



Financial Impact Analysis: A Window into the Business Impact of ICD-10

Health providers can determine the full financial consequences of the ICD-10 transition by using reimbursement analysis and financial sensitivity modeling.

Executive Summary

The ICD-10 transition will touch virtually every component of healthcare providers' administrative and clinical functions – from business processes, to people, to IT systems. This transition will affect not only clinical documentation but also payer reimbursements and cash flows.

ICD-10's impact on reimbursements remains a critical concern as providers analyze the financial implications of their transition to the new code set. (For more on this subject, see our white paper "[The ICD-10 Transition: Maintaining Financial Integrity](#).") However, focusing too narrowly on reimbursements may cause providers to miscalculate ICD-10's true financial consequences.

In this paper, we outline why it's crucial for providers to comprehend which operational processes are sensitive to ICD-10's financial effects, both positive and negative. Such knowledge can help providers mitigate cash flow issues, apply resources more wisely to new processes that generate savings and work more effectively with payers and service providers.

Why a Comprehensive Financial Impact Analysis Matters

Providers will encounter numerous challenges with the ICD-10 transition, including:

- Planning for the additional resources needed to support business processes.
- Training healthcare providers on the new, more specific codes.
- Estimating the financial impact of ICD-10 on reimbursements.
- Developing a customized strategy for contract negotiations with payers.
- Identifying the effects of ICD-10 on business operations.

The sooner that hospitals and health systems understand the financial effects of ICD-10, the better they can optimize their resource planning. Full comprehension requires providers to conduct a financial impact analysis with two distinct dimensions: Reimbursement analysis and financial sensitivity analysis (see Figure 1, next page). By conducting both types of analysis, health providers will achieve an accurate, multi-dimensional understanding of the effects of the ICD-10 transition.

Financial Impact Analysis Across Two Dimensions

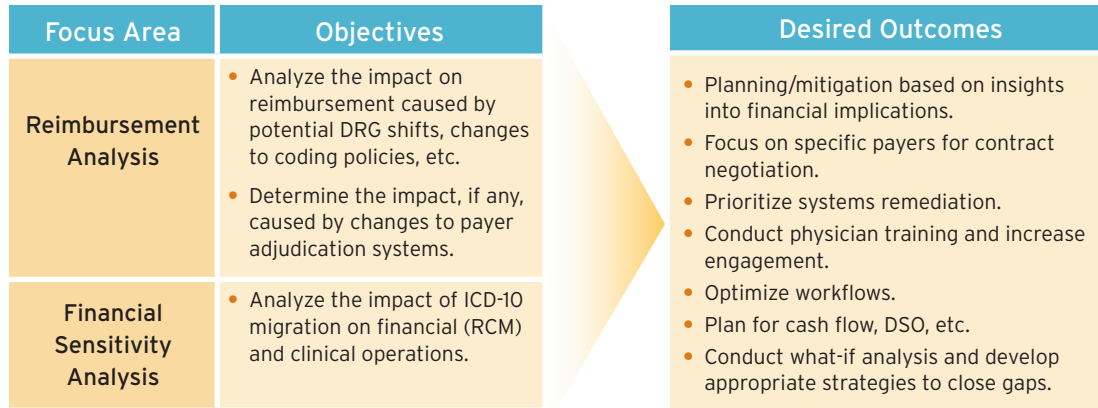


Figure 1

Reimbursement Analysis

Reimbursement analysis measures the impact of potential shifts in diagnostic related groups (DRG) and associated coding policies. Most hospital inpatient reimbursements are based on ICD-9 coding and patient classification systems, such as MS-DRG, APR-DRG, etc. These shifts fall into two categories:

- Clinically driven DRG shifts.** The ICD-10 DRG grouper classifies clinical conditions and procedures differently from the ICD-9 based grouper, causing a potential shift in DRGs. The exact impact of ICD-10 is difficult to pin down due to the black-box nature of DRGs and DRG groupers.
- Down-conversion-driven DRG shifts.** If the payer is using a legacy system and is planning to down-convert ICD-10 codes to ICD-9 without changing the adjudication system, then the resulting DRG may differ from that on which the provider is expecting payment to be based.

In order to maintain financial neutrality, it is critical to analyze the financial impact of these shifts.

Financial Sensitivity Analysis

A financial sensitivity analysis (FSA) captures the financial impact of ICD-10 requirements on people, processes and systems. This layer of analysis captures a financial cost/benefit dimension to ICD-10 that a reimbursement analysis cannot accomplish on its own (see Figure 2).

Financial Sensitivity Analysis: The ICD-10 Cascade Effect

Some of the cascading effects of ICD-10 are not well understood by providers. Many organizations expect that providers and coders that are less familiar with the new ICD-10 codes will code and generate claims more slowly. What is less common is providers and coders fully realizing just how many business processes that contribute to claims generation will be slowed by the advent of ICD-10. Further, few providers have assigned realistic financial costs to the delays caused by these additional processes.

In the case of growing accounts receivable (AR) and days sales outstanding (DSO) numbers, this slowdown actually begins with physicians and other clinicians as they document cases. ICD-10 codes require a greater specificity of detail and condition-specific information, such as "left knee" vs. simply "knee." Inexact notation will require medical records professionals to go back to physicians for clarification, introducing delays into the claims generation process.

Another potential source of delay in downstream operations is that ICD-10 code specificity will allow payer authorization processes to be more stringent. If a patient needs follow-on surgery on the left knee but has already had a replacement surgery, the payer is likely to query whether the new surgery is due to provider error or a new injury. Answering such queries, as well as patient questions about authorizations, will add still more time to the overall claims adjudication sequence.

Financial Impact Analysis: A Comprehensive Approach

Mitigating the financial impact of ICD-10 will require iterative runs of RA and FSA, interspersed with process and technology remediation.

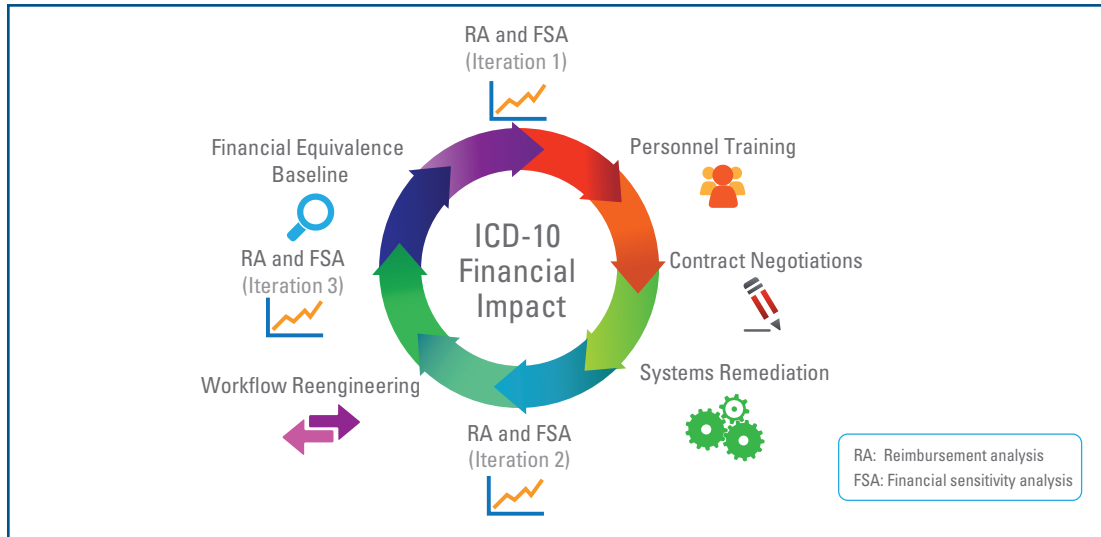


Figure 2

These authorization, documentation and submission processes are thus “financially sensitive” to ICD-10. By including these affected operations in the financial modeling for FSA, the provider can generate a cost impact analysis that more accurately reflects the degree to which AR will vary over a three-year period than could be achieved by examining the claims processing function in isolation.

Similarly, industry projections indicate a 10% increase in delayed reimbursements. Factoring in estimates for the cascading effects from financially sensitive operations may increase that to 20% to 30%. Most providers that have completed the recommended FSA modeling iterations will be better able to handle an increase in DSO during 2014, the first year of ICD-10 use. The FSA will help providers identify the levers that might contribute to DSO and develop mitigation plans.

Other financial levers (see sidebar, page 5) that can be used to estimate the financial impact include:

- **Training.** Financial costs include not only the coding training itself but also:
 - Coders’ time away from their regular tasks due to training and practicing ICD-10 via dual-coding of claims.
 - Backfill of employees to cover projected declines in productivity. (Note that productiv-

ity can start to drop even before ICD-10 has been implemented).

- **Talent retention.** Trained ICD-10 coders are in demand, so providers are offering bonuses to newly trained professionals to ensure they stay with their organization past the compliance deadline. This is another cost that is rarely factored into ICD-10’s impact on operations.
- **Customer service.** More patients are expected to contact providers with questions about pre-authorizations, outstanding claims, denials, reimbursement rates, etc. Individual service representatives may spend more time on each call, reducing overall department productivity.

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A Window into the Future

Financial modeling via FSA uses estimates to put these operational effects into financial terms. The model spans three fiscal years, looking at current impacts through processes being stabilized after the ICD-10 transition. By using these numbers, providers can get a glimpse into the future and start planning and preparing for mitigating financial consequences (see Figure 3, next page).

FSA Yields True Business Impact

Financial sensitivity analysis provides an assessment of ICD-10's cost/revenue impacts across the entire organization.

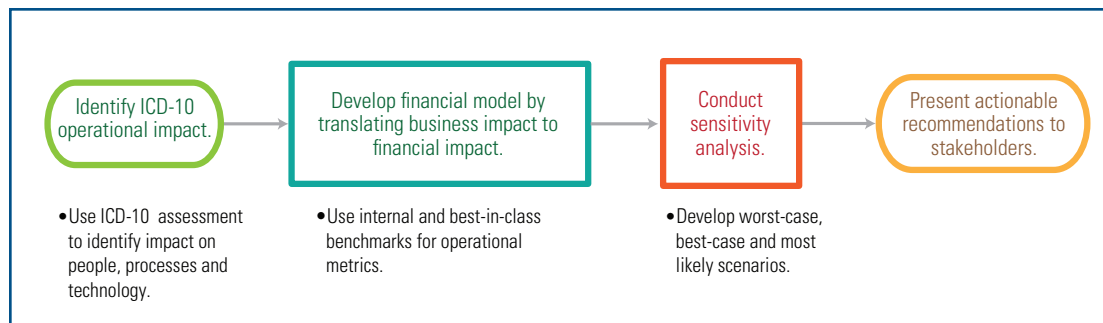


Figure 3

In some cases, FSA highlights instances where new business processes rolled out at provider facilities are generating savings. In these cases, providers may decide to roll out processes more quickly than originally planned. Similarly, financial modeling may indicate operational areas that will require immediate remediation or that can operate as usual, at least in the short term, because the cost of training and productivity would outweigh benefits.

RA and FSA can also generate data that providers may use with payers, bankers and vendors. If a single payer is responsible for a majority of a provider's reimbursements, and the model indicates a substantial slowdown in payments, the provider can use this data to work with the payer to identify and address process and systems problems.

Reimbursement Before Introspection

Providers must analyze their own specific data rather than generic data to accurately estimate the effects of the ICD-10 conversion because of the differences in case mix, data incongruities, coding practices, clinical documentation and reimbursement terms.

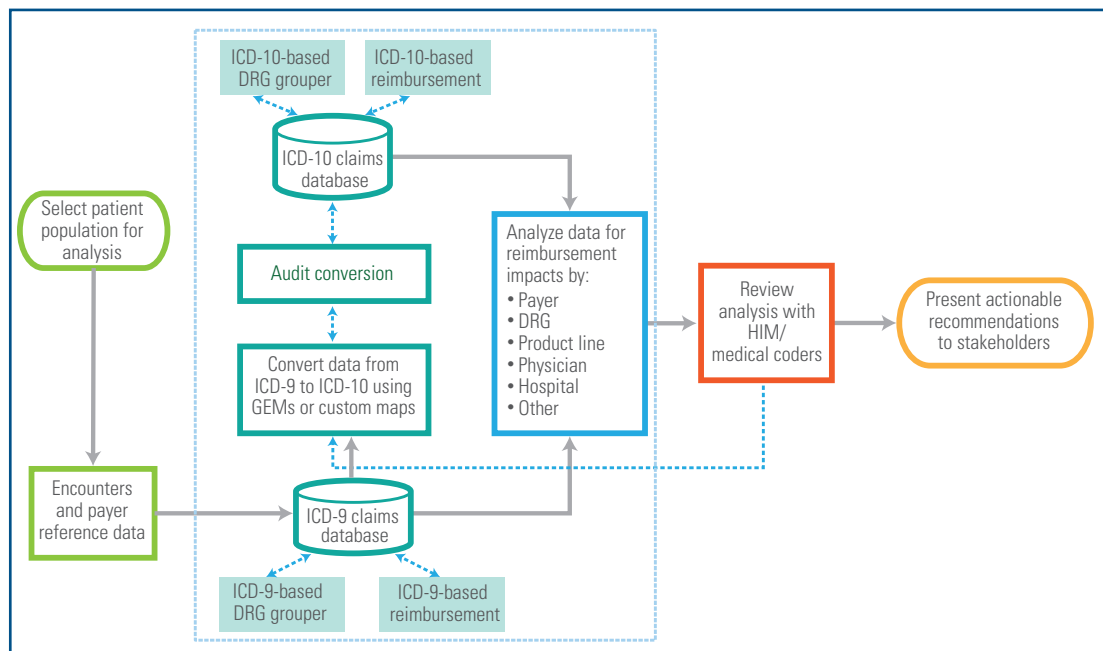


Figure 4

Quick Take

Financial Sensitivity Levers

Financial sensitivity modeling is based on the underlying levers for each functional area.

Care Delivery

- Advance beneficiary notice of noncoverage
- Provider ICD-10 impact
- Ancillary service impact
- Order sets

Patient Access

- Benefit verification
- Prior authorization
- Clinical documentation improvement

Collections

- Government collections
- Commercial payer collections

Accounts Receivable

- Patient collections
- Other accounts receivable
- Customer service
- Call volume
- Call resolution time
- In-person queries

Reimbursements

- Claims resolution
- Write-offs
- No-authorization denials
- Biller training and staffing
- Denial management

Enterprise Initiatives

- Process reengineering
- New/upgraded systems

Charge Capture

- Coder productivity (professional and hospital)
- Coder compensation
- Coder training
- CAC software
- Physician queries

Armed with knowledge of slow cash flows, providers can work with financial service providers to secure lines of credit and with vendors and other service providers to adapt payment schedules.

Reimbursement Analysis: DRG Shifts

In addition to understanding financially sensitive operations, it is also critical to assess ICD-10's impact on reimbursements through the potential changes to DRGs. The key finding here is the comparison of potential ICD-10 DRG-based reimbursements with current ICD-9 reimbursements (see Figure 4).

The first step is to determine which encounters to analyze for potential DRG and payment variance, typically trailing 12 months of discharged and final billed patients.

The ICD-9 procedures and diagnosis codes must be converted to ICD-10-relevant codes using customized versions of the forward and backward general equivalence maps (GEMs) provided by CMS. A critical part of this conversion is the algorithm because the grouper classification is a black-box process.

We recommend the use of an automated tool for converting ICD-9 claims to ICD-10, as it can provide better management of the data, including the ability to run custom rules to support the conversion algorithm. Relying on a straight conversion from ICD-9 to ICD-10 can cause virtual shifts because of how the grouper handles the ICD-10-based codes. One way to minimize the impact of these shifts is to develop a "confidence interval" associated with each ICD-9 to ICD-10 transformation.

To assign confidence intervals, providers must:

- **Establish a process to evaluate each conversion.** This is especially relevant when the GEM doesn't have a clear one-to-one choice but offers multiple choices or requires a cluster.
- **Put in place a manual audit process that reviews conversion transactions that meet a certain threshold value for the confidence interval.** Coders should complete the conversion manually and check the response against the one generated by the tool.

Once the ICD-10 database is created from the selected encounters/claims data, DRGs can be determined by feeding this data to the Centers for Medicaid and Medicare Services' ICD-10 compliant grouper. After the DRG is determined, reimbursements can be computed by using rate tables specific to the payer (commercial, Medicare, etc.).

If a hospital's billing software is updated to support ICD-10 and the contracts are updated, then the provider may be able to compute more accurate reimbursement projections by using the converted ICD-10 data. Otherwise, the provider can compute the DRG portion alone by using appropriate rate tables.

After determining the reimbursement, the data can be analyzed for DRG shifts and payment variation by payer, plan, major diagnostic category and service lines, etc. By analyzing this data, hospitals can identify specific areas of risk, such as issues with individual payers, DRGs or procedures, and develop mitigation plans.

Keys to Developing a Useful Financial Model

In addition to including a wide range of financially sensitive business and care operations, providers that successfully model ICD-10's financial impact will understand the following:

- **Financial impact analysis is an iterative process.** FIA is not a "one and done" project. It must be repeated over time, as more data is collected and processes change.

- **Accuracy improves over time.** The financial modeling is based on estimates that can be refined by actual performance data as it is generated. The model essentially gets smarter as its inputs become more accurate.
- **The process is customized.** Each provider institution will see different modeling results based on case mix, claims volume, payer mix and level of process automation. Generic models will not provide accurate provider-specific results.
- **Modeling is hands-on.** A successful model must incorporate business goals based on interviews with key professionals, observations of processes and understanding of the provider's unique situation.

Addressing ICD-10's Financial Implications Today

ICD-10 can help the healthcare industry and individual providers collect more granular data about patient populations and spark innovations about how to address their health and wellness issues. Achieving these broader benefits of ICD-10 will depend in part on how effectively providers manage the financial consequences of the transition.

Models that include the cascading effects of ICD-10 throughout the provider organization will more accurately assess the financial effects than those that narrowly focus on reimbursements. Providers with a broader, more informed perspective about their specific ICD-10 transition costs and benefits will be empowered to take steps now to manage and mitigate anticipated financial effects. Such preparation today will free providers to focus on the many other challenges and opportunities certain to arise as they transition to ICD-10 code set use.

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Cognizant's Healthcare Practice delivers deep domain consulting knowledge, information technology-driven leadership and business process services supported by more than 30,000 healthcare industry professionals. We help healthcare organizations understand the impacts of reform, address regulatory mandates, manage costs, navigate risk and grow profitably while positioning for the future. Consistently ranked among the Healthcare Informatics Top 100 (ranked #6 in 2011 and 2012), we support leading healthcare organizations worldwide with our integrated, end-to-end services and solutions, including 16 of the top 20 U.S. health plans, five out of six PBMs, leading care delivery organizations and intermediaries.

Cognizant's ICD-10 Solution

Migrating to the ICD-10 code set brings both short-term operational challenges and long-term opportunities to healthcare organizations. Cognizant helps healthcare organizations gain a 360-degree view of their business and understand the organizational impacts of ICD-10, from assessment, remediation and testing, through roll-out, post-compliance monitoring and optimization. Whether you require a strategy for end-to-end transition or for a specific aspect of migrating to ICD-10, Cognizant offers the full range of industry consulting expertise, tools and implementation experience to ensure a smooth ICD-10 transition.

About Cognizant

Cognizant (NASDAQ: CTSI) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 50 delivery centers worldwide and approximately 164,300 employees as of June 30, 2013, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world. Visit us online at www.cognizant.com or follow us on Twitter: Cognizant.



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