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ICD-10

Official CMS Industry Resources for the ICD-10 Transition

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ICD-10 Implementation Guide for Payers

Please note the dates in this implementation guide are based on an October 1, 2013, deadline, which HHS has extended to October 1, 2014.

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

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1 Introduction to ICD-10

Introduction to ICD-10

On October 1, 2013 a key element of the data foundation of the United States' health care system will undergo a major transformation. We will transition from the decades-old Ninth Edition of the International Classification of Diseases (ICD-9) set of diagnosis and inpatient procedure codes to the far more contemporary, vastly larger, and much more detailed Tenth Edition of those code sets—or ICD-10—used by most developed countries throughout the world.

This transition will have a major impact on anyone who uses health care information that contains a diagnosis and/or inpatient procedure code, including:

- Hospitals
- Health care practitioners and institutions
- Health insurers and other third-party payers
- Electronic transaction clearinghouses
- Hardware and software manufacturers and vendors
- Billing and practice management service providers
- Health care administrative and oversight agencies
- Public and private health care research institutions

Making the transition to ICD-10 is not optional.

All "covered entities"—as defined by the Health Insurance Portability and Accountability Act of 1996 (HIPAA)—are required to adopt ICD-10 codes for use in all HIPAA transactions with dates of service on or after the October 1, 2013 compliance date. For HIPAA inpatient claims, ICD-10 diagnosis and procedure codes are required for all inpatient stays with discharge dates on or after October 1, 2013.

Please note that the transition to ICD-10 does not directly affect provider use of the Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) codes.

About Version 5010

To process ICD-10 claims or other transactions, providers, payers, and vendors must first implement the "Version 5010" electronic health care transaction standards mandated by HIPAA. The existing HIPAA "Version 4010/4010A1" transaction standards do not support the use of the ICD-10 codes.

Everyone covered by HIPAA must install Version 5010 in their practice management or other billing systems and test with all payers and trading partners by January 1, 2012. It is important to know that though 5010 transactions will be in use before October 1, 2013, covered entities are not to use the ICD-10 codes in production (outside of a testing environment) prior to that date.

Please note: your organization must coordinate the Version 5010 and ICD-10 implementations to identify affected transactions and systems. For more information on Version 5010, go to the CMS website at **www.cms.gov/ICD10** and click on "Version 5010" on the menu on the left side of the page.

2 About ICD-10

About ICD-10

The World Health Organization (WHO) publishes the International Classification of Diseases (ICD) code set, which defines diseases, signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease. The ICD-10 is copyrighted by the WHO (http://www.who.int/whosis/icd10/index.html). The WHO authorized a US adaptation of the code set for government purposes. As agreed, all modifications to the ICD-10 must conform to WHO conventions for the ICD.

Currently, the United States uses the ICD code set, Ninth Edition (ICD-9), originally published in 1977, in the following forms:

- ICD-9-CM (Clinical Modification), used in all health care settings
- ICD-9-PCS (Procedure Coding System), used only in inpatient hospital settings

In 1990, the WHO updated its international version of the ICD-10 (Tenth Edition, Clinical Modification) code set for mortality reporting. Other countries began adopting ICD-10 in 1994, but the United States only partially adopted ICD-10 in 1999 for mortality reporting.

The National Center for Health Statistics (NCHS), the federal agency responsible for the United States' use of ICD-10, developed ICD-10-CM, a clinical modification of the classification for morbidity reporting purposes, to replace our ICD-9-CM codes, Volumes 1 and 2. The NCHS developed ICD-10-CM following a thorough evaluation by a technical advisory panel and extensive consultation with physician groups, clinical coders, and others to ensure clinical accuracy and usefulness.

3 Limitations of ICD-9

Limitations of ICD-9

ICD-9 has several limitations that prevent complete and precise coding and billing of health conditions and treatments, including:

- The 30-year-old code set contains outdated terminology and is inconsistent with current medical practice.
- The code length and alphanumeric structure limit the number of new codes that can be created, and many ICD-9 categories are already full.
- The codes themselves lack specificity and detail to support the following:
  - — Accurate anatomical descriptions
  - — Differentiation of risk and severity
  - — Key parameters to differentiate disease manifestations
  - — Optimal claim reimbursement
  - — Value-based purchasing methodologies
- The lack of detail limits the ability of payers and others to analyze information such as health care utilization, costs and outcomes, resource use and allocation, and performance measurement.
- The codes do not provide the level of detail necessary to further streamline automated claim processing, which would result in fewer payer-physician inquiries and potential claim payment delays or denials.

ICD-9-CM limits operations, reporting, and analytics processes because it:

- Follows a 1970s outdated medical coding system
- Lacks clinical specificity to process claims and reimbursement accurately
- Fails to capture detailed health care data analytics
- Limits the characters available (3-5) to account for complexity and severity

4 Benefits of ICD-10

Benefits of ICD-10

By contrast, ICD-10 provides more specific data than ICD-9 and better reflects current medical practice. The added detail embedded within ICD-10 codes informs health care providers and health plans of patient incidence and history, which improves the effectiveness of case management and care coordination functions. Accurate coding also reduces the volume of claims rejected due to ambiguity. Here the new code sets will:

- Improve operational processes across the health care industry by classifying detail within codes to accurately process payments and reimbursements.
- Update the terminology and disease classifications to be consistent with current clinical practice and medical and technological advances.
- Increase flexibility for future updates as necessary.
- Enhance coding accuracy and specificity to classify anatomic site, etiology, and severity.
- Support refined reimbursement models to provide equitable payment for more complex conditions.
- Streamline payment operations by allowing for greater automation and fewer payer-physician inquiries, decreasing delays and inappropriate denials.
- Provide more detailed data to better analyze disease patterns and track and respond to public health outbreaks.
- Provide opportunities to develop and implement new pricing and reimbursement structures including fee schedules and hospital and ancillary pricing scenarios based on greater diagnostic specificity.
- Provide payers, program integrity contractors, and oversight agencies with opportunities for more effective detection and investigation of potential fraud or abuse and proof of intentional fraud.

ICD-10 codes refine and improve operational capabilities and processing, including:

- Detailed health reporting and analytics: cost, utilization, and outcomes;
- Detailed information on condition, severity, comorbidities, complications, and location;
- Expanded coding flexibility by increasing code length to seven characters; and
- Improved operational processes across health care industry by classifying detail within codes to accurately process payments and reimbursements.

5 Comparing ICD-9 and ICD-10

Comparing ICD-9 and ICD-10

There are several structural differences between ICD-9-CM codes and ICD-10 codes[1]. **Table 1** illustrates the difference between ICD-9-CM (Volumes 1 and 2) and ICD-10-CM. **Table 2** illustrates the difference between ICD-9-CM (Volume 3) and ICD-10-PCS.

Table 1: Diagnosis Code Comparison

CHARACTERISTIC	ICD-9-CM (VOLS. 1 & 2)	ICD-10-CM
Field length	3-5 characters	3-7 characters
Available codes	Approximately 13,000 codes	Approximately 68,000 codes
Code composition (numeric or alpha)	Digit 1 = alpha or numeric Digits 2-5 = numeric	Digit 1 = alpha Digit 2 = numeric Digits 3-7 = alpha or numeric
Available space for new codes	Limited	Flexible
Overall detail embedded within codes	Ambiguous	Very specific (Allows description of comorbidities, manifestations, etiology/causation, complications, detailed anatomical location, sequelae, degree of functional impairment, biologic and chemical agents, phase/stage, lymph node involvement, lateralization and localization, procedure or implant related, age related, or joint involvement)
Laterality	Does not identify right versus left	Often identifies right versus left
Sample code[2]	**813.15**, Open fracture of head of radius	**S52123C**, Displaced fracture of head of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC

1. http://www.ama-assn.org/ama1/pub/upload/mm/399/icd10-icd9-differences-fact-sheet.pdf
2. http://library.ahima.org/xpedio/groups/public/documents/ahima/bok3_005568.hcsp?dDocName=bok3_005568

Table 2: Inpatient Procedure Code Comparison

CHARACTERISTIC	ICD-9-CM (VOL. 3)	ICD-10-PCS
Field length	3-4 characters	7 alpha-numeric characters; all are required
Available codes	Approximately 3,000	Approximately 72,081
Available space for new codes	Limited	Flexible
Overall detail embedded within codes	Ambiguous	Precise definition regarding anatomic site, approach, device used, and qualifying information
Laterality	Code does not identify right versus left	Code identifies right versus left
Terminology for body parts	Generic description	Detailed description
Procedure description	Lacks description of procedure approach	Detailed description of procedure approach. Precise definition of anatomic site, approach, device used, and qualifying information
Character position within code	N/A	16 PCS sections identify procedures in a variety of classifications (e.g., medical surgical, mental health, etc.). Among these sections, there may be variations in the meaning of various character positions, though the meaning is consistent within each section. For example, in the Medical Surgical section, Character 1 = Name of Section* Character 2 = Body System* Character 3 = Root Operation* Character 4 = Body Part* Character 5 = Approach* Character 6 = Device* Character 7 = Qualifier* (*For the “Medical Surgical” codes)
Example code	**3924**, Aorta-renal Bypass	**04104J3**, Bypass Abdominal Aorta to Right Renal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach

6 Implementing ICD-10

Implementing ICD-10

This ICD-10 Implementation Guide for Payers groups the ICD-10 implementation milestones and tasks into six phases:

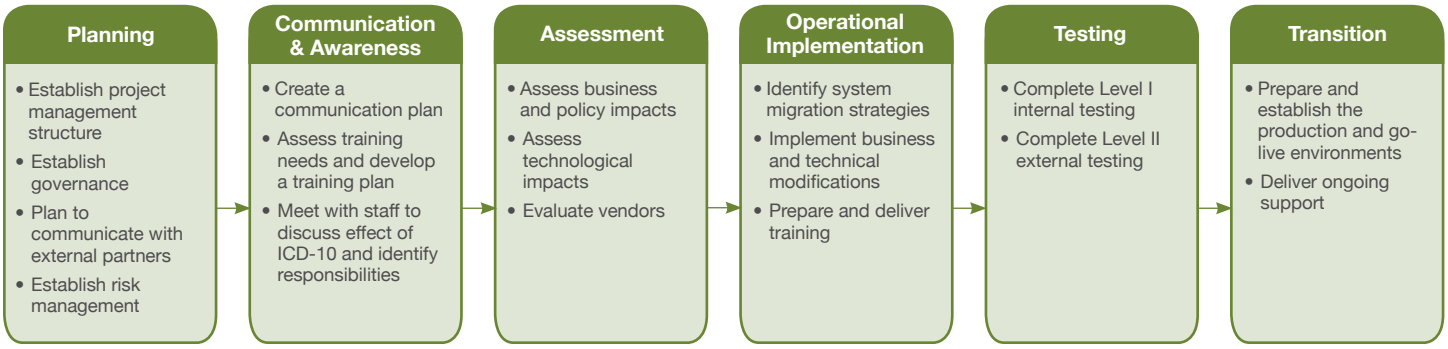
1. **Planning**
2. **Communication and Awareness**
3. **Assessment**
4. **Operational Implementation**
5. **Testing**
6. **Transition**

In order to achieve a smooth ICD-10 transition, your organization will need to create and follow a variety of plans tailored to your unique needs and culture, including plans for:

- Project management
- Communication
- Assessment
- Implementation
- Testing
- Post-transition operations

Figure 1 shows recommended ICD-10 implementation phases and high-level steps. For additional, more detailed tasks, please refer to the ICD-10 Implementation Timeline.

Figure 1: ICD-10 Implementation Phases



Planning Phase

A successful transition from ICD-9 codes to ICD-10 codes on October 1, 2013, will require significant planning. At a minimum, your organization should consider the following activities:

- **Ensure top leadership understands the breadth and significance of the ICD-10 change.** Download free, authoritative ICD-10 fact sheets and background information from the CMS website at www.cms.gov/ICD10 and share trade publication articles on the transition.
- **Assign overall responsibility and decision-making authority for managing the transition.** This can be one person or a committee depending on the size of your organization.
- **Plan a comprehensive and realistic budget.** This should include costs such as software upgrades and training needs.
- **Ensure involvement and commitment of all internal and external stakeholders.** Contact vendors, physicians, affiliated hospitals, clearinghouses, and others to determine their plans for ICD-10 transition.
- **Adhere to a well-defined timeline** that makes sense for your organization (See Table 3: Payer ICD-10 Implementation Timeline).

Implementation Timeline

Using the Payer ICD-10 Implementation Timeline as a guide, your organization should:

- Identify any additional tasks based on your organization's specific business processes, systems, and policies
- Identify critical dependencies and predecessors
- Identify resources and task owners
- Estimate start dates and end dates
- Identify entry and exit criteria between phases
- Continue to update the plan throughout ICD-10 implementation and afterwards

Table 3 displays a timeline template that lists essential activities your organization will need to complete to successfully transition to ICD-10. Please note that each organization's exact implementation process may be unique. Many of these timelines can be compressed and/or performed at the same time as other tasks, depending on your needs. The estimated total duration for each activity is provided.

Table 3: Payer ICD-10 Implementation Timeline

Note: *This table addresses only the ICD-10 implementation. You will also need to implement Version 5010 simultaneously if your organization has not done so yet. The Version 5010 compliance date is January 1, 2012.*

ACTION STEPS	START DATE	END DATE
Actions to Take Immediately		
Inform core group and senior management of upcoming changes (3 months)		
Create a governance structure, such as project management team, executive sponsor, steering committee, and/or ICD-10 point of contact (1 month)		
Complete impact assessments (6 months) • Identify business areas, policies, processes and systems, and trading partners affected by the transition • Review cost benefit analysis • Identify and validate CMS and National Center for Health Statistics (NCHS) General Equivalence Mappings (GEMs) and reimbursement crosswalks and mapping tools		
Determine business and technical implementation strategy (6 months) • Establish and communicate the implementation timeline		
Determine migration strategy for coverage policies and contracts to identify who will need ICD-10 coding training (6 months)		
Secure budget for implementation and establish and engage implementation team (3 months)		
Define functional requirements for system development efforts; these requirements should support your implementation strategy (6 months)		
Complete ICD-10 coding training in the code sets and maps for staff who translate coverage policies (9 months)		
Begin and continue system design and development (18 months)		
Begin conversion of coverage policies for the ICD-10 code sets; develop a strategy to coordinate versions of coverage policies to maintain consistency through implementation (12+ months)		
Begin development of business and system requirements (9 months)		
If using vendor solution, engage immediately for development of business and system requirements		
Begin system design and development (9 months)		
Determine provider contract remediation requirements		
Start vendor code deployment and internal testing (12 months)		

Table 3: Payer ICD-10 Implementation Timeline *continued*

ACTION STEPS	START DATE	END DATE
Winter 2012		
Continue conversion of coverage policies to the ICD-10 code sets		
Complete system design and development		
Complete vendor code deployment and internal testing		
Start internal testing. This must be a coordinated effort with internal coding, billing, and technical resources as well as vendor resources, if applicable (9 months)		
Spring 2012		
Continue conversion of coverage policies to the ICD-10 code sets		
Continue internal testing. This must be a coordinated effort with internal coding, billing, and technical resources as well vendor resources		
Summer 2012		
Continue conversion of coverage policies and provider contracts to the ICD-10 code sets		
Continue internal testing. This must be a coordinated effort with internal coding, billing, and technical resources as well vendor resources		
Fall 2012		
Complete internal testing		
Complete conversion of coverage policies to the ICD-10 code sets		
Begin external testing with trading partners (11 months)		
Create a plan for post-implementation data analysis by beginning to identify potential code/code categories to focus on. (The conversion process will likely reveal insights on how coverage policies or overall reimbursements might be affected) (9 months)		
Winter 2013		
Continue external testing with trading partners		
Continue to develop a plan for post-implementation data analysis by identifying potential code/ code categories to focus on. (The conversion process will likely reveal insights on how coverage policies or overall reimbursements might be affected)		

Table 3: Payer ICD-10 Implementation Timeline *continued*

ACTION STEPS	START DATE	END DATE
Spring 2013		
Continue external testing with trading partners		
Continue to develop a plan for post-implementation data analysis by identifying potential code/code categories to focus on. (The conversion process will likely reveal insights on how coverage policies or overall reimbursements might be affected)		
Summer 2013		
Complete external testing with partners		
Begin systems implementation (3+ months)		
Complete plan for post-implementation data analysis by identifying potential code/code categories to focus on. (The conversion process will likely reveal insights on how coverage policies or overall reimbursements might be affected)		
Fall 2013		
Complete system implementation		
October 1, 2013: ICD-10 system implementation for full compliance. ICD-9 codes will continue to be used for services provided before October 1, 2013		

CMS consulted resources from the American Medical Association (AMA), the American Health Information Management Association (AHIMA), the North Carolina Healthcare Information & Communications Alliance (NCHICA), and the Workgroup for Electronic Data Interchange (WEDI) in developing this timeline.

Project Management Process

Table 4 identifies a series of actions and resources for establishing a project management process for ICD-10. Consider these recommended actions in establishing a project management and goal setting process for ICD-10 implementation.

Table 4: Project Management Recommended Actions and Resources

COMPONENT/GOAL	RECOMMENDED ACTIONS	RESOURCES
Governance and project management structure/Establish accountability across ICD-10 implementation team structure	• Establish your organization's ICD-10 oversight structure, such as executive sponsor, ICD-10 steering committee, and ICD-10 point of contact (ICD-10 program director or coordinator). • Create a governance team consisting of senior representatives from many areas, including claims, clinical, finance, IT, health information management, provider relations, and network management. The governance team should: —Designate an ICD-10 point of contact who will be responsible for making business, policy, and/or technical decisions. — Assign responsibility for developing and executing an ICD-10 implementation plan; coordinate with those designated regularly. • Assemble an implementation team and establish a formal project management structure. One example is to have a project management office (PMO) supported by a project coordinator or manager and individual team coordinators or leads from each affected department, as well as participants from key vendors and others.	• Implementation Timeline to identify detailed ICD-10 implementation dates and milestones • Responsible, Accountable, Support, Consulted, Informed (RASCI) template
Assessment/ Identify business areas affected by ICD-10 and determine the level of support needed for successful transition	• Identify and assess the readiness of your organization's business associates, including vendors, providers, and contractors. • Identify ICD-10's effect on IT infrastructure and functions, including historical claims data, data warehousing requirements, medical records systems, etc. —Pay special attention to effect on medical coding, claims processing, and claims payment efficiencies; evaluate current or create new policies and procedures as needed. • Identify ICD-10's effect on providers, contractors, vendors, and other stakeholders. • Identify ICD-10's impact on current and future contracts administration and Service Level Agreements. • Identify all systems and internal and externally supported operations that will be affected by ICD-10 conversion, including claims, clinical review, care management, and provider contracting. • Identify policies, procedures, and authority for ensuring compliance with appropriate claim and clinical review processes required to adjudicate and pay ICD-10 claims correctly. • Identify processes and systems that require ICD code inputs, process ICD codes, or produce outputs using ICD codes. Ask your staff where they use and/or see these codes appear such as manuals, research reports, medical policies, and billing software.	• Business Processes Affected by ICD-10 for information identifying ICD-10 impacts for payer business processes and systems • Criteria for Evaluating ICD-10 Vendors • Updating and Evaluating Vendor Systems

Table 4: Project Management Recommended Actions and Resources *continued*

COMPONENT/GOAL	RECOMMENDED ACTIONS	RESOURCES
Transition plan and budget/Use cost-benefit analysis to inform decision-making	• Establish strategies, tasks, and goals for the ICD-10 transition. • Coordinate with internal and external resources (including vendors and other parties) required to support ICD-10 implementation across your business processes, policies, and systems. Document an inventory of the tasks involved in meeting the October 1, 2013, deadline. Establish the sequence, work effort, and duration for each task within the inventory, including: — Policy, procedures, and system updates — Staff training needs to support all business processes, policies, and technology — Vendor tasks essential to ICD-10 implementation — Vendor and third-party planning and delivery monitoring • Distribute the implementation timeline internally and externally. Anticipate the potential need to refine the ICD-10 implementation timeline as internal or external factors warrant and plan to regularly communicate the status of the transition based on the timeline. • Implement integrated change management strategies, policies, and procedures across all functional areas and monitor acceptance on an on-going basis. • Identify available funding for ICD-10 implementation; plan and approve a budget for expenses related to the transition like training and system upgrades. — Obtain project cost estimates from project leaders, vendors, providers and other stakeholders — Formulate final baseline budget	• Criteria for Evaluating ICD-10 Vendors • Updating and Evaluating Vendor Systems
Communication plan/Maintain and share knowledge across the team	• Establish awareness and understanding of scope among clinical and business leadership personnel, and secure leadership support for planning, budgeting, and implementation • Develop a comprehensive communication plan with internal staff, providers, contractors, vendors, and other stakeholders — Provide ongoing status updates to maintain focus on the project and upcoming initiatives that require staff involvement — Provide regular updates to senior leadership and those most directly affected by the changes, including coders, clinicians, physicians, and customer service • Ensure clear communications channels with physicians, hospitals, government agencies contractors, and vendors • Make sure you have points of contacts with all vendors to obtain ICD-10 status update information	• Communications and Awareness section for methods to communicate ICD-10 awareness and planning with internal staff and external vendors and partners
Risk management plan/Proactively identify risks across internal and external critical infrastructure	• Identify and categorize risks that could negatively affect ICD-10 implementation • Coordinate between governance team and implementation team to provide qualitative interdisciplinary or interdepartmental reviews and develop ways to address associated risks • Determine clear decision making process and establish accountability and authority for resolving issues • Develop contingency plan for continued operations should critical system issues or problems occur	• Business Processes Affected by ICD-10 for information identifying ICD-10 impacts for payer business processes and systems • Risk and Issue section

Table 4: Project Management Recommended Actions and Resources *continued*

COMPONENT/GOAL	RECOMMENDED ACTIONS	RESOURCES
Operational implementation/ Manage the implementation process	• Create a grid to track and manage both internal and external stakeholder contact information and implementation activities • Communicate progress and compare to the ICD-10 implementation timeline • Assign responsibility for developing and executing the ICD-10 implementation plan • Establish mechanisms for early identification of implementation problems and corrective actions with internal and external parties — Track issues and risks and work with existing vendors and third parties to plan mitigation strategies — Monitor vendor and third-party relationships — Monitor and coordinate with external groups including physician practices, hospitals, State Medicaid Agencies, Medicare entities, and clearinghouses	• Implementation section • Consider creating a Responsible, Accountable, Support, Consulted, Informed (RASCI) template
Training/Develop the skills necessary to support ICD-10 implementation within your organization	• Educate operational staff in key function areas like claims, clinical and utilization review, grievances and appeals, provider contracting, marketing, and sales on: — Scope and impact of ICD-10 conversion — Importance of ICD-10 readiness — Training needs/Outreach needs • Provide training to appropriate staff on the ICD-10 code sets, associated coding guidelines and General Equivalence Mappings (GEMs) or other preferred ICD mapping tools • Relay the importance of accurate coding and maintain awareness of the ICD-10 implementation • Identify knowledge- and training-champions to serve as contacts for your ICD-10 staff • Recognize staff accomplishments related to ICD-10 implementation and key milestones — Consider providing incentives to staff for accomplishments related to the ICD-10 implementation	• Training section • Communication and Awareness section
Testing/Ensure readiness for go-live	• Create comprehensive testing strategy • Develop test data • Test internal systems (Level I) • Test external systems (Level II) • Resolve any outstanding problems from testing failures	• Testing section
Post-implementation/ Achieve 100 percent compliance	• Transmit and receive electronic claims and other transactions successfully using ICD-10 for claims with dates of service on or after October 1, 2013 • Optimize and audit the ICD-10 transition results • Provide post-transition support to internal users • Monitor the impact on reimbursements, claims denials and rejections, coding accuracy and productivity, fraud and abuse detection, and investigations • Monitor system capacity requirements and application runtime efficiencies • Resolve post-implementation issues as quickly as possible. Create plan for full problem resolution as needed	• ICD-10 Implementation Timeline

Risk and Issue Management

Your organization will need to work with vendors and other parties to anticipate implementation issues and risks and develop strategies to streamline ICD-10 implementation.

To do this effectively, consider creating a risk inventory that:

- Identifies risks to successful implementation by departments or key internal/external functions
- Identifies the chance a risk will occur, its degree of potential impact, and relevant ways to avoid risk (i.e., redundant training, identifying alternate vendors, creating contingency backups for key functions)
- Assigns responsibility for risk reduction action, including when to involve project management or executive sponsor
- Continuously monitors impact on scope, schedule, and costs

Table 5 identifies a preliminary list of some fundamental risks that payers should be aware of and prepared to manage. Included in the table are the following:

- **Risk Category:** Broad categorization of various specific risks
- **Description of Risk:** Specific risk examples within the broad category
- **Ways to Reduce Risk:** Steps to manage the risk

Table 5: Risks for Payers and Mitigation Plans

RISK CATEGORY	DESCRIPTION OF RISK	WAYS TO REDUCE RISK
Communications and awareness	Failure to communicate and raise awareness among your organization and partners could increase the following risks: • Lack of coordination among project team members, especially those in different locations • Insufficient team interaction and cohesion • Lack of understanding of ICD-10 among key stakeholders, poorly defined roles and responsibility • Inadequate monitoring of partners' progress • Ineffective monitoring of project schedule and cost	• Build an ICD-10 implementation team that is represented by all stakeholders (i.e., payer, providers, vendors, consultants, and others) • Create an aggressive communications plan to ensure that team members communicate and coordinate • Hold regular meetings where the entire team meets in-person or via video conferencing • Have backup methods to communicate if the primary technology fails • Maintain frequent contact by phone and e-mail with remote team members • Conduct communication and awareness training • Create a central repository to hold the project plans, schedules, costs, and other documentation that all team members can access

Table 5: Risks for Payers and Mitigation Plans *continued*

RISK CATEGORY	DESCRIPTION OF RISK	WAYS TO REDUCE RISK
ICD-10 project scope definition	The scope of your ICD-10 implementation should be clearly defined to minimize the impact of the following risks: • Inaccurate cost estimates • Difficulty developing project definitions and work plans • Poorly defined project deliverables • Unnecessary time or money spent on out-of-scope areas	• Clarify ICD-10 project scope during the planning process • Start by defining high-level business requirements first, then define the project's scope • Specify departments affected, vendor products requiring update, or test data needs • Distribute scope statements to all ICD-10 stakeholders for confirmation
Project team leadership	Competent project team leadership is important to avoid the following inefficiencies: • Longer than necessary project definition and planning period • Mistakes in judgment, causing rework and project delays • Reluctance to call in assistance when needed	• Provide early ICD-10 project management training • Designate a senior person familiar with ICD-10 requirements to coach and mentor project managers • Divide projects into more manageable tasks • Establish a quality assurance process to ensure that the project is on schedule • Identify a process to approve major deliverables
Vendor product interfaces	Working with vendor products can result in the following risks: • Increased testing complexity and more chance for incompatibility • Difficulties tracking down and assigning responsibility for problems, errors, and bugs	• Divide the project into smaller subprojects • Determine the level of knowledge resources for both internal and external interfaces • Test interfaces early in the project, including interfaces in the official communications and status reporting • Reduce the need for interfaces when possible
High dependency on vendor products	In cases where heavy customization is required, consider the following risks: • Increased project complexity • Unforeseen impacts on other system processes • Complicated transfer to newer releases • Additional training and associated costs • Increased reliance on the vendor	• Obtain a firm estimate of the cost and duration of the modification from the vendor and build them into the overall work plan • Manage the vendor relationship to ensure that all needed work is completed on schedule • Make sure the sponsor approves any proposed customization • Invite vendor to be a part of the project team • Test the modified package for functionality and overall performance • Maintain a vendor log to track issues and milestones
Unforeseen issues	The following situations may result in a greater chance of unforeseen problems: • Inadequate staff training • Excessive vendor reliance for troubleshooting and repairs • Difficulties with installation, testing, and deployment • ICD-10 updates that do not meet all of your organization's business requirements	• Schedule training on the updated software as early in the project as possible • Add an internal resource, or a consultant with prior ICD-10 implementation experience, to your team • Schedule a pilot test prior to full implementation • Establish vendor agreements stipulating performance and support levels and problem resolution timelines • Obtain advance feedback from other companies using the vendor's products

Communication and Awareness Phase

A communication and awareness plan ensures that all your internal and external stakeholders understand their responsibilities for ICD-10 implementation. The communication plan should identify stakeholders, audiences, messages, issues, roles and responsibilities, timelines, communication methods, and evaluation techniques. The degree of planning and documentation in this process will depend on the size of your organization.

Table 6 identifies key components of a communication and awareness plan and includes the following:

- **Component:** References the structure of the communication plan, including content, best practices and tools
- **Details:** Identifies considerations to evaluate and potentially reference in the communication plan

Table 6: Communications Plan Key Components and Details

COMPONENT	DETAILS
Project purpose	• Provide ICD-10 background information to your organization's staff and stakeholders • Describe current state of ICD-10 progress within your organization • Ensure organization-wide awareness of ICD-10 implementation • Identify goals for the communication and awareness plan • Define the messages regarding the purpose and expected outcomes of the transition to ICD-10
Audience and stakeholders	• Identify all stakeholders and parties involved in your ICD-10 transition *Internal* — Establish a process to communicate governance issues to executive sponsors and program leads — Assess staff training needs around ICD-10-CM and ICD-10-PCS *External* — Identify an internal contact to manage and monitor progress with each organization, including physicians, hospitals, clearinghouses, state agencies, contractors, and others. Report progress and concerns regularly to the ICD-10 project coordinator. • Coordinate with vendors on updates and changes to be implemented into your software system prior to October 1, 2013 • Identify communication channels and ways to collaborate throughout the transition • Anticipate communication gaps and frequently asked questions regarding organization, operating structure, roles, and responsibilities • Identify and communicate with external stakeholders on ICD-10 readiness
Project plan	• Document your planning assumptions, decisions, and approved scope, cost, and schedule baselines • Define expectations and provide important benchmarks for communicating milestones and progress • Facilitate communication among stakeholders and audiences
Timeline	• Identify your project milestones and compliance dates • Identify tasks, milestones, and deadlines for your project teams

Table 6: Communications Plan Key Components and Details *continued*

COMPONENT	DETAILS
Identify communication vehicles	• Create communication channels to monitor progress, such as status reports, team meetings, and project reviews • Define and schedule how and how often you will communicate • Identify ways you can integrate timely ICD-10-related messages with established channels and forums • Define plans that address your requirements for internal and external communications and common goals • Structure communications methods that address the differing needs of your internal and external audiences
Assign roles and responsibilities for communication activities	• Assign communication roles and responsibilities to executive sponsors, steering committee members, project management team, and user group leaders/team members • Define roles with clear accountability and authority to make and act on decisions on communication issues • Assign responsibility for identifying communications risks and solutions taking into consideration your intended audience
Convey the message to the audience	• Identify opportunities to reinforce essential messages to target audiences and receive feedback • Create targeted communication toward smaller groups as necessary
Identify issues to overcome	• Raise implementation issues and create plans to correct them
Evaluate the effectiveness of the communication plan	• Use different ways to evaluate your communications such as feedback forms • Review lessons learned from previous programs and implementations to create optimal communications • Communicate the plan's effectiveness and feedback to stakeholders

Resource Management and Training

To prepare for ICD-10, your organization must identify available resources, assess training needs, build a training plan, and manage productivity during the transition process.

Assess Training Needs

The ICD-10 program director may lead the effort to prepare a training needs assessment to address the following:

- Identify affected departments and staff, including customer service, clinicians, medical directors, and claim adjudicators
- Assess staff competence and skill gaps, and tailor training to groups or individuals as needed
- Identify the optimal timing for staff to receive training or achieve certification
- Identify the best approach to deliver training, including webinars, certification courses, or community courses

Consider a variety of factors when conducting a training needs assessment. Using the practice self-assessment questions outlined below, your ICD-10 program director may identify factors that indicate internal and external training needs.

Table 7 includes self-assessment questions that can help identify training needs.

Table 7: Training Preparation and Needs Assessment

SELF-ASSESSMENT QUESTIONS
Who must receive training on the ICD-10 code set?
What options are available to train staff (onsite training, vendor training, community courses, webinars, or certification courses)?
Are there gaps in your staff's knowledge of medical procedures and anatomy? Are there certification opportunities in ICD-10 coding that staff can take advantage of to improve accuracy and build "ICD-10 know-how" throughout the organization?
When should your staff complete the training?
How long will it take to train your staff?
Which training formats will work best for your staff (classroom training, web-based training, or self-guided materials)?
How much will the training cost?
What resources will you need to support the staff after training, including manuals, system prompts, troubleshooting guides, or FAQ lists?
Depending on the length of training, how will your staff maintain operations and reduce productivity loss during training? What is the current staffing level? • Is there is a business need for additional experienced coding staff to support your team during the ICD-10 transition period? Do you need to outsource some operations? Outsourcing additional coding expertise during the preparatory stage can allow for just-in-time training and reduce the burden of the transition on staff.

Initiate a Training Plan

The training plan's purpose is to ensure that your organization's staff and external partners acquire the necessary skills and knowledge on the processes, procedures, policies, and system updates affected by the ICD-10 transition. The training plan should formulate a consistent strategy for scheduling training and optimizing productivity throughout the organization.

Consider the following factors when building your training plan:

- Train-the-trainer options or retaining ICD-10-certified trainers can ensure the quality and consistency of ICD-10 education.
- Different training formats work in different situations. Potential training sources include traditional classroom training, distance education, or webinars. Your organization can also search for ICD-10 "train-the-trainer" seminars or boot camps that provide two-day sessions in a classroom-style setting.
- An ideal course for an executive sponsor or ICD-10 program manager will cover:
  - — General overview of ICD-10-CM structure
  - — Implementation planning, finance, and budgeting
  - — Optimizing business processes, information technology, and vendors
  - — Crosswalking and General Equivalence Mappings (GEMs)
- Check with CMS, the American Academy of Professional Coders (AAPC), the American Health Information Management Association (AHIMA), and the Workgroup for Electronic Data Interchange (WEDI) to identify webinars available for your staff. Some webinars are free; others have fees attached.
- Not all staff members will require the same type or amount of ICD-10 education. Determine your training needs based on existing knowledge and operational processes.

Timing:

- — Plan for intensive education prior to the ICD-10 transition
- — Appropriate staff should complete comprehensive ICD-10 education no more than six to nine months before the compliance date (October 1, 2013)

Post-Implementation:

- — Assess your staff's ICD-10 proficiency after they complete training and provide additional training to address areas of weakness. Identify common inaccurate code-review, decision-making, claim-processing errors, and productivity lags.

Table 8 identifies training topics and includes the following:

- **Training Topic:** Name of the subject area referenced for training
- **Purpose of the Training:** Identifies element to evaluate when identifying ICD-10 training needs
- **Audience:** Identifies audiences appropriate to receive training

Table 8: Training Topics, Purpose, and Audience

TRAINING TOPIC	PURPOSE OF TRAINING	AUDIENCE
Basic understanding of the ICD-10 code set and implementation	• Understand the differences between ICD-9 and ICD-10 • Understand rationale for ICD-10 adoption • Understand existing tools, risks, and industry updates • Clarify roles and responsibilities	Clinical and claims staff, fraud and abuse specialists, vendors, and business partners
Clinical definitions and terms in ICD-10: ICD-10-CM and ICD-10-PCS	• Explain ICD-10 terminology • Emphasize clinical terms and meanings	Clinical and claims staff, fraud and abuse specialists, vendors, and business partners
ICD-10 coding	• Review ICD-10 coding knowledge of medical procedures and anatomy, including clinical specificity of the new code sets • Refresh anatomy knowledge, if needed	Coders
ICD-10 impacts on clinical documentation	• Describe how ICD-10 affects business processes • Describe clinical documentation requirements as a result of ICD-10 adoption	Clinical and claims staff, fraud and abuse specialists, forensic medical reviewers and auditors, coders, vendors, and business partners
Partner and contractor	• Explain roles and responsibilities in ICD-10 implementation process	Partners and contractors
Using systems updated for ICD-10	• Review how ICD-10 affects systems • Review system updates	Clinical and claims staff, fraud and abuse specialists, and IT and compliance personnel

Assessment Phase

This section explains the need for your organization to identify the impact of ICD-10 on internal and external systems, applications, and business processes.

Business Processes Affected by ICD-10

The conversion to ICD-10 will affect many of your business processes. **Table 9** outlines the process, definition, and impact of ICD-10 on payer organization business processes.

Table 9: Payer Organization Business Processes and ICD-10 Impacts

PROCESS	DEFINITION	ICD-10 IMPACT
Project Leadership	Project leadership initiates and maintains external relationships with your organization's board and executive management. The governance structure serves as a model that provides oversight and decision-making authority regarding the payer's operational, legal, and financial requirements.	• An ICD-10 program requires an executive sponsor and governing body that has the authority to make decisions (based on executive management and board approval) for technical and process modifications necessary to achieve full ICD-10 compliance.
Perform organizational planning	Examines the organization's competitive position and qualifications to develop ways to achieve a competitive advantage in the marketplace. This process includes evaluating strategic plans/ portfolios, analyzing budgets, and developing implementation plans necessary to execute a particular strategy.	• Perform upgrades on systems, business processes, or policies as a result of ICD-10 implementation. Payers must balance these upgrades with the full scope and demands of the ICD-10 transition.
Strategic alliances development	Helps to achieve strategy, enhance market position, and strengthen performance by aligning with another organization. Alliances can range from spot transactions through consortiums to mergers and acquisitions. Partners may include competitors, suppliers, providers, and purchasers.	• Evaluate the readiness of both current and potential partners as part of the ICD-10 implementation.
Business change management	Includes project management processes such as development of the ICD-10 project plan, assessment of organization readiness for change, identification of critical success and risk factors, development of business case, and preparing communication plans.	• The Executive team should manage and approve the ICD-10 plan, business case, and communication plan. This involvement will be necessary to provide the appropriate level of decision-making authority to support ICD-10 implementation.
Quality, risk, and performance management	Establishes and monitors critical indicators to manage the entire organization and each of its functions and/or processes.	• Identify benchmarks and performance targets that are tied directly to ICD-10 components, including premiums, health population risk, Medical Loss Ratio (MLR), and utilization review for high-volume, high-dollar claims. • Modify reports that contain calculations based on ICD-10-CM data.
Organizational marketing	Promotes the organization to current and potential customers and external constituents. This includes determining the marketing plan, developing collateral materials, advertising, and public relations.	• Evaluate potential impact based on your organization's unique markets, product offerings, and services.
Products and services development	Identifies and designs products and service offerings. This includes conducting market analyses and defining segments, designing products and services, developing pricing strategies, obtaining regulatory approval, and performing testing/roll-out.	• Review benefit packages to make sure eligibility and coverage determinations reference ICD-10-CM codes. • Use ICD-10-CM codes as an input into pricing products, services, and benefit packages. • Evaluate whether ICD-10-CM codes could potentially define market segments and determine risk (particularly for small group and individual benefit packages).

Table 9: Payer Organization Business Processes and ICD-10 Impacts *continued*

PROCESS	DEFINITION	ICD-10 IMPACT
Products and services sales	Acquires customers and generates revenues from products and services. This includes determining and implementing distribution channels, executing sales to consumer and employer groups, underwriting, and developing account-specific pricing and financial arrangements.	• Evaluate how ICD-10-CM affects assessment of risk-based factors in the actuarial/underwriting process, including prospective and current member medical conditions, industry, claims history, and demographics. Individual and group pricing depends on this assessment.
Customer relationship management	Includes interactions with self-insured organizations, sponsors, employers, trusts, groups, brokers, agents, and individual enrollees. Specifically this process includes installing accounts and members into the benefit file system, managing the account relationship, and managing changes to account and member information.	• Evaluate how ICD-10-CM will be used to build specific coverage or eligibility rules within a benefit file structure and system. • Determine how ICD-10 codes may be used to trigger outreach to members for other products and services like wellness programs.
Medical and network policy development and maintenance for enrollees	Establishes the framework for how medical services will be delivered to enrollees. This includes developing policies designed to achieve quality outcomes and promote cost-effective use of resources. Some examples include contracting and reimbursement policies, clinical decision-making for utilization management, and maintaining the organization's network strategy and plan.	• Identify and update all medical policies (including coverage determinations, medical necessity criteria, and clinical documentation requirements) that are tied to ICD codes for claim/authorization adjudication. Identify contractual agreements that are contingent on ICD-10 codes, including case mix payments, capitation, Diagnosis Related Groupers (DRG), and episodes of care.
Network development and management for providers	Establishes, maintains, and enhances provider network consistent with policy, to optimize health care service delivery. This includes provider recruiting, credentialing and re-credentialing, contracts, and performance measurement.	• Evaluate credentialing process to determine whether submission forms annotate specific conditions for treatment in specialty groups. • Evaluate provider contracting to determine how ICD-10 will impact contracting and reimbursement agreements.

Table 9: Payer Organization Business Processes and ICD-10 Impacts *continued*

PROCESS	DEFINITION	ICD-10 IMPACT
Medical resource management	Performs utilization management, case management, disease management, referral management, demand management, and quality assessments according to medical policies and procedures. **Utilization management** refers to the process of evaluating medical resource use for a given event or patient situation through authorization/referral; prospective, concurrent, and retrospective review of service use; case management; and discharge planning. The process starts with the initiation to treat a specific medical condition and ends with delivery of the optimal level of resources and care for a given episode or event or denial of care. **Case management/Disease management** refers to the process of managing the provision of health care to members with high-cost medical conditions across the care continuum—coordinating care to improve quality outcomes. **Referral management** refers to the process of assisting members and providers in assessing specialty care that may be available within the participating plan's provider network (i.e., specialty rehab programs, and transplantation care). **Demand management** refers to the process of encouraging members to participate in preventive and self-care measures like wellness and educational programs. **Quality management** refers to the process of measuring the performance of medical resource use by establishing benchmarks and performance measures to evaluate policy efficacy in reducing cost while achieving quality (e.g., readmission rates by hospital/condition, days/1000).	• Update medical policies and coverage determination to support utilization management per ICD-10-CM codes. • Ensure understanding of updated policies and coverage determinations among fraud and abuse specialists to avoid incorrect or inconsistent actions by different departments. • Refine criteria for flagging eligible patients with conditions for case management and disease management programs. • Update specialty provider networks based on specific ICD-10-CM codes requiring specialty care. • Refine ICD-10-CM criteria to identify specific patients who would benefit from educational/wellness programs. • Identify metrics and benchmarks necessary to evaluate medical resource use and align to specific ICD-10-CM codes. • Compare trends for medical resource use under ICD-9 and re-establish ICD-10 baseline to identify high-cost claims and high-volume events. • Modify the support structure necessary to aggregate and report on metrics and benchmarks using ICD-10.
Fraud and abuse detection	Claims systems incorporate pre-pay edits and fraud and abuse units employ software-based tools that identify irregular data, including consistency of diagnosis and procedure codes, and historically problematic or exploited diagnosis codes.	• Work with external vendors, internal IT staff, fraud and abuse unit clinicians and data analysts, and claims system staff to translate existing system edits and fraud-detection tool functionality to ICD-10 environment.
Service providers management	Interacts with providers regarding all aspects of the organization's operation, particularly how the providers manage care, customers, and resources. This includes handling provider inquiries; providing orientation, education and feedback; soliciting input from providers; and maintaining provider network directories.	• Refine medical policies and procedures for processing provider appeals and grievances to ICD-10-CM. • Identify trends by factors like providers and specific ICD-10 codes across appeals and grievances to educate providers on medical policies.

Table 9: Payer Organization Business Processes and ICD-10 Impacts *continued*

PROCESS	DEFINITION	ICD-10 IMPACT
Manage customer inquiries	Reacts and responds to customer questions, appeals, and grievances. This includes managing customer inquiry intake (including appeals, grievances, claim status, benefit questions, member enrollment changes, physician changes, provider network questions, and complaints); researching the inquiry; resolving the inquiry; and performing tracking and follow-up.	• Refine medical policies and procedures for processing provider appeals and grievances to ICD-10-CM. • Identify trends by factors like providers and specific ICD-10 codes across appeals and grievances from customers to educate providers on medical policies. • Update policies and procedures for communicating ICD-10 benefit or eligibility policies to members.
Transactions process: Electronic Data Interchange (EDI) and paper	Records clinical encounters, determines claims payment adjudication or denial, distributes payments, and reimburses contracted providers based on member activity.	• Update EDI intake to maintain and store ICD-10-CM codes on 837P, 837I, and 837D. • Update processing rules and automation to identify duplicate claims, auto-approve, auto-pend, or auto-deny based on medical policy/ adjudication processing rules based on ICD-10-CM. • Update medical policies required to approve or deny pended claims. • Align provider reimbursement to ICD-10 codes if needed (e.g., Diagnosis Related Groups (DRGs), Groupers, capitation payments, episode of care, and case mix).
Bill and collect premiums	The process by which an organization issues invoices and receives payments from customers for its premiums and the health care services priced and/or provided. This includes developing bills, issuing bills, and collecting and reconciling payments.	• Update the billing process as necessary. ICD-10-CM codes serve as a core data element in analyzing and tracking group/subscriber benefits.
Legal affairs	Handles information and makes decisions that affect ability to operate consistently with legal standards/requirements and security and privacy requirements.	• Validate and sign off achievement of ICD-10 regulatory compliance requirements.
Financial operations	Handles information and makes decisions affecting the monitoring and management of financial resources.	• Update reporting infrastructure with ICD-10-CM codes necessary to establish Medical Loss Ratio and identify claims payable.
People/Human Resources management	Handles information and makes decisions affecting the establishment, training, performance of employees.	• Provide ICD-10-CM training to support the skills and competencies necessary at multiple levels throughout the organization. (Refer to Resource Management and Training)
Information Systems and Technology management	Handles information and makes decisions affecting the development and operation of its information systems and technology functions.	• Update systems to store, maintain, and operate using ICD-10-CM codes across applications, databases, outbound/inbound interfaces, and business rules and reporting based on ICD-10-CM code aggregation or grouping. • Adapt systems to receive and transmit ICD-10-CM codes with external parties like clearinghouses, providers, and patients.

Table 9: Payer Organization Business Processes and ICD-10 Impacts *continued*

PROCESS	DEFINITION	ICD-10 IMPACT
Knowledge management	Handles and makes decisions regarding development, collection, classification, dissemination, and use of knowledge in matters like medical policies, procedures for claim adjudication, and customer service/provider service.	• Update and refine knowledge repositories to reference ICD-10-CM codes.
Health plan contracting with providers	Handles contracting between providers and health plans.	• Modify contracts to include more specific diagnosis code requirements from ICD-10-CM.

Technical Impacts of ICD-10

To determine the technical impacts of ICD-10, you will need to complete a thorough inventory of internal and external systems and applications to understand where ICD-10-CM is used as an input for processing, or as an output. Be sure to evaluate these issues when conducting your technical impact assessment:

- Business rules and system edits
- Data structures, tables, and decision support systems
- System interfaces (inbound and outbound)
- User interfaces
- Reports
- Field length adjustments
- Collection and maintenance of both ICD-9 and ICD-10 code sets
- Store additional ICD-10 occurrences within a transaction
- Maintenance of historical data originally submitted

Once you create the inventory, you will also need to identify any technical requirements needed to support ICD-10 implementation for current and planned business operations.

ICD-10 Effect on Clinical Documentation

The ICD-10 implementation will affect clinical documentation for payer organizations. ICD-10 coding introduces accurate representation of health care services through complete and precise reporting of diagnoses and procedures. ICD-10 will also yield more thorough data for clinical decision-making, performance reporting, managed care contracting, and financial analysis.

How ICD-10-CM Affects Clinical Documentation

The increased code detail contained in ICD-10-CM means that clinical documentation will need to change substantially. The ICD-10-CM includes a more robust definition of severity, comorbidities, complications, sequelae, manifestations, causes, and a variety of other important parameters that characterize the patient's conditions.

A large number of ICD-10-CM codes only differ in one parameter. For example, nearly 25 percent of the ICD-10-CM codes are the same except for indicating the right side of the patient's body versus the left. Another 25 percent of the codes differ only in the way they distinguish among "initial encounter," versus "subsequent encounter," versus "sequelae."

For example, even though there are more than 1,800 available codes for coding fractures of the radius, there are only approximately 50 distinct recurring concepts. **Table 10** shows the type of documentation the ICD-10-CM will require for a fracture of the radius and includes the following:

- **Category:** The category for the medical concepts that will need documentation
- **Documentation Requirements:** The list of individual concepts that should be considered in documentation to support accurate coding of the patient conditions

Table 10: Sample Documentation Requirements for Fractures of the Radius

CATEGORY	DOCUMENTATION REQUIREMENTS
Fracture Type	• Open • Closed • Pathologic • Physeal (Growth Plate) Fractures • Neoplastic Disease • Torus (Buckle) Fractures • Green Stick Fractures • Stress Fractures • Orthopedic Implant (fractures associated with) • Bent Bone
Healing	• Routine • Delayed • Nonunion • Malunion
Localization	• Shaft • Lower End • Upper End • Head • Neck • Styloid Process
Encounter	• Initial • Subsequent • Sequelae

Table 10: Sample Documentation Requirements for Fractures of the Radius *continued*

CATEGORY	DOCUMENTATION REQUIREMENTS
Displacement	• Displaced • Nondisplaced
Classification	• Salter Harris I • Salter Harris II • Salter Harris III • Salter Harris IV • Gustilo Type I or II • Gustilo Type IIIA, IIIB, or IIIC
Laterality	• Right • Left • Unspecified Side • Unilateral • Bilateral
Joint Involvement	• Intra-articular • Extra-articular
Fracture Pattern	• Transverse • Oblique • Spiral • Comminuted (many pieces) • Segmental
Named Fractures	• Colles' • Galleazzi's • Barton's • Smith's

How ICD-10-PCS Affects Clinical Documentation

The ICD-10-PCS codes represent a different model with new terminology built into the definitions. Unlike ICD-10-CM codes, ICD-10-PCS codes generally are not combination codes, but rather identify distinct parts of an operation. For example, a single code in ICD-9 that defines a bunionectomy, soft tissue repair, and osteotomy will require three codes in ICD-10-PCS, one for each component of the procedure. In most cases, operative reports should have the documentation required to document an ICD-10-PCS in compliance with the required level of detail for a procedure. Documentation that lacks this level doesn't adhere to best practice standards.

The proper use of ICD-10 codes with ICD-10-PCS terminology changes what information is needed from the medical record. Professional coder-reviewers may find it difficult to use existing documentation models to assess proper coding. For example, if a surgeon dictates in an operative report that he "removed the left upper lobe of the lung" the reviewer must recognize that the proper code would include a "resection" of the "left upper lobe." The reviewer must recognize that the "left upper lobe" is a complete body part in ICD-10-PCS and that removing a complete body part is defined as a "resection." The term "removal" now applies only to removing synthetic materials.

ICD-10 Effect on Payer Reimbursements

Independent analysis of some of the most common reimbursement arrangements identified conversion challenges that may modify some payer and provider reimbursement arrangements, while for others the effect will be minimal. Solutions to these situations need to be tailored to your specific environment; however, you will want to review the possibilities identified in the analysis outlined in the table below. In cases such as diagnosis-related group carve outs where codes have a relatively small impact on reimbursement formulas, most payers will likely experience few conversion problems.

Table 11 identifies common reimbursement arrangements and the potential impact that ICD-10 has on those arrangements.

Table 11: ICD-10 Impact on Payer Reimbursements

COMMON REIMBURSEMENT ARRANGEMENTS	POTENTIAL ICD-10 IMPACT IDENTIFIED BY INDEPENDENT ANALYSIS
DRGs and other case rates	*Hospitals, government, and commercial payers* Code focus: ICD-9 and procedure codes 1. ICD-9 diagnosis and procedure codes are the basis for diagnosis-related groups (DRG) classifications. 2. Using General Equivalence Mappings (GEMs), a number of ICD-10 codes did not map easily to the MS-DRGs (inpatient reimbursement); the clinical review process was required to complete the conversion process. GEMs are a tool to help find matches between ICD-9 and ICD-10 codes. 3. The ICD-10 MS-DRGs will likely produce some different reimbursement results compared to ICD-9-based MS-DRGs, for example: a. Clean mapping problems b. Service frequency, billed code volume, impact on dollars c. Clarity of ICD-10 code may produce a different code assignment based on the original ICD-9 code d. Dollar and volume magnitude related to the changes to Complications Comorbidities (CC)/ Major Complications Comorbidities (MCC) lists are unknown 4. The Inpatient Psychiatric Facility Prospective Payment System for psychiatric facilities and Medicare Severity Long-term Care DRG for long-term hospitals both use the same MS-Grouper and will be similarly affected. 5. When applying CMS-designed ICD-10 MS-DRGs to a commercial population, the case mix may vary more than the Medicare population does.
Risk-adjusted reimbursement	*Medicare/Medicaid programs* Code focus: Hierarchical Condition Categories (HCCs) and Rx-HCCs 1. Although more than 5,500 ICD-9 diagnosis codes on the HCC and Rx-HCC models have no ICD-10 map, HCC developers will be able to include the conditions in the ICD-10 HCC without altering the intent. The largest potential impact is that more than 1,000 HCC ICD-9 codes have more than one ICD-10 option. 2. The ICD-10 transition impact will be quite evident in situations where one ICD-10 code maps to more than one ICD-9 code and either the ICD-9 codes do not map at all to a HCC, or to the same HCC.
DRGs/inpatient care rate carve-out, pass-through or add-on technology procedure or diagnosis	*Commercial insurers* Code focus: DRG inpatient payment carve-outs where payment is negotiated 1. Diagnoses carve-outs are typically paid by broad category with little reliance on coding specifics to differentiate payment levels. 2. Expect minimal impact on procedural coding because inpatient patient carve-out procedures and technology are often reimbursed as a percentage of charges. Outpatient procedures are reimbursed based on Current Procedural Terminology (CPT) codes where additional information is not needed to pay a claim.
Episode-based reimbursement	*Demonstrations (ACE – Acute Care Episode) and other pilots* While there have not been many systems reimbursing on episodes of care based on ICD-9 codes, the advent of ICD-10-specific codes will likely accelerate the development of these payment types.

Table 11: ICD-10 Impact on Payer Reimbursements *continued*

COMMON REIMBURSEMENT ARRANGEMENTS	POTENTIAL ICD-10 IMPACT IDENTIFIED BY INDEPENDENT ANALYSIS
Performance-based reimbursement	*Health plans, Medicare Pay for Performance (P4P)* Code focus: Healthcare Effectiveness Data and Information Set (HEDIS) and similar performance measures 1. The most common structures are based on either reaching specified performance level or degree of improvement. The transition to ICD-10 may affect HEDIS-based outcomes as HEDIS uses ICD-9 diagnosis and procedure codes along with other codes such as CPT and revenue codes. In the case of immunization codes, ICD-9 codes are more specific than the ICD-10 mapping (five ICD-9 codes would now map to two ICD-10 procedure codes). Because these ICD-10 codes are less specific, the small portion of immunizations occurring in an inpatient setting will be unidentifiable under ICD-10, and this may affect performance measurement. 2. ICD-10 specificity may influence the development of performance measures.
Hospital billed charges	*Hospitals* Code focus: billed charges, CPT/HCPCS 1. The conversion to ICD-10 should have minimal impact on billed charges because predecessor ICD-9 codes were not used to create the charges.
Usual and customary reimbursement (UCR)	*Payers* Code focus: CPT/HCPCS 1. UCRs for professional services will not be affected by ICD-10 as they are based on CPT/HCPCS codes. 2. Assuming that inpatient UCRs are based on billed charges, there will be no impact.
Inpatient facility prospective payment	*Payers, hospitals, and providers* Code focus: diagnosis codes 1. Diagnosis codes are used to help determine the payment rate and facilities' qualification as inpatient rehabilitation facilities (IRFs). Therefore, the initial conversion to ICD-10 will have some impact on reimbursement based on IRF-Prospective Payment System (PPS). The challenge will be in determining which ICD-10 codes are the qualifying codes that should be included in the IRF logic. 2. The increased specificity of ICD-10 codes will influence the IRF-PPS model in the future.
Other reimbursement arrangements	*Brief summary* • Resource Utilization Groups (RUGs): Minimal if any impact on skilled nursing facilities and RUGs. • Home Health Resource Groups (HHRGs): Although many of the HHRG diagnostic categories are broad, there will be some instances where HHRG assignment for the same condition may vary under ICD-10 compared to ICD-9 diagnosis codes. • Possible future conversion of the CPT/HCPCS codes to ICD-10 PCS parallel with the CPT/HCPCS codes.

Source: Zenner, Patricia. ICD-10 Impact on Provider Reimbursement. Milliman, 2010. Retrieved from http://publications.milliman.com/publications/health-published/pdfs/icd-10-impact-provider.pdf.

Criteria for Evaluating ICD-10 Vendors

Payers depend on vendor products to perform functions that address their business, process, and/or system needs. To ensure that your organization can transition smoothly to ICD-10, all your vendors must upgrade their systems and continue to provide support.

Assess your vendors to gauge the impact of ICD-10 on their performance capabilities and plans to remediate systems. In addition, your assessment should identify whether your organization needs to budget funds to upgrade the vendor system and address any potential system-failure points.

Table 12 highlights vendor evaluation criteria and the associated key considerations

Table 12: Vendor Evaluation Criteria and Key Considerations

EVALUATION CRITERIA	KEY CONSIDERATIONS
Identify vendors and their purpose	• Determine which existing vendors will be affected by the ICD-10 transition • Define requirements you will need from vendors to support your ICD-10 implementation (will vary by vendor) • Determine areas in your organization's critical business paths that depend on vendor support • Determine how vendors will be involved in your ICD-10 implementation project • Establish a vendor communication plan • Confirm that vendors understand your business requirements and develop an accountable delivery plan • Identify the need for any new contracts
Processing performance	• Conduct vendor product gap analyses • Evaluate pros and cons of vendors' system alternatives • Obtain compliance commitment from vendors in line with defined requirements and project plan milestones • Review vendor evaluation to ensure alignment with defined requirements • Determine options for retiring system(s) and the impact on ICD-10 implementation for systems • Develop scenarios to test key vulnerabilities such as volume capacity and other performance parameters • Create test data
Evaluating budgetary considerations	• Create criteria to determine how your organization will evaluate if you will build or buy a system– establish a strategic build plan that includes interim versus long-term solutions • Determine additional cost pass-throughs resulting from ICD-10 updates
Monitoring and oversight	• Review the vendor's compliance plan in order to incorporate that perspective into your organization contract agreements or RFP and monitoring • Create and follow a plan to monitor whether vendor products are meeting key functions: — Identify measures of risk for vendor in meeting key functions — Create key performance indicators to measure success — Include provisions to handle situations in which vendors do not meet key performance requirements

Methodology to Evaluate ICD-10 Vendors and/or Tools

You will need to maintain relationships with both existing and new vendors to ensure that they meet the functional needs outlined below.

Follow these steps when selecting new vendors as well as evaluating existing vendor capabilities in light of the ICD-10 transition:

1. **Create an inventory** of existing vendors, tools, and possible vendor candidates. The inventory should include the following components:
   - Unique identifier for the vendor
   - Vendor corporate name
   - Vendor product names
   - Description of the products offered
   - Type of products offered, including coding applications, search engine, and crosswalking tools
   - Products' underlying logic, including GEMs and terminology engines
   - List of customers for each product
   - Vendor contact information

2. **Establish a tracking system** to ensure that you address and monitor key questions, concerns, and that the vendor meets project timelines.

3. **Identify "Plan B" options** in case your vendor does not progress fast enough, including operational work-arounds and vendor replacement alternatives.

4. **Review contracts** to clarify existing vendor contractual requirements, and factor key requirements into contracts with new vendors.

5. **Analyze interfaces or dependencies between systems** to avoid failures from cross-system dependencies.

6. **Define acceptance criteria** to measure vendor performance. These may include the following:
   - Features matched to your business needs (this assumes a process to prioritize these features to meet the organization's specific functional priorities)
   - Appropriate customer lists and references
   - Comparable industry experience
   - Vendor financial and longevity stability
   - System architecture that supports integration with other systems and provides easy access
   - Alignment of workflow interfaces with organizational workflow
   - Expected results of testing against defined business and data test scenarios
   - Acceptable ongoing support commitments

7. **Ensure that vendor capabilities** meet your organization's expectations. Your contracting processes should consider:
    - Functions of all required features
    - System performance requirements
        - Concurrent users
        - Throughput
        - Processing time
        - Reporting time
    - Upgrade policies (number of versions supported or latest version supported, along with number of upgrades per year)
    - Error remediation and new feature response requirements
    - Support requirements
        - Degree of support
        - Expected response time
    - Clear and acceptable licensing agreements
        - Favored Nation status
        - Business associate and data use agreements
        - Coverage for federal mandate changes
        - Updates for standards version changes
    - Remedies in the event of failure
        - Remediation requirements
        - Penalties
        - Disaster recovery requirements
        - Data and concept ownership

Assessing Vendor Functional Capabilities

As your organization assesses its internal functional needs, you should match those needs with vendor capabilities. The list below identifies key functions to consider when evaluating vendors as well as questions to ask vendors in the evaluation process.

- **Code set maintenance:** Notification of updates, data files maintain valid begin and end dates and change maintenance, and value add fields

- **Ability to search for codes**
  - **Robust term-based search:** The ability to search for codes based on terms defined within the code description. Includes the ability to search for multiple terms, partial strings with wild card and nested 'and,' 'or,' and 'not' logic.
  - **Code-based search:** This includes the ability to search by multiple code ranges as well as multiple individual codes. It should also support partial code searches or searches for characters in different positions. For example the ability to search for codes with the first three characters = 'nnn' and the 7th character = 'n'.
  - **Tabular-based search:** The ability to search for codes based on the published tabular index.
  - **Alphabetical index search:** The ability to search for codes based on the published alphabetical index.
  - **Concept-based search (evolving vendor capability):** The ability to search based on clinical concepts, for example, the concepts of "fracture," "distal," and "radius" and identify codes for "Colles," "Smith's," and "Barton's" fractures since these are fractures of the distal radius. This search ability requires considerable sophistication in the underlying data engine. Current vendor ability to support this level of concept searching appears limited.

- **Code Crosswalking—**Crosswalks provide important information that help link codes of one system (ICD-9) with another (ICD-10). Vendor systems should have features to develop, maintain, and document crosswalk specification development, including the following:
  - **Workflow:** The ability to support the workflow involved with defining the crosswalk, approval, output, maintenance, and governance. The workflow should support the selection of one or more codes in the crosswalk from any search method or from candidate codes from either GEM or reimbursement maps.
  - **A robust search engine:** The ability to effectively search for a code based on a robust set of search criteria. A level of search engine sophistication is needed to provide support to independent research of crosswalk candidates.
  - **Reimbursement map support:** The ability to demonstrate mapping as defined from ICD-10 to ICD-9 in the reimbursement files. This will provide a comparison in ICD-10 to ICD-9 mapping to those crosswalks reported to maintain revenue neutrality.
  - **GEM support:** The ability to identify GEM-based matches in both directions. This should include the ability to identify codes where ICD-9 or ICD-10 codes are either the 'source' or 'target' of the crosswalk, or both.

— **Crosswalking quality (ideal vendor capability):** The ability to provide measures of the quality of the match based on concepts that are lost or assumed in the match. Currently there do not appear to be any vendors that can rate the quality of the match in definitive terms.

— **Crosswalking financial modeling (evolving vendor capability):** The ability to test the financial implications of the crosswalked code on payment as well as the volume and extent of claim impacted by the crosswalk.

- **Definition of code set aggregation or grouping—**Most policies, rules, and analytics are based on groups or categories of codes. These groups of codes are critical to drive business intelligence and business decision algorithms for many health care information systems. Features necessary to support this effort of redefining code based policies, rules, and categories include the following:

  — **Code set aggregation database system:** The ability to support an unlimited number of aggregation schemes and ad hoc aggregation sets for selected purposes. The database must support appropriate metadata for each aggregation set and scheme. In other words, once you create and define groups of codes, there must be a way to manage and retrieve those groups for any number of purposes. The metadata needed to accomplish this include:

    - A name for the aggregation or set of codes
    - A definition of the intent of the code set
    - A unique identifier for the code set
    - Data about versioning, modification, access, and approval
    - Other metadata as needed that will help manage create, read, update, and delete function for the code set files

  — **Workflow:** Workflow capabilities should include research and identification of the appropriate grouping of codes, an approval process and maintenance interface, and the ability to name, date, and apply other metadata to the set of codes for use in downstream analysis and algorithms. Some basic workflow steps might include:

    - Definition of the purpose and intended uses of the code set
    - Searching for the appropriate codes to include or exclude in the data set by terms, concepts, tabular listings, index listings, code value searches, or any number of other parameters
    - Naming and cataloging the code set for use in rules, policies, and analytic categories
    - Creating the link between these defined codes and rules, policies, and categories
    - Retrieval and modification of existing code sets
    - Approval processes

— **Analytics:** Analytics that use ICD procedure and/or diagnosis codes will change dramatically under ICD-10. Any software vendors that provide business intelligence solutions should support ICD-9 and ICD-10 codes simultaneously during the transition. Additionally, business intelligence schemas should support 'n' number of ICD codes per record with a definition of code type (ICD-9 or ICD-10). Any defined reporting models such as quality (HEDIS), efficiency (episode groupers), population risk models or other aggregation schemes should be fully remediated to support native ICD-10 as well as native ICD-9 codes.

  - Considerable research will be required to ensure that defined categorization models are appropriate for both the ICD-9 and ICD-10 environments. There should be a clear definition of the plan for fully using ICD-10 analytic capabilities in future releases.

— **Database structural requirements:**

  - Will the database support the increased number of codes supported in the 5010 claims transition?
  - Will the database support both ICD-9 and ICD-10 codes simultaneously?
  - Does the database include a "Code Type" field that can distinguish between ICD-9 and ICD-10 codes?
  - How will code set updates be managed? (An initial code freeze will be effective until October 1, 2014, but updates will occur after this date.)

— **User interfaces:**

  - Have captions and field validations been updated to support ICD-10?
  - Have user interface data sources for ICD-9 and ICD-10 been updated?
  - Are there prompts and edits for date of service-based validation of ICD-9 and ICD-10 codes?
  - Will user interfaces support lookup and entry of both ICD-9 and ICD-10 codes?
  - How will user interfaces support the new documentation required for ICD-10 coding?

— **Inbound and outbound transactions:**

  - Has the vendor updated system support for outbound claims and other outbound transactions consistent with 5010 and ICD-10 standards, including date of service-based validation?
  - What is the vendor's plan for transaction testing across payers and other trading partners?

— **Internal system interfaces:**

  - Have interfaces between systems been updated to support ICD-10?

— **Clinical decision support (CDS) and business rules:**

  - If clinical decision support systems are in place, what is the plan to update CDS logic?
  - Which other rules and edits are driven by ICD-9 and what is the plan for remediating those rules?

— **Measures and reporting:**

• Which reports are affected by ICD-10 and what are the plans for updating reporting logic code-related categories?

• If clinical reporting systems are used, how will vendors update these systems?

• How will vendors update logic for quality and efficiency measures?

• How will vendors handle reporting on historical data over the transition period?

- **Other key questions for your vendor:**

  Beyond assessing functional capabilities, there are some additional questions to ask your vendor:

  • Will there be a charge for ICD-10-related updates?

  • Will training be provided for new ICD-10-related functionality?

  • How can issues be logged and how will they be addressed?

  • How often will code set updates occur and how will they be delivered?

  • Will you continue to support applications or are you discontinuing some products in the wake of the ICD-10 transition?

  • What is your roadmap for helping us extract the increased information capabilities of ICD-10?

Assess ICD-10 Implementation Strategy

The information you gather during the assessment phase will help you determine how you want to approach and plan for implementing ICD-10 operationally. In order to determine the best method for ICD-10 implementation, payers should consider several possible strategies for approaching implementation.

Payers are accountable and responsible for determining their respective strategies for ICD-10 operational implementation. Your organization's strategy will drive its code-translation decisions and shape the nature of the entire ICD-10 implementation.

Evaluate your operational strategies based on the following:

- Depending on the business areas, systems, business processes, and policies may need to retain the ability to process information using ICD-9-CM codes
- There will be a period of time in which both ICD-9-CM and ICD-10 codes will need to be processed
- Longitudinal data that spans transition years will need to be converted to ICD-9-CM or to ICD-10 for trending and other reporting and analysis

Table 13 identifies and explains four HIPAA compliant operational implementation strategy options:

1. Crosswalk strategy
2. Minimum upgrade strategy
3. Maximum upgrade strategy
4. Upgrade and crosswalk hybrid strategy

Table 13: Operational Implementation Options

STRATEGY	DESCRIPTION	ADVANTAGES	DISADVANTAGES
Crosswalk strategy	Transform inbound ICD-10 business transactions to the ICD-9-CM equivalent using reimbursement mappings or crosswalks. Business processes and systems would continue to store ICD-9-CM codes and use ICD-9-CM rules, without full conversion to ICD-10 codes. This approach does not require updates to internal policies, processes, or systems to accommodate ICD-10 codes.	• Lower initial ICD-10 implementation costs • Less initial disruption to business operations and systems	• Payer may not be positioned to take advantage of ICD-10's benefits • ICD-10 implementation will be more difficult and costly in the future • Difficulty associating ICD-10 code submitted by external partner to information stored in payer systems • Loses specificity of ICD-10 codes and their added benefits • Will have to undergo another transition for full ICD-10 adoption
Minimum upgrade strategy	Convert SOME policies, processes, and systems to ICD-10 using the General Equivalence Mappings (GEMs) tool. The payer translates policies and processes PARTIALLY by equivalent aggregation. Accept, store, and process ICD-10 transactions from business partners. Update business rules to use SOME added detail of ICD-10. Translate ICD-9-CM business rules and policies to ICD-10 without taking into consideration the full potential benefits of ICD-10.	• Upgrade payer systems to meet minimum business functionality • Potential for fewer future transitions than the crosswalk strategy	• Does not gain all of ICD-10 benefits • Will need to upgrade in the future to fully use ICD-10

Table 13: Operational Implementation Options *continued*

STRATEGY	DESCRIPTION	ADVANTAGES	DISADVANTAGES
Maximum upgrade strategy	Convert ALL policies, processes, and systems to ICD-10 using the GEMs tool. The payer translates policies and processes FULLY by equivalent aggregation. Accept, store, and process ICD-10 transactions from business partners. Update ALL business rules in claims adjudication to use the added detail of ICD-10. Translate ICD-9-CM business rules and policies to ICD-10, taking into consideration the full potential benefits of ICD-10.	• Positions payer to benefit from ICD-10 • No later conversions required so future costs are reduced • Payer can pay more accurately based on the greater specificity of ICD-10 codes • Improved reporting and historical data files	• Initial development costs might be higher
Upgrade and crosswalk hybrid strategy	Converts highly affected or frequently referenced policies, processes, and systems to ICD-10 using the GEMs tool. Uses an ICD-10 to ICD-9 crosswalk for claims with ICD-10 codes that do not fall into the costly or frequently used category. Accept, store, and process ICD-10 transactions from business partners in critical areas. The highly affected or frequently referenced policies, processes, and systems will not crosswalk from ICD-10 to ICD-9-CM. All other transactions require a crosswalk from an ICD-10 code to ICD-9-CM. All other policies, processes, and systems are not updated to ICD-10.	• Lower initial cost than optimal compliance • Gains some ICD-10 benefits	• Difficult to determine which systems should be updated to ICD-10 • Difficult to identify all data interrelationships at the beginning of process • Will need to transition the rest of the policies, processes, and systems at a later date

Implementation Phase

Following the assessment phase, your organization should be able to decide how you will approach the implementation of ICD-10 and if you will need to partner with vendors to carry out implementation activity.

Operational Implementation Activities

The operational implementation strategy you developed earlier during the assessment phase provides direction for the operational implementation activities. The strategy addresses the method and approach to actually implementing ICD-10 within your organization. This strategy also addresses the methodology your organization has selected for mapping ICD-9 codes to ICD-10 codes and the reverse.

The operational implementation phase of the ICD-10 transition process will include the following key activities:

- Update internal policies impacted by ICD-10
- Update internal processes (including clinical, financial, actuarial, reporting, etc.) affected by ICD-10
- Finalize system/technical requirements
- Identify test data requirements
- Design code to remediate system changes/updates
- Build code to remediate system changes/updates
- Conduct testing based on updated system logic

CMS-Provided Mapping/Reimbursement Tools

There are many tools available on the market for mapping from ICD-9 to ICD-10 and vice versa.

CMS developed two mapping tools for use by the industry:

1. General Equivalence Mappings (GEMs):

GEMs are a tool that attempt to map valid relationships between ICD-9 and ICD-10. They are not crosswalks, but support the development of crosswalks as a resource tool. GEM files include mappings from ICD-9-CM to ICD-10 and from ICD-10 to ICD-9-CM. GEM files support both ICD-10-CM (diagnosis codes) and ICD-10-PCS (institutional procedure codes). More information about GEMs is available on the CMS ICD-10 website **www.cms.gov/ICD10**.[3,4]

2. Reimbursement Maps:

Reimbursement maps are a set of files that provide the appropriate ICD-9-CM code for reimbursement purposes that can be used to replace an inbound ICD-10 code. This mapping is intended only as an interim measure in cases where older systems have not been converted to support ICD-10.[5]

3. http://www.cms.gov/ICD10/12_2010_ICD_10_CM.asp
4. http://www.cms.gov/ICD10/13_2010_ICD10PCS.asp
5. http://www.cms.gov/ICD10/Downloads/3_reimb_map_guide_2010.pdf

Resources Available to Ease ICD-10 Transition

Table 14 below identifies some of the industry tools available to the payer community. Please note that the list is not exhaustive, nor does it indicate a partnership between CMS and any particular vendor. The table contains the following elements:

- **Resource:** The entity providing the tool (e.g., AHIMA, WEDI)
- **Services(s) Provided:** The services the tool or vendor provides
- **Stakeholders:** Stakeholders that might benefit from the tool

Table 14: Tools for the ICD-10 Transition

RESOURCE	SERVICE(S) PROVIDED	STAKEHOLDERS
Healthcare Information & Management Systems Society (HIMSS) ICD-10 Cost Prediction Modeling Tool	• Assists users in predicting the financial impact of the ICD-10 transition. • Developed in Excel. Helps users understand the impact of ICD-10 in four key areas: coding, revenue cycle, project management, and information technology.	Health care providers and payer organizations
HIMSS ICD-10 Playbook	• Provides a rich, well-structured index to a variety of white papers and other resources from a variety of organizations.	All stakeholders
American Medical Association (AMA) – Educational Resources	• A series of resources/artifacts to help physicians implement ICD-10-CM into their practices: — ICD-10 Fact Sheets — ICD-10 Project Plan Template — ICD-10 Checklist • Provides links to other associations and specific resources tailored to physicians' needs.	Physician practices, payer organizations
American Academy of Professional Coders (AAPC) – ICD-10 Code Translator	• Compares ICD-9 to ICD-10 codes. (Note: this tool only converts ICD-10-CM codes, not ICD-10-PCS)	Medical coders
Workgroup for Electronic Data Interchange (WEDI) – Vendor Resource Directory and other resources	• Provides an assortment of white papers related to ICD-10. • Listservs and conference calls on various subject areas allow collaboration among different parts of the industry.	All stakeholders

Testing Phase

Successful enterprise-wide testing ensures that business functions will continue normally throughout the transition from ICD-9-CM to ICD-10-CM. Your organization will be required to complete extensive testing of business and system modifications.

A key component for testing will be the analytics needed to validate the results from test transactions and impact to business processes. If crosswalks are involved, your organization will need to analyze the results in greater detail. Your organization will need to process ICD-9 and ICD-10 codes simultaneously throughout the transition and it will be important to test your organization's ability to dual-process. Plan and document your test strategy prior to the implementation of reimbursement, utilization, underwriting, and other critical operations.

Table 15 provides testing considerations that are recommended for payers in anticipation of ICD-10 testing and include test types, test plans, test cases, test data, as well as testing key considerations.

Table 15: ICD-10 Testing Types

TESTING TYPE	DESCRIPTION	KEY ICD-10 CONSIDERATIONS
Unit testing/basic component testing	Confirms that updates meet the requirements of each individual component in a system. Payers will first need to test each component updated for ICD-10.	• Unit testing should verify that: — Expanded data structures can store the longer ICD-10 codes and their qualifiers — Edits and business rules based on ICD-9-CM codes work correctly with ICD-10 • Since reports frequently use diagnosis and procedure codes, testing report updates are critical. Critical report elements to evaluate include: — *Input filters:* Do all filters produce the anticipated outcome? — *Categorization:* Do categories represent the user's intent as defined by aggregations of codes? — *Calculations:* Do all calculations balance and result in the anticipated values considering the filter applied and the definition of categories? — *Consistency:* Do similar concepts across reports or analytic models remain consistent given a new definition of code aggregations?
System testing	Verifies that an integrated system meets requirements for the ICD-10 transition. After completing unit testing, payers will need to integrate related components and ensure that ICD-10 functionality produces the desired results.	• Plan to test ICD-based business rules and edits that are shared between multiple system components • Identify, update, and test all system interfaces that include ICD codes

Table 15: ICD-10 Testing Types *continued*

TESTING TYPE	DESCRIPTION	KEY ICD-10 CONSIDERATIONS
Regression testing	Focuses on identifying potential unintended consequences of ICD-10 changes. Payers should test modified system components to ensure that ICD-10 changes do not cause faults in other system functionality.	• The complexity of ICD-9-CM to ICD-10 code translation may result in unintended consequences to business processes. Identify these unintended consequences through varied testing scenarios that anticipate risk areas.
Nonfunctional testing – performance	Performance testing includes an evaluation of nonfunctional requirements[6] such as transaction throughput, system capacity, processing rate, and similar requirements.	• A number of changes related to ICD-10 may result in significant impact on payers' system performance, including increased: — Number of available diagnosis and procedure codes — Number of codes submitted per claim — Complexity of rules logic — Volume of re-submission due to rejected claims, at least initially — Storage capacity requirements
Nonfunctional testing – privacy/ security	Federal and state legislation defines specific requirements for data handling related to conditions associated with mental illness[7], substance abuse, and other privacy-sensitive conditions. To identify these sensitive data components or conditions, payers often use ICD-9-CM codes.	• Update the definition of these sensitive components or conditions based on ICD-10-CM • The definition of certain institutional procedures that may fall under these sensitive requirements will be significantly different under ICD-10-PCS
Internal testing (Level I)	*The ICD-10 Final Rule requires Level I compliance testing.* Level I compliance indicates that entities covered by HIPAA can create and receive compliant transactions.	• Transactions should maintain the integrity of content as they move through systems and processes • Transformations, translations, or other changes in data can be tracked and audited
External testing (Level II)	*The ICD-10 Final Rule requires Level II compliance testing.* Level II compliance indicates that an entity covered by HIPAA has completed end-to-end testing with each of its external trading partners and is prepared to move into production mode with the new versions of the standards by the end of that period.	• Trading-partner testing portals need to be established • Transaction specification changes should be defined and communicated • Inbound and outbound transaction-related training may be required • A certification process may be needed for inbound transactions • Rejections and re-submissions related to invalid codes at the transaction level are handled • Parallel test systems to test external transactions

6. http://www.csee.umbc.edu/courses/undergraduate/345/spring04/mitchell/nfr.html
7. http://www.dshs.state.tx.us/hipaa/privacynoticesmh.shtm

Test Plan Implications

The test plan documents the strategy and verifies that a business process and system meet future design specifications. The test plan should:

- Identify acceptance criteria based on the business and system functional requirements that were defined during the analysis and design phase
- Determine the business sponsor responsible for approving the scope of test plans

Test Case Implications

Define test cases to ensure that the system updates meet your business requirements and that the system components function efficiently. Test case design should include both anticipated and unexpected outcomes. Test cases should also include high-risk scenarios.

Test Data Implications

Test data ensures that several key system functions are producing data as expected and include data to:

- Validate (data validation)
- Trigger errors
- Test high risk scenarios
- Test volume
- Test all types of domains and categories
- Simulate a standard environmental model over time
- Test comparisons, ranking, trending variation, and other key analytic models

Error Testing

All testing will result in errors. Correcting the errors before the go-live date is the objective of the testing phase. Payers should include the following in their error testing plan:

- Multiple testing layers to support various iterations of re-testing in parallel tracks
- Effective detection and repair of blocking errors that limit testing activities
- An error tracking system with standard alerts to report to stakeholders
- Prioritization model for error remediation designed to focus on business-critical requirements
- Set of acceptance criteria
- Model for reporting known issues
- Developing a schedule for fixing known issues in the future

Internal Testing

Many payers develop and maintain internal systems that are not traditional commercial, off-the-shelf (COTS) products. In these cases, the payer takes on the ICD-10 implementation responsibility. Payers that choose COTS products, should work directly with their vendor to monitor the testing process for their system. When creating testing scenarios, consider all of the usual testing requirements for any internal system undergoing significant architectural and system logic changes and focus on testing key business risks.

- Evaluate each technical area individually but also conduct integration testing across components including:
  - Database architecture
  - User interfaces
  - Algorithms based on diagnosis or institutional procedure codes
  - Code aggregation (grouping) models
  - Key metrics related to diagnosis or institutional procedure codes
  - All reporting logic based on diagnosis or institutional procedure codes
- Coordinate with your vendors as necessary to support testing execution and issue resolution. Identify testing workflows and scenarios for your organization that apply, including use cases, test cases, test reports, and test data
- Identify a target date when your organization will be able to run test claims using ICD-10
- Develop a project plan that recognizes dependencies on tasks and resources and prioritizes and sequences efforts to support critical paths

External Testing

Your organization should create an inventory of external entities with whom you exchange data and the testing you will need to coordinate with each to ensure timely, accurate ICD-10 implementation. Examples of external testing areas include:

- **Physician offices:** Ensure that all condition- or procedure-related information exchange is handled appropriately throughout the ICD-10 transition.
- **Hospitals:** Test information exchanges to ensure appropriate handling.
- **Health information exchanges:** Test all information exchanges for critical operations.
- **Outsourced billing or coding:** Use defined clinical scenarios to ensure outsourced business operations continue as expected.
- **Government entities:** Local and national government entities may require:
  - Public health reporting
  - Quality and other metric reporting related to meaningful use
  - Medicare and Medicaid reporting and data exchange
  - Other mandated or contractually required exchange of information around services and patient conditions

Transition Phase

During the transition period, monitor the impact of ICD-10 on your organization's business operations and revenue and be prepared to take corrective action.

Table 16 includes the following:

- **Operational Impacts:** ICD-10 business impact or consideration
- **Description and Strategy:** Explanation of the impact and opportunities to monitor and alleviate the impact

Table 16: Operational Impacts and Monitoring Strategies

OPERATIONAL IMPACTS	DESCRIPTION AND STRATEGY
Payment lag, claims payment and error rates	Payment delays may occur for several reasons: 1. Billing from providers may stall due to the required amount of education in the conversion to new coding. 2. Providers performing mapping may cause reimbursement delays because of the time and manual adjustments required. 3. Increased duplicate claims submissions may result in delayed reimbursement. Combined payment and reimbursement delays together will increase reserves and foster financial reporting problems. Payer systems maintain rules and triggers for the evaluation of prior authorizations and referrals that are based on ICD-9 procedure and diagnosis codes. The ICD-10 implementation will likely initiate changes in the prior authorizations/referrals trigger or approvals as payers refine their medical policies. If payers rely on crosswalks to convert submitted ICD-10 codes backward to ICD-9 codes, there might be unintended consequences in processing those claims. Payment or approval of services may be denied due to misinterpretation of the intent of policies or rules or simply as an artifact of errors translating ICD-9 codes to ICD-10-CM. To alleviate this risk, payers, physicians, and managed care organizations should coordinate and communicate to understand their respective remediation strategies and identify workarounds for clinical scenarios. Generally, payers may pursue several additional claims-related mitigation efforts: 1. Crosswalk ICD-10 codes to ICD-9 for processing to gain knowledge of billing patterns 2. Model at least 18 months of ICD-10 experience before implementing ICD-10-based processes 3. Monitor hospital payments 4. Implement payment validation procedures 5. Test, audit, and refine edits based on experience
Auditing, fraud, and abuse	Audits of all types are increasing in depth and breadth, including Recovery Audit Contractors (RAC), Hierarchical Condition Categories (HCC), fraud, abuse, and others. After the transition to ICD-10 the specificity and detailed information levels will result in greater documentation scrutiny. To address these concerns, payers should perform regular audits on clinical documentation during the post-implementation stabilization period.

Table 16: Operational Impacts and Monitoring Strategies *continued*

OPERATIONAL IMPACTS	DESCRIPTION AND STRATEGY
Pay for performance and value measurements	Value-based purchasing and overall trends in quality measurement and performance-based payment are having considerable impact on the delivery system, and are expected to be an even bigger factor in provider payment in the future. Measures of quality, efficiency, comparative effectiveness, and a variety of other care components will be significantly different in the ICD-10 environment. The definition of the measures may change significantly based on the nature of the new ICD-10 codes and the new parameters of diseases and services that these codes provide. During the transition period, measures that look over multiyear windows may be significantly affected due to the mix of ICD-9 and ICD-10 codes in those historical datasets. ICD-10 implementation will require contract renegotiations and modifications with physicians and other providers for Pay for Performance programs (in addition to disease management programs and medical policies) to successfully institute performance measures. Payers can also provide incentives through value-based purchasing initiatives that hold back a percentage of reimbursement unless providers submit their quality performance measurements.
Case rates, capitation, and other payment methodologies	Currently, there is very little information available to predict the extent of these impacts and whether they will be positive or negative. Payers, managed care providers, clearinghouses, and physician practices will need to work collaboratively to identify trends during the ICD-10 transition.
Accountable care organization (ACO) model	The ACO concept will alter the financial relationships among providers and insurers, but regulators are still developing detailed provisions. What is known, however, is that accountable care requires disciplined spending management to ensure that payment is for the correct service under the correct conditions. ICD-10 will play a critical role in aligning the definitions of service and conditions. ICD-10 is critically important to the success of accountable care for a number of reasons: • ICD-10 codes are a mandated standard across the health care industry for reporting patient conditions and institutional procedures. The increased detail of ICD-10 codes will lead to the ability to identify and accurately predict risk based on severity, comorbidities, complications, sequelae, and other parameters. • ICD-10-CM will provide better analysis of disease patterns and the burden on public health. • ICD-10-CM will increase the ability to assign resources based on more detailed utilization analysis. In an effort to prepare for ICD-10 implementation and report on accountable care measures, payers will need to work with industry stakeholders to identify and align measures to ICD-10.

Table 17 lists some things to consider for transition planning and includes:

- **Component:** Components of an ICD-10 transition plan
- **Transition Actions:** Activities to include in your ICD-10 transition plan

Table 17: Key Considerations for Transition Phase

COMPONENT	TRANSITION ACTIONS
Operational productivity	Analyze rejected and unbilled claims. Current coding challenges will multiply with the introduction of ICD-10. By starting now, you can use your transition time to resolve problems while minimizing the introduction of new ones. Focus on optimizing each phase of the revenue cycle, especially denied and not-final-billed claims. Evaluate the reasons behind processing delays. Analysis of denials and delays may uncover the need for additional staff or training. Conduct service line assessments. Plan for significant increase of adjustments / resubmitted claims.
Proactively minimize go-live production problems	Develop strategies to minimize problems and maximize opportunities for success during the transition. Identify other potential problems or challenges and implement strategies aimed at reducing the potential negative effect during the transition. For example, create a process to manage errors and resolve issues by working with vendors as necessary.
Contingency planning	Proactively identify contingency plans for continuing operations for critical systems failure or other problems. 1. Develop a contingency plan for continuing operations if critical systems issues or other problems occur when the ICD-10 implementation goes live. 2. Define and rank risks based on the likelihood and outcome if each event occurred. Event triggers and related responses such as contingency plans should be associated with each risk and deployed if required.

Go-Live

This section identifies the process you will use to prepare for going live, including:

- Confirming with system vendors
- Testing the baseline
- Identifying financial targets (taking into consideration revenue losses due to anticipated bill rejections)
- Preparing for productivity declines
- Continuing to assess quality

Table 18 includes the following:

- **Topic:** Subject for consideration when going live
- **Actions:** Tasks payers may consider when going live

Table 18: Go-Live Tasks and Associated Actions

TOPIC	ACTIONS
Update the communications plan	• Refer to the communication plan for guidance on how to report an issue when the system goes live, including who the correct contacts will be. Also: — Keep key stakeholders informed of issue identification and resolution status through regular updates or use of electronic communication tools such as a Web-based issue tracking system accessible to all stakeholders; and —Work groups or steering committees should continue to meet regularly to share information regarding issue identification (e.g., high number of claims denials and rejections, unexpected coding backlogs, lower-than-expected coding accuracy rate, systems glitches), status of issue resolution, lessons learned, and best practices identified as part of the ICD-10 implementation experience.
Confirm with system vendors	• Proactively identify and resolve issues: 1. Identify the plan to report and resolve ICD-10 issues prior to production/go-live; begin monitoring one year before go-live 2. Report resolution of changes and upgrades in systems 3. Determine the level of ongoing support 4. Identify the point of contact should issues arise • Resolve any known problems including testing failures or identification of business processes or systems applications affected by the ICD-10 transition that were missed during the impact assessment): 1. Determine the level of ongoing support; and 2. Identify the point of contact should issues arise

Table 18: Go-Live Tasks and Associated Actions *continued*

TOPIC	ACTIONS
Test baseline	• Establish a test baseline for ICD-10 data during the transition period to evaluate changes as a result of ICD-10 across different financial areas like reimbursement, rate setting, and contracting
Prepare for productivity declines	• Identify performance targets where possible, as well as incentives to keep morale and productivity high • Evaluate staff for retraining

Ongoing Support

During the transition, vendors will be expected to monitor ICD-10 implementation and assist in troubleshooting and resolving post-implementation issues and problems promptly. Your organization may also use vendors to perform evaluations to identify areas to enhance and recommend for improving data quality.

Potential Ongoing Support Issues with Vendors

Plan to resolve any post-implementation or ongoing vendor-related problems as soon as possible. Monitoring during the transition can "red flag" trends that require action such as:

- Rate of claims denials and rejections
- Coding accuracy
- Productivity levels and accuracy
- Systems performance, including functionality and interfaces

The transition period will dictate and define the type and duration of continued vendor support that will be needed to handle emerging production problems or new developments.

Post-Implementation Audit Processes and Procedures

After the ICD-10 implementation, it will be important to review processes and impacts to confirm their effectiveness and sustainability, including:

- Monitor the impact of ICD-10 on claim processing productivity, claim denials and rejects, providers' coding accuracy, and productivity
- Monitor system capacity requirements and application runtime efficiencies
- Examine system problems and determine their root causes
- Continue to update the ICD-10 communications plan
- Monitor operations on an ongoing basis
- Refine business processes

7 Next Steps

Next Steps

Using this ICD-10 Implementation Guide for Payers as a framework, your organization should consider taking the following steps:

1. Establish awareness among leadership or governing bodies involved in ICD-10 implementation. This awareness should focus on the breadth of the transition to ICD-10 across the industry and communicate a solid understanding of how this will affect payer business processes, policies, and systems. Attention should be directed toward the implementation costs, available budget, staff training needs, and the impact on vendor systems and tools.

2. Identify an ICD-10 program manager or equivalent who will create an inventory of the key tasks for the implementation and be in charge of monitoring daily activities including:
   - Developing an implementation plan and timeline
   - Conducting vendor evaluations, monitoring, and communications
   - Managing communications and awareness activities both internally and externally
   - Performing the training needs assessment

3. Identify vendor support needs and organize the required resources to support joint implementation efforts and activities.

Appendix: Relevant Templates

Appendix: Relevant Templates

The following files are available on the CMS ICD-10 website **www.cms.gov/ICD10**.

Included in the Appendix table are the following:

- **Template:** Name of the templates available
- **Purpose:** Description of contents specifically around how the template will assist payers

Appendix: Relevant Templates

TEMPLATE	PURPOSE
Project Plan Task List	List of both high-level and detailed tasks that payer organizations can use to customize to their unique business processes, policies, and systems. Payers can use this template to identify start and end dates, predecessor tasks, task owners, estimated work effort, resources, and dependencies.
Responsible, Accountable, Support, Consulted, and Informed (RASCI) Matrix	Useful in clarifying roles and responsibilities in cross functional projects and processes.
Vendor and Business Case Template	Tool to assess vendor readiness and plans for ICD-10 implementation. The template will allow payers to weigh vendor options and assist in identifying the right vendor for your organization.

This Implementation Guide was prepared as a service to the health care industry and is not intended to grant rights or impose obligations. The information provided is only intended to be a general summary. It is not intended to take the place of either the written law or regulations. We encourage readers to review the specific statutes, regulations, and other interpretive materials for a full and accurate statement of their contents.

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