

## Scaling Excellence: Improving Health Care Quality Across Communities

Advocate Health is creating a singular system of shared best practices to give patients the best care possible.

## **Executive Summary**

Since its inception in December 2022, Advocate Health is uniting behind a single set of elevated standards, practices and measures, using shared governance and responsibility to implement them across its nearly 70 hospitals and thousands of other care sites. The nation's third-largest nonprofit health care provider is creating systems to steadily improve the quality of the care it provides to patients in its six-state service territory, delivering on a founding pledge to elevate clinical excellence and safety. All of this has resulted in steady quality gains, improved health outcomes and a better experience for patients, regardless of where they live – a 14% drop in hospital mortality, about 18,500 more patients with hypertension or diabetes under control, the ability to better weather disasters like Hurricane Helene and more.

To achieve these results, Advocate Health's clinicians and executives share best practices and potential issues among individual sites and across divisions, quickly implementing improvements and fixes informed by the best research, with Wake Forest University School of Medicine serving as the academic core of the enterprise.

## Introduction

Better quality care in hospitals and clinics means more people can spend more time with their families, loved ones and jobs – leading to fuller, more productive lives. Improvements are being made possible, in part, thanks to changes Advocate Health providers are implementing and sustaining over time.

Between 2023 and 2024, Advocate Health helped enough people get their diabetes or high blood pressure under control that they could nearly fill the Spectrum Center basketball arena in Charlotte, North Carolina. Tens of thousands more people have been armed with the knowledge and tools needed to take control of their own health.

These improvements don't come easily or quickly, but they're tremendously important for a health system with 6 million lives in its care every year. Steady progress requires the strategy, coordination and resources that a large, integrated health system is uniquely able to provide, as well as buy-in from the physicians, nurses and other medical professionals. It also comes in demonstrated contrast to skeptics who claim increasing the size and scale of a health system doesn't lead to quality gains.

Last year, the Kaiser Family Foundation declared the impact health system consolidation has on care quality is "unclear."<sup>1</sup> In 2022, the RAND Corporation wrote "there is an incomplete understanding of consolidation effects on quality of care across a broad set of quality dimensions."<sup>2</sup>

Meanwhile, the American Hospital Association has pointed to a pair of published studies, one of which pointed to improved outcomes in rural hospitals that have been merged or been acquired by larger systems, and another which "found that a full-integration approach is associated with improvements in mortality and readmission rates.<sup>3</sup>

The lack of clarity and competing opinions on how health system scale affects quality can, in part, be a function of the difficulty in measuring and comparing success. What



counts? Certainly, it's important to measure how a hospital performs in preventing infections and other measures compared to national benchmarks, but what about how well a system manages patients' blood pressure outside of a hospital – preventing them from needing more acute and costly care over time.

Different organizations measure quality differently, and the general public can be forgiven for struggling to interpret these competing ratings, rankings, lists and metrics. After all, it's easy to communicate advances in research and new treatments. Those stories often appear in the media alongside photos of smiling patients whose lives were changed or saved by a revolutionary innovation. Those advancements are critically important to getting patients the innovative care they need to survive – and thrive – despite perhaps devastating diagnoses.

Much of quality improvement, though, is an intense, methodical, daily pursuit behind the scenes that may go unnoticed in the high-level health care discourse. Making fewer errors, for example, may ultimately save and change thousands of lives – but without the same headlines. A hard-won 1% improvement in a quality metric at a health system the size of

Advocate Health can mean improved lives for thousands of patients every year.

The tactics needed to net those gains are carried out by thousands of frontline caregivers every day. Describing them could fill volumes, but the improvements the health system is seeing and pursuing can find roots in two key strategies the health system has employed since the 2022 combination of Advocate Aurora Health and Atrium Health created Advocate Health:

- Uniting behind a single, elevated set of evidence-based standards, practices and measures, intensifying teammate engagement and accountability through professional governance and resultsfocused interprofessional teams. They're implemented across hospitals and other care sites across the enterprise – all resulting in a better experience for patients, no matter where they live.
- Share best practices and possible problems among individual sites and across its divisions in real time, quickly implementing improvements and fixes informed by the best research.

Advocate Health Chief Medical Officer Dr. Betty Chu says that to make gains, the health system must have highly reliable ways to make improvements, control quality and embed strategy planning.

"No matter where you sit in the organization, whether you're a nurse or a doctor or an executive, you should be thinking about those three principles all the time as part of your job," said Chu.

"What people ultimately care about is did we save lives?" said Chu. "Did fewer people get infections? Did more people go home healthy from the hospital? You need one structure and one organizational alignment to do that. The faster you can do that, I believe, the faster you get to improving outcomes, which is the gold standard." One way patients and consumers weigh care quality is by consulting the rankings of third-party organizations. Under Chu's direction, Advocate Health is prioritizing some organizations' quality measures above others – fully participating in surveys and data-gathering opportunities in cases where the enterprise's legacy health systems may have previously taken a pass. As a result of this added focus, the system nearly quadrupled the number of its hospitals that received "A" grades from the Leapfrog Group from spring to fall 2024, up to 19.<sup>4</sup>

"

### What people ultimately care about is did we save lives?

 Dr. Betty Chu Chief Medical Officer at Advocate Health

Small gains show up in other ways, too. Advocate Health's mortality rate across all hospitals has dropped 14% and, in 2024, it announced that its affiliated accountable care organizations (ACOs) had its best combined results ever in two federal programs that reward high-quality care. When an ACO - a group of doctors, hospitals and other providers that form networks to coordinate patient care - demonstrates it has achieved certain quality and cost-reduction benchmarks, it is rewarded with a share in the savings generated for Medicare. In other words, if the providers provide high-quality care and save the federal government money in the process, they get some of that saved money back as an incentive for that success.

The efforts behind these hard-won successes, among many others, are complex, challenging and ever-ongoing – the result of years of incremental improvements and lessons learned that add up to improved outcomes

A hard-won 1% improvement in a quality metric at a health system the size of Advocate Health can mean improved lives for thousands of patients every year. for patients. Most importantly, the larger Advocate Health enterprise is aligning, over time, on processes and standards, choosing to implement the best-of-the-best practices to detect and manage chronic conditions, give nurses the tools they need to succeed, improve patients' experience, reduce mortality in the hospital, handle crises and more.

"The death knell of quality is variation," said Sharon Quinlan, Advocate Health's senior vice president of nursing quality, practice and research.

## Chronic Conditions and Screening

#### The issue

Patients who are able to quickly and accurately be diagnosed with hypertension, diabetes or even cancer frequently have better health outcomes. Of course, early diagnosis is critical. Research found "50% –70% of women in whom invasive cervical cancer develops failed to get a Pap test within the five years before diagnosis or have never been screened at all."<sup>5</sup>

With chronic conditions like hypertension and diabetes, a combination of lifestyle changes, monitoring and medication can help keep patients healthier longer and at lower risk for more serious problems like stroke, which can lead to hospitalization, disability and death.

"This is an area where we feel like we can make a difference," said John Schooley, Advocate Health's group vice president for quality.



Research found 50%-70% of women in whom invasive cervical cancer develops failed to get a Pap test.<sup>5</sup>

Advocate Health's leadership and providers have put a special emphasis on helping patients manage and treat chronic conditions in its journey to improve quality. Beyond the clear, positive impact this could have on any individual patient with hypertension or diabetes, focusing on these relatively common diagnoses also helps a large total number of people.

Hypertension affects nearly half of all adults in the United States and contributed to 685,875 deaths in 2022 alone. High blood pressure is sometimes called a "silent killer" because symptoms can go unnoticed. In fact, only 25% of adults with hypertension have it under control.<sup>6</sup>

Meanwhile, nearly 12% of U.S. adults have diabetes, and nearly a quarter of them are undiagnosed – clearly not getting the help they need. The condition led to 16.8 million emergency department visits nationwide during 2020.<sup>7</sup>

"Chronic disease is something that costs taxpayers, the government and businesses millions – if not billions – of dollars per year," Schooley said.

#### The data

Across Advocate Health's footprint between 2023 and 2024:

- About 11,500 more patients have their blood pressure under control compared to the year before. They are considered to have their hypertension managed when it is less than 140/90.
- About **7,000 more patients have their diabetes under control**, which means they have A1C readings less than 8%.
- About 43,000 more women were screened for cervical cancer than the year before.



#### What Advocate Health is doing

Since coming together under one organizational umbrella, population health and quality leaders across Advocate Health's service territory have shared resources and best practices to bolster care management programs to the benefit of patients.

Care management – a patient-focused approach in which a multidisciplinary team of physicians, nurses, social workers, pharmacists and other health coaches coordinate care across the continuum – can help better manage chronic disease.

Such was the case for a diabetic patient named Mike Simono, in Wisconsin, who received some extra help from an Aurora Health Care care manager. He had long had a primary care doctor he was happy with, but couldn't lose the weight needed to help get some of his other health challenges under control. Because Simono had especially high A1C levels, he received a cold call from care manager Stacy Wolf, who mobilized a team of providers to help. Wolf, a pharmacist and the rest of the team helped Simono develop a plan to lose weight and get the right medications. He has lost 70 pounds and is exercising regularly. (See *patient experience* section for more.)

Patients' primary care doctors are a great first point of contact with the health system, but sometimes a care manager can put a team together to help get someone a little extra help from other specialists.

"The care team works together to enable the patient to get their best clinical outcome," Schooley said. Technological tools can help, too, including with outreach to patients. After all, to help patients, providers have to be in contact with them – to ensure that they schedule appointments, that they take medicine as directed, that they monitor their blood pressure and more.

Cervical cancer screening rates rose after Advocate Health added Atrium Health Floyd Northwest Georgia Medical Clinic practice. Before it joined the system, it was difficult for primary care doctors to know if their patients were up to date on their cervical cancer screening or not. Now, there's a more complete medical record. With the specialists better communicating with primary care doctors, the team has better identified women who have not been screened for cervical cancer in a timely fashion and, ultimately, schedule those critical screenings.

## Patient experience

For years, living in a rural area south of Manitowoc, Wisconsin, Mike Simono has been collecting pots, tools and other items in his farm's outbuildings and making art in his workshop.

In recent years, though, it's been more difficult for him to walk from his house to those outbuildings.

At 73-years-old, Simono weighed nearly 300 pounds and was dependent on insulin for 17 years to treat his diabetes.



Mike Simono

>>

He loved his longtime primary care doctor, but, try as he might, he just couldn't lose weight and get himself into the shape he wanted to be in.

The retired sales manager, long tightly scheduled and bound by budgets, was used to cold-calling people to sell oxygen, alarms, fire extinguishers and other safety products to hospitals.

Then, in 2024, Simono got a cold call that would change his life.

"Who are you? Why are you calling me?" is how he first answered.

On the other line was Stacy Wolf, a care manager with Aurora Health Care. She was going down a list of patients generated by the health system that tracked patients with high blood sugar levels – people who might benefit from some extra help.

Over the phone, Wolf listened to Simono's situation. She helped him make a detailed plan, something Simono related to, given his former job. She got a team involved, including an Aurora Health Care pharmacist, to help coordinate his care.

Wolf got Simono a continuous glucose monitor, the kind his doctor always wanted him to get. The pharmacist helped him get a prescription diabetes medication that also helped him lose weight.

Most importantly for Simono, Wolf checked in on him every week.

"That advice, that counsel, that encouragement, that accountability really helped," Simono said. "She spoke to me as a human."

This is what Wolf and care managers across Advocate Health do every day. They have the metrics, training and teamwork needed to provide the extra level of care that patients like Simono need.

"There's not one part of your body that diabetes does not affect," Wolf said.

### "

#### That accountability really helped. She spoke to me as a human.

Mike Simono
Aurora Health Care Patient

When care managers reach out proactively over the phone – easily crossing geographies and saving trips into the doctor's office – they can help patients like Simono get the care they need to stay out of the hospital and, in his case, start walking to his outbuildings again. They don't replace doctors but, instead, work in concert with them to provide some extra help.

In time, Simono was able to discontinue all use of insulin and a blood pressure medication because of his weight loss.

"This was a quality-of-life change for him and something we accomplish frequently with our patients," Wolf said. "We like to de-escalate treatment with medications as we focus on healthy behaviors that make this possible."

Before, Simono would get so tired walking out to his shop that he'd put lawn furniture between his home and the outbuildings, so he could sit down and take a rest on the way. He'd take the car to retrieve the mail.

Now, having lost nearly 70 pounds, he doesn't need that furniture anymore. He works out at a local wellness center twice a week – exercising in a way he never had before.

His brother runs to stay fit and had long touted the endorphins that come with exercise, but that was never something Simono understood. Now, thanks to Wolf and the team of Advocate Health providers she assembled, it clicks.

"I think I know what an endorphin feels like now," he said.

### Nursing

#### The issue

Nurses play a critical role in patient care across the continuum. They're often the most frequent, hands-on caregiver for patients at every level. As Advocate Health cares for 6 million patients in a year, any small change in the quality of care nurses provide can make a big impact.

That means preventing common hospital-acquired infections and other injuries. Every single infection prevented in the hospital is a patient who can move on to a lower level of care, then back to their family, friends and day-to-day life sooner.

It's important for nurses to apply the best possible practices to every patient every day.

"When we are creating a system at this scale, it's so important to reduce variation through evidence-based practices, common workflows, common tools; you know, really getting everybody on the same page," said Quinlan, Advocate Health's senior vice president of nursing quality, practice and research. "We do this so we have a common platform for improvement. That's essentially my team's job.

"We know the science behind what prevents patient harm," she said. "The Advocate Health teams apply that consistently every day, every time."

#### The data

In 2024, Advocate Health saw:

- **16% fewer urinary tract infections from catheters** than in the previous year.
- **11%** decrease in hospital-acquired pressure injuries.

Plus, nursing clearly contributed to the health system's **14%** drop in mortality rate across all hospitals from January 2023 through September 2024.

#### What Advocate Health is doing

Advocate Health is using an electronic nursing dashboard, designed by nurses for nurses. The tool integrates real-time patient data, empowering nurses to enhance daily care and improve overall patient outcomes. Serving as a central hub, the dashboard connects nurses to essential information, making actionable opportunities for improvement visible in real time. The dashboard focuses on critical nurse-sensitive indicators such as catheter infections, falls and pressure injuries. It's helping drive quality gains in those key areas, too. Advocate Health nursing was the first to deploy this tool embedded in the medical record, a national best practice that was shared at a national Epic meeting.



For example, to help better prevent and treat pressure wounds, the system is integrating wound photography into daily nursing routines. When a bedside nurse can take a photo of a developing pressure injury and send it for expert review and treatment advice, nurses can better monitor wound progressions. That leads to tailored and timely interventions. This practice is expanding throughout the health system, where patients will benefit from this shared best practice.

In addition, the system also has aligned on groups of evidence-based treatments known as bundles, which are used to treat certain conditions like sepsis. A shared dashboard of results will inform how to create future, improved bundles.

"

We know the science behind what prevents patient harm. The Advocate Health teams apply that consistently every day, every time.

Sharon Quinlan

Senior Vice President, Nursing Quality, Practice and Research at Advocate Health

Despite all these improved practices, Quinlan emphasized that it's most important for the health system to listen to nurses on the ground. Every Advocate Health site now has a council of nurses that communicates with enterprise leadership about what they're seeing and learning.

"I think the real story here has to do with engaging the frontline nurses," Quinlan said. "They're looking at the numbers. They're understanding the numbers. They're thinking about ways that they can analyze issues to prevent harm. They're very involved in the work.

"Our nurses are not being told what to do, they're helping to decide what to do," Quinlan added.

### Mortality and more

#### The issue

Nursing and much of the work done in the hospital culminates in a measure of mortality, which is a complex, risk-adjusted metric that assesses how many people expire in the hospital compared to how many would be expected by national benchmarks.

Put simply: A decrease in mortality means that more patients are leaving the hospital safely to either go home or to a different level of care, such as a nursing home. A lowering mortality rate is an improvement – it means more people's lives are being saved than would be expected, based on the acuity of their illnesses.

Experience scores, meanwhile, measure how patients feel about their treatment while in the hospital.

#### The data

Advocate Health experienced:

- **14% drop in its mortality** rate from January 2023 to September 2024, the first nine months since the inception of Advocate Health.
- 8% decrease in infections received through a catheter in the neck, chest or groin.
- 16% reduction in MRSA cases.
- 9% reduction in patient complications.

A reflection of the health system's improving patient experience, Advocate Health's scores on a national standardized survey called Hospital Consumer Assessment of Healthcare Providers and Systems has risen steadily over the past two years, up about 2.5 percentage points.



#### What Advocate Health is doing

The health system's focus on quality metrics has contributed to its mortality improvements, particularly when it comes to prevention of sepsis and other infections.

Most sepsis cases begin before a patient gets to the hospital. It affects 1.7 million people per year and kills nearly 350,000, so it's critical to understand and treat well.<sup>8</sup>

Advocate Health is aligning on how sepsis is documented, tracked and treated for patients throughout the system. This helps providers identify a septic patient quickly and provide the proper care.

"This has been a targeted focus for us," said Amy Margeson, vice president of enterprise quality for Advocate Health. "The sooner you identify a patient is in sepsis, the sooner they get the treatment."

As individual sites or regions throughout the system pick up new best practices or spot problems to watch for, they are shared quickly across sites and states. The system has coordinated the cadence and process of each safety huddle – a meeting of top safety and quality leaders – so that each site is best able to spot issues and report them out. Soon, Advocate Health will have them at the same time across all sites and states. "Why is it important to standardize the time?" notes Chu, the system's chief medical officer. "You cannot schedule any other meetings," she said. "The hospital president has to be there. The chief medical officer has to be there. It's a priority."

As the quality of health care continues to evolve, so too does the experience patients have within Advocate Health's hospitals. In this journey, every single patient's voice plays a pivotal role in shaping care. Brad Kruger, Advocate Health vice president for patient experience, underscores the importance of listening to patients, noting how their feedback can spark positive change and inspire transformation across the system.

For example, after a traumatic accident, a patient in Chicago found herself in an emergency room where she experienced a profound sense of discomfort and alienation. Following her treatment, she shared difficult but crucial feedback about how she felt unsafe when her hijab was removed by medical staff in a rushed and insensitive manner. For this patient, it wasn't just about physical injury – it was about feeling seen, heard and respected.

In the years that followed, that single voice led to remarkable change. Advocate Health's sourcing team partnered with a Muslim women-owned startup to obtain disposable hijabs designed specifically for health care settings. These headscarves are now being used across the health system – not only for patients, but also by medical professionals who, like a medical student at Wake Forest University School of Medicine, expressed deep appreciation: "I'm so honored to be part of an organization that cares about me."

This powerful example illustrates the ripple effect of compassionate listening. What started



as one patient's feedback has sparked change that extends far beyond her experience, creating a lasting, positive impact on the lives of patients and teammates across six states.

"One survey started this ripple effect... not just for patients, but also for our physicians and teammates," Kruger said. "It's a testament to the power of patient-centeredness and the profound impact of listening with empathy."

6

One survey started this ripple effect... It's a testament to the power of patientcenteredness and the profound impact of listening with empathy.

Brad Kruger
Vice President, Patient
Experience at Advocate Health

#### **Always learning**

New standards for clinical care that help inform the best practices adopted across Advocate Health and beyond often start with clinical trials and research, an aspect of the field that Wake Forest University School of Medicine brings to the health system.

Multiple large clinical trials that start at the medical school have expanded to other locations across Advocate Health's footprint, bringing possible access to new medicines and treatments to more patients.

In 2024, Advocate Health was selected to participate in the Guiding an Improved Dementia Experience Model, a program aimed at bridging gaps in dementia care. The model provides support for caregivers via education, a 24/7 hotline and money for respite services. The system was well-positioned to be selected for the model because it follows a years' long clinical trial conducted by a school of medicine researcher.

In 2025, the health system is opening Charlotte's first four-year medical school when a new, second campus of Wake Forest University School of Medicine will open in "The Pearl," a new innovation district in the heart of Charlotte where academics, startup innovators and the health system can collaborate easily.

# Managing the IV fluid shortage

Advocate Health's scale, centralized systems and shared resources are critically important in a crisis. Damage from Hurricane Helene in 2024 blocked health care access for many residents of western North Carolina and surrounding areas. It also had a significant, nationwide impact as it interrupted the supply of intravenous (IV) fluids to hospitals across the country. Advocate Health quickly implemented disaster-response strategies to ensure timely patient care and deliver essential supplies to communities in need.

The health system's response included deploying a wide range of air- and ground-based health care services to affected communities, coordinating closely with local, state and federal disaster-response agencies and developing innovative solutions that minimized the impact of the IV shortage.

Its strategic approach to managing the shortage included making more than 35 changes that were communicated to clinicians across the Advocate Health network, ultimately resulting in a 55% decrease in IV fluid use. Conservation measures included:

- Administering some antibiotics as injections instead of mixing them with IV fluids
- Hanging 1-liter IV fluid bags instead of 3-liter bags for some procedures to reduce waste from larger bags that would only be partially used
- Treating dehydrated patients in the emergency room with an oral alternative to IV fluids: drinks made from powdered electrolyte solutions that are mixed with water
- Using oral potassium products in place of IV potassium in all patients who could tolerate the switch

Its strategic approach to managing the shortage ultimately resulted in a 55% decrease in IV fluid use with no increase in safety events.



As of March 2025, there had been no increase in safety events or reductions in quality of care as a result of the practice changes, Chu said.

The health system anticipates that it will permanently adopt many of the clinical practice changes it implemented during the IV fluid shortage. Prior, Advocate Health was spending about \$30 million annually on IV fluids – a cost that will no doubt fall. Using fewer IV bags will also reduce the amount of plastic waste the health system generates.

Advocate Health's multifaceted response to Helene demonstrated how a large-scale health system can effectively employ its extensive resources to address critical needs in communities affected by natural disasters. (*Read a full white paper about the system's response to Hurricane Helene, including the resulting IV fluid shortage, at* **AdvocateHealth.org/HeleneResponse**.)

#### **Moving Forward**

The above programs and efforts are continuing to develop as Advocate Health continues to evolve in its third year of integration and improvement with an emphasis on delivering even higher-quality care for patients. The medical professionals and executive leaders – from the Great Lakes to the Carolinas to rural locations in the deep South – will continue sharing what is working for them, uniting under a single set of goals and practices.

Plus, Advocate Health is continuing to look at how new technologies and advances in artificial intelligence can continue to help improve quality and safety, taking on more administrative functions to let doctors, nurses and teammates focus more of their time and energy on direct patient care.

"I'm always trying to look to simplify complexity," Chu said. "I want to take something really complex and simplify it. If AI helps me do that, I'm all about it."

Looking forward, Chu says the system will be looking to leverage its resources, community partnerships and innovative technologies to support patients in addressing the social drivers of health that make achieving wellness more challenging.

"The work that we've done thus far on quality is like the wiring and the plumbing," she added. "It's laying the foundation." Work the system is already doing on hypertension and diabetes is part of that and, in late 2024, the system committed to investing \$1 billion in access to primary care, specialty care and wellness services on the South Side of Chicago.

There's even more to do on social factors such as maternal mortality, domestic violence, the transportation, financial literacy and health literacy people need to improve their health, Chu said.

"We have the opportunity, I think, as an organization at scale, to try to solve that problem," she said.

#### References

Information and data came from interviews with and documents provided by the Advocate Health leaders quoted within, as well as the specific resources cited in text and listed below.

- 1. Kaiser Family Foundation: <u>Ten Things to</u> Know About Consolidation in Health Care <u>Provider Markets.</u>
- 2. Rand: Environmental Scan on Consolidation Trends and Impacts in Health Care Markets.
- 3. American Hospital Association: <u>aha-</u> statement-to-the-senate-finance-committeeon-consolidation-in-health-care-6-8-23.pdf
- 4. Advocate Health: Advocate YearInReview\_2024.pdf

- 5. Obstetrics and Gynecology: Obstetrics & Gynecology
- 6. Centers for Disease Control and Prevention: <u>High Blood Pressure Facts</u> <u>High Blood Pressure | CDC</u>
- 7. Centers for Disease Control and Prevention: <u>National Diabetes Statistics</u> <u>Report | Diabetes | CDC</u>
- 8. Centers for Disease Control and Prevention: <u>About Sepsis | Sepsis | CDC</u>