an "A" Hospital Safety Grade for the Fall 2024 scoring period — the most "A" grades of any health system in North Carolina. That includes seven facilities recognized with the elite "Straight A" designation for earning "A's" in at least five consecutive cycles of the Hospital Safety Grade.

And as Sninchak says, "Implementation of AI can create a level of fear and uncertainty. A successful partnership to tailor the product to your organization's needs is essential to achieving a remarkable AI support process and impact."

SPOTLIGHT ON

Checklist for success:

Asking the hard questions

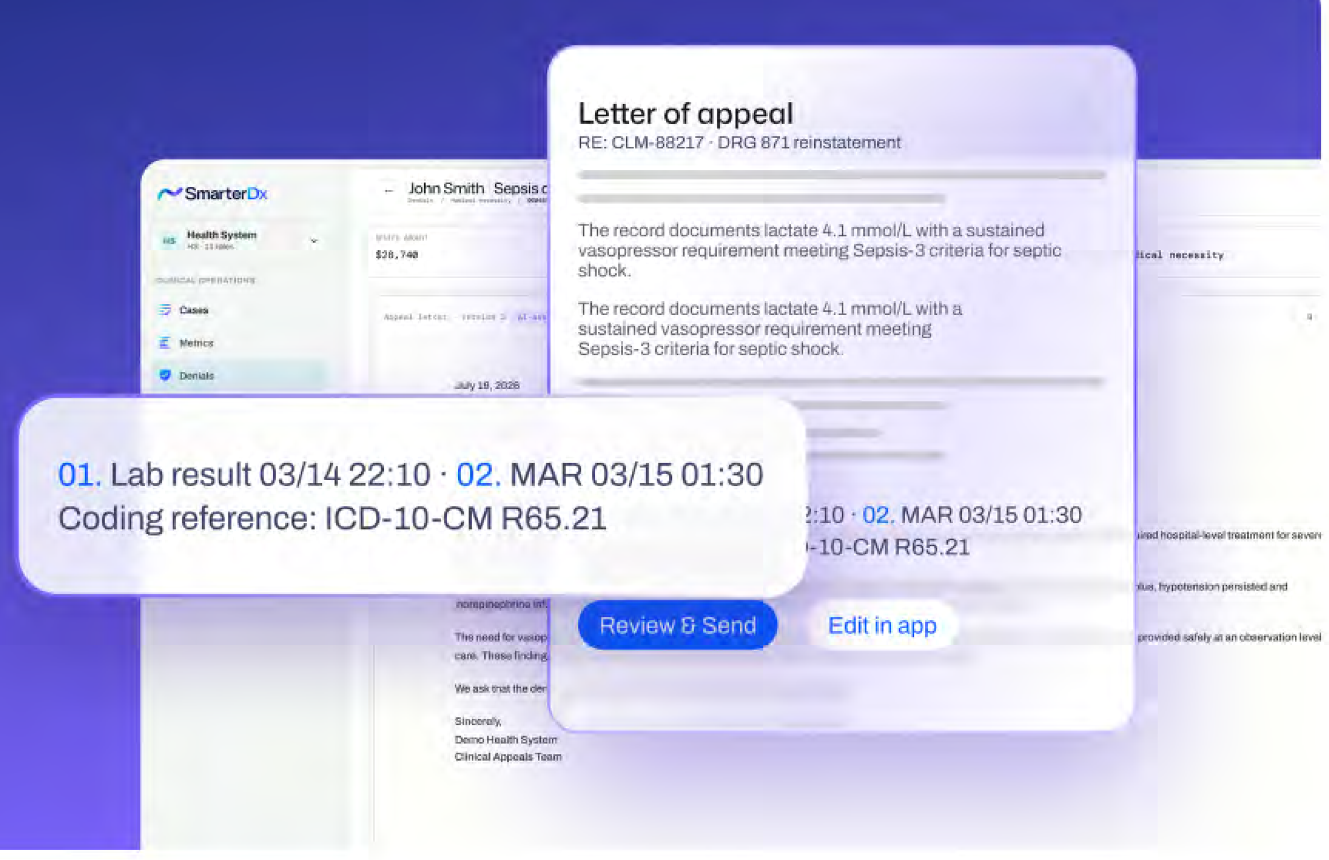
What Novant Health asked potential AI vendors

- ✓ What are the query agreement rates for your suggested opportunities?
- ✓ Do you have other organizations using your solutions that we can meet with?
- ✓ Is there the ability to tailor filters and opportunities over time?
- ✓ What does the training of end users look like — specifically the timeline and follow-up abilities.
- ✓ What is the financial timeline or expected contract commitment?
- ✓ What is the impact on the workflows of the physicians and the CDS team?
- ✓ How accurate has your ROI been with your existing customers?
- ✓ Do you provide physician and APP education to gain buy-in?

$82M realized annual net new revenue

What's next

After their success with SmarterPrebill, Novant Health's CDI team was keen to learn more about how SmarterDx's clinical AI platform could further help them across their institutions. They're currently exploring additional uses for AI solutions, such as streamlining the clinical claims denial process and expanding AI's billing reach to other stages of the revenue cycle. Plus, they have plans to further expand SmarterPrebill across additional sites in the Novant Health network.



To learn more about how SmarterDx can help your health system, visit **smarterdx.com/smarterprebill**

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Conclusion

We hope that the stories included in this packet illustrate how delighting our customers truly is a core part of who we are at SmarterDx.

And while improving financial outcomes is a key goal of any revenue cycle solution, it's not the only thing that a clinically trained AI solution can offer to health systems. In addition to seeing a 5:1 ROI from day one, SmarterDx clients also use our clinical AI to support initiatives such as saving valuable staff time, meeting continuing education goals, and driving quality improvement metrics.

Whether you're hearing about SmarterDx for the first time or you're an existing client excited to learn more about further leveraging clinical AI solutions in your institution, we'd love to get in touch.

REACH OUT TODAY

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