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Healthcare Insights

Helping Clients Break the Healthcare Cost Spiral

From the Editor's Desk



The U.S. healthcare system is undergoing a steady transformation. Rapidly rising costs have put enormous pressure on the healthcare ecosystem. Reforms, along with stakeholder initiatives, are combating spiraling costs while balancing quality and access. Health insurers have taken the lead by embracing quality and cost control measures through initiatives that address the growing Consumerism and Pay-for-Performance like programs. Lastly, cross-stakeholder collaborations such as e-health programs, telemedicine and clinical applications will rise to play a key role towards cost containment. As these transformations gain significance, healthcare stakeholders can include them in their strategies to enhance their market position.

Gartner's **Top Health Insurer Business Topics for 2009** research identifies the top priorities for Health Insurers over the next 12 months. Syntel is well positioned to help health insurers embrace these strategic initiatives.

Syntel is helping some of the biggest names in the healthcare space stay at the forefront of their business by delivering innovative solutions. Our aggressive investments in the latest technologies, increased focus on accelerating compliance, and ability to build the systems needed to drive new business models, is **helping customers derive long-term value and differentiate themselves amongst peers.**

Creating domain excellence through comprehensive domain programs, including a dedicated university and R&D teams, enables Syntel to make **direct and positive impact to our customer's business.**

The following pages will demonstrate Syntel's ability to deliver value to customers and help them in addressing the challenges in these changing times. We hope that you find this content informative and useful.

A handwritten signature in black ink, appearing to read 'Murli Reddy'.

Murli Reddy
Head - Healthcare & Life Sciences
Syntel

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Top Health Insurer Business Topics for 2009

The ability to differentiate an organization through innovative technology and business strategies across all business lines is paramount for the success of health insurers. Understanding the key topics and trends within the industry and turning that data into actionable information will help in the development of short- and long-term initiatives.

Key Findings

- Broad and forceful changes (for example, new competitive threats from banks and financial institutions) are pushing health insurers to grapple with significant and urgent tactical business requirements, even as the uncertainty of future public policy changes rule planning.
- Healthcare insurers often underestimate the need for technologies that can enable business agility and promote innovation, because of the need to concentrate resources on solving the most pressing current issues.
- Business and technology initiatives are currently aimed at improving efficiencies; however, they should be focused on transforming healthcare financing, delivery and health outcomes.

Recommendations

- Embrace new care delivery models (retail clinics, online care and e-visits) and exploit social media to enhance the consumer experience and to build better loyalty among consumers.
- Expand provider connectivity capabilities and develop outcomes-based reimbursement systems to motivate, reward and enable providers to improve quality of care, promote wellness and optimize medical costs.
- Craft an International Classification of Diseases, 10th Revision (ICD-10) conversion strategy that meets the necessary legislative requirements and deadlines.
- Align business risk with the organization's corporate strategy to balance the conflicting needs to control risk, reduce cost and innovate for differentiation.

ANALYSIS

With increasing competition, health insurers need to have a strategic direction to excel in the healthcare industry. Becoming a recognized leader, demonstrating optimal value and providing best-in-class consumer-centric solutions must be critical elements of success. The following topics were identified by Gartner's health insurance analyst team as strategic initiatives that all health insurers must embrace in 2009, to assist in differentiating the organization by executing innovative approaches to lower costs and improve healthcare outcomes.

1.0 Innovators Will Embrace the Social Media Revolution

Social media signifies an important shift in how public content is controlled, shaped and consumed. That, in turn, shapes what we collectively experience as shared knowledge. Social media provides the opportunity to inform and educate consumers through messages that are relevant, personalized and ubiquitous. Web communities have shifted from static data to blogs, podcasts and other such methods of information sharing to deliver more relevant and timely information on healthcare topics and wellness management. Health insurers' presence within online communities can make them more dynamic and can enhance the overall health consumer experience, increase participation in the community, and can build better loyalty among consumers by enabling faster and more convenient connections. Financial services firms have taken advantage of this and are using instant messaging and presence with virtual agents to interact with customers. Collaborating in external communities will mark a new way for health insurers to extend brand identity and empower consumers to expand their network.

While there are clear benefits for health insurers to participate in social media initiatives, there are also privacy and security risks. The recent notoriety of data security breaches and the privacy missteps of Facebook, MySpace and YouTube have concerned many health insurers and are often stated as impediments to starting social software initiatives. This concern is exacerbated in healthcare because it is a highly regulated industry. It is important to draw the distinction between privacy and security. Privacy is the inappropriate (at least generally recognized as inappropriate) use of personal information by those who are allowed to access the information. Security breaches involve the stealing or illegal offering of data by those who were never intended to have it.

Action Item:

Health insurers should seek to understand the concepts behind social media and explore the potential of social media in their enterprises. Learn through the successes of organizations outside of healthcare. Understand the differences between social media and traditional communications, collaboration and knowledge management capabilities. The challenge many health insurers will face is how to explore social media's potential, justify an investment, build a strategy and choose a starter initiative. Standards and guidelines must be drafted to include conflict-of-interest disclosure and privacy protection.

Top Health Insurer Business Topics for 2009

2.0 New Care Delivery Models Will Exploit Value and Quality

Consumers are demanding more from their health insurers, including wider access to new care delivery models such as e-visits, retail clinics and online care. Patient access to primary care physicians is waning as more health insurers promote preventative care and the number of primary care physicians practicing continues to decrease. The need for new care delivery models is paramount and is finally gaining momentum. Retail clinics are opening up around the country, large insurers like Aetna and Cigna have finally agreed to pay for online doctor visits, and the first deployment of online care by a health insurer in Hawaii is in implementation.

Technology is available for medical services to be delivered electronically and through retail clinics, greatly increasing efficiency and reducing cost. However, there are many barriers and risks, including: reimbursement, quality and value. The cost of services through these new delivery models is of concern, and it is debatable whether these new models can deliver efficient, high-quality care and demonstrate value.

Action Item:

Health insurers must launch the deployment of new care delivery models to shift care away from higher-cost settings, extend a valuable benefit to members, and strengthen relationships with providers by enabling and facilitating electronic interactions between consumers and physicians and extending services to retail clinics. To ensure these types of care delivery models provide value and demonstrate quality care, health insurers must craft effective pay-for-performance programs and include financial incentives to encourage physicians to deliver better quality care.

3.0 Outcomes-Based Reimbursement Systems Will Emerge

Many health insurers currently focus on utilization review rather than on optimizing a patient's care program in light of their medical needs and circumstances. They tend to focus on efficiency with the emphasis more on price and quality controls than on ensuring best value to the patient. This approach fails to reward the highest-performing providers adequately and to effectively address low-performing

providers. Outcomes measures, where definable, should be the preferred approach. Outcome comparisons allow health insurers to identify and examine the structures and processes that result in outcome variability. However, to measure outcomes requires the deepest analysis into clinical data in order to create proper risk-adjustment algorithms to reflect individual patient differences.

Outcomes-based reimbursement systems will require health insurers to tie provider compensation to performance. To support this, health insurers need to move disease management programs into the physician's office by providing pertinent patient data (for example, claims, lab, radiology and clinical) to support effective decision making. More quality data is needed from core administrative and care management systems to feed back into outcomes-based reimbursement programs.

Action Item:

Health insurers need analytics/data to assist providers in improving the safety and quality of care they provide, in ensuring adherence to clinical standards and best practices, and in reporting data to the community. Robust decision support systems are needed to capture not only claims data but also clinical data from the physicians. Key requirements must include:

- Internal and external reporting
- Ad hoc reporting environment
- Transparency (report cards, clinical benchmarks, treatment cost advisor, hospital comparison tools)
- Provider analytics
- Encounter data integration
- External data integration
- Collaborated approaches with providers where the data can be analyzed

4.0 ICD-10 Adoption Activities Increase in Importance

A defined ICD-10 conversion strategy has begun to attract attention outside the IT area of the health insurer. It has become an enterprise initiative, particularly as the Centers for Medicare and Medicaid Services (CMS) released its proposed rules for X12 5010, NCPDP D.O. and NCPDP 3.0. The proposed rule for ICD-10 was released at the same time. Officially appearing in the Federal Register on 22 August 2008, proposed comments are due by 21 October 2008 for both regulations.



The release of the proposed rules at the same time does not, necessarily, mean that CMS decided to require simultaneous implementation of both 5010 and ICD-10. It is expected that the general feedback from the release of these rules will push CMS to continue to keep the implementations separate. That said, the arguments for only one massive change are quite compelling. With only 60 days to respond, rather than the usual 90, and with less than six months to deal with comments, the compliance date may be moved forward from projected implementation dates of sometime around 3Q11 or 3Q12.

Action Item:

Health insurers must plan for ICD-10 compliance and 5010 as linked in an implementation scenario. Equally, these organizations must continue to push forward toward compliance in just two short internal strategic planning and budgeting cycles.

5.0 The Personal Health Record Stalls as Providers and Patients Turn Wary

The Personal Health Record (PHR) and its provider-sponsored cousin, the Electronic Health Record (EHR), continue to make progress as part of both health policy considerations and active adoption by healthcare payers and providers. Overall, consumer interest in these services appears to be strong; however, there are many unanswered questions regarding privacy and security of medical records. Further, there are increasing concerns, likely unwarranted, that health insurers that have access to PHR and/or EHR information might use that information for the rating and underwriting of medical risk.

Enablement of the PHR by health insurers is problematic because of the technological limitations related to consumers and healthcare providers accessing sensitive medical information while protecting privacy and security. The entrance of technology companies, such as Microsoft and Google, crowd the space with additional players. As such, there may be a need to strategically readdress the nature and scope of health insurers in the PHR space.

Action Item:

Health insurers should continue to look at PHR enablement as a marketing tool rather than a care management application. Rethinking the strategic alternatives, including whether and how health insurers should be in the space, is warranted.

6.0 Medicare Programs Increase in Importance

Health insurance products that address the U.S. population for whom Medicare is their primary health insurance option are becoming an essential part of a complete product portfolio. Whether these products are available Medicare Supplement or Medicare Advantage contract types or remaining legacy Medicare Cost contracts, they give health insurers the ability to extend their long-term consumer relationships. Federal health policy related to Medicare is subject to change with little notice, payment allowance varies across Medicare product types and new policy initiatives are likely to make these products volatile. But despite these challenges, health insurers cannot ignore the opportunities found in the Medicare market.

Action Item:

Health insurers must actively pursue opportunities in Medicare Programs. Equally, there must be recognition that these products can challenge existing eligibility, enrollment, claims and medical management functions.

7.0 Aligning Risk Management With Corporate Strategy

Risk management is emerging as a critical component of controlling health insurers' important IT and business processes. At the same time, health insurers continue to struggle to reduce costs and identify new ways to differentiate themselves from competitors. How do health insurers balance the conflicting needs to control risk, reduce cost and yet to innovate?

The answer lies with risk *management* not risk eradication. The first priority in managing risk is to determine an appropriate business context against which risk categories and tolerance can be identified. Health insurers should conduct risk assessment in concert with their strategies to run the business more efficiently, grow their market share or transform the business model.

Top Health Insurer Business Topics for 2009

Running the business is staying in business. Risk is exposure which might jeopardize the future of the business. A run-the-business strategy addresses the regulatory, commercial and organization risks associated with basic business functions. A grow-the-business strategy (within the current business model) is characterized by expanding market share in the business's established market or into different markets. This strategy may introduce new regulatory, commercial and organization compliance issues while maintaining existing ones. A transform-the-business strategy requires changes to the business model. It will introduce new compliance issues and may significantly change or antiquate existing compliance issues.

Executives must establish a composite risk tolerance for the totality of risk exposure as well as separate risk tolerances appropriate to each stage of the strategy. Risk tolerance for a transform-the-business strategy will be greater than for a run-the-business strategy, because the opportunity for innovation and growth is greater. In order to accommodate the risk associated with growing or transforming the business, more risk may need to be tolerated in running the business. The key is to manage risk in concert with the business strategy, balancing the need to control cost, manage risk and allow for innovation. To ignore this approach and treat all risk unilaterally will stifle growth, stymie innovation and cause risk management costs to spiral upward.

Action Item:

Health insurers must identify business functions which support running the business, growing the business and transforming the business. Executives should identify the risk tolerances associated with each stage as well as an overall corporate risk tolerance. Risk managers, CIOs and business partners should map their risk assessment and management activities to this backdrop.

8.0 Collaboration Should be the Goal of Provider Connectivity

The relationship between a health insurance payer and its network of medical providers is the cornerstone of successful health benefit plans and programs. Yet often these relationships have been handled with a style ranging from benign neglect to fractious confrontation. Consumer

centrism, regulatory demands for transparency and payer report cards challenge insurers to create an environment of collaboration with their provider networks.

Provider connectivity will play a significant role in making this happen. The supply chain between payers, providers and patients consists of many frustrating and duplicate touchpoints. Most of these pain points would benefit from a collaborative approach. Workflow, regulatory compliance, security, eligibility and claims administration need to be treated as mutual challenges with collective, full cycle solutions. Payers, in concert with providers, need to examine those touchpoints with an eye toward improving the process, particularly for their mutual customer – the patient.

At the same time, new strategic initiatives – such as patient portals, HSAs, e-visits and e-prescribing – provide a fresh starting point for connectivity collaboration. WellNet Healthcare is piloting Point to Point, a social media space for providers and payers to interact. Humana, seeking to close the connectivity gap between itself and providers, has physically placed customer service representatives in provider offices. These teams were supported with social media tools.

However, challenges lie ahead. Connectivity and collaboration require more than technology solutions. Health insurers must create a culture of service toward their provider networks by providing collaborative forums. Meanwhile, providers must overcome well deserved skepticism and distrust. Both face an environment where disruptive change is occurring. Today's collaborator could be tomorrow's competition. Both groups need to increase their connectivity agility and gain collaborative skills to play in the new environment.

Action Item:

The first step to addressing mutual pain points is to share appropriate processes and data. Health insurers and provider networks need to move away from merely "keeping the bad guys out" (firewalls, intrusion detection, antivirus/spyware protection, patch management and content filtering) to "letting the good guys in" with identity and access management products (single sign-on, user provisioning and strong authentication).



They should also explore the new connectivity dynamics by piloting collaboration tools (instant messaging, blogs and wikis) for exchanges which do not contain personal health information. At the same time payers should research enterprise collaboration tools that are secure and controllable to comply with the Health Insurance Portability and Accountability Act (HIPAA) and other regulatory organizations for personal health information.

9.0 Mega Core Administrative Vendors Face Strong Competition From Niche Players

The marketplace for health insurance application has seen significant consolidation. For the last few years, four mega-vendors (DST, EDS, Perot and TriZetto) have occupied the space. Recently, newer competition has entered the market in the form of small, nimble vendors with enhanced technology. Most offer fully integrated healthcare insurance administrative functions. Several offer Web-based solutions for personal health records, disease management, portals (member, provider and broker portals), decision support tools and workflow.

While it may seem that the marketplace does not need another administrative application, the new players are carving out a niche role with flexible, customizable Web-

based products that are helping to create a buyers market. Health insurers can select from a full service mega-vendor, move to a platform of Web-based products or purchase stand-alone products to surround their existing systems.

The challenge for payers is to make a side-by-side comparison of the varied vendors. An understanding of the organization's core competency should drive the evaluation. Adding functionality does not mean existing administrative applications must be replaced. Yet newer technologies may help to create a more nimble organization.

Action Item:

Determine your organization's core competencies. Do you consider medical management, provider relations, or health and wellness initiatives your priority? Evaluate vendors according to how they will achieve these goals. Expand your search beyond the four mega-vendors and consider solutions from smaller, niche vendors. Consider replacement as well augmentation strategies.

Gartner Industry Research Note G00161240,
Joanne Galimi, Robert H. Booz, Maureen O'Neil,
23 September 2008

The ICD-10 Migration Challenge

Syntel offers the healthcare and life sciences industry a comprehensive, integrated suite of IT and Knowledge Process Outsourcing (KPO) services that help our customers realize sustainable competitive advantages by focusing on continuous innovation and knowledge management.

The requirement to migrate to the ICD-10 scheme is a mission-critical project. Syntel is well-equipped to help you develop a road map and navigate your team to compliance.

ICD-10 Compliance

Overview

ICD-10 is essential for development of a nationwide electronic health information environment and conversion to the ICD-10 code-sets is mandatory with a deadline of October 2013. This adoption will impact a health plan's major business processes and technological applications and systems. Although ICD-10 compliance poses a tremendous challenge, it also opens doors to new opportunities for business transformation.

ICD-10: A Strategic Initiative

Adopting ICD-10 can be viewed simply from a compliance perspective, to a strategic initiative that lends a market differentiating edge with time. Some strategies that an organization should consider while it takes on the ICD-10 adoption challenge are mentioned below.

I. Sustenance

- Strategy: Focus on regulatory compliance with minimum changes to the business.
- Features: This is a cost-effective approach with low-risk involved and includes minimal investment in building systems and training staff.
- Benefits:
 - Reduction in coding error rates with improved logic, standardized definitions and accurate clinical terms in ICD-10
 - Provides better data for health policy planning, payment systems design and claims processing
 - Fewer rejected and improper reimbursement claims
 - Increased accurate payment for new procedures

II. Expansion

- Strategy: Achieve compliance and extend ICD-10 capability to expand market share in the established market.
- Features: Limited increase in business can be expected. This approach requires considerable investment and is associated with medium risk.

If mastered, real-time claims adjudication can dramatically improve operating efficiency for payers and providers.¹

– Gartner

- Benefits:
 - Adoption of ICD-10 codes will be a key Real Time Claim Adjudication (RTCA) enabler. The increase in information capture and accuracy will help in knowing patient responsibility immediately and also help in cutting administrative costs.
 - ICD-10 aids quality measurement as the new codes have the potential to provide better data for evaluating and improving the quality of patient care.
 - ICD-10 codes contribute to making consumers feel empowered to make better choices and are better served by payers and providers thus improving member acquisition and retention strategies.

III. Business Transformation

- Strategy: Use the ICD-10 compliance as a step to venture into new business models.
- Features: This includes use of cutting-edge technologies and analytics. Requires high investment and is associated with great risk.

Long term, ICD-10 adoption can become the basis for greater analysis of health information, yielding better medical data, as well as improved predictive modeling and care management.²

– Gartner



- **Benefits:**
 - ICD-10 is a facilitator in key initiatives such as Pay for Performance (P4P) programs and Personal Health Records (PHR) that demand greater specifications in diagnosis and procedure codes. Organizations looking for these business opportunities will be able to employ ICD-10 as a marketing differentiator to create a competitive market position.
 - Access to the granular data available via the ICD-10 code set creates an opportunity to develop detailed and richer analysis for health plans. Business intelligence and advanced analytical capabilities will aid in identifying patients that need tailored disease management & medical programs, as well as in drug & pharmaceutical research.
 - Better fraud management processes and procedures can be ensured based on the new ICD-10 codes.
 - ICD-10 aids predictive modeling that uses historical information to build models to predict future healthcare utilization and expenses. For example, in underwriting, predictive modeling is used to adjust the premium rates for individual and small groups. According to Gartner research, if health insurers could accurately predict secular trends (such as utilization), premiums would be set appropriately, profit targets would be met with more consistency, and health insurers would be more competitive in the marketplace.
- **Significant improvements in ICD-10**
 - Better precision in the coding system decreases the need for supporting documentation with claims for adjudication process.
 - Detailed clinical information resulting in improved ability to measure health care services and perform research and analytics.
 - Updated medical terminology and classification of diseases.
 - Allows DRG definitions to better recognize new technologies and devices.
- **Support for key Healthcare trends:** Has a powerful effect on several important payer trends such as RTCA, Consumerism and Claim Attachment.
- **Cost benefits:** Rand Study estimates that cost benefits across healthcare industry have increased from \$700 million to \$7,700 million over a ten-year period.

Pre-Requisite to Adopting ICD-10

The current version of the standard for electronic healthcare transactions, X12 4010/4010A1, does not accommodate the ICD-10 code sets due to structural limitations in the existing standard. The figure below gives a glimpse of the changes that are expected to be made to the Claims transaction, 837 v4010A1, to accommodate the ICD-10 codes.

Simply put, ICD-10 adoption cannot occur without a successful rollout of 5010 changes to support its greatly expanded diagnosis and procedure codes.⁵

– Gartner

Need for ICD-10 Adoption Beyond the Regulatory Mandate

Though adopting ICD-10 will be challenging, it provides many advantages. Some of the important advantages are:

- **Address major limitations of ICD-9 CM**
 - Current codes are more than 30 years old and outdated. ICD-9 is running out of codes in many important categories such as cardiac and orthopedic procedures.
 - Codes lack precision due to constraints in the structure and format.
 - US health data is unable to transcend international boundaries.

Seg ID	Description	Usage	Max Usage	Loop	Values
HI	Healthcare Diagnosis Code	R	1		
HI01-2	Diagnosis Code	R	1-30		ABK, BK
HI09-1	Diagnosis Type Code	R	1-3		ABF, BF

Source: Syntel

The ICD-10 Migration Challenge

Analysis of ICD-10

ICD-10 adds five to six times the number of codes in ICD-9. An increased number of codes allow better selection of appropriate code thus improving coding accuracy.

The table below shows the structural differences between ICD-9 CM and ICD-10 CM, ICD-10 PCS.

ICD-9 CM	ICD-10 CM
<ul style="list-style-type: none"> • 3 - 5 digits • First digit may be alpha (E or V) or numeric; Digits 2-5 are numeric • Limited space for adding new codes • Lacks laterality • Example: 931- Foreign body in ear 	<ul style="list-style-type: none"> • 3 - 7 digits; • Digit 1 is alpha; Digits 2 and 3 are numeric; Digits 4-7 are alpha or numeric • Flexible for adding new codes • Identifies laterality • Example: T16.1xxA - Foreign body in right ear, initial encounter
ICD-9 CM	ICD 10-PCS
<ul style="list-style-type: none"> • 3 - 4 digits; All digits numeric • Generic terms for body parts • Lacks description of methodology and approach for procedures • Lacks precision to adequately define procedures and laterality • Example: 47.01 – Laparoscopic Appendectomy 	<ul style="list-style-type: none"> • 7 digits; Each either alpha or numeric • Detailed descriptions for body parts • Detailed descriptions of methodology and approach for procedures • Precisely defines procedures in detail regarding body part, approach, device used, qualifying information and also identifying laterality • Example: 0DTJ4ZZ- Laparoscopic appendectomy 0 - Medical and Surgical Section D - Gastrointestinal system T - Resection (root operation) J - Appendix (body part) 4 - Percutaneous endoscopic (approach) Z - No device Z - No qualifier



Benefits of structural modifications:

- **Increased Specificity:** The new coding system offers more detail for various conditions. Many categories, which in ICD-9-CM were limited to three or four digits, have five, six, and even seven characters/extensions in ICD-10 CM.
- **Identification of Laterality:** ICD-10 CM and ICD-10 PCS distinguishes between left and right side of injured or affected body part.
- **Use of Extensions/Qualifier:** Extensions and Qualifiers are included in ICD-10 CM and ICD-10 PCS respectively to provide additional information about injuries and procedures.
- **Logical Grouping of Codes:** Conditions have been grouped in a more logical fashion than in ICD-9 CM. This is accomplished by movement of codes from one chapter to another or one section to another.
- **Detailed Descriptions:** In ICD-10 PCS, many of the category code or subcategory code titles have been changed to reflect more details such as updated technology and medical terminologies. In ICD-10-CM, the subcategory titles are usually complete so that the coder does not have to read previous codes to understand the meaning of the code.

Impact to Health Insurer Processes

Most of the health plan's processes ranging from product development and benefit structures to claim processing and reporting are affected by the ICD-10 adoption. Technology applications as well as business processes will have to be modified to accept and utilize the ICD-10 codes. All outputs obtained (such as reports) will also need modifications to incorporate the ICD-10 codes. There will be a significant impact to the business rules within these applications. Health insurer staff as well as customer service associates will need to go through a major reorientation to understand the new coding system, modifications to existing systems or applications used and modified processes.

Gartner believes that the effect of ICD-10 on health insurers will be greater than that of HIPAA and Y2K combined.³

– Gartner

Major processes affected are:

- **Product Development:** There will be a need to reconfigure benefit designs and modify tools used to determine co-pays, coinsurance, etc. It will also involve adjusting reimbursement rates for providers that are not in network and modifications to existing provider contracts and fee schedules.
- **Enrollment:** There are impacts on processes for recording pre-existing conditions, enrollment reports, and requires transfer of codes from providers, wellness management companies or employers to medical management areas.
- **Billing:** In the future, payers may need to implement new premium billing strategies that take into account the detailed clinical information available from ICD-10 codes.
- **Claims Processing & Adjudication:** Claims business processes and systems are highly dependent upon medical codes for processing. The business rules embedded into the system will need significant modification to accommodate the new codes. For example, Ambulatory Payment Classifications (APC) that uses ICD-9 codes for medical visits will need to be modified for ICD-10-CM codes.
- **Care and Disease Management:** This impacts processes and applications that involve capturing and reviewing of claims and authorization, medical history, benefit tables and accumulators. This will also require re-evaluation of course of treatment that is being followed to ensure patient safety.
- **Internal Fraud & Audit:** Using the ICD-10 codes, it is possible to reduce the fraud since the newer codes are more specific. This process will impact tools, policies and software that evaluate claims and utilize ICD codes.
- **Research and Analytics:** Data warehouses which hold the medical information will have to be modified to accept ICD-10 and hold both the ICD-9 and ICD-10 code sets. There will be a need for 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.

Impact to Health Insurer Processes



Source: Syntel

The ICD-10 Migration Challenge

Implementation Challenges

Migrating to X12 v 5010 is the first step to adopting ICD-10. With more than 850 individual changes implementing 5010 is an enormous challenge.

The most significant disruption to ICD-10 adoption is the implementation of ANSI X12 version 5010 transactions.⁴
-Gartner

Listed below are some of the other major challenges:

- **Impact Analysis:** A thorough assessment of the usage of ICD-9 codes to the business processes and components that are directly or indirectly affected is required.
- **Modifications to Business Rules:** ICD-10 brings significant logic changes to applications that use these codes. For example, in claims adjudication, the edits to ensure proper payment or nonpayment for services will need to be revised.
- **ICD-9 to 10 Mapping:** There is no direct one-to-one mapping available currently. The varied architectures and technologies further complicate the crosswalk activities. For example: the General Equivalence Mapping provided by CMS cannot be used in a legacy system in unaltered form.
- **Transition:** During the code transition phase, it is likely that applications will need the capability to handle the two coding systems concurrently. With the inconsistent relationship between the two coding systems, implementing a suitable crosswalk and maintaining dual coding structures will be a daunting challenge.
- **Testing:** The numerous variations in the ICD-10 codes require extensive internal and external testing. Internal testing involves testing of applications that use ICD-10 codes. External testing involves ensuring interoperability amongst trading partners. Trading partners will need to test using the new codes well in advance of the actual cutoff date.
- **Staff Training:** Lack of a relationship between ICD 9 & ICD 10 poses a challenge for aging staff to get reoriented. Incomplete understanding of the new coding system will lead to decreased operational efficiency and improper reimbursements.
- **Customer Service:** Customer service representatives will be required to be prepared with phone scripts as there will be a rise in the volume of calls and inquiries.

Syntel Recommendation

Syntel recommends that ICD-10 is adopted in a phase-by-phase manner that spans through compliance, increased utilization and creating market differentiators.

Phase 0 – Planning & Assessment: Before embarking on the overall migration, it is important to evaluate the impact of the ICD-10 on the organization's applications, organization structure and training needs. Based on this assessment, it may be important to create a program office and a budget to run this program as a corporate initiative in a structured and systematic manner with participation from different sub-units including IT and business. A blueprint needs to be prepared to define the overall program at the beginning itself. Healthcare organizations must also evaluate IT vendor capabilities for a structured approach towards implementation. Organizations without vendor outsourcing relationships must give serious thought to identifying a vendor for outsourcing; at least till ICD-10 adoption is complete. Planning for a CBT type of program in order to reorient aging staff towards ICD-10 will also be important to avoid losses and maintain operational efficiency.

Phase I – Achieving basic compliance: Initially, the goal will be to address the regulatory requirements. To ensure this, health plans will need to add the ability to communicate with trading partners and perform basic claims adjudication. This will involve modification of the applications primarily affected to accommodate required changes and building of a suitable crosswalk for translating codes. We believe that this phase will be vital for planning steps ahead, with a vision to take advantage of the rich data captured. A solution that focuses on minimizing costs is an 'Intelli-Crosswalk' that intelligently translates codes from ICD-9 to ICD-10 using a standardized mapping logic such as the General Equivalence Mapping (GEM) published by CMS. Being platform independent and centrally located, 'Intelli-Crosswalk' acts as a bridge across multiple systems and supports coordination of changes. This is a valuable strategy to meet the needs of the changing healthcare regulations without much modification to the existing investments.

Phase II – Increasing ICD-10 Utilization: This phase will involve bringing about ICD-10 utilization in business areas that are associated with claims processing. Modifications in areas such as Product Build, Enrollment and Fraud Management will lead to quality inputs for claims processing.



Consequently, we expect quicker and accurate claims adjudication. Healthcare organizations will also need to gear themselves for the turbulent stage immediately after moving to ICD-10. Issues cropping up around claim over-payments, lack of fraud detection and extended delays in claim assessment will impact revenues and hence need to be controlled.

Phase III – Turn ICD-10 Compliance into Business Opportunity: The last phase will entirely focus on research in creating innovative business models to reap benefits of previous investments towards ICD-10 compliance. This gives an opportunity for detailed and rich analysis in areas such as Care and Disease Management and Underwriting. The granular details in ICD-10 collected over a period of time helps improve patient safety and care on drug's side-effects, assessing and monitoring of patient safety and quality indicators.

Source: Syntel



1 & 2 – Gartner RAS Core Research Note G00158568 Hype Cycle for Healthcare Payers, 2008, Robert Booz, Joanne Galimi, 27 June 2008

3, 4 & 5 – Gartner Industry Research Note G00149538 U.S. Health Insurers Should Start Planning Now for ICD-10 Adoption, Robert Booz, 28 June 2007

Delivering Value to Health Insurers

Syntel is a 'Partner of Choice' to some of the largest players in the healthcare space, helping them stay at the forefront of their business through a continuous focus on its mission, which is to "create opportunities for our customers by harnessing our passion, talent and innovation". Its differentiating factor is its ability to couple deep domain knowledge with technical expertise to help customers drive synergies, simplification, optimization and cost-efficiencies.

Innovation is part of Syntel's corporate DNA. Some of the key areas where the Company is creating business value for customers through innovation are described below.

Care Management

Today, the current scenario is such wherein a small percentage of plan members account for a disproportionately large share of medical expenses. To combat this scenario, health plans must make use of sophisticated analytics and decision support tools to analyze patient outcomes and take appropriate action – be it modifying provider payments or member treatment regimens. By enrolling high-cost or high-risk members into Care Management programs, health plans can experience a positive impact on their medical costs.

Syntel has helped a leading health insurer in the US to build an enterprise solution with extensive capabilities for identifying members who need to be routed for Care Management programs.

The Client: A Fortune 100 Health Insurer

Business Challenge

- Identification of members best suited for Care Management programs and with the greatest ROI potential
- Evaluation of the member's clinical condition to determine the optimal intervention based on his clinical profile
- Evaluation of a member's eligibility and requirements for various clinical programs
- Integration of various clinical care applications across different platforms
- Routing members to identified programs and monitoring compliance to care management plan
- Motivating members towards better participation in programs using incentives and rewards

Syntel Solution

Syntel developed Web applications which, in conjunction with the rules-engine, perform the Identification, Evaluation and Routing of members to clinical Care Management programs. This system forms a cornerstone of the client's clinical operations strategy. By collating information from enterprise-wide data sources, the

system creates a comprehensive clinical profile that provides information about the member, provider, vendor and intervention in a single portal.

Mission @ Work

Living its mission of '*Creating new opportunities for customers by harnessing our passion, talent and innovation*', team has been successful in helping the client with:

- Cost savings through medical as well as operational efficiencies
- Met all deadlines with no compromises on quality and no production issues
- Exceeded customer expectations on performance
- It was a proud moment for all involved when the system went live. Business owners were absolutely thrilled and terms such as "beautiful", "taking us to a whole new level", and "super fast" were used to describe the system.
- The system is poised to grow as the source of clinical truth across the enterprise.



Medicare

With enrollments in group plans flattening, health insurers are increasingly turning to Medicare plans to achieve growth targets. The successful conversion of members into long-term relationships will play a key role in determining the front running health plans of the future.

Syntel has helped a leading Health Plan in the US to establish and grow its Medicare business. Syntel's Medicare experience of over 200 person-months includes active involvement in all key areas including Enrollments, Part D Benefits and CMS communications & reconciliation.

Medicare Modernization

The Client: A Fortune 100 Health Insurer

Business Challenge: Enable the customer to improve processing capabilities for providing additional Part D prescription drug benefits to all Medicare members.

Syntel Solution: Syntel has helped the customer adapt to the sweeping changes for all Medicare beneficiaries to receive drug coverage as required by the Medicare Modernization Act (MMA). Syntel understood and analyzed the requirements, implemented the programs and performed complete testing.

Mission @ Work: Leveraging its passion, talent & innovation, the Syntel team has:

- Enabled the customer to grow its Medicare membership by 48% in 2005
- Improved processing capabilities of the existing system to handle larger volumes of data
- Successfully executed the project with no UAT defects, leading to tremendous recognition and additional project responsibilities from the customer

Medicare Contract Acquisitions

The Client: A Fortune 100 Health Insurer

Business Challenge: Consolidation and synchronization of Medicare membership data from a newly acquired company into the customer's Medicare system.

Syntel Solution: Syntel enabled the customer to enroll and consolidate new Medicare members gained through a recent acquisition. Syntel performed the entire life-cycle of activities – from requirements specification and development to testing.

Mission @ Work

- As an outcome of the dedicated efforts of the Syntel team, major features like membership verification, transmission of data to CMS, letter generation and processing of the CMS response are automated.
- Syntel helped lay the foundation to minimize IT costs for any future acquisitions.

Delivering Value to Health Insurers

Claims Adjudication

Automation of health insurance claims processing is the key to improving claims throughput, accuracy, turnaround time, and reducing administrative costs. Health insurers can significantly increase profitability by employing efficient, automated and streamlined claims processing systems.

Syntel has helped a large health insurer implement Real Time Claims Adjudication (RTCA). This capability allows increased profitability by improving the accuracy of claims payment and reducing the number of claims falling through during adjudication. Syntel offers a range of services to help

clients meet the challenges in the claims processing area. These include:

- Implementation of Real Time Claims Adjudication (RTCA)
- Compliance of NPI and other HIPAA mandates such as Remittance process
- Account Receivable Reconciliation & Financial Reconciliation for overpaid claims
- Member campaign for Coordination Of Benefits (COB)
- Implement Business Rules for Medicare Claims in compliance to CMS mandates
- System Integration during Acquisition
- CORE Phase I certification

The Client: A Fortune 100 Health Insurer

Business Challenge

- Set up a process to receive real time claims
- Achieve claim processing time of less than 10 seconds for real-time claims
- Build a parallel processing for real-time claims similar to batch process

Syntel Solution

Syntel designed and performed enhancements to the front-end and back-end claim systems to support real-time adjudication.

This enhancement involved developing Point of Service processing for professional claims in place of existing nightly batch process.

Mission @ Work

- Allowing providers to bill for services at “point of service”
- Improved patient service
- Expedite reimbursements
- Increased cash flow
- Improved claim acceptance rate

Product Build

In the Product Build process, plans and benefit packages are generated and rolled out into the market for members. Insurers use benefits administration products to ensure that plans can be accurately and efficiently administered for members. The integration of such products with the

insurer's Product Build is a key challenge and can lead to a number of implementation issues.

Syntel has helped a large health insurer improve its Product Build process, thereby increasing the number of plans rolled out annually.

The Client: A Fortune 100 Health Insurer

Business Challenge

- Setting up and rolling out Health Plans in various markets for different customers
- Creating benefit packages and templates for claim processing
- Automate the creation of coverage/components/details that was earlier created manually from the New Case Document.
- Reducing plan configuration time taking approximately 21 weeks
- Enabling mass synchronization of benefit data to resolve data mismatch between product database and managed care administrative product

Syntel Solution

Syntel helped the customer streamline the entire Product Build process. This involved development of an application to set up a multi-step process starting from setting up a plan till rolling out

of those plans in various markets. This helped reduce the time to market considerably. To further accelerate the process, Syntel also developed another application giving the business users a platform to generate the coverage automatically and load it to the administrative product. Syntel developed an application that is used by group of plan-builders to create a workbook (consisting benefit details and their parameters) and to create benefit package to process the claims in the administrative product.

Mission @ Work:

- Improved Plan Build process by automating the manual process and speeding up the creation of Health Plans
- The developed applications reduced significant efforts required during product build process. They also have the potential to reduce product build time by 13% to 61%

Source: Syntel

Syntelovation: Fostering the Innovation Culture

Syntel's Mission of 'Creating new opportunities for customers by harnessing our passion, talent and innovation' is a key driver of the Company's success. The mission was an embodiment of Syntel's initiative to deliver value to customers through a focus on innovation – new ideas, concepts, methodologies, processes and tools that will lower costs, accelerate time lines and deliver tangible business results.

The mission is embraced by Syntellers around the world, and is truly part of Syntel's corporate DNA and teams are recognized for initiatives that demonstrate innovation and value creation in projects that resulted in tangible financial benefit to customers.

Outlined below are a few concepts and solutions that are an outcome of this vibrant environment.

Stakeholder Collaboration – HSA Maximizer

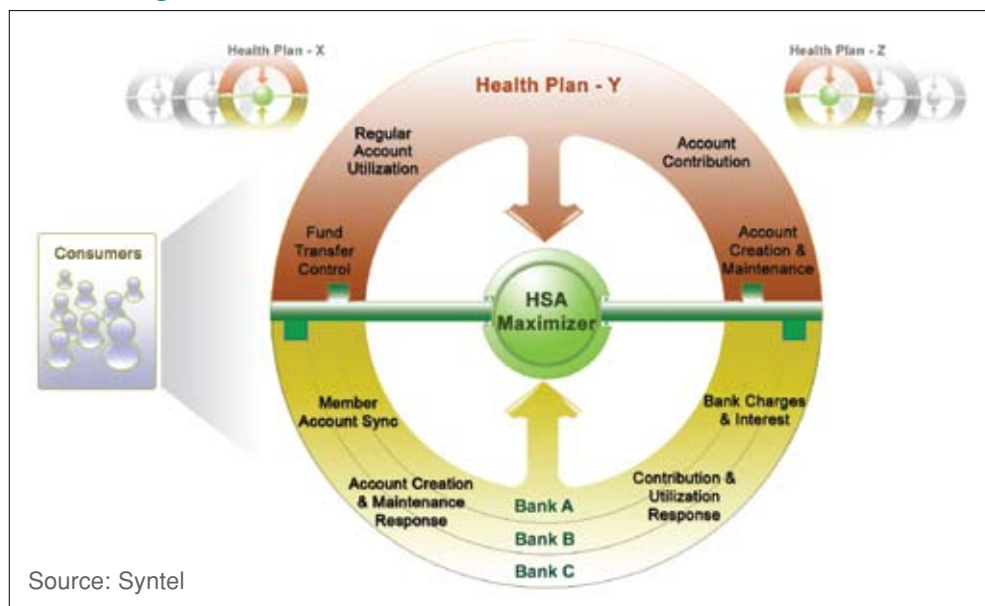
The significant rise in the number of HSA Plans and asset size has led to increased interest from banks. Consumers and employers are also looking at HSAs as a means to reduce costs while improving the customer service experience. Providers looking at reducing patient bad debt problems look forward to gathering patient liability and payment information at point of service. Such a multi-



stakeholder environment can be well served in all aspects if Health Plans can tightly couple with multiple HSA Banks. This collaboration will enhance customer experience and allow consumers to opt for an HSA Bank of choice. Health Plans and Banks stand to gain through increased market outreach and ability to attract and retain membership. A channel established between Health Plans and Banks will lead to an improved payment system for Providers.

Syntel teams conceptualized the "HSA Maximizer" solution, designed to be an open integration system that facilitates end-to-end HSA interactions between Health Plans and Banks in the HSA value chain. A transactions service provider can have this exchange as a Health Plan offering that establishes bidirectional, transaction-based data translation channel for interaction with multiple Banks around HSA account dealings. The channel will see growing utilization as Health Plans increasingly adopt the auto-substantiation and real-time claims adjudication model to enable HSA disbursements for qualified medical expenses.

HSA Exchange



Syntelovation: Fostering the Innovation Culture

Outcomes-Based Incentives – Value Based Insurance Design

Value-Based Insurance Design (VBID) is a system of cost-sharing for “high-value” healthcare services to increase benefits per healthcare dollar spent.

Outcomes-based reimbursement strategies are gaining prominence as the need of the hour to address healthcare cost and quality concerns. Instead of focusing solely on cost, it is essential to keep an eye on the patient’s condition and outcomes and change the healthcare approach accordingly. One way of looking at this concept is by offering to “reimburse” patients through incentives based on their conditions, requirements, behaviors and outcomes. Outcomes measurement and analysis is a qualifier as well as evaluator for such financial incentives.

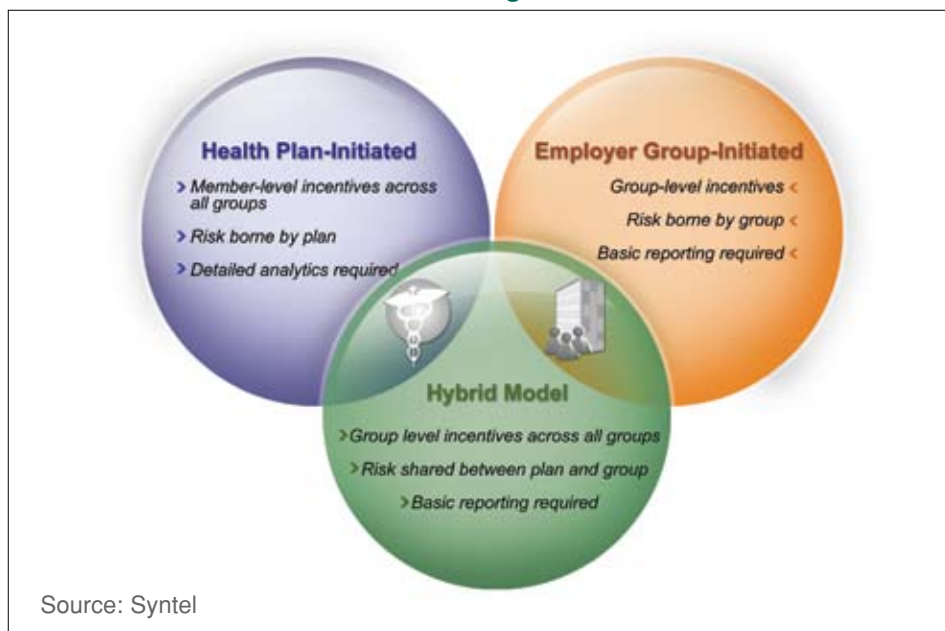
Rising healthcare expenses and growth of consumer-driven health plans have led to patients shouldering a growing burden of costs that makes them think twice before adhering to prescriptions or utilizing key healthcare services. Meanwhile, health plans are trying to keep a lid on utilization and rising rates of non-compliance. Research has shown that patients are more likely to comply with treatment regimens when provided financial incentives for doing so. For instance, health plans can identify high-cost diabetics, and lower or waive co-pays for blood glucose-control drugs and annual eye exams for such patients.

This will result in a positive impact on health plans’ Medical Expense Ratios in the long term and proactively complements existing reactive Medical Management strategies. Members gain from lower out-of-pocket costs as well as improved health outcomes while employers see improved productivity and higher cost-efficiency.

E-Visits

Keeping consumer centric initiatives at the forefront, payers need to closely examine their interactions with providers to develop a mutually symbiotic relationship in order to serve their customers better. Newer connectivity enablers such as patient portals and e-visits offer Web-based forums for a more efficient patient-provider interaction. Especially, for common, non-urgent ailments and follow-up treatments, an e-visit is a convenient way for patients to gain access to their physicians. Payers are beginning to get excited by this mode of providing e-treatment especially with studies concluding that it saves \$70 to \$120 to the health system on each virtual visit (vis-à-vis traditional office visits). With the growing demand for e-visits, CMS has proposed a rule for 2009 Medicare payment which allows physicians to bill for e-visits instead of follow-up inpatient visits. About 20 U.S. insurers have initiated pilot programs or rolled out payment schemes, with average payments ranging from \$25 to \$35.

Models for Value Based Insurance Design





E-visit based patient-provider interaction is usually hosted on Web-based patient-accessible portal (usually a PHR portal). After logging on to the portal, a patient can request for an e-visit with his/her assigned physician by answering a detailed, clinically intuitive set of questions related to the specific patient complaint or follow-up condition. More details for any documents or reports can also be attached to the e-visit request. At the time of requesting for an e-visit, the patient usually co-pays the calculated amount based on his/her health plan whereby an e-visit request along with the clinical history is sent across to the physician. The attending physician reviews the patient's medical information including past medical history, allergy, drug intake, lab and procedural details. Post-review, the physician responds with an appropriate course of action. The patient can then log in to the portal to review the physician's response and take action according to the physician's advice. At the completion of the e-visit, the encounter being already electronically documented can be electronically submitted for claim processing through the e-visit portal.

The AMA, CCHIT and various other provider and payer entities are in the process of evolving standards for e-visits and related areas for more structured data capture and secure communication. Going ahead, e-visits offer a cost-effective and efficient tool affecting all three stakeholders: payers (as it can bring down a portion of the care delivery costs with cheaper physician-patient interactions), care providers/ physicians (by increasing their reach to a larger geography of patients as well as reducing the review time per patient) and lastly, the patients (who benefit in terms of time, travel and cost for minor medical ailments).

Source: Syntel

TriZetto University at Syntel

Health Plan administration platforms are seeing increasing interest from Health Insurers. Maximizing efficiencies through enterprise wide integration is a key driver for this. With fully integrated healthcare insurance administrative functions, administrative vendors are well positioned to meet these demands. Recognizing this demand, Syntel has developed a partnership with mega core vendor TriZetto. This partnership aims to drive increased, measurable value to the leading health plans in the United States. Syntel is committed to this partnership through investments such as 'TriZetto University' where associates receive product and business process training that leads to full TriZetto certification.



ABOUT SYNTEL

Syntel (NASDAQ: SYNT) is a leading global provider of integrated information technology and Knowledge Process Outsourcing (KPO) solutions spanning the entire life cycle of business and information systems and processes. The Company is driven by its mission to create new opportunities for clients by harnessing the passion, talent and innovation of Syntel employees worldwide.

Syntel leverages dedicated Centers of Excellence, a flexible Global Delivery Model, and a strong track record of building collaborative client partnerships to create sustainable business advantage for Global 2000 organizations. And there is no greater testimony to the value of Syntel's services than customer loyalty – a high percentage of Syntel's revenues are derived from repeat and referred customers.

Syntel is a financially stable provider, with significant cash/short term investments, strong operating cash, and zero debt. It was also recently named one of the "50 Best Managed Global Outsourcing Vendors" by The Black Book of Outsourcing and has been included on the *Healthcare Informatics 100*, a list of the 100 leading global healthcare IT providers, since 2003

SYNTEL FAST FACTS

- Number of employees:** 12,300+
- Vertical Practices:** Financial Services/Banking, Healthcare and Life Sciences, Insurance, Logistics Manufacturing, Retail, Telecom
- Centers of Excellence:** Applications Management, Architecture, Demand Management, Migration, Remote Infrastructure Management, Testing
- Quality certifications:** ISO 27001, SEI CMMI Level 5, ISO 9001:2000, Project Management Institute (PMI)

SYNTEL HEALTHCARE AND LIFE SCIENCES PRACTICE FAST FACTS

Number of Employees: 1,000+ employees with over 5,400 person years of experience. This includes 1,700 person years on the payer side and 1,000 person years on the provider side.

Partnerships: TriZetto

Solutions

Provider

- EMR Integration Solutions
- Clinical Mobility Solutions
- Provider e-business Solutions
- Revenue Cycle Management Services
- Healthcare Intelligence and Analytical Services
- RFID Solutions
- P4P compliance Solutions
- DICOM and PACS Imaging Services
- Supply Chain Management Solutions
- Financial Reporting Services
- HRM solutions
- ICD 9 -10 Compliance
- Testing

Payer

- Regulatory compliance – 4010-5010 migration
- Regulatory compliance – e-Prescribing
- Demand Management for Baby Boomers
- Regulatory compliance – ICD10
- Out-of-pocket calculator
- Payer life cycle testing
- Care Management Systems Integration
- Rating/Quoting Engine
- SSN Remediation
- Payer Product: Claims administration, Member enrollment and Plan modeling

Pharma

- Drug Development – Electronic Data Capture, Adverse Event Reporting System, Records Management
- Manufacturing – Demand Forecasting, e-pedigree
- Sales & Marketing – Sales Force Automation tool (PDA/ Web), E-detailing
- Regulatory Compliance – 21 CFR Part 11 assessment, e-CTD, Electronic Signature

Customers: Fortune 50 Health Insurer, Fortune 100 Healthcare Provider organization, Fortune 50 Healthcare Product organization

Learn more at www.syntelinc.com

