Enhance risk and quality performance:

How clinical data acquisition, AI and NLP can help

Optum

Everything about health care is rapidly changing – how we work, how we live and how we seek and get care. And technology is influencing interactions between providers, patients and health plans.

This evolving interaction makes it even more important for us to propel the innovation of how we receive data, interact with that data and share data and insights. Doing so in a timely manner empowers recipients to improve access, outcomes, efficiency and performance.

Consider the following statistics[1]:

- Before the COVID-19 public health emergency (PHE), about 15,000 Medicare members received telemedicine services each week, adding up to roughly 800,000 visits each year.
- In the 8-month period from mid-March 2020 to mid-October 2020, more than 24 million received Medicare telemedicine service.
- Before the pandemic, 56.40% did not believe they could receive the same level of care from telehealth compared to in-person care, but 79.85% now say it is possible.

Rethinking support

As perceptions and behaviors changed, challenges piled up. Patients still needed care, but life and well-being were on the line. The two things that didn't change were our shared goals of quality outcomes and efficient delivery. Keeping those goals in mind, we as an industry, as patients and care delivery providers, adjusted and solved challenges. We had to rethink how to evolve and better interact to support providers, their patients and health plans. We expanded technology, adapted, persevered and had a little help from regulatory relaxation. Consider this as a proxy for change that resulted in behavioral adoption and better use of health care technology.

There are many other challenges related to care and administrative interactions. Instead of lamenting on the broader, let's focus where we can be proactive to leverage both existing technology and technology that has far more advanced extension and efficiency use cases.

In March 2021, Americans said this about telehealth[2]:

85.52%

get care they need more easily via telehealth

64.05%

prefer to have parts of their annual physical done via telehealth

51.64%

visit their physician more often

31.26%

have decreased health care costs since using telehealth

1. Trump Administration finalizes permanent expansion of Medicare telehealth services and improved payment for time doctors spend with patients. CMS Newsroom. Dec. 2020.
2. How Americans feel about telehealth: One year later. Sykes. March 2021.

Here's the challenge

Health care providers focus on providing care but must interact with multiple disjointed health plan programs

Health plans focus on unique or comprehensive risk adjustment and quality programs with limited consideration of other impacts that could create abrasion

Laying the groundwork for change

We can all relate to these challenges. Providers and health plans alike want to focus their time on providing the best care possible. In reality, there are messages, refills, referrals, claims, authorizations, collections, medical record requests and more.

Health plans have competing priorities coupled with reporting requirements, competitive benefit design, Star Ratings, risk adjustment, compliance, regulatory, networks, medical loss ratio (MLR), fee schedules, etc. Continuing the momentum to think differently, how do we:

- Coordinate efficiency and consistency across the board while still reducing abrasion?
- Reduce the inefficiencies of medical record retrieval?
- Coordinate or combine point-of-care activities with retrospective chart review?
- Harness EHR and clinical integration technology that already exists?
- Use advanced data science to be smarter and faster?

Drivers of change

To address these challenges, integrate the following drivers of change into solutions:

- Employ comprehensive solutions that **drive outcomes**, with administrative engagement across the entire risk and quality continuum, are better than point-in-time transactions. We have to better leverage EHR functionality and more automated clinical data acquisition.
- Identify the solution differentiator that demonstrates **higher program value.**
- Deep learning, machine learning and natural language processing (NLP) solutions can **unlock appropriate and accurate risk adjustment** potential to enable physicians to spend more time on patient care.
- Holistic management of provider-member relations is **essential to increased** value to health plans.
- Find the balance between **benefit and cost.**

The next generation of support

Our next generation of offerings facilitates care with a refined focus on new program design that:

- Emphasizes a persistent approach to gap closure, focusing on continuity of care, not moments or points of care
- Recognizes that it takes a village to wrap our services, creating greater confidence and fewer surprises while helping to improve member care
- Supports greater accuracy of member health records that may lead to enhanced program value for health plans and providers

It starts with engagement

Engagement is a key contributor to create better outcomes and efficient care delivery. We are all familiar with pre-visit, concurrent and post-visit workflows. But what are we doing besides talking about how great these are and quizzing providers on their workflow?

We know the difference between good and great. It's why we established 2 different models to help support and meet providers where they are. This flexible approach intensifies and better maximizes the engagement between our field team, deepening their relationships with providers and staff.

The more intensive approach embeds individuals aligned directly with practices to have more regular touch points with the professional experience to build relationships and drive performance and outcomes (daily, weekly).

Use regular touch points to:

- Get a baseline on the outcomes and direct method to understand and help recommend provider practice clinical workflow
- Discuss transformation success and opportunities
- Provide additional support needed by practice for successful collaboration
- Focus on both risk and quality, not necessarily as independent measures or workflows. It's important that we tie that back to the support and engagement models

Once you've checked on those items, we can provide support to:

- Ensure complete and accurate assessment submission
- Perform chart and documentation review and feedback from our trained professional coding teams
- Identify open gaps and reconnect with the provider
- Support member outreach and follow up for referral management, acting as an extension of the office
- Provide additional education and training based on performance

Sometimes a consultative approach is all that's needed. You may want to customize for groups that have more resources and require less assistance. For some groups, you may only need to perform some of the items listed on the left. Supplementing what they do pretty well today may be all they need.

Feedback is critical

You must have feedback. The actions stated previously can't be done effectively if you don't track or measure progress. Reporting is also critical to measuring success. Here are some tips:

- Establish a glide path or roadmap to high performance with regular tracking of progress along that performance path with the ability to establish points of pivot.
- Review outcome goals regularly.
- Support provider and care team through continuous education.
- Identify and close gaps.
- Drive outcome measures.
- Close gaps using an iterative approach throughout year.
- Coordinate member outreach and care.
- Help with prioritization and provider trending reports.

Don't lose sight of the member.

Digital integration

The way our prospective program has historically operated is to meet the providers where they are. Some like paper, some like our portal, some – believe it or not – still have fax machines. No matter the scenario, we still meet them where they want to be met. We are seeing a significant uptick in the digital delivery and integration of gap data, which leads to another must-have guiding principle: clinical data acquisition from EHRs.

Clinical data acquisition is important to this model. A good deal of dependence was placed on the comprehensive nature of a visit or two. Recognizing the needs of patients with complex conditions who seek and need care throughout the year, this approach to clinical data acquisition allows an iterative, year-round approach to gap management. Instead of single visits, we begin to acquire a longitudinal view of the patient. This longitudinal view comes from data shared in the form of new gaps and outstanding gaps, and also from the clinical activity associated with each of those visits. Better yet, it acquires data in a manner that is far more automated and far less laborious to providers. As such, we can receive clinical data through multiple different modalities including:

- Records received via direct EHR integrations
- National clinical clearinghouse (which includes several leading EHR vendors)
- Digital intake platforms
- Internal partner products
- Optum® Practice Assist

Another key aspect of efficiency is better utilization of deep learning, machine learning algorithms and NLP solutions, to provide more streamlined, informed approaches to driving value and efficiency.

Our ingestion and intake process supports all formats, whether structured (CDA/CCD-A) or unstructured (PDF).

Benefits of this next-generation offering

Technology

Technology can release the power of native functionality through clinical data acquisition, using the common core capabilities of the EHRs that were intended to support data simplification. That's great, but not enough. Getting a phone book's worth of patient charts in varying electronic formats is taking baby steps toward more useful clinical information, but that's where AI steps in. It helps prioritize and allow focus of resources where there is opportunity. Acquiring this data constantly refines and trains the AI to do better every single time.

Support

Where traditional provider relations teams may focus on transactions and payment issues, Optum teams build relationships that expand beyond the providers into their outreach opportunities with patients. They help identify barriers to care and avoid situations of patients self-fragmenting their care.

Outcomes

Through digital integration, it's easy to get a provider to say "yes" to receiving data through digital means. Once this happens, it becomes so valuable to them to get more data points throughout the year that it almost becomes a dependency or necessity. They want to more easily understand gap status, new gaps, new patients and all the clinical "gems" from suspecting.

Performance

Tying back to the engagement model previously described, the benefits extend far beyond experience today. It's more holistic in nature, including provider support, member outreach and building truly collaborative relationships. With the additional iterative gap closure through more automated clinical data acquisition methods, the velocity of awareness into gap closure status is increased. It also increases the regular distribution of new information about patients' clinical needs.

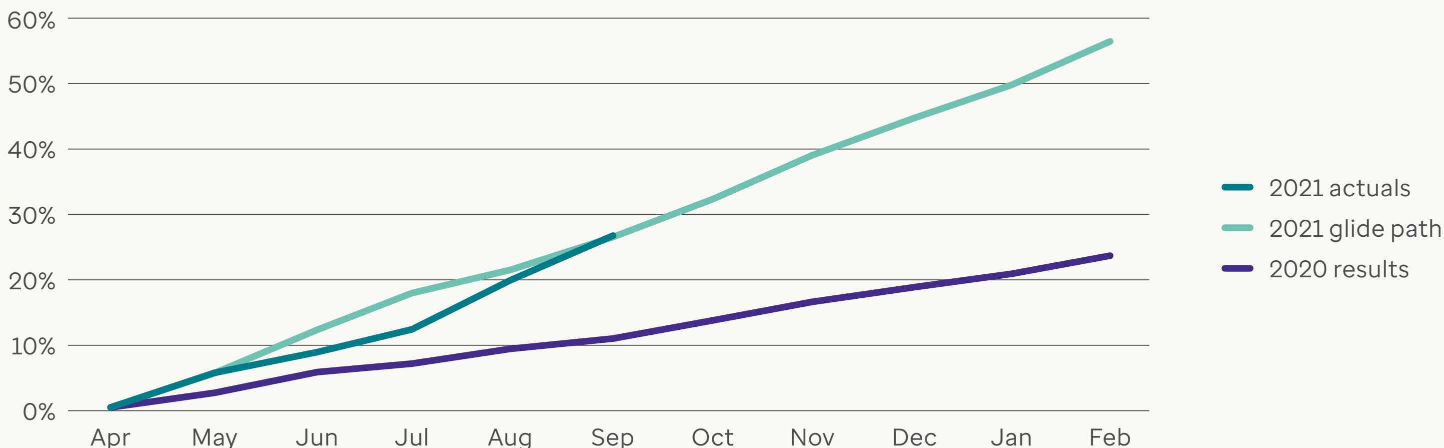
Collectively, the earlier and more complete view of a patient's clinical status and needs will help inform early performance on quality measures and less end-of-year chaos for chasing down patients. This same, more complete view creates the framework for the most accurate and complete risk adjustment efforts on these patients.

With the next-generation offerings, we're resolving multiple pain points for providers by standardizing data acquisition capabilities and embedding resources. The 2-pronged approach will ensure we have real-time data to address as many suspects as possible. This will allow our teams to focus on true areas of member opportunity with the provider.

To test our approach, we selected 28 provider groups to pilot across 2 markets: one in the central U.S. and the other in the northeast U.S. Historically, there was never a true 1:1 engagement with these providers. Technical, bidirectional capabilities to access the flow of data were established outside of traditional portals. Baseline suspect closure rates acquired through coding results for the 28 providers were established using data from the 2020 Optum in-office assessment program. Additionally, we identified higher-performing groups relative to the accuracy of their coding results to establish a performance glide path that we could measure throughout the year. The hypothesis for this cohort of 28 based on glide path, was to measure their suspect closure rate and to expect performance to track closer to the higher performing groups included in the glide path by the end of the program year.

Program results through September 2021 show that the approach is working.

Next-gen suspect closure rates



The providers included in the pilot are tracking toward our 2021 glide path and fiscal year goal of 55% suspect closure rate and are outperforming the baseline by 16%. Performance is even better (by ≈5%) with groups where we were able to embed and establish data integration earlier in the year.

While the results were positive for the 2021 prospective program, we must also consider the reliance on retrospective programs. Retrospective work will diminish due to a higher suspect closure rate in the current year. This can help lessen provider abrasion and help with proactive population health activities. Standing up true data capabilities and embedded clinical resources in this type of program is driving a higher alertness to member care and outcomes.

Data acquired from multiple programs feeds program-directive decisioning

Optum is well-positioned to support our clients through the combination of technology, field assets and our end-to-end solution. Comprised of multi-payer risk and quality analytics, it feeds information into provider workflows to assist with both pre- and post-encounter member management.

The information we deliver addresses both risk and quality at the point of care in the provider EHR. And is infused with interactive, refreshed member information to continue the care for subsequent encounters.

Pre- and post-encounter member management: Comprehensive risk, quality and medication adherence care opportunities from multiple data sources are presented in near real time. Single provider platform enables pre- and post-encounter care opportunity management with population-level views, and comprehensive patient profiles across multiple health plans, programs and lines of business.

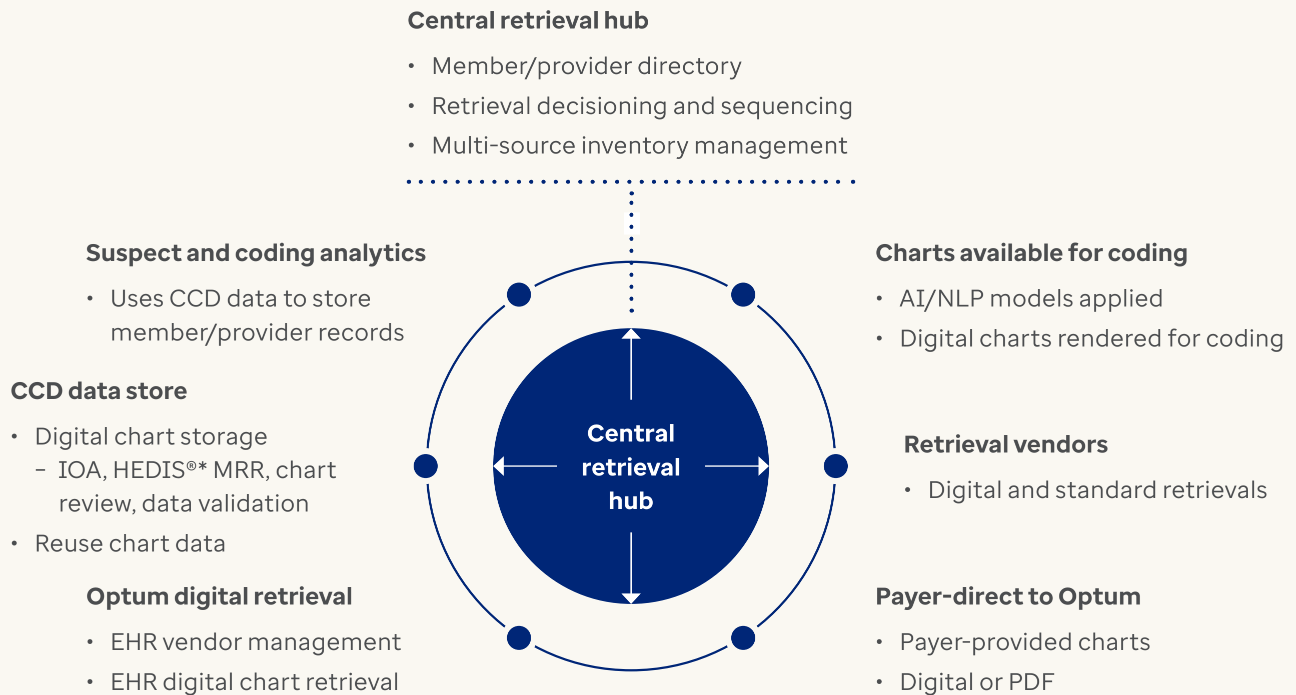
- The platform allows a practice population view with the ability to identify a population subset based on upcoming appointments, care opportunity types, cohorts, health plan and program for pre- and post-encounter coordination.
- Interactive, focused performance dashboards show real-time updates to help guide provider workflows to benefit the provider through simplification and consolidation of multi-payer information.

Member information at the point of care: Provide actionable, integrated gap information within the provider EHR workflow to drive prospective use of analytics. Our multi-payer solution drives provider adoption and improves responses at the point of care. It adds clinical, lab, claims and cost data to existing EHRs to make it easier for providers to understand what patients need at the point of care.

Intelligent chart review for risk and automated quality abstraction

Optum retrieval hub

Once a record is returned from point-of-care integration or once it's determined a record is needed to support intelligent chart review, a central hub facilitates multi-channel chart acquisition so data can be used and reused. We're on a journey to change how we collect and use medical records. We are less focused on timelines which we as an industry generally refer to as "prospective or retrospective" — rather, we take a more iterative approach.



Currently, there's a lot of focus in the industry on interoperability and establishing EHR health plan relationships. Health plans need digital access to EHRs to provide vital information that supports more complete and accurate capture of a member's conditions and ensures their screenings are addressed in a timely fashion.

Actions based on acquired data

The retrieval hub creates an opportunity to address members in a different way. Multi-health plan, member-provider analytics are designed to drive a member care journey through the next best actions as well as provider behaviors and improved program outcomes.

* HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

AI 101

AI is a broad category that includes theories such as machine learning, deep learning and the like, which are transforming businesses today through revolutionary concepts such as self-driving cars, facial or image recognition, NLP and voice assistants.

Such processes learn from data, in addition to subject-matter expertise, to make that data relevant for a business use case. To train an AI framework, we present it with large, complex sets of inputs and millions of samples to "learn" the correct way to classify the sample.

In the past, health care largely relied on humans to facilitate complex decisioning. Today, AI is well-suited to advance that decisioning to the next level. We train deep learning neural networks to assist in complex decisions from the data of previous decisions. As more analytics organizations try their hand at health care, we need to remember as an industry that not all theories can easily translate to health care. It is a very complex subject, especially when it comes to risk adjustment. The actions AI recommends should not be retrofitted for risk adjustment; they should be built for risk adjustment.

Multi-health plan risk and quality analytics

Optum AI is enabled by our experience with the largest database of Medicare Advantage medical records in the industry and informs AI algorithms and machine learning models to facilitate:

- Suspecting of conditions, new manifestations, complications, interactions
- Enhanced analytic precision to provide confident focus on identifying, stratifying and targeting of both risk adjustment and quality care needs
- Smart chart targeting as AI predicts and prioritizes charts most likely to support specific unreported diagnosis codes
- Intelligent risk and quality program decisioning

Intelligent chart review — risk targeting

The goals are to prioritize charts for retrieval, identify charts pre-targeting to remove from them the workflow, reduce waste and limit provider abrasion. In doing so we can:

- Retrieve and process both traditional and digital CDA-formatted charts for use in risk and quality chart reviews
- Submit complete member health history to help improve program outcomes
- Ensure risk scores are accurate because of more complete capture and submission
- Continuously enhance AI precision

Benefits

- Reduce waste from requesting more charts than necessary
- Decrease administrative burden of providers, enabling them to focus on clinical tasks
- Reduce provider abrasion

Intelligent chart review — coding

AI helps the chart review process to be more precise when capturing suspected but unreported diagnosis codes.

1. **Smart chart routing** analyzes potential unreported diagnosis codes, makes a decision on further chart review, then may route based on coder expertise.
2. **AI-enabled coding** assists coders with specific diagnosis code suspects or full chart-targeted condition review.
3. **Completeness review** detects if a member's health history may still indicate possible unreported diagnosis codes and can route chart for additional review, if needed.

Automated quality abstraction

The information we receive addresses both risk and quality. Each purpose has distinct processes that we facilitate to support both programs. Optum capabilities can receive and direct digitally retrieved charts for abstraction. Optum AI identifies quality gaps addressed in the document to generate pseudo claims to health plans in the same file format as manually abstracted data. This enables Optum to more quickly identify and document if a member's quality opportunity has been addressed.

- Increase prospective Healthcare Effectiveness Data Information set (HEDIS®) gap closure as well as auto and manual abstraction through digital retrieval of Clinical Document Architecture (CDA)-formatted charts.
- Improve Star Ratings.
- Enhance accuracy of Star Ratings analytics.
- Automate quality opportunity closure.

Benefits

- Decrease manual retrieval pursuits.
- Lessen burden on the health system.
- Increase retrieval and processing efficiency.
- See measure-specific compliance information earlier.

Gain these benefits from AI-enabled chart review:

- Optum observed that our AI-enabled solution drove an additional 9%–11% increase in suspected but unreported conditions captured.[1]
- Optum AI helps drive more accurate and complete coding. It has enabled a 5%–7% point validation rate increase within our internal QA oversight processes.
- Optum chart targeting analytics consistently exclude 3% or more[2] zero-value charts.

1. Optum observed a 7%–9% increase in total conditions coded during chart review by leveraging proprietary AI-enabled chart review versus traditional methods.
2. Amount impacted by health plan targeted preferences. Your results may be greater or lower based on your targeting preferences.

4 key takeaways

1 Patients are maturing how they want to participate with their care journey. We must change how we provide information to support providers with these changes.

2 Addressing members' care gaps isn't a one-time process, but an iterative management action to keep members healthier longer.

3 Interoperability is the wave of the future, but it needs to be less theory and more practical application.

4 Health care is complicated. As more analytics organizations try their hand at health care, we need to remember as an industry that not all theory can easily translate to health care. Look for health care and technology expertise versus technology expertise alone.

Contact Optum to learn more today.

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