American Hospital Association™
Advancing Health in America

MARKET SCAN

TRAIL BLAZERS

The Future of Physician Workforce Optimization

Building the clinical and operational infrastructure for a sustainable future

Sponsored by: AmplifyMD

Introduction

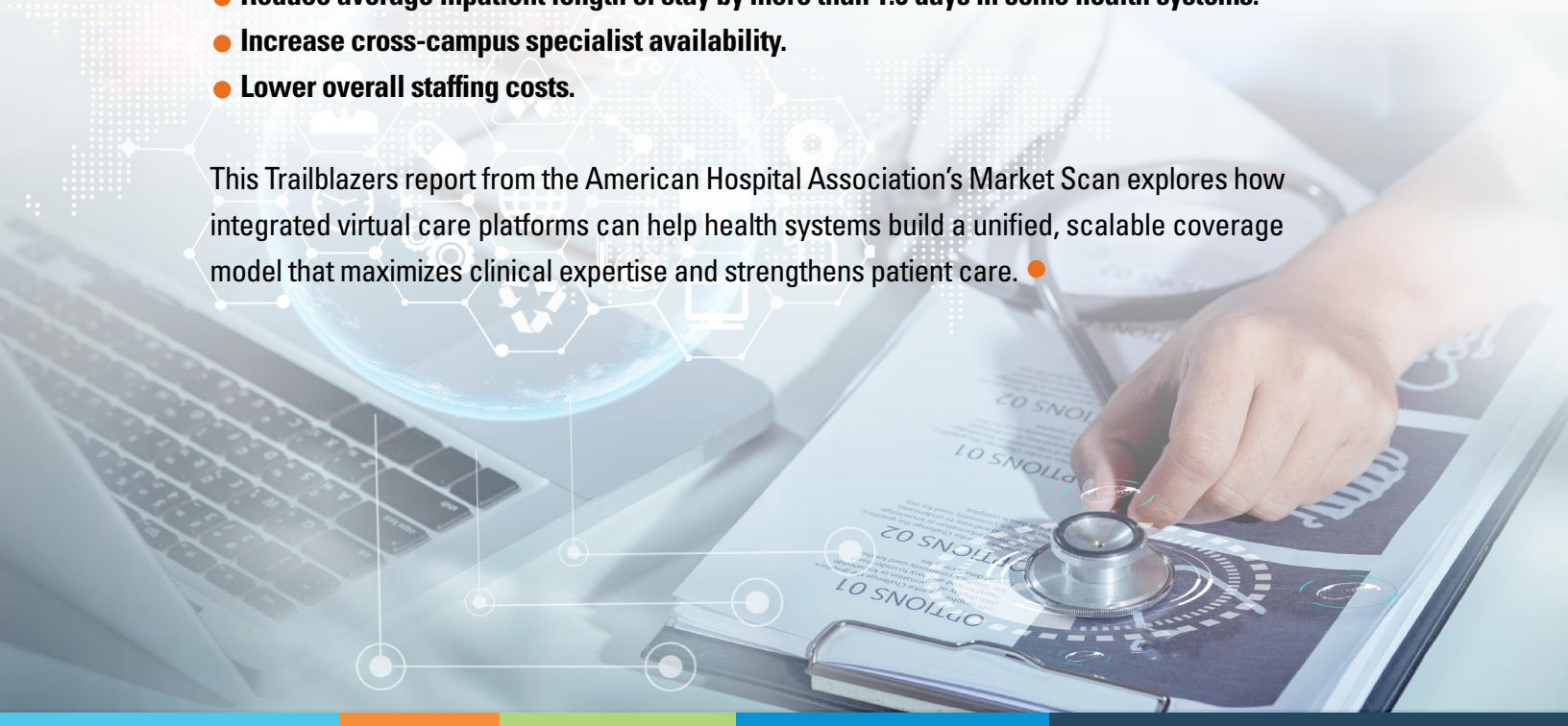
As patient demand accelerates and the supply of specialized physicians continues to tighten, health systems are confronting structural workforce limits. The Association of American Medical Colleges (AAMC) projects a national shortage of up to 86,000 physicians by 2036, with the steepest gaps concentrated in specialties such as emergency medicine, psychiatry and neurology. At the same time, the aging U.S. population is expected to drive a 42% increase in demand for specialty care over the next decade.

These pressures are exposing the limits of traditional, site-bound coverage models. Recent data show that many hospitals are increasingly relying on locum tenens physicians to fill staffing gaps. According to CHG Healthcare's 2025 State of Locum Tenens report, actual locum utilization in 2024 was 25% higher than health systems had forecasted — underlining growing demand for flexible coverage models. Fragmented systems and inconsistent coverage approaches make it harder for staff to respond efficiently to rising acuity and fluctuating volumes.

In response, many organizations are turning to unified virtual specialty models that can flex capacity across sites and ensure more reliable access to expertise. Virtual care is emerging as a foundational component of long-term workforce strategy. No longer limited to crisis response or rural outreach, integrated virtual specialty coverage allows systems to orchestrate physician expertise across facilities. When paired with automated workflows, these models have been shown to:

- **Reduce consult response times by 20%-40%.**
- **Reduce average inpatient length of stay by more than 1.6 days in some health systems.**
- **Increase cross-campus specialist availability.**
- **Lower overall staffing costs.**

This Trailblazers report from the American Hospital Association's Market Scan explores how integrated virtual care platforms can help health systems build a unified, scalable coverage model that maximizes clinical expertise and strengthens patient care.



Bridging technology and expertise gaps

Virtual and in-person care now operate side by side across U.S. hospitals, but many organizations lack an enterprise layer that unifies workflows across sites. Research shows that hospitals with centralized operational command centers reduce care delays by 15%-30%, improve care team communication and accelerate patient routing during high-acuity events.

A deeply integrated platform that connects virtual and on-site specialists allows health systems to align physician supply with real-time demand. Recent data from a 2024 study found that telestroke video evaluation in a comprehensive stroke center was associated with a six-minute reduction in door-to-needle time, underscoring how virtual specialty coverage can incrementally improve response times even in high-acuity care.

Hospitals report that these benefits extend beyond clinical coordination. Those using the AmplifyMD virtual care platform, for example, achieve a 52% reduction in program administrative costs as automated workflows replace manual processes. This shift from a one-to-one staffing model to a flexible, many-to-many model enables specialists to support patients across multiple facilities without compromising quality or response speed.

The impact on clinician well-being is both substantial and measurable. Recent national data show that nearly half of U.S. physicians continue to experience symptoms of burnout, driven largely by documentation burden, workload fragmentation, staffing instability and unpredictable schedules. At the organizational level, health systems that expand flexible virtual coverage and fractional staffing models report meaningful reductions in burnout, improved clinician retention and decreased dependence on temporary staffing, underscoring how workforce design directly shapes sustainability.

DATA POINT

49%

Percentage of physicians who report feeling burned out

Source: National Center for Health Workforce Analysis, 2025

Democratizing health care

Access to specialty care continues to vary sharply based on geography and hospital resources, with real consequences for patient outcomes. In emergency conditions such as stroke, patients treated at facilities without timely specialty access are two to three times more likely to require transfer[8], extending time to definitive treatment. Every minute of delay matters: Untreated ischemic stroke can result in the loss of nearly 2 million brain cells per minute, compounding neurologic injury while patients wait. Disparities persist even within metropolitan areas, where lower-income ZIP codes may have up to 40% fewer specialists per capita than more affluent neighborhoods in the same region.[9]

Virtual specialty care models help close these gaps by giving every hospital — regardless of size, location or resources — immediate access to neurologists, intensivists, psychiatrists and other essential specialists. Multihospital telestroke and tele-ICU programs have demonstrated meaningful reductions

"We don't have enough physicians. We certainly don't have enough specialists. It's a problem that impacts the entire country. So how do we extend the capacity of a physician in a way that doesn't increase or lead to burnout? You give them the right tools, with the right clinical workflows, and let resulting clinical and financial efficiencies speak for themselves."

— **MEENA MALLIPEDDI** —
Co-founder and CEO, AmplifyMD

in interfacility transfers and improvements in emergency department throughput, while broader telespecialty networks have helped stabilize coverage during periods of staffing shortage. These improvements highlight how virtual specialty layers can ensure that high-quality care reaches patients equitably, regardless of where they seek treatment.

Virtual specialty care access is even more pronounced in rural communities. Rural shortages remain severe: While roughly one-fifth of the U.S. population lives in rural communities, a far smaller share of physicians practice there, driving persistent access gaps and higher rates of preventable morbidity and mortality. But a parallel crisis is emerging in cities. Safety net hospitals in urban areas report specialist vacancy rates exceeding 20%, driven by maldistribution rather than absolute shortages.

Overall, 80% of U.S. counties lack adequate access to key medical services, affecting an estimated 120 million people. These patterns make clear that new, system-level models are needed to reliably deliver high-quality care to every patient, regardless of where they enter the system.

"Once you lay this foundation of deeply integrated technology, you start to think about really amazing things that can move the needle even further in terms of our ability to lower costs and make sure that we're providing the best care to every patient."

— ANAND NATHAN —
Co-founder and chief product officer, AmplifyMD

BEST PRACTICE **TIP**

To ensure that **virtual care is high-quality care**, the platform must embed standardized digital workflows, best-practice checklists and robust analytics.

The advantages of AI-driven workflow automation

Hospitals are among the most complex operating environments in the world. Every shift demands that clinicians navigate a maze of manual workflows — paging, triaging, documenting, escalating and reconciling information across systems. These tasks aren't just tedious; they create friction that slows care delivery and strains an already overextended workforce. Across multiple studies, electronic health records and desk work account for roughly half of physicians' working time, with only about one-quarter spent in direct face-to-face care and the remainder split between other clinical and administrative tasks.

Platforms such as AmplifyMD illustrate the scale of operational friction that automation can relieve, particularly by streamlining high-frequency tasks like case intake, consult routing and documentation. By shifting these processes from manual coordination to intelligent automation, health systems can reclaim clinical capacity that is otherwise consumed by administrative work.

These gains reflect a broader shift now underway across hospital operations. AI-driven workflow automation is redefining the hospital operating model itself — not as a collection of disconnected tasks, but as a coordinated, real-time system. Instead of relying on human memory, phone trees or siloed legacy platforms, automation continuously moves information, triggers actions and routes cases to the right clinician before delays and bottlenecks compound.

Hospitals that implement automated clinical workflows consistently report faster, more reliable coordination of specialty care. Research from the American Heart Association and the National Institutes of Health shows that systems using automated alerts and structured digital handoffs achieve 20%-30% reductions in door-to-consult times in stroke and emergency neurology programs.

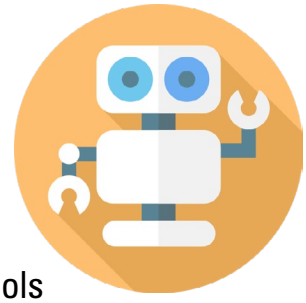
Similarly, the Agency for Healthcare Research and Quality and The Joint Commission have documented that automated routing and structured escalation pathways improve adherence to sepsis bundles and reduce delays caused by manual paging systems. By shifting key steps — such as notification, triage and documentation — into standardized digital workflows, hospitals can eliminate many of the coordination gaps that traditionally slow down emergency care.

These gains are not merely operational; they are foundational to workforce sustainability. By offloading repetitive tasks — from case intake to documentation and discharge checklist verification — automation helps clinicians reclaim the one resource they can't get back: time. AI-assisted documentation tools have increased physician job satisfaction by 17% and reduced after-hours charting by one to two hours per day. In an environment where burnout and attrition threaten continuity of care, these improvements directly strengthen workforce resilience.

DATA POINT

17%

Increase in physician job satisfaction due to AI-assisted documentation and workflow tools



Source: American Medical Association, 2025

Automation also builds a safer, more consistent system of care. Emerging studies indicate that AI-based early-warning models can flag patient deterioration hours sooner than conventional scoring systems, potentially improving safety and outcomes. In addition, AI-enabled decision support systems show promise in reducing preventable medical errors in diagnostic, medication, and monitoring processes. These tools don't replace clinical judgment — they reinforce it, creating a digital safety net that operates continuously across facilities, shifts and staffing levels.

Automation is no longer an efficiency tool — it is becoming core infrastructure for a resilient, scalable clinical workforce. AI-enabled automation is increasingly the connective tissue of modern hospital operations. It not only accelerates today's workflows but also establishes the foundation for tomorrow's care models — models where clinicians practice at the top of their licenses, systems adapt dynamically to patient needs, and operational resilience is engineered by design rather than achieved reactively.

BEST PRACTICE **TIP**

AI models trained on **"dirty" historical data** will learn bad habits. Audit your data sources for accuracy before feeding them into workflow automation tools.

AmplifyMD

Build smarter, more sustainable clinical coverage models

The next era of care delivery will be defined by data-driven, technology-enhanced coverage models that make virtual care an integral part of daily operations.

AmplifyMD makes this possible. Our virtual care platform connects clinical workflows, EHR data, and intelligent automation with advanced analytics—and offers access to a nationwide network of specialists to support a wide range of coverage needs. The result is a smarter, more sustainable workforce model that helps health systems leverage virtual care to expand access, improve throughput, and manage performance at scale.

Seamless Integration

Integrated technology **makes virtual care part of the existing workflow**, eliminating friction and admin burdens.

Intelligent Automation

Intelligent automation and AI tools **optimize specialist utilization,** saving time and money.

Expansive Specialist Network

Access to **board-certified physicians across 15+ specialties** supports new programs and closes coverage gaps.

Adaptive Scalability

Configurable for any specialty or setting, from ED and inpatient to outpatient, eConsult, and beyond, making it easy to expand virtual programs with **one comprehensive solution**.

Actionable Intelligence

Built-in analytics engine provides site, specialty, and system-wide visibility and continuous improvement in quality, efficiency, and performance.

Proven results across 300+ programs:

faster consults | lower program costs | higher ROI | improved clinical outcomes

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Learn more: AmplifyMD.com

CASE **STUDY** **Memorial Hermann Health System**

Addressing physician shortages and burnout through workforce redesign and virtual care

Memorial Hermann Health System is one of the largest not-for-profit health systems in Southeast Texas, operating 17 hospitals across a comprehensive continuum of care that includes primary and urgent care clinics, academic medical centers and rehabilitation facilities. With more than 34,000 employees and over 6,600 affiliated physicians, the system maintains a long-standing academic partnership with McGovern Medical School at UTHealth Houston. As workforce pressures intensified, Memorial Hermann launched a multiyear strategy to stabilize physician capacity, reduce burnout and redesign how clinical labor is deployed across the system.

Challenge

Memorial Hermann has faced mounting physician shortages alongside rising burnout, pressures that accelerated during the pandemic. Workforce attrition reduced staffing levels by roughly 10%, according to Feby Abraham, executive vice president and chief strategy officer. At the same time, demand for care continued to grow.

"The timing couldn't be worse," Abraham said. "You have a shortage of doctors and nurses and you have burnout, and ultimately what both of those things are leading to is a supply shortage, and the demand is only increasing."

Traditional staffing models were no longer sufficient to absorb these pressures. Leadership recognized that sustaining access and quality would require a fundamental rethinking of workforce design, not just incremental hiring.

Strategy & Solutions

Rather than pursuing a single intervention, Memorial Hermann adopted a comprehensive workforce redesign strategy built around four coordinated pillars.

1 | Expanding the talent pipeline

To strengthen the future workforce, Memorial Hermann invested in early talent development through educational partnerships. In collaboration with Aldine Independent School District, the system opened the Health Education and Learning (HEAL) High School, creating a direct pipeline into health care careers. Abraham has described HEAL as one of the organization's most impactful long-

CASE STUDY Memorial Hermann Health System

term investments, emphasizing the importance of building talent early rather than relying on an increasingly constrained labor market.

2 | Reducing administrative burden and waste

To support its existing clinicians, Memorial Hermann focused on enabling providers to work at the top of their licenses. The system deployed ambient listening and automated documentation technologies to reduce low-value administrative tasks. This approach helps clinicians spend more time with patients and less time charting, easing burnout while improving efficiency.

3 | Optimizing site of care

Memorial Hermann redesigned care delivery to ensure that patients are treated in the most appropriate setting. By expanding ambulatory surgery centers, urgent care sites and home-based services — including infusion and dialysis — the system reduced unnecessary use of emergency departments (EDs) and inpatient beds, preserving highly specialized staff capacity for complex cases.

4 | Leveraging virtual health and automation

In specialties facing acute shortages, such as infectious disease and palliative care, Memorial Hermann uses virtual care platforms, including AmplifyMD, to extend specialist expertise into markets without consistent onsite coverage. Virtual tools also automate routine patient engagement tasks, such as appointment scheduling and medication adherence, reducing friction for patients while protecting clinician time.

Results

Together, these strategies have improved Memorial Hermann's ability to manage workforce constraints while maintaining access to care. Virtual engagement models have reduced avoidable utilization, including a decline in ED admissions among oncology patients from 12% to approximately 3%-4%, driven by earlier intervention and better coordination.

Operationally, the system has redistributed clinical labor more effectively and reduced administrative burden on physicians. Progress has built momentum. "It's a flywheel effect," Abraham explained. "Early success builds belief, and belief accelerates further change."

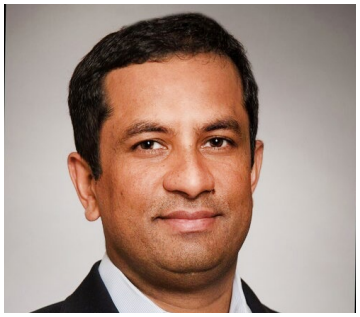
Why It Matters

Memorial Hermann's experience illustrates that addressing physician shortages and burnout requires coordinated, system-level redesign rather than isolated fixes. Sustainable transformation depends as much on change management as technology.

For health systems navigating similar workforce pressures, Memorial Hermann offers a blueprint for treating clinical capacity not as a fixed constraint, but as a resource that can be redesigned to support long-term sustainability, clinician well-being and patient access.

BEST PRACTICE TIP

Deploy **ambient listening** and **automated documentation technologies** to reduce low-value administrative tasks. This approach helps clinicians spend more time with patients and less time charting, easing burnout while improving efficiency.



> **"You want to find the clinicians who'll be the evangelists — the early adopters who can tell their peers, 'I've tried this, it's amazing.' After that, you need peers to influence peers."**

— FEBY ABRAHAM —
Executive vice president and chief strategy and innovation officer
Memorial Hermann Health System

CASE **STUDY** **AdventHealth Redmond**

Sustaining high-acuity care through virtual specialty coverage

AdventHealth Redmond, a regional referral hospital in northwest Georgia, has built a virtual specialty coverage model to ensure uninterrupted access to high-acuity services amid national shortages in key specialties. By integrating virtual consult platforms — including support through AmplifyMD — into emergency and inpatient workflows, the organization maintains consistent coverage in nephrology, infectious disease, neurocritical care and psychiatry. "It's amazing how much this has grown," said Dave Tomey, M.D., chief medical officer. "When I first came here, everything was in person. Now virtual support lets us meet patients where they are."

Challenge

Like health systems nationwide, AdventHealth Redmond faces chronic shortages in specialty physician coverage. Traditional staffing alone could not ensure reliable access to essential services. As Tomey noted, "There are going to be shortages for the rest of my career … we simply don't have enough specialists."

These gaps became particularly urgent when Redmond lost 24/7 local inpatient nephrology coverage, an absence that threatened core service lines. "We were at risk of having to send patients away who needed cardiothoracic surgery not because we couldn't provide the surgery, but because we didn't have nephrology to support them," he said. Preserving advanced cardiac, vascular and neurological care required a scalable way to extend specialty expertise without always having on-site physicians available.

Strategy & Solutions

AdventHealth Redmond implemented a virtual specialty model that brings off-site clinicians directly into inpatient and emergency department workflows. Virtual consults are triggered through established processes, with remote specialists evaluating patients via video, reviewing clinical data and collaborating with bedside teams. "AmplifyMD has done a great job of establishing a consistent process," Tomey explained, "and we're working toward deeper electronic health record integration so consults can flow even more seamlessly."

A telepresenter facilitates the encounter, positioning the

CASE STUDY AdventHealth Redmond

telemedicine cart and serving as the liaison between patient and remote clinician. The aim is to make virtual specialists feel like part of the daily rounding team. "We have to treat them as our colleagues," Tomey emphasized. "If you'd talk to an in-person specialist about the case, you should feel just as comfortable calling the virtual provider, too."

This operational model reinforces continuity of care while reducing the burden on clinicians who previously had to move physically between facilities. "Telemedicine lets you be in multiple places quickly," Tomey said. "It makes specialty care far more effective from a workflow standpoint."

Results

Virtual specialty coverage has enabled AdventHealth Redmond to sustain uninterrupted access to complex care services even when local specialty gaps emerged. The most significant impact has been the ability to keep high-acuity patients, such as those requiring cardiothoracic or neurovascular care, within the hospital instead of transferring them due to missing specialty support. "It allows us to provide uninterrupted higher specialty care," Tomey added. "Otherwise, we would have had to send some of these patients elsewhere."

Clinicians report more consistent access to specialty guidance across shifts and locations, improving response times and reducing pressure on in-person teams. While formal length-of-stay improvements are still being evaluated, the organization has already seen meaningful operational benefits: "It has allowed us to preserve services that would've otherwise been disrupted," he emphasized.

BEST PRACTICE TIP

By embedding **virtual specialists into daily operations**, organizations can maintain reliable access to critical expertise, reduce unnecessary transfers and support clinicians with timely consults that would otherwise be difficult to secure.

Why It Matters

AdventHealth Redmond's experience demonstrates how virtual specialty coverage is becoming indispensable infrastructure for sustaining high-acuity services in community and regional hospitals. By embedding virtual specialists into daily operations, the organization maintains reliable access to critical expertise, reduces unnecessary transfers and supports clinicians with timely consults that would otherwise be difficult to secure. As Tomey put it, "This model lets us care for patients who belong here — and keep vital service lines running, even when local coverage isn't available."

> **"If you lose just one specialty, it can disrupt an entire service line. Virtual coverage lets us preserve high-acuity care that would otherwise be interrupted."**
>
> — **DAVE TOMEY, M.D.** —
> Chief medical officer, AdventHealth Redmond

CASE **STUDY** **MUSC Health**

Keeping complex patients closer to home through scaled inpatient telespecialty care

MUSC Health is an academic health system and designated HRSA National Telehealth Center of Excellence, serving all 46 counties in South Carolina through the South Carolina Telehealth Alliance. Through a centralized telehealth model, MUSC delivers real-time inpatient telespecialty support to hospitals across the state, with a focus on expanding rural access, reducing unnecessary transfers and extending the reach of scarce physician expertise.

Challenge

Rural and community hospitals across South Carolina face persistent shortages of specialty physicians, particularly in neurology, critical care, infectious disease and behavioral health. These gaps often force patients to be transferred long distances for care that could otherwise be delivered locally. Transfers strain tertiary centers, delay treatment and increase workloads for already stretched clinicians — highlighting the need for a scalable way to extend specialist coverage without physically relocating physicians.

Strategy & Solutions

MUSC Health built a centralized inpatient telehealth operating model designed to function as a virtual extension of its specialty workforce. Rather than developing siloed programs, MUSC standardized telespecialty services across its network and partner hospitals, enabling multispecialty inpatient consults to be delivered at scale and in real time. Specialists support community hospitals directly — guiding diagnosis, escalation and treatment decisions without requiring physical transfer in many cases.

All services are coordinated through centralized telehealth operations with shared staffing, standardized workflows and consistent clinical protocols. This model allows specialists to support multiple hospitals simultaneously, improving scheduling efficiency and balancing workloads across the system. Importantly, MUSC's approach is fully hospital-integrated: Virtual specialists

CASE **STUDY** **MUSC Health**

BEST PRACTICE **TIP**

Distributing specialist coverage virtually across multiple sites preserves local access to complex care and can improve response times for stroke, critical care, behavioral health and infectious disease consults.

work directly with bedside physicians, nurses and care teams, reinforcing local capabilities rather than replacing them. From the outset, the program maintained a strong focus on keeping patients in their home communities whenever clinically appropriate.

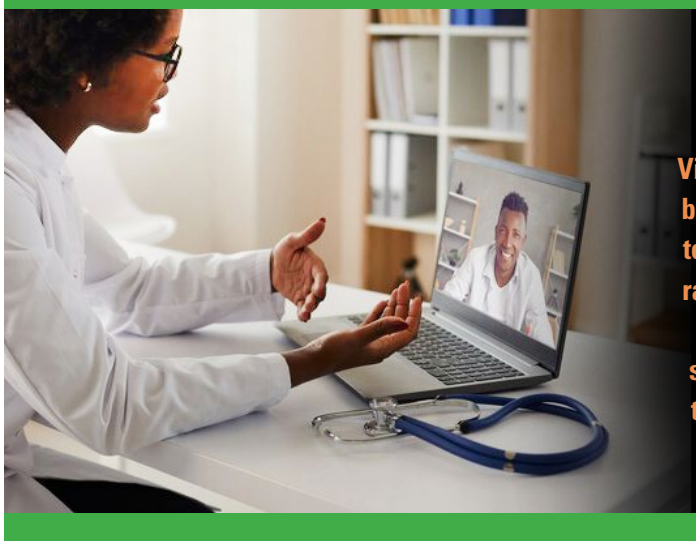
Results

MUSC's inpatient telespecialty model has enabled partner hospitals to manage a wider range of high-acuity cases locally, reducing unnecessary interfacility transfers. By distributing specialist coverage virtually, MUSC has improved response times for stroke, critical care, behavioral health and infectious disease consults while easing on-call burdens for both academic specialists and community clinicians.

The model has also strengthened collaboration across the statewide network, supporting more consistent standards of care between academic and rural sites. As specialty access has stabilized, hospitals report improved continuity of care, more efficient use of beds and clinical staff, and a more sustainable approach to extending scarce physician expertise across South Carolina.

Why It Matters

MUSC Health illustrates how enterprise inpatient telehealth can operate as durable workforce infrastructure rather than a temporary solution. By embedding virtual specialists into daily hospital operations, the model extends specialty expertise across multiple sites, preserves local access to complex care and supports long-term sustainability for both academic and community clinicians — reflecting the growing role of hybrid, virtually enabled care models in strengthening the physician workforce.



MUSC's approach to telehealth is fully hospital-integrated.

Virtual specialists work directly with bedside physicians, nurses and care teams, reinforcing local capabilities rather than replacing them. From the outset, the program maintained a strong focus on keeping patients in their home communities whenever clinically appropriate.

Moving Forward

The era of treating physician capacity as a fixed, location-bound asset is ending. As this report illustrates, the future of sustainable care delivery lies in redesigning how clinical expertise is deployed across entire systems. Integrated virtual specialty models, strengthened by automated workflows and real-time routing, offer health systems a way to extend scarce expertise, stabilize coverage and equalize access for patients regardless of where they seek care.

This transformation is not simply about digitizing consults — it is about building the clinical and operational infrastructure that allows organizations to scale specialty care reliably and sustainably. By unifying virtual and bedside teams, hospitals can reduce avoidable transfers, ease the workload burden on clinicians, and improve access for rural, suburban and urban communities alike.

AI-driven automation further enhances this foundation, serving as the connective tissue that ensures timely triage, consistent coordination and seamless integration across facilities. Together, these capabilities form a resilient care model — one that makes better use of limited specialist capacity while improving quality, safety and system performance.

Ultimately, the health systems that succeed in the decade ahead will be those that treat this integration of virtual care not as a temporary solution to workforce shortages, but as a strategic redesign of how specialty care is delivered. The path forward belongs to organizations that harness these tools to create more agile and scalable systems of care.

Contributors

The AHA's Market Scan thanks the following people and organizations for their insights, support and contributions to this Trailblazers report:

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ABOUT US: AmplifyMD transforms how hospitals and health systems build and manage virtual care at scale. Its EHR-integrated, AI-enabled platform automates end-to-end workflows — from consult assignment through documentation and real-time performance reporting — making virtual care more operationally efficient and clinically measurable. Health systems can deploy AmplifyMD with their own physicians or leverage a national network of board-certified specialists across 15+ fields. Built as core infrastructure for multispecialty coverage, AmplifyMD helps hospitals expand access, improve patient throughput and reduce unnecessary transfers and readmissions.

For more information, visit www.amplifymd.com
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