Letter from the Editor

Welcome to this edition of Intersections. With so many publications crossing your desk, why read another? When it comes to health IT, articles are often written for a technical audience. Yet sound strategic decisions about IT should involve the executive team and, sometimes, even the board. Each issue of Intersections examines health IT from several perspectives: corporate strategy, clinical issues, financial matters, human resource implications, regulatory concerns and, yes, technology itself. We hope that Intersections is passed around the C-suite to assist hospitals and health systems with some of the difficult decisions that come with emerging technologies.

In this issue of Intersections, we address the topic of ICD-10 transition planning; specifically, the key considerations for provider organizations and the potential benefits from a well-managed transition. While many see this as an IT project, the implications are much broader, and require significant planning and implementation efforts across the organization. Has your organization assessed the impact? Is a comprehensive plan in place? What about security and privacy concerns? What benefits can be realized in addition to achieving compliance? We hope you find Intersections a useful source of information and encourage you to contact us with comments or questions.

Mitchell Morris, MD
Principal
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ICD-10 implementation: The clock is ticking
By: Christine Armstrong, Tom Foley, and Frank Roche
The Department of Health and Human Services (HHS) continues to remind us that the October 1, 2013, deadline for conversion from ICD-9 to ICD-10 diagnosis and procedure codes is neither flexible nor moving. Since ICD-9 codes are interwoven throughout clinical and financial operations and systems, health care providers should expect the size and scope of ICD-10 implementation to be complex, time-intensive, and costly. Adding to the challenge is a regulatory mandate to update the electronic infrastructure to accept ICD-10 codes, which requires a transition from the current X12 Version 4010 standard for electronic transactions to the new 5010 standard (Figure 1).

Impacts to the provider community
Code expansion and complexity
ICD-9 is no longer adequate to keep pace with advances in disease detection and treatment, such as biomedical informatics, genetic research, and international data sharing. ICD-10 as a full replacement code set will utilize new taxonomies to provide greater detail and granularity when coding diagnoses and inpatient hospital procedures; it explodes the original volume of approximately 18,000 codes to over 140,000 and fundamentally changes the underlying code structure (Figure 2).

Changes in the ICD codes and structure will complicate attempts to map codes between ICD-9 and ICD-10 and afford very little one-to-one matching. Although CMS has developed General Equivalent Mapping (GEMs) between ICD-9 and ICD-10 codes, based on Deloitte’s analysis, only five percent of the diagnosis and 0.1 percent of the procedure codes provide an exact one-to-one match (Figure 3).

Interacting with payors
Deloitte’s experience with health plans has revealed inconsistencies in the plans abilities to directly match ICD-9 to ICD-10 codes. Many health plans have conducted their own review of mappings against medical policy, claims edits, reimbursement methods, and provider contracts to understand the impacts on business processes and systems. Additionally, health plans are considering the impact to trading partners, especially providers. Accordingly, providers should be prepared to have collaborative discussions with payors regarding contract terms and conditions. A key input to these discussions will be a deep understanding of the ICD-10 code set and how it compares and maps to ICD-9. This collaboration will be critical for providers to keeping revenue and reimbursement flowing.
Providers face a number of technology and process challenges as they move to implement ICD-10. Among them are the sheer volume of IT changes required to transition from ICD-9 to ICD-10; the complexities of cross-mapping (a single ICD-9 code can map to multiple ICD-10 codes and multiple ICD-9 codes can map to the same ICD-10 code); funding requirements for key technology upgrades; employee training; and external vendor management.

The most common mistake provider IT organizations might make is to rely on their network of vendors to deliver ICD-10 solutions. While it’s true that vendor applications will become “compliant” through software updates and upgrades, the days of standalone or point solutions are long past. Today’s provider environment is a complicated web of interconnected systems across the enterprise. One key element of this complexity is the need to develop technology solutions to accommodate dual processing to enable ICD-9 and ICD-10 code submissions for an extended timeframe. As such, provider IT organizations will be required to do significant planning, staging, and testing to be sure that changes to any application work seamlessly within the fabric of the enterprise application architecture.

Additionally, it will be important for the business owners and technology leaders to collaborate on strategic decisions related to new applications, crosswalk solutions, report remediation, and system upgrades or replacements. Vendor and health plan partner readiness may be highly variable, which in turn will require the provider IT function to work with the business owners to understand, plan, and prioritize changes required to meet the needs of their unique environments.

**Implementation cost considerations**

While the potential benefits of ICD-10 implementation are substantial, achieving them will require health care providers to make hard choices around capital investments and operating budgets. Deloitte has worked with several clients to estimate ICD-10’s impact; we have seen budgets ranging from $17 million to over $100 million for ICD-10 implementation, depending upon the size and complexity of the organization.

The change to ICD-10 poses numerous potential implications, including the need for multiple system upgrades and testing cycles, expanded resource demands, significant training requirements, increased claim denials, delayed payment, improved clinical documentation, lost or reduced reimbursement, interruptions to cash flow, and more complex financial reporting. Among key considerations:

- Health care providers likely will need to upgrade multiple Information Technology (IT) systems to support the conversion from ICD-9 to ICD-10. Because of ICD-10’s complex code structures, implementing associated changes in electronic health records, billing systems, reporting packages, and other decision-making and analytical systems will either require major upgrades of multiple systems or outright replacement of older systems. The transition will likely necessitate significant capital cost outlays and increased staffing to map and load codes, revise and test system interfaces, develop new reports, map dual-coding systems, and retrain users. Nearly every segment of the provider environment will be affected by the changes, including nurses, physicians, patient financial services and finance, case management, researchers, administrators, and other staff.
- ICD-10 adoption may require significant technology changes for providers’ IT vendors, trading partners, external reporting entities, and third-party payors. All systems and external organizations accepting or reporting diagnostic and procedure codes will require modification and the ability to run dual-processing solutions to maintain, bill, and report both ICD-9 and ICD-10 codes concurrently during the transition period. Significant collaboration, testing, crosswalk analysis, report development, and data aggregation across time periods will be essential to prepare for the ICD-10 transition.
- Productivity loss should be anticipated in the functional areas that use ICD-9 codes on a routine basis. The greatest impacts likely will be to health information management/coding, clinical documentation programs, claims processing and follow-up (electronic billing system), researchers and decision support. There may also be an increased number of claims denials due to poor understanding of new code sets and coding requirements. Providers must prepare for this productivity reduction to prevent negative impacts to reimbursement and cash flow.
- Training programs on new/revised clinical documentation requirements and coding nomenclature should be developed for coders, medical staff, nurses, and allied health providers (e.g., respiratory, physical, and occupational therapists). Early training (we suggest at least two years prior to implementation) will lessen some productivity impacts associated with a learning curve. Training may need to include anatomy and physiology courses, detailed clinical documentation requirements, practice coding experience with real-time feedback, and general awareness sessions for staff currently using ICD-9 data.
- Physician practices may face financial and operational burdens from ICD-10 implementation and other technological requirements. Some physician practices, especially smaller ones, could have outdated practice management systems and may need to purchase entirely new software. Most physician practices do not employ coders; typically, administrative staff and physicians are responsible for ICD-10 code assignment, which increases the risk of coding errors.
- ICD-10 supports health reform measures. As part of recent reform efforts related to administrative simplification, clinical effectiveness, and quality-based payments, ICD-10 becomes essential to accurate research information, billing and outcomes analysis.
The upside to ICD-10
Benefits and improvements for the health care system

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

**Quality measurement** – Expanded data availability to assess quality standards, patient safety goals, mandates, and compliance is a key output of ICD-10 implementation.

**Public health** – Improved disease reporting and outbreak data/information resulting from ICD-10 compliance may help to enhance overall public health.

**Research** – ICD-10 implementation produces detailed data mining capabilities for increased analysis of diagnosis, treatment efficacy, prevention, etc.

**Organizational monitoring and performance** – Implementation is expected to provide enhanced ability to differentiate payment based on performance and to identify and resolve issues impacting patient care and safety.

**Reimbursement** – ICD-10 implementation should facilitate more accurate claims, fewer denials and underpayments, more efficiency in the billing and reimbursement process, and the ability to differentiate reimbursement based on patient acuity, complexity and outcomes.

**Fraud detection** – ICD-10 provides for greater granularity and more specific codes for many conditions, which reduces ambiguity and misinterpretation and will likely lead to improved coding accuracy. Inherent logic in the new code set will be a catalyst for development of better tools to detect suspicious patterns and potential fraud.

**Process improvement** – As part of Deloitte’s remediation efforts, we have discovered the opportunity for health care providers to use the ICD-10 transition to initiate process improvements within their organizations. We have seen examples of clinical documentation and general workflow improvements.

**Application rationalization** – Providers may use the ICD-10 transition as an opportunity to simplify their software applications inventory. Through the assessment process, some providers have identified redundant software products, and multiple versions of the same product in use within an organization that was spread out among many locations. In planning for ICD-10 remediation, organizations might also plan for consolidation of their application inventory and reports.

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

While Deloitte expects that some organizations will seek approaches to implementing ICD-10 that simply meet regulatory requirements, others will use ICD-10 compliance as a way to further their market agendas, business models, and clinical capabilities. By making use of the new code set, these innovators will seek to derive strategic value from the remediation effort. We believe that these innovators will approach ICD-10 compliance as a strategic initiative and, as a result, develop efficient remediation plans that identify operational improvements, reduce the cost of remediation, and define benefits of the new codes set.

Although the considerable investment required may dissuade many organizations from tackling such a complex remediation effort, those that do will have an opportunity to develop new business partnerships, create new care procedures, and change their business models to grow overall revenue streams. Health care organizations looking for these new business opportunities can employ ICD-10 as a catalyst to anchor a more competitive market position.
ICD-10 myths and realities

As if implementing ICD-10 wasn’t challenging enough, health care providers often have to sift through and correct incorrect information in some common myths regarding ICD-10-CM/PCS.1

Myth: The October 1, 2013, deadline for ICD-10 compliance is a flexible date (or CMS will likely postpone or extend the compliance date).

Reality: HHS does not appear to plan on an extension for the compliance date, so all covered entities need to be ready to meet the stated deadline.

Myth: My application vendors will take care of ICD-10 implementation.

Reality: Software vendors have to provide the appropriate technology changes to prepare their applications for ICD-10, but users will need to integrate and test all changes with their existing applications. Also, technology updates won’t address the additional training and process changes required to expand documentation requirements and actually use the new codes.

Myth: There are so many new codes that it will be virtually impossible to use ICD-10.

Reality: Electronic code selection tools should be able to assist providers in capturing the greater specificity, clinical accuracy, and more logical structure of the code set to facilitate selection of the right code.

Myth: ICD-10 was developed several years ago, so it is probably already out of date.

Reality: ICD-10 codes have been regularly updated to keep pace with advances in medicine, technology, and changes in the health care environment. It is likely, through a formal rule-making process, the code set will be “frozen” at some point prior to implementation to stabilize the update process after providers have had time to gain experience with the new coding system.

Myth: ICD-10 compliance is an IT issue.

Reality: As part of Deloitte’s assessment projects, we have discovered that ICD-10 covers many, if not most functional areas within our clients’ organizations. Clearly ICD-10 has an IT impact and organizations need to update their systems to accommodate the new codes. However, ICD-10 also impacts the finance and operations areas. The finance team needs to make sure that revenue flow is not negatively affected and that the HIM department has the necessary support for appropriate training and education. The operations group needs to ensure that clinicians are familiar with upcoming code changes and how updating clinical documentation processes would ease the transition to ICD-10.

Myth: There is plenty of time to make ICD-10-related changes, given that the deadline is October 2013.

Reality: What we have learned from our assessments is that organizations need to begin their remediation efforts immediately. This is due to the magnitude of work, the amount of testing, the expansive and integrated nature of ICD-10 codes, the need to coordinate with many external vendors and trading partners, and the need for a formal communications and training program.

Health Plans ICD-10 update

By: Dave Biel, Melinda Reno

The leading U.S. health plans are actively working toward ICD-10 remediation. Most are in the late phases of strategy and planning, and preparing for large-scale remediation efforts in 2011. Health plans continue to outpace health care providers in this regard.

During 2010, health plans were primarily focused on discovery: conducting assessments; developing solution hypotheses; estimating costs, resources and budgets; preparing for mobilization; and, at certain leading health plans, performing some remediation. In 2011, health plans are expected to turn their focus to full-scale remediation: developing the required strategic and tactical activities; identifying technical requirements and then moving into design and the start of construction; and working through key business issues such as crosswalks and financial analysis and mitigation.

Many health plans are very interested in testing with key providers and key claims clearinghouses prior to the October 1, 2013, cutover date, preferably with testing activities commencing in first and second quarter 2013. In addition, health plans are interested in any industry-level testing programs.

We have noted a number of health plans employing leading practices in ICD-10 remediation, including:

• Starting the assessment and planning process early so they can seek opportunities to dovetail ICD-10 remediation work with other in-flight programs and influence vendors to define a solution that will be compatible with theirs.
• Scheduling multiple releases of ICD-10-compliant code to avoid a “big bang.”
• Planning for early outreach to key providers to begin information sharing.
• Beginning to determine how they will model the potential financial impacts of the ICD-10 code set on claims payment.

• Planning to remediate systems to support dual processing, which will be required for a period of time during the ICD-9 to ICD-10 transition.

Regarding the overall timing and health of industry readiness for ICD-10, experts are keeping a close eye on the related 5010 implementation, which has its major cutover milestone approaching on January 1, 2012. The 5010 implementation, which is both a prerequisite to ICD-10 and a less complex process, provides a view into the industry’s ability to absorb comprehensive changes on a mandated cutover date. A smooth 5010 implementation with little disruption to providers, payors, and government entities would be a positive indicator for ICD-10, which has a mandated compliance date 20 months hence.

ICD-10 and the revenue cycle: Don’t play “kick the can”
By: Joel Gardiner, William LaBahn

The primary goal for a health care provider’s revenue cycle leadership during ICD-10 conversion should be to sustain cash flow. This can be a considerable challenge, given the number of revenue cycle processes and systems that ICD-10 migration impacts, the volume of software and system changes it requires, and the need for extensive employee training. Preparing a comprehensive implementation plan is essential; it should include correcting revenue cycle weaknesses in the provider’s current ICD-9 environment. Don’t play kick the can: Trying to push existing problems in scheduling, registration, clinical documentation, coding, billing, denial management and collections farther down the road could result in a significant loss in cash flow under the stress of an ICD-10 conversion.

Engage senior leadership
Many of Deloitte’s revenue cycle clients are asking us what to do if they are just getting started with their ICD-10 conversion or are playing catch-up. First and foremost, provider senior leadership must be engaged in establishing an overall ICD-10 governance and project structure that includes representation from all impacted areas. Specific to the revenue cycle, if a provider has known weaknesses within its revenue cycle, these need to be corrected prior to conversion. If the provider is part of a larger health system, the project plan should entail enterprise tools and remediation efforts to provide consistency in leadership and execution. Establishing an enterprise project management office (PMO) function to specifically manage all ICD-10-related activities should be a key consideration, particularly if the organization’s implementation activities are lagging.

Incorporate leading practices
Deloitte is seeing many of our clients employ a number of ICD-10 leading practices. These include:

- Creating a talent management plan to include potential incentives for retaining staff who have been trained on ICD-10 in light of national trend towards remote coding solutions and national recruiting capabilities enabled through increased electronic health records
- Enhancing front-end work flows to capture a diagnosis code at the earliest point possible and integrate preauthorization/precertification into the financial clearance work flow.
- Developing comprehensive denial and under-payment variance programs supported by effective root cause analysis and management reporting to prepare for ICD-10 payment complexities.
- Conducting pre- and post-ICD-10 effort focused on sustainability of cash and net revenue.
- Focusing on pre-transition Discharged Not Final Billed and A/R backlog reduction.
- Developing key performance indicator (KPI) tracking (DNFB, collections/denials by payor, payment delays, etc.).
- Planning for a post-implementation SWAT approach for tracking/resolving issues and quality monitoring.
- Determining revenue impact once the final ICD-10 DRG grouper becomes available.
- Considering shared services models for financial clearance, HIM/coding, and patient accounting functions.

Realizing and sustaining value
Providers that embrace and leverage the transition to ICD-10 rather than simply meet compliance requirements have a unique opportunity to drive value throughout their organization. ICD-10 touches almost all of a provider’s key revenue cycle people, processes and systems. Accordingly, migration can help an organization rationalize and improve its revenue cycle by leaving non-value-added activities and systems behind and building best practice work flows into the new ICD-10 environment.

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Figure 4. ICD training timeline

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<td>General awareness training</td>
<td>All groups</td>
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<td>Executive Management</td>
<td>On-going quarterly updates</td>
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<tr>
<td>Revenue cycle/Finance</td>
<td>On-going quarterly updates</td>
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<tr>
<td>Clinical documentation specialists</td>
<td>In-depth documentation training</td>
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<tr>
<td>Physicians</td>
<td>Introduction to documentation changes and electronic health records</td>
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<tr>
<td>Physicians</td>
<td>In-depth specialty specific training</td>
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<tr>
<td>Coders</td>
<td>ABP assessment/education, ICD-10-PCS definitions; ICD-10-CM chapter overview</td>
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<tr>
<td>Coders</td>
<td>In-depth Coder Training (and Auditing)</td>
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<tr>
<td>Coders &amp; Clinical documentation specialists</td>
<td>Joint working sessions to work through codes together</td>
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<tr>
<td>Revenue Cycle/Finance/Admitting</td>
<td>In-depth training based on employee specific role</td>
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Training can address ICD-10 employee needs
By: Jennifer Radin, Eileen Radis

The significant and wide-ranging changes required for an ICD-10 conversion can affect stakeholders throughout a provider organization, including physicians and nurse practitioners, clinical documentation specialists and coders, and revenue cycle and finance staff. ICD-10’s broad reach makes it imperative that all of these employee groups are well-informed and ready to adapt to ICD-10’s specific impacts on their day-to-day activities. To achieve readiness, a training and communication plan should address the needs of each group.

Physicians and Nurse practitioners should be able to accurately represent the severity of illness and intensity of service provided using ICD-10’s new level of detail. Training might include small-group sessions, peer-to-peer education led by a physician, as well as seminars, classroom workshops, and other reference materials to leverage in day-to-day work.

Clinical Documentation Specialists (CDS) need to be aware of the level of detail required for consistent and accurate mapping to ICD-10 codes in order to accurately represent the severity of illness and intensity of service and provided in clinical settings. Training might be focused on classroom sessions or e-learning to educate CDSs on ICD-10, as well as supplemental written materials.

Coders are responsible for accurately translating clinical services using the ICD-10 coding system. Because ICD-10 is a significantly more complex scheme of classifying diseases, and because coding is used for statistical tracking, planning and facility management, and reimbursement, coders need to have a thorough understanding of ICD-10. To accomplish this, training should be delivered through multiple forums including live workshops, coding roundtables/discussion groups, and one-on-one coder training.

Revenue Cycle personnel must be familiar with the differences between the ICD-9 and ICD-10 coding systems, especially during the initial stages of transition. Diagnosis and procedure codes are used by clinical staff to support medical necessity; by case management to obtain treatment authorization from payors; and by the business office to submit reimbursement claims for services. As a result, charge-capture personnel and business office staff require ICD-10 education. Training options include e-learning, written materials, or classroom sessions to facilitate understanding of specific ICD-10 requirements.

Finance employees should have a high-level understanding of ICD-10 implications, including potential delays in billing and/or reimbursement time during migration. Like the current ICD-9 codes, ICD-10 codes will drive the MS-DRG assignment; finance staff will need to be familiar with these codes because they monitor the case mix index. ICD-10 information may also help to track the types of patients treated and growth in certain service lines. Finance employee training might include virtual classroom sessions, and written reference materials on major changes resulting from the ICD-10 transition.

Executive management needs to lead the entire organization through ICD-10 implementation. Senior-level executives should articulate a model of care that outlines guiding principles and sets expectations. As such, they should be aware of ICD-10’s impacts on patient safety and clinician competency, as well as financial operations. Training should include one-on-one sessions, small group discussions, and supplementary reference materials.

Getting started
As organizations move from ICD-10 assessment to implementation, they should begin planning to address training needs at all levels (Figure 4). Work begins at the top by establishing visible executive support at the outset of the transition. A top-down awareness-building approach empowers senior executives to lead and drive change across the organization. Beyond the executive team, preparations also should include enlisting “change agents” -- influential representatives from each stakeholder group who can help drive awareness and buy in, as well as “take the pulse” on organizational concerns. The planning team should carefully consider the needs of each stakeholder group and develop a tailored, blended learning approach. In this way, a provider organization can facilitate a smooth transition to ICD-10 for all of its employees.

Managing ICD-10 privacy and security challenges
By: Mark Ford, Jimmy Joseph

Transitioning from ICD-9 to ICD-10 diagnosis and procedure codes presents health care providers with several challenges related to the security and privacy of the codes and the information systems that store, process, and transmit them. These challenges can be divided into four major categories: regulatory, market, operational, and public (Figure 5):

Fortunately, the timing of the ICD-10 mandate presents a unique opportunity for health care providers. The move to ICD-10 coincides with increased industry awareness about Protected Health Information (PHI) risks and the proliferation of federal and state regulations that impact PHI (i.e., HITECH). Providers can rationalize their investments in protecting PHI confidentiality to comply with HITECH and adoption of Electronic Health Record (EHR) with the control considerations related to ICD-10 conversion.

Providers should plan, design, build, and implement ICD-10 security and privacy controls that will ensure availability of accurate diagnosis and procedure data, protection of the historical and new codes from unauthorized access, and compliance with laws and regulations. Considerations should include:

• Integrating a security, controls, and compliance thread of project activities focused on managing risk by implementing security and controls
• Addressing relevant regulatory mandates as outlined or defined by HHS, CMS and other regulatory agencies at the federal and state level
• Addressing federally established laws and codes about privacy and the protection of data
• Exploiting security controls, features, and functionality of the information systems that undergo a change as a result of ICD-10 conversion and applying the collective experience of provider and third-party resources in the design and configuration control options available to adequately manage risk in the environment
• Providing specialized and customized training and knowledge transfer about related security and controls methodologies and tools
• Aligning Segregation of Duties enablers with the implementation to provide a cost-efficient approach to building and maintaining internal controls for compliance and risk management
• Eliminating redundant, obsolete, inefficient, and over-controlled processes and rightsizing the newly designed control structure
• Providing integrity, reliability, and availability of information with a minimization of lost, compromised, and corrupted data
• Creating and documenting a control environment that auditors can rely on during internal and external audits
• Establishing common control and security practices and policies aligned with the business requirements to create a secure, controlled, and maintainable application environment
• Facilitating the transition from the implementation project to ongoing sustaining compliance, including risk assessment, control objectives, process and IT control activities, and security.

Figure 5: ICD-10 security and privacy challenges

<table>
<thead>
<tr>
<th>Data Privacy &amp; Protection</th>
<th>Existing regulations such as HIPAA, 21 CFR Part 11 etc. could be affected by diagnosis and procedure code changes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Control</td>
<td>Due to the increased data complexity with the introduction of the new codes logical access to sensitive data may not be restricted to only authorized users.</td>
</tr>
<tr>
<td>Data Quality</td>
<td>Due to the increased data structure complexity, appropriate interface and data migration controls should be in place to maintain quality of data.</td>
</tr>
<tr>
<td>Application &amp; System</td>
<td>Application and the underlying IT infrastructure can become an ideal target for security compromise due to the complexity of the change. Secure coding and testing practices should be used throughout development and deployment cycles.</td>
</tr>
<tr>
<td>Integrity</td>
<td>Greater complexity of code set may introduce more complex fraud opportunities. Access to this data should be logged and monitored to ensure no unauthorized access or data breaches.</td>
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</tbody>
</table>

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