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Aetna and the Transformation of Health Care

I see a time when . . . the cheapest place to provide health care is in the home. And the cheapest person to provide it is the family or a neighbor. If we were able to create an Uber economy at the local community level and . . . have nurses walk around the corner to take care of a neighbor and get paid for it as an independent contractor instead of having to go to work for a home health agency and collect a paycheck . . . why couldn't that work for health care? And why couldn't that be a great way to reestablish community at the local level?[1]

— Mark Bertolini, chairman and CEO, Aetna

The general understanding that everyone has of health care is that it's hopelessly complicated and nearly unadressable, and that tends to stop a lot of people in their tracks. I have a simpler idea, which is that many Americans are unnecessarily sick, and their costs are needlessly high and their lives needlessly challenged as a result. For example, take two 60-year-old men who have diabetes and early-stage renal failure. One of them follows medical counsel tightly and lives a productive, happy life with only slightly above-average healthcare costs. The other does not follow medical counsel and lives a very precarious, unhealthy, and costly life with a lot of trips to the hospital and the emergency room. My ambition is to get that second guy to look like the first guy. If I can do that, I can get a lot of people healthier, and we can all save an awful lot of money.

— Gary Loveman, executive vice president, consumer health and services, Aetna

Mark Bertolini, chairman and CEO of the health insurer Aetna, sat quietly in his study one evening in late November 2017. He was meeting with Edward Ludwig, the lead director of his board, the next day, and he knew the conversation would be lively. Bertolini believed that as an insurer, Aetna had the capabilities and the incentives to pioneer an entirely new health care model: one that put consumers at the center of their own care, and one in which consumers saw Aetna as a trusted guide rather than a potential antagonist. In January 2018, Aetna would launch a digital platform that promised to connect people to their health in an entirely new way, and the company would continue to introduce its "on the ground" community-based care efforts in certain markets across the U.S. as part of its Aetna Community Care program (Aetna expected to have the program in a total of two markets as of the end of 2018). The rollout was the culmination of years of work, and Bertolini knew Ludwig was as excited as he was. But at the same time, Bertolini knew Ludwig would have a number of questions for him.

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One likely question was whether the behavioral interventions would in fact, change consumer behavior, as the general success of such interventions in health care had been mixed. Another was whether Aetna's customers would buy a product that looked significantly different from conventional health insurance. A third was whether Aetna should think about partnering with a firm like Uber, Apple, or Google in order to take advantage of their digital expertise and consumer profiles. Should Aetna think about building a retail presence in local communities, or working more closely with local provider partners? Lastly, what was the best way to transform a 50,000-person, 164-year old organization to deliver this vision?

The U.S. Health Insurance Industry in 2017

Health insurance helped consumers afford services ranging from routine preventive care to inpatient hospital care, and everything in between. Consumers obtained coverage from for-profit private-sector insurers such as Aetna; non-profits such as Kaiser Permanente; or government programs such as Medicare or Medicaid (see **Appendix A** for more information). The industry earned $792.7 billion in revenue in 2016, up from $628.5 billion at the start of the decade.[2] Ranked by their 2016 revenues, the leading insurers were UnitedHealth, Anthem, Aetna, Humana, and Cigna (see **Exhibit 1** for financials, **Exhibit 2** for enrollment, and **Exhibit 3** for Humana's and UnitedHealth's strategic profiles).[3] All five did most of their business in medical insurance, though some also sold products such as vision insurance and pharmacy benefits and services.[4] Insurers offered similar products, and price was usually the key consideration in selecting an insurer.[5] Big employers and government drove demand as they were the primary buyers (see **Exhibit 4**).[6] While government was responsible for 27% of total health care expenditures in 1950, this number hit 45% in 2016.[7]

Aetna

Aetna was organized along function and product lines, with a significant portion of its sales made to national accounts. Aetna reported $62.2 billion in revenue in 2016,[a] $59.9 billion of which was generated through its health care segment, consisting primarily of commercial medical plans.[8] The segment also housed Aetna's consumer health products and services, which included its specialty and mail-order pharmacy services (Aetna Specialty Pharmacy and Aetna Rx Home Delivery), population-based health care management[b] tools, analytics products (ActiveHealth Management), health information exchange technology[c] (Medicity), and consumer-facing benefits management tools (bswift and iTriage).[9] Additional services offered included dental, behavioral health, and vision plans.[10]

Mark Bertolini

Bertolini was already an experienced health insurance executive when he joined Aetna in 2003. He rose quickly through the ranks, and was named CEO in late 2010. Bertolini brought a visceral

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[a] Aetna's reported figure is different from the one given by Capital IQ in Exhibit 2 of $63.2 billion.

[b] According to the professional services firm EY, population health management "involves the stratification of patients into well-defined risk groups and the creation of differential care strategies based on each group's needs. Its goal is to reduce costs by preventing those who are well from becoming ill and improving quality of life and enhancing health outcomes for those who have developed one or more chronic condition." (Source: EY, "Health Industry Post," 2014, p. 2, http://www.ey.com/Publication/vwLUAssets/Health_Industry_Post_population_health_management/%24FILE/Health_Industry_post.pdf, accessed January 2018.)

[c] These tools allowed providers to easily and securely share data, generally in the form of electronic health records.

caregiver, and patient.[11] He had been an emergency medical technician in college,[12] and in the early 2000s, his son was diagnosed with a rare lymphoma that had a poor prognosis.[13] Bertolini left his job, and, according to one observer, "all but moved into his son's hospital room, torturing the medical team for information and helping his son get an unapproved drug."[14] Another noted that Bertolini "downloaded a copy of *Harrison's Principles of Internal Medicine*, a bible for junior doctors, and started having fierce arguments with the medics [i.e., doctors], who thought he was in denial about his son's chances of survival."[15] His son did recover, though he later required a kidney transplant, donated by Bertolini.[16] This episode had a lasting impact: "Lesson one was that they always viewed him as the lymphoma in room four, whereas I knew him from the delivery room when he was born . . . . Their view of him was as a disease, not a person."[17]

This perception was reinforced when Bertolini suffered a life-threatening skiing accident in 2004 that left him with permanent arm damage.[18] More than a decade later, he noted, "My arm hurts all the time now. It hurts right now. It never stops hurting."[19] Reflecting later on these two events, Bertolini said: "the system wanted to fix the medical issue but wasn't at all concerned about the individual they put back into society. . . . And success is really healthy individuals who are productive; productive individuals are economically, culturally, socially and spiritually viable; and viable people are happy. And if we can do that individual by individual and community by community, we'd have a much better world. So, how do we design a system around that . . . ?"[20]

The U.S. Health Care System in 2017

Bertolini's critique reflected a system under stress. Health care spending had risen steadily since the mid-20th century,[21] but it was not clear that health outcomes had improved proportionally. One poll suggested that "[65%] of Americans are satisfied with the way the healthcare system works for them . . . ."[22] Another poll conducted in 2015 came to the same general conclusion, finding that "Adults in the U.S. are much more positive in their feedback when it comes to the health care they personally receive . . . ."[23] But the same poll suggested that "Only 38 percent of adults . . . had positive things to say about the country's health care system, and fewer than one in ten (9%) gave it top marks. In contrast, more than three in five (61%) U.S. adults say the nation's health care system is fair or poor."[24]

Spend, Spend, Spend

In 1950, annual per-capita health expenditures were $627 (in 2009 dollars).[25] By 2000, this number stood at nearly $6,000.[26] Between 1980 and 2015, national health expenditures as a percent of gross domestic product (GDP) grew from 8.9% ($255.3 billion) to almost 18% ($3.2 trillion) (see **Exhibit 5**).[27] This was the highest proportion of any major nation.[28,d] For comparison, in 2014, Germany spent 11.3% of GDP on health care, Canada 10.4%, Japan 10.2%, and the U.K. 9.1%.[29]

Industry experts identified several factors behind this high rate of spending, including the relatively weak state of the U.S. social safety net, the fact that a significant fraction of the population was without health insurance (7.5% in 2017[30]), and the prevalence of the "fee-for-service" payment structure (FFS).[31] Under FFS, providers were compensated for each element of care provided.[32] Although some parts of the health care system were implementing payment models that controlled spending and made

[d] Other than the U.S., only four countries (the Marshall Islands, Tuvalu, the Maldives, and the Federated States of Micronesia) spent more than 12% of GDP on health care in 2014. (Source: The World Factbook, "Country Comparison :: Health Expenditures," The Central Intelligence Agency, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2225rank.html#us, accessed November 2017.)

providers financially accountable for patients' outcomes,[33] one 2016 survey revealed that "[86%] of physicians reported being compensated under fee-for-service (FFS) or salary arrangements . . ."[34]

The problem with FFS, according to critics, was that it "encourages the use of more tests, procedures, and treatments, not all of which might be supported by evidence on quality and value."[35] The former CEO of the (Kaiser) Permanente Medical Group likened FFS to "an addiction."[36] He explained, "Doctors and hospitals in the clutches of this flawed payment model have grown dependent on providing more and more healthcare services, regardless of whether the additional care adds value. . . . When providers are paid for doing more, that's what they do: They increase utilization of services and ratchet up the cost of care without even realizing they're part of the problem."[37]

But not everyone agreed.[38] One doctor pointed instead to increased "third-party payments"[39] from insurers and government programs as a key issue.[40] "When neither the consumer nor the provider 'feels' the cost of the service offered, it promotes overuse of medical services and high levels of spending," he explained.[41] "[I]n areas of medicine outside the third-party-payment system, such as cosmetic surgery, Lasik eye surgery, and direct pay practices, prices have actually declined over time."[42] However, consumers were bearing more of the cost burden for their care. One market research firm noted that "out-of-pocket healthcare costs have risen from $250 per year in 1980 to over $1,400 in 2016."[43] Moreover, those consumers who obtained insurance through an employer saw their premiums rise 63% between 2001 and 2006, 31% between 2006 and 2011, and 20% between 2011 and 2015.[44]

More Money = Worse Health?

The impact of this increased spending on the country's health appeared to be mixed. Life expectancy at birth increased by more than 10 years between 1950 and 2015,[45] and age-standardized death rates from heart disease and cancer fell by 68% and 19%, respectively, between 1969 and 2014.[46] One doctor noted, "U.S. performance equals or exceeds that of other countries . . . on disease-specific outcomes for acute myocardial infarction [heart attacks], ischemic stroke, colon cancer, and breast cancer."[47]

However, the U.S. struggled in other areas. In 1980, 2.5% of the population had diabetes.[48] By 2015, 7.4% did.[49] Between 1988 and 1994, an average of 22.9% of the country was obese.[50] By 2013-2014, 37.2% were.[51] And while fewer people were dying from heart disease, it remained the country's "[leading] cause of death,"[52] killing more than 614,000 people in 2014 (see **Exhibit 6**).[53] Chronic diseases such as these were particularly prevalent. The U.S. Centers for Disease Control and Prevention (CDC) noted, "As of 2012, about half of all adults—117 million people—had one or more chronic health conditions, while one in four adults had two or more."[54] Chronic conditions consumed the majority of health care dollars (86% in 2014),[55] and many were exacerbated by poor diet and insufficient exercise.[56]

Health outcomes often differed by race and by ethnic group,[57] as well as by socio-economic status.[58] For example, the average white female born in 2012 could expect to live nine years longer than a black male born at the same time.[59] Of the socio-economic contributors, one academic noted that, "Your zip code is a better predictor of your health than your genetic code."[60] As one observer noted: "In St. Louis, Missouri, Delmar Boulevard marks a sharp dividing line between the poor, predominately African American neighborhood to the north and a more affluent, largely white neighborhood to the south. Education and health also follow the 'Delmar Divide,' with residents to the north . . . more likely to have heart disease or cancer."[61] In New York City, there was an eight-year difference in life expectancy at birth between a child born in East Harlem, and one born on the Upper West Side.[62]

In 2000, the World Health Organization had placed the U.S. 37th out of 191 counties in terms of its "overall health system performance."[63] Little had changed 17 years later, when a U.S.-based nonprofit think tank evaluated the health care systems of 11 countries—Australia, Canada, France, Germany, the

Netherlands, New Zealand, Norway, Sweden, Switzerland, the U.K., and the U.S.—and identified the U.S. as the worst of the group.[64] The think tank scored each country along five dimensions—care process, access, administrative efficiency, equity, and health care outcomes—and the U.S.'s best showing was for care process, where it came in fifth.[65] The U.S. ranked last in access, equity, and outcomes, and next-to-last in administrative efficiency.[66] In terms of some specific key health care outcomes, the U.S. lagged many other nations. For example, the U.S. had an estimated maternal mortality rate of 14 deaths for every 100,000 babies born in 2015, which placed it 45th in the world.[67] In 2017, the U.S. had an estimated infant mortality rate of 5.8 deaths for every 100,000 children; 43 countries had a better ratio.[68,e] The U.S. was also the second most obese nation on earth (**Exhibit 7**).

Transforming Aetna: First Steps

Bertolini recognized that these various trends were ultimately unsustainable if they continued to grow, and that the health care system needed to evolve. Once he became CEO, he therefore looked for opportunities where Aetna could both build its business and help its members lead healthier lives.

Investing in Accountable Care

Bertolini initially focused on building partnerships with Accountable Care Organizations (ACOs) as one way to contain spending. In his April 2012 letter to Aetna's shareholders, Bertolini stated:

> We believe the most fundamental flaw to be addressed is that our current system pays health care providers according to activity, rather than the quality or result of care delivered. This payment model drives health care costs higher than necessary, without providing any clear advantage in terms of quality. As such, quality and affordability are at the top of our list of reform goals. We believe Accountable Care Organizations, where health care providers are incented to help people get and stay healthy, are the future of the provider and health plan relationship. In 2011, we built our own Accountable Care Solutions business to bring the full power of our investments in technology and our intellectual property to the task of working with health care providers to form and maintain market-leading Accountable Care Organizations. With each Accountable Care Organization, we move further down the path toward changing the way health care is delivered, and improving quality and affordability of care.[69]

Aetna had 32 ACO agreements in place by 2013, and had 73 up and running by 2015.[70] Speaking in mid-2017, Bertolini noted that "48% of . . . our costs flow through some form of value-based care model. . . . our goal by 2020 is to get to 75%."[71]

Support for the Affordable Care Act

Bertolini was an early supporter of the Patient Protection and Affordable Care Act (the ACA). The ACA became law in 2010, and included reforms designed to increase coverage for the uninsured. One expert explained: "The . . . (ACA) created a dramatically different marketplace for individual health insurance through three key reforms: prohibiting insurers from considering subscribers' health status or risk; providing substantial subsidies for millions of people to purchase individual coverage . . . and creating an 'exchange' structure that facilitates comparison shopping."[72]

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[e] The source ranked a number of non-sovereign entities (e.g., the Faroe Islands, French Polynesia, the Isle of Man, Hong Kong, etc.), and for the purposes of this case, the authors have only counted fully sovereign entities in this ranking.

Aetna participated in the exchanges when they launched, offering plans in 15 states, but in 2017, the firm said it was withdrawing entirely from the business.[73] Many insurers, according to one reporter, "[had] discovered that their ACA health plans tend to attract too few of the young and healthy customers needed to offset the expense of covering older people with medical problems."[74] Speaking in 2017, Bertolini suggested the ACA exchanges were caught in a "death spiral."[75] One reporter, summarizing his argument, explained: "With too many sick people and not enough healthy ones buying insurance . . . the premiums have to keep going up. The more the premiums increase, the fewer healthy people want to sign up for care. They opt to pay the penalty instead of buying insurance with a massive deductible. That causes the balance of sick and healthy people buying insurance to worsen, prompting more rate increases and causing people—and insurers—to drop out."[76]

An Attempted Merger

In July 2015, Aetna announced an agreement to acquire Humana.[77]According to Aetna, one of the most important rationales for the deal was that it would strengthen Aetna's ability to "lead [the] effort to transform health care delivery to a more consumer-focused marketplace."[78] Humana had a large Medicare Advantage business—a business where an emphasis on consumer focused care seemed particularly promising—and capabilities in chronic care that Bertolini believed would significantly help advance Aetna's vision. However, the deal was blocked by a federal court in early 2017 on anti-trust grounds.

Shaping the Vision: Towards Community Health Care

In 2017, Aetna was in strong financial health. The company's revenues had nearly doubled since 2010, and its share price had gone from roughly $30 on the day that Bertolini became CEO in late November 2010, to $180 on the same day in November 2017 (see **Exhibit 8** for Aetna's performance relative to its competitors).[79] Bertolini began to put more resources towards what he described as "the consumer part of the health care revolution."[80] At the heart of his vision was the belief that if Aetna could partner with its members on a continuing basis, not only would its members be much healthier, but Aetna would build a thriving and profitable business.

Bertolini moved on three fronts to make this vision a reality. First, he put the pieces in place to build a leading-edge digital platform. Second, he invested heavily in a combination of big data and world-class behavioral economics. Third, he announced plans to increase Aetna's presence on the ground in local communities, working closely with members to help coordinate their health care. Rick Jelinek, executive vice president of enterprise strategy, articulated the vision:

> We're trying to join our members in the pursuit of their personal health ambitions, whatever they might be. Whether you're sick, whether you're healthy, whether you're in between, or whether you don't know, we want to join you, and to collaborate with your doctor, nurse, family, or other care providers when necessary. We want to create an experience personalized to you, and to have a direct relationship. In the case of the 5% of our members who are the most sick, and who are the most costly to care for, we want to go into their homes and meet face-to-face. We want to be next to them, holding their hand, and finding out what's really going on—not just relying on what they're telling me, but on what I can actually see from their living situation and their social network.
>
> For our other members, we can achieve this direct relationship over the phone or through some other form of technology. A member might want someone to come to their home, but they could be completely capable of getting the help they need from us over

> the phone or virtually. Can we give members a tool that allows them to get the same information via their mobile device? So we have to enable our technology and our talent base to go into members' homes, and allow members to contact and engage with us in different ways and through different mechanisms, whether that's by video, phone, or in-person. Where we want to have the highest level of physical intervention is with members who have the greatest needs, and let our digital tools handle most of the rest.

Building World-Class Digital Capabilities

Bertolini's first move was to build a world-class analytical and digital capability. Aetna had acquired a number of digital businesses over the years, but they had largely been managed separately. Bertolini brought them together under a single leader in a new entity named "Aetna Digital," based in an office in Burlington, Massachusetts, a significant physical distance from Aetna's core operations, which were based out of Hartford, Connecticut. David Werry, vice president of consumer health products, who joined Aetna in early 2016 from the contract research organization Pharmaceutical Product Development, where he was the global head of biotechnology, explained, "We brought our leaders in and said, 'We need to take the blinders off and break down the silos. You have to wake up every day and think 'member first' in an integrated ecosystem.'"[81]

Aetna's goal was to build a digital platform capable of supporting Aetna's members in all of their interactions with the company. "We need an integrated digital solution that can address the vast majority of members' health needs. It has to be a single front door, through which you can not only manage your claims, but be guided seamlessly through our health journey. The challenge is that we have to meet the bar of what people expect in terms of simplicity, ease of use, and personalization that they are used to from Facebook or Uber," Werry said. The solution would be accessible as an application on mobile phones and smart devices (e.g., watches), as well as on laptops and tablets.

Initially, the focus would be on getting the "basics" such as billing and claims management running as smoothly and cleanly as possible. Many people—including Bertolini—found working with their health insurer to be difficult and stressful. In one 2017 survey of over 1,100 adults, 72% agreed that "In general, I think insurance companies use confusing language which is difficult to understand."[82] Only 65% agreed that "the insurance company/companies I use are competent and know what they are doing."[83] Bertolini explained: "They refer you here; then you get a test, and you don't know how much it costs; and then you get a bill 30 days later and it's got all this gobbledygook."[84] Ali Keshavarz, vice president of analytics and behavior modification, who joined Aetna in 2016 from McKinsey & Co., where he had been an associate partner and then senior expert in the firm's marketing and sales practice,[85] elaborated: "We don't make it easy for members to navigate the system, and we need to. Until we deal with the fundamentals, we can't hope to do anything else."

Billing in particular was one constant source of customer confusion, with members often unclear as to what exactly they owed, to whom, and when that payment was due. In response, Aetna was thinking about creating a "digital record of truth," whereby members could easily look up what they owed for any particular service. Werry explained, "The record would have three buckets: what you definitely owe; what you might owe, but we need more time; and then what you've already paid."

In the long term, Aetna's plan for the system was to enable members to seamlessly access any of the information they needed—and to provide members with tailored information on an as-needed basis to help them achieve their health goals. For example, the system might include features that could remind members when they needed to refill a prescription or book a follow up appointment. To get there, Aetna needed to focus first on the basics. Werry explained:

> The only way we have a shot at sustainably engaging our members around something as personal as medication adherence is if we've built trust because we've gotten their claims and payment processes to be really easy. Then they may say "Wow, that was much easier than it used to be." And all of a sudden, they might say "Now I'm going to use that tool to fill my prescription." By this point, we've probably earned their permission to ask "Would you like to be in an adherence notification program where we ping you every day when it's time to take your pills?"

Earning this level of trust would be particularly difficult given the public's skeptical attitude towards insurance companies broadly. In one 2017 survey, just 47% of respondents trusted insurers—38% trusted insurers "a little," while 10% trusted them "a lot."[86] A full 17% had no trust.[87] At a more nuanced level, only 42% agreed that, "In general, I trust insurance companies to act in their customers' best interests,"[88] and 49% saw insurers as "a force for good."[89]

Investing in Behavioral Science and Data Analytics

The digital platform would be supported by a substantial investment in behavioral science and data analytics. This effort was spearheaded by Gary Loveman, whom Bertolini had recruited to serve as executive vice president of Aetna and president of consumer health and services. Loveman had extensive experience deploying behavioral interventions, particularly during his 17 years at the gaming and hospitality company Caesar's Entertainment Corporation, which he led for 12 years as CEO.[90] Loveman described how he first came to use behavioral interventions in health care:

> When I was in my second year as CEO of Caesar's, I was asked by my human resources leader to divide the increase in health care costs between the company and my 91,000 employees. Many of them were low-income folks who lived on gratuities and hourly wages, and the idea of a zero-sum distribution of health care costs between them and the company was not an appealing one. So we started a process of trying to apply the same notions of behavioral economics that we used in the consumer-facing side of the business to health care. This also went back to my PhD studies at MIT, where I spent a lot of time on health economics, and we started to ask ourselves, "What if we changed the scheme from a passive insurance offering to a much more active engagement, with the burden on both of us—employees and management—to create better health outcomes and lower costs?" And that experiment ran very well and got a lot of attention.

Loveman was convinced that Aetna had a similar opportunity to improve its members' health, and to make money doing so:

> The challenge of controlling escalating health care costs is that most efforts to do so use traditional medical means to solve the problem, and that's not going to work. So I have several advantages here at Aetna. The first is that I have the ability, by using large-sample analytics, to identify which of our members are in position to enjoy the greatest convergence to the mean in terms of their potential improved health. And second, I can estimate the budget that's available to me to do that based on the unnecessarily high current cost of their health care. Those numbers turn out to be very substantial.
>
> For example, Aetna pays about $1.5 billion annually in reimbursements for members' emergency room visits. Two-thirds of these visits are unnecessary, or can be taken care of in low-cost settings like a retail clinic, teledoc [i.e., a remote consultation with a doctor], or with a primary care physician. They're for people who show up for minor ailments such as lower back pain and headaches. So what can we do about that? We can predict in

advance who is likely to make an unnecessary visit to the emergency room. We know what that visit is going to cost them, and we know what it's going to cost us. All we have to do is work on getting them to not make that bad decision at 11p.m. on a Saturday night when they feel lousy. And I guarantee you I can make progress at that.

We also have a lot of members who need blood tests as part of their regular health care, and most of them are very careful about where they go to have their blood drawn so long as they're under their deductible. But as soon as they hit their deductible, they no longer have an economic incentive to be careful, and tend to then go to places that are very costly, but which don't deliver any better care. I can save Aetna $200 million a year if I move a small portion of these members to better and more convenient blood labs. Now I'll take that bet. I'm pretty sure I can do that.

One opportunity that seemed promising to Aetna's leaders was making sure that members filled their prescriptions on a regular basis. Experts noted that "20% to 30% of medication prescriptions are never filled and that approximately 50% of medications for chronic disease are not taken as prescribed."[91] This had dramatic effects on health. As one expert explained, "In the United States, it is estimated to cause approximately 125,000 deaths, at least 10% of hospitalizations, and a substantial increase in morbidity and mortality."[92] Others commented on the correspondingly steep economic price, finding that "Nonadherence has been estimated to cost the U.S. health care system between $100 billion and $289 billion annually."[93] Keshavarz described how Aetna could help fix this problem:

A simple thing that we can do is institute a reminder program, and specifically target members during the first six prescription fills. We want to give them incentives to adhere to their medication, and we can run a vast number of experiments to rapidly test ideas and learn what's going to move the needle. Do we give a member in this reminder program the incentive up front, or do we wait until they've filled their sixth prescription? Ultimately, we want to be able to offer the right incentive to the right person at just the right time, and in a way that they want. For example—and this is dependent on the level of consent that the member has given us, and who we might partner with—if a member is walking past a CVS or some other retail partner, we could send them a message on their Apple Watch to go get a flu shot, and if they do, they'll get some form of reward. . . .

Loveman expanded:

It's not just me shaking my finger at a member and reminding them to do something, or sending them a series of letters. I have to understand at a richer level what is getting in the way. Is it depression? "I don't take my medicine because nobody cares about me anyway." Does the member not take their medicine because they have logistical challenges getting to the pharmacy, or because it's too expensive? Do they not take it because they think chemicals are bad for you? Did they decide not to take it because they don't feel sick? Well, the answers to those questions lead you in very different directions as to how to solve the problem. But the one player who has an incentive to solve it is me, the insurer.

He likened the problem to ones that he had solved in the casino business:

Some of my customers wanted fine food, while others wanted nightclubs, or gambling, or golf, or shopping, or spa services. If I offered a spa enthusiast a gambling incentive, there was no response. I had to figure out each customer's preference, and learn what motivated them. The same is true in health care. If I try to shame someone into getting healthier and that's not the right mechanism for them, I'll fail. But if I can induce that

person by getting them healthier so that they can play with their grandchildren or participate in some athletic competition, I've got to find that out.

Aetna's history in the insurance business meant that it had access to a wide range of data to support its effort to create a personalized experience for its members. As Jelinek explained:

> We're using data and analytics to understand the needs, wants, and behaviors of our consumers so that we can engage with them differently. And it's not just about understanding their medical needs—we have data from their claims as to their prescriptions, emergency room usage, and whether they've had a fall or other serious injury, for example—but also the social and behavioral components affecting their health. We often have information on each member's family situation—are they married or single, for example—and whether they're from a particular ethnic or religious background, all of which can influence how and when they receive care. Where someone lives is also important—what are the norms in that community for how they access health care? Even knowing whether a member works on Sundays and can't go to the doctor on that day is important. There's a world of information that we can garner on things that we may not be looking at or analyzing today, but we have the baseline information that we can test over a period of time.

Building Capacity on the Ground

Aetna was also significantly increasing its presence in local communities under its new Aetna Community Care program. Aetna had historically had "feet on the ground" in local markets, but these employees had been divided by customer type—those working with Aetna's Medicaid or Medicare members, for example, reported into different channels than those who worked with members insured through commercial firms. Going forward, Aetna's plan was to create integrated organizations focused on all of Aetna's members within a particular geography.

Similarly, while Aetna had historically worked to solve problems that kept its members from being as healthy as possible (e.g., by helping members get transportation to a health care provider, or access to food, or to pay a utility bill), and developed programs targeted towards specific member populations, the company was now taking a more individualized approach. Thus, the biggest change under this new model was not necessarily in program or service content, but in how they were delivered. Christopher Ciano, president of Aetna's Florida operations, explained:

> The Aetna Community Care program uses a holistic approach to truly understand the needs and goals of each individual member. A comprehensive and personalized plan is then designed to address those needs. Historically, many of our programs have been designed around disease states, and not [around] member specific personalized goals. Take congestive heart failure for example. We previously weren't setting outcomes based upon the personal desires of the member—maybe our member just wants to be able to go outside and play with their grandchild instead of achieving some common disease state metric. Our new approach focuses on what each member wants in terms of their specific health ambitions, and we set out to help members achieve these goals by being in the community and interacting with them where they live, work, and play, rather than simply engaging with them telephonically or through the mail.

In Florida, the Aetna Community Care program had just launched. Aetna had segmented the state into 8 districts spanning over 30 counties where there were significant member populations. Each district was staffed with a multi-disciplinary team including nurses, pharmacists, behavioral health

experts, social workers, dieticians, and community health educators (i.e., people with unique local knowledge to connect members with appropriate services). The primary point of contact for members was a field care manager, who proactively reached out to members in their district—ranging from young, healthy individuals, up through elderly members with chronic conditions, though the primary focus was on high-risk populations—to engage with members in their home or elsewhere in their communities, learn about their goals, and bring in other parts of the team as needed.

Steven Kelmar, executive vice president of corporate affairs and chief of staff to Aetna's chairman, explained, "This is not about us owning brick-and-mortar locations in these communities or acquiring doctors' practices, like some of our competitors have done. It's more about partnerships and collaborations, and we don't have a one-size-fits-all attitude. Mark sees us becoming the Amazon of health care; we can curate an experience for our members." He explained why Aetna was well positioned for this role: "We're in the Golden Triangle of health care. We're connected to so many pieces and we can see so much because we pay for it."

Loveman elaborated on how this model worked in practice: "We're hiring 115 clinicians for the state of Florida alone. So [now] if you're a member who lives in Tampa, you may receive a call from one of these clinicians asking if she can meet to talk about your efforts to improve your vision, or ambulation, or whatever it may be, and begin the process of pursuing improved health. And you could meet at your doctor's office, or a local Starbucks." Aetna was clear that this presence was not intended to substitute for the role of the primary care physician. Loveman explained: "So in Florida, a nurse may come visit you and your mother and help her schedule appointments, check on her medications, discuss social needs, and help with access to community resources. She's not going to draw blood or give her a flu shot, but she will help develop a care plan and coordinate efforts to achieve that plan."

One executive relayed an example shared by members of the senior team to highlight how these relationships benefited members: "We had one member who kept breaking different bones. We sent someone to that member's home to find out what was going on, and realized that the member could not afford to pay her electric utility bill. So, when she woke up at night and walked around her house, she couldn't see, and would trip on the stairs and fall down. Having someone onsite, in this member's home, was essential to getting a holistic view of that member's life and challenges." Bertolini provided another example: "We have one member—a 75-year-old asthmatic—who made 405 emergency room visits in a single year. That's more than one visit a day, and it resulted in $2.7 million in care costs. We eventually sent someone to her home, and found the thermostat set to 60 degrees. So she has angora sweaters and blankets all over her house to stay warm—she's allergic to angora!"

However, some studies cast doubt on the idea that investing in local health care resources could reduce costs or improve outcomes. According to one such study on retail clinic usage (e.g., CVS Health's (CVS) MinuteClinic) based on Aetna members' actual claims from 2010 through 2012, "58 percent of retail clinic visits for low-acuity conditions represented new utilization and . . . retail clinic use was associated with a modest increase in spending, of $14 per person per year."[94] But Bertolini was confident that these kinds of community engagements would more than pay for themselves on the basis of Aetna's experience in Medicare Advantage (MA). MA was a program under which the U.S. government paid insurance companies a fixed fee in return for coordinating care, letting the companies keep some fraction of the savings if they were able to reduce costs below standard benchmarks. As Bertolini explained:

> The old insurance industry model was to create large populations of average risk that gave you a cost structure that allowed you to put a clearing price in the marketplace, and which allowed you to grow a little bit. And if you add to that, you have near double-digit growth, and you're in a good place, right? That's the insurance industry. That's how it

worked for a long time. We were really just sophisticated money managers. When Medicare was reintegrated in 2006 with managed care, the government came to us and said, "How do we get you to take sick people this time?" Because we always competed for healthy 65-year-olds. We said, "Pay us for the risk." And so we put together a risk adjustment mechanism, and we all held our breath for the first year. And what we found out was that 75-year-olds with three chronic comorbidities generated $1,000 a month in premiums. And if we could save 5% of $1,000, that was significant. And we started to wonder how much money we could make if we got these 75-year-olds with three chronic comorbidities, and bolted a nurse to them and invested in their health?

So if we get paid for the risk, it's no longer about creating balanced risk pools; it's about investing in the underlying drivers of cost and driving it down. So we arbitraged provider reimbursement; we put them at risk. We arbitraged care management by bolting a nurse to our sickest patients. We arbitraged SG&A by doing more online. We arbitraged star ratings,[f] and guess what happens? When you invest in people, and they're happy, and you've got a project going with them, they stay with you. So a MA customer is with us for 7.5 years on average, and the leading cause of disenrollment is death. So we make money on all those people over all those years on a dollar margin standpoint that is four times what we earn from a commercial member.

MA differed in a number of respects from the commercial insurance business. The government could expect to cover the costs of care for MA members until they died, while commercial plans did not typically insure retired employees. Moreover, MA members typically made individual decisions as to which plan to buy, while commercial firms typically offered their employees a more limited selection. These key differences—plus the fact that demographics meant that Medicare enrollments were growing rapidly—made MA a promising product in which to double down on consumer-focused care. But Aetna was confident that there was a business model for consumer-focused care in commercial insurance, too. Loveman expanded: "There are only two participants in the health care system that make money when people get healthier: health insurers, and the companies that employ them. But nobody else makes any more money. So if your ambition, as mine is, is to apply innovative methods to help people get healthier, then it works very well to be in an insurance company."

Aetna had already entered the community care space through a series of joint ventures in four states with local providers, including Inova Health and Texas Health Resources.[95] Aetna described how these relationships worked: "The health system provides its network of providers and care settings . . . . Aetna provides its health plan expertise, cutting-edge analytics and health information technology. The result? Patients benefit from a more affordable, streamlined and coordinated health care experience."[96] In one such partnership: "Avoidable surgical admissions are . . . down 13 percent from 2014 to 2015 and the generic prescribing rate increased by 15 percent."[97]

Bertolini and his team wrestled with whether to expand the Aetna Community Care strategy by partnering with a major retailer such as CVS, Walgreens, Walmart, or Rite Aid, as many of them operated in-store clinics offering various health care services. For example, patients could walk into one of Walgreens's 400 clinics and get their vaccinations, be screened for diabetes or sexually transmitted infections, or be seen for flu symptoms, allergies, burns, sprained ligaments, minor eye injuries, or skin infections, among other ailments.[98] Rite Aid had 99 RediClinics,[99] and CVS had 1,100

[f] Insurers' MA plans were rated by the Centers for Medicare and Medicaid Services on a scale of one to five stars, with five being the best score, and these ratings determined how insurers were compensated (i.e., plans with higher star ratings received higher payments from the government).

MinuteClinics.[100] Aetna's competitor UnitedHealth had taken a more direct approach, and purchased the MedExpress chain of urgent care facilities in early 2015.[101] The chain had 141 locations at the time,[102] and had grown to 180 locations two years later.[103] Executives discussed such a partnership. "The necessary conditions for improving the health of the chronically ill is frequent contact, observation, and mutual goal-setting. I don't believe this can be done with two visits to the doctor a year. I need to be close to the member. They need to see me a lot. And we need to deliver services at lower cost," Loveman said. "That is a retail problem, and there are two ways to solve it. Either I can build a retail network, which would be very costly and require that all the visitations to my center be generated by me. Or, I can go to an existing player in this area who has tremendous endemic visitation, and add this offering to what they have today." Bertolini continued:

> If we take our model to the retail market, we can say to our partner, "If one of our members comes in to learn about Medicare, or to pick up durable medical equipment, or to get discharge planning on the way home from the hospital, let us know, and we'll set up a follow up appointment to make sure that they don't end up readmitted to the hospital, and we'll even come to the home and do that—and why don't you also ask them to sign up for MA while they're here?" All of a sudden, those stores become distribution points, and we completely disrupt the $3 billion a year we spend on brokers and consultants buying health care.

Jelinek pointed to the need to consider a wide range of partnerships as potential players in making the strategy work:

> We don't have the local trust and brand recognition that some other companies have, so we need partners that will help bring this out while we're creating our brand. These could be national partners such as Apple, or a retail outlet like Walmart, CVS, Rite Aid or Walgreens that are in the communities. We could even partner on a regional basis with an entity such as a health system that covers a broad geography. Or, our partner could be a local group such as Meals on Wheels or some other social agency that is in the homes of people that we serve or want to serve. Developing unique partnerships with these three types of groups—national, regional, and local partners—will help us better understand what's going on with our members. A key ingredient to this is that we have to have the networks in place to take care of the people. We need the traditional networks. But we also need new types of networks to handle the social interchange that we're looking for, whether it's behavioral or health-related.

Managing the Relationship with the Legacy Business

Bertolini's team was aware that the new vision would only be successful with the full support of Aetna's traditional "core" insurance business—the parts of Aetna that sold to and managed the relationships with large employers and the government, the gatekeepers through which Aetna obtained members. As Werry explained, "It has to be done in tight partnership with every leader in the core. I spend a lot of my time with leaders across the company, and not just on the backend challenges. It's on the selling front. It's on the strategy. I'm with customers a lot alongside them. This partnership is critical because if there's no internal buy-in for what we're doing, or there's no confidence that we'll deliver, it falls apart." Thomas Weidenkopf, chief human resources officer, summed up the challenge:

> We've articulated a new operating model for the legacy business, and shifted from our centralized, nationalized, and product-centric approach, to a more decentralized, and local-market-centric approach to running our business. And as Gary and his team develop

> new capabilities, these capabilities have to become operational in the core. We're just starting to confront this now: how does the new get implemented in our legacy business? How does our legacy business use these new capabilities to conduct business differently? We're risk managers, and so we're traditionally risk averse. We also have a very tenured workforce, so a lot of bureaucracy builds up in the core. So part of what we have to change about the core is that we have to become faster. We have to become more agile and nimble in our decision-making and in our communications if we're going to be a local market, consumer-driven company.

Aetna as a Living Lab

Bertolini had taken two approaches to this issue. The first was to build both understanding of and support for consumer-centered care by giving Aetna employees direct experience with its potential to increase health and well-being. Aetna offices with more than 2,000 employees had an acute care center, a fitness center, a mindfulness center, and a pharmacy. Smaller locations had a subset of these facilities. One early investment was the introduction of yoga and meditation programs.[104] To heal the nerve damage following his skiing accident, Bertolini had turned to alternative treatments, including acupuncture and yoga. He looked for opportunities to bring the practices that had helped him during his recovery to Aetna's employees. For example, one reporter noted, "When Aetna determined in 2010 that its workers with the highest levels of stress were costing the company $2,000 more each year . . . the company created an initiative to promote yoga and meditation."[105] These and other programs "help[ed] Aetna reduce its employee health benefit costs by 7 percent in 2012 . . . ."[106]

Other efforts were directly focused on improving employees' physical health. Still others contained financial incentives to help employees lead healthier lives. Through Aetna's Wellness Reimbursement program, for example, employees could receive up to $200 for such diverse activities as joining a gym or adopting a pet. The Healthy Lifestyles Program allowed employees to earn up to $500—and the sum rose to $1,000 when family members were included—for such things as sleeping a certain number of hours per night, or taking a given number of steps over a set period of time.

The second approach was to ground the company in a common purpose and a set of shared values (see **Exhibit 9**). Bertolini spoke continuously about his desire to build a "high commitment" organization—one that was as invested in making a difference for its employees and its customers as it was to the bottom line. One high-profile example of these values in action was Bertolini's commitment to Aetna's "Social Compact." In 2013 and 2014, at a series of town-hall style meetings at Aetna's service centers, Bertolini learned that many employees making $9 to $11 per hour could not take care of themselves and their families without working multiple jobs or relying on government benefits such as food stamps and Medicaid. Many were unable to afford even their own company's health insurance. Bertolini asked his human resources team how many employees made minimum wage, but was told that Aetna did not track the number. When he asked for more details, he was told that Aetna's pay matched the going market rates. Kelmar recalled: "He said that that was a balance sheet term. He wanted to know why we didn't have anything like an employee well-being index."

In January 2015, Bertolini announced that the base wage for all employees would be $16 an hour, effective April 2015. 5,800 employees—77% of whom were women, and nearly half people of color—saw their pay increase by an average of 11%. It had taken more than a year to get the wage increase in place. Bertolini explained, "First and foremost, it was working with my own team to get it done because in any large organization there is a very strong resistance to dramatic change. And there are a lot of people in a very large organization that try to protect the company from the nut in the corner office. Just getting the data and going through the analysis was a very difficult thing to get done . . . ."[107] He

was clear that there might not be a pure financial case for the increase: "We need to invest in our employees. We need to help restore the middle class, and that should be good for the economy as a whole. And so for us it is as much—probably, for me personally, more—a moral argument than it is a financial one."[108] Brennan Hinkle, vice president of compensation, elaborated, "Mark doesn't want an Excel spreadsheet. He wants to solve a business need, and then asks what the cost will be, and what we need to believe in order to justify the cost."

A year later, Aetna announced an Enhanced Benefits Program (EBP) to help employees buy the company's health insurance plans. All employees whose household income was less than 300% of the federal poverty level and who agreed to participate in a health and wellness program were eligible for the EBP. Employees who met these criteria could enroll in Aetna's best medical plan for the cost of the least expensive plan. Aetna also introduced a range of educational benefits for EBP participants, and in 2017, announced that neither they nor their dependents would have to pay premiums in 2018, if they obtained all of the premium credits offered by Aetna. For example, employees could earn a $600 credit if they and their spouse avoided tobacco.

The pay raise had increased payroll costs by about $27 million a year, while benefit costs rose by about $2.5 million. Engagement scores for those who received the wage increase reached 78% in 2015, a 14% improvement from 2014. "For those making minimum wage and for those with dependents, this changed their lives. They could drop their second job and be confident that they could pay their bills. It gave them greater peace of mind," Hinkle said. It also had significant business benefits. Many of the employees reached by the Social Compact were customer service representatives (CSRs). They manned Aetna's phones and responded directly to member inquiries, an often stressful and demanding job. According to Hinkle, "If you're a CSR making close to Aetna's minimum wage, are you focused on the members that you're speaking with on the phone, or are you thinking about whether you have enough money to get your car fixed, pay for daycare, and feed your family? We want the full you."

The program had a positive impact across the organization. "It created something of a halo effect, where people felt proud to say they worked for Aetna," Hinkle said. Kay Mooney, vice president of employee benefits and well-being, elaborated, "Its impact has been greater than we imagined. The numbers tell a powerful story, with 70% of employees saying they feel good about our benefits in 2017, up from 44% the year before our social compact began. This is one of the major ways we're investing in the well-being of our employees. Because when they're healthier and happier, we're better able to deliver on our mission of building a healthier world."

Aetna also introduced Service without Borders (SWOB), an initiative that encouraged CSRs to move from a transactional relationship with members, to one in which they were empowered to solve problems and answer questions then and there, rather than passing the issue along to another team member and promising to call back later. As part of SWOB, Aetna introduced "lifelines"—an internal instant messaging system that allowed a CSR to reach subject matter experts immediately. For example, a CSR could connect with an eligibility consultant to enroll a member's new baby whilst they were still on the phone. CSRs used lifelines a few times each week. One manager noted that "employees are so excited about lifelines that I don't think I could take them away." Another said, "We're not doing much that is different from how we did it before. We're just doing it in real time." Employees enjoyed successfully solving members' problems rather than just telling them "Sorry, but that's the policy." "We want to eliminate frustration points that don't need to exist," Kelmar explained, "and CSRs were following processes and policies that were correct, but which we ultimately felt were not right."

With one self-insured client that agreed to run a pilot, Aetna was pioneering an effort that permitted front-line employees to pay small ($500) claims for services not normally covered under a member's

policy if the mistake was made in good faith, or if it was something out of the member's control. Team leaders could approve claims up to $1,000, while senior managers could approve claims of up to $3,500.

Adopting New Metrics and Bringing in New Talent

Another key initiative was an effort to focus on metrics that spoke to member health and well-being, in addition to the traditional metrics that characterized the insurance business. Werry explained:

> One of the things that we believe is that if you begin to truly focus and trust member-facing metrics and engagement metrics, behavior change and business results will flow from that. As a result, we've changed our focus on what we're measuring and why, and that's been a really key part of this culture change. It's a new language. It's why we love our bswift business. bswift talks about raving fans and net promoter scores. We need to be talking about that everywhere in the company. The other factor that has been driving significant change is the talent we've brought into the company. At the end of the day, talent and culture wins, and the question becomes how do we bring in the right talent? You bring in the right talent by showing them a path where they can make a big impact in society, be successful in the organization, and do well by our members. That's what we're selling. The folks that we've brought in are world-class people, and it's because of the culture and mission we're going after. They're taking less money to come here, and it's because the strategy and impact are so powerful for all of us.

Open Questions

Bertolini was proud of all that Aetna had accomplished, and confident in his strategy going forward. Nonetheless, he knew that Ludwig would push him to address a number of critically important questions. First, could he be sure that the behavioral interventions on which so much of the strategy rested would, in fact, work? Could Aetna design a digital experience so compelling that members would willingly engage with the firm to improve their health outcomes?

He thought back to an article he had read just a few weeks ago titled "The Hype of Virtual Medicine."[109] The author quoted a study in which 50% of 1,500 patients suffering from congestive heart failure received either "wireless monitoring" or "coaching phone calls" to support their follow-up care. Neither intervention had any significant impact on outcomes.[110] In another study on exercise described in the piece, the author said, "One group got Fitbit Zip trackers, two other groups got the tracker plus money that they could use, respectively, for themselves or for charity, and the last group got no tracker."[111] While the Fitbit did have a meaningful impact on exercise rates, the author noted that "When the incentives were discontinued, physical activity returned to pre-intervention levels."[112] What did this indicate for the type of behavioral change Aetna hoped to encourage?

Furthermore, Bertolini wondered whether patient-centricity could be the basis for a viable business model. Would employers pay for an insurance product that promised to improve their employees' health, but whose benefits might not be visible for years or decades? Would Aetna make money if its members became healthier? Lastly, Bertolini wondered whether Aetna needed partners to make this strategy work. Should it partner with a firm like Google, Amazon, or Uber—entities that understood digital platforms and had strong consumer brands? Should Aetna double down on its investment in local communities by exploring a relationship with a company that had a major retail presence, such as Walmart, CVS, or Walgreens, or by expanding collaborative relationships with local providers?

Bertolini sat back and watched the moon rise. It was going to be an interesting year.

Exhibit 1a Aetna Inc. Select Financials, 2007 through 2017 (In millions of dollars. Basic earnings per share are in dollars)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Revenue	27,599.6	30,950.7	34,764.1	34,246.0	33,782.2	36,599.8	47,287.4	58,003.0	60,227.0	63,155.0	62,197.0
Total Operating Expenses	24,622.6	28,485.4	32,564.0	31,456.1	30,319.3	33,525.6	43,687.6	53,890.0	55,459.0	57,639.0	56,818.0
Operating Income	2,977.0	2,465.3	2,200.1	2,789.9	3,462.9	3,074.2	3,599.8	4,113.0	4,768.0	5,516.0	5,379.0
Net Income	1,831.0	1,384.1	1,276.5	1,766.8	1,985.7	1,657.9	1,913.6	2,041.0	2,390.0	2,271.0	1,565.0
Basic Earnings Per Share	3.6	2.91	2.89	4.25	5.33	4.87	5.38	5.74	6.84	6.46	4.54

Source: Capital IQ, accessed September 2017.

Note: Financials for 2007 through 2016 are for the 12 months ending December 31, and the financials for 2017 are for the 12 months ending June 30, 2017.

Exhibit 1b Humana Inc. Select Financials, 2007 through 2017 (In millions of dollars. Basic earnings per share are in dollars)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Revenue	25,290.0	28,946.4	30,743.0	33,596.0	36,832.0	39,126.0	41,313.0	48,500.0	54,289.0	54,379.0	53,868.0
Total Operating Expenses	23,931.8	27,946.4	29,035.0	31,742.0	34,488.0	37,110.0	39,252,9	46,138.0	51,919.0	52,534.0	51,423.0
Operating Income	1,358	1,073.1	1,708.0	1,854.0	2,344.0	2,016.0	2,061.0	2,362.0	2,370.0	1,845.0	2,445.0
Net Income	833.7	647.2	1,040.0	1,099.0	1,419.0	1,222.0	1,231.0	1,147.0	1,276.0	614.0	1,814.0
Basic Earnings Per Share	5.0	3.87	6.21	6.55	8.58	7.57	7.82	7.44	8.54	4.11	12.27

Source: Capital IQ, accessed September 2017.

Note: Financials for 2007 through 2016 are for the 12 months ending December 31, and the financials for 2017 are for the 12 months ending June 30, 2017.

Exhibit 1c UnitedHealth Group Inc. Select Financials, 2007 through 2017 (In millions of dollars. Basic earnings per share are in dollars)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Revenue	75,431.0	81,186.0	87,138.0	94,155.0	101,862.0	110,618.0	122,489.0	130,474.0	157,107.0	184,840.0	192,604.0
Total Operating Expenses	67,582.0	74,645.0	80,779.0	86,119.0	93,398.0	101,364.0	112,866.0	120,200.0	146,086.0	171,910.0	178,693.0
Operating Income	7,849.0	6,541.0	6,359.0	8,036.0	8,464.0	9,254.0	9,623.0	10,274.0	11,021.0	12,930.0	13,911.0
Net Income	4,654.0	2,977.0	3,822.0	4,634.0	5,142.0	5,526.0	5,625.0	5,619.0	5,813.0	7,017.0	8,108.0
Basic Earnings Per Share	3.55	2.45	3.27	4.14	4.81	5.38	5.59	5.78	6.10	7.37	8.49

Source: Capital IQ, accessed September 2017.

Note: Financials for 2007 through 2016 are for the 12 months ending December 31, and the financials for 2017 are for the 12 months ending June 30, 2017.

Exhibit 2 Total Medical Enrollment of Leading Health Plans, 2008-2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
UnitedHealthcare	32,702,445	31,980,000	32,824,278	34,675,651	36,545,000	40,306,044	45,143,484	NA	47,530,928	49,136,085
Anthem, Inc.	30,622,381	33,952,110	28,812,895	29,576,763	31,300,156	31,184,787	32,552,343	NA	33,986,000	35,180,683
Aetna, Inc.	16,318,625	18,557,996	18,140,023	18,636,285	18,218,766	21,309,008	22,266,424	NA	19,956,642	21,724,022
Cigna Corp..	9,922,135	11,131,599	11,443,392	11,499,083	12,751,150	13,093,406	13,826,255	NA	14,027,343	14,624,275
Health Care Service Corp.	12,218,623	12,400,000	12,277,678	12,783,198	13,080,245	13,845,219	14,952,494	NA	NA	14,394,135
Centene Corp.	1,275,829	1,363,786	1,506,700	1,626,300	2,503,000	2,587,766	3,705,300	NA	4,507,600	11,678,500
Kaiser Permanente	8,532,951	8,722,019	8,755,013	8,959,294	8,850,587	9,009,569	9,638,824	NA	7,809,009	11,175,486
Humana, Inc.	8,486,913	8,359,031	8,334,800	6,741,375	8,965,900	9,154,400	9,848,257	NA	9,664,900	8,763,400
Molina Healthcare, Inc.	1,313,211	1,346,489	1,597,000	1,883,900	1,826,000	1,942,000	2,467,800	NA	4,220,000	4,766,000
Independence Blue Cross	3,480,168	NA	NA	NA	3,670,899	3,692,498	4,163,140	NA	NA	4,757,521
Highmark, Inc.	5,182,186	4,114,476	4,214,412	4,387,427	4,679,777	4,641,270	4,728,381	NA	3,651,368	4,568,690
Health Net, Inc.	6,180,395	6,659,000	5,560,000	5,584,000	5,436,000	5,330,402	5,924,000	NA	6,117,900	NA
BCBS of Michigan	5,011,359	4,548,575	4,338,022	4,436,836	3,433,233	2,213,163	4,410,293	NA	4,361,597	4,386,563

Source: Erin Trompeter and Susan Namovicz-Peat, eds., *Health Plan Facts, Trends and Data: 2008-2009,* (Washington, DC: Atlantic Information Services, Inc., 2008), p. 1; Erin Trompeter and Susan Namovicz-Peat, eds., *Health Plan Facts, Trends and Data: 2009-2010,* (Washington, DC: Atlantic Information Services, Inc., 2009), p. 5; Erin Trompeter and Susan Namovicz-Peat, eds., *Health Plan Facts, Trends and Data: 2010-2011,* (Washington, DC: Atlantic Information Services, Inc., 2010), p. 6; Erin Trompeter and Susan Namovicz-Peat, eds., *Health Plan Facts, Trends and Data: 2011-2012,* (Washington, DC: Atlantic Information Services, Inc., 2011), p. 8; Erin Trompeter and Susan Namovicz-Peat, eds., *Health Plan Facts, Trends and Data: 2012-2013,* (Washington, DC: Atlantic Information Services, Inc., 2012), p. 3; Erin Trompeter and Susan Namovicz-Peat, eds., *Health Plan Facts, Trends and Data: 2013-2014,* (Washington, DC: Atlantic Information Services, Inc., 2013), p. 7.; Erin Trompeter, ed., *Health Plan Facts, Trends and Data: 2014-2015,* (Washington, DC: Atlantic Information Services, Inc., 2014), p. 1; Erin Trompeter and Carina Belles, eds., *Health Plan Facts, Trends and Data: 2016-2017,* (Washington, DC: Atlantic Information Services, Inc., 2016), p. 1; Erin Trompeter and Carina Belles, eds., *AIS's Directory of Health Plans: 2017,* (Washington, DC: Atlantic Information Services, Inc., 2017), p. 3.

Note: Figures for 2008 and 2009 are enrollment numbers as of the end of that calendar year. Figures for 2010 through 2014 are as of the fall of that calendar year. The source of the 2016 figure explained that "The scope of this database covers all known health insurers serving enrollees as of Jan. 1, 2016." The figure for 2017 "represents time periods ranging from December 31, 2016, to April 30, 2017. Enrollment figures are intended to represent contracts being served during 2017."

Exhibit 3a Humana Inc.'s Business and Strategic Profile

Headquartered in Louisville, Kentucky, Humana Inc. and its subsidiaries . . . is a leading health and well-being company focused on making it easy for people to achieve their best health with clinical excellence through coordinated care. Our strategy integrates care delivery, the member experience, and clinical and consumer insights to encourage engagement, behavior change, proactive clinical outreach and wellness for the millions of people we serve across the country. . . . During 2016, 75% of our total premiums and services revenue were derived from contracts with the federal government, including 14% derived from our individual Medicare Advantage contracts in Florida with the Centers for Medicare and Medicaid Services, or CMS, under which we provide health insurance coverage to approximately 598,100 members as of December 31, 2016.

Our Strategy

We strive to improve the health of **seniors living with chronic conditions** through an **Integrated Care Delivery** model that brings simplicity and connectivity to the healthcare experience

How we win

By **partnering with providers** to evolve incentives from treating health episodically to **managing health holistically**	Provider joint ventures Alliances Owned clinics MSO[1]
Through building **trusted relationships** with our members and making it easier for them to engage in their health by providing clinical programs that intersect **healthcare and lifestyle** – *helping them at key moments of need*	Home health Behavioral health Pharmacy Prevention
By **leveraging technology** to integrate systems and simplify processes so that members and providers may **engage more fully and easily in managing holistic health**	Advanced analytics Provider-facing workflows Consumer applications to reduce friction points

Source: The text is verbatim from Humana Inc., 2016 Annual Report, p. 3, https://humana.gcs-web.com/static-files/1d2dc7c9-7d43-4938-9b94-4d090c4deaf9, accessed January 2018; the slide is from Humana Inc., "Humana Investor Day 2017," April 25, 2017, p. 4, https://humana.gcs-web.com/static-files/cbe640dd-9fcc-45a7-9119-2c765c2228ed, accessed January 2018.

Note: MSO was an abbreviation for management services organization.

Exhibit 3b UnitedHealth Group Inc.'s Business and Strategic Profile

UnitedHealth Group is a diversified health and well-being company dedicated to helping people live healthier lives and helping to make the health system work better for everyone. . . .

Through our diversified family of businesses, we leverage core competencies in advanced, enabling technology; health care data, information and intelligence; and clinical care management and coordination to help meet the demands of the health system. These core competencies are deployed within our two distinct, but strategically aligned, business platforms: health benefits operating under UnitedHealthcare and health services operating under Optum.

UnitedHealthcare provides health care benefits to an array of customers and markets. UnitedHealthcare Employer & Individual serves employers ranging from sole proprietorships to large, multi-site and national employers, public sector employers and other individuals. UnitedHealthcare Medicare & Retirement delivers health and well-being benefits for Medicare beneficiaries and retirees. UnitedHealthcare Community & State manages health care benefit programs on behalf of state Medicaid and community programs and their participants. UnitedHealthcare Global includes UnitedHealthcare Brazil, a health care company providing health and dental benefits and hospital and clinical services to employer groups and individuals in Brazil, and other diversified global health businesses.

Optum is a health services business serving the broad health care marketplace, including payers, care providers, employers, governments, life sciences companies and consumers, through its OptumHealth, OptumInsight and OptumRx businesses. These businesses have dedicated units that help improve overall health system performance through optimizing care quality, reducing costs and improving consumer experience and care provider performance leveraging distinctive capabilities in data and analytics, pharmacy care services, population health, health care delivery and health care operations.

Through UnitedHealthcare and Optum, in 2016, we processed more than one half trillion dollars in gross billed charges and we managed more than $200 billion in aggregate health care spending on behalf of the customers and consumers we serve. Our revenues are derived from premiums on risk-based products; fees from management, administrative, technology and consulting services; sales of a wide variety of products and services related to the broad health and well-being industry; and investment and other income. Our two business platforms have four reportable segments:

- UnitedHealthcare, which includes UnitedHealthcare Employer & Individual, UnitedHealthcare Medicare & Retirement, UnitedHealthcare Community & State and UnitedHealthcare Global;
- OptumHealth;
- OptumInsight; and
- OptumRx.

. . .

Exhibit 3b (continued)

UnitedHealthcare

Through its health benefits offerings, UnitedHealthcare is enabling better health, helping to control rising health care costs and creating a better health care experience for its customers. UnitedHealthcare's market position is built on:

- strong local market relationships;
- the breadth of product offerings, which are responsive to many distinct market segments in health care;
- service and advanced technology;
- competitive medical and operating cost positions;
- effective clinical engagement;
- extensive expertise in distinct market segments; and
- innovation for customers and consumers.

UnitedHealthcare utilizes Optum's capabilities to help coordinate patient care, improve affordability of medical care, analyze cost trends, manage pharmacy benefits, work with care providers more effectively and create a simpler consumer experience.

In the United States, UnitedHealthcare arranges for discounted access to care through networks that include 1 million physicians and other health care professionals and approximately 6,000 hospitals and other facilities.

Source: This text is verbatim from UnitedHealth Group, 2016 Form 10-K, p. 1, http://www.unitedhealthgroup.com/~/media/5D60EEEE258F4D2FA4BA765727C41D5C.ashx, accessed January 2018.

Exhibit 4a Total Revenue from Premiums (in millions of dollars)

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Aetna Inc.	21,500.1	25,507.3	28,243.8	27,610.6	27,189.2	28,872	39,659.7	49,562	51,618	54,116
Cigna Corp.	8,424	8,884	8,536	11,447	11,573	17,877	19,626	20,709	22,696	23,295
Humana Inc.	24,434.35	28,064.84	29,927	32,712	35,106	37,009	38,829	45,959	52,409	53,021
Anthem, Inc.	55,865	57,101	56,382	53,973.6	55,969.6	56,496.7	66,119.1	68,389.8	73,385.1	78,860.1
UnitedHealth Group	68,781	73,608	79,315	85,405	91,983	99,728	109,557	115,302	127,163	144,118

Source: Capital IQ, accessed September 2017.

Exhibit 4b Revenue from Commercial Premiums (in millions of dollars)

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Aetna Inc.	18,656.8	20,096.2	21,581.6	20,632.2	20,263.9	20,944.4	24,481.2	28,563	28,709	27,916
Cigna Corp.	6,503	6,854	6,353	8,015	8,905	9,598	10,414	11,067	11,625	11,934
Humana Inc.	5,663	6,169.403	6,185	5,915	5,643	6,000	6,277	8,604	9,736	8,897
Anthem, Inc.	35,105.1	34,917.8	34,123.6	31,292	36,436.7	36,036.7	35,772	35,045.2	33,078	33,831.5
UnitedHealth Group	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: Capital IQ, accessed September 2017.

Exhibit 4c Revenue from Government Premiums (in millions of dollars)

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Aetna Inc.	2,843.3	5,411.1	6,662.2	6,978.4	6,925.3	7,927.6	15,178.5	20,999	22,909	26,200
Cigna Corp.	675	727	937	2,085	1,174	6,597	7,343	7,580	8,833	8,889
Humana Inc.	18,237.23	20,968.2	22,853	25,830	28,404	29,768	31,247	36,001	41,357	42,845
Anthem, Inc.	15,249.5	16,372.8	16,126.8	16,059.6	19,532.9	20,460	30,347.1	33,344.6	40,307.1	45,028.6
UnitedHealth Group	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: Capital IQ, accessed September 2017.

Exhibit 5a National Health Expenditures, 1960-2005, in billions of dollars and as a share of GDP

	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005
Dollars	27.2	41.9	74.6	133.3	255.3	442.9	721.4	1,021.6	1,369.1	2,023.7
GDP	5.0%	5.6%	6.9%	7.9%	8.9%	10.2%	12.1%	13.3%	13.3%	15.5%

Source: Centers for Medicare & Medicaid Services, National Health Expenditure Data, Historical, "NHE Summary Including Share of GDP, CY 1960-2015," page last modified November 21, 2017, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html, accessed November 2017.

Exhibit 5b National Health Expenditures, 2006-2015, in billions of dollars and as a share of GDP

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Dollars	2,156.5	2,295.7	2,399.1	2,494.7	2,596.4	2,687.9	2,795.4	2,877.6	3,029.3	3,205.6
GDP	15.6%	15.9%	16.3%	17.3%	17.4%	17.3%	17.3%	17.2%	17.4%	17.8%

Source: Centers for Medicare & Medicaid Services, National Health Expenditure Data, Historical, "NHE Summary Including Share of GDP, CY 1960-2015," page last modified November 21, 2017, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html, accessed November 2017.

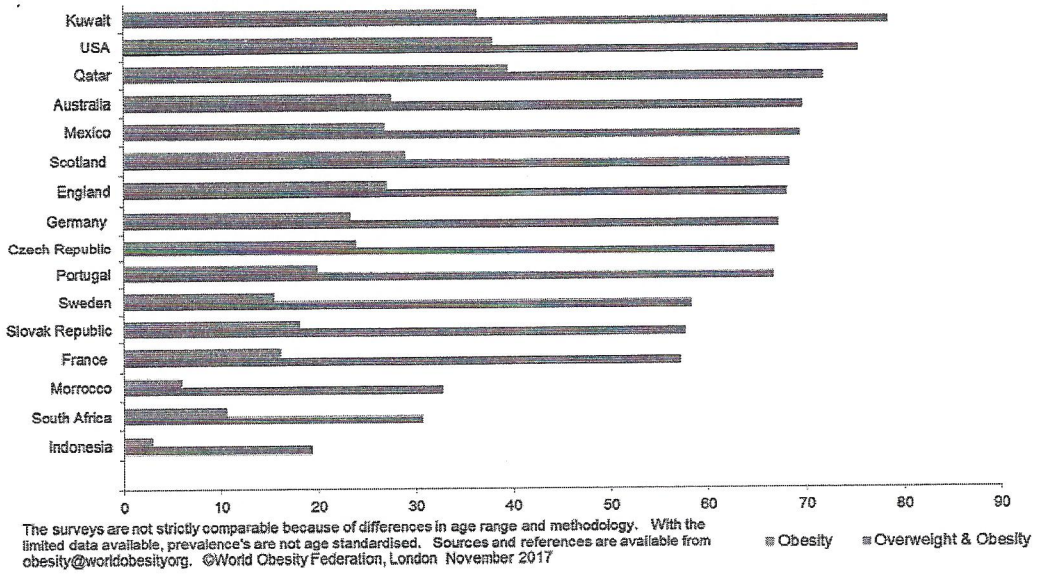
Exhibit 6 Number of U.S. Adults Killed by Heart Disease

2000	2005	2010	2013	2014	2015e	2020e
710,701	652,054	597,661	611,082	614,305	600,710	606,608

Source: Weir HK, Anderson RN, Coleman King SM, Soman A, Thompson TD, Hong Y, et al, "Heart Disease and Cancer Deaths—Trends and Projections in the United States, 1969–2020," Centers for Disease Control and Prevention, CME Activity 13, November 17, 2016, https://www.cdc.gov/pcd/issues/2016/16_0211.htm, accessed November 2017.

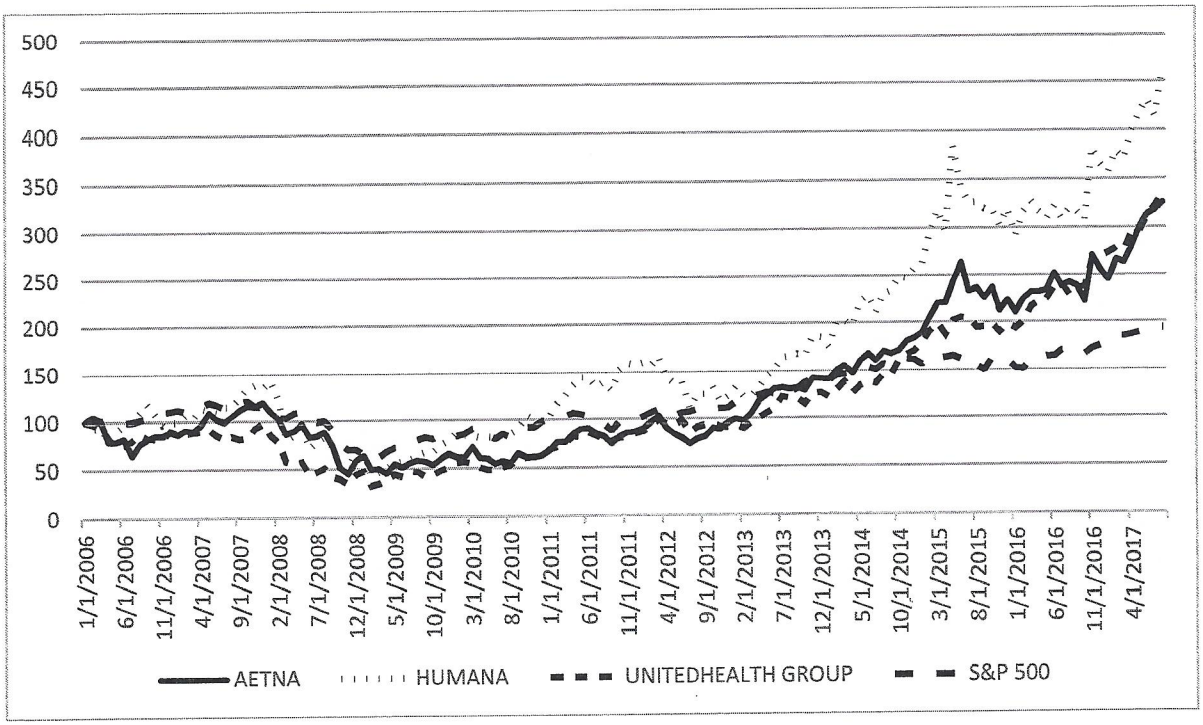
Note: The 2015 and 2020 numbers are predictions.

Exhibit 7 Global Obesity Statistics, 2017



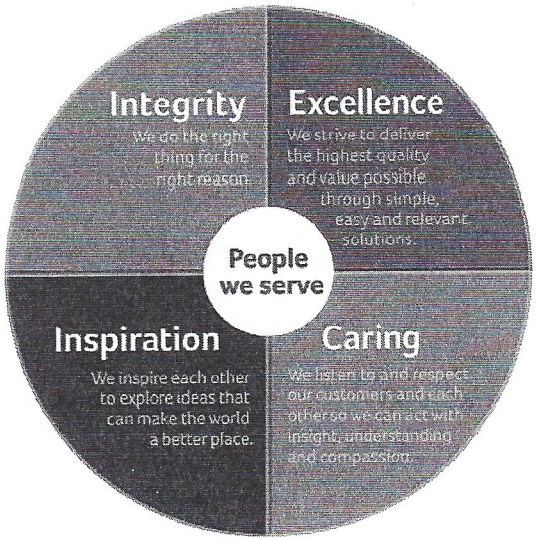
Source: World Obesity Federation, "% Overweight and Obesity in Adult Males from Selected Countries from Around the World," November 2017, https://content.worldobesity.org/site_media/filer_public/cf/fa/cffad2c5-c059-411e-80f9-0251b533799f/global_selected_countries_nov_17_english.pdf, accessed December 2017.

Exhibit 8 Aetna's Relative Stock Price Performance, January 2006 through August 2017



Source: Thomson Reuters DataStream, accessed September 2017.

Exhibit 9 Aetna's Values and Common Purpose



Integrity. Excellence. Caring. Inspiration.

- **Integrity** – Do the right thing for the right reason.
- **Excellence** – We strive to deliver the highest quality and value possible through simple, easy and relevant solutions.
- **Caring** – We listen to and respect our customers and each other so we can act with insight, understanding and compassion.
- **Inspiration** – We inspire each other to explore ideas that can make the world a better place.

Our Common Purpose Advocate for our members' best health by helping them get the most from their benefits, building trust and always providing a clear path to care.

Source: Aetna, Inc., "Aetna Values," https://www.aetna.com/about-us/aetna-values.html, accessed September 2017; and company documents.

Appendix A: Health Insurance in the U.S.

Factors such as age, employment status, health, and income played into whether one had government-supported or private (i.e., commercial) health insurance. For example, people insured through Medicare were most often retirees, as one had to be at least 65 years old to qualify, or younger persons with certain specific health issues such as end-stage renal disease. By one analysis, almost 32% of people in the U.S. received health insurance through government programs in 2017.

While some people (14.5%) bought their own health insurance directly, nearly half chose to obtain health insurance for themselves and their families through an employer's group insurance policy. In these situations, employers served as the intermediary between their workers and an insurer, and rather than having employees pay their premiums—the amount policyholders regularly paid to maintain their insurance—to Aetna, for example, an employer might instead take some amount out of its employees' earnings to collectively cover the total amount that the company paid as a premium to an insurer for its group policy. An employer could either fully-insure its group plans, meaning that it was only responsible for paying premiums in order to give its employees full access to the benefits offered by an insurer, as established in their group plans, or self-insure them, so that the employer paid for all of the actual costs of the health care services utilized by its employees. Employers could still partner with insurers if employers self-insured their plans, though, to oversee service delivery and claims on their behalf. Employers could also offer employees plans from more than one insurer.

Many insurers offered a variety of plans via both individual and group policies, including health maintenance organization (HMO), point of service (POS), preferred provider organization (PPO), and high deductible health plans (HDHPs). The key differences between these plans was how much consumers had to pay in premiums and deductibles (the dollar amount consumers paid for services before their insurer started paying), which also varied depending on whether the plan covered just one person or an entire family, as well as which providers consumers were allowed to access and still have their services reimbursed by insurers. For example, people with an HMO typically had to pick from within a pre-approved network of doctors, while those with a PPO had greater flexibility to go out of network. Policies also varied in terms of what health care services were or were not covered, meaning that consumers might have to pay the full cost of certain procedures and tests (e.g., those determined to be elective or cosmetic, rather than being medically necessary), and many plans required copayments for doctor's visits or other services, so the full brunt of the cost did not fall on insurers.

Still other Americans—7.5% in 2017—had no insurance. Prior to the passage of the Patient Protection and Affordable Care Act (ACA) in 2010, which, among other objectives, sought to reduce the number of people without health coverage, there were no federal laws that required people to have health insurance. One component of the ACA, known as the individual mandate, *did* require most people, with limited exceptions, to either obtain coverage or pay a fee starting in 2014.

The Evolution of Health Insurance in the U.S.

Although there had been some attempts, with varying degrees of success, to create different types of health care coverage plans during the first half of the 20th century, these efforts tended to be local and limited in terms of who had access, and services rendered. However, the share of the country covered by private health insurance rose from 9.1% in 1940, to 50.6% in 1950. One economist credited labor unions and World War II. To some, World War II was the "catalyst" for "[t]he modern system of getting benefits through a job . . . ." As one economist explained, employers had limited flexibility to raise wages at the time, while simultaneously contending with a dwindling labor pool. Thus, "one way firms could complete for scarce labor was to offer health insurance . . . ." Changes to the federal tax code in the 1940s and 1950s encouraged further growth, resulting in 68.3% of the country having private insurance (including both employer-sponsored and individually purchased) by 1960.

Starting in the mid-1960s, federal and state governments became major players in health insurance through the Medicare and Medicaid programs, which sought to provide health care services to people with specific care needs, or to those who could not afford their own insurance. Thus, when also factoring in those with private insurance, 86% of the population had health insurance by the end of the year 2000. But as more people obtained health insurance, the cost to deliver care rose rapidly. "The most important explanation for the increase . . . is the

availability of new medical technology and the increased specialization that accompanies it," one economist explained. However, he also cited "budget-busting increases in health care expenditures fueled by private and public insurance."

Health insurance companies had already recognized the need to contain costs, and managed care plans, including HMOs, PPOs, and POS plans, all of which constrained or incentivized consumers' health care choices, became increasingly common from the late 1980s onwards. While 71% of all "insured workers" in 1988 had what one economist termed "conventional" insurance coverage, which gave individuals substantial autonomy as to how and where they received care, this number plummeted to 14% by 1998, and to 2% in 2008. Managed care plans had picked up the difference. Another economist described the significant change that managed care had had on the insurance industry: "Until about 1990, most insured patients could choose freely among providers, physicians' decisions were not subject to frequent questions by insurers, and payment was typically fee for service. . . . In the 1990s, insurers selectively contracted with providers, fees and prices were negotiated in advance, physicians' decisions became subject to insurance-company review, and patients faced financial penalties for obtaining out-of-plan care." Thus, managed care was generally not popular.

While managed care helped control costs, it could not completely solve the problem. By 2010, per-capita health care spending exceeded $8,400. The biggest changes to the industry in the 21st century came through the ACA, which became law in 2010 and contained multiple provisions that would be rolled out over the following years. One of the key purposes of the ACA was to help the uninsured acquire individual health insurance policies by eliminating obstacles (e.g., they could not afford insurance, or they had a preexisting condition) that had prevented them from doing so previously. One observer summarized the major impacts on the industry from this aspect of the ACA:

> The Affordable Care Act (ACA) created a dramatically different marketplace for individual health insurance through three key reforms: prohibiting insurers from considering subscribers' health status or risk; providing substantial subsidies for millions of people to purchase individual coverage . . . and creating an "exchange" structure that facilitates comparison shopping. In addition, the ACA limits the percentage of premiums that insurers can devote to profit and administrative expense and requires state or federal regulators to evaluate the basis for rate increases.

While many insurers obtained new customers through the Health Insurance Marketplace (i.e., the exchanges, described by one observer as "an online marketplace where individuals and small employers can shop for insurance coverage") created by the ACA starting in late 2013, many had greatly scaled back their offerings to individual consumers via this platform by 2017.[113]

Sources: Digital Communications Division, "Who is Eligible for Medicare?" U.S. Department of Health & Human Services, last reviewed on September 11, 2014, https://www.hhs.gov/answers/medicare-and-medicaid/who-is-elibible-for-medicare/index.html; Jack Curran, "Health & Medical Insurance in the US," *IBISWorld*, IBISWorld Industry Report 52411b, February 2017, pp. 2, 18, accessed via IBISWorld; Blue Cross Blue Shield of Michigan and Blue Care Network, "What's the Difference Between Group and Individual Coverage?" http://www.bcbsm.com/index/health-insurance-help/faqs/topics/buying-insurance/difference-between-group-and-individual-coverage.html; Self-Insurance Institute of America, Inc., "Self-Insured Group Health Plans," https://www.siia.org/i4a/pages/index.cfm?pageID=4546; HealthCare.gov, "Health Insurance Plan & Network Types: HMOs, PPOs, and More," https://www.healthcare.gov/choose-a-plan/plan-types/; "Affordable Care Act (ACA)," HealthCare.gov, https://www.healthcare.gov/glossary/affordable-care-act/; The Henry J. Kaiser Family Foundation, "Summary of the Affordable Care Act," April 25, 2013, http://www.kff.org/health-reform/fact-sheet/summary-of-the-affordable-care-act/; Michael A. Morrissey, "Chapter 1. History of Health Insurance in the United States," in *Health Insurance, Second Edition*, (Chicago, Illinois: Health Administration Press, 2013): pp. 5-12, 17-19, https://www.ache.org/pubs/Morrisey2253_Chapter_1.pdf; Alex Blumberg and Adam Davidson, "Accidents of History Created U.S. Health System," *All Things Considered*, National Public Radio, October 22, 2009, http://www.npr.org/templates/story/story.php?storyId=114045132; Robert J. Mills, "Health Insurance Coverage: 2000," U.S. Census Bureau, U.S. Department of Commerce, September 2001, p. 1, https://www.census.gov/prod/2001pubs/p60-215.pdf; Victor R. Fuchs, "Major Trends in the U.S. Health Economy Since 1950," *The New England Journal of Medicine* 366, no. 11, March 15, 2012, pp. 973-974, 976-977, http://www.nejm.org/toc/nejm/366/11; The Henry J. Kaiser Family Foundation, "Health Care Costs: A Primer," May 1, 2012, http://www.kff.org/report-section/health-care-costs-a-primer-2012-report/; The Commonwealth Fund, "How Has the Affordable Care Act Affected Health Insurers' Financial Performance?" July 26, 2016, http://www.commonwealthfund.org/publications/issue-briefs/2016/jul/the-affordable-care-act-and-health-insurers-financial-performance; "FAQ: All About Health Insurance Exchanges And How To Shop For Coverage," *National Public Radio*, October 11, 2013, http://www.npr.org/2013/10/11/230916150/faq-all-about-health-insurance-exchanges-and-how-to-shop-for-coverage; Olga Khazan, "Why So Many Insurers Are Leaving Obamacare," *The Atlantic*, May 11, 2017, https://www.theatlantic.com/health/archive/2017/05/why-so-many-insurers-are-leaving-obamacare/526137/; and Aetna, Inc., "Aetna to Narrow Individual Public Exchange Participation," August 15, 2016, http://investor.aetna.com/phoenix.zhtml?c=110617&p=irol-newsArticle&ID=2195571; all accessed September 2017.