

# NAVIGATING CARDIOVASCULAR CARE DURING AN ECONOMIC DOWNTURN



Many healthcare systems are already struggling, but they will soon face unprecedented challenges. Healthcare leaders say they believe a significant downturn in the national economy is on the horizon and worry that their hospitals are not prepared to deal with its effects (i). By 2025, the United States could see a deficit of up to 450,000 registered nurses available for direct patient care (ii), and the demand for cardiologists will soon exceed availability by a significant margin (iii). These deficits will pose ever greater problems as the patient population ages and comorbidities become more and more complex. Demand for cardiovascular (CV) services is expected to increase by as much as 30% in the next decade, and the total annual costs will soon top one trillion (iv).

Meanwhile, payers are unable or unwilling to adjust for increasing inflation, and equipment and prescription drug costs remain at an all-time high. The end of Covid-19 public health emergency measures in May is poised to severely increase chronic economic pressure (v). Changes to Medicaid re-enrollment could cause up to a 15% drop in covered patients and potentially tens of millions in lost revenue (vi). By the end of the decade insolvency will likely render Medicare unable to pay hospitals in full for covered services (vii).

In other words, the US healthcare system is approaching a breaking point with high costs, fewer resources, and more patients to care for. Hospitals that want to survive this era, and excel afterwards, need to prepare by embracing innovative performance strategies designed to substantially mitigate the toughest problems. Kenneth Kizer, Professor of Medicine at Stanford University and Founding President of the National Quality Forum, recently wrote that the US hospitals need “change that is transformative, not tactical... that comes from within the health care industry by partnership and outside the health care industry by vulnerability, transparency, and willingness to learn (viii).”

## AT A GLANCE

Leading healthcare systems are preparing for challenging economic times by investing in transformative performance improvement strategies within the cardiovascular service line. Healthcare leaders must begin now with programs aimed at optimizing outcomes, increasing efficiency, decreasing variation, and lowering costs.



For over 10 years, Biome has been partnering with ambitious cardiovascular centers who want to maximize clinical, financial, and operational performance across the service line.

Our mission is to provide health systems with leading solutions that enable robust performance improvement projects and optimize value of care .

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It may sound counterintuitive to claim that — with all the difficulties facing hospitals — now is the right time to invest in new performance improvement (PI) strategies. But the evidence suggests that this is exactly what needs to happen if hospitals want to survive. By embracing novel solutions with targeted investments, hospitals stand to realize the kind of change Dr. Kizer is writing about, turning seemingly intractable challenges into real opportunities, alleviating economic pressures while strengthening patient outcomes.

## INVESTING DURING A DOWNTURN

In the past, healthcare systems have been shielded from recessions by long-term contracts and steady demand for services. But this is now changing, in large part because high-deductible insurance plans are moving the industry in a patient-oriented direction (ix). Learning from other industries could be beneficial for hospitals in adapting to the demands of this new era.

A comprehensive study by Harvard Business Review found that recession-proof companies set themselves apart by working to reduce costs through improvements to operational efficiency, while also investing in marketing, research and development, and new assets. Institutions that followed this balanced approach were significantly more likely to survive a serious economic downturn and thrive afterward (x). For example, the 2008 - 2009 “great recession” brought about the failure of many technology startups, but it also allowed companies like Apple and Samsung to prove themselves to customers by increasing the value of their products at a time when most competitors were simply slashing costs (xi).

Leslie Jurecko, Chief Safety Officer at Cleveland Clinic, recently responded to a report on the prevalence of preventable harm: “Today, the consistent and sustained successes achieved by high-reliability organizations [in other industries] have not yet been reached in health care,” she wrote. “How can this be?” (xii) Healthcare is more complex and higher risk than most industries, and yet the same strategies for achieving reliability and financial success still apply.

Following the Harvard Business Reviews findings, hospitals that want to weather downturns, and flourish afterward, should work to reduce costs selectively, mostly through eliminating defects in work processes and decreasing variation, especially in the CV service line where increasing disease prevalence and a high degree of disease complexity mean the potential for high return on investment. Hospitals should invest comprehensively in novel strategies to provide patients with a higher-value “product”—better care at a lower cost.

## THE SOLUTION

Experienced clinical partners allow hospitals to accomplish these goals in CV care. Biome Analytics helps hospitals turn performance improvement into a comprehensive business plan that will reduce costs and drive clinical improvement. In the wake of the 2008 recession, many large companies began to shift toward “value over volume” and declared themselves, “value-driven, not volume-driven” (xiii). For more than a decade, healthcare systems have been in the midst of a similar — though much more incremental — transition.

But now, the stakes are higher than ever before, and the moment requires decisive action. With all the pressures currently bearing down, hospitals must expedite the journey to achieving high value and reliability. Biome expedites the value-transition using data hospitals are already collecting, without putting additional strain on already scarce resources. Biome’s solutions are high impact but low lift for already overburdened IT teams. The effects of this actionable data and root-cause analysis can be far-reaching. For example, a recent study showed that institutions that use data to emphasize value and accountability get significantly better returns on bundled payments, including reduced post-acute care spending, and lower readmissions for both medical and surgical episodes (xiv).

It is important to acknowledge that healthcare today is extremely intricate. Simple solutions are not going to solve the challenges arrayed before us. But there is a clear path forward. Precision insights can drive care decisions and help develop a system that is capable of generating its own novel solutions to the most complex problems in the field. Leading healthcare systems have already moved in this direction. The University of Cleveland recently instituted an ambitious goal of “zero defects in value,” and in just twelve months, with only 25% of the program instituted, reduced the annual per-member-per-year cost by nine percent(xv).

Advanced clinical partners can help hospitals achieve this kind of success and more. Biome uses new artificial intelligence (AI) technology to analyze and synthesize millions of data points to identify and rank the most important areas of focus for service line leaders, helping organizations shift the paradigm, eliminate defects, align incentives, and radically alter the cost equation.

## **Reduce Costs**

Biome’s technology identifies the root causes of inefficiencies and waste and recommends proven strategies to improve these defects, making improvement efforts easier, faster, and more effective. We thoroughly shorten time-to-value, rank initiatives based on projected cost savings and clinical improvement, and bring hospitals a substantial return on their clinical abstraction investment. A regional health system on the East Coast recently partnered with Biome and saved over \$2 million dollars in eight months by making targeted adjustments to cardiothoracic (CT) surgery protocols.

## **Increase Efficiency**

Biome streamlines operations by automating tasks and optimizing resource allocation to reduce wait time, prevent bottlenecks, and improve the patient experience. Working with state-of-the-art technology, our performance improvement team takes care of the arduous work of collating and analyzing abstracted data and researching effective interventions. This frees up key employees to work at the top of their license, allowing hospitals to make the most of hard-to-get clinical expertise. Biome also utilizes Echocardiography AI to quickly identify patients with heart failure and aortic stenosis, which helps improve diagnosis and treatment workflows.

## **Improve Outcomes & Patient Care**

Biome obtains deep insights from patient data and identifies patterns, risk factors, and enables clinicians to make informed decisions and deliver personalized care. Our team of CV experts has real world clinical and analytic experience within leading healthcare institutions. We use precision data to help clinicians identify the most effective treatments, leading to improved outcomes and lower incidence of adverse effects. Working with Biome, a health system on the West Coast recently reduced the aggregate patient length of stay by over eight hundred days, freeing up beds, reducing costs, and ensuring that scarce resources were being most appropriately utilized.

## **IN SUMMARY**

Hospitals that want to weather the coming difficulties must begin now with programs aimed at increasing efficiency, lowering costs, and providing patients with high-value care. Now is the time to shift the cost curve and align around patient safety and high-value care. Cutting edge data handling and automated performance improvement is the bedrock of this critical call to action. Biome is uniquely positioned and experienced to help health systems thrive in an unprecedented challenging environment.

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