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GOVERNMENT HEALTH IT

Could ICD-10 Have as Big a Financial Impact as the Mortgage crisis? Yes. Here's why.

Michael Arrigo, Managing Director, Healthcare Regulatory Strategy, Economics, and Investor Diligence

U.S. Healthcare Expenditures are $2.7 trillion in 2011 and are forecasted to grow 34% in five years. This multi-trillion dollar economy will shift its reimbursement paradigm to ICD-10 by October 1, 2014. ICD-10 will introduce opportunities and risks to hospitals and health plans that may be equivalent to the $148.2 billion to $500 billion asset devaluation to the U.S. economy in the mortgage crisis. Why? ICD-10 is a global medical coding standard currently used by the non-U.S. world to describe the condition of the patient. In the U.S. we plan to use ICD-10 to also describe the billable procedures to treat the patient, and in so doing change the underlying reimbursement structure for the entire U.S. health care economy.

Therefore, ICD-10 introduces favorable and unfavorable reimbursement results. Before you conclude that I am writing only about ICD-10 risk, know my intent to also point out opportunities. ICD-10 presents opportunities for improved access to capital for health care providers, and should be considered in hospital revenue bond ratings, and managed care coverage determinations. Ultimately, this new reimbursement paradigm promises more granular data to describe the underlying reasons for the care delivered to the patient. This clinical documentation also has economic value.

Yet, ICD-10 was obscure outside the health care industry until just months ago. Only recently did mainstream business media start covering ICD-10, described by The Wall Street Journal as health care’s ‘Y2K5 problem’. It is ironic that Y2K, the mortgage crisis, and ICD-10 have similarities. Cynics criticized Y2K as an expensive non-event.

As I’ll point out later, even if this were true, Y2K produced other

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### Hypothetical ICD-10 Reimbursement Risk, $Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Employers</th>
<th>Medicare Providers</th>
<th>Medicaid Providers</th>
<th>Other Public Costs</th>
<th>Out of Pocket Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>-44</td>
<td>-37.5</td>
<td>-25</td>
<td>-12.5</td>
<td>-46</td>
</tr>
<tr>
<td>2015</td>
<td>-44</td>
<td>-37.5</td>
<td>-25</td>
<td>-12.5</td>
<td>-46</td>
</tr>
</tbody>
</table>

Favorable Impacts Equal to the Negative Reimbursement Risk are Possible Offsets

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important benefits. The mortgage crisis was about ethical failures in leadership, transparency, and poorly documented quality that led to higher than expected risk. As we will see, both the quality of patient care and the economics supporting the health care economy’s ability to provide quality care also hinge on the quality of documentation as well.

One of the most important risk mitigation strategies for ICD-10 will be choosing and empowering leaders. We need to help leaders make the business case for dealing with ICD-10 as an innovation and quality improvement program as well as a regulatory compliance effort.

An exclusive and narrow focus on ICD-10 compliance alone would enable one to complete a checklist by a deadline to avoid federal penalties. There is a greater opportunity to focus on quality and innovation, which will mitigate reimbursement variation and provide health care organizations with strategic advantage. ICD-10 and is just the beginning of a five-year perfect storm of mandates. Start now to build a foundation that will enable agility to respond to these and future changes. Make a decision now about leadership.

**Economic Impact**

Here is one business case for ICD-10. First, reimbursement risk affects all parties in the healthcare service supply chain. For example, an 82-year old female patient with a cardiovascular condition could have a procedure under ICD-9 CM with a

<table>
<thead>
<tr>
<th>National Health Expenditure Projections</th>
<th>Reimbursement Risk Analysis $ Billions (See notes a, b, and c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total NHE - ($ Billions)</td>
<td>2011 2012 2013 2014 2015 2016</td>
</tr>
<tr>
<td>Year by Year Growth %</td>
<td>4% 6% 6% 8% 6% 6%</td>
</tr>
<tr>
<td>Increase 2011 to 2016 in NHE</td>
<td>$ 924</td>
</tr>
<tr>
<td>Increase 2011 to 2016 in NHE - %</td>
<td>34%</td>
</tr>
<tr>
<td>Hypothetical ICD-10 Reimbursement Risk</td>
<td>4.6% 4.5% 4.4%</td>
</tr>
<tr>
<td>ICD-10 reimbursement risk of 4.6% to 4.5%</td>
<td>$ 148 $ 154 $ 150</td>
</tr>
<tr>
<td>Employer sponsored expenditures</td>
<td>($ Billions)</td>
</tr>
<tr>
<td>815 849 892 953 1012 1058</td>
<td>30% 30% 30% 30% 30% 29%</td>
</tr>
<tr>
<td>Percent of total NHE</td>
<td>$ 44 46 47</td>
</tr>
<tr>
<td>ICD-10 reimbursement risk of 4.6% to 4.5%</td>
<td>$ 29 $ 30 $ 31</td>
</tr>
<tr>
<td>Medicare expenditures</td>
<td>($ Billions)</td>
</tr>
<tr>
<td>556 565 500 636 686 707</td>
<td>21% 20% 20% 20% 20% 19%</td>
</tr>
<tr>
<td>Percent of total NHE</td>
<td>$ 27 28 30</td>
</tr>
<tr>
<td>ICD-10 reimbursement risk of 4.6% to 4.5%</td>
<td>$ 15 $ 15 $ 16</td>
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<tr>
<td>Medicaid expenditures</td>
<td>($ Billions)</td>
</tr>
<tr>
<td>428 457 488 587 631 685</td>
<td>16% 16% 16% 16% 18% 19%</td>
</tr>
<tr>
<td>Percent of total NHE</td>
<td>$ 57 51 79</td>
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<tr>
<td>ICD-10 reimbursement risk of 4.6% to 4.5%</td>
<td>$ 3 $ 3 $ 3</td>
</tr>
<tr>
<td>Out of pocket payments</td>
<td>($ Billions)</td>
</tr>
<tr>
<td>312 322 334 330 340 353</td>
<td>12% 11% 11% 10% 10% 10%</td>
</tr>
<tr>
<td>Percent of total NHE</td>
<td>$ 57 51 79</td>
</tr>
<tr>
<td>ICD-10 reimbursement risk of 4.6% to 4.5%</td>
<td>$ 3 $ 3 $ 3</td>
</tr>
<tr>
<td>Exchanges</td>
<td>($ Billions)</td>
</tr>
<tr>
<td>0% 0% 0% 0% 2% 2%</td>
<td>1% 1% 1% 1% 1% 1%</td>
</tr>
<tr>
<td>Percent of total NHE</td>
<td>$ 19 20 21</td>
</tr>
<tr>
<td>ICD-10 reimbursement risk of 4.6% to 4.5%</td>
<td>$ 19 $ 20 $ 21</td>
</tr>
</tbody>
</table>

(1) Source for all projections (NHE, Medicare, Medicaid, Out of Pocket, Exchanges, and Other Public): https://www.cms.gov/NationalHealthExpendData/0310.pdf
(2) Source for reimbursement risk factors: http://www.noworldborders.com/blog/2011/10/14/icd-10-clinical-scenarios-for-reimbursement/
(3) Risk factors decrease from 4.6% to 4.4% via coding accuracy and clinical documentation improvements between 2014 and 2016.

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What This Means

Illuminating CMS projections for 2014 with our estimated ICD-10 reimbursement risk rate of 4.6%, it appears negative financial impacts of ICD-10 could indeed equal Federal losses in the mortgage crisis. To get a sum equal to the loan portfolio write-down by the Freddie Mac and Fannie Mac, multiply the ICD-10 reimbursement risk factor 0.046 x $3.2 trillion = $148.2 billion. Across NHE categories the risk factor has specific meaning to different constituencies. Employer sponsored expenditures might shift by $44 billion, Medicare and Medicaid by $29 billion, and Out of Pocket Payments by $15 billion. Many hospitals are lucky to operate on a 2% net margin, so this top line reimbursement risk could make the difference between profit and loss.

Regulatory Impact

A second business case should be about compliance. Many health care executives are hoping for a delay. While CMS insists there won’t be any delay, one of the first cracks in the dike of industry compliance just appeared regarding HIPAA 5010, a precursor to ICD-10. California Medicaid is asking healthcare providers to send ‘old’ HIPAA 4010 transactions for up to a year9 stating, “Medi-Cal is unlikely to meet the scheduled deadline of January 1, 2012 to accept the latest version of standard electronic healthcare transactions.” Since HIPAA 5010 provides the foundation for enrollment, eligibility, claims, remittance and other transactions that will use ICD-10, it will be interesting to see how CMS responds to this new development.

California Medicaid doesn’t get to make the final decision, but what can CMS do to a state that is already running a deficit budget? A second crack in the dike appeared Friday October 14th when HHS Secretary Kathleen Sebelius wrote a letter to Congress asking to rescind part of healthcare reform known as “Community Living Assistance Services and Supports” (CLASS) program10 stating that it was actuarially unsound.

Don’t be fooled by California’s fiscal failures or rescinded healthcare reform initiatives. ICD-10 is not part of health care reform (also known as HR 3590, or the Patient Protection and Affordable Care Act). ICD-10 is a separate mandate by the Centers for Medicare and Medicaid (CMS) in August 2008 prior to the election of President Obama. Therefore, if ‘Obama care’ reform were repealed, ICD-10 is still forecasted to go into effect on time October 1, 2013. With all of the data available on the Internet about ICD-10 risk, the questions we should be asking are not whether you will have risk or whether you need to comply. Decide whom to involve within your organization, and who will lead the effort.
More than IT Issue

Will you delegate to IT? If so, ensure IT facilitates business involvement. If the CFO leads, ensure that IT, clinical, and other stakeholders have a seat at the table. Second, decide whether you will address it as an innovation and quality improvement program or as regulatory compliance only. We call this ‘survive vs. thrive’ approach to ICD-10.

Like Y2K remediation in the 1990s, ICD-10 remediation will force an ancillary benefit. There are many aging and brittle transaction systems in healthcare that companies have postponed upgrading. It has been suggested that on September 11, 2001, the New York infrastructure (including subways, phone service, and financial transactions) were able to continue operation because of the redundant networks established in the event of Y2K bug impact and the contingency plans devised by companies.

Your IT department probably knows about these problems, but feels helpless to secure the business support and budget to improve systems because it is often seen as cost centers instead of valued partners and enablers of strategic advantage. If you make a business case to remediate and upgrade systems for regulatory compliance alone, that could be a partial win.

Physician, Clinical Documentation Impact

The most important business case for ICD-10 is a case for improved patient care. Much of the resistance to ICD-10 has come from physicians, who are concerned that ICD-10 will force them to change the way they provide care or turn them into coders. (For more, please see my physician Q&A on ICD-10 and improved patient care). Physicians have a duty to document the condition of the patient, their findings, recommended treatment and the procedures that are in the best interest of the patient. If those physicians who currently provide good patient care and good clinical documentation continue to do so, I argue that the burden to them is minimal.

ICD-10 trained coders can pick up the heavy lifting on coding, using good clinical documentation from the physician as the foundation. This foundation of good documentation can help create better documented clinical scenarios for health IT requirements, a strong foundation for improved financial reimbursement, reduced financial risk, reduced patient risk, and improved quality of care.

Despite these opportunities, ICD-10 may create a massive redistribution of healthcare wealth; cause hospital and health plan bankruptcies, mergers, consolidation, and precipitate radical shifts in healthcare IT software and solutions companies. Yet, there is some complacency about ICD-10. According to a recent study, only 40% of health care providers are preparing diligently for ICD-10.

Most investors, health care IT firms, hospitals, and insurance companies are unprepared for this new paradigm. Investors are just awakening to the business opportunities for IT, consulting, software, analytic, and other companies who are positioning themselves for strategic advantage around this shift. Like a good business plan, investors make their decision based on leadership and solid management teams. Investing in leadership and best practices should be a component of the ROI for your ICD-10.

ICD-10 SUPPORTS GOOD PATIENT CARE

The most important business case for ICD-10 is also a case for improved patient care. Much of the resistance to ICD-10 has come from physicians, who are concerned that ICD-10 will force them to change the way they provide care for their patients.

Physicians have a duty to document the condition of the patient, their findings, recommended treatment and the procedures that are in the best interest of the patient. ICD-10 supports this completely.

Improved documentation may result in increased reimbursement, or a reduction in reimbursement reductions.

ICD-10 AND REDUCED FINANCIAL RISK

This foundation of good documentation can help create better clinical scenarios for health IT requirements, a foundation for improved reimbursement, reduced financial risk.

DATA ANALYTICS, RATING AGENCIES

This foundation creates opportunities for new analytics to rate risk in revenue bonds, healthcare REITs and other investments.
business case. Proper ICD-10 impact assessment and implementation planning can help health care make the best transition possible.

ICD-10 Education at the leadership level, as well as with all stakeholders can help socialize the right values and ethics so that organizations do the right thing. Some executives assume that ICD-10 is an IT only problem instead of a clinical and business problem as well. Understanding how ICD-10 changes medical concepts can help hospitals and other health care providers plan for shifts in reimbursement. For hospitals, ICD-10 clinical documentation improvement, coder quality, and other aspects can be addressed via a methodology and reference implementation model. For health plans and large self-insured employers, planning will be critical in redesigning medical policy, benefit plans and remediating systems in time.

Healthcare IT vendor assessments for enrollment portals, electronic medical record (EMR) systems, revenue cycle, analytics, actuary, claims, case management and utilization management systems will be important. Awareness training for management and coder re-training will also be key.

Predictive analytics can be extremely helpful in doing “what if” calculations that tie together a health care provider or health plans reimbursement scenarios with ICD-10, including clinical documentation, and chart reviews, training, population or case mix, coverage determinations, and more. Therefore an ICD-10 financial risk assessment should also be a part of the strategy for any HIPAA Covered Entity. In addition, we believe that this type of reimbursement risk will be used in the future to rate revenue bond risk, and in diligence for potential mergers and acquisitions.

Following the assessment, establish a clear business road map for ICD-10. This must include an "as-is" and "to-be" process evaluation and redesign, application remediation, possibly even modification of enterprise architecture. Greater cooperation among hospital staff as well as between providers, health plans, and large self-insured employers can also help.

Importantly, double coded ICD-9 and ICD-10 health care claims can help create test data to ensure that the patient condition is documented properly, the procedures are documented in support of the condition and the health care claim, and that the claim will be properly adjudicated and reimbursed.

Even for capitated (non-fee for service medicine) health care providers, ICD-10 CM (diagnosis coding) will be required. It will also be required for all ambulatory patient encounters.

Credit Impact

A board member of a $1 billion health care system in the eastern U.S. says that his firm is preparing for ICD-10 with weekly audit and finance committee updates. The company is proactive about mitigating ICD-10 risk, and over 24 months ahead of the deadline it arranged for a $50 million credit facility exclusively for ICD-10 an amount equal to 5% of its annual revenue cycle.

Revenue Bonds

In our review of hospital revenue bonds, some may be more risky than municipal or General Obligation ("GO bonds") because they are not secured by the option of a municipality to tax, but only the ability of the hospital to collect revenue. With respect to the ability to collect revenue, revenue bond issue documentation that we see does not include a provision of risk or regulatory review regarding ICD-10 and other new regulations such as the Patient Protection and Affordable Care Act ("Obamacare").

Individual investors are often the last to know and the first to suffer. We believe...
there is an opportunity for a renaissance of new health care specific rating agencies and analytic methods to help provide transparency, and increased access to capital in an industry where it is vitally needed.

**Conclusion**

Unlike the rest of the world, the U.S. ICD-10 standard causes both clinical and financial impact.

Though obscure today, ICD-10 and other health care regulations create unprecedented risk and disruption, unprecedented opportunity for health care providers, health plans, health care IT firms, investors, and patients.

As expected health care provider consolidation increases, new diligence methods to determine revenue cycle risk and cash flow interruptions can be used to augment investor’s view of the value of these providers. ICD-10 will provide new insights into risk and specificity for patient care via clinical documentation improvement.

Health care companies that don’t make these important leadership decisions might experience financial impact that carries a wallop like the mortgage crisis.

Sources, Footnotes:


2. ICD-10 (World Health Organization International Classification of Diseases; US Version ICD-10 CM for diagnosis and ICD-10 PCS for procedure codes). The compliance date for ICD-10 is October 1, 2013.


4. Total mortgage losses are estimated to be over $500 billion. ICD-10 loss estimate based on a hypothetical 4.6% shift in reimbursements during 2014, the first full calendar year of ICD-10. Risk factor decreases from 4.6% to 4.4% via coding accuracy and clinical documentation improvements between 2014 and 2016.


6. Percutaneous Transluminal Coronary Angioplasty - MS-DRG 251 “Percutaneous cardiovascular procedure without coronary artery stent without MCC”

7. Coronary bypass -- MS-DRG 230 "Other cardiothoracic procedures without CC/MCC"


About Michael Arrigo

Mr. Arrigo leads consulting engagements regarding medical coding (CPT, ICD-9, ICD-10 and other standards) for health plans, law firms, and hospital systems. He served as an ICD-10 medical coding expert for a team of economists and a premier litigation firm in New York and Washington DC, in a matter before the U.S. Federal Trade Commission and several State Attorneys General. The matter involved anti-trust issues deemed by the FTC as a matter of national economic importance. The matter involved complex healthcare IT implementations, access to clinical data, electronic healthcare records, diagnosis and procedure coding, HIPAA privacy & security, ICD-10, and computer assisted coding (CAC) for some of the largest hospital systems in America. Michael is Managing Director of No World Borders, a leading healthcare management and IT consulting firm. He was recently quoted in The Wall Street Journal regarding healthcare and the financial impact of new regulations, and writes for Health Care Financial Management Association, Government Health IT and other publications. He and his team of experts advise clients on improving clinical documentation to support medical coding and health care claims, and reduce liability for RAC audits, SIU investigations and other fraud, waste and abuse matters.

Mr. Arrigo and his team have performed investor diligence on total transactions exceeding $1.5 billion for healthcare IT and healthcare payor and provider mergers and acquisitions for some of the leading private equity, venture capital, and consultancy firms in the U.S., and Europe. He led the diligence effort for well-known investment firm Kleiner Perkins Caufield & Byers for Medicare Advantage, Accountable Care, Cloud Computing, Software as a Service analytics and large-scale U.S. healthcare industry interoperability.

Recently he led the diligence effort for one of the largest European PE firms regarding a pre-IPO Cloud healthcare IT firm. He is an advisor to mHealth and Bigdata venture backed firms.

His executive leadership positions with software, financial services firms, and healthcare IT firms and consultations to medium sized to large health plans, self-insured employers, and hospital systems result in delivering insights, leadership and value creation for early stage companies that have resulted in IPO, acquisition, and significant new contracts. He advises venture capital firms, private equity firms, and public securities analysts on emerging trends in healthcare. He is the former SVP of eCommerce at Fidelity where he specialized in capital markets and mortgage backed securities, and CEO of a billing company sold to Citrix Systems, and led the internet strategy with Goldman Sachs for the IPO of Heidrick & Struggles, a well-known executive search firm.

He earned his degree in Business Administration from the Entrepreneur Program at University of Southern California (USC), studied computer science and economics at the University of California, Irvine (UCI) and the University of Pennsylvania's Wharton School executive management program and is a candidate for a double Masters in Public Health and Informatics from the Stanford Medical School. He has served as an adjunct professor at Loyola on eCommerce and Internet technology.

From a social media perspective, Mr. Arrigo manages the largest group on LinkedIn dedicated to ICD-10 and is the top ranked expert on Twitter globally for ICD-10 medical coding.

Mr. Arrigo is a former winner of state and national championships and successfully competed in the U.S. Olympic trials, training for the event while working full-time with a family.