Health Care Trends and the Affordable Care Act (ACA)

Abstract

Health care industry is going through a major overhaul. The Affordable Care Act (ACA), also known as Obamacare, reforms the American health insurance industry and it will have a major impact on the economy. The focus is more on reduced costs and overall patient well being. The opportunity here is enormous and highly disruptive. We look at the key provisions in the ACA, how it’s impacting current business models, who the winners and losers are and what are the emerging secondary trends.

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Introduction: Main Hypothesis and Topic

The US health care system has been on an unsustainable trend with the costs growing much faster than the overall economy. Although increased spending has led to improvements in life expectancy, the US continues to lag other nations in most outcome measures. Both the public and private sectors are facing major challenges to try and come up with a fair and yet sustainable balance for the three fundamental dimensions of the health care system - cost, access and quality. The government and the market have recognized this as a recessionary drag on the overall economy and are demanding solutions.

Any legislation or market based solution will eventually be measured by its ability to reduce costs. For example a new study from a Pennsylvania hospital system shows that remote monitoring of congestive heart failure patients using a connected weighing-scale can reduce readmissions by around 40% and return an investment of $3.30 on the dollar. Additionally, legislation such as the Affordable Care Act (commonly known as Obamacare) is trying to incentivize better pay-for-performance programs that reduce hospital readmissions. If solutions like these succeed the shrinking budgets will lead to lower profits for the overall health care sector as fewer hospital visits means lesser physician time, smaller number of diagnostic tests, fewer prescription drugs etc.

The US health care system is highly fragmented among multiple payers, hundreds of thousands of providers often functioning in isolation and patients with different levels of coverage. Such fragmentation has its own inefficiencies and drive up overall costs. In an effort to absorb the reduced spending we expect a lot of consolidation of various players in the health care system and we are already starting to see this happen. This report covers some of the trends in health care, directly and indirectly impacted by ACA, that are starting to snowball and will eventually have a huge impact on the overall health care industry.

U.S. Health Care Ecosystems: History and Status

U.S. health care industry has complex interdependencies among participants. The entities in this ecosystem can be generally categorized as Patients (who receive the medical service), Manufacturers/Distributors (who produce medicine, supplies, and equipments), Service Providers (who offer and administer medical services), Payers/Insurers (who finance the patients the health care service.) Figure 1 illustrates the general value chain between these entities, and lists a few big players as example[19].
It has been increasing in both absolute volume and relative fraction of U.S. economy. The number of employees in health care industry was 21 million, or 15.7% of the total workforce[15]. The total expenditure on health care in 2011 was $2.7 trillion, accounting for 17.9% of the total US gross domestic product (GDP), which is doubled from 1980 as fraction of the GDP. The annual growth of the sector has slowed down after 1970, especially since 2002. However, the growth still exceeds any other industry and overall GDP growth, at the annual rate of 3%.

The total spending increase was affected by several factors, but it’s primarily driven by higher price instead of demand of service nor aging of the population. For example, the costs for medical care administration have doubled from 1980 to 2010, to 7% of total spending at annual growth rate of 5.6%. However, since 2000, majority of the spending increase is due to the growth of drugs and devices (+4.0%/y), professional services (3.6%/y) and hospital care (4.2%/y)[15].

Over the years, the health care industry has been consolidated over time, just as in most industry when reaching certain size and maturity. Once it started, the consolidation progresses rather rapidly. Consolidation has occurred within each horizontal subsector: For example, in all but 5 states, the top two insurers have >50% market share, with 18 states where top two own market share more than 75%. Vertical consolidation also started since 2010, typically, insurers acquire care companies and hospital systems provide insurance service[15].
Pre-ACA: Challenges with Existing System

Obamacare’s primary goal is to offer quality and affordable health care plans to all Americans. This is also reflected by the law’s official title: the “Affordable Care Act Law”. This name encodes the main motivation behind this health care system reform: to optimize the health care system and bring down the cost of getting a health care plan for the individual. Here are some of the most prevalent problems with the pre-Obamacare health care system:

1. **Monotonically (and drastically!) increasing health care costs**
   The health care costs were spiraling out of control (as shown in figures below [21]). These rising costs directly contributed to a large uninsured population.... which in turn contributed even more to rising health insurance costs for those insured (the premiums also factored in the losses for covering all the uninsured citizens). By 2010, between 32M - 50M Americans did not have health insurance, 17.6% of US GDP was spent on health care and the average American was spending >50% more for health care than the average Swiss.

2. **Insufficient public health care programs and preventive care**
   Preventive care was not a reality for the low income part of the population. US was lagging behind Organization for Economic Co-operation and Development (OECD) countries in preventive care: lots of serious conditions that could’ve been prevented by early detection / lifestyle changes were not because low-income people simply could not afford an early pre-screening / diagnosis. Albeit not an immediate effect, good preventive care drastically reduces the costs of the health care system [17], [18].

3. **Lack of transparency and federal regulation**
   A high contribution to the overall costs of health care is represented by over-testing. For instance, US had more than twice the average in other OECD countries for MRI and CT tests: 100 MRI tests and 265 CT tests for every 1000 people in 2010. While this can be partially attributed to the physicians’ fear for expensive litigation from patients (...not enough testing was
done early to catch the condition), it can (sadly!) also be attributed to the financial interests doctors might have with imaging companies. The lack of federal regulation for hospitals, mostly seen as not having a cap on how much a hospital could charge for a service, is also a key contributor in the large disparity of procedure prices between US hospitals and other OECD countries: 18K USD for an average hospital stay in US compared to the OECD average of 6.2K USD [21].

It's The Law: ACA Key Provisions

With the passage of the Affordable Care Act (ACA) and the impact it has on Americans, health care, U.S. economy and Information Technology, it is important to understand the goals and key provisions of the law[22].

Among the many written/unwritten goals from various sources, the two that most seem to agree on are:

- Decrease the number of uninsured Americans: There are approximately 44 million uninsured Americans, most of which are either young and don't think they need insurance, or they are poor and cannot afford insurance. The ACA should reduce this by 30 million.
- Reduce health care costs: With over 900 pages, the Patient Protection and Affordable Care Act contains numerous provisions.

Below is a summary of the key provisions in the ACA.[20][22]

- Elimination of lifetime coverage caps and unreasonable annual limits on benefits: Prior to the ACA, health insurance plans would typically impose a lifetime (e.g., $1,000,000) and annual maximum benefit that will be covered for an individual. With the ACA, coverage caps were eliminated.
- Pre-existing conditions: Insurance companies are required to cover all applicants of the same age at the same rate, regardless of pre-existing conditions or gender.
- Coverage for young adults: Young adults under the age of 26 can stay on parent's plan, regardless of whether they live at home or on your own, or are single or married.
- Health care premiums: Insurance companies must pay out 80-85% of insurance premiums received in medical costs and can use 15-20% for administrative needs and profits. Any excess will need to be rebated to consumers.
- Payment for quality outcomes: ACA establishes a hospital Value-Based Purchasing program (VBP) in Traditional Medicare which offers financial incentives to hospitals to improve the quality of care. Hospital performance is required to be publicly reported,
beginning with measures relating to heart attacks, heart failure, pneumonia, surgical care, health-care associated infections, and patients' perception of care.

- Integrated health systems: The new law provides incentives for physicians to join together to form “Accountable Care Organizations.” These groups allow doctors to better coordinate patient care and improve the quality, help prevent disease and illness and reduce unnecessary hospital admissions. If Accountable Care Organizations provide high quality care and reduce costs to the health care system, they can keep some of the money that they have helped save.

- Health insurance marketplace: By 2014, each state is required to set up a health insurance exchange (states that do not set one up will use the national one) where consumers can compare health insurance policies and premiums.

- Businesses must offer insurance: Businesses with 50 or more employees must offer health insurance or they will pay a $2,000 fine per employee. They don’t have to provide it for employees working less than 30 hours a week. Businesses with less than 25 employees could qualify for a subsidy to offset the costs of insurance.

- Access to Medicaid: Starting in 2014, Americans who earn less than 133% of the poverty level (approximately $14,000 for an individual and $29,000 for a family of four) will be eligible to enroll in Medicaid. States will receive 100% federal funding for the first three years to support this expanded coverage, phasing to 90% federal funding in subsequent years.

- Individual mandate: Individuals without insurance coverage will be charged a $95 penalty or 1% of income (whichever is greater) in 2014. That amount will increase until it reaches $695 per person or 2.5% of income in 2016. Regardless of family size, an individual will never pay more than three times the penalty amount if all individuals within the family are without insurance. However, if health care coverage would cost more than 8% of an individual’s income, this tax will not apply.

Key Effects of the Affordable Care Act

We expect the ACA to have a large impact on health care in the United States across multiple axes: insurance coverage and affordability, payment (particularly for individuals covered by self-pay or employer-sponsored insurance policies), and the ways in which health care services are provided.

In terms of health insurance coverage, early evidence suggests that the ACA is having its intended effect: according to Gallup polls [1], the percentage of Americans without health insurance peaked at 18% in late 2013 (before the ACA’s inaugural open enrollment period), then dropped precipitously to 13.4% by the middle of 2014. We expect this trend to continue: the
combination of individual and employer mandates will bolster financial incentives to obtain and provide insurance, and the ACA's optional Medicaid expansion will spread to more states or will otherwise pressure states into developing alternative measures to expand coverage [2]. For example, in Alabama a recent poll suggests two thirds of state residents support expansion, and in Virginia, recently elected governor Terry McAuliffe (D) supports expansion and has already taken steps to enact it [3]. The ACA is also showing signs of success in making health insurance more affordable [4]: the ACA’s Medical Loss Ratio (MLR) provision has delivered billions of dollars in savings to consumers [5], and 87% of insurance plans selected through the federal marketplace provided tax credits, averaging a whopping 76% reduction in premiums [6].

The ACA will also significantly influence the provisioning of health insurance. While some individuals will not experience major changes (e.g. those covered by Medicare or the Veterans Health Administration), individuals with self-pay or employer-provided insurance plans (over 60% of the non-elderly population [7]) should expect significant changes in the coming years. We expect self-pay individuals (5.8% of non-elderly) to migrate en masse to the health insurance marketplaces established by the ACA, managed either by individual states or more commonly by the federal government (through its HealthCare.gov website). However, it’s harder to gauge what will happen with employer-sponsored insurance, as there are competing forces at work: the ACA’s individual and employer mandates encourage non-small employers to provide insurance to their employees (in order to avoid penalties), but on the other hand, individual subsidies for low-income individuals as well as the upcoming “Cadillac tax” for expensive employer-sponsored plans may encourage employers (particularly low-paying employers) to
drop coverage altogether and usher their employees towards the now-viable public exchanges. Dr. Ezekiel Emmanuel (health policy adviser to the Obama administration) and others have boldly predicted the demise of employer-sponsored health insurance [8], but more sophisticated analyses [9] suggest a deterioration rather than an outright collapse.

Finally, we expect the ACA to have a substantial impact on the health care provider landscape. The most important way in which the ACA affects health care providers is through changes in Medicare reimbursement. Though Medicare is just one of many payers in the US health care system, due to its size and budget it plays a key role in establishing pricing benchmarks and generally influencing the behavior of health care providers. The ACA introduces several pay-for-performance programs including the Hospital Readmissions Reduction Program and the Hospital Value-Based Purchasing (VBP) Program [10]. These and other provisions generally nudge providers away from fee-for-service payment models towards risk-sharing through bundled payments and capitation. For example, the Centers for Medicare and Medicaid Services (CMS) recently sponsored what’s called the “Pioneer” accountable care organization (ACO) model, designed to test key design elements of the broader ACO construct, under which “clinicians and hospitals have financial incentives to lower the total costs of care and improve clinical quality and patient experience outcomes as they take systematic approaches to managing care for a given population” [11]. Impressively, in their first two years Pioneer ACOs have improved their performance along all measured dimensions, decreasing costs while providing substantially higher quality care and increased patient satisfaction. Combined with the new “meaningful use” incentives to encourage Electronic Medical Record (EMR) system adoption, we expect the ACA’s “pay-for-performance” incentives to accelerate the shift towards large, integrated health care systems and create new market opportunities for services that help such providers become more efficient.

Winners and Losers
In 2014 we see a monumental change in the American health care industry. The focus is more on personalized care and overall patient experience. The opportunity is enormous and highly disruptive. Software is at the heart of innovation. Entrepreneurs are focusing on solutions that reduces cost of health care by lowering waste/inefficiencies in the stream, have better comparative shopping for health care in a more open marketplace for consumers, providing innovative insurance with fine grained options. Health insurance companies have been reporting greater profit since the new health care law passed. As more uninsured are forced to buy health coverage, insurances companies will benefit. As more people get insured, we will see increase in doctor visits and prescriptions, benefiting drug makers and biotech firms. ACA has set aside money to support patient centered outcomes research. Medical researchers will get billions of dollars to test drugs and other treatments related to childhood obesity, diabetes etc. Actuaries business is booming, as they are needed to help people compare competing health plans, help set subsidies for lower income people, predict costs for the future etc. The 900 page Affordable Care Act is complicated, has many regulations, needs interpretation and clarifications. Lawyers will be big winners as well.

So who could lose? Hospitals face $155 billion in Medicare reimbursement cuts through 2020 [12]. Under ACA hospitals will be rewarded more for the quality of care than for the volume of patients they treat. Home health-care providers will see $40 billion reduction in reimbursement over 10 years beginning in 2011. Home health agencies will be under great pressure to manage costs, including nursing costs, case mix and utilization closely. State
Medicaid programs will have to add 17 million Americans to their rolls over time, and federal subsidies will not cover the full cost after 2016. Medicaid expansion will be impacted. Radiologists are likely to lose income as the law forces them to charge by the outcomes rather than the number of tests. Tanning salons due to their high carcinogenic nature, have been slapped with 10% tax hike.

Technology Opportunities

Let’s take a look at the technology opportunities that’s brewing

Figure 5: Technology opportunities created by the Affordable Care Act[16]

“Meaningful use” [14] requirements, new payment approaches are driving demand for health information exchange. The need for a master patient index and record service locator are key to support interoperability in a decentralized health care environment. Patients are getting more involved in their treatment plans. The care plan actively monitors the active care and treatment plans to analyze if the desired results were achieved. In order to achieve this we need a systematic collection of electronic health information about individual

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patients or populations. Companies such as icare.com provide electronic health records in the cloud. Medicine is hyper-personal, with tough laws on privacy. Many want to chat with their doctors over email or text for quick advice. They want full transparency about what services they are paying for and why, they want to be able to carry their insurance between jobs. Companies like Oscar Health has launched a next generation health plan that leverages to the public exchange market in New York City. It is very easy to collect a ton of data but the real value is what the data can tell us, how it'll help organizations to make smarter decisions and be more effective. Companies such as Dabo Health is taking a big data approach to mine the large amounts of de-identified medicare performance data to streamline the way nurses, physicians and front line staff improve the quality of care.

Conclusion

The transformation of the health care industry has already begun in the last few years. As more patients are covered - demand for services will increase with processes to reduce consumption simultaneously being put in place. The use of IT to gain insights to cut costs and provide better whole-person-care will also become an active industry trend. Another type of innovation is the adoption of new incentive models to make the industry shift its focus from volume to value (eg: reimbursement rates are tied to clinical outcomes and penalties are levied for readmissions etc.). If providers can lower costs and manage the risks from the new populations entering the ranks of the insured, they may more effectively deal with these changes and gain a competitive advantage. As ACA implementation unfolds, we expect to see increased M&A and greater horizontal and vertical integration among providers, to help lower unit costs and spread risk.
References

[22] "The Affordable Care Act in Plain English", adapted from blogs from Ryan H. Law, "http://extension.missouri.edu/stclair/documents/General%20Lyncs/TheAffordableCareActinPlainEnglish.pdf"
Bibliography

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