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# ICD-10 Implementation for Health Care Providers: The business imperative for compliance

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# Introduction

A January 2009 Department of Health and Human Services (HHS) final ruling states that health care providers and other entities using ICD-9 diagnosis and procedure codes must convert from using ICD-9 to ICD-10 on October 1, 2013. Since ICD-9 codes are interwoven throughout clinical and financial operations and systems, Deloitte[1] expects the size and scope of ICD-10 implementation to be complex, time-intensive and costly. Adding to the challenge is a regulatory mandate to provide the electronic infrastructure to accept ICD-10 codes – the move from the X12 Version 4010 standard for electronic transactions to the 5010 standard (Figure 1).

Although implementing ICD-10 will be difficult, there are substantial benefit opportunities that will be available to health care providers across five major categories:

- **Quality Measurement** – Data availability to assess quality standards, patient safety goals, mandates and compliance
- **Public Health** – Improved disease reporting and outbreak data/information
- **Research** – Detailed data mining capabilities for increased analysis of diagnosis, treatment efficacy, prevention, etc.
- **Organizational Monitoring and Performance** – Enhanced ability to differentiate payment based on performance and to identify and resolve issues impacting patient care and safety
- **Reimbursement** – More accurate claims, fewer denials and underpayments, more efficiency in the billing and reimbursement process, and the ability to differentiate reimbursement based on patient acuity, complexity and outcomes

While acknowledging the regulatory change mandated with ICD-10 implementation, we are hearing providers ask, "How do I assess ICD-10's impact and reduce implementation risk to the organization, while optimizing the long-term benefits from ICD-10 implementation?"

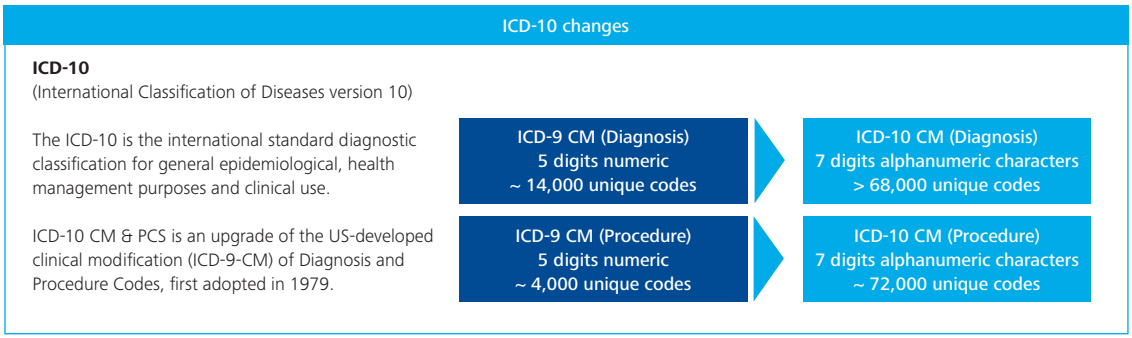
## Code expansion and complexity

ICD-9, published by the World Health Organization in 1977, no longer adequately reflects advances in disease detection and treatment, such as biomedical informatics, genetic research and international data-sharing. ICD-10, developed in 1992, is a full replacement code set utilizing new taxonomies to provide greater detail and granularity when coding diagnoses and inpatient hospital procedures; it explodes the original volume of approximately 18,000 codes to over 140,000 and also changes the underlying structure of the codes (Figure 2, next page).

**Figure 1. ICD-10/5010 Regulatory Mandates**

| What | Change | When | Driver |
|---|---|---|---|
| HIPPA 5010 | Upgrade of the formats used to send transactions between payors and providers (837,278, etc.) | **January 1, 2012** Compliance date for 5010 implementation | **Federal Mandate** Department of Health and Human Services Final Rule CMS-0013-F Published January 2009 |
| ICD-10 | Upgrade of the codes used to describe diagnoses and procedures on clinical transactions (claims, etc.) | **October 1, 2013** Compliance date for ICD-10 implementation | |

**Figure 2. ICD-10 Code Changes**

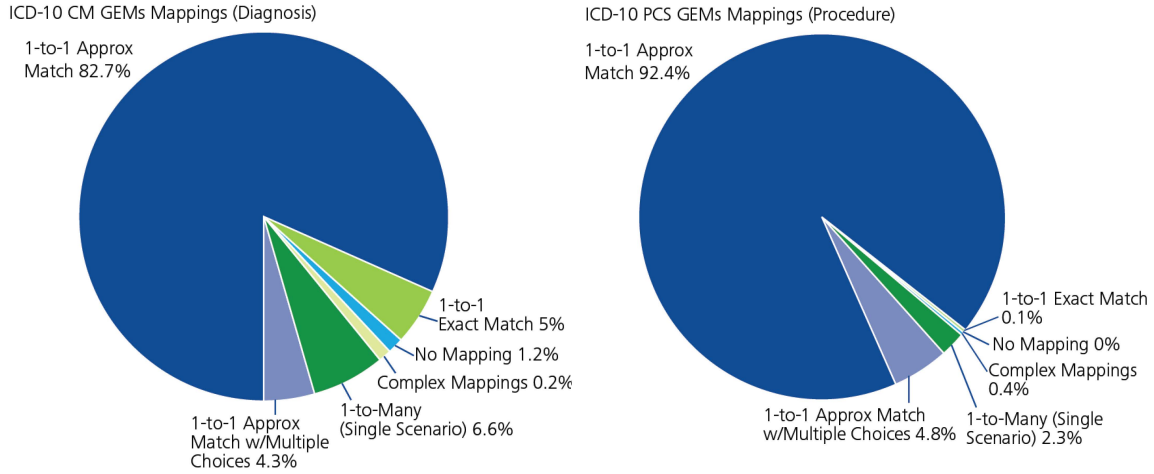





Further, the changes in ICD codes and structure will complicate any attempts to map codes between ICD-9 and ICD-10 and afford very little one-to-one matching. Although CMS has developed General Equivalent Mapping (GEMs) between ICD-9 and ICD-10 codes, based on Deloitte's analysis, only five percent of the codes provide a direct one-to-one match (Figure 3).[2]

Our experience with health plans has revealed inconsistencies in their abilities to directly match ICD-9 to ICD-10 codes. Some health plans have experienced a high match rate with reimbursement; others have not. Each health plan has needed to undertake its own personal review of mappings against medical policy, claims edits, reimbursement methods, and provider contract to understand the impact to their business processes and systems. Additionally, health plans are considering the impact to their trading partners, especially providers. Accordingly, providers should be prepared to have collaborative discussions with their payors regarding the terms and conditions of their contracts. A key input to these discussions will be a deep understanding of the ICD-10 code set and how it compares and maps to ICD-9. This will be important to keeping revenue and reimbursement flowing without aberration or issue.

**Figure 3. ICD-10 to ICD-9 Mappings**




[2] Data for GEMS breakdown is based on WEDI ICD-10 Audiocast given on 9/1/09. These numbers may have changed slightly with the January 2010 CMS GEMS update.

# Potential implementation cost and impact

While the potential benefits of ICD-10 implementation are substantial, achieving them will require health care providers to make hard choices around capital investments and operating budgets. The Rand Institute estimates implementation will cost health care providers between $425 million and $1.15 billion total, plus $5 million to $40 million a year in lost productivity (with an additional $20 million to $170 million in costs if codes are switched sequentially).

The potential impact of ICD-10 to health care providers includes multiple system upgrades and testing cycles, increased human capital needs, significant training, increased claim denials, delayed payment, lost or reduced reimbursement and impacts to cash flow, and more complex financial reporting. Specific considerations include:

- **Hospitals likely will have to upgrade multiple Information Technology (IT) systems to support the conversion from ICD-9 to ICD-10.** Because of ICD-10's complex code structures, implementing associated changes in electronic health records, billing systems, reporting packages and other decision-making and analytical systems will require either major upgrades of multiple systems or outright replacement of older systems. The transition will likely necessitate significant capital cost outlays and increased staffing to map and load codes, revise system interfaces, develop new reports, map dual coding systems, and retrain users. System changes will impact nurses, physicians, patient financial services and finance, case management, researchers, administrators and other staff.
- **ICD-10 adoption may require significant technology changes for providers' IT vendors, trading partners, external reporting entities and third-party payors.** All systems and external organizations accepting or reporting diagnostic and procedure codes will require modification and the ability to run dual-processing solutions. Significant testing, crosswalk analysis, report development and data aggregation across time periods will be essential to prepare for the ICD-10 transition.
- **Productivity loss is anticipated in the functional areas that use ICD-9 codes on a routine basis.** The greatest impacts likely will be to health information management/coding, case management, claims processing and follow-up (electronic billing system), researchers and decision support. Also, there may be an increased number of claims denials due to poor understanding of new code sets and coding requirements. Providers must prepare for this productivity reduction to prevent negative impacts to reimbursement and cash flow.
- **Training programs on new/revised clinical documentation requirements and coding nomenclature should be developed for coders, medical staff, nurses and allied health providers (e.g., respiratory, physical and occupational therapists).** Early training (we recommend at least two years prior to implementation) will lessen productivity impacts associated with a learning curve. Training may need to include anatomy and physiology courses, detailed clinical documentation requirements, practice coding experience with real-time feedback, and general awareness sessions for staff currently using ICD-9 data.
- **Physician practices may face financial and operational burdens from ICD-10 implementation and other technological requirements.** Some physician practices, especially smaller ones, could have outdated practice management systems and may need to purchase entirely new software. Also, most physician practices do not employ coders; typically, administrative staff and physicians are responsible for ICD-10 code assignment, potentially increasing the risk of coding errors.
- **The move from ICD-9 to ICD-10 diagnosis and procedure codes raises Protected Health Information (PHI) security and privacy risks.** Among potential impact areas, existing regulations such as HIPAA, 21 CFR Part 11, etc., could be affected by code changes and access to sensitive data may not be properly restricted due to multiple unit and integration testing cycles.
- **ICD-10 supports health reform measures.** As part of recent reform efforts related to administrative simplification, clinical effectiveness, and quality-based payments, ICD-10 becomes essential to accurate research information, billing and outcomes analysis.

# ICD-10 assessment planning

Currently, CMS has indicated no plans to change or delay the October 1, 2013, implementation date. In the short term, health care providers should assemble a multi-disciplinary team and conduct an initial ICD-10 readiness assessment of their organization, as well as develop a roadmap for implementation (Figure 4).

## Assessing ICD-10's impact on operations, finance and technology

Because of ICD-10's complex and pervasive nature, health care providers should assess its potential impact on operations, finance and technology to determine the magnitude of work that will be required to achieve implementation and compliance (Figure 5). A detailed functional assessment should produce a clearer understanding of a provider's current state, identify specific gaps in operational and technical capabilities, and provide a roadmap for remediating those gaps within the time frame mandated by CMS and/or required by other business needs (e.g., trading partner timeframes).

**Figure 4. ICD-10 Readiness Assessment Process**

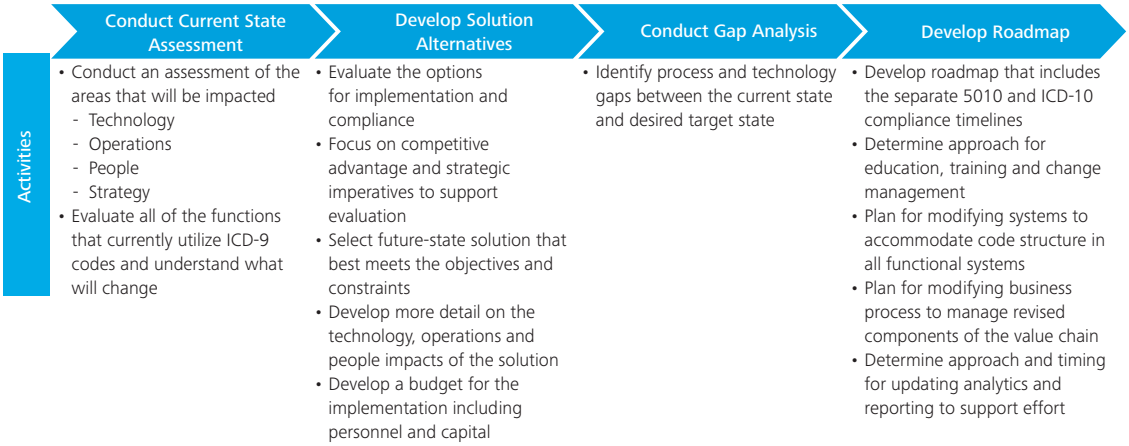
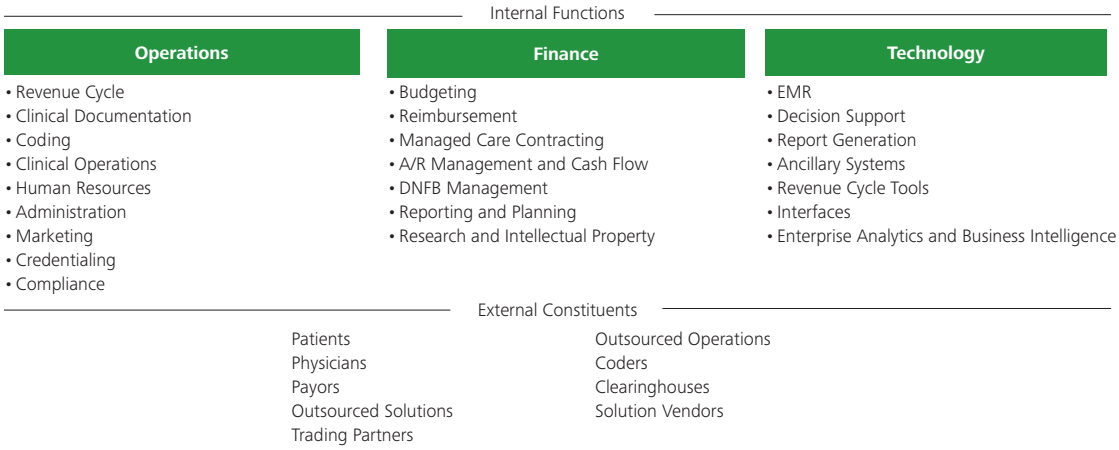





**Figure 5. ICD-10 Assessment Areas**



### Operations

An operational assessment should focus on ICD-10's potential risks and impacts to a health care provider's functional processes such as clinical operations (e.g., nursing services, case management, utilization management, clinical documentation excellence programs); revenue cycle operations (e.g., scheduling, pre-registration/registration, medical necessity, healthcare information management [HIM], coding, claim submission, account follow-up, managed care compliance), and administrative operations (e.g., marketing/strategic planning, credentialing, research, grant administration). This broad-based operational assessment should assist providers in determining the organization's current level of ICD-10 readiness and awareness, and whether initiatives such as clinical documentation excellence programs and coder education programs geared toward ICD-10 are under way. Specifically, the assessment should answer the following questions:

- What functional areas are impacted in terms of people, process and technology?
- What information systems and tools are used by each functional area that is dependent upon ICD-9 codes?
- What is the extent of change required to achieve implementation and compliance at the process and procedure level?
- How will implementation and compliance gaps be prioritized for remediation?
- How can the organization achieve compliance and attain strategic benefits?
- Who in the organization is "on point" for managing the ICD-10 implementation?
- What additional resource(s) might be needed to support implementation and post go-live activities?
- What risk identification, monitoring and response plans need to be developed for ICD-10 implementation?

### Finance

The transition from ICD-9 to ICD-10 presents health care providers with a number of financial opportunities and risks, both during the transition period and over the long term. A financial assessment should be conducted to identify specific risk and impact areas to financial performance, working capital and financial reporting. Further, the assessment should evaluate the readiness of the finance organization to anticipate and manage these impacts. It should review a variety of activities and capabilities, including payor contracting and reimbursement, hospital rate setting, short- and long-term changes to cash flow stemming from longer processing times (both internally and with trading partners), financial reserves and financial reporting. In addition, the assessment should be used to identify inputs and document assumptions for capital and operational budget planning as a result of information system replacement/upgrades, additional staffing resources, and staff education and training needs. Specifically, the assessment should answer the following questions:

- What managed care contracts will need to be renegotiated; how will the organization monitor contract compliance and track reimbursement for accuracy?
- What will be the impact to accounts receivable and cash flow?
- What will be the impact to financial reserves and working capital?
- How will dual payment processing under ICD-9 and ICD-10 impact financial reporting?
- How will ICD-10 impact grant and other research funding?
- What financial resources, in terms of capital and operational dollars, are required to implement ICD-10?

### Technology

A significant amount of assessment, remediation planning and effort will be required to prepare the technology components of ICD-10 implementation. For some providers, remediating a home-grown, legacy clinical or revenue cycle IT system could prove to be extremely difficult, costly and risky. In these cases, ICD-10 implementation, combined with requirements from The American Recovery and Reinvestment Act (ARRA) of 2009 and the Health Information Technology for Economic and Clinical Health Act (HITECH) of 2009, as well as other operational needs, creates an imperative to adjust priorities and timing for an enterprise-wide IT strategy.

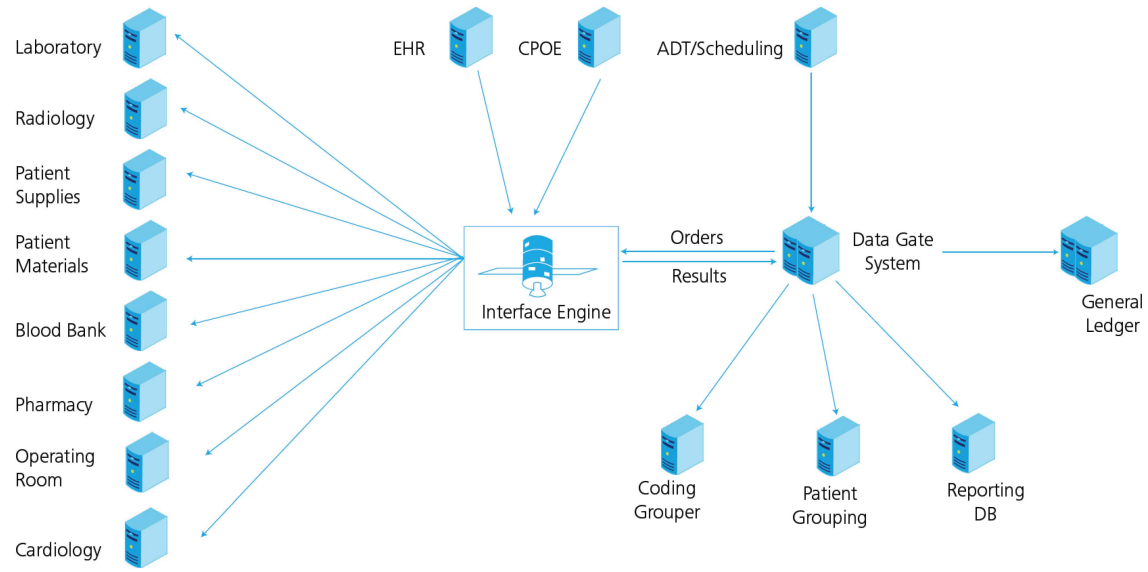
Another major consideration of ICD-10 implementation is the potential impact on clinicians using an Electronic Health Record (EHR), since they will need to select a more specific diagnosis, either on paper or in a clinical system. To address this significant concern, providers should include the use of new "intelligent translational" or "natural language interpretation" technologies in their ICD-10 planning.

Under any scenario, conducting an encompassing technology impact assessment is essential to determine what systems and databases contain ICD-9 data and establish plans and priorities for moving them to ICD-10. Systems and areas that need to be assessed span the clinical and financial spectrum (Figure 6)

Specifically, the ICD-10 technology assessment should answer the following questions:

- What applications, databases, interoperability feeds, and reporting are impacted by ICD-10?
- How pervasive/invasive is the impact of ICD-10?
- Will the ICD-10 change be vendor-supported or require in-house changes?
- For vendor-supported systems, is there an acceptable upgrade/remediation path, or will the systems need to be replaced?
- What are the vendor-related and internal actions required to prepare for and conduct the migration?
- What is the estimated timeline, level of effort and anticipated costs?
- What staffing resources are needed to support multiple replacements/upgrades?
- How will the IT department sequence system replacements/upgrades and conduct unit and integration testing?

**Figure 6. Technology Systems Potentially Impacted by ICD-10**



# ICD-10 implementation roadmap

A broad-based operational, financial and technology assessment should yield valuable information needed by health care providers to develop their ICD-10 implementation roadmap.

At a minimum, this roadmap should include the following:

- **Overall Risk and Impact Readiness Assessment:** An analysis that includes people, process and technology risk/impacts by functional area; overall readiness score; and critical areas to address in the project plan.
- **Integrated, Resource-Load Project Plan:** Detailed project plan at the work breakdown-structure level that documents people, process, and technology streams; timeframes; resources types; and estimated level of effort. In addition, the project plan should address a robust communication and risk management plan.
- **Program Budget:** Identification of capital costs, one-time costs, and recurring costs by functional area; documented budget assumptions.

An implementation roadmap can provide the needed rigor and discipline to effectively manage ICD-10 implementation. Due to the magnitude and invasive nature of changes required, health care providers should start their ICD-10 readiness assessment process as soon as possible.

**Parallel processing**

Health care providers likely will need the capacity to operate under both an ICD-9 and ICD-10 environment for an extended period of time for a variety of reasons, including: 1) All discharges processed on or after October 1, 2013, will be coded and claims submitted using ICD-10 codes. 2) Active accounts receivable and other important hospital information collected prior to October 1, 2013, will need to be processed using ICD-9 codes. 3) Academic medical centers and other institutions with grants and research that used ICD-9 codes will find little or no matching between these and the ICD-10 codes. 4) Not all payors are expected to accept ICD-10 codes as of October 1, 2013.

In the past, health care providers have navigated through a number of significant regulatory and technology changes: Y2K, the introduction of outpatient APC reimbursement, migration to UB04 and MS-DRG reimbursement, to name but a few. However, we believe the migration from ICD-9 to ICD-10 will have more significant impacts to people, processes and technology than previous changes.

# Moving forward to achieve ICD-10 benefits

Although implementing ICD-10 will be difficult, time-consuming and costly, developing a detailed plan and executing an ICD-10 implementation roadmap can assist providers in their efforts to realize substantial benefits, such as:

- Improved claims adjudication and provider reimbursement rates between provider and health plans due to appropriate payments for new procedures, and fewer miscoded and rejected claims due to greater specificity in ICD-10 codes.
- Provision of higher-quality data due to improved medical coding accuracy and granularity.
- Improved utilization management by the appropriate application of ICD-10-CM/PCS codes, which leads to increasing efficiency in the exchange of patient profile information, treatments across the care process and hospital resource management.
- Enhanced efficiency of granular drug data to improve patient care and safety by observing usage trends and analysis of harmful side effects.
- Expanded use of data granularity for diagnosis, procedure and case mix groups (CMGs) to profile a patient's condition or track length of stay related to improving utilization management.
- Improved patient safety and care from sharing among health plans, providers and life sciences companies the ICD-10 data related to drug side effects and usage.
- Improved clinical documentation and coding accuracy to enhance the assessment and monitoring of patient safety and quality indicators, as well as compliance with third-party payor coding and billing rules and regulations.
- Increased cost savings through effective infrastructure planning. Cost savings can be realized by correctly predicting resource utilization, appropriate use of site of service and improved care delivery team communication.
- Provision of higher specificity of coded clinical data in payor contracting to obtain appropriate reimbursement, improved outcome management and monitoring of key revenue cycle effectiveness indicators (re-admission rates, medical necessity screenings, etc.).
- Reduction in adverse impacts to revenue cycle performance with advanced training and preparations for ICD-10 Health Information Management coder training and delivery.

The transition to ICD-10 appears formidable; however, for those providers that assess, understand and plan for its potential impacts, ICD-10 should produce a richer body of diagnosis and procedure data to help provide better trend analysis, a more detailed understanding of costs and benefits, and an ability to more precisely understand the effectiveness of managing care across the continuum.

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