

Coming Together

Six converging dynamics will define the future of the insurance industry.

by Tim Rozar

It is, unfortunately, one of the chief characteristics of modern business to be always in a hurry. In olden times it was different."

This prescient quote from *The Medical Record* weekly journal was published on March 15, 1884, but those of us operating in the modern business world can still relate to the sentiment.

The pace of change has accelerated beyond our imagination, and the disruptive external influences on our business continue to converge in interesting and often unexpected ways. While there are many demographic, social, technological and economic forces affecting the future of the insurance industry today, six of these dynamics are fundamentally shaping the future in which the life and health insurance industry will operate.

1. The Quantified Self

At the convergence of technology, data analytics and personal fitness trends lies the Quantified Self movement. Consumers have a new and ever-expanding influence over the attainment of their fitness goals. Wearable devices such as the

Nike FuelBand, Jawbone Up and Fitbit's Zip, One and Flex seamlessly integrate with mobile phone apps and Web-based nutritional databases such as MyFitnessPal.com and LoseIt.com to allow users to easily monitor their physical activity, sleep patterns and caloric intake.

Beyond these wearable devices are new technologies that promise to increase the accessibility and reduce the cost of monitoring and screening for a wide range of conditions. Urinalysis at home can be performed using the uChek iPhone app to monitor kidney function and glucose and cholesterol levels.

Home testing is currently available in the United States for diseases including HIV and hepatitis C, with FDA approval for additional tests on the way. Cancer screening has also improved with Prostate Specific Antigen at-home tests, apps that use a smartphone camera to measure the risk of skin lesions and even a bra designed to detect breast cancer in younger women for whom mammograms are less effective. To accelerate the speed of progress in this arena, Qualcomm, inspired by *Star Trek*, launched the \$10 million "Tricorder XPrize." The winner of this competition, to be selected in 2015, must develop a device that can accurately assess 16 medical conditions and measure five vital signs.

Direct-to-consumer genetic testing has become more accessible as the costs from companies such as 23andMe continue to drop. Genetic

Key Points

► **At Issue:** Today there are many demographic, social, technological and economic forces affecting the future of the insurance industry.

► **For Example:** The primary challenge for life and health insurers is that the Quantified Self movement and its related technologies may increase the information asymmetry between applicants and underwriters.

► **What Needs to Happen:** The life and health industry must continue to innovate and anticipate changes and their effects to take full advantage of the accelerating stream of opportunities that lie ahead.

tests substantially increase individuals' understanding of their own risk profiles beyond existing conditions and fitness, and into one's personalized genetic predisposition of developing certain conditions before symptoms even appear.

The primary challenge for the insurance industry is that the Quantified Self movement and the related technologies that support it may increase the information asymmetry between applicants and underwriters as consumers learn more about their own risk profiles. A wider information gap may lead to adverse selection as those with increased risk factors become more likely to purchase insurance, or alter the types of products they choose to buy. Additionally, there is the risk that consumers will rely too heavily on the assessment of these new tools and forgo a more-thorough medical examination.

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The potential opportunities, though, are tremendous. Consumers, armed with technology and personally engaged in tracking their wellness goals, will be able to detect diseases early and modify their behavioral risk factors to improve their own outcomes.

This may be especially effective in work site wellness programs where the employer has regular contact with insureds and can promote lifestyle changes using these devices as incentives. These technological devices also create the opportunity for discounts on insurance products tied to verifiable progress toward wellness goals. Much like the Progressive SnapShot telematics device used to measure automobile driving behaviors, wearable health monitors allow consumers to signal to the insurance company that they have healthy lifestyle habits.

Finally, point-of-sale underwriting using smartphone health screening tools may improve the speed and quality of risk assessment.

2. Big Data Integration

At the convergence of trends in social media, consumer databases, electronic health records, and countless other sources lies the explosion of “big data.” IBM estimates that 2.5 quintillion bytes of data are created each day, and that 90% of the data in the world today has been created in the past two years. The integration of these disparate data sources provides a rich picture of an individual’s digital footprint.

One of the most overwhelming challenges of dealing with big data is building and supporting the physical infrastructure and technical capabilities to process and mine the data. Companies able to meet this challenge and develop actionable insights from large and inherently “noisy” datasets will have a significant competitive advantage. Most importantly, insurance companies must uphold a sacred trust with

consumers. Privacy considerations and consumer fairness must be primary objectives when developing any strategy that capitalizes on the integration of big data sources.

Datadriven analytics provide an economically feasible way for insurance companies to serve younger-age, lower-policy-size customer segments that have been largely ignored by traditional distribution channels. By leveraging the integration of health and lifestyle data, successful companies will develop products that are competitively priced, underwriting processes that are faster and less invasive, and portfolios of solutions that are responsive to the changes in a customer’s needs and life stages.

3. Shifting Demographics

At the convergence of longevity, migration and fertility trends lies shifting demographics. While the persistent improvement in life expectancy over many decades is to be celebrated as one of society’s great collective achievements, the combination of lower post-baby-boom fertility rates and increased longevity has also led to a steadily aging population.

The Pew Research Center projects that 10,000 American baby boomers will turn 65 every day for the next 17 years. As populations age, significant strain is placed on social safety nets. In 1940, there were 159 workers for every Social Security beneficiary, but today there are only three.

This strain will extend to health care delivery systems as increasing numbers of the largest generation begin to reach their 80s, 90s and beyond. Increasingly, adults will need to care both for their young children and their elderly parents, and four-generation families will become more common.

The private insurance industry serves an important role in helping individuals secure their financial futures. Innovations will need

to be tailored to the needs of the elderly, including long-term care, asset accumulation and wealth protection. Risk assessment protocols must continue to evolve to incorporate the unique risk factors of the elderly, including cognitive function, frailty and socialization. Employers may experiment with defined contribution benefit models, which will allow employees to select from a menu of products suited to where they are in life.

The industry must also innovate to meet the financial protection needs of the millennial generation and the younger generations to follow. To this end, RGA launched a nationwide crowdsourcing contest, the RGA Market Innovation Challenge, to solicit new insights into the challenges of selling insurance protection products to Americans who are 35 years of age or younger.

The objective of this contest was to find innovative ways to effectively reach this market, promote awareness of insurance and protection products, and develop effective education, distribution, product and underwriting solutions. Successful companies will recognize the important differences in the expectations, risk profiles and consumer preferences of younger generations and diverse cultures as demographic and psychographic trends continue to evolve.

4. Risk Factor Evolution

At the convergence of medicine, lifestyle and technology trends lies the evolution of risk factors. Promising areas of research including genomics, proteomics, regenerative medicine and nanotechnology provide an exciting glimpse into how sustainable improvements to mortality and morbidity risk may be achieved. Research into the biological process of aging may lead to advances that substantially alter the shape of the survival curve.

On the other hand, the looming threat of pandemics, mutated or emerging pathogens and drug-resistant diseases may offset positive gains elsewhere.

Technological advances in automobile safety, including a possible future with self-driving cars, may lead to continued improvements in accident rates.

On the behavioral risk side, increases in childhood and adult obesity serve as a substantial drag on progress in mortality and morbidity risk improvements. Additionally, decreases in smoking prevalence over the past several decades have led to dramatic improvements in the incidence of smoking-related diseases, but unfortunately those improvements have stalled in recent years.

The lack of certainty in knowing how these various trends will evolve is one of the key challenges faced by life and health insurers. Predictions of future mortality and morbidity risk trends are crucial to the development and pricing of insurance products, but are extremely difficult to make amid considerable uncertainty. Although effective enterprise risk management programs will set aside capital for pandemic, mortality trend and misestimation risks, calculation of the appropriate capital to hold must be based on a series of imprecise assumptions.

Everyone's great hope is that the advancement of medical research and management of behavioral risk factors will lead to improved health outcomes throughout society. For the insurance industry, opportunities exist to directly influence these outcomes by providing direct support and funding to the medical research community, and by developing incentives inside products that encourage and reward positive changes to an individual's behavioral risk factors.

In the face of uncertainty, the insurance industry also must con-

tinue to help customers to provide for their own financial security by developing and promoting innovative protection products which cover the financial costs of death, chronic illness, long-term care and advanced longevity.

5. Regulatory Change

At the convergence of public policy, product innovation and consumer protection trends lies regulatory change. Accounting standards, capital and reserve requirements, and data privacy regulations continue to evolve globally.

In the United States, the impact of the Patient Protection and Affordable Care Act is still emerging, with ramifications that will be felt within both the group and individual insurance markets. Overall, PPACA will result in more people enrolled in health insurance plans. There will be shifts in enrollment between private and public plans, and employers may consider shifting more employee benefit costs to employees while accommodating the work site purchase of insurance through voluntary, employee-paid coverage.

Preparing for an uncertain regulatory future creates a difficult environment in which to make investment decisions on new products or systems. The ultimate costs of complying with new regulations can be significant in both time and hard dollars. Smaller companies are especially challenged to keep up with complex compliance requirements.

For insurers, the key to success will be building and maintaining customer trust. Product innovations designed to exploit regulatory loopholes will create only Pyrrhic victories. Sustainable competitive advantage will be achieved by companies that are able to build robust risk management systems that anticipate the emerging expectations of consumers, regulators, ratings agencies and shareholders.

6. Macroeconomic Environment

At the convergence of financial markets, public policy and consumerism trends lies the macroeconomic environment. The past several years have been characterized by low interest rates, sluggish economic performance and periods of high equity volatility. Although predicting the future of the economy is fraught with uncertainty, there is no doubt that these factors will fundamentally influence the life and health insurance industry's future.

Low investment yields on fixed income assets create significant headwinds for life insurance companies with long-duration liabilities. While gradual increases in interest rates may yield additional income on new money invested by insurers, dramatic spikes in future yield rates could spark significant disintermediation risk and capital losses. Difficult economic times have also been correlated with higher disability claims activity, increased suicide risk and higher lapse rates.

When the economy rebounds, however, individuals will have more room in their personal budgets for protection insurance, and a greater need to invest their asset portfolios efficiently. Successful companies will anticipate a range of possible economic scenarios and develop strategies to help their customers weather the uncertainty.

Challenges and Opportunities

At the convergence of these external dynamics lie great challenges and great opportunities. With so many evolutionary and disruptive forces in constant motion, specific predictions of the future are a fool's errand. By understanding the direction and impact of these forces, however, insurers can design game plans for a variety of scenarios. The life and health industry must continue to innovate and anticipate changes and their effects to take full advantage of the accelerating stream of opportunities that lie ahead. **BR**