IMPACT OF ICD-10 CODE SET ADOPTION ON HEALTH INSURANCE PLANS

Kenneth W. Fody, Esq.,
Managing Consultant
Global Business Services
IBM Corporation

May 1, 2006

Table of Contents

1.0 Executive Summary

1.1 Background

Currently the ICD-9-CM is used for diagnosis coding in most inpatient and outpatient settings. These codes are contained in Volumes 1 and 2 of ICD-9-CM. Volume 3 of ICD-9-CM includes procedure codes used in inpatient institutional settings (e.g. hospitals). These codes have been in use since the late 1970s.

The use of ICD-10 codes for medical diagnosis and procedure coding has been debated for a number of years. The primary reasons given for changing to the new coding system are concerns that the current ICD-9 Codes may be inadequate and do not provide sufficiently detailed information needed for health research and statistical analysis.

On the other hand, the migration to ICD-10 diagnosis and procedure codes would result in a substantial increase in the number of fields used for the coding process and a significant change to a system by using both numbers and letters as part of the Codes. For example, the current diagnosis codes are a numeric system (with some supplementary letter codes) using a minimum of 3 digits and a maximum of 5 digits. In contrast, ICD-10 diagnosis codes combine letters and numbers and use between 3 and 6 digits. Likewise, the current ICD-9 procedure codes are numeric with a minimum of 3 and a maximum of 4 digits, while the ICD-10 procedure codes are alphanumeric with 7 required digits.

The newer codes were intended to be more complete, expandable, and provide greater information about the services represented by the code. Achieving these goals does not come without some challenges. To identify what these challenges are, Ken Fody of IBM worked with staff from America's Health Insurance Plans (AHIP) and a task force of representatives from AHIP member health plans who represented a cross section of AHIP's membership.

1.2 Discussion

Adoption of the ICD-10 Code Sets has become a question of when, not if, yet there is still trepidation within the health care industry about adoption of these Code Sets. This reluctance stems from concern on the part of some within the health care industry, particularly payors, that there is not an appreciation of how challenging and costly this project will be and that the key activities, such as adoption of new HIPAA Transactions will be bypassed, and the time frame for adoption shortened. The purpose of this report is to describe the impact of changing to ICD-10 Code Sets on health insurance plans, including a discussion of the impact, timing, and cost.

Because of the significance of this effort, it is recommended that the period for implementing the ICD-10 Code Sets be three years. The three years would be used by health plans to assess their needs, prepare detailed project plans, for business areas to define their requirements and identify how their business processes will change. The work itself, designing and building the changes to systems and processes, will take some time to complete and then there will need to be adequate time for testing, training, and re-contracting between payor and providers, covered entities and business associates, and between trading partners.

These activities should be preceded by a period of 6 to 18 months for health care organizations to plan and budget resources for the work – both human resources and financial. Money is not just laying around waiting to be spent on this project. Organizations need time to allocate funds through their normal budgeting processes and re-assign staff. Larger organizations have IT budgets and activities that are planned out as far as 18 months in advance. This planning period could coincide with the time period required to implement the ANSI X12 v.5010 Transactions.

Prior to the clock starting on the implementation of the ICD-10 Code Sets, the industry should be required to migrate to the ANSI X12 v. 5010 Transactions. The current transaction sets are not adequate for reporting the ICD-10 Code Sets. If the goal is to achieve thorough use and adoption of the ICD-10 Code Sets, then having appropriate transactions in place is a pre-requisite. It should also be recognized that adopting these updated transactions is not the same as updating software on a computer. Until the adoption of updates to transactions becomes a regular and routine process, the previous experience of the industry in adopting the original HIPAA transactions is a better indicator of the trials and tribulations what will occur when moving to the next generation of the transactions. Therefore a 24 month period is recommended for the adoption of the ANSI X12 v. 5010 Transactions.

As described herein, every area within a payor organization will be affected by the adoption of the ICD-10 Codes. This is not simply a process of expanding field sizes and reprogramming logic. Business areas will be required to re-evaluate their existing policies, procedures, and processes. There will be extensive re-writing of reports. Provider contracting and communications with providers and other constituencies will be a significant effort. When all of that effort and the IT work is done, everything will have to be tested both internally and with trading partners to make sure it all works as intended.

That said, adopting the updated transactions should not preclude adopting a mandate for using the ICD-10 Codes. On the contrary, it is recommended that rules requiring both the ANSI X12 v. 5010 Transactions and ICD-10 Code Sets be promulgated at the same time. The rules should state that the three year period for implementing the ICD-10 Codes shall begin when the 2 year period for adopting the 5010 Transactions is completed. Mandating the ICD-10 Codes this way will trigger health plans conducting the process of planning and budgeting for these changes.

In this way, the health care industry will have a clear road map of the activities ahead and can better plan for these. For example, health care entities can more properly budget their resources given the longer time frame. Some entities may begin work on the ICD-10 Codes earlier in order to achieve greater adoption and use of the codes. Some entities may find that work related to the implementation of the ICD-10 Code Sets corresponds with activities required to implement the 5010 Transactions and that it is more efficient to combine certain aspects of these projects. It also means that costs can be spread out over a longer period of time, which reduces the size of possible rate increases required to fund this work.

This is important because the financial cost to payors for implementing the ICD-10 Code Sets will be significant. As indicated in Section 4.0, the estimates previously circulated in the studies referred to as the Rand Report[1] and the Nolan Report[2] were evaluated in light of the impact to payor organizations described in Section 2.0. It was found that the cost estimates in the Nolan Report, $432 million to $913 million for payors, were much closer to accurately capturing the work effort involved in implementing the ICD-10 Code Sets than was the Rand Report. The Nolan Report specifically mentioned levels of activity that the Rand Report overlooked. Additionally, there are activities that neither the Rand nor the Nolan report mentioned. Also, there is the possibility that some vendors may choose not to bear the costs of modifying or upgrading their systems and instead impose special surcharges on customers to offset these costs. This was an experience seen during the HIPAA implementation period.

If the ICD-10 Code Sets are adopted, the goal should be to see that all health care entities – payors, providers, vendors, and any other entity involved or affected – adopt and utilize the ICD-10 Code Sets to the fullest extent possible given their individual business model. This is consistent with the public policy goals behind adoption of the ICD-10 Codes; it is also consistent with the direction the industry is currently taking towards developing a robust national health infrastructure network.

---

[1] *The Costs and Benefits of Moving to the ICD-10 Code Sets* prepared for the Department of Health and Human Services by Martin Libicki and Irene Brahmakulam of the Rand Corporation (hereafter referred to as the "Rand Report")

[2] *Replacing ICD-9-CM with ICD-10-CM and ICD-10-PCS – Challenges, Estimated Costs and Potential Benefits* prepared for Blue Cross and Blue Shield Association by Robert E. Nolan Company, October 2003 (hereafter referred to as the "Nolan Report")

The view that adequate time should be allowed to permit greater adoption, rather than providing less time and encouraging short-cuts, is also consistent with the current activities within the payor market. Payors are actively working to obtain more information and better utilize they information they do have available for disease management, case management, and pay for performance programs, and also to assist members with consumer directed health plans with tools such as personal health records.

Payors are also being asked by large groups and governmental programs, such as Medicare and Medicaid, to provide more information about performance and medical care.

Payors would welcome any value that comes from the ICD-10 Code Sets if the process of adopting these recognizes the concerns of payors about the level of effort and cost involved. Fortunately, the two points are not mutually exclusive. Providing an approach to implementation such as the one outlined herein will enhance the prospects that the ICD-10 Code Sets will be correctly implemented and adopted.

2.0 Effect of Adopting ICD-10 on Payor Operations

2.1 Claims

Claims business processes and systems are highly dependent upon medical codes for processing. Codes are used to determine whether services are covered, for benefit accumulation, and trigger logic within payor systems. This logic represents business rules that are embedded into the system. The purpose of these rules is to automate processing for the purpose of speeding claim adjudication while reducing administrative costs.

The following is a discussion of specific business processes and systems within a claims unit that could be affected by adoption of the ICD-10 Codes.

Keep in mind that for many payors, there is not a single "claims" department or "claim" system. Some payors have different systems for different lines of business, e.g. HMO versus fee for service products like PPO and indemnity, or different systems for ancillary services like dental. Similarly, there can be different areas within the company with their own set of claim rules that vary by product, state, or market segment (e.g. individual versus ERISA self-funded accounts). So the activities described below may have to be repeated multiple times within a payor organization.

2.1.1 Need correct codes on claims

Incoming claims must have the correct codes on them to be processed. This will mean that after a particular date in time, only ICD-10 codes will be permitted. If these codes are not on the claims then the claim will be rejected.

Some payors have staff assigned to correcting claim errors rather than rejecting claims. The change to the ICD-10 codes will create additional burdens for this process while both sides become accustomed to the new numbers. The burden will be an increase in the number of claims to repair and the need to retrain staff on the new code sets.

For EDI claims repairing invalid codes are not permitted. A covered entity cannot accept a non-compliant claim and a claim received with an invalid code is non-compliant.

All of this will result in a period of time when many more claims are rejected during the transition period. These codes will be resubmitted and re-processed increasing the workload on payors. This costs money for either adding staff or paying overtime.

2.1.2 Claim edits need to be updated to reflect new codes

Claim systems process claims using edits tied to specific codes. These edits are an example of the business rule logic built into claim systems to speed processing and reduce costs. Adoption of the ICD codes will require Payors to re-evaluate all of these rules to determine how to re-code all of the current edits that are tied to ICD-9 codes.

The process will involve various business areas being involved in reviewing the business rules to determine what these are, how they are coded into the edits within the claim system, how these rely on the ICD-9 codes and what the impact will be of migrating to the ICD-10 codes. The number of edits involved means this will be a time consuming process, as will the fact that Payors should spend some time re-evaluating each of the edits and not just map them to new codes.

Finally, the edits will have to be modified. Some of these edits involve reconfiguring the application using built in tools or options. However, in some legacy systems, modifying the edits means re-programming the system as the edit could be "hard coded."

2.1.3 Codes used to determine reimbursement rate – system driven

As stated in above, ICD codes are used to determine reimbursement levels. Much of this is done in the provider reimbursement tables that are typically controlled outside the claims area, and that is discussed later in this document. However, there are reimbursements driven by codes within the system. These will have to be identified and modified to reflect the new codes.

As with the edits, these will have to be evaluated by the business areas and decisions made on how they will function with ICD-10 codes. Then the claims application will have to be modified

2.1.4 Codes used to determine whether the claim is a covered service

To evaluate whether a claim is a covered service, codes are used:

- In benefit tables to determine whether a service is covered under a particular policy,
- In conjunction with the provider taxonomy to determine whether a provider can render the service the code describes,
- To determine whether a particular individual should be receiving the type of service rendered (e.g. OB/GYN services are not provided to a male member)

Updating these rules will be more straightforward in that there will not need to be the same intense business analysis. However, these still need to be modified within the system either by reconfiguring the system using tools and options provided by the vendor or possibly in having to re-program legacy applications where the rules are hard coded into memory.

2.1.5 Need to retrain staff on new Codes

Staff will need to be retrained on reading and understanding the ICD-10 codes. A training program will have to be designed, tested, and implemented. In addition to the cost of creating the training program, the time spent by staff in training is time away from work. This will result in payment of overtime and/or time away from work during regular hours.

Staff who had become familiar with the ICD-9 codes will have to start over with the ICD-10. This will be a loss of "institutional memory" (e.g. examiners who knew codes by heart will have to start over) that will slow payor processes in the future.

2.1.6 Increased error rates as providers put wrong Codes on claims

This is different from claims submitted with old codes. This represents the impact of providers submitting claims with incorrect codes. This will result in providers being either overpaid or underpaid. Underpaid providers will resubmit claims and/or complain. Overpayments cause payors to audit providers more closely and seek reimbursements. Either causes a claim that was previously adjudicated to be re-opened and re-processed.

The impact during the process of implementing the ICD-10 codes is that payors will identify the possible effects of this and create work-arounds to address them. These work-arounds will likely be creating new reports to identify problems and/or redundant processes to find and correct these errors.

To avoid this, payors will have to develop tools and strategies to assist providers with coding properly to reduce the possibility of increased errors. This will be particularly important as it regards smaller providers who may not have access to the type of staff training and automated tools that larger providers might use to prepare.

2.1.7 Claim history will have to be mapped from old codes to new for data reporting purposes

Member claim history is used for a variety of purposes that range from many different types of reports to benefit accumulators. To compare historical claim data using ICD-9 codes with claims using ICD-10 codes, Payors will have to identify a way of mapping, or matching the old codes with the new so that there is some correlation between the old and new claims.

This will be extremely challenging because the typical ICD-9 code maps to many potential ICD-10 codes. Finding the right match will require arduous trial and error, it cannot be easily automated.

Therefore setting up the data crosswalks will require a business analysis of all the different activities affected and development of a solution for each (granted one solution can fit many problems). This solution will have to then be designed and built. This alternative means of matching data will remain in effect for at least a few years as the various business processes for which the older claims history could be needed play out.

2.1.8 Applications used to look up claims may have to be modified

Applications used to look up claims will pull up the diagnosis codes. These applications will need to be modified to accept the larger field sizes of the ICD-10 codes.

Also, many of these applications have prompts or other supporting tools to help the user understand what they are reading. To the extent these convert ICD codes into plain English, these features will also have to be updated.

2.1.9 Reimbursement rates for providers not in-network (e.g. non-par providers) will have to be adjusted

Claim systems utilize reimbursement rates not just for participating or contracted providers, but also for non-participating providers. For example, it is not uncommon to see reimbursement to non-par providers at some percentage of Medicare's fee schedule for particular diagnosis codes. These reimbursement tables will need to be modified to reflect the new codes.

To the extent that the Payor reimburses using something other than a table driven by a public fee schedule, like the Medicare rates, the Payor will have to modify those rates by code as well. Similarly, Reasonable and Customary fee schedules will be impacted, because they are based on experience.

When the industry converts to the ICD-10 codes, there will be no direct experience on which to base these rates. Using experience from ICD-9 codes will not account for the richer data available in the ICD-10 codes that distinguish severity, for example.

Invariably, decisions made in re-pricing claims that are based on ICD-10 Codes will give rise to debate and dissension between payors and providers. Specifically, Reasonable and Customary fee schedules are based on two factors – what the customary charge is for a service in a given geographic area, and what is a reasonable charge for that code. Given the variety of new codes for every one old code, providers may set prices higher than what payors feel are reasonable given the nature of the service rendered. Similarly, without historical experience as to how providers price a code, payors will be unable to determine what is "customary" so they will make their own determinations. It is inevitable that some providers will think that the payor's have set pricing for some codes too low. Members will be caught in the middle of this because providers often bill the member for the difference between their charges and what the insurer pays.

2.1.10 EOBs will have to be rewritten to use new codes and possibly to explain their meaning

EOBs are Explanations of Benefits and refer to paper documentation this is sent to members explaining why or how a claim was adjudicated. Payors generally spend a fair amount of time developing EOBs. At a minimum the applications that generate EOBs will have to be re-done to accommodate the different size and format of the ICD-10 codes. Also, to the extent that the Payors attempt to convert codes into plain English for members to understand the services rendered, then these plain English conversions will have to be re-written.

2.1.11 EOPs will have to be rewritten to use new codes

EOPs are Explanations of Payments and refer to the paper documentation that is sent to a provider explaining why or how a claim was adjudicated. Electronically, this is known as a Remittance Advice. Generally, the activity to remediate the process of creating these documents will have to be the same as at (2.1.10) above.

2.1.12 Any Claim reports that contain the ICD codes

All reports will have to be modified to accept the larger codes. This includes identify the correct information, modifying the field attributes in the report to accept this, and any impact that the difference between ICD-9 and ICD-10 might have on the values reported.

For example, if there are multiple ICD-10 codes for one ICD-9 code, then the number of instances of the ICD-9 code will be greater than the number of instances of any one of the equivalent ICD-10 codes. This does not mean the total number of diagnostic codes is less; it just means that the total is spread out over more ICD-10 codes. If the reader is not aware of this and/or if the totals are not displayed, this can give a misleading impression.

2.1.13 Any claim letters that rely on code sets

Some letters are generated automatically when certain codes are identified. For example, if the code indicates a condition that could be caused by an accident, then a letter inquiring about third party liability will be generated. Similarly codes that suggest a pregnancy may cause the generation of a kit informing the mother or the treating physician of benefits and rules related to maternity.

These auto-generated letters and the basis on which they are generated will have to be identified. If ICD-9 codes are the basis for any of these letters then the application generating the letters needs to be modified.

2.1.14 Hardware, software, and forms used to facilitate scanning and imaging of claims

One way of automating the process of receiving paper claims is to scan these. Some scanning processes merely create a digital image of the information received and this is then stored in a database for someone to retrieve and read. These images can then be presented to claim examiners for manual entry into the claim system.

More and more, however, payor are using software that actually reviews what is being scanned. These processes involve actually "reading the information" on the claim form using "Optical Character Recognition" (OCR) software. For payors using OCR software, the fact that the ICD-10 codes are bigger and use different codes will necessitate a re-evaluation of both the software and the business operations supporting these processes.

The software needs to be re-calibrated to recognize that different field lengths mean data is not exactly where it was previously expected and that codes read can have a different meaning. Business procedures typically are adopted to validate the quality of the scanning and OCR process. These procedures will have to be updated to address the changes in the OCR process brought about by adding the ICD-10 Codes.

Complicating this is the fact that the OCR scanning process will have to be able to continue to accept ICD-9 codes for as long as 24 months after the conversion to ICD-10. This is because many payors will accept a claim for services from providers for up to 24 months after the claim was incurred. So claims with ICD-9 Codes may appropriately be submitted for up to 24 months after the adoption of the ICD-10 Codes.

2.1.15 Handling claims during transition period

Health plans will have to develop processes and procedures for handling claims during the period of transition from one code set to another. This will involve trying to identify likely problems in advance and creating ways to address these before they happen.

2.1.16 Process for getting claim into system

Generally payors use one or more of the following processes to accept claims and enter them into their systems:

- Scanning
- EDI
- Manual processing

The processes by which claims are accepted by the claim system will need to be evaluated. The impact to scanning and imaging processes was dealt with generally above and EDI processes will be discussed later in this document.

However, here we refer to the process by which the claims area and claims system accept the information from these sources into their applications. Thus the interfaces through which claim data passes, the databases where data is stored, the screens on which claims are viewed during the input of claims all must be evaluated.

The typical results are that field sizes and edits for accuracy of information applied before the claim is adjudicated will need to be modified to reflect the new values that will be received.

2.1.17 Code auditing software

Many claim systems use external software to review codes for various purposes. Some software looks for fraud, others look for bundling or unbundling of claims, other applications evaluate codes for accuracy before the claim is submitted for processing.

This software will need to be updated. Often this software is supplied by vendors so the responsibility for updating the software lies with them. However the health plans have responsibility for loading the updates and testing them before these go into production.

2.1.18 Subrogation software

Similar to the auditing software above, many payors use software to identify when claims may involve third party liability and thus give rise to subrogation opportunities. This software also will need to be updated and the updates loaded and tested.

2.1.19 Consultants and others participating in claim reviews

Payors are often subject to claim process reviews. Some of these are voluntary – e.g. reviews to ensure compliance or to find ways to optimize business processes. Others are involuntary, such as Insurance Department audits.

Payors will be responsible for notifying these external parties of when and how the Payor is converting from ICD-9 to ICD-10 and how that will affect the payor's participation with the reviewer. This could require the reviewer to retrain their staff, update software tools, and/or find ways to map old data using the ICD-9 to the newer data using ICD-10 code sets.

2.2 Product Development

Product development for the purpose of this discussion is the process of configuring benefit tables within payor systems so that claims and provider fees can be adjudicated and paid. Benefits are established by evaluating codes and determining which will pay and under what circumstances. This is a tedious process and will be made more so by the expansion of the number of codes that will be available in the ICD-10 Code Set.

2.2.1 Need to reconfigure benefit designs

Whenever a new product is created or a group sold that has a variation on benefits, a new benefit table is set up. These benefit tables use ICD and CPT codes to determine what are covered services.

Adoption of the ICD-10 Code Set will require modification of all of these benefit tables to incorporate the new ICD codes. Given the difference between the ICD-9 and ICD-10 codes, some time and effort will be required to evaluate the ICD-10 codes and determine which ones apply and how.

Reconfiguring benefit designs is not a process that is automated in every case. Some vendor systems and particularly with older systems or "homegrown" systems, do not have tools that allow for mass updates and changes. This could result in health plans having to assign staff to manually reconfigure and recode benefit designs.

This is very tedious and requires staff with special skill and knowledge of the application. Existing benefit coding staff will likely be dedicated to this project for an extended period of time to code, test, and correct errors in coding.

Additional time will be spent as plans determine how to best utilize the richer information in the ICD-10 codes to enhance benefit design and claim processing. This analysis will occur before the coding can begin and will require more testing to allow Plans to determine what the real effect of such changes will be.

2.2.2 Tools used to determine co-pays, coinsurance, other accumulators

Tools within an application used to determine when co-payments apply and how much they are will also have to be updated if ICD codes are used. The same is true of certain accumulators that total up services rendered.

In the case of the co-payments, these are tied to codes that determine the nature of the service. For example, an office visit that is part of an annual check up might have a lower co-payment as part of a program to encourage wellness activities by a member. The ICD codes used in this process will have to be modified to indicate which activities are entitled to lower or higher co-payments.

Certain services, such as physical therapy, might have a limit on how many can be rendered under a benefit program. ICD codes might be used within the benefit tools to indicate which services these are.

2.3 Provider Contracting

Provider contracting describes the process of adopting new fee schedules that accommodate the ICD-10 Codes. This involves determining what new fee schedules should be used, communicating these to providers, negotiating the rates, configuring the final fee schedules in the administrative systems, integrating these into the claim system, and ancillary issues like pay for performance programs.

Completing this work will be challenging. Adopting new fee schedules requires a detailed analysis of the new codes and determining how to price them. For any health plan that wants to take advantage of the richer detail embedded in the codes, there is not a one to one or one to many correlation from ICD-9 to ICD-10. Rolling out new fee schedules will take months to complete. Then the final fee schedules have to be loaded into systems, linked to the claim process, and thoroughly tested to ensure that the work was done correctly and claims pay properly.

2.3.1 Provider contracts will have to be modified

Provider contracts often include fee schedules where medical codes are listed and the reimbursements for those codes are designated. These contracts may also have other special arrangements defined in the agreement, such as higher reimbursement levels for certain services at certain locations or spelling out standard codes the provider should or should not bill.

To the extent that these agreements utilize ICD-9 codes, then the codes must be modified to reflect the ICD-10 codes instead. Fortunately, fee schedules are often attached to contracts as Exhibits or Appendices. Where this is true, payors will have to reissue new Exhibits or Attachments with the correct codes. If the codes are specified in the body of the contract, then specific language amending the terms affected must be issued.

Regardless of whether the health plan is just rolling out new fee schedules or a new contract, the process will take a number of months for any managed care health plan to complete.

Creating a new fee schedule will involve getting a thorough understanding of the new code set, and then configuring and testing various fees. This will not be a simple substitution on a one-to-one basis because there are often many ICD-10 codes for a single ICD-9 code. Nor is this a “one-to-many” mapping because given the richer data in the ICD-10 codes. Payors will invariably want to take advantage of this and price codes based on the variation portrayed by the data, assigning higher or lower reimbursement rates perhaps based on levels of severity or complexity indicated by the new codes.

Throughout the process of developing the fee schedule, there will be extensive testing of the fees. This will be done to make sure that the changes are “cost neutral.” Neither payors, nor their customers, will want to see an increase in claim payment costs resulting solely from adoption of a new code set.

Once the numbers for the fee schedule are determined, documents have to be drafted, approved, go through legal review, get printed, and then mailed. Once the fee schedules are sent out to providers, payors generally will have some form of educational process to inform providers of what is embodied in the agreements.

If payor fee schedules include any variation in payment rates, providers will take some time to evaluate the impact of these on their revenues. Invariably, this will give rise to providers complaining to and negotiating with the payors whenever providers feel their revenue streams are being impacted negatively. Realistically, not every doctor or hospital will be in a position to negotiate, but many will and this process will be time consuming.

Consider too that adoption of the ICD-10 code sets will have a specific deadline applicable to all payors. This means that every payor will be rolling out new fee schedules within a short time frame of one another. This will significantly impact the ability of providers to analyze these documents and negotiate them.

2.3.2 Modifications to provider reimbursement tables and links to claim systems

After the new provider contracts and/or fee schedules are agreed to by providers, the systems and tables that contain the information about provider reimbursement levels must be modified. Similarly, the link between these systems and tables and the systems that process claims must be modified. These modifications will reflect three types of changes.

First, changes need to be made to expand field sizes and attributes to permit the ICD-10 to reflect the new fees. Then the new fees will have to be loaded into the tables within the application. Finally, triggers will have to be modified so that the claim system knows when to call on the ICD-9 versus the ICD-10 fee schedules (e.g. for services rendered prior to the date on which the ICD-10 codes take effect).

These applications are typically owned by provider relations departments and are called upon by claim systems either to feed reimbursement tables within the claim applications or to provide the reimbursement information to the claim systems as needed to process claims. It is critical that this data be correct for claims to be processed and paid correctly.

Similarly, this information is used for other informational purposes such as answering inquiries from providers or data analysis within the payor organization.

2.3.3 Pay for Performance Programs utilize claim information

The underlying logic used to measure performance in pay-for-performance programs will have to be modified. These are based on analysis of claim information and medical records. The current applications, processes, and contract language is based in part on ICD-9 codes. Sufficient ICD-10 data will have to be collected to develop new ICD-10 based models of performance.

2.4 Provider Relations

While a health plan may have a business area called “Provider Relations” that is also responsible for provider contracting activities, the two subjects are separate here. The term “provider relations” refers to the business processes associated with receiving and addressing provider inquiries and concerns, communicating with providers generally, and overseeing their performance.

2.4.1 Process by which information is looked up to respond to provider inquiries about claims and benefits

Provider Relations processes often involve interaction with providers to look up the status of claims and reimbursements. Other questions may involve whether benefits are covered under an individual's policy or whether a provider can perform a specific service under their contract with the payor. Some health plans have provider relations departments to answer these questions. Other plans allow claim units to answer claim specific questions. So the focus of this discussion is on the processes and applications that support them not the business units. The impacts to these processes are multi-fold:

2.4.2 Applications used to look up information may need to be modified

To the extent that these applications utilize or depend upon ICD code sets, they will have to be modified. This can include modifying the field attributes within the application(s) to accommodate the different code set characteristics. It can also mean modifying the way that codes are read and interpreted, if these are translated into plain English for easier readability by the user.

2.4.3 Processes involving responding to questions need to be updated

Any changes to the applications or the methods of finding and using data to respond to inquiries will necessitate updates to the processes and procedures followed.

2.4.4 Personnel looking up information need to be retrained

Changes in the codes presented or in the processes and procedures followed will necessitate retraining of staff on these changes.

2.4.5 Claim history

Departments within a health plans may use different methods for looking into claim history. For example, the claim department may use the claim system itself, while the provider relations area may use a different system. If so, then that system must read both the old and new ICD codes and present, convert, or map them as needed to present data.

2.5 Communications:

2.5.1 To educate providers on what Payer is doing to comply

Payors must set out a plan for communicating to providers generally how the payor intends to comply with the regulation. This plan should indicate what communications are expected and when they should be sent.

Payors should expect to offer a discussion of how the payor's plans will impact the relationship between the payor and the provider and generally what activities the provider should expect to see and when. The most important impact will be how changes in the ICD Code Sets will affect provider Contracts.

As part of these communications, payors would be wise to communicate to providers in advance of issuing new contracts, or mass amendments to contracts with revised fee schedules. These communications should describe how the fee schedules will change and why.

To carry out these communications, the health plan staff will have to draft articles, letters, and other forms of communications. These will then have to be sent to the providers in some form or fashion. Health plans have a variety of communications they send to providers today – newsletters, bulletins, etc. – that can be used as the vehicles for these communications.

Plans will also have to be prepared for feedback from the providers and their representatives. Payors will hear back from individual providers, provider trade associations, regulators, legislators, and even lawyers and the courts.

2.5.2 To set out rules and timeline for activating new Code Sets and reimbursement levels

Whenever new codes take effect, there is a cut off date. Under the HIPAA Regulations, when code sets change over this occurs on a specific date. Claims incurred prior to that date are submitted with the old codes. Claims incurred after that date are to be submitted with the new codes.

New reimbursement schemes will likely take effect the same way, with reimbursement levels changing when the code sets do.
While this is stated in the regulations, the interaction on specific claims is between payors and providers. Therefore, payors must communicate these rules to providers.

2.5.3 Modify previously issued provider documentation

Any previously released provider documentation will likely need to be updated. This includes newsletters, provider manuals, online communications, and anything else that includes coding.

Payors issue many different communications to providers that utilize ICD code sets. These include communications serve a variety of purposes. Some, like provider manuals with information about the payor's rules, can be quite lengthy. Payors must evaluate these documents to determine the extent to which ICD Codes are used and determine whether these can be updated or if they have to be replaced.

2.5.4 Provider portal on payor website may require modifications

Provider portals on payor websites offer similar information to what is delivered via telephone calls to provider relations areas. However, the portals will require evaluation and possible modification.

The pages used to present this information (and systems behind them) may need to be modified to accept the different attributes of the ICD-10 Code Set. Some payor websites also call different data sources for the information presented on the provider portals than are used by those answering the phones (plans may have to aggregate data from different back end sources into one database or to remove the demands of responding to web inquiries from the core applications). If so, these will need to be evaluated to ensure that they can support the ICD-10 codes.

2.5.5 Provider quality monitoring may have to be adjusted to reflect the new codes.

Payors have quality monitoring programs to oversee provider performance. This typically involves evaluating diagnostic and treatment codes to determine whether providers are performing adequately.

Payors should evaluate their current measures and how the new codes affect those. The impacts can simply require changing the processes and tools to reflect the new codes. However, payors will be remiss if they don't look at the additional information inherent in the new codes to determine how this can be used to improve the quality monitoring processes.

2.5.6 Any provider reports that uses the codes

Reports on provider activity that use ICD codes will have to be identified and evaluated. The capturing of information and presentation of these codes may need to be modified to utilize the new codes.

2.5.7 Any provider letters that uses the codes

As with the reports, canned letters that utilize ICD codes will have to be identified and evaluated. Any process by which certain codes trigger the generation of a letter or by which codes are inserted into the text of the letters, as well as the presentation of these codes in the letter, may have to be modified to utilize the new codes.

2.5.8 Internal tools, policies, desk level documents used by staff

Staff will develop internal tools, policies, and desk level documents to make various processes and activities easier to accomplish. Any of these which utilize ICD codes must be updated, modified, or replaced.

2.6 Customer Service

While customers may not have as much knowledge of ICD codes as providers, the areas within a payor that manage customer relations will have challenges similar to those of the Provider Relations areas. For example the impact of the ICD-10 codes on processes related to looking up claims, answering questions, and communicating with members about what is going on, or modifications to member portals will be similar.

2.6.1 Process by which claims are looked up

Customer Relations processes often involve interaction with members to look up the status of claims and reimbursements. Other questions may involve whether benefits are covered under an individual's policy. The impacts to these processes are multi-fold:

2.6.2 Applications used to look up information

If applications utilize or depend upon ICD code sets, they will have to be modified. This can involve modifying field attributes within applications to accommodate different code set characteristics. It can also mean modifying the way codes are read and interpreted, for example if these are translated into plain English for easier readability by the user.

2.6.3 Processes involving responding to questions

Any changes to the applications or the methods of finding and using data to respond to inquiries will necessitate updates to the processes and procedures followed.

2.6.4 Retrain personnel looking up information

Changes in the codes presented or in the processes and procedures followed will necessitate retraining of staff on these changes.

2.6.5 New vendor software may be needed to facilitate translations of codes

For individual health plans, it may prove daunting to try to develop plain English conversions of the ICD-10 codes for internal systems. Therefore, this may require purchasing and installing a vendor system, if one becomes available. Installation of such software is not as easy as loading a CD, like one might do at home.

First, there will be more than one desktop using the software. Many payors have the ability to administratively "push" software to desktops so it probably will not be necessary to load this at every desktop. Alternatively, a payor may want to integrate or otherwise link this software into their customer service application. That can be a more complicated process.

Either way, the software will need to be tested in the payor's environment to make sure that it operates properly and does not interfere with other applications.

2.6.6 Claim history will have to be mapped from old codes to new

Health plans might have different applications looking into claim history for different purposes. For example, the claim department may use the claim system itself. The customer service area may use a different system. If this is the case, then that system will need to be able to read both the old and new ICD codes and present, convert, or map them as needed to present historical data in a fashion that permits the customer service representative to answer questions from the member.

2.6.7 Communications to members on the migration to ICD-10 Codes

Payors should create a plan for communicating to providers what is taking place with regards to the ICD-10 Code Set and the payor intends to comply with the regulation. This should include a discussion of how the payor's plans will impact the relationship between the payor and the member and the payor and providers. Such communications should include a timeline of when member should expect to see activities.

To achieve this, the health plan staff will have to draft articles, letters, and other forms of communications. These will then have to be sent to members in some form or fashion. Health plans have a variety of communications they send to members today – newsletters, bulletins, etc. – that can be used as the vehicles for these communications.

2.6.8 Addressing calls and inquiries

Because plans will be communicating to doctors and members in advance of the date when the ICD-10 Codes go live, and because the media will be covering this, members will contact health plans for information. Certainly the volume of inquiries will increase the closer one gets to the date.

Being prepared for this will require prepared letters and phone scripts for customer service representatives. It may also require increased staffing for customer service areas to field the volumes of calls and letters.

2.6.9 May require changes to member portal where members

Member portals on payor websites offer similar information to what is delivered via telephone calls to provider relations areas. However, the portals will require evaluation and possible modification.

The pages used to present this information (and systems behind them) may need to be modified to accept the different attributes of the ICD-10 Code Set. Some payor websites also call different data sources for the information presented on the member portals than are used by those answering the phones. If so, these will need to be evaluated to ensure that they can support the ICD-10 codes.

2.6.10 Member communications that utilize ICD code sets, like canned letters

Payors must evaluate these documents to determine the extent to which ICD Codes are used and determine whether these can be updated or if they have to be replaced. Also, Plans will have to focus on ensuring that communications are in “plain English” and not confusing to members.

2.6.11 Consumer Directed Health Care tools

It is important to note that tools created to support consumer directed health plans will also need to be updated. This includes Nurse Hotlines that support such members, written communications, and online Personal Health Record and other tools, to name just a few. While some of these activities may appear to overlap areas mentioned previously, many health plans have tools that are unique to these programs. Furthermore, between now and when the ICD-10 Code Sets take effect, Consumer Directed Health Plans will grow in popularity and the number and variety of tools supporting these will increase. Thus it is worth citing this area specifically.

2.6.12 Internal tools, policies, desk level documents used by staff

Staff will develop internal tools, policies, and desk level documents to make various processes and activities easier to accomplish. Any of these which utilize ICD codes must be updated, modified, or replaced.

2.7 Medical management

Medical management is a broad area that covers many activities such as:

- Pre-authorization and pre-certification
- Medical necessity and medical appropriateness reviews
- Case management
- Disease management
- Research and analysis
- Provider quality oversight

Pre-authorizations and pre-certifications occur, as the name suggests, before a service is rendered. Medical necessity and medical appropriateness reviews occur after a service is rendered and when a claim is submitted. Case management and disease management are activities by health plans to assist when an individual has a known condition. Research and quality oversight occur after treatments are rendered and claims are processed.

Some of these activities appear similar but are actually very different and utilize if not different software, then at least different functions within the same software. Provider quality oversight and the research activities involve data mining and very different software.

2.7.1 Processes and applications to determine medical necessity and medical appropriateness

Processes to evaluate claims to determine whether services already rendered are medically necessary and medically appropriate utilize diagnostic codes. This involves software edits and audits, manual processes to identify claims that need to be evaluated. The evaluation of claims that could be denied is done manually.

There may also be software programs that provide guides or information to medical management staff responsible for determinations. Additionally, staff may have written policies, procedures, guidelines, books, and other materials to assist them in their tasks.

All of these, whether computer based software or edits in applications, or written materials, will need to be updated to reflect the newer code sets. Some of the modifications will be relatively simple field updates to be able to accept the different attributes of the ICD-10 Code Sets (e.g. longer codes with alpha and numeric codes).

The most challenging aspect of this will be to modify logic in the applications. The logic enables applications to recognize and act in a certain manner depending upon the code identified. It is not possible to do a one to one map of ICD-9 to ICD-10 codes so the logic will have to be re-written to recognize and act on the new codes. Since the new codes are rich in information embedded within them, the new logic will be more complex to take advantage of this.

Staff also needs access to the claim data and supporting information from the provider justifying the service or procedure. The claim information can be obtained by providing the reviewer with a view into the claim system. Or it may be transferred to the medical management software electronically. In the former case, changes to the claim system described previously will address the needs of the reviewer. If the data is transferred electronically to the medical management application, then the electronic process by which this is done, the location where the data is stored, and the screens used to view the data will have to be updated.

Supporting information currently is obtained in hard copy (e.g. by mail or fax) from providers. This will change shortly with the implementation of the claim attachment transaction. It is not possible to predict how the ICD-10 Code Set will affect software or processes that will develop to take advantage of this electronic data.

Whenever applications or materials change it is necessary to revise policies and procedures to reflect the changes and then train staff on the changes.

2.7.2 Process and applications used for pre-authorization or pre-certification of services

Processes to pre-authorize or pre-certify medical procedures or services before they are performed also utilize diagnostic codes. The more sophisticated programs contain complex decision trees that contain questions and guides to assist the reviewer in determining whether a service can be pre-authorized or pre-certified.

If the decision to approve is not clear, then a manual review must occur.
The manual review may utilize software that provides guides or information to medical management staff responsible for determinations. Additionally, staff may have written policies, procedures, guidelines, books, and other materials to assist them in their tasks.

All of these, whether computer based software or edits in applications, or written materials, will need to be updated to reflect the newer code sets. Some of the modifications will be relatively simple field updates to be able to accept the different attributes of the ICD-10 Code Sets (e.g. longer codes with alpha and numeric codes).

The most challenging aspect of this will be to modify logic in the applications. The logic enables applications to recognize and act in a certain manner depending upon the code identified. It is not possible to do a one to one map of ICD-9 to ICD-10 codes so the logic will have to be re-written to recognize and act on the new codes. Since the new codes are rich in information embedded within them, the new logic will be more complex to take advantage of this.

Whenever applications or materials change, it is necessary to revise policies and procedures to reflect the changes and then train staff on the changes.

2.7.3 Case management applications and processes

This typically occurs when an individual has a severe condition that involves complicated, expensive, or long term treatment. Health plan staff becomes involved in authorizing or certifying services in advance based on a course of treatment reviewed with the treating physician.

Processes and applications involve capturing and reviewing claims, and authorization, and medical history, benefit tables and accumulators, and permit clinicians to record notes and information about what services have been approved. Additionally, staff may have written policies, procedures, guidelines, books, and other materials to assist them in their tasks.

All of these will need to be updated to reflect the newer code sets. Some of the modifications will be relatively simple field updates to be able to accept the different attributes of the ICD-10 Code Sets (e.g. longer codes with alpha and numeric codes).

The most challenging aspect of this will be to modify logic in the applications. The logic enables applications to recognize and act in a certain manner depending upon the code identified. It is not possible to do a one to one map of ICD-9 to ICD-10 codes so the logic will have to be re-written to recognize and act on the new codes. Since the new codes are rich in information embedded within them, the new logic will be more complex to take advantage of this.

As stated previously, when applications or materials change, it is necessary to revise policies and procedures to reflect the changes and then train staff on the changes.

2.7.4 Disease management applications and processes will be affected

Disease management is invoked when a person has a condition which, if a proper course of treatment is not followed, can result in the condition becoming much more serious. Typical programs focus on diseases like asthma and diabetes or heart diseases.

Processes and applications involve capturing and reviewing claims history and evaluating courses of treatment being followed with an eye toward ensuring that proper care is rendered and making sure that members have the information needed to understand their medical needs.

All of these will need to be updated to reflect the newer code sets. Some of the modifications will be relatively simple field updates to be able to accept the different attributes of the ICD-10 Code Sets (e.g. longer codes with alpha and numeric codes).

As stated previously, when applications or materials change, it is necessary to revise policies and procedures to reflect the changes and then train staff on the changes.

2.7.5 Research and analysis activities use applications, processes, and data warehouses

Medical management areas are often responsible for some critical research and analysis activities within a health plan. This research can involve medical trend analysis or finding ways to improve medical management techniques, to name two examples.

The applications and processes for extracting and/or aggregating the information required for this research will have to be modified to accept the ICD-10 codes. To the extent that there is logic built into these applications to “read” or “interpret” the data, this logic will have to be modified. Data warehouses which hold the medical information will have to be modified to accept and hold both the ICD-9 and ICD-10 code sets. All outputs (e.g. reports and displays) from these applications will also change to incorporate the ICD-10 codes.
Also, there will need to be cross walks between the ICD-9 and ICD-10 codes to allow research and analysis to utilize historical data from the periods before the ICD-10 code set is implemented.

2.7.6 IVR processes for provider authorization requests

In an effort to offer providers faster service, many payors have developed voice recognition services, or IVRs, for providers to use when calling in to request authorizations. These IVRs recognize ICD-9 codes, among other things, in order to respond to and route calls for faster processing. These systems will have to be modified to recognize the new ICD-10 codes when they are adopted.

2.7.7 Internal Clinical Intervention programs and processes to identify and refer members

Payors operate internal programs, to review and evaluate claims and other information in order to identify possible situations where more significant intervention by payor medical management staff may be required. The tools used to identify these situations utilize ICD-9 codes and will have to be updated to act on ICD-10 codes.

2.7.8 Provider quality oversight programs will be affected

Payors have a variety of tools, applications, and processes for measuring and monitoring provider quality. The variety of data used to monitor provider performance includes medical codes. These codes can be drawn from claim history. They can also be found on provider medical records reviewed as part of a specific audit or evaluation.

The applications and processes for extracting and/or aggregating the information required for the quality reviews will have to be modified to accept the ICD-10 codes. To the extent that there is logic built into these applications to “read” or “interpret” the data, this logic will have to be modified. Databases which hold the medical information will have to be modified to accept and hold both the ICD-9 and ICD-10 code sets. All outputs (e.g. reports and displays) from these applications will also change to incorporate the ICD-10 codes.

Also, there will need to be cross walks between the ICD-9 and ICD-10 codes to allow research and analysis to utilize historical data from the periods before the ICD-10 code set is implemented.

2.8 Actuarial

Actuarial departments use medical and claim experience trend information to determine the factors in formulae that are used by underwriters to set premium rates. Actuarial departments perform research and analysis to gather the information and evaluate this to predict future medical and financial trends based on medical utilization.

The Actuarial area uses information technology and business processes for extracting and/or aggregating the information required for this research and also for performing the trend and data analysis. The technology applications and business processes will have to be modified to accept and utilize the ICD-10 codes. Logic within these applications will also have to be modified. All outputs (e.g. reports and displays) from these applications will also change to incorporate the ICD-10 codes.

Also, there will need to be cross walks between the ICD-9 and ICD-10 codes to allow trend and other data analysis to utilize historical data from the periods before the ICD-10 code set is implemented.

If actuaries are not comfortable with the crosswalk of data or do not feel the information they have is reliable one effect will be that factors in rate formulae will trend toward higher premiums. Actuaries are conservative by nature and if they have any doubts about the reliability of the information or if the analysis tools do not easily allow them to mark trends, actuaries will err in favor of higher premiums to keep the company financially sound and not lower.

2.9 Underwriting

Underwriting departments use aggregated medical and claim data to evaluate the experience of large groups and apply the factors in the formulae provided by the Actuaries. Underwriters departments will request reports on these groups to conduct the research and analysis to perform their role.

The Underwriting area uses information technology and business processes for extracting and/or aggregating the information required for this research and also for performing their data analysis. The technology applications and business processes will have to be modified to accept and utilize the ICD-10 codes. Logic within these applications will also have to be modified. All outputs (e.g. reports and displays) from these applications will also change to incorporate the ICD-10 codes.

Also, there will need to be cross walks between the ICD-9 and ICD-10 codes to allow trend and other data analysis to utilize historical data from the periods before the ICD-10 code set is implemented.

Underwriters, like actuaries will tend to be more conservative if they do not have confidence in the accuracy of the data they are working with. Longer term, using ICD-10 codes will be beneficial to underwriters. But initially, they may tend to quote higher rates if there is any question about the data.

Underwriting departments are also typically responsible for generating reports on the medical experience of a group health plan. These reports can be for reinsurance or stop-loss purposes, they can be used by the groups for their own internal benefit plan management purposes. These reports may include aggregated claim data on the group as a whole or information about specific high dollar claims incurred by individuals.
The processes and applications used to generate these reports, the data stores from which they are drawn and into which they are placed, the method of displaying this information, whether printed on paper or on a screen, will all have to be modified to accept both the ICD-9 and ICD-10 codes.

2.10 Finance

Financial areas are involved in the payment of claims to providers. These processes involve some interaction with claim data and medical codes. This can include creation of explanations of payment (EOPs are sent to providers), 835 Remittance Advice Transactions, checks, refunds, overpayments, and other similar activities related to claim payment processes.

As with other areas, processes and technology used to aggregate data and generate documents, files, transactions, reports, and other presentations of this data, will have to be evaluated to determine the impact of adopting the ICD-10 Code Set. The impacts identified will have to be addressed.

The effect of the ICD-10 codes on these applications and processes may not be as pronounced as they are on other business areas. However, the affect of not addressing these correctly will be pronounced as mistakes made will impact provider reimbursements.

2.11 Reporting

Reporting has been discussed at various points throughout the document. However, it is worth calling out the subject separately because the massive number of different reports produced by health plans often gets lost when considered on a piece-meal fashion.

Every department generates some type of reports. Some of these can be daily, weekly, monthly. ICD codes are used in many of these. Almost every report will need to be catalogued and reviewed to determine whether the ICD code change will affect them.

Cross-walking the old codes to the new codes will be critical to maintaining the current reporting functions. Invariably, new reports will need to be created to help health plans track the impact of converting the code sets or to try to identify ways to take advantage of the rich data embedded in the ICD-10 Codes.

In addition to the cross walks, many payors rely on Diagnostic Related Group (DRG) codes. As the name “Diagnostic Related Groups” implies, a DRG is a grouping of related diagnostic codes. If the diagnosis codes change, then the DRGs have to be re-built.

As it pertains to DRGs handed down by CMS for the Medicare program, payors do not control how these are created or what is included in them. Payors have to be diligent in understanding the make up of these codes and the impact these will have on their reporting schema.
One impact, as an example, would be that if the codes grouped together in an ICD-10 DRG do not match what was included in the ICD-9 DRG, then payor financial reporting can be skewed.

A reporting function not previously mentioned are the Health Plan Employer Data and Information Set (HEDIS) measures, which are used by employers and others to evaluate health plan performance. These indicators utilize ICD codes and will require modification. It is very likely that they can be improved with the richer data of the ICD-10 codes.

2.12 Enrollment

Generally, enrollment processing should not be significantly impacted adoption of the ICD-10 Code Set. However, there are certain activities that could utilize these codes and, at a minimum payors must evaluate these processes. This is an exercise that consumes resources, time, and money. If impacts are found, then they must be addressed as part of the implementation process.

2.12.1 Processes for recording Pre-existing conditions

Many health plans determine at the time of enrollment whether an individual has a pre-existing condition. The means of determining this is typically a paper or electronic form that asks the individual to identify medical conditions in plain English. However the Enrollment system behind this process may take the plain English option selected during the Enrollment process and converts this to a diagnostic code.

If this is true, then the payor should use ICD-10 Codes in place of ICD-9 codes. Note: there would not be a requirement to do this, since this data will be purely internal and the process is generally not subject to regulation. But given the transition of all other systems and processes to ICD-10, and the retraining of staff to read and understand the ICD-10 will render an unchanged enrollment process obsolete.

It should be noted that this is an area where automation could create more problems. As Enrollment forms and processes move more and more to electronic formats, it is more likely that the plain English check boxes on the paper form will be linked to codes in the electronic process to make it easier to record the data for downstream uses.

Other possible effects to the Enrollment processes related to pre-existing conditions:

- Modify paper forms to the extent that these request ICD codes to indicate previous medical conditions If the paper forms request ICD codes instead of having the member check off specific medical conditions or write them in English, then these forms will need to be updated.

- Modify web pages or online applications where ICD-9 Codes are used. It is even more likely that an online form on a payor's web page or "portal" will translate the "plain English" information entered on the page into a code that can be more easily interpreted and processed. Thus it is likely that web based applications will also need to be updated.

2.12.2 Enrollment database has to be able to handle the new ICD Codes

If ICD codes are captured in the processes listed above, then these must be stored somewhere. The areas where the ICD codes are stored for Enrollment must be identified, field sizes and attributes evaluated, and upgraded.

2.12.3 Enrollment software

Payors are increasingly imaging enrollment applications and converting these into digital versions to automate the process. If ICD codes are captured during the Enrollment process, then the software used must be modified to accept and understand the different attributes of the ICD-10 as appropriate.

2.12.4 Any enrollment reports that contain the ICD codes

To the extent that the Enrollment areas generate reports that include ICD codes, these will have to be modified to accept and understand the different attributes of the ICD-10 code set. Also, as with the earlier discussion of reporting, the reporting must be done in such a way that the multiplicity of ICD-10 codes to ICD-9 does not skew the results.

2.12.5 Any letters that contain or are triggered by ICD codes

Letters of this sort could be triggered by pre-existing condition evaluations or be asking about third party liability or coordination of benefits. This can be triggered by information on the application indicating prior medical history. If this occurs during the Enrollment process, then the applications and letters must be modified to reflect and utilize the ICD-10 code set.

2.12.6 Transfer of codes from providers and wellness management companies or employers to medical management areas

Typically at the time of enrollment, groups are transferring to payors information about individuals with pre-existing conditions. This is done typically to facilitate medical management – be it for disease management or case management purposes to name two examples.

This data will reflect the use of the ICD-10 codes. Systems and databases accepting this information have to be modified to accommodate the new larger code sets.

2.13 Internal Audit/Fraud

Payors typically have an audit and fraud units. The Audit units evaluate claims selected based on varying criteria to determine whether the services rendered were properly rendered and reimbursed.
Fraud units also identify situations using a variety of criteria and investigate these to determine whether improper activities might be taking place.

One of the means of identifying claims or activities to review involves software that evaluates claims. These applications will need to be modified to accommodate the ICD-10 codes. The process of evaluating the applications will include determining whether the new codes offer opportunities for improvements.

After a claim or matter is identified, the review process becomes primarily manual. Staff will develop internal tools, policies, and desk level documents to make various processes and activities easier to accomplish. Any of these which utilize ICD codes must be updated, modified, or replaced

As with other activities, it will be necessary to utilize cross-walks between the ICD-9 and ICD-10 code sets. There will be reviews that require evaluation of claims from before and after the adoption of the ICD-10 codes. The cross-walk will be necessary to be able to track claims across time.

Reports and canned letters utilizing ICD codes will have to be modified as well as the applications and sources of data used to create these.

2.14 Training

Payor staff in all of the departments listed will require some degree of training. This will include training on:

- Any modifications in the systems or applications they use
- New or modified reports
- New policies and procedures
- Understanding the ICD-10 Code Sets and how to read them

From the list of departments and business processes affected, it is clear that almost every Department and every staff person is going to need some training.

2.15 Testing

Every change to an IT system or application must be tested before it goes into production (e.g. released for general use). Testing requires not only the efforts of the IT organization, but the active participation of the end users who will be using the final product when it goes live. Furthermore, testing of an application should involve every business area affected by the change in the application – the "upstream" areas that feed information to the system and the "downstream" areas that are affected by how well the application works.

As we have described here, every business area within a payor organization will be affected by adoption of the ICD-10 Codes. While every resource within those business areas is not involved in testing, the resource commitment is significant both in numbers and in time.

2.16 IT

While the discussions above have identified many ways in which systems, applications, and databases will be impacted by adoption of the ICD-10 Codes, there are other impacts to a health plan's Information Systems or Information Technology Department. The impact that needs to be considered is the affect on resources. One can look back at the Y2K phenomenon and the way resources were constrained during that time period. During the Y2K process, IT staff with the requisite coding skills became short in supply and long in demand. This meant that either people were not available, or more money was spent to buy their services.

2.16.1 Limited Resources – Higher Costs

IT staff is constantly subject to the supply and demand cycle, with periods where certain talents become in greater need causing the cost of those services goes up. During Y2K, a critical need was programmers with COBOL programming skills because many institutional systems are older and, thus written in COBOL rather than newer coding languages.

When health plans get closer to the ICD-10 deadline they will, as they did during the Y2K years, find themselves having to pay a premium for programmers with the skills they need or they will have to do without. The problem is that it is not just one type of programming skill required.

As we have seen above, there are many different systems and business areas affected by the adoption of the ICD-10 Code Set. This includes scanning systems, applications, databases, interfaces, reports, and others – many of which require different types of programming skills. So the demand for IT resources will be over a broader spectrum than in Y2K, where the primary people getting overpaid were the COBOL programmers.

2.16.2 Limited Resources – Do without

It is unlikely that a payor will find all the resources it needs, all the time. For those periods where it cannot obtain more staff, a likely consequence will be a degradation of support from the IT area for regular business functions. The resources needed by IT/IS Departments may be pulled off to work on the ICD-10 Project. As more resources are tied up working on ICD-10 projects, this increases the likelihood that other business departments will find their support diminished.

For example, business areas that rely on IT staff to provide custom reports on demand may find that resource is tied up on working to remediate existing reports and not available. Areas such as these will either have to do without whatever was needed or they will have to create labor intensive work-arounds to achieve their goals until the IT support returns.

IT Departments will also have to evaluate all of the project requests and work needed by the health plan and trying to balance priorities. Invariably, as occurred during the Y2K efforts, some other projects will have to be delayed or set aside as the ICD-10 projects consume resources. This is because of the all encompassing nature of the effort required.

Health plans will have to address **all**:

- Applications owned by the health plan that use ICD codes (e.g. non-vendor applications)
- Reports and software programs written to generate those reports
- Data warehouses, data stores, databases used to store information that includes ICD codes.
- Interfaces that allow different systems or applications to talk to one another or exchange data where ICD codes are included in the data flow
- Electronic work queues used for workflows where ICD codes are part of the data queued up

2.17 Vendor Oversight

Even if a payor is heavily dependent on vendor systems, this will not protect them fully from the impact of the contention for resources. Granted for every vendor system, this is one less system that IT has to remediate. However, vendor systems require their own levels of attention.

For example, if the vendor system interacts within the network, and/or with other applications, then there will be interfaces to re-write and re-code to accommodate the changes from the ICD-10 Code Set.

In addition IT areas will have to assign staff to oversee and manage vendors. This staff will have to contact vendors to find out when they will be compliant, get whatever information they can about the changes, and to varying degrees interact with and manage the vendor's processes. When vendor modifications, updates, or improvements are available, these will all have to be thoroughly tested within the payor's IT environment before they can go live.

2.18 Budgeting and planning cycle

Every payor organization faces the challenge of budgeting and planning for a project of this magnitude. At a minimum, payor budgets and IT planning cycles begin 6 months before the beginning of the next financial year. Some organizations may have cycles that run much longer – as many as 18 months in advance.

Longer lead times are necessary given the demand on human and financial resources, particularly IT resources, of a project of this magnitude. The alternative is that either a plan has to wait for the next budget and planning cycle, which means they lose time. Or the plan will set aside other activities to free up resources for the project. Either of these is less desirable than having the proper amount of time to plan and budget for a project of this significance.

2.19 Government programs

The effect on payor government programs is multi-fold. First, Government agencies (Medicare, Medicaid programs, other state and federal agencies sponsoring health plans) like to oversee what their contractors are doing. This typically requires health plans to produce detailed and lengthy electronic files describing claims processed (often call encounter files) for the government agencies. The applications and processes used to create these files will have to be updated to accommodate the ICD-10 Code Sets.

Any applications or processes created to access or use this information (or the responses from the Government agencies to this information) will also have to be modified as necessary to accommodate the ICD-10 Codes.

Secondarily, larger health plans often operate government programs as stand alone units. The functions within these units can mirror the functions of a normal health plan but many utilize separate systems to support these processes. At a minimum, government program operations will have separate claim and enrollment functions. This can be separate iterations of the same systems or completely different systems or applications. Some of these are specialized systems designed to perform unique functions required by participating in government programs (e.g. tracking individuals interested in enrolling in a Medicare Advantage plan requires unique systems and processes to comply with Medicare's requirements). All of these will need to be evaluated to determine the impact of the ICD 10 Code adoption and any impacts addressed.

2.20 Pharmacy

Health plans that do not delegate processing of pharmacy claims to a pharmacy benefits manager (PBM) will typically create a separate unit to process these claims. ICD codes are required for the processing of these claims. Like Government Programs, some, possibly many, of the activities listed above to bring a health plan into compliance will have to be duplicated for the areas managing the pharmacy programs.

2.21 Vision

Health plans that do not delegate processing of vision claims to an external vendor will typically create a separate unit to process these specialized claims and/or manage this business. ICD codes are required for the processing of claims. Like Government Programs, some, possibly many, of the activities listed above to bring a health plan into compliance will have to be duplicated for the areas managing the dental programs.

2.22 Dental

Health plans that do not delegate processing of dental claims to an external vendor will typically create a separate unit to process these claims and/or manage this business. ICD codes are required for the processing of these claims.
Like Government Programs, some, possibly many, of the activities listed above to bring a health plan into compliance will have to be duplicated for the areas managing the dental programs.

2.23 Hearing

Health plans that do not delegate processing of hearing service claims to an external vendor will typically create a separate unit to process these claims and/or manage this business. ICD codes are required for the processing of these claims. Like Government Programs, some, possibly many, of the activities listed above to bring a health plan into compliance will have to be duplicated for the areas managing the hearing programs.

2.24 Legal/Government Relations/Compliance

Like the Audit and Fraud areas, claims or situations are brought to the attention of these areas for review. In the case of Legal, it may be due to litigation or assisting with a customer service issue. For Government Relations, claims may be brought to their attention by regulators and legislators acting on behalf of constituents. Compliance areas can learn of these issues through either of those methods or via internal reporting processes.

In cases involving specific claims, the Departments may need to access information about those claims. This may also involve tracking information across the implementation date of the ICD-10 code set. Typically these areas obtain information using tools or applications provided by other Departments, e.g. claims or customer service. So changes to those systems and applications for the Department that owns the tool will be a solution for these three areas, as will cross-walks between codes created for other areas.

However, staff will need to be trained on the changes to these systems and applications and also on how to read the new codes.

Before problems occur however, each of these areas will be involved in overseeing the activities to comply with the ICD 10 mandate. This is done to mitigate the possibility of regulatory or governmental impacts and reduce the likelihood of litigation. This will require staff resources and possibly financial resources if external reviewers or legal experts are required.

2.25 Vendor Oversight/contracting

It is safe to say that there is a vendor system available for every one of the business processes outlined in this paper. The fact that a system or application is vendor supplied can be both good and bad. It is good in that one vendor will correct problems for all the health plans using that system or application. It is bad in that all the health plans using that system or application are depending on one vendor to fix the problem in such a way as to satisfy the needs of all health plans.

Vendors have different needs than the health plans do. So there is no guarantee that what the vendor does to bring their application into compliance will meet the needs of all of their customers. This was very true during the implementation of the HIPAA Transactions and will very likely be true again with the work needed to comply with the adoption of the ICD-10 Codes.

2.25.1 System vendors – not a panacea

As was proven during the implementation of the HIPAA transactions, vendors often do not work on compliance issues before a law or regulation is adopted. And then they may not deliver a solution in a time frame that is acceptable to the payor. For example, if a payor has multiple applications dependent on a vendor update and the vendor won't release an improvement until 6 months before the ICD-10 Code Sets are to take effect, the payor won't have time to decipher the changes and remediate the other systems. This means the payor may have to build workarounds that allow other systems to continue regardless of what the vendor application will do.

In more extreme cases, payor vendors may decide they cannot make the modifications required and either leave the market or go out of business. There were one or two vendors that left the payor space due to the adoption of the HIPAA Transactions and Code Sets. This obviously creates significant problems for payors dependent on those systems and the magnitude of those problems grows as the time to comply diminishes.

2.25.2 Other types of Vendors

It is important to note that there are many different kinds of vendors for payors besides vendors of systems or applications. For payors, the term "Vendor" can also include business associates and trading partners to whom payors have delegated responsibilities or with whom payors interact. Pharmacy Benefit Managers, Behavioral Health Managers, and health care transaction intermediaries are three examples of these types of vendors – they can be acting on behalf of the payor or interacting with the payor for another party.

The term Vendors can also include providers to whom health plans may delegate some activities, such as provider networks to whom a payor may delegate quality oversight.

Health plans are held responsible for ensuring that these vendors come into compliance with regulations such as the one that will be necessary to implement the ICD-10 Codes.

2.26 Other Industries/Other Insurers

There will be an unintended consequence if the ICD-10 Codes are adopted. The effect will extend beyond just health plans to all other insurers who process claims where medical information is involved.

It should not be surprising to imagine that reinsurance and stop loss insurance carriers will find that they have to adapt their systems, applications, databases, processes, and procedures to the ICD-10 codes. These entities are dependent on health plans for the data needed to process claims. So changes in code sets will always have a downstream impact on them. Furthermore, these entities arguably can be considered business associates so they might be subject to the HIPAA code set changes that way.

Property and Casualty insurers on the other hand are not subject to the HIPAA law or regulations. So other types of insurers that process health related claims, like workers compensation, auto, and other Property and Casualty carriers will not be required by regulation to comply with the adoption of ICD – 10 codes. Nor has there been any specific discussion about including these entities.

Nevertheless, all indications are that if ICD-10 codes are adopted as standard codes used then providers will at some point begin using these codes exclusively in all of their medical records. Thus medical records submitted to non-health insurers, e.g. Property and Casualty insurers, will contain ICD-10 codes. As a result, these other carriers will have to adapt their systems, applications, databases, processes, and procedures so they can accept and process ICD-10 codes in some way.

This was not an issue with the earlier adoption of the ICD-9 or CPT codes as those were the generally accepted standards by all insurers, including Property and Casualty carriers.

3.0 Proposed Timeline for Adopting the ICD-10 Code Set

3.1 ICD-10 Adoption Timeline

This timeline shows the time needed to adopt the ANSI X12 v5010 transactions and the ICD-10 Regulation. It also shows the affects to payor operations described in Section 2.0. The most significant business operations affected are broken out individually, and remaining business areas are lumped together in the category of “other processes.”

ICD-10 Implementation Timeline

	Y1		Y2		Y3		Y4				Y5				Y6				Y7		
Activity							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
NPRM for v5010 issued	x																				
Pilot Test of v5010																					
Final Rule for v5010			x																		
Implementation of v5010																					
NPRM for ICD-10 Codes																					
Pilot Test of ICD-10 Codes																					
Payor budget planning																					
Single source for crosswalks named																					
HHS Communication Plan																					
ICD-10 Final Rule																					
ICD-10 Assessment							x														
Detailed Planning								x													
Claims																					
Benefits																					
Data Warehouse																					
Medical Management																					
Reports																					
Enrollment																					
Provider Contracting																					
Other Processes																					
Communication															X	X	X	X	X	X	
Training																X	X	X	X		

Define Requirements
Design
Build
Internal Testing
Partner Testing
Go Live
Measure

3.2 Explanation of the Timeline

This timeline begins with the time period required for the adoption and implementation of the ANSI X12 v5010 Transaction sets. The current HIPAA standard transactions have to be upgraded if the ICD-10 Code Sets are adopted. While there is some argument, the consensus of opinion in the Industry is that the ANSI 5010 version transaction set is needed to effectively use the ICD-10 code sets.[3] The biggest impedance to this is the process by which transactions are approved and then adopted by Regulation.

There are reasonable arguments as to what the timeline for adoption of the ANSI 5010 transaction set might be. The possible effective dates suggest a range from 1/2009 to a worst case of 1/2013.

The timeline depicted in the chart assumes the following sequence of events:

Year 1 (2007)

- HHS issues a Notice of Proposed Rulemaking (NPRM) requiring adoption of the next version of the electronic health care transaction standards (Version 5010).

- HHS initiates a pilot test involving health plans and health care providers to validate Version 5010 in a "real world" environment (one of the key "lessons learned" from HIPAA implementation is the importance of pilot testing new standards).

Year 2 (2008)

- HHS releases a final rule establishing Version 5010 as the new HIPAA standard incorporating the results of the 5010 pilot test. Most health plans and health care providers are given two years to implement Version 5010 of the standard – small health plans have an additional year to come into compliance (HIPAA requires at least 24 months to implement a new standard and gives small health plans an additional 12 months to come into compliance).

Year 3 (2009)

- HHS releases an NPRM on adoption of the ICD-10 coding standard. The NPRM should request the following information from the industry (NCVHS recommendation):
    - What could be done to minimize the costs of a transition?
    - What could be done to maximize the benefits of implementation?

[3] See the "ANSI ASC X12 Meeting Summary, San Diego California, September 25-29, prepared by: Bob Davis"

    - What are the potential unintended consequences of a migration and how could they be mitigated?
    - What timeframes would be adequate for implementation?
    - What additional steps would be required to ensure a realistic and smooth migration?[4]

- HHS initiates a pilot test of ICD-10 implementation utilizing health care providers, government programs (Medicare and Medicaid), and health plans. The pilot test should evaluate the following questions:
    - What is the potential cost of implementation?
    - What are the potential benefits of implementation?
    - What is the impact of ICD-10 coding on reimbursement?
    - What is the impact of ICD-10 coding on "pay for performance" programs?
    - What are the systems and administrative operations that are impacted by migration to the ICD-10 coding system?

- Health care provides and health plans start allocating financial and human resources to implement the ICD-10 coding system.

- HHS develops a single source for dissemination of the ICD-10 codes, crosswalks (i.e., between ICD-9 and ICD-10), and maintenance materials.

- HHS - in cooperation with the industry – develops templates, seminars, guidance (FAQs), and other education materials on implementing the ICD-10 coding system (the educational strategy should continue through the implementation process).

Year 4 (2010)

- HHS releases a final rule for ICD-10 implementation taking into consideration the "lessons learned" from the ICD-10 pilot test. Health plans and health providers are given 36 months to implement the new codes.

- Health plans begin process to define requirements for changes in administrative and operational systems (claims, benefits, data warehouse, medical management, reporting).

Year 5 (2011)

- Health plans continue process to define requirements for administrative systems (enrollment, provider contracting).

---

[4] Letter from John Lumpkin, M.D., M.P.H., Chair, National Committee on Vital and Health Statistics to Secretary Tommy Thompson, November 5, 2003.

- Health plans design and build new operational systems using ICD-10 codes.

- Health plans begin internal testing of new codes.

Year 6 (2012)

- Health plans begin business partner testing.

- Health plans “go live” with the new standards.

The activities listed in addressing the ICD-10 Code Sets are standard project activities:

- Assess the overall impact of ICD-10 Code adoption to the organization as a whole
- Conduct detailed planning, creating project plans for the various departments and estimating the human and financial resources likely to be needed
- Define business requirements
- Design the solution
- Build the solution
- Test the solution internally
- Test the solution with external partners
- Go Live
- Measure the results and adjust the solution as needed

3.3 Pilot Testing

Given the significant impacts to payors identified in Section 2.0 and the uncertainties about the costs associated with implementing the ICD-10 Codes, some have suggested that CMS conduct a pilot test or tests of the Codes and what is involved in using them. Such tests could occur either between the time the ICD-10 Code Set Regulation is promulgated and when it is adopted. Another possibility would be for CMS to conduct a pilot test or tests concurrently with the X12 v.5010 Transaction implementation period.

Conducting such tests could serve to confirm or dispel concerns about the difficulty in implementing these codes. These tests also could provide valuable lessons learned for the industry to use when implementing the codes.

4.0 Estimated Payor Cost for Adopting the ICD-10 Code Set

4.1 Background

The goal of this estimate is to provide an "order of magnitude" of the costs and is not intended to be highly detailed. To achieve an estimate of this nature, the following documents were used:

Replacing ICD-9-CM with ICD-10-CM and ICD-10-PCS – Challenges, Estimated Costs and Potential Benefits prepared for Blue Cross and Blue Shield Association by Robert E. Nolan Company, October 2003 (hereafter referred to as the "Nolan Report")

The Costs and Benefits of Moving to the ICD-10 Code Sets prepared for the Department of Health and Human Services by Martin Libicki and Irene Brahmakulam of the Rand Corporation (hereafter referred to as the "Rand Report")

These documents were selected because they represent significant efforts at estimating the costs. In both cases, the authors surveyed various industry participants to try to estimate the costs and, to some extent, described the bases for these estimates. Another reason these reports are used is that individual health plans have not yet conducted detailed assessments of the cost and effort to implement the ICD-10 Code Sets. Assessments of this nature require diverting resources, human and financial, away from other projects. In the absence of a mandate or even movement towards implementing a mandate, it is standard practice for health plans to not divert resources to create work effort estimates.

Finally, it should be noted that no effort is made to estimate the "Return on Investment" (ROI) to the health care industry from adopting the ICD-10 Code Sets. This document does not dispute that there will be a return on the investment made to convert to the ICD-10 Code Sets. The ICD-10 Codes provide much greater detail and information about medical services rendered. This information could be used in a variety of ways to improve health care operations. Furthermore, utilizing the kind of information available in the ICD-10 Codes is consistent with current federal policies around improving health care services. However, this document does not attempt to estimate the amount of the ROI and also cannot offer a comparison of the ROI to the cost of the implementation.

That being said, there is one important point to be made about the issue of ROI. The better the implementation process the greater the return on investment and the sooner it will be realized. If the implementation process requires shortcuts to save money or meet aggressive timelines, then the process of achieving a return on the investment in the ICD-10 Codes will be delayed.

4.2 About the Analysis

This document compares the bases for the estimates in the Rand Report and the Nolan Report with the affects on health plans of adopting the ICD-10 Code Sets identified herein. From this comparison various conclusions are drawn about the accuracy of the previous Reports.

Along those lines, it must be noted that this document focuses on the affect to payors of implementing the ICD-10 Code Sets. It does not attempt to include the cost of implementing the ICD-10 Code Sets that will be incurred by HHS, employer or labor benefit plans, and/or health care providers.

Key assumptions for this cost estimate are:

The adoption of the ICD-10 codes will be simultaneous.[5]
There will be a three year implementation period
The implementation of the ICD-10 Codes will occur after the implementation of a later version of the HIPAA Transaction set. Ideally this would be the X12 v.5010 transactions, but it could be the 4050 transactions at a minimum.

4.3 Cost Estimates

4.3.1 Discussion of the Nolan Report and Rand Report Cost Estimates

In evaluating the implementation of the ICD-10 Code Sets, the Nolan Report discussed five types of costs:

- Systems Implementation
- Costs of training
- Productivity loss
- Re-work
- Contract renegotiation

The Rand Report addressed only three of these areas:

- System changes
- Costs of training
- Productivity loss

[5] See "Chapter 4 Simultaneous Versus Sequential Switching," The Rand Report, p. 39, for a discussion of adopting one set of ICD-10 Codes (e.g. CM or PCS) first and the other later.

Since this document focuses on the costs of implementing the ICD-10 Code Sets, we will not include costs related to "re-work" or "productivity loss." In the same vein that estimating the ROI from the ICD-10 Code Sets is omitted from this document because the savings occur after the implementation, so too are costs that occur after the implementation or which are associated with "post-implementation" activities left out of this evaluation.

This leaves the Nolan and Rand Reports in agreement on the following categories of costs that can be associated with the implementation of the ICD-10 Codes:

System implementations/changes
Cost of training

The cost estimates provided by the two Reports is as follows:

Areas of Impact	Rand Report[6]	Nolan Report[7]
System implementations/changes	$100 to $250m (payors) $25 to $62.5m (vendors)	$378 to $833m
Costs of training	$25 to 50m	$54 to $80m
Total	$150m to $362.5m	$432m to $913m

m = Millions these figures are not adjusted for inflation.

The Rand Report estimated the cost to vendors for system changes to be between $50 million and $125 million dollars. We are using half that original estimate because the vendor costs did not distinguish between payor or provider system vendors.

Of the two estimates, it is felt that the Nolan Report provides a more accurate reflection of that level of effort that will be required to implement the ICD-10 Code Sets.

4.3.2 System implementations/changes

Based on the information provided in the two Reports the estimate in the Nolan Report is more comprehensive and consistent with the level of effort described elsewhere in this document. The Rand Report limits the scope of activities that it believes will be required to implement the ICD-10 Code Sets; completely omitting key activities that will be quite labor intensive. The Nolan Report is recognizes these areas. For this reason, the Nolan Reports estimates are deemed to be more credible.

[6] All cost estimates in this column are drawn from The Rand Report, p. 17
[7] Cost estimates in this column are drawn from The Nolan Report, p. 11 and p. 17

The Rand Report states that the System implementation costs include only:

"(1) costs for accommodating a code set, characterized by a larger field size and alphanumeric characters and (2) costs for reprogramming the logic that previously used the ICD-9-CM codes."[8]

The Rand Report correctly states that unlike changing programs on one's PC "…it is not straightforward to make such changes in mainframe programs and to ensure that all the variables manipulate the data correctly."[9] So the Rand Report does recognize the magnitude of the tasks in these two areas.

However, the Nolan Report went beyond just system changes to include more areas within a health plan that would be impacted by a conversion to the ICD-10 Codes. Two particular items deserve note. First, the Nolan Report drew particular attention to the cost of updating reports. Second, the Nolan Report correctly cited the impact to business areas other than IT.

On first point, the Nolan Report suggested that updating reports will be a significant driver of costs when it stated:

> "…In the estimation of key IT executives in [the large health plans surveyed], virtually every report that depends upon diagnosis and procedural data would have to be rewritten and tested, requiring enormous time and resource commitments. This effort alone was estimated at 100,000 hours in one plan…"[10]

The Rand Report did not draw attention to the impact to reports. Furthermore, the Rand Report did not seem to think the costs associated with processing both codes (e.g. ICD-9 and ICD-10) would be significant. The Rand Report states "…if there is one changeover date, this should be a short interval after the new codes are in effect… during which claims for old cases are being settled."[11]

In point of fact, many payors permit providers to submit claims up to two years after the date of service. Payor trend and analysis reporting tends to look at data over a period of years. Therefore, a conservative estimate would be that payors will need to be prepared to mix ICD-9 and ICD-10 codes for five years after the effective date of the ICD-10 codes.[12] This hardly seems to be the "short interval" contemplated by the Rand Report.

---

[8] The Rand Report, p. 15
[9] The Rand Report, p. 15
[10] The Nolan Report, p. 10
[11] The Rand Report, p. 15, see Footnote 12
[12] The five year time frame allows two years for claims to be submitted after the date they are incurred and anticipates trend and analytical data looking back three years for a five year window (e.g. 2 years claim window + 3 year look-back) before ICD-9 codes are completely purged.

It is also worth describing the reason why reports are so important and the level of effort required modifying reports. First, business areas throughout a payor organization utilize reports. These are critical to management of operations, for medical management, disease management, for creating actuarial formulae used in developing premiums, and by underwriters in developing group specific premiums. All of these are critical to the future success of a health plan.

The efforts required to modify these reports will be consistent in that business areas will have to study the ICD-10 Codes, compare these to the ICD-9 Codes, evaluate available cross-walk tables and determine whether these will suffice or whether new tables must be created for the specific report. Once these business requirements have been defined, the existing reports must be modified – depending on the report, this could be done by a user within a department utilizing tools within an application, or it may require someone with specific skills in working with more sophisticated tools like Microsoft Access or Crystal Reports. Or it could require a programmer rewriting a program that generates the reports. This effort could also require analysis and modification of databases from which the data for the reports is drawn.

As pointed out above, if the Rand Report includes modifying reports in its estimates it does not appear to recognize this as a significant effort. Thus, the Nolan Report seems to be more accurate in citing the impact of Reporting changes than the Rand Report.

Similarly, the Nolan Report recognizes the impact of implementing ICD-10 Code Sets on business areas other than IT. This seems to be completely omitted by the Rand Report when it states that the ICD-10 Code adoption will involve only field expansions and reprogramming of logic.

Health plans will not allow IT areas to determine which ICD-10 Codes will cause a claim to suspend to determine if there is an authorization, or which Code or Codes will trigger a case manager to look into a member's treatment. There certainly will need to be system modifications – reprogramming of logic as stated in the Rand Report – to effect those business process changes. However, the IT areas will not make those changes without direction from the business areas and the involvement of is not an incidental cost when a project is of the size and complexity of implementing the ICD-10 Code Sets.

The Nolan Report on the other hand, while not doing justice to this subject, does talk about the impact to back-end functions such as benefit plan development and also the need to revise procedure and user manuals.[13] Later on the Nolan Report states that the cost of provider re-contracting is "assumed in the health plan costs discussed earlier."[14] The Rand Repot does not discuss any of this activity.

---

[13] The Nolan Report, p. 10

[14] The Nolan Report, p. 19 – we are assuming that these costs are included in the estimated costs of system changes, because there is a direct impact to systems of loading new provider fee schedules, modifying interfaces from those tables to other applications, and modifying claim reimbursement processes. The impact to training would be modest.

A cost seemingly omitted from both Reports is the price to health plans for assessing the impact of the ICD-10 Codes on their business operations. While this document discusses impacts to various business areas, every individual health plan will have to conduct its own assessment. As was seen during the implementation of the HIPAA Transactions and Code Sets, the cost of an initial assessment can be considerable.

Another point not addressed in either Report is that the lack of human resources is likely to be a factor that drives costs higher during the implementation of the ICD-10 Code Sets. Having the entire industry adopting the ICD-10 Codes at the same time will have an effect similar to what we saw during the period when companies worked to adjust to Y2K and during the adoption of the HIPAA standards.
Every company will be trying to do the same types of activities at the same time – this will mean that people with the necessary talents (e.g. COBOL programmers, consulting firm resources, etc.) will be at a premium as the law of supply and demand takes over. This also means that trading partners will not be available to interact as readily, slowing down the process.

For example, if every health plan is re-contracting with providers within the same time frame or trying to test revised transactions with clearinghouses and trading partners at the same time, then the ability of those other parties to respond to the process will be affected.

The Rand Report suggests two factors that could mitigate against the kind of costs suggested by the Nolan Report. First, the Rand Report briefly suggested in a footnote that if the impact of mixing ICD-9 and ICD-10 Codes is too high then payors may adopt a work around to reduce the effect of the one-to-many mapping that is required. [15] Essentially, this means payors will not try to accomplish as much in order to keep costs down and achieve goals within the time frame allotted.

Supporters of adopting the ICD-10 Codes should cry out loudly against this suggestion as this is highly undesirable from a public policy perspective. A primary reason for adopting the ICD-10 Codes is so that the health care industry will realize the value of the rich data contained in those codes. However, if health plans follow the suggestion offered in the Rand Report of cutting corners then the value of the ICD-10 Codes will not be realized.

The second factor cited by the Rand Report is payor reliance on software vendors. Rand points out that many payors converted to vendor supplied systems in order to comply with Y2K or HIPAA. When surveying payors for estimates of costs to comply with the ICD-10 codes, one group of respondents said they will rely on their system vendors to make the changes for them."[16]

---

[15] See Rand Report, p. 15, footnote 13
[16] The Rand Report, p. 15

However, experience shows that vendors can not be relied upon to absorb all of these costs. During the implementation of the HIPAA Transactions and Code Sets, some vendors passed on to customers costs related to compliance as a surcharge to their normal fees.

Furthermore, reliance on vendors is only a valid solution if vendors supply a solution in a timely manner, and history shows this may not be something on which health plans can rely. During the implementation of the HIPAA Transactions and Code Sets, many vendors provided updates to bring their applications into compliance too close to the date on which plans were supposed to comply with the Regulation. Some plans implemented costly work-arounds because vendor modifications were not going to be timely and the Plans could not rely on an extension of the compliance deadline being adopted. Had Congress and the Department of Health and Human Services not acted to add more time onto the deadline for compliance the impact of vendor's not submitting timely upgrades would have been more pronounced.

Another factor not recognized in Rand's suggestion that payors can rely on vendors, is that implementing the ICD-10 Code Sets is not just the exercise in expanding fields and re-programming logic that the Rand Report suggests. When a vendor provides an upgrade that accommodates the ICD-10 Code Sets, payors will still have to re-evaluate their business processes and configure the vendor application to accommodate those changes.

For example, a vendor will upgrade their system to provide new options for adjudicating claims that have ICD-10 Code Sets. The vendor will not make business decisions on behalf of the payors as to which codes will be paid, which will be suspended, and which rejected. The payor has to make those decisions and then configure the new options within the application to reflect those decisions.

Also, the availability of a vendor system does not diminish the level of activity required to modify reports. Vendor systems may provide the data used in the reports and some tools used to create reports, but the process for evaluating and modifying these remains the process described earlier. Finally, it is also possible that some health plans will find that their vendors cannot bring their systems into compliance due to the complexity of the ICD-10 Codes, leaving the plan in a position of having to purchase a new health system in what will be a seller's market.

The reference to vendor systems highlights another area where the Nolan Report references a key fact not mentioned in the Rand Report. The Nolan Report's estimate projects higher costs for larger plans. While this is in part driven by size, it is to a greater extent reflective of the fact that the larger the health plan the more likely it is to have legacy systems (and more legacy systems) which are maintained by the health plan. The costs associated with bringing these into compliance will be higher.

Given the magnitude of the differences in what the Nolan Report does include in its estimates versus what the Rand Report included in its estimates, the estimates for system changes provided in the Nolan Report appear to be a more accurate reflection of the magnitude of the cost impact to the health industry of adopting the ICD-10 Codes.

4.3.3 Cost of training

Like the estimated cost of system changes, it appears the Nolan Report more accurately reflects the level of effort that will be required for training. In reviewing both Reports, the Rand Report provides much greater information about how they came up with their estimate. Unfortunately, the information provided by the Rand Report indicates they did not understand what would be involved in training payor staff, causing them to underestimate the costs involved. The Nolan Report, while providing very little insight into their analysis, does recognize that payor training will take significantly more hours than the training needed for professional coders.

The detail in the Rand Report provides some insight into why they miscalculated the number of hours that might be required to train payor staff. First, the Rand Report estimates the number of payor staff at 250,000 but says that only 150,000 of those employees "work directly with codes.[17]" The inference is that only this latter group will be trained. However, given the widespread impact of adopting ICD-10 Codes on payor operations identified in this White Paper it is likely that training will be offered to staff members not classified as those who "work directly with codes." Training more staff will result in a higher cost estimate.

Additionally, the Rand Report admits that payor staff they surveyed had not contemplated a formal training program on the subject of the ICD-10 Code Sets. This led the Rand authors to speculate that payor staff would "need the same amount of training that ICD-10-CM coders would get (i.e. four to eight hours).[18]"

Given the impacts of adopting the ICD-10 Codes documented in this White Paper, the Rand authors would have been better comparing the training for payor staff to the training required when implementing a substantial system upgrade. As with an upgrade, there are new features, functions, and codes to be learned. There will be new output from the systems, whether these are adjudicated claims or reports. The key point is that business processes will change, not just screens and data entry fields.

So while it is correct that some payor staff will be trained on data entry functions, such as those responsible for creating benefit tables or provider entries, this is only the tip of the iceberg. There will be staff responsible for reviewing new data, making substantive decisions, and acting on those – like medical reviewers and those processing claims.

[17] The Rand Report, page 9
[18] The Rand Report, page 9

Still others will be affected by the output of the systems, like those in the Actuarial, Underwriting, and Financial areas working with reports from the systems.

Training for staff when a substantial system upgrade occurs can range from a few hours of explaining to staff how this affects their jobs to a more formalized process that includes classroom instruction, hands-on demonstrations, and working at their desks with oversight from trainers. This latter process can last a week to two weeks, as was contemplated in the Nolan Report.

Unfortunately, the Nolan Report's discussion of the estimate of payor training costs is only two sentences long. The Nolan Report correctly mentions that there are many different areas that require training but only says that "[s]ome of the training requirements would be extensive while others would require only a few hours.[19]" The Nolan Report estimated that payor training could range from 4 to 80 hours. No guidance is given as to how the Nolan Report determined the estimate of payor staff requiring training or how they extrapolated this number of staff with the range of training hours to achieve the cost estimates provided.[20]

Both reports seem to omit two other key aspects of training that will have an impact on costs. First, training programs must be created. The costs associated with preparing training programs, whether classroom based or electronic, must be recognized.

Also, overlooked is the cost to payors of educating provider staff. Provider staff frequently is guided by the requirements of the payors – billing staff for example will follow rules set forth by payors when entering data into claims. Other staff will follow payor rules that dictate when pre-authorization is required before rendering service. Payors currently invest a significant amount of money in trying to educate provider staff on these rules; this can be done in the form of bulletins, newsletters, manuals, and direct contact with provider staff. Payors will try to reduce the expected post-implementation costs associated with redoing work and lost productivity by offering increased communications and training to provider staff before the new codes take effect.

Because it appears that the Rand Report has underestimated the number of staff requiring training and the amount of training required, and because both reports omitted key areas – the costs of creating the training programs and the cost to payors of training provider staff, the cost estimates in the Nolan Report are accepted as a more accurate reflection of the costs that will be associated with training when the ICD-10 Code Sets are adopted.

[19] The Nolan Report, p. 16
[20] The Nolan Report, p. 16-17

4.4 Conclusion

In each area of implementation costs, the Nolan Report appears to better reflect the level of effort that will be required to implement the ICD-10 Code Set. Also, there are some areas of activity that neither Report appears to include within its estimates, also this document does not attempt to estimate the possible inflation in these cost estimates that will occur between the time they were written and the time when the ICD-10 Code Sets will be adopted. So it is possible that the final costs will be higher than those stated in the Nolan Report.

While it is possible to mitigate those costs by taking shortcuts, this should not be encouraged or endorsed as it defeats the whole purpose of moving to the ICD-10 Codes – the opportunity to mine the rich data contained in these codes. The primary driver for adopting the ICD-10 Codes is not that the ICD-9 Code Sets are out of codes, the industry can continue to make up new codes they have done so for years. The real value of the ICD-10 Code Sets is the rich data contained in the intelligence within the codes.

Furthermore, looking at the current activities within the payor market, cost estimates should not be built around the expectation that payors will cut corners. Payors are actively working to obtain more information and better utilize they information they do have available for disease management, case management, and pay for performance programs, and also to assist members with consumer directed health plans. Payors are also being asked by large groups and governmental programs, such as Medicare and Medicaid, to provide more information about performance and medical care.

To suggest that payors will not want to avail themselves of the data provided by the ICD-10 Codes does not square with what payors are actually doing today. So those considering the adoption of the ICD-10 Codes should not underestimate the level of effort involved in bringing the payor industry into compliance. History has shown that payors have a better understanding of the cost of implementing mandates than do others. During the implementation of the HIPAA Transaction and Code Set regulations, payors correctly indicated that advocates of the regulation had underestimated the level of effort that would be needed to comply with the regulation. Payors were proven correct in this regard and extensions in the compliance deadline were adopted.

It would seem to be more sensible when adopting the ICD-10 Code Sets to recognize the significant level of effort involved in compliance and provide sufficient time for proper compliance at the beginning of the process.

Appendix

A1. About the Author: Biography of Kenneth W. Fody, Esq.

Kenneth W. Fody, Esq.

Mr. Fody is a Managing Consultant at IBM, where he assists payor organizations with strategic change and business optimization initiatives. For the past fifteen years, including 10 years with a leading health carrier, Mr. Fody has dedicated his career to the healthcare industry, gaining broad experience in areas of insurance, healthcare, technology, and regulatory matters, with specific expertise in the operations of health plans.

Prior to becoming a consultant, Mr. Fody's last assignment was to serve as co-Project Executive at Independence Blue Cross, leading the work to implement the HIPAA Transaction, Code Sets, and Privacy requirements. Mr. Fody also served as the organization's Privacy Officer during his tenure. With his knowledge and expertise in the area of HIPAA, Mr. Fody has been selected to speak at national events on topics related to all aspects of HIPAA.

Mr. Fody's background in insurance and regulatory matters stems from a decade of experience with the Pennsylvania Senate where he was the top aide to the Banking and Insurance Committee.