REVENUE INTEGRITY IN HEALTHCARE

SOLUTIONS DRIVING PAYMENT PERFORMANCE

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MARKET TRENDS REPORT

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Chapter 1: Executive Summary

This report covers healthcare provider enterprises and the use of revenue integrity tools within them. Generally considered part of revenue cycle activities, revenue integrity activities are better understood as covering a range of activities within healthcare workflows. Revenue integrity activities are the actions an organization can take to help speed up revenue cycle timing and bring more complete and full payments for healthcare services. These activities are necessary for healthcare enterprises of all sizes, scopes, and specialties. They are needed whether the organization is primarily concerned with fee-for-service (FFS) reimbursement or value-based care (VBC). Along with software to enable revenue integrity activities themselves, analytic and reporting functions are essential. Many healthcare organizations now understand the value in having more accurate analytic predictions of revenue and the ability to model the revenue implications of staffing changes, altered workflows, or contract terms.

Many providers struggle with performing revenue integrity activities efficiently. Hospitals and health systems have enormous staffs dedicated to their revenue cycles who are struggling to manually extract data, communicate with providers and payers, and extract payment for their services in as timely a manner as possible. Smaller organizations and practices struggle to find the resources to do this activity at all, with limited IT budgets and staff often filling multiple roles. Providers are increasingly interested in tools that can help them to automate this activity rather than simply realign where the burden falls, allowing them to redeploy staff and focus effort more efficiently. The ability to clearly demonstrate retrieved and additional value, improved revenue cycle timing, and staff relief are the essential value propositions of revenue integrity tools.

The ongoing COVID-19 public health emergency has made the need for automation and reduced administrative costs even clearer. With appointment volumes dropping, provider organizations are faced with the need for reliable, accurate payments for their care activities more than ever. Large staff offices are now both inefficient and a risk to health, meaning that the staff members who can be present need to be able to align their activities with the needs of the organization as accurately as possible. In smaller hospitals and practices, the limited available staff cannot spend time struggling with data, documentation, and payers. Swiftly changing regulations, exceptions, and waivers make tracking what can and cannot be reimbursed, how much it can be reimbursed for and by whom, and what else is needed for a clean claim a constant struggle. Clinical documentation improvement (CDI) tools, coding automation or assistance software, and easily updateable claims workflows give providers and staff the tools they need to keep organizations functional in a rapidly changing environment.

This report describes and evaluates the revenue integrity solutions from thirteen vendors. These products address FFS and VBC requirements, enable workflows up- and downstream from traditional revenue cycle activities, and enable process and performance improvements across a provider enterprise. The report reviews the current state of the market and the maturity of solutions, and it describes in detail the capabilities each vendor offers to meet the needs of its customers.

KEY TAKEAWAYS

Managing the revenue cycle is not enough.

> Addressing denials, underpayments, and payment timing issues cannot be done only as part of revenue cycle activities.

> Actions and workflows throughout the patient encounter contribute to these problems, and they need to be addressed as far upstream as possible.

> While many vendors understand the need to address revenue integrity issues throughout staff and clinical workflows, it is far from standard across solutions.

Fee-for-Service needs still drive revenue integrity adoption.

> Clean claims remain the single largest concern of both providers looking for solutions and vendors providing them.

> Many vendors struggle to find ways to drive VBC revenue integrity beyond just reporting.

> Reviewable automation is the goal of the most advanced offerings.

> Too many solutions rely on analytic and reporting output to drive revenue integrity improvements, rather than automating or enabling fixes within workflow.

> Artificial intelligence (AI) and machine learning (ML) algorithms offer the ability to not just show trends within organizational data but also to provide insight into payer activities and recommend actions to address them.

> Coding, appeals, prior authorization, and other revenue integrity operations can all be fully or partially automated, relieving pressure on staff and providers.

Most organizations can gain from revenue integrity solutions, but larger organizations drive purchasing.

> Technologically sophisticated organizations understand the revenue implications of dedicated revenue integrity improvements.

> Larger systems have more of the big-data integrations needed to fully leverage advanced AI/ML technologies.

> Smaller organizations are less likely to have the funds for large purchases, especially if the return is over a long period of time, and they are more skeptical of the promise of new tech.

> Technology purchases are not enough to solve revenue problems.

> Revenue integrity issues likely stem from a number of workflow, staffing, and process issues throughout an organization.

> Many of the areas of waste or error need to be addressed through training and ongoing process improvement along with the deployment of new technology.

Revenue integrity solutions can help solve surprising problems.

> Product components like CDI tools, necessary activity alerts, and automated claims construction help reduce the communication burden and the need to revisit old encounters, allowing providers to focus more on clinical activities.

> For revenue cycle management (RCM) staff, robotic process automation (RPA) and process improvements make work less repetitive and more valuable.

> More accurate modeling of revenue and cash flow makes strategic planning more effective.

Chapter 2: Revenue Integrity Technologies and Markets

Revenue cycle remains one of the largest challenges to the ongoing financial health of providers, health systems, and hospitals. They struggle not just with the timing of payments, but with uncertainty about what the payment will be and how much effort and difficulty will be involved in receipt, and with the possibility that some payments will simply never appear. These issues manifest in the claims process of submission, appeal, and remittance, but the causes are found much earlier in the workflow. From as early as patient registration and scheduling through to the process of coding and preparing a claim, small issues can accrete into major delays or a total failure to receive payment.

Rather than think of these as separate issues all requiring different solutions, they should all be considered under a broader category of revenue integrity. Revenue integrity tools are part of the organizational revenue cycle, improving cash flow while reducing accounts receivable and bad debt. They are deployed in multiple workflows across an organization (see Figure 2.1), all helping to prevent small mistakes upstream from creating major issues with payment. Under a fee-for-service (FFS) model, this means assisting in the creation of claims that

> **Are unlikely to be denied or require additional work during appeal.** Some help distinguish patients and identify coverage through eligibility checks and demographic confirmation. They can identify when prior authorization or referrals are required as well as automate or assist in processing these requirements. Others can assist providers and staff in creating full documentation, or in identifying what characteristics of a claim are most likely to cause a denial and suggesting corrections.

> **Catch the full range of billable activities and the correct severity for an encounter.** Integrity tools focused on coding can suggest codes or create code lists automatically. Using artificial intelligence (AI) or machine learning (ML) algorithms, some can identify unbilled activities, or correct severity modifiers based on the documented activities in the encounter.

In value-based contracting, claims themselves are not the main source of revenue, but many of the same processes are required to fully capture activity for some measures. Revenue integrity solutions are still valuable. They allow organizations to

> **Correctly attribute patients to care groups and providers.** Demographic confirmation and eligibility checks are still essential in a value-based care (VBC) model, given that patient identification and assignment of responsibility form the basis for evaluating performance.

> **Fully document encounters and care plan activities.** Many VBC contracts include requirements for regular testing, health maintenance activity, and care plan adherence. Revenue integrity tools can help maintain complete documentation and identify or recommend actions that meet contractual requirements.

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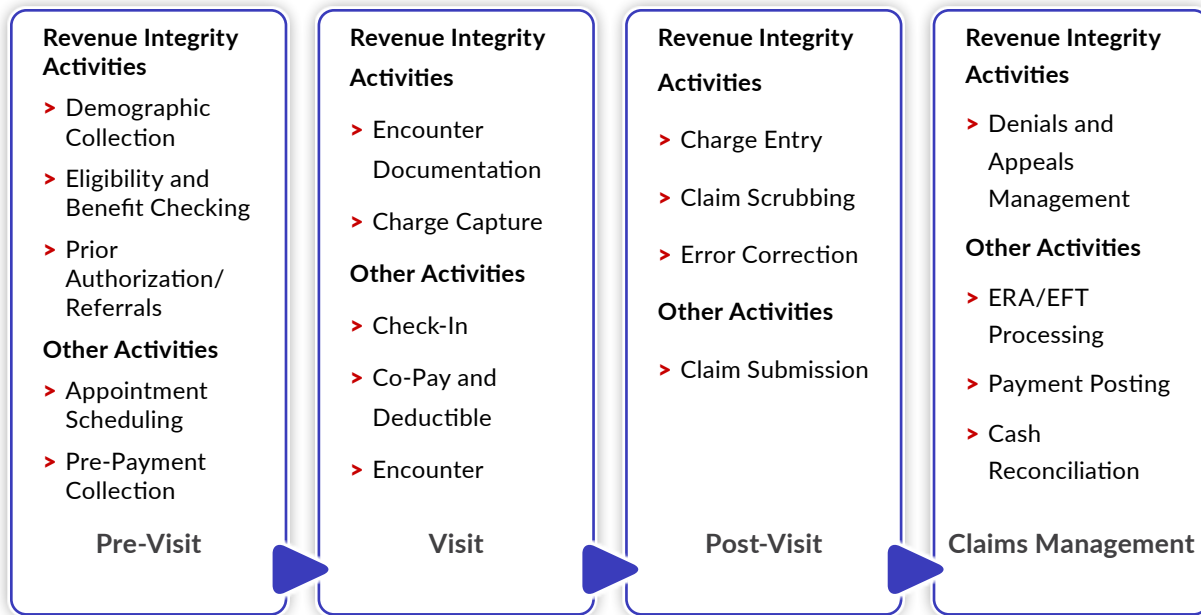| Revenue Integrity Activities	Revenue Integrity Activities	Revenue Integrity Activities	Revenue Integrity Activities
> Demographic Collection > Eligibility and Benefit Checking > Prior Authorization/ Referrals **Other Activities** > Appointment Scheduling > Pre-Payment Collection	> Encounter Documentation > Charge Capture **Other Activities** > Check-In > Co-Pay and Deductible > Encounter	> Charge Entry > Claim Scrubbing > Error Correction **Other Activities** > Claim Submission	> Denials and Appeals Management **Other Activities** > ERA/EFT Processing > Payment Posting > Cash Reconciliation
Pre-Visit	**Visit**	**Post-Visit**	**Claims Management**

Figure 2.1: Revenue Integrity and Non-Revenue Integrity Components of Appointment Workflow

Practices and hospitals have historically addressed these issues manually, with enormous staffs dedicated to scrubbing claims and shepherding them through review and negotiation. Software tools that can support these workflows are already in use throughout many systems. Revenue integrity tools can relieve some of these costs through more efficient workflows and staff augmentation. The most advanced leverage RPA to automate as much of these processes as possible, offering significant cost relief. Through the tools and models used in these software packages, providers are also seeing potential value in projective and predictive analytic uses, giving them more accurate estimates for strategic planning.

As reporting and analytics have become more sophisticated, healthcare organizations have gotten increasingly sophisticated insight into the issues underlying their revenue cycles and cash flows. Finding savings and efficiencies to improve the low margins and difficult bottom lines of hospitals and smaller systems is essential, especially within an increasingly competitive and difficult reimbursement world. The transition to VBC is making this more complicated, forcing systems to recognize their weaknesses in data collection and entry. It is essential for systems within a VBC model to fully and accurately capture their activities, patients, and outcomes. Improvements in natural language processing (NLP), AI/ML algorithms, and RPA are making the technologies that can solve these issues more accessible and more usable, offering opportunities to find savings, reduce workflow burdens, and increase revenue across the full spectrum of healthcare practices and organizations. With revenue integrity issues putting increasingly more stress on bottom lines, understanding the types of solutions available and the role they play within organizations is more important than ever.

THE PUSH AND PULL

While hospitals and providers try to find the secret formula for clean, prompt payment, the truth of the healthcare industry is that this process is complicated, difficult, and constantly evolving. Even the most sophisticated ML algorithms – ones that predict not just the expected volume of denials but which find the causes and suggest fixes- will be of only marginal use when a changing process creates new barriers to overcome. Tools and software cannot fix these systemic problems on their own. However, as healthcare provider organizations struggle with cash flow and their bottom lines, revenue integrity tools allow for significant improvements. In particular, their ability to automate functions and provide workflow efficiencies that are not affected by payer changes will continue to offer value if or when policies change.

REVENUE INTEGRITY TECHNOLOGY REVIEW

Most products included in this report are vendor-hosted and offered on a software-as-a-service basis. Some employ cloud or hybrid hosting models, combining an on-site data center with cloud data and computing. Vendors using cloud hosting primarily use Amazon Web Services, Microsoft Azure, or Google Cloud.

Generally speaking, adoption of electronic transactability in most areas of the healthcare revenue cycle has been slow and remains low relative to most other industries. Claims submission is the biggest exception, with almost all claims submitted electronically through a medical claims clearinghouse. However, electronic follow-up is less common. The second most common transaction is eligibility checking and benefit authorization, a field that has grown significantly since 2013 (see Figure 2.2). Many payers now offer portals for electronic checks or application programming interfaces for direct software integration for real-time checking and demographic confirmation, and to confirm benefits. Providers and leadership understand the benefits of these electronic transaction methods, but they simply were not available until recently. These gaps in the market represent significant opportunity for vendors offering solutions that can relieve work that is still often done manually.

Electronic Transaction Adoption Rates
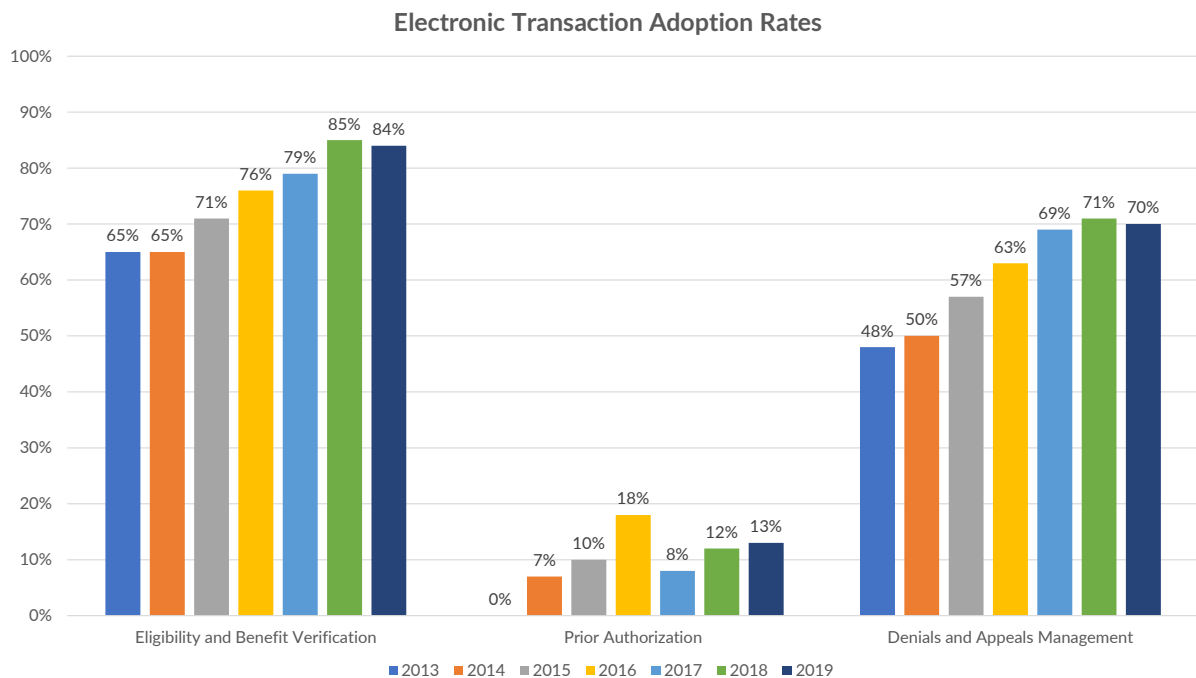
Figure 2.2: CAQH Index Report 2020 — A Report of Healthcare
Industry Adoption of Electronic Business Transactions and Cost Savings

Computer-Assisted Coding

The core of the healthcare claim is in the International Classification of Diseases (ICD) codes, which define need, symptoms, and diagnosis, and Current Procedural Terminology (CPT) codes, which are used to define what was done. Together, these codes establish the potential reimbursement available from the activity. Medicare and Medicaid use of Diagnosis-Related Groups, or DRGs, is a similar but distinct method to assign patients to a diagnostic group with a weighted payment rate. In either case, proper coding of exams, orders, and actions is essential for creating a claim that is complete and accurate, fully capturing the amount of work and extent of treatment done. These codes need to be supported by the clinical documentation in which providers capture how long an exam was and the full extent of their activity. Even if work is done, reimbursement is not possible if it is not supported within the clinical note. If a coder misses activity or incorrectly categorizes the difficulty or severity of an

appointment, revenue could be missed. Although this is still largely a manual process, software is often used to help staff look up codes and to provide criteria for what codes are appropriate and what modifications can or should be applied.

Increasingly, computer-assisted coding (CAC) products include NLP and ML components, allowing them to directly analyze the text of a clinical note to suggest a full suite of accurate codes supported by the documentation. As deployments and analytic algorithms become more complex, some are being included further up in the clinical workflow, allowing them to suggest more complete or accurate documentation to providers during the creation of their notes. This can allow the software to more fully capture revenue and produce the most accurate claim possible.

The most frequent deployment of CAC is a hybrid model to construct preliminary claims, especially for routine billing, and use staff to review or audit automated claims before submittal. For many systems, the amount of staff required for timely, accurate coding is a significant cost, and automation would be welcome. However, studies show that although a CAC system improves efficiency, unreviewed systems are notably less accurate than a claim that has been manually checked.[1]

Average Wait Time for PA Responses (2018)

Less than 1 hour	5%
A few hours	12%
Less than 1 day	11%
1 business day	20%
2 business days	19%
3-5 business days	19%
More than 5 business days	7%
Don't know	7%
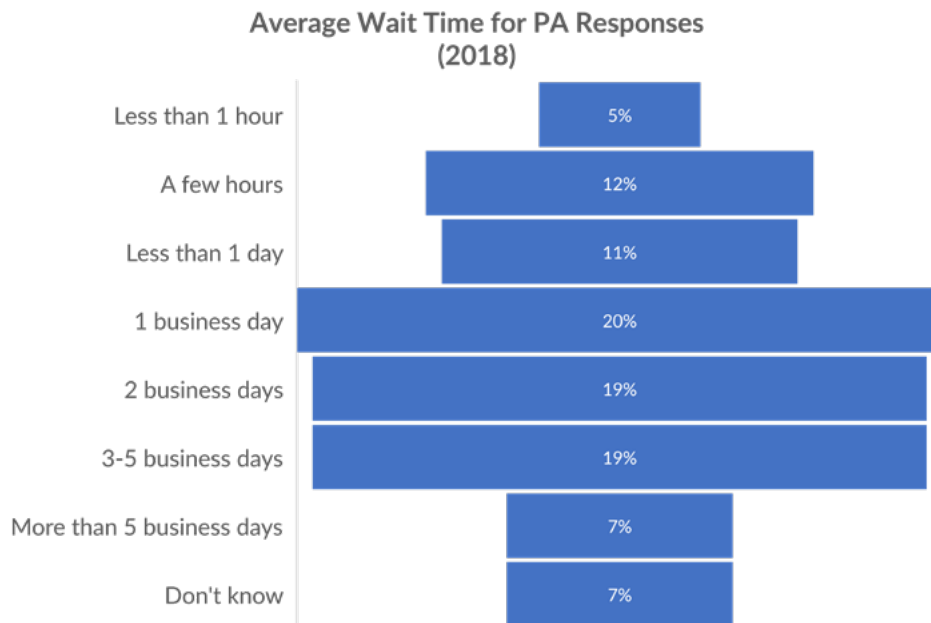
Figure 2.3: The Impact of Prior Authorization Requirements on Primary Care Physicians' Offices, Journal of the American Board of Family Medicine

Prior Authorization

Cited as one of the most burdensome requirements for healthcare providers, and a common cause of denials and write-offs within the healthcare revenue cycle, prior authorization (PA) requirements are nominally a cost-reduction and procedure-control measure. Estimates of staff costs to process PAs range between $2,000 and 4,000 annually per physician full-time equivalent.[2] Rules surrounding PA vary wildly from state to state and payer to

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[1] Cheryl Servais, "Computer-Assisted Coding for Inpatients — A Case Study," Perspectives in Health Information Management, AHIMA Foundation, accessed July 5, 2020, https://perspectives.ahima.org/computer-assisted-coding-for-inpatientsa-case-study/.

[2] Christopher P. Morley, et al., "The Impact of Prior Authorization Requirements on Primary Care Physicians' Offices: Report of Two Parallel Network Studies," Journal of the American Board of Family Medicine 26, no. 1 (2013): 93-95, doi: 10.3122/jabfm.2013.01.120062.

payer. Some allow for electronic submittal of PA paperwork, whereas others explicitly forbid it. While some have a required response time for payers, others simply require "a reasonable period" and some have no requirements at all. Understanding when PA is required is also often difficult, and again rules and policies vary significantly.

Many electronic health record (EHR) and practice management systems now include notifications or warnings when prior authorization is or may be required for an appointment or procedure. The sheer breadth of potential actions for follow-up, however, make automation of this process almost impossible. Some tools now exist that aggregate needed material, creating the baseline paperwork for a PA request.

Payers claim that PA requirements are used to reduce unnecessary procedures. Some on the provider side of the industry say PA is used more to delay payments or deny care than to control costs. When requested correctly, most PA claims are approved, reinforcing the argument that most procedures where PA is requested are medically necessary.[3] Payers have been slow to respond and reluctant to address concerns over PA and the burden it puts on staff and providers. However, facing increasing recent scrutiny, this is an area where regulatory changes will alter this landscape significantly.

Clean Claims, Denials, and Appeals

A clean claim is defined as a claim submitted with no complications or defects that could delay payment. For many systems, the clean claim rate is equal to the number of claims that require no edits or manual intervention divided by the total number of claims submitted into processing. This is often one of the most important revenue cycle metrics. It reflects not just the accuracy and clarity of data, but also the amount of labor cost sunk into fixing claims during review and the promptness of payment.

However, this definition of clean claim misses two essential components of the claims process, both of which mitigate its value as a metric. The first is that a cleanly passed claim is not necessarily an accurate claim, especially if it understates severity and underclaims revenue. The second is that payer rules change frequently; denials are not always a product of a single, predictable process, and it isn't always the case that a denial was correct. A 2015 study of Medicare Advantage organizations (MAOs) by the Department of Health and Human Services Office of the Inspector General found that 56% of audited contracts had made inappropriate denials, while overall MAO denials were overturned 75% of the time when an appeal was submitted. However, less than 1% of providers and patients ever filed an appeal.

Use of predictive and prescriptive analytics is beginning to appear in this space, marking claims that are likely to be denied and suggesting potential improvements to prevent the denial. Other approaches target other aspects of workflow, looking at the overall body of claims to find areas producing large volumes or high-value denials and targeting them for improvement. Some products are aimed at the provider and appointment workflows to create the fullest possible documentation at the point of service before the claim is ever created. These are good products with real potential value. However, the data on claims, denials, and appeals shows that production of a nominally clean claim is only part of the struggle to stay fully compensated.

EHR platforms have robust claims and appeals management packages, but these are still largely designed to assist with manual work. They may create work queues for revenue cycle and appeals staff or include analytic dashboards or stratification algorithms to target the most important or valuable claims in need of work. Some EHR vendors are beginning to deploy process automation tools in order to automate first appeals whenever possible, or to automate the production of the documentation needed for appeals. These tools, with the potential to not just supplement manual workflows but to entirely remove them from involvement, could represent a massive change in how organizations deploy staff.

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[3] Brian S. Barnett and J. Alexander Bodkin, "Clinician Time Expended Obtaining Prior Authorizations for Behavioral Health Admissions," Psychiatric Services 70, no. 6 (2019): 533–534, doi: 10.1176/appi.ps.201800578.

EHRs and Claims Data

The EHR remains the most common software platform for most of these tools, and the data within it is the source and residence for most of these activities. NLP and ML algorithms can leverage unstructured data within the EHR to identify care gaps, unbilled activity, improper severity coding or hierarchical condition coding gaps, and other opportunities to create cleaner and/or more robust claims. Integration with an EHR platform is, therefore, the single most necessary element of any revenue integrity solution, and many providers vocally prefer solutions that are native to their EHR platforms, whether a first-party component or tightly integrated third-party partners. If EHR tools fall behind the technical capabilities and sophistication of external solutions, that may change. New data interoperability rules offer opportunities for external vendors to access EHR data through open standards such as FHIR and work within their data structures. How vendors will take advantage of these functionalities, however, remains to be seen.

Several vendors, including most major EHR vendors, have created or are creating tools targeted to relieving provider burnout. Tools such as ambient voice capture can be combined with NLP and ML algorithms to take the normal interaction of an appointment and use it to create all the necessary documentation, orders, and referrals. This is a complicated and difficult task in itself, but some vendors are attempting to include coding and claim-creation components into these same interactions, combining the ambient voice capture with NLP CAC tools to immediately create the claim based on that same data. When combined with clinical decision support or clinical intelligence software, these tools could recommend additional actions, note potential diagnostic tests, or suggest follow-up activity, and ground all of them in a complete claim ready for review and submittal.

HEALTHCARE PROVIDER USE CASES

Like other administrative software solutions, revenue integrity and revenue cycle tools are primarily targeted at markets with significant EHR and practice management deployments, and based on the overall number of claims and amount of transactional work done through appeals. Primary care, acute care, and specialty care functions are the most common, generally with components or functionality to address the other major areas covered within a hospital system. Most products include both hospital and professional billing capacity, although some are more specialized. Outpatient services, including ambulatory surgical centers (ASCs), post-acute care, independent labs, urgent care centers, and skilled nursing facilities (SNFs) have more specialized products, generally with more specialized tool sets.

Hospital

Within hospitals and hospital systems, the ability to receive timely payments that accurately reflect costs is essential to their ability to remain open and continue to provide care. Given that hospitals and hospital systems provide several services that can require both professional and hospital billing, an integrity system that supports that variety of services and both types of coding are essential. Hospitals and health systems often have extremely large staff offices dedicated to coding, billing, and revenue cycles, making any process automation or process improvement extremely valuable. Accurate and powerful reporting and analytics are essential to providing both transparency into current states and to assisting in strategic planning. Some large networks or academic medical centers may have data scientists on staff with a direct interest in powerful analytic tools.

Most data resides within the EHR platform. Because hospitals are more likely to be using a large EHR platform with significant development resources, EHR vendors are the first stop for most hospitals or systems looking for revenue integrity tools or platforms. This helps to reduce costs and cut down on time spent doing integrations and implementations, and it reduces the conflict or complications of using multiple interlinked systems.

Non-Hospital Primary Care/Family Practice

Ambulatory practices have largely professional billing needs and little to no hospital billing, which changes their requirements when it comes to software. Staff often have a minimum amount of time to spend on additional activities, so complex software functions in a revenue integrity platform are generally less useful and tend to go unused. Turnover can also be high, making easy training and user interface/user experience design essential. Their payer mix is less likely to fluctuate than in a hospital setting, and they are less likely to be involved in VBC contracts. Users are likely to be filling multiple roles, making it essential that products include a strong set of pre-written reports on revenue integrity performance and for strategic planning.

Most practices have an EHR platform, but the number of potential options is broader, complicating integration and deployment. Their support and IT teams are likely to be limited or nonexistent. They are less likely to be interested in or capable of major workflow revisions or process improvements, and so a clear, immediate value proposition is essential.

Outpatient Ambulatory Specialty and Surgical

These groups can include independent physician associations (IPAs), large multispecialty outpatient centers, ASCs, oncology/infusion centers, post-acute care settings, SNFs, labs, and imaging centers. They generally have fewer professional billing needs and more need for hospital billing. They tend to have more administrative staff available and more resources, and they may be participating in setting-specific value-based contracts such as the Oncology Care Model, changing their focus from strict FFS needs toward more interest in products that can assist in both FFS billing and VBC components.

These groups are likely to have a specialty EHR and practice management system. These tend to have fewer resources for broad external development, and so they may be more interested in powerful outside tools.

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Appendix A: Scope and Methodology

To compile this report, Chilmark Research combined extensive primary and secondary research techniques to create a composite profile for each vendor, the markets covered, and projections for those markets going forward. Primary vendor research was divided into two distinct steps, beginning with soliciting targeted vendors for their involvement in the research.

We asked participating vendors to complete a detailed questionnaire, with the goal of collecting quantitative and qualitative information about the company, its products, and the markets it serves. Questions included annual revenue, number of live customers and users, supported specialties, the amount of revenue clients process through the product, supported clearinghouses and other data sources, and more in-depth questions about solution features, design, and function.

After receiving the questionnaire, we conducted a follow-up interview with each vendor. These in-depth interviews generally lasted 60 – 90 minutes and included product demonstrations, user experiences, and more detail and clarification of responses on the questionnaire. This portion of the research also focused on areas that cannot be captured in a written questionnaire, including competitive positioning, product roadmaps, partnership strategy, and customer reactions to different product features.

Chilmark Research performed a final analysis of vendors via secondary research and interviews with healthcare organizations, customers, and consultants who have advised on, deployed, or used products within this space. This information was compiled to provide the market analysis, reviews, and ratings of the profiled vendors. Prior to publication, all vendors were given an opportunity to review their profile narratives for fact checking. Their comments and feedback were considered and when relevant were incorporated into the final profiles.

In compiling this extensive report, Chilmark Research maintained absolute objectivity throughout the entire research process. No payments or incentives for inclusion or ratings were received by any vendors contacted for the report. It is our sincere hope that this report brings greater clarity to this developing market.

Appendix B: Acronyms Used

Term	Definition
ADT	Admission, Discharge, and Transfer
AI	Artificial Intelligence
APC	Ambulatory Payment Classification
AR	Accounts Recievable
ASC	Ambulatory Surgical Center
AWS	Amazon Web Services
CAC	Computer-Assisted Coding
CAGR	Compound Annual Growth Rate
CAQH	Council for Affordable Quality Healthcare
CARC	Claims Adjustment Reason Code
CDI	Clinical Documentation Improvement
CDS	Clinical Decision Support
CMS	Centers for Medicare and Medicaid Services
COVID-19	Coronavirus Disease- 2019
CPT	Current Procedural Terminology
CRG	Clinical Risk Group
DRG	Diagnosis-Related Group
EDI	Electronic Data Interchange
EFT	Electronic Funds Transfer
EHR	Electronic Health Record
ERA	Electronic Remittance Advice
ETL	Extract, Transform, Load
FFS	Fee for Service
FHIR	Fast Healthcare Interoperability Resources
HAC	Hospital-Acquired Condition
HCC	Hierarchical Condition Category

Term	Definition
HCO	Healthcare Organization
HIM	Health Information Management
ICD	International Classification of Diseases
IPA	Independent Physician Association
IPO	Independent Practice Organization
IT	Information Technology
MAO	Medicare Advantage Organization
ML	Machine Learning
NASDAQ	National Association of Securities Dealers Automated Quotations
NLP	Natural Language Processing
NYSE	New York Stock Exchange
OCM	Oncology Care Model
PA	Prior Authorization
PEPPER	Program for Evaluating Payment Patterns Electronic Report
PM	Practice Management
QA	Quality Assurance
RAF	Risk Adjustment Factor
RARC	Remittance Advisory Remark Code
RCM	Revenue Cycle Management
RPA	Robotic Process Automation
SNF	Skilled Nursing Facility
SOAP	Subjective, Objective, Assessment, Plan
UI	User Interface
USPS	United States Postal Service
UX	User Experience
VBC	Value-Based Care

About the Author

Alex Lennox-Miller joined the Chilmark Research team in 2018, as a research analyst specializing in provider-payer convergence. His work focuses on value propositions for HCOs and payers, particularly in the implementation and potential use cases of analytic and workflow packages for clinical, administrative, and financial areas. From value-based payments and population health quality to revenue cycles and staff appointments, Alex believes that improved understanding and use of HIT is essential in providing the best possible care for patients, as well as improving the lives of clinical providers.

Before joining Chilmark, Alex was the senior business analyst for Process Improvement Operations in Lahey Health System, where he learned first-hand the challenges and value in implementing analytic programs and an analytic mindset in the healthcare setting. Prior to that, he was the founder of KSVL Consulting and specialized in providing accounting, finance, and business model consulting to start-ups and new businesses in Greater Boston. His background in process engineering and financial analysis comes from Northeastern University, where he earned his MBA in 2016.