HEALTH INSURANCE EXCHANGES & BEYOND

USING BIG DATA TO MANAGE INSURANCE, CLINICAL & POPULATION RISK

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Introduction

The passage of the Patient Protection and Affordable Care Act (ACA) in 2010 established a variety of provisions that strive to expand access and improve the affordability of healthcare, including the creation of state health insurance exchanges. Also known as marketplaces, health insurance exchanges are intended to enable individual and small business consumers to easily find, compare and purchase affordable health insurance coverage. By October 1, 2013, each state was required to establish and operate an open and transparent marketplace and begin enrolling individuals for health insurance plans that will provide coverage on January 1, 2014. A massive amount of data and a robust information technology infrastructure will be required to not only develop the online marketplaces, but also actively maintain them moving forward. This paper provides a brief background on insurance exchanges, and explores how big data can be leveraged to support new populations, adapt to new market dynamics, improve quality and comply with new regulations.

Understanding Insurance Exchanges

Individual consumers are eligible to purchase health insurance coverage on the exchanges if they do not have access to affordable employer-sponsored or government-provided coverage, or if they are ineligible under a parent's insurance plan. Similarly, small businesses will be able to purchase health insurance on the exchanges if they have fewer than 50 or 100 full time employees, depending upon the state.

Although many states have expanded their Medicaid programs under ACA provisions to cover more low-income populations, it is very likely that a significant portion of the approximately 55 million uninsured individuals will be eligible to purchase insurance coverage through the exchanges. While most Americans with health insurance receive coverage through their employers or government-based programs, many self-employed individuals, part-time or contract-based workers and small business employees face significant challenges in accessing or purchasing affordable health insurance.

Given the smaller risk pools and lack of negotiating power, the price of insurance for these individuals is generally higher than in the large group market. Until the health insurance exchanges were launched in October, 2013, individual and small group consumers did not traditionally have a clear and transparent way to shop for health plans, nor receive assistance in selecting an appropriate health plan for their individual healthcare needs. In order to provide affordable coverage, health plans must be

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Given the smaller risk pools and lack of negotiating power, the price of insurance for these individuals is generally higher than in the large group market. Until the health insurance exchanges were launched in October, 2013, individual and small group consumers did not traditionally have a clear and transparent way to shop for health plans, nor receive assistance in selecting an appropriate health plan for their individual healthcare needs. In order to provide affordable coverage, health plans must be

distributed to a large and diverse population that can offset and subsidize risk. However, if young and/or healthy consumers elect not to purchase health insurance, the pool will have a higher concentration of older and/or less healthy policyholders who are at greater risk of developing costly chronic conditions. Because high-risk individuals have higher average costs, the cost of premiums increases and makes the price relatively prohibitive for other consumers. Health insurance costs for the individual and small group markets are further augmented by this phenomenon, known as adverse selection.

The ACA requires all individuals to have adequate health insurance coverage by 2014. Coupled with this mandate, the exchanges are intended to help eliminate the effects of adverse selection by creating a larger insurance risk pool for the individual and small group markets. Moreover, the exchanges are intended to provide a transparent marketplace for finding, comparing and purchasing insurance coverage, as well as consumer assistance and support. The transparent nature of the exchanges will likely increase competition among insurers and affordability for consumers. To provide further protections for consumers, the ACA requires all plans on the exchanges to cover minimum benefit standards and comply with underwriting, rating and cost-sharing regulations.

Impact on Insurers

The traditional insurance purchasing process was dominated by large employers and driven by insurers, with little consumer-directed competition or transparency. Health insurance exchanges will transform the healthcare industry by introducing a new health insurance shopping experience. However, with the establishment of exchanges, the individual and small group insurance markets will likely reflect a retail shopping experience that is driven by consumer preference and needs, and defined by increased transparency and competition. The insurance exchanges will introduce drastic changes to the insurance market, and insurers will need to adjust their business practices to remain competitive. For example, health insurers must leverage data and analytics to design benefit structures, select provider networks and set cost sharing and premium pricing in a way that appeals to the new exchange customers, while effectively managing their healthcare risks and complying with new insurance regulations.

Health insurers participating in the exchanges are required to provide coverage to all individuals and small groups who apply during the open enrollment periods. The Congressional Budget Office (CBO) estimates that seven million individuals will enroll in insurance coverage through the exchanges in 2014 alone, and as many as 26 million

people over the next five years. While the new enrollees represent a huge opportunity for insurers, there are significant risks associated with covering the population given the lack of knowledge about their demographics, clinical status, healthcare needs, socioeconomic status, lifestyle and purchasing and utilization patterns. As the consumer population using the exchanges becomes more clearly defined over time, health insurers will be able to fine-tune their plans at competitive rates. Until sufficient data is available, insurers must resort to predictive models and assumptions to identify how to best manage the financial and regulatory risk associated with providing coverage to this population, as well as the population's healthcare.

Leveraging Big Data to Support New Populations

The majority of the population expected to enroll in health insurance exchanges is currently uninsured due to historical barriers to accessing affordable coverage. Insurers are uncertain how the new enrollee population will not only impact the market at large, but also their operations and business practices related to underwriting and plan rating. Traditionally, insurers used personal information such as age, sex, geography, and health status in their underwriting strategies to determine the cost of providing coverage to beneficiaries. However, the ACA establishes limits on underwriting practices that insurers must comply with in order to participate on the exchanges. For example, although insurers can still use age as a rating band, there are new limitations in the amount that prices can vary. Furthermore, insurers are no longer allowed to price plans or deny coverage based on pre-existing medical conditions. Given these new regulations, insurers will need to leverage different types of data in their underwriting strategies.

The ACA provides a mechanism to help mitigate risk for insurers who may end up with a high-risk population, such as beneficiaries with costly and/or chronic conditions. The ACA's risk adjustment program will provide financial support to those insurers whose populations have higher risk. This program essentially transfers money from insurers whose populations have low risk scores. Because of the significant financial impact associated with insuring a high-risk population, it is critical that insurers have access to patient data across the continuum so that they can have a complete understanding of each patient and accurately calculate risk scores. The types of data needed to support these efforts include demographic data, such as age, occupation and geographic location, and also clinical data and health status information.

Unknown Impact of Penalties and Subsidies

The ACA mandates that all individuals have health insurance coverage by January 1, 2014, or pay a tax penalty should they choose not to enroll. Recognizing that some individuals may not be able to afford health insurance, the ACA establishes federal tax credits and subsidies to help offset the cost of health insurance for poorer populations. Exchange-eligible populations with incomes between 133-400 percent of the federal poverty level (between $11,490 and $45,960 for individuals in 2013) are eligible for these subsidies. Together, the individual mandate and subsidies are intended to encourage eligible individuals to purchase insurance on the exchanges and obtain coverage.

It is unknown what impact these subsidies will have on consumer purchasing behavior. Insurers will need to closely track data to better understand consumer behavior. Without a historical precedent, it is also unclear how the market will be affected by the individual mandate and the penalty for not being covered by health insurance. For example, while some believe the new mandate and premium subsidies may encourage the sickest Americans to purchase health insurance, a recent Families USA study found that over 36 percent of the individuals eligible for subsidies fall between the ages of 18 and 34 – a demographic which is typically healthier and less expensive to cover. Conversely, healthier individuals might find it financially worthwhile to pay the penalty rather than purchase insurance coverage, even with a subsidy. Without demographics data about the new exchange populations, insurers will have difficulty in preparing and managing risk associated with covering the new beneficiaries. After the exchanges open, insurers will be able to leverage data to assess how low- and high-risk populations are purchasing insurance through exchanges or simply paying penalties.

Using Data to Adjust to Adapt to Market Dynamics

Understanding a strategic framework for integrating various levers to promote value might be helpful in evaluating the importance of data and analytics in health insurance exchanges. Comprised of value-based benefit designs, innovative care management programs, transparency of provider performance in quality and cost-efficiency, selection of high-performing providers and value-based compensation programs, an integrated value strategy should be explicitly implemented in order to exceed the value derived from any singular program. Analysis of data from multiple sources, including, but not limited to, medical and pharmacy claims, health assessments, and clinical and biometric data from electronic health records will be necessary to realize the potential value of such an integrated strategy or framework.

The ACA requires that all plans sold on the exchanges cover a minimum defined set of benefits, known as essential health benefits (EHBs.) While the ACA outlines ten basic required benefit categories, states are allowed flexibility in defining the exact EHB standards of coverage after selecting an ACA-approved benchmark plan as a foundation. The benchmark plans selected in each state will be evaluated and reassessed in 2016 by the U.S. Department of Health and Human Services (HHS) to determine if there will be a national benefit standard or benchmark. Accordingly, insurers face uncertainty around benefit requirements beyond 2015.

Designing Benefit Structures with Data

While the currently defined EHBs essentially dictate the benefits for plans sold on the exchanges, the actual pricing of plans can vary depending on the level of cost sharing with the consumer and the anticipated medical claims costs of the membership. The ACA outlines four tiers to be offered on the exchanges, each of which has its own minimum cost-sharing ratio standard: bronze, silver, gold, and platinum. Bronze plans will have the highest cost-sharing responsibility for consumers, but will have the lowest premiums of all plan tiers offered on the exchanges. Conversely, platinum plans will have the lowest cost-sharing requirements for consumers, but will have the highest premiums.

Although they must comply with the cost-sharing standard for each tier, insurers can be flexible in how they design the plans. For example, by setting different copayment and deductible amounts, two plans in the same tier with the same actuarial value can look very different. Importantly, these two plans would appeal to different consumers that have different healthcare and financial needs. For example, a silver plan with a low deductible and high copayment amounts might appeal to a younger beneficiary that does not have significant financial savings. The beneficiary might prefer to pay higher copayment amounts at each provider visit, but avoid paying a one-time high deductible amount out of pocket, which would generally be higher than a copayment. Over time, insurers will analyze purchasing pattern data to determine which plans are the most appealing to certain populations. Currently, however, there is little data to help guide insurers in designing plans.

Ensuring Fair Pricing with Review of Rate Data

The ACA places limitations on the pricing of insurance plans. To protect consumers and improve affordability, the ACA implements a standardized rate review process to limit unreasonable increases in premiums. Rate review is a process by which regulators review rates for insurance policies to ensure that they are based on accurate, verifiable data and realistic projections of health costs. Under the ACA, annual rate increases greater than 10 percent will be subject to review to determine whether they are reasonable.

Additionally, states have the option to operate their exchanges as either an active purchaser or clearinghouse. Exchanges that are operated as an active purchaser will play a more involved role in reviewing and approving plans. For example, after reviewing plan proposals, Connecticut's exchange, Access Health CT, requested modifications proposed rates, asking an insurer to make "appropriate revisions" and submit updated rates. In this example, the insurer did not find the suggested modifications reasonable, and decided to drop out after deeming that it was not financially feasible to participate in Connecticut's exchange. Conversely, exchanges operated as a clearinghouse will accept all plans that comply with the federal minimum standards. In Colorado, for example, the state accepted all 242 health plans that submitted proposals to be sold on the state's insurance exchange, Connect for Health Colorado.

Improving Quality with Clinical Data

As health insurance undergoes a radical transformation from market-driven to consumer-driven plans, and the healthcare system moves from fee-for-service to value-based care, insurers will increasingly rely on complete and integrated data from across the continuum to effectively manage beneficiary populations. As in other consumer-driven industries, health insurers will need to offer products that are appropriate for and appealing to the exchange customers—such as different types of value-based benefit plans where members' out of pocket costs may depend on the choice of more cost-effective treatment options or providers .

Additionally, to effectively manage the heath of their new beneficiaries, insurers will need access to quality and performance data to identify clinical gaps and opportunities for clinical improvement and enable effective network management practices. In order to remain competitive on the exchanges, health insurers must also have access to clinical data, including claims, clinical utilization, health status and medication history to

manage health plans, provider networks, and services beneficiaries. For example, with adequate data, insurers could evaluate the possibility of implementing quality-based reimbursement incentives to encourage high quality care delivery for providers and healthy choices for consumers, which can be enabled with consumer transparency reports of providers' performance on the basis of quality and cost efficiency.

In an open marketplace, insurers will compete on price and quality of coverage. Insurers can measure and evaluate the performance of provider networks to promote quality improvement and a higher standard of care. Insurers can also use this data to select and manage their provider network. The exchanges will increase transparency, and make not only pricing, but also provider network and quality information open and available to all consumers. Once "big data" is available from the exchanges, insurers will also be able to tailor price and design to mitigate risk and optimize health outcomes. However, until such data is available, insurers must plan strategies according to projections about the consumers and network.

The ACA requires health insurers participating on the exchanges to submit a quality improvement strategy, which should include the implementation of value-based payments to encourage population health management, high quality of care, and cost-effectiveness. The exchanges are required to review and evaluate the quality improvement strategies submitted by insurers. Quality improvement efforts will underscore the need for access to integrated data sources about consumer demographics, clinical outcomes, and quality of care. As the health insurance environment shifts to a value-based, consumer-driven market, insurers will need to leverage data and analytics to effectively manage their provider networks and enhance consumer outcomes and experience.

State Regulatory Challenges

In addition to facing uncertainty around new national insurance regulations, insurers must also adapt their business practices to manage variation in state regulations. While the federal government establishes minimum standards, the ACA grants states the flexibility to implement regulations beyond those implemented at the federal level. Additionally, the structure, deployment, and regulations of health insurance exchanges can vary immensely from state to state, which can be a challenge for national insurers working in multiple regions. Insurers participating in multiple state exchanges must leverage data to measure the risk of non-compliance with individual state regulations, and evaluate the feasibility of participating in multiple states.

Conclusion

The ACA implements a number of healthcare reforms that encourage the provision of high quality, cost-effective and consumer-based care to achieve what is known as the Triple Aim: better health, better care and lower cost. To achieve these goals, stakeholders across the healthcare industry, including providers and insurers, will need to work together to improve and transform healthcare.

The rapid launch of health insurance exchanges is turning the insurance industry on its head. Insurers have little data to leverage in implementing changes and preparing to cover new populations. The launch of exchanges will force insurers to look at patient populations in a new light. The exchanges will create a consumer-driven shopping experience to which insurers must adapt their business practices in order to compete. Insurers will have to leverage data to design and price health plans in a way that appeals to consumer needs and preferences. The new health insurance market underscores the need for insurers to use data and analytics to survive and to thrive.