Christensen Institute

ZERO-INFLATION HEALTH CARE:

A national strategy for unlocking and scaling insurance innovation

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DECEMBER 2024

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ACKNOWLEDGMENTS

Eighteen months ago, I received an unexpected email. Ernest Ludy—an experienced and successful entrepreneur turned investor—had a compelling idea for how to disrupt insured health care and reduce the hardship associated with runaway health insurance premium inflation. It was based on his decades of industry experience. My interest was piqued.

What I didn't expect was the depth of insight I would gain into 1) why the market worked the way it did and 2) how to correct the health care cost inflation problem. Viewing Ludy's experience through the lens of Clayton Christensen's Disruptive Innovation and Business Model Theories, it became clear that not only did theory explain Ludy's experience, but it was also key to unlocking the innovation that could drive transformation in the health insurance industry and improve national solvency.

This report is the culmination of months of discussions with Ludy, combined with extensive research and interviews with industry practitioners and analysts. Without his input, experience, insight, dedication, and perseverance in entrepreneurship, this report wouldn't be possible. Together with Christensen's theories, Ludy's experience provides a compelling business model blueprint for driving change.

In addition to Ernest Ludy, I'd like to thank all of the industry experts who shared their insights and expertise to inform this report. Their collective experience totals over a century of industry wisdom. I'm also incredibly grateful to my colleagues Ann Christensen, Michael B. Horn, and Meris Stansbury at the Institute for how they shaped and supported this work.

While many minds inspired and shaped this report, its insights and recommendations are my own, based on the Christensen Institute's theories. It doesn't reflect the views of any other individual.

INTRODUCTION: THE PROBLEM OF HEALTH CARE COST INFLATION

Health care costs are out of control. National health care spending has grown from 9% to almost 20% of the US economy since 1980, consistently growing significantly faster than gross domestic product (GDP).[1] Poor quality and suboptimal care regularly account for at least 35% of care and up to 50% of total medical spend.[2] This problem isn't new, but it's getting worse as insurance continues to get more expensive. It's bankrupting our nation's individuals, families, businesses, and government.[3]

As *The Wall Street Journal* recently reported, 2024 was the most expensive year to date for health insurance coverage, and 2025 is likely to be worse.[4] See Figure 1 for more detail, and take note that the average annual contributions for family coverage total almost $25,000, an increase of 7% over the prior year.

As costs climb ever faster, leaders and individuals alike shake their heads in dismay, seemingly saying, "We can't do anything about this because it's just too complicated." But in this paper, we demonstrate why that's not the case. The thing is, we *can* do something about it.

Health care cost inflation is a systemic problem.[5] Therefore, a systemic solution is required: business model innovation and the creation of a new value network.

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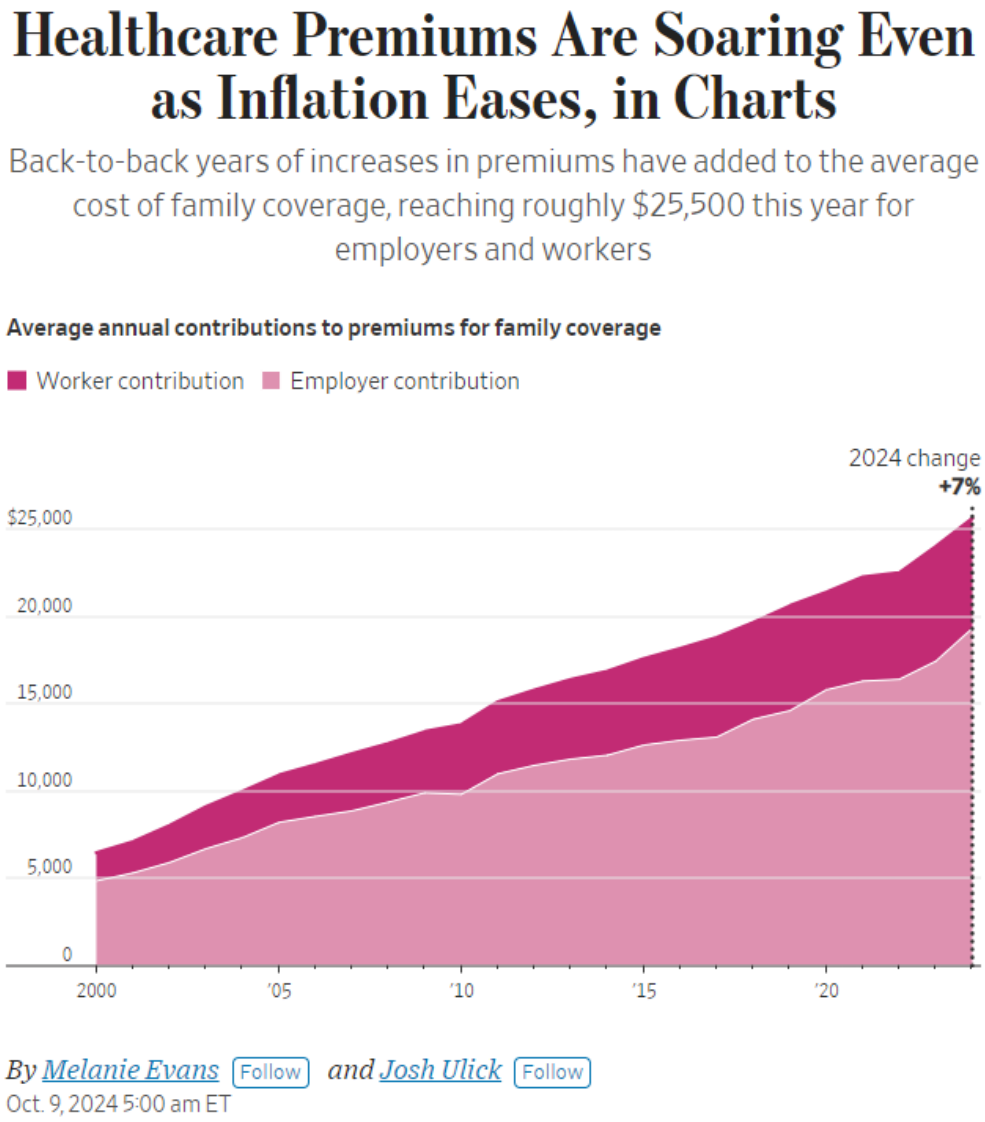
Figure 1. The unsustainable cost of health insurance premiums continues to worsen



Source: Melanie Evans and Josh Ulick, "Healthcare Premiums Are Soaring Even as Inflation Eases, in Charts," *The Wall Street Journal*, October 9, 2024, https://www.wsj.com/health/healthcare/health-insurance-inflation-charts-612812ed.

The root cause of unsustainable cost inflation is the complex four-party economic system underpinning the industry. As a result of this economic system, the health insurance market doesn't follow traditional rules of supply and demand. Instead of having typical buyer-seller dynamics where, as demand increases, price increases, and so does supply, the four dominant players in the insurance industry (i.e., sponsors, insurers, providers, and consumers) neutralize this dynamic.

In addition to being the root cause of runaway inflation, this four-party system creates three consequences that innovators must address to reduce inflation: 1) the insurer's cost-plus business model, 2) weak market forces, and 3) no supply chain visibility.[6] Importantly, weak market forces don't drive innovation. When there is limited competition, existing players have no incentives to innovate. Changing the four-party system isn't a feasible first step for innovators, but they must address its consequences if they wish to address systemic inflation.

Many have tried to disrupt the market and lower health insurance cost inflation through the creation of new business models, but only one entity has come close to achieving this goal: Medstat Systems (Medstat), a business intelligence platform company for health care that was launched in 1981 by Ernest Ludy. It was built on a new "Optimal Care" paradigm to solve for systemic health care cost inflation. The value proposition for its customers (i.e., state governments and Fortune 300 sponsors) was to reduce premium inflation through quality-first margin improvement.

Medstat achieved this outcome through a formula-driven intelligence process. It identified and mitigated the risk of poor and suboptimal care so that the best care at the best cost could be delivered each time a beneficiary required care. To be clear, costs were not reduced by limiting access. Medstat's strategy was a patient-centric, quality-first approach. Through new capabilities (i.e., resources and processes), including risk identification and reduction, Medstat delivered on this value proposition by halving cost inflation for customers.

While Medstat didn't reduce systemic inflation and transform the industry during its existence, we believe innovators can learn from its approach to achieve this goal today. In brief, the Optimal Care business model is likely to be most successful at reducing systemic inflation if it's launched in partnership with, or from within, the government. As Clayton Christensen called out in *The Innovator's Prescription*, the US government has the centralized power required to foster disruption in health care.[7] This power is a characteristic of US health care's four-party economic system and the resulting market dynamics unique to health insurance.

So why did a lower-cost model with better outcomes not get copied nor disrupt the market? It might seem like a no-brainer for incumbents to adopt an innovation they can easily implement and that dramatically cuts costs, but in sector after sector, we've seen incumbents ignore such opportunities.

This oversight is often to their and their customers' detriment. Our report explores how this has happened in health care—and how it could change. Herein, we provide a roadmap for innovators and governments seeking to create a healthier and more solvent future for the nation, and we spell out how they can leverage Optimal Care business models to unseat incumbent health insurers, transform the industry, and solve the systemic health care cost inflation problem.

Many have tried to disrupt the market and lower health insurance cost inflation through the creation of new business models, but only one entity has come close to achieving this goal: Medstat.

HOW THE HEALTH INSURANCE MARKET WORKS

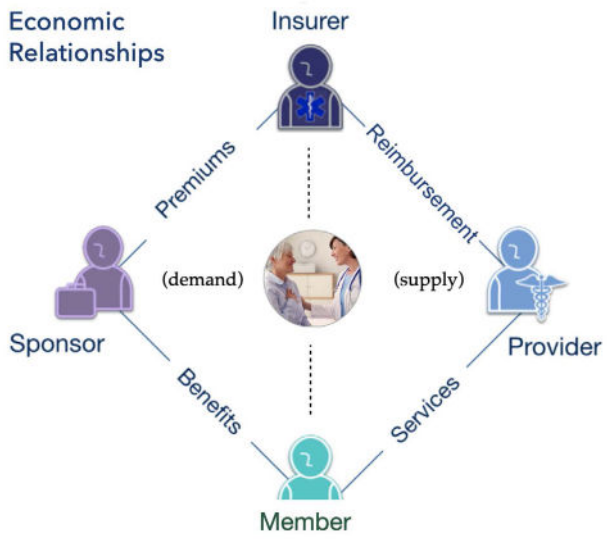
Systemic health care inflation is a result of the market's economic structure. Therefore, to correct inflation, one must understand how the market works.

Ernest Ludy provides the clearest explanation of the health insurance market's complex functionality. As he explains it, "Health insurance generally works like this: Sponsors pay premiums to insurers to finance health benefits for members. Members use benefits to consume services from providers. Providers, in turn, bill insurers for costs. Insurers reimburse providers, add administrative fees on top of reimbursements, and bill premiums to sponsors. A four-party system, two supply chains, and a cost-plus business model create the perfect storm for premium inflation."[8] The additional involvement of the sponsor and insurer disintermediates the traditional supply-demand relationship that could otherwise exist between the consumer and the provider. This concept is visualized in Figure 2.

One addition to Ludy's explanation is that members, also known as consumers or beneficiaries, also pay providers out of pocket, in the form of copays, coinsurance, and deductibles. They also, in many cases, pay premiums for insurance in the form of paycheck deductions or as out-of-pocket expenses.

> Changing the four-party system isn't a feasible first step for innovators, but they must address its consequences if they wish to address systemic inflation.

Figure 2. The four-party system of economic relationships in health care



Source: Ernest Ludy, "Insured But Not Protected: Business Model Innovation and Stabilizing Healthcare Premium Inflation for All Americans," Health Management Policy and Innovation, Volume 9, Issue 3, December 2024, www.HMPI.org.

Innovators should take this structure as a given and, therefore, must focus on correcting its consequences. As noted in the introduction, the consequences are as follows: 1) the insurer's cost-plus business model, 2) weak market forces, and 3) no supply chain visibility. Within this environment, specific conditions are required for transformation to occur. And we believe those conditions are best understood through the lens of theory.

Specifically important in health care, regulation plays a key role in enabling or preventing disruption.

CONDITIONS REQUIRED FOR INDUSTRY TRANSFORMATION

Two concepts that drive our optimism for the possibility of health insurance industry transformation are Disruptive Innovation and Business Model Theory. In this section, we provide an overview of each theory before delving into how it specifically applies to health care inflation.

Disruptive Innovation

Disruptive Innovations make products and services more affordable and accessible to more people. They aren't breakthrough technologies that make good products better.

Importantly, disruption is a process that often unfolds over decades. For example, digital photography took years to displace film as the dominant photography medium. Mini mills took decades to disrupt traditional steel mills. Low-cost retailers took decades to displace department stores. And we are still watching the process of Airbnb disrupting the lodging industry, as well as online cognitive behavioral therapy changing the market of mental health care.[9]

The health insurance market is ripe for disruption. Sponsors buying insurance for beneficiaries (i.e., consumers) and the beneficiaries themselves are overserved, meaning they are charged too much for the value they derive from health insurance. As a result, making Optimal Care—the best care at the best cost—more accessible and more affordable at scale has the *potential* to disrupt the status quo and reduce systemic inflation.

However, to succeed, a Disruptive Innovation must consist of three elements: an enabling technology, an innovative business model, and a coherent value network.

- An **enabling technology** is an invention or innovation that makes a product more affordable and accessible to a wider population.
- An **innovative business model** targets nonconsumers or those who are overserved by incumbent offerings.
- A **coherent value network** is a network where suppliers, partners, distributors, and customers are each better off when the disruptive innovation prospers.

Lastly, and specifically important in health care, **regulation** plays a key role in enabling or preventing disruption.[10]

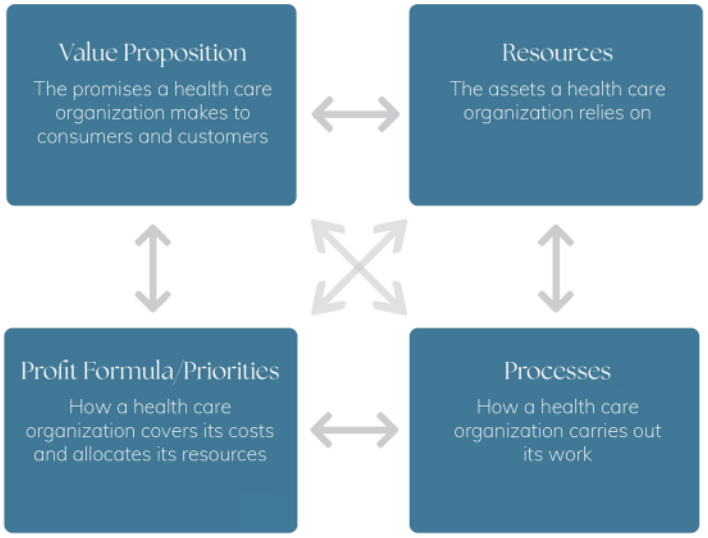
Without exception, innovators hoping to transform the health insurance market through disruption have fallen short of these requirements. We'll explore some examples of these later in the paper.

Business Model Theory

Next, let's quickly review Business Model Theory.[11]

The Christensen Institute's framework (see Figure 3) can help us visualize the concept of a business model clearly. This framework defines a business model as four interlocking elements that, when taken together, create and deliver value: the value proposition, resources, processes, and profit formula/priorities.

Figure 3. The four components of a health care business model



In an organization's early days, all business model components are flexible. To survive infancy, organizations pivot their value propositions and adjust their resources and processes until they identify how to bring in the revenue they need to survive. Once this is determined, business model components become increasingly interdependent and resistant to change, especially in successful organizations. The ways in which the four components reinforce one another make the business model highly interconnected and more challenging to alter the longer it exists.

If a proposed innovation creates friction with established capabilities, it won't gain internal traction. Similarly, if it threatens the existing profit formula, it won't survive.

The way business models solidify over time and become resistant to change poses a challenge in our current health care landscape, where there's been a regulatory push to shift to value-based care, or VBC. As theory explains, legislation and tweaks to the profit formula alone won't create the desired change. Instead, full-scale business model innovation is required because value-based care isn't aligned with established insurer or provider value propositions and profit formulas, nor their solidified capabilities that have led to past success.

It's also important to note that a business model doesn't exist in the ether. While business models determine an organization's capabilities and its priorities, it's critical to understand that a **value network**—the ecosystem of individuals, other organizations, institutions, and regulations a company interfaces with to establish and maintain its model—determines the resources an organization has access to, the rules it must follow, and the permissions it needs to operate. It also includes external entities with varying degrees of power to shape the organization's priorities through resource dependence, regulation, and democratic governance.

For business model change to create transformation, the value network must be an enabling force. For instance, if innovators want to eliminate the problem of unsustainable health care cost inflation, the environment the innovator operates within must enable it to do so with supportive regulations, partners, suppliers, customers, and more.

As Christensen noted in *The Innovator's Prescription*, "The history of disruption speaks powerfully and unambiguously on this topic: in order to succeed, disruptive solutions need to be knit together in a new value network."[12] Therefore, if we seek better value from health care—in the form of affordable, accessible, best care at the best cost; better health; and improved financial solvency—innovators and entrepreneurs must create new business models and the commercial ecosystem to surround them. With their established, successful business models and extensive market share, incumbent commercial insurers are not incentivized to do this themselves.

With the passing of the Affordable Care Act in 2010, insurance companies were required to pay out at least 80–85% of premium revenues for medical care. This is known as the Medical Loss Ratio or MLR. Understanding it is critical for anyone innovating a business model in the health insurance industry.

If the MLR is unmet, insurers incur a penalty and must issue rebates to plan enrollees. The equation is shown below.

MLR = (Total medical spend + Total quality improvement spend) / Total premium

For the purposes of the MLR calculation, "medical care" consists of clinical services and quality improvement efforts.[13] Since the MLR must be 80–85%, insurers are incented to spend more, up to a certain point, on medical care and quality improvement. Critically, this creates a disincentive for insurers to reduce the cost of care or to limit the risk of poor or substandard care. That is because they gain no financial benefit if they do so.

For the purposes of this report, we accept the regulation as a given, and therefore, our business model recommendations take it into consideration. Even with the MLR, industry transformation is possible. The regulation is simply a constraint that innovators must acknowledge and consider as they develop new business models to bring about change.[14]

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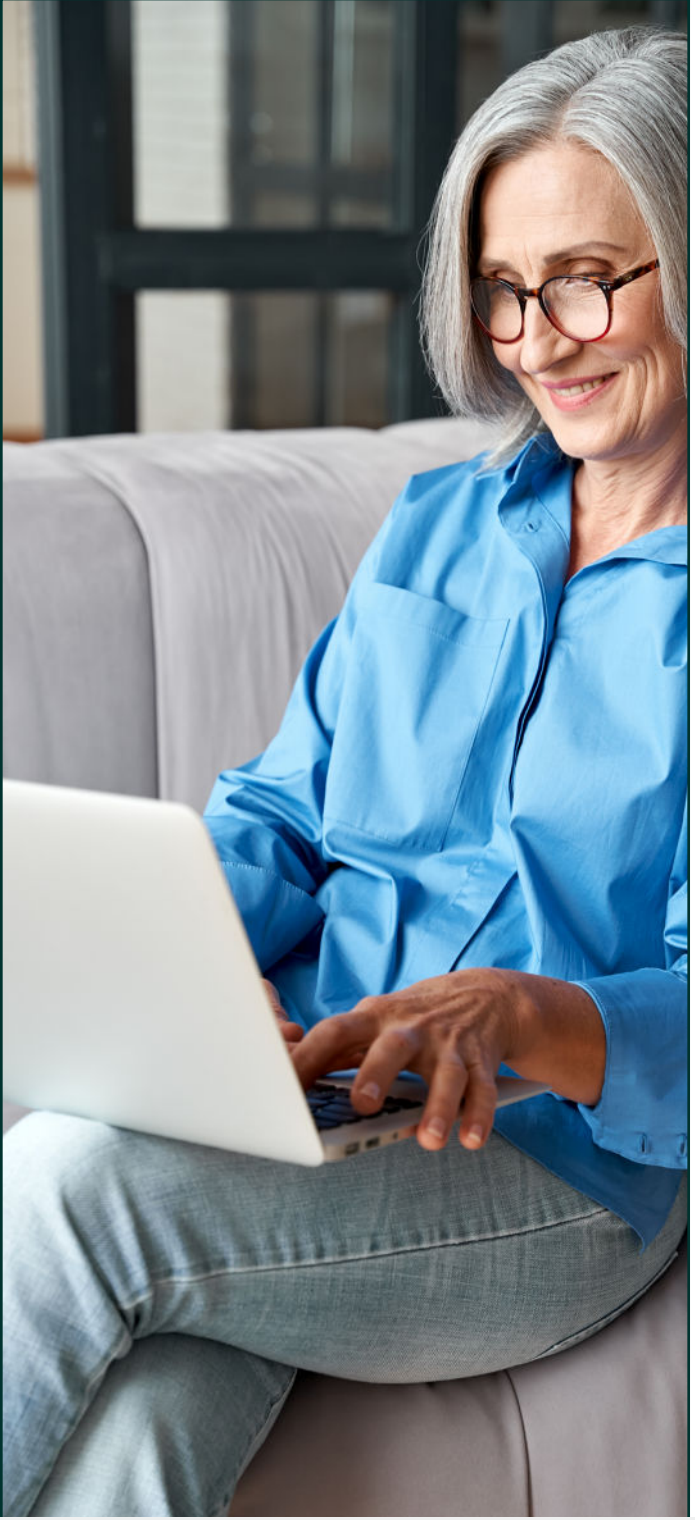


WHY PRIOR BUSINESS MODEL INNOVATIONS DIDN'T TRANSFORM THE INDUSTRY

Over the past few decades, many innovators have attempted to disrupt insured health care. Given that the majority of customers in the market are overserved, meaning they pay too much for the value they receive from health insurance, the market is ripe for disruption. Yet no innovator has successfully unseated the incumbents at scale.

In this section, we cover two of these attempts: the "insurtechs" that came to market in the 2010s, and Medstat, the early mover in health intelligence platforms mentioned in the introduction. We analyze why theory explains their outcomes and predicts what can succeed in the future.

Insurtechs

The 2010s saw many new insurance innovators emerge, specifically targeting the Medicare Advantage (MA) business. These included Oscar Health, Clover Health, Bright Health, Alignment Health, and others typically referred to as "insurtechs."[15] These organizations had similar business models in that they all leveraged technology to create efficiency gains and improve the customer experience. Technological innovations allowed these entities to streamline insurance processes, enhance the end-user experience, theoretically improve risk assessments, and reduce prices. However, they haven't disrupted the market. This can be explained by both market forces and theory.

Looking at market forces, insurance innovators are faced with a number of challenges:

1. Their profits are capped, and the pathway to achieving those profits is constrained by MLR.
2. They need size and scale to succeed in provider negotiations and to pool risk.
3. There are immense capital requirements to enter the market.
4. A deep understanding of risk estimation and adjustment is required to succeed.
5. The public doesn't think highly of insurers.[16]

Despite these factors, going after MA was a good strategy from a growth perspective, given the

total addressable market. Baby boomers were retiring at the highest rates yet, and the market for MA plans was booming. Many of these companies went public in 2021 at the height of digital health investments, and some would argue they failed because there was simply too much venture capital funding going after too few sound business models.[17]

The Theory of Disruptive Innovation explains that one key reason insurtechs failed to disrupt incumbents was the fact that they went after MA customers. MA plans were a significant source of growth for incumbents such as United and Humana.[18] Customers that create high margins are often considered the "best customers," so theory predicts that incumbents will fight back to retain them. When innovators go after incumbents' best customers, they usually enter a sustaining innovation fight, and in these situations, incumbents almost always win.

Additionally, innovators need scale from the beginning if they want to succeed in health insurance. Insurtechs and other innovators struggle to enter the market with scale.

One recent exception to insurtechs' lack of viability is Oscar. In Q1 of 2024, it reported profitability for the first time.[19] While this isn't proof that Oscar has a sustainable business model, it's a sign that the company might be on a sustainable path. One key driver of this profitability is its growth in the ACA marketplace (where it sells individual and small group plans). Other drivers include the high interest rate environment, which won't always remain the same, and its exit from Medicare Advantage and unprofitable markets.[20]

Time will tell if Oscar can create a viable model, but theory would support that its shift toward individuals and small businesses—and away from MA—was wise. Individuals and small businesses are not incumbents' best customers, and therefore, incumbents are unlikely to respond, at least at first.

Medstat

To Ludy's knowledge, Medstat was the earliest initiative to empower employer sponsors and governments to buy truly high-value care.[21] As mentioned above, Ludy formulated a new "Optimal Care" paradigm for addressing health care inflation and shaped the company's business-to-business strategy to help customers stabilize health benefit expenses and insurance premiums. By building and constantly improving its health intelligence enterprise, Medstat helped employers identify, manage, and reduce the costs of health care, while improving care quality for beneficiaries. Contrary to the incumbent insurers' approach to estimating risk and pricing it into premiums, Medstat's intelligence approach, which was based on multiple data sources and is detailed later, enabled interventions to reduce the risk of poor and suboptimal care. This required a detailed understanding of individuals' social factors, the probability of suboptimal clinical encounters, and system factors such as insurance coverage and reimbursement.

Innovators need scale from the beginning if they want to succeed in health insurance. Insurtechs and other innovators struggle to enter the market with scale.

Contrary to insurtechs, Medstat focused on offering a value proposition to large, self-insured employer sponsors. Specifically, Medstat promised that it could cut an employer's health insurance cost projections in half.[22] So, if costs were projected to increase by 12%, it would promise only a 6% increase.

Medstat's first customer was Chevron. Ford Motor Company, Sears, General Electric, Marriott, and UPS soon followed. A few years later, Medstat also contracted with states to support state employee plans and Medicaid, ultimately signing 25 states as customers.[23] Its appeal to large customers didn't diminish over time and remained strong into the early 2000s—even after a sale to Thomson-Reuters—when it signed Walmart as a customer.[24]

In addition to impressive revenue growth, Medstat delivered effectively on its value proposition. As a point of comparison, the 5-year average annual growth rate (AAGR) of Medicare and Medicaid expenditures was 6.9% between 2005–2010, and for around 2,800 employers, it was 6.2% over the same time period.[25] Conversely, for Medstat customers, the 5-year AAGR was 4.7% for its entire book of business and 0.6% for the best-performing employers in the book.[26]

From a disruption perspective, Medstat went after insurers' other best customers: large employers. Just as incumbents were incentivized to fight back against insurtechs that went after the MA market, they had a similar incentive to ensure Medstat didn't take too many of their large employer customers.

When we assess the three requirements for a successful Disruptive Innovation, Medstat had the technological enabler and the innovative business model but not a new value network. Effectively, it didn't achieve the scale required for industry change.

In health insurance, you can't succeed without scale. Large risk pools allow incumbents to spread risk across large populations, maximizing margins within the confines of the MLR. Therefore, the only disruptive play (i.e., entering at the low end of the market because the nonconsumption market is too small) would be an innovation that enables innovators to make profits without initial scale.

However, due to the ACA's regulation around essential benefits, entering at the low end is extremely challenging. That's a result of the legal requirements to cover ten benefit categories when offering a health insurance product, regardless of customer demand.[27] This regulation limits innovators from entering the market with a product that has a lower-cost business model or one that is "not as good as" incumbent offerings.

Given insurance dynamics, it's unlikely that an innovator could effectively compete without scale. Adding that to the regulatory environment where lesser offerings are effectively illegal, disruption is unlikely.

So, if true disruption is unlikely in the current insurance market, how can transformation to reduce inflation and create more affordable, accessible insurance occur? The answer lies in business model innovation and a new value network with immediate scale.

Innovators seeking to transform the industry can learn from Medstat's business model approach:

- First, Medstat focused on a value proposition that large employers and government sponsors desired. As these entities had (and have) the most buyer power in the market, they could provide enough revenue to support a sustainable profit formula.
- Additionally, Medstat established new capabilities (i.e., resources and processes) that were critical for supporting the value proposition of the best care at the best cost. Incumbents' capabilities aren't set up to deliver this value to the market.

Next, we dig into the specific business model components innovators should seek to emulate and what they should adjust to drive industry transformation. In short, innovators inspired to reverse health insurance inflation should build a "Medstat at scale" supported by a new value network.

CATALYZING TRANSFORMATION IN HEALTH INSURANCE

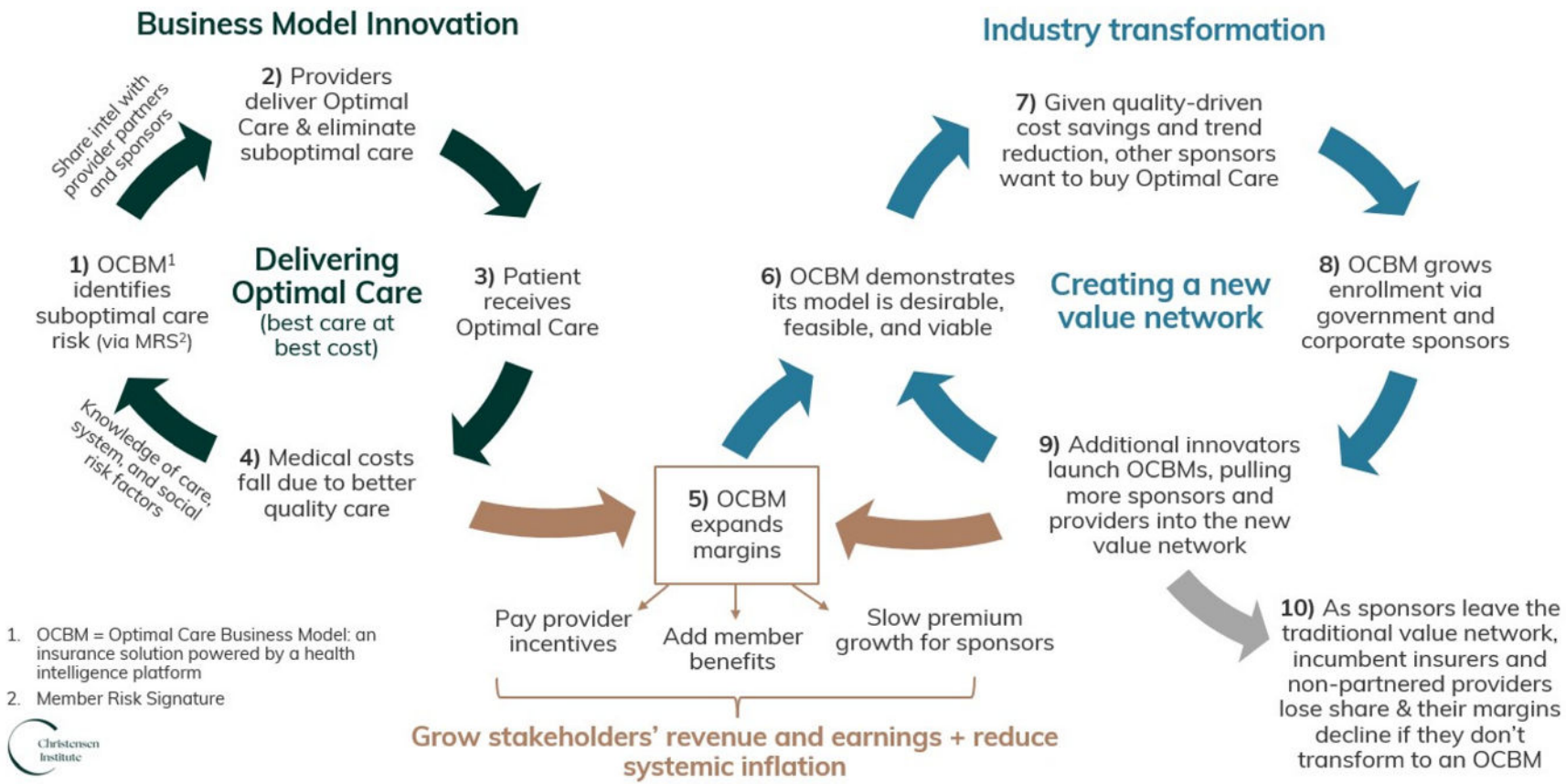
To transform health insurance, we call on innovators to build an Optimal Care business model: a health insurance solution powered by a health intelligence platform. The ideal starting point for such a model is through, or in collaboration with, the government, which we detail below in the go-to-market strategies. That said, lobbyists and entrenched interests will push back on such an effort, but the government has the scale required to transform the industry. Private market solutions, such as large employers or investor-backed entrepreneurs, are possible, but given the scale needed for enduring success, tremendous financing and strategic patience for growth would be required.

The Optimal Care business model

An Optimal Care business model is designed to drive the best care at the best cost for each insured member it serves. Through key capabilities, innovators can identify and mitigate the risk of suboptimal care. Risk mitigation results in quality-driven cost reduction and lowering unnecessary underwriting losses due to suboptimal care. This drives revenue, margin, and market share growth. With new margin growth, innovators can reduce premium increases for sponsors, add benefits for members, and fund provider incentives. This process reverses the inflationary flywheel of conventional insurance, creating a new flywheel for premium stabilization and, ultimately, industry transformation (see Figure 4).

Business model innovation can seed transformation. But innovative business models need a new value network to scale. Without scale, the industry can't transform. As noted above, as the largest payer, the US government has the power to create this new value network and, therefore, is an ideal leader to implement Optimal Care.

Figure 4. Transforming the industry through Optimal Care



As visualized in Figure 4, establishing an Optimal Care business model (OCBM) is the first step in the industry transformation process. To start the flywheel, Optimal Care (OC) innovators use their new business model capabilities to identify the risk of suboptimal care. They do this through a key resource known as the Member Risk Signature or MRS (described in more detail later), and they share this intelligence with provider partners and sponsors, as appropriate. With better intelligence, providers can eliminate poor and suboptimal care, the key driver of unnecessary costs. Consumers then receive better care, and medical costs fall due to quality-driven improvement. Importantly, costs aren't lower because of constrained access.

These lower care costs then create expanded margins in the form of a quality dividend. But, due to the MLR regulation, margins can only grow so much before a business incurs penalties. The OC innovator thus uses the margin growth above the MLR cap to pay out the quality dividend to other stakeholders in the four-party system:

- Provider partners receive incentives for providing OC.
- Members receive added benefits through lower copays, deductibles, out-of-pocket maximums, or premium contributions.
- Sponsors enjoy lower increases or stabilized premiums.

In this new profit formula, innovators avoid a penalty and instead use the quality dividend to benefit and incentivize other stakeholders in the value network. This reinforces the innovators' ability to deliver on the OC value proposition.

To develop this business model innovation, innovators must understand how the OC model juxtaposes with the incumbent's cost-plus business model. Figure 5 summarizes this.

Figure 5. Comparison of cost-plus and Optimal Care business models

Business Model Component	Cost-Plus Business Model	Optimal Care Business Model
Value Proposition	Good enough care at high and rising costs.	The best care at the best cost, every time.
Resources	• Leaders incentivized to maximize margins. • Enterprise data/ transaction platforms.	• Leaders with mastery of four-party system economics. • Enterprise intelligence platform. • Actuarial engineering AI-assistants.
Processes	• Risk estimation without attempts to change it. • Limited data sharing resulting in no supply chain visibility.	• Actuarial engineering that leverages intelligence platforms. • Transparent intelligence sharing to create supply chain visibility.
Profit Formula	• Limited profit sharing with providers participating in value-based care contracts. • Traditional fee-for-service model that creates inflation.	Quality dividend from the elimination of poor care paid to 1) providers, 2) sponsors through lower premiums, and 3) members through reduced copays, deductibles, etc.

Four new capabilities required for Optimal Care models[28]

Now, let's examine the unique resources and processes innovators must develop if they seek to deliver an Optimal Care value proposition. These include three capabilities developed by Medstat, as well as a fourth now possible in today's environment:

1. Mastering economics of the four-party system
2. Establishing an actuarial engineering process to formulate MRS
3. Leveraging intelligence technology
4. Utilizing actuarial engineering AI-assistants

1. Mastering economics of the four-party system: Innovators must master the complex, four-party economic system and the relationships within the system. Understanding how the market dynamics create unintended consequences and drive excess inflation is fundamental for designing new business models to resolve it. Innovators must understand the system's complexities and its consequences, including the insurer's cost-plus business model and regulatory constraints, weak market forces, and lack of supply chain visibility.

2. Establishing an actuarial engineering process to formulate MRS: Since rising costs are driven by the risk of poor and suboptimal care, innovators must seek to identify and eliminate that risk, not just price the risk into their products as incumbents do today. The pathway to eliminating poor care is through a new concept known as actuarial engineering. This is the foundation for the OCBM.

So, what is actuarial engineering? In my discussions with Ludy, I wanted to call it "risk engineering." However, that doesn't quite capture the required skill set. Ludy characterized the concept as combining two professional mindsets into one paradigm to solve premium inflation.

First, he explained that industrial engineers reduce costs in product manufacturing by improving quality. They improve systems, processes, and supply chains to eliminate defects. The result is avoiding the unnecessary costs of do-over and scrap work. Then, Ludy continued, in estimating the cost of underwriting losses, actuaries reduce costs by reducing risk. By eliminating avoidable risk, one can avoid the costs of unnecessary underwriting losses.

So, improving quality by improving systems, processes, and supply chains reduces the risk of poor care and avoids the costs of unnecessary underwriting losses. The result is reduced premiums.

With an actuarial engineering mindset, one can seek to understand the structure of patient risks that drive suboptimal care. With knowledge of risk drivers, innovators empower providers to intervene to reduce those risks, thus reducing costs through quality improvement.

Ludy's actuarial engineering practice follows a four-step process for eliminating suboptimal care. The steps include the following:

1. Model and measure the three types of member risk
    - Care risk (What happened?)
    - Social risk (Who are you?)
    - System risk (Why did it happen?)

2. Target high-impact cohorts
3. Determine system and social risk drivers
4. Design and test mitigation strategies

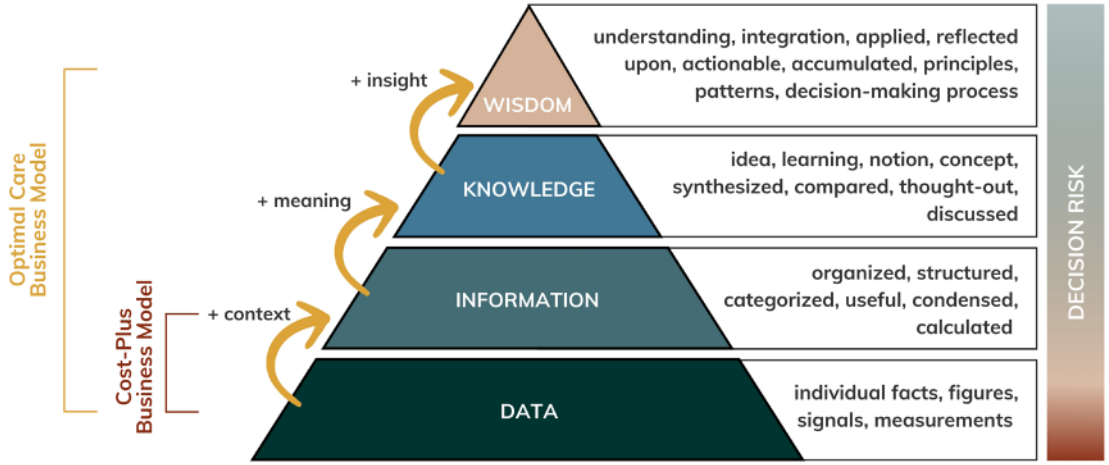
One critical output of Step 1 in this process is the MRS, which estimates an individual member's risk for suboptimal care. It's created based on the three tiers of risk in Step 1. The likelihood of care encounters being suboptimal (i.e., they result in excess cost, high error rates, or poor outcomes) depends on system risk drivers of insurance coverage, reimbursement, care delivery, and the individual's health. This all occurs in a social context that includes drivers of health such as socioeconomic, demographic, and geographic factors.[29]

3. Leveraging intelligence technology: To create a foundation of actuarial engineering, innovators must establish an enterprise intelligence platform and a process to leverage it. Leveraging intelligence technology is a fundamentally different approach from today's incumbents, whose cost-plus business models are built to leverage transaction platforms, not intelligence platforms. Transaction platforms are optimized to process and pay claims, which are central to the incumbent model. Intelligence platforms enable the measurement, analysis, and elimination of suboptimal care risk.

Incumbent insurers don't eliminate risk. They price it into premiums. They take data and turn it into information, but they stop there. Conversely, OCBMs leverage enterprise intelligence—through actuarial engineering—to sense, interpret, and control risk. They not only transform data into information but then information into knowledge and knowledge into wisdom, as displayed in Figure 6 on the following page.

Leveraging intelligence technology is a fundamentally different approach from today's incumbents, whose cost-plus business models are built to leverage transaction platforms, not intelligence platforms.

Figure 6. The data, information, knowledge, wisdom pyramid



Note: This pyramid, which is available by Creative Commons license, has been used across many sectors. Here we have added cost-plus and Optimal Care to illustrate the differences between these business models. https://www.researchgate.net/figure/The-data-information-knowledge-wisdom-DIKW-hierarchy-as-a-pyramid-to-manage-knowledge_fig6_332400827.

Intelligence is created through cycles that enable measurement, analysis, and execution to mitigate risk. An intelligence cycle answers five questions:

- What's going on?
- What does it mean?
- What should be done?
- Was it done well?
- Did it work?

Recurring cycles *refine* the intelligence, improving performance and eliminating risk.

Intelligence platforms, together with actuarial engineering, provide a pathway for supply chain transparency. As noted above, this is lacking in the current health insurance system. That's because today's system stakeholders can't see the processes and defects driving high and rising costs—and you can't fix what you can't see. To correct this, innovators must create and leverage intelligence platforms and actuarial engineering processes as key capabilities within their new business models. Doing so allows them to share intelligence, create supply chain visibility, and achieve quality-driven cost reduction and margin creation.

4. Utilizing actuarial engineering AI-assistants: Intelligence systems enable innovators to leverage AI to enhance their actuarial engineering capabilities. While AI technology wasn't good enough to perform this function at the time of Medstat's existence, today, it's feasible and could increase business model viability. Leveraging an AI assistant to perform much of the actuarial engineering process would also lower costs and reduce the need for data scientists.

Business model innovation is only the first step in industry transformation, so now we'll discuss creating the second flywheel in Figure 4.

POTENTIAL PATHWAYS TO TRANSFORMATION

Health insurance innovators require scale to succeed, and system transformation is required to correct systemic cost inflation. This section outlines potential pathways to achieve these outcomes.

Go-to-market strategies

Once innovators have established a new business model concept, the next requirement is a go-to-market strategy for testing, iterating, and scaling it. As a result, we propose that innovation may be most effective if it starts within or in partnership with the government. This could occur with the Centers for Medicare and Medicaid Services (CMS) or a state government. However, the government isn't the only possible starting point. Innovation could also begin with the private sector. Below, we detail how each of these strategies could play out in the market.

CMS is a compelling starting point for Optimal Care because CMS has the strongest scale advantage in the market and, therefore, the scale required to create a new value network and drive industry transformation. CMS serves an estimated 154 million members, or 46% of the US population, giving it massive purchasing power to create scaled change and drive value.[30] It also has a budgetary incentive to reduce the cost of poor and suboptimal care. Additionally, given providers' reliance on CMS reimbursement, CMS is the most powerful entity that can spur providers to align with an OC approach.

Innovation is not a new concept for CMS. In fact, the Center for Medicare and Medicaid Innovation (CMMI) develops innovative care and payment models regularly.[31] The key difference in what we suggest here versus what occurs today is that we suggest innovators within or working with CMS take the lead to build the Optimal Care business model, as opposed to CMS simply reimbursing providers differently based on alignment with one of its proposed care model innovations. Of note, and as discussed in prior work, if the innovation is built within an incumbent organization, leaders must create an autonomous business unit to develop, launch, and scale the innovation.[32] It can't be embedded within the existing business model.

With this proposed strategy, innovators and entrepreneurs looking to build a new business model would align with CMS as the first buyer for Optimal Care. If built from within CMS, it would be its

A government-sponsored employer plan could be a compelling spot to launch the Optimal Care Business Model.

own first customer. As CMMI does today, CMS would partner with providers. In this case, it would identify those looking to provide the best care at the best cost to eliminate the risk of poor and suboptimal care and its associated consequences. This would result in the flywheel described on the left-hand side of Figure 4.

Of critical importance, Optimal Care requires provider partners to shift their business models as well. Changing their profit formula alone is not enough to create different outcomes, which we've seen with value-based care's failure to improve health outcomes at scale. Instead, a new value proposition and profit formula within the provider business model also requires a shift in provider capabilities. Without resources and processes to support it, providers can't sustainably deliver on the new value proposition of Optimal Care.[33] Therefore, to seed industry transformation, OC innovators must provide adequate time and support for providers' business model evolution to occur as well.

Given CMS's size, it may not move quickly. As a result, a second option to bring the OCBM to market is together with, or from within, a state government. A government-sponsored employer plan could be a compelling spot to launch the OCBM model for a few reasons. First, given near-term budgetary responsibility, state governments are incentivized to reduce their health plan costs. Near-term cost savings are critical in these environments. Second, a large state health plan would have enough scale to prove viability in the market. Third, state governments can often move faster than federal entities.

If a state government were to launch the OCBM, it could prove the viability of the model and succeed at the left-hand side of Figure 4. However, CMS would ultimately need to adopt the OC approach to create the new value network and transform the industry. One state on its own doesn't have the scale required to achieve those outcomes.

While it's likely to be effective for the reasons outlined above, government-led innovation is not the only option. As noted in *The Innovator's Prescription*, Christensen also proposed that large employers could unite to spur industry transformation. In 2018, Amazon, Berkshire Hathaway, and JPMorgan Chase came together to do just that with Haven, their cofounded venture. Unfortunately, due to insufficient market power and the market's complex four-party system, they didn't succeed.[34]

It's possible that other large employers could align and launch an OCBM to tackle systemic health care inflation. However, given that inflation reduction isn't mission-critical to their businesses, it would be a much larger business model innovation to undertake. Additionally, it's unclear which existing capabilities they would leverage to succeed at scale or how they would overcome the issue Haven faced in terms of insufficient market power. Even if they aren't the ones to bring an OCBM to market, large corporate and government sponsors are ideal early adopters to fuel growth.

Lastly, it's possible that an OCBM innovator could partner with a group of aligned self-insured employers. This would be similar to Medstat's approach but with greater alignment between employer customers. Similarly to aligned employers launching this business model innovation themselves, it's unclear how this strategy would achieve enough scale to transform the industry. Additionally, it would require extensive capital, strategic commitment, and extreme patience for growth.

In terms of market power, the federal government is well suited to bring an OCBM to market given its size, sway with providers, and role as the largest payer in the nation.

Therefore, a government-led, quality-first business model may be the most viable strategy to challenge today's cost-plus models because the government has the power to create immediate scale as well as a new value network. And as noted above, transforming the health insurance industry requires both of these factors. Additionally, from a value perspective, public funding is better spent on Optimal Care as opposed to poor and suboptimal care.

A new value network

Once innovators prove that an Optimal Care approach is desirable, feasible, and viable (Step 6 of Figure 4), sponsors will want to buy Optimal Care. This occurs when they see that the OCBM approach creates quality-driven cost savings and trend reduction (Step 7). When additional sponsors desire Optimal Care, OC innovators grow enrollment, which attracts more innovators to the market, who can then pull more sponsors and providers into the new value network. To continue to drive scale and attract more stakeholders to the new value network, innovators should target large corporate and government sponsors, similar to Medstat's approach (Steps 8 and 9).

As sponsors leave the traditional value network, incumbent insurers and providers not interested in providing Optimal Care lose market share, and their margins decline (Step 10).

However, as more and more stakeholders enter the new value network (and leave the incumbent network), the quality dividends from multiple OCBMs compound to grow provider, sponsor, and member earnings. The results are a reduction in systemic health insurance cost inflation and better health outcomes.

RECOMMENDATIONS FOR CHANGE-MAKERS

Given the uniquely complex health insurance market's four-party economic system, a nontraditional approach to transformation is required. Throughout this paper, we articulated how this process can play out. Below, we summarize our recommendations for innovators and government officials.

Recommendations for Innovators

1. To solve the problem of systemic health care inflation, entrepreneurs must innovate the health insurance business model. An Optimal Care business model shows the most promise in achieving this goal. This innovation should incorporate Medstat's Optimal Care value proposition and the key capabilities outlined earlier.
2. The profit formula in this new business model hinges on the concept of a quality dividend, which results when the poor and suboptimal care risk is identified and eliminated. This creates person-centered, quality-driven margin growth. Given the MLR constraint, this quality dividend should be paid out to other stakeholders in the market: incentives to providers, added benefits to members, and lower premiums for sponsors.
3. Providers are critical to an OCBM's success. Therefore, innovators must support provider partners in altering their business models as well. Old business models can't effectively deliver new value propositions (i.e., don't make the value-based care mistake).
4. Knowing scale is required for health insurance market transformation, innovators must bring this model to market from within, or in partnership with, a scaled entity or entities.
5. After proving the model, innovators should target additional customers (e.g., self-insured employer sponsors and government sponsors) to grow market share and scale.
6. As they do, more and more stakeholders will exit the incumbent value network and enter the new one characterized by Optimal Care.
7. Alternatively, innovators and entrepreneurs can attempt disruption through a more traditional avenue if they find a way to solve the initial scale problem. Market conditions make this unlikely, though perhaps not impossible.

Calls to Action for Federal Government

1. As Christensen noted in *The Innovator's Prescription*, the federal government has the power to catalyze change at scale in this complex system. The onus rests on its shoulders.
2. In partnership with innovators or through an autonomous business unit, the government can bring Optimal Care to market to reduce systemic inflation and stabilize premiums.
3. With the budgetary incentives to reduce costs and provide higher-value care, coupled with being the largest payer in the nation, this opportunity can't be ignored.

Knowing scale is required for health insurance market transformation, innovators must bring this model to market from within, or in partnership with, a scaled entity or entities.

CONCLUSION

US health insurance offers the worst value proposition in today's economy: poor quality care that perpetuates high and rising insurance premiums and bankrupts the country. This doesn't have to be the status quo.

Yet, attempts at disruption have failed. That's because, in the health insurance market, innovators can't succeed without scale. Therefore, we must focus on transforming the market through business model innovation and a new value network that has immediate scale. In the US, government insurers are the stakeholders with the largest scale advantage and ability to create this new value network. Therefore, we urge the government to adopt a new Optimal Care approach to eliminate systemic cost inflation. They have the power to pull stakeholders into a new value network defined by the best care at the best cost every time.

With an Optimal Care, intelligence-driven, risk-elimination approach driven by the government, there can also be a near-term pathway for sponsors to walk away from insurers who refuse to eliminate risk. The result can be industry transformation and, ultimately, zero-inflation health care at scale. Optimal Care business models can successfully challenge the incumbent cost-plus business model if innovators and government come together to make it happen.

But the clock on our national solvency is ticking. So, it's time to get started now.

Optimal Care business models can successfully challenge the incumbent cost-plus business model if innovators and government come together to make it happen.

NOTES

1. "U.S. National Health Expenditure as Percent of GDP from 1960 to 2022," Statista, December 2023, https://www.statista.com/statistics/184968/us-health-expenditure-as-percent-of-gdp-since-1960/.
2. Brent C. James and Gregory Poulsen, "The Case for Capitation," *Harvard Business Review*, July-August 2016, https://hbr.org/2016/07/the-case-for-capitation.
3. "Updated Health Spending Explorer Features the Latest National Data on How Much People Spend and Who Pays the Bills," KFF, December 15, 2023, https://www.kff.org/health-costs/press-release/updated-health-spending-explorer-features-the-latest-national-data-on-how-much-people-spend-and-who-pays-the-bills/.
4. Melanie Evans and Josh Ulick, "Healthcare Premiums Are Soaring Even as Inflation Eases, in Charts," The Wall Street Journal, October 9, 2024, https://www.wsj.com/health/healthcare/health-insurance-inflation-charts-612812ed.
5. Throughout this paper we use the term "inflation" frequently. We are referring to health care cost inflation, not economic inflation broadly.
6. For a deeper dive on this root cause and the associated consequences, we recommend reading Ernest Ludy, "Insured But Not Protected:
Business Model Innovation and Stabilizing Healthcare Premium Inflation for All Americans," Health Management Policy and Innovation, Volume 9, Issue 3, December 2024, www.HMPI.org.
7. Clayton Christensen, *The Innovator's Prescription: A Disruptive Solution for Health Care* (New York: McGraw Hill, 2016), p. 401.
8. See Ludy, "Insured But Not Protected."
9. For another example of how to determine which innovations are disruptive, see the author's recent blog about why Ozempic is not disruptive: Ann Somers Hogg, "Why Ozempic Is Not Disruptive," Clayton Christensen Institute, July 23, 2024, https://www.christenseninstitute.org/blog/why-ozempic-is-not-disruptive/.
10. Christensen, *The Innovator's Prescription*, p. xx.
11. For more details, a theory overview can be found in prior reports by the author. See Ann Somers Hogg, "You Are What You Treat: Transforming the Health Care Business Model so Companies—and People—Thrive," Clayton Christensen Institute, May 24, 2022, https://www.christenseninstitute.org/publication/doh-business-models/; and Hogg, "What Are Business Models and How Do They Work in Health Care?," Clayton Christensen Institute, May 17, 2022, https://www.christenseninstitute.org/blog/what-are-business-models-health-care/.
12. Christensen, *The Innovator's Prescription*, p. xxix.
13. "Medical Loss Ratio," Centers for Medicare & Medicaid Services, modified September 6, 2023, https://www.cms.gov/marketplace/private-health-insurance/medical-loss-ratio.
14. For an in-depth analysis on the MLR and its impact on innovation, see Ann Somers Hogg, "Is the Medical Loss Ratio an Innovation Friend or Foe?," Clayton Christensen Institute, August 20, 2024, https://www.christenseninstitute.org/blog/is-the-medical-loss-ratio-an-innovation-friend-or-foe/.
15. For more detail on these models, see Blake Madden, "Insurtechs vs Incumbents: Why Bright, Oscar, and Clover Struggle to Compete with the Health Insurance Titans," *Hospitalogy*, October 13, 2022, https://hospitalogy.com/articles/2022-10-13/insurtechs-vs-incumbents-why-bright-oscar-clover-struggle/ .
16. Madden, "Insurtechs vs Incumbents."
17. See Frank Diamond, "What State Regulators Can Learn from Bright Health's Financial Woes," Fierce Healthcare, May 3, 2023, https://www.fiercehealthcare.com/payers/lessons-insurance-industry-and-venture-capitalists-need-learn-light-bright-health-fiasco. Though the author doesn't include it in his explanation, there could be a role for the Theory of Good Money and Bad Money here. To read more on this topic, see this analysis: Ann Somers Hogg, "Is Venture Capital Bad for Health Care?," Clayton Christensen Institute, February 2, 2023, https://www.christenseninstitute.org/blog/is-venture-capital-bad-for-health-care/
18. Richard G. Frank and Conrad Milhaupt, "Profits, Medical Loss Ratios, and the Ownership Structure of Medicare Advantage Plans," Brookings, July 13, 2022, https://www.brookings.edu/articles/profits-medical-loss-ratios-and-the-ownership-structure-of-medicare-advantage-plans/.
19. Oscar Health Inc., "Oscar Health Announces Results for First Quarter 2024," press release, May 7, 2024, https://ir.hioscar.com/news-events-presentations/news-press-releases/news-details/2024/Oscar-Health-Announces-Results-for-First-Quarter-2024/default.aspx.
20. Blake Madden, "Oscar's Pirate Ship: How the Insurtech Is Reinventing

Itself in 2024," *Hospitalogy*, February 8, 2024, https://hospitalogy.com/articles/2024-02-08/oscar-health-pirate-ship-reinventing-insurtech-2024/.
21. Ernest Ludy, in conversation with the author, April 2023.
22. Andrew Dietderich, "Medstat Makes Money by Helping Companies Save," *Business Insurance*, February 29, 2004, https://www.businessinsurance.com/article/20040229/ISSUE01/100014200/medstat-makes-money-by-helping-companies-save.
23. Ernest Ludy, in conversation with the author, August 2023.
24. Dietderich, "Medstat Makes Money."
25. As presented by the Medstat unit of Thomson Reuters in 2011. The original data was compiled from Thomson Reuters Healthcare, 2011; 2010 Mercer National Survey of Employers; U.S. Centers for Medicare and Medicaid, 2011.
26. Medstat unit, 2011.
27. "Information on Essential Health Benefits (EHB) Benchmark Plans," Centers for Medicare & Medicaid Services, modified June 26, 2024, https://www.cms.gov/marketplace/resources/data/essential-health-benefits.
28. You can read more details about this and the other business model capabilities outlined in this section in Ludy, "Insured But Not Protected."
29. For more detail on the MRS, see Ludy, "Insured But Not Protected."
30. Calculation based on enrollment and population data from 2023 per "U.S. and World Population Clock," U.S. Census Bureau, https://www.census.gov/popclock/; "Financial Report FY 2023," Centers for Medicare & Medicaid Services, November 2023, https://www.cms.gov/files/document/cms-financial-report-fiscal-year-2023.pdf; and "New State by State Analysis on Impact of CMS Strategies for States to Protect Children and Youth Medicaid and CHIP Enrollment," U.S. Department of Health and Human Servies," December 18, 2023, https://www.hhs.gov/about/news/2023/12/18/new-state-by-state-analysis-on-impact-cms-strategies-for-states-protect-children-youth-medicaid-chip-enrollment.html.
31. "Innovation Models," Centers for Medicare & Medicaid Services, modified June 11, 2024, https://www.cms.gov/priorities/innovation/models#views=models.
32. Ann Somers Hogg, "Improve or Transform: Choosing the Right Business Model to Deliver Health," Clayton Christensen Institute, November 1, 2022, https://www.christenseninstitute.org/publications/doh-improve-transform/.
33. For more details on the concept of provider business model innovation, and the various strategies and approaches for it, see Hogg, "Improve or Transform."
34. John S. Toussaint, "Why Haven Healthcare Failed," *Harvard Business Review*, January 6, 2021, https://hbr.org/2021/01/why-haven-healthcare-failed.

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