

A background image showing numerous dark grey and blue 3D cubes floating in a dark, slightly blurred space, creating a sense of depth and movement.

WHITE PAPER

ARTIFICIAL INTELLIGENCE:
Accelerating Value for Risk
Adjustment

Explore the challenges of traditional risk adjustment approaches, benefits of AI-powered RA, and real-world results with an AI-powered coding solution.

Contents

Traditional Approach to Risk Adjustment (RA)	4
Challenges of Traditional RA	6
Artificial Intelligence's Impact on Risk Adjustment	7
Benefits of AI-Powered Risk Adjustment	8
Head-to-Head Coding Study: Manual vs. AI-Powered Coding	9
AI-Powered Solutions for Forward-Thinking RA Programs	10

Traditional Approach to Risk Adjustment (RA)

In this white paper, we'll explore the challenges of traditional risk adjustment approaches, benefits of AI-powered RA, and real-world results of coding with an AI-powered solution.

With widespread market adoption of value-based payment programs, risk adjustment activities have become a critical business investment. Today, healthcare organizations that support government-sponsored programs experience a significant financial impact from risk adjustment: In 2017 alone, the government paid \$10.4 billion in Commercial risk adjustment payments and \$207 billion in total risk-adjusted Medicare Advantage payments. Accurately assessing patient risk and coding risk for reimbursement is mandatory to succeed in these types of value-based payment arrangements.

Over the past decade, risk adjustment activities have increased in scope and intensity. In 2018, there were 20.4 million MA enrollees—a 30% increase in just four years. Likewise on the Commercial side, there were 11.7 million marketplace enrollees in 2018—a 46% increase in the four years since Exchange plans were launched. On the regulatory side, the rules around risk adjustment coding, reporting, and auditing have intensified as well, adding to the administrative burden for health plans and provider groups that take on risk.

The traditional approach to coding and auditing activities, which involves manually reviewing patient charts and coding decisions, isn't scaling well with the growing demands of risk adjustment. Recent advances in artificial intelligence have allowed RA teams to review, code, QA, and audit clinical evidence of HCCs in a much more efficient and compliant manner, providing an alternative approach.

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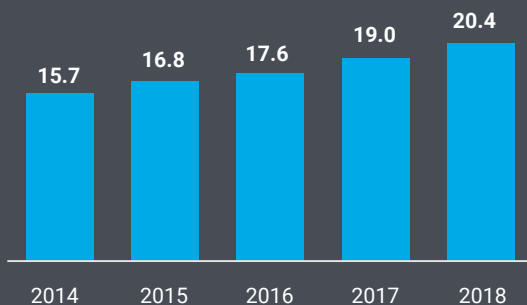
2017 GOVERNMENT RISK ADJUSTMENT PAYMENTS



OVER THE PAST DECADE, RISK ADJUSTMENT ACTIVITIES HAVE INCREASED IN SCOPE AND INTENSITY.

MEDICARE ADVANTAGE ENROLLEES 2014-2018

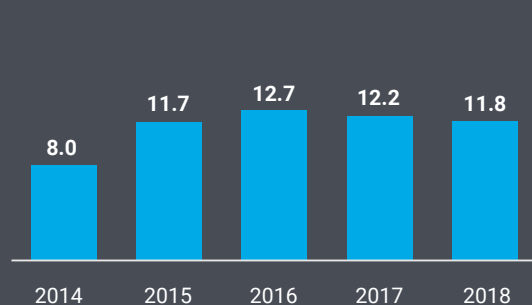
(In millions)



Source: Kaiser Family Foundation

MARKETPLACE ENROLLEES 2014-2018

(In millions)



Source: Kaiser Family Foundation

Challenges of Traditional RA

While traditional risk adjustment coding, QA, and auditing approaches are manageable for small batches of charts, they present a number of significant challenges at scale. Some of the issues with manual chart reviews and audits include:

- **Cost:** Retrospective chart reviews are expensive because they require significant person-hours to complete.
- **Impacted Timelines:** Because health plans have to request chart pulls from providers, there are often delays in getting the necessary data to start HCC coding. This reduces the amount of time available for reviews and QA leading up to Sweeps deadlines for MA plans or annual submission periods for Commercial Exchange plans. In turn, coders feel pressure to increase productivity: In Apixio's 2018 Coder Survey, 74% of respondents said they receive pressure from their organizations to review charts faster.
- **Operational Overhead:** Coding managers spend significant amounts of time overseeing the HCC coding and auditing process. Without the right tools, managers often spend time on logistics than they could more impactfully spend on coder management and spot checks that could help improve coder productivity and accuracy.
- **Coding Inaccuracies:** Due to tight timelines and basic human error, coders can often miss valid HCC codes during reviews, leaving money on the table. In Apixio's 2018 Coder Survey, 85% of respondents said they've missed codes during past projects. Conversely, there's also a risk of coding unsupported HCCs, which can result in costly fines. In the same survey, 38% of respondents said they felt increasing pressure to improve their coding accuracy.
- **Audit and Compliance Risks:** Manual review and QA processes are inherently error-prone, particularly when timelines are tight. This puts health-care organizations at audit and compliance risk. UnitedHealth, Sutter Health, DaVita, and Anthem have recently been involved in FCA lawsuits regarding MA risk adjustment payments, and proposed new RADV audit requirements from CMS could put even more pressure on plans to prove the accuracy of their coding submissions in 2020 and beyond.

PRESSURE TO REVIEW CHARTS FASTER

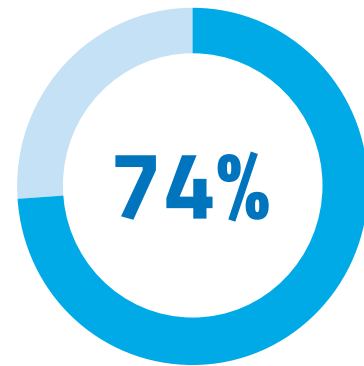


FIGURE 1

In Apixio's 2018 Coder Survey, 74% of respondents said they receive pressure from their organizations to review charts faster.

CODING INNACURACIES

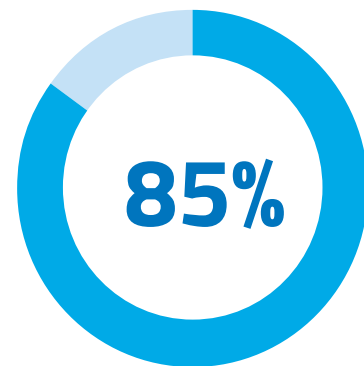


FIGURE 2

In Apixio's 2018 Coder Survey, 85% of respondents said they've missed codes during past projects.



Artificial Intelligence's Impact on Risk Adjustment

While many of risk adjustment's core challenges—crunched deadlines, limited QA, and coding inaccuracies—can be addressed with additional reviewers, additional manual labor can't solve the cost, compliance, or workflow issues that many organizations face today, and may even increase the frequency of errors.

Patient Chart Digitization

Patient Chart Digitization: Optical Character Recognition (OCR) is a computational technique that can translate handwritten or printed material that has been scanned into machine-readable text. OCR allows these patient charts and other healthcare documents to be mined by computers for information relating to patient conditions.

Audit Risk Identification

AI can sort through previously submitted HCC codes and flag ones that may not have sufficient clinical documentation.

However, *artificial intelligence (AI)*—a set of computational techniques that use algorithms to learn from historical datasets and make accurate predictions about the future—has the potential to address all of these issues.

AI is already deeply embedded into our daily lives. Facial recognition software that helps us tag friends in photos, voice assistants like Siri and Alexa, and email spam filters are just a few of the many applications of AI we encounter in our daily lives. Recently, this technology has been employed by risk adjustment programs across the country as well. A few of the ways AI is impacting risk adjustment includes:

HCC Coding Opportunities

Highly trained machine learning algorithms can search unstructured text—that is, free-form text that isn't labeled in specific fields—for evidence of specific HCCs in patient charts, claims, labs, and other clinical documents and serve them up for review.

Prospective Identification of Suspected Conditions

AI can identify patients with suspected conditions using similar algorithms to those that locate evidence of HCCs. These suspects can then be used in chase lists for providers to schedule follow-up visits with patients who need diagnostic tests or additional treatments.

Benefits of AI-Powered Risk Adjustment

Incorporating AI into your risk adjustment program can have positive impacts on reimbursements, operational efficiency, and compliance. With the right technology in place, AI can help healthcare organizations:

Find More Supported Codes

AI algorithms can quickly search every page of every patient document for relevant evidence of HCC, yielding more codes than manual reviews alone.

Decrease Review Times

By honing in on relevant pages with evidence of potential HCCs, AI can drastically reduce the amount of time needed to review patient documents. This increases reviewer efficiency and frees up time for more thorough QA reviews or additional coding passes before submission windows close.



AI

Reduce Audit Risk

AI can find and flag problematic codes more thoroughly than humans alone. It can also streamline the audit process so it can be performed before end-of-year submission deadlines, which allows plans to preempt compliance issues before they're at risk of fines and legal action.

Move Risk Capture Upstream

A major drawback to retrospective and concurrent risk adjustment coding is that risk capture happens downstream, long after the initial patient encounter has happened. If there are documentation or care gaps, providers can't resolve them in time to impact coding for the existing plan year. AI can help providers improve risk capture at the point of care by identifying patients with suspected conditions who may need additional diagnosis and treatment to support HCC coding requirements

There's been a lot of hype around artificial intelligence in the healthcare industry. So how can risk adjustment coders, managers, and auditors have confidence that AI will actually provide value for their risk adjustment programs? When in doubt, turn to real-world results:

In 2017, Apixio worked with a national health plan that serves over 4 million Medicare and Medicaid members to perform a rigorous coding study. During the study, a set of 284,000 MA charts were coded using two methodologies: manual review and AI-assisted review. The goal of the study was to evaluate the impact of AI on coding productivity and accuracy compared to traditional coding workflows.

The results were conclusive: The AI-assisted coding team outperformed the manual coding team in every area, finding more HCCs, reducing chart review time, and increasing overall productivity. With Apixio's platform, the health plan was also able to capture where manual reviewers missed or rejected correct HCC codes found by AI algorithms to inform coder training efforts.

HEAD-TO-HEAD CODING STUDY:

Manual vs. AI-Powered Coding

AI-Assisted Coding Results

- 4-7x increase in productivity
- 24% more HCCs
- 80% reduction in coding time

RESULTS: ACCURACY

(# New, Unique HCCs)



RESULTS: PRODUCTIVITY

(# Charts Reviewed per Hour)



AI-Powered Solutions for Forward-Thinking RA Programs

Apixio's coding, prospective, and auditing solutions are built on patented AI technology that extracts targeted information relevant to HCCs from patient charts, claims, labs, EMRs, and more.

APIXIO | HCC Identifier

Our market-leading risk adjustment coding & QA solution that serves up targeted HCC coding opportunities for reviewers and provides powerful project management tools for coding managers

APIXIO | HCC Auditor

Our proven RA auditing and compliance solution that scans claims and patient charts for unsupported HCC codes

APIXIO | Prospective Insights

Our condition suspecting solution that provides a targeted chase list to providers to proactively address care and documentation gaps



Visit our website to learn how Apixio can help you maximize your RA program efforts.

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