

A background image of a meeting room with several people seated around a long table, working on laptops. A woman is standing at the front of the room, pointing at a whiteboard. The image is overlaid with a semi-transparent blue and orange circular graphic.

Rural Health Innovation Case Study Compendium

September 10, 2026

Executive Summary:

Rural Health Innovation as a Proving Ground for the Future of Care Delivery

Rural communities face unique and systemic health challenges that complicate efforts to address persistent health disparities. Although the Rural Health Transformation Program (RHTP) has injected renewed attention and funding for rural health, many rural hospital leaders are raising concerns about where and how the funds are being allocated. CMS emphasizes that these funds are not intended to support financially strained rural hospitals who will bear a disproportionate burden of forthcoming Medicaid cuts.

While rural health care does face real sustainability challenges, rural health system leaders also highlight key strengths unique to rural contexts that position rural health innovation as a blueprint for the future of healthcare, regardless of geography:

Relational Proximity

The **institutional and interpersonal trust** that exists between rural facilities, providers, and the communities they serve from shared lived experience as well as prolonged relationships built over time. This proximity often affords rural care teams social capital, cultural humility, and an intimate understanding of patients' social needs that facilities in other geographic contexts struggle to replicate.

Operational Discipline

Rural health innovation is **shaped and disciplined by resource scarcity**, including workforce, capital, and technology infrastructure. Rural facilities are forced to design for durability and simplicity. Because workforce shortages and tight margins are starting to materialize across all health systems, models build to succeed under rural constraints are effectively “pre-tested” for a resource-constrained future.

Community-Centered Design

Rural health status itself is associated with persistent disparities in morbidity and mortality. Any innovation in this context **inherently addresses a gap in access, outcomes, or infrastructure**. The unwavering focus on specific, actionable needs among rural-serving organizations directly influences organizational innovation that benefits both patients and communities.

*“I fundamentally believe this—**what we do with rural [health] will lead the way in terms of how care delivery needs to change in our larger urban settings.** Rural hospitals have a shortage of [resources] and they have to figure out how we think about care delivery differently to manage that...so a lot of the tools we developed from a rural perspective, we actually use in our large quaternary and tertiary facilities as well because it's just a more efficient way to use what is a limited resource.”*

– VP Strategy, Leading Health System

Executive Summary:

About the Rural Health Innovation Case Study Compendium

The case studies in this compendium demonstrate how health systems can harness strengths unique to the rural context to address 3 key challenges to rural health sustainability, each shaped by the **cross-cutting imperative of addressing foundational needs to stabilize rural care ecosystems**.



Keeping Care Close to Home



Rethinking Workforce Innovation



Addressing SDOH in Rural-Specific Contexts

*"Rural health transformation is about how we reduce total cost of care. We have to think about payment redesign...[but] rural hospitals say **I can't think about all these complex conversations around alternative payment models and everything else. I'm just trying to stay alive.**"*

*"CHWs do so much to alleviate our workers on the ground. They have the relationships, the trust, so they can really streamline care whenever there's communication or language barriers. **Often it comes down to a cultural barrier of trust.**"*

*"I look at some of the other communities that have Instacart or Uber Health partnerships and we just don't have these partners in our communities. **It feels like it has to be more grassroots.** Figuring out how to apply SDOH innovations in a rural community context can be really different."*

Addressing Foundational Needs for Rural Providers in the RHTP "Era"

Cross-Cutting Challenge

WHAT WE'RE HEARING

RHTP was built for transformation, not the starting condition of fragility that most rural hospitals are actually facing. Investment is flowing to hub-and-spokes and clinically integrated networks (CINs), but leaders say there's still a real gap in addressing rural hospitals' short-term, mission-critical needs just to remain viable.

*"Where I'm particularly critical of RHTP is its failure to support the existing needs of rural communities...**to go into future transformation, you need a bridge.** Right now there is no bridge, so there are going to be a lot of people who fall through that."*

Table of Contents

	Slide Numbers	Challenges Addressed
<u>1. Sanford Health: AI-Powered Colorectal Cancer Screening Infrastructure</u> Sanford Health combines an AI-powered risk score with mailed stool-based tests to match patients with the right colorectal cancer screening option. The enterprise-wide program expands preventive screening while reserving limited colonoscopy capacity for higher-risk patients.	5 - 9	
<u>2. Ballad Health: Appalachian Highlands Care Network (AHCN)</u> Ballad Health's Appalachian Highlands Care Network connects uninsured and underinsured rural residents to primary and specialty care, chronic disease support, and help with social needs. Community health workers, community navigators, safety-net clinics, and local partners work with patients according to level of acuity.	10 - 14	
<u>3. Wellstar Health System: Digital Care Network</u> Wellstar Health System's Digital Care Network gives rural hospitals 24/7 virtual access to specialists so more patients can receive care close to home. Its multi-hub model reduces avoidable transfers while strengthening rural facilities' revenue, long-term hospital capacity, and ability to manage complex conditions.	15 - 19	

Key



Keep Care Local



Workforce Innovation



Rural SDOH

Case Study: Sanford Health's AI-Powered Colorectal Cancer Screening Infrastructure



Sanford Health Increases Access to CRC Screening Through “Human-in-the-Loop” AI

Aligning screening modality with patient risk mitigates rural gastroenterology workforce shortage

Case Study Snapshot



Footprint: Headquartered in Sioux Falls, SD; 58 hospitals and 250+ outpatient facilities across the upper Midwest

Timeframe: 2023-Present

Challenge: Below-target colorectal cancer (CRC) screening rates due to barriers including limited gastroenterologist (GI) capacity to perform colonoscopies and primary care (PC) teams’ unfamiliarity with stool-based tests (SBTs). 2023 data showed that monthly colonoscopy rates (3,000 per month) would need to be more than doubled to reach programmatic goals of 8,000 per month.

Solution: Centralized, enterprise-wide CRC outreach and screening infrastructure that triages screening modality (colonoscopy vs. SBT) and associated outreach by patient risk. An AI-powered tool embedded in the electronic medical record (EMR) stratifies patient risk according to 85 nontraditional risk factors (e.g., employment status, psychiatric conditions).

Key Stakeholders:

- Chief Medical Officer
- GI Service Line
- PC Service Line
- Sanford Enterprise Data & Analytics (EDA)
- Quality
- Population Health
- Marketing/Communications
- Clinical Informatics Ops
- External Screening Kit Vendors (Cologuard, Exact Sciences/Abbott, Polymedco)

Challenges Addressed



Keeping Care Close to Home

Reduces typical rural barriers to CRC screening via colonoscopy (e.g., travel time, inability to take time off work) for average-risk patients while maintaining their access to preventive care via SBT kits



Addressing SDOH in Rural-Specific Contexts

Incorporates tools and practices developed by Sanford and screening kit partners that mitigate SDOH barriers to CRC screening, including transportation and economic status (e.g., financial assistance policies specifically for colonoscopy)

Key Outcomes (as of 2025)



74% enterprise CRC screening rate by the end of 2025, an increase from **69%** in 2023 pre-campaign



11k+ stool-based test kits returned, out of 50k+ test kits mailed to average-risk patients who were overdue for screening



734 patients had precancerous polyps removed through the initial screening campaign



*If all you offer is colonoscopy, you can expect to screen at most 60% of your patient population because **many patients face barriers to equitable care**—they can’t take time off from work or don’t have childcare or don’t have transportation after anesthesia.”*

– Jennifer Weiss, Senior Quality Strategist, Sanford Health

Idea to Action: Operationalizing an Enterprise-Wide CRC Screening Infrastructure

Key Milestones

- Established system-wide Steering Committee with operational, clinical, and administrative leadership representation
 - Initiated enterprise-wide communication and socialization campaign
 - Developed methodology for AI-powered CRC risk score beyond traditional risk factors
 - Continuously refined CRC risk score methodology with feedback from clinical leaders before deployment
- Deployed AI-powered CRC risk score at the enterprise level with ongoing refinement based on PC feedback
 - Mailed letters and SBT kits to average-risk patients in batches that were never screened, overdue for screening, and/or on the colonoscopy wait list
 - Developed a dashboard tracking key process metrics, e.g., return rates, positivity rates
 - Manually tracked key clinical outcome data, e.g., precancerous polyps, number of cancer diagnoses
- Continue mailing campaign in waves on an annual basis, with bulk of outreach from March to June and a campaign in the Fall
 - Automate previously resource-intensive, manual functions to facilitate scalability and incorporate expanded patient populations

Pre-Campaign Launch

(1-1.5 years)

- ✓ Data-driven case for change
- ✓ GI-led PC education
- ✓ CMO-led socialization & buy-in campaign
- ✓ External partner support

Initial Launch

(2 years)

- ✓ Data-driven & transparent PC engagement
- ✓ Steering Committee representation
- ✓ Centralized workflows and staffing
- ✓ Opt-out distribution model
- ✓ SDOH burden mitigation

Scaling & Sustainment

(Ongoing)

- ✓ Continuous EDA collaboration
- ✓ Outreach aligned with GI capacity
- ✓ Payer collaboration

Key Facilitators of Success

Key Facilitators of Success Underlie Increase in CRC Screening Rates

1

To build a strong foundation and garner buy-in from physician leaders prior to launch:

Pre-Campaign Launch

- **Data-Driven Case for Change:** Anchor the “why” in priorities familiar to key stakeholders, defining how the status quo approach is untenable with gap closure of enterprise population health goals
- **CMO-Led Socialization & Buy-In Campaign:** Continuous, direct communication from senior executive explains the “why” behind novel population health model; project team initiates feedback loop to build confidence in validity of AI-powered CRC risk score, tapping into existing governance bodies (e.g., service line physician councils)
- **GI-Led PC Education:** Address lack of PC familiarity with SBT screening modality through GI-led “Grand Rounds” with PC clinics, building trust and enhancing best practices adherence
- **External Partner Support:** Consult screening kit partners who have experience with similar deployments to learn from other organizations, access existing resources, and ultimately reduce ramp-up time (e.g., workflows or templates, risk score filters)

2

To sustain key stakeholders’ trust and strengthen proof-of-concept:

Initial Launch

- **Steering Committee Representation:** Ensure diverse expertise from administrative and physician leaders on the Committee to inform post-launch decision points, especially when new scenarios arise
- **Data-Driven & Transparent PC Engagement:** Sustain trust using dashboard and clinical outcomes data; vet decision-making around workflow changes in PCPs’ on-the-ground knowledge & patient interactions
- **Centralized Workflows & Staffing:** Centralized model reduces variation and ensures scalable compliance when compared to a clinic-by-clinic approach; dedicated staff develop program-specific expertise
- **Opt-Out Distribution Model:** Rather than asking patients to opt in, project team sends communications and kits to eligible patients unless they specifically opt out, increasing return rates.
- **SDOH Burden Mitigation:** Address transportation or financial barriers by leveraging health system (e.g., referral distance calculator tool schedules colonoscopies based on patient distance and choice) and screening kit partner resources (e.g., Exact Sciences/Abbott partnership with UPS to pick up completed SBT kits)

3

To disseminate lessons learned and ensure continuous quality improvement:

Scaling & Sustainment

- **Continuous Sanford EDA Collaboration:** Once proof-of-concept is in place, facilitate scaling by automating previously manual or resource-intensive processes (e.g., tracking clinical outcomes) and applying project logic to expanded patient populations.
- **Outreach Aligned with GI Capacity:** Ongoing partnership with local GI teams to safeguard program sustainability; SBT outreach volumes are determined relative to GI teams’ maximum capacity to conduct follow-up colonoscopies
- **Payer Collaboration:** Demonstrate value by applying proof-of-concept to payers’ member rolls, increasing resource efficiency for payers and reducing patient confusion over duplicative outreach for SBT screening

Sanford Health's Enterprise-Wide CRC Screening Program: Lessons Learned for Health Systems

1

For rural systems operating in workforce shortage areas, human-in-the-loop AI risk stratification approaches can help redirect existing capacity and increase access to services for those who need it most.

- Rather than replacing or adding additional clinicians, Sanford deployed a human-in-the-loop AI model that augments provider expertise with over 85 non-traditional risk factors while embedding clinical oversight at every critical decision point.
- Triage screening modalities by patient risk allowed Sanford to cull many average-risk patients from the long colonoscopy waiting list during the initial launch, reducing wait times by over 2 months and increasing access for high-risk patients.

2

Rural enterprise population health initiatives should strive to protect the trusted relationships between PCPs and their patients in designing project workflows.

- Relying on PCPs' on-the-ground knowledge to integrate project processes into existing clinical workflows ensured that the project would not unintentionally burden patients. For example, a decision to include nursing home patients in the patient population was reversed once PCPs shared that they visited monthly and could have a conversation about screening at the point of care.
- The project leverages PCPs' trusted relationships to follow up and close the loop with average-risk patients after 3 instances of unanswered outreach.

▶▶ What's Next?

- Launch a collaborative, resource-based partnership model between Sanford, Tribal Nations, and a screening kit partner to address persistent CRC disparities among Tribal and Alaska Native populations
- Apply project logic to ensure screening for patients whose SBT kits are ordered in the clinic setting
- Plan to partner with newly acquired markets to ensure that screening infrastructure is scaled to Sanford's full footprint in the future

Case Study: Ballad Health's Appalachian Highlands Care Network



Ballad Health Improves Outcomes for Rural Uninsured & Underinsured Patients

Appalachian Highlands Care Network (AHCN) addresses upstream drivers of uncompensated care

Case Study Snapshot



Footprint: Headquartered in Johnson City, TN; 20 hospital health system across the rural Appalachian Highlands region (KY, NC, TN, VA)

Timeframe: 2021-Present

Challenge: Uninsured and underinsured individuals in Ballad Health's Appalachian region lacked reliable, proactive access to primary care, specialty care, chronic disease management, and health-related social needs support. As a result, many were delaying care until preventable conditions became severe and surfaced in the ED.

Solution: AHCN—a multi-pronged care model leveraging community health workers (CHWs), community navigators, and safety-net partnerships to improve outcomes for patients living within a 21-county service area that are either uninsured or have income below 225% of the federal poverty level.

Key Partners:

- Ballad Health
- Project Access
- Safety-net clinics
- Community-based organizations (CBOs)

Challenges Addressed



Rethinking Workforce Innovation

AHCN's staffing model leverages capacity extenders, such as CHWs and community navigators, while aligning staffing intensity with patient acuity so each patient receives support that reflects the complexity of their needs.



Addressing SDOH in Rural-Specific Contexts

"Broker, don't build" grassroots approach to developing AHCN, relying on a network of community partners to understand where Ballad could optimally deploy resources to fill in infrastructure gaps rather than duplicating existing services that address social needs.

Key Outcomes *(as of April 2026)*



32% reduction in total cost of care



28% reduction in preventable inpatient (IP) utilization



\$2.49-\$3.42 returned per \$1 invested

“Broker, Don’t Build” Approach Underpins Collaborative Program Delivery

Program launch facilitated by embedding within existing community infrastructure across 3 different program components

Patient Identification & Enrollment

- After finding cold outreach via telephone to be ineffective, co-located CHWs and community navigators directly within trusted community partner organizations to enroll eligible patients.
- Later added an additional enrollment mechanism of allowing self-referrals from CBO partners

Regional Care Network Expansion

- Expanded access to primary care by tapping into each region’s existing free clinic infrastructure
- Partnered with Project Access, a non-profit organization, to expand access to low- and no-cost specialty care across a network of independent specialists
- Removed barriers to access for all Ballad Health services by allowing seamless referrals through AHCN

Social Care Integration

- Participation in a closed-loop referral network through the UniteUs platform, connecting patients to regional agencies addressing social and behavioral needs (e.g., transportation, food, behavioral health)



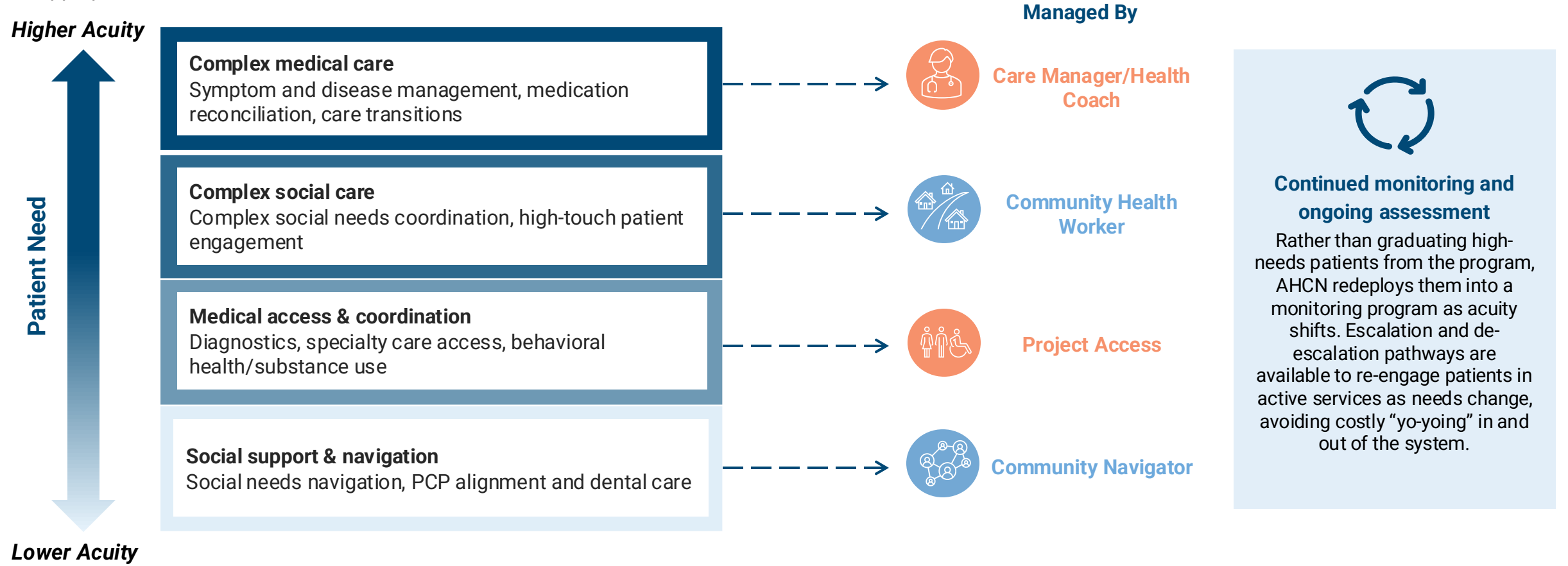
*Whenever you're starting a new program, it's important to first ask what existing resources there are inside or outside the system you're working in. In a situation like this, we try not to duplicate existing resources **but to partner with and, to the degree possible, better empower those resources.***

– Todd Norris, Chief Population Health Officer, Ballad Health

AHCN's Program Design Matches Care Intensity to Patient Complexity

With a primary focus on expanding access to primary care to reduce the need for high-intensity, costly inpatient care

Although the program began with a high-fidelity CHW model, low panel sizes and CHW certification costs made it financially unsustainable to deploy this workforce at scale. AHCN introduced community health navigators—a complementary, similarly trained role—to support lower-acuity patients. CHWs now focus on the highest need, most complex cases, transitioning patients to navigators as needs stabilize, or handing off to other roles within the system (e.g., care managers for recovery support) as appropriate.



Ballad Health's Appalachian Highlands Care Network: Lessons Learned for Health Systems

1

High-fidelity programs managing complex social and medical needs lend themselves well to rural contexts, but consider where workforce & resource constraints may hinder program scalability.

- High-touch nature of CHW-dependent programs combined with CHW certification costs initially created barriers to scaling.
- Ballad Health introduced a more cost-effective, tiered staffing approach that leverages community navigators, care managers, and partners (e.g., Project Access) to manage patients based on specific needs and acuity.

2

A value-based approach to managing uninsured populations can be a strategy for proactively mitigating the disproportionate impact of the impending uncompensated care crisis on rural health outcomes.

- Focusing on the “three-legged stool” of managing health-related social needs, healthcare access, and chronic disease management represents a unique opportunity to reduce uncompensated care.
- Although AHCN does not generate direct revenue, it creates value via its downstream impact on resource savings elsewhere in the system that offset program costs, e.g., preserving inpatient capacity or shifting utilization to appropriate, lower-cost settings.



What's Next?

- Explore how telehealth and innovative digital strategies can mitigate SDOH barriers and support increased access to AHCN services
- Utilize evidence-based, outcomes-driven agentic AI capabilities to overcome workforce shortages and expand program capacity to deliver prevention and disease management services

Case Study: Wellstar Health System's Digital Care Network



Wellstar Health System's Digital Care Network Supports Rural Hospital Sustainability

Program motto “Going from transfer for uncertainty to keep with confidence” subverts traditional extractive hub-and-spoke models

Case Study Snapshot



Footprint: Headquartered in Marietta, GA; 11 hospitals, 300+ outpatient sites across GA

Timeframe: 2019 – Present

Challenge: Traditional approach of transferring patients away from rural hospitals created a negative feedback loop: Retaining fewer inpatients leads to less revenue & less reinvestment; increased transfers negatively impact community trust in the local hospital over time.

Solution: Multi-hub telehealth model positions rural hospitals as local acute-care hubs with 24/7 virtual specialist support, helping them treat higher-acuity patients locally & transfer to tertiary facilities only when necessary.

Key Partners

- Medical College of Georgia Center for Digital Health, Augusta University
- Wellstar Health System
- Independent rural hospital partners (19)

Challenges Addressed



Keeping Care Close to Home

Reduces unnecessary transfers for low-acuity conditions that do not require higher-level care, avoiding the extractive hub-and-spoke pattern, and keeps patients and revenue local to fund the staff, equipment, and capabilities needed for growth



Rethinking Workforce Innovation

Integrates local clinical teams, including physicians, nurses, and an on-call remote specialist, within the hospital's existing workflow, creating greater comfort and confidence in managing complex disease locally without competing for scarce rural specialists

Key Outcomes (2021-2026)



70% of patients in the program remain at local hospitals for care, compared to 30% in 2019



301 total e-consults (started 2024)



6600 patients served since program launch



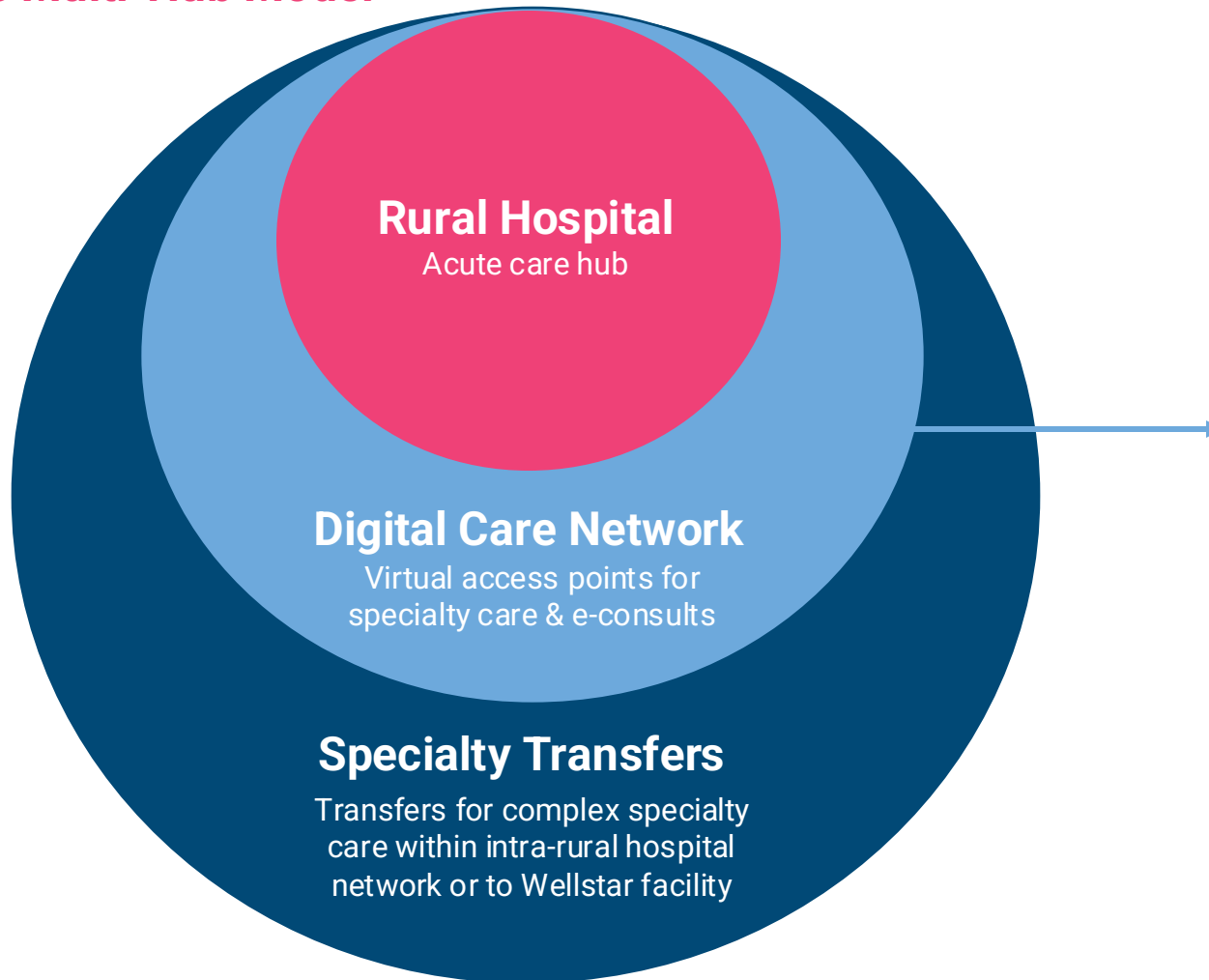
*[The Wellstar Digital Care Network] is the first thing that I've ever seen that actually makes rural healthcare stronger. Telehealth itself does not. **It's the philosophy behind how you use it that really makes the difference.***

– Dr. Matthew Lyon, Director, MCG Center for Digital Health

Multi-Hub Model Creates Interconnectivity Between Rural Hospitals

Philosophy of “right place, right person, right time” provides foundation for intra-rural transfers

The Multi-Hub Model



Lowering the Adoption Burden for Rural Hospitals

Adopting new technology in independent rural facilities requires more than functionality, it requires ease of use and minimal disruption to existing workflows. Models that succeed prioritize tools clinicians can trust and rely on without added technical burden. Wellstar’s Digital Care Network was designed around the following principles to support seamless adoption:



Low-tech by design

Cloud-based, with minimal proprietary hardware, requiring no need for a dedicated IT team to maintain.



Minimal clinical burden

Simplified, one-click access for clinicians, allowing direct connection to a specialist with the push of a single button.



Nimble, non-proprietary systems

Avoids single-vendor lock-in, allowing the network to adapt as needs change



Embedded in workflow

Technology is positioned as an integrated part of clinical care delivery, not a separate or standalone tool.

Scale Is Achieved as an Outcome of Responsible Network Stewardship

Wellstar's approach to determining when – and critically why – to expand their footprint over time

Approach to Scaling the Digital Care Network



Identify Bottom-Up Program Needs & Avoid Top-Down Mandates

New specialties are added when partner hospitals independently identify a shared need, rather than through top-down planning. Once a service line is added, it becomes available to every partner hospital through e-consult access.



Prioritize Financial Sustainability While Maintaining Flexibility

Each proposed addition is evaluated against Wellstar's financial fiduciary responsibility before it scales. Requests that are not yet financially viable may be deferred or referred elsewhere, but program leads remain open to potential future partnerships as the program evolves.



Make Innovation Routine Through Continuous Partner Feedback

Hospital CEOs and frontline clinicians openly flag what they are seeing in the field, and that feedback shapes ongoing improvement led by the core Digital Care Network leads. Growth depends on transparency, trust, and partnership.

Key Metrics for Network Performance

Metrics are tracked jointly by administrative and physician leads to decide when and how quickly to scale:

Operational Volume

- Consult volume by location
- Time-of-day consult patterns
- Average telemedicine days per patient

Transfers

- Transfer rate by county
- e-Consult transfers

Clinical Quality

- Length of stay
- Mortality rate
- Local end-of-life care rate

Wellstar's Digital Care Network: Lessons Learned for Health Systems

1

Health systems must be intentional about not letting technology be a barrier for building accessible partnerships with independent rural facilities.

- Recognizing that rural hospitals enter partnerships at different starting points and capacities, the Network has built-in flexibility to adjust services to each facility's needs and maturity level.
- Decision-making around new technology add-ons or improvements is driven by the philosophy of making adoption as easy as possible for rural hospitals, regardless of their existing infrastructure.

2

A sustainable “multi-hub” network should be designed with rural hospital capacity-building in mind, driving long-term sustainability of rural care ecosystems.

- Done right, telehealth can reverse the extractive cycle of rural healthcare—keeping patients local rebuilds trust, volume, and rural hospital capacity to treat complex conditions.
- Internally, this involves not just redesigning clinical workflows and processes but encouraging an intentional mindset shift that centers virtual care delivery as the norm e.g., a rural hospital without a cardiologist on staff requires cardiology e-consults for all heart failure admissions.

▶▶ What's Next?

- Plans to expand clinical specialty care services and support models across rural Georgia
- Expand educational opportunities for healthcare professionals, including on-site simulation training and enhanced tele-education pathways

Research Methodology

From March to August 2026, the Health Impact Alliance (HIA) research team conducted 15 in-depth qualitative interviews with health system leaders and external subject matter experts with expertise in rural health. HIA identified 3 rural health system initiatives that aligned with emerging themes, conducting 3 additional qualitative interviews to develop this case study compendium. Case studies were reviewed for accuracy by health system leaders before publication.

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Looking Ahead

This compendium is intended to be a living resource that will be regularly updated based on member feedback and industry trends. Do you have suggestions on how we can improve the utility of this resource?

Please send your suggestions to [our team](#)!



We Power our Community to Drive Health Forward

Who We Power

Leading Health Systems and Beyond

The approximately 150 innovative integrated delivery systems with over \$2B in total operating revenue

Industry Partners

Industry innovators, from early stage to Fortune 50 organizations, that are working alongside health systems to drive health forward

Regional Health Systems

Health systems with less than \$2B and flagship hospitals with >\$100M in total operating revenue.

1,600+

LHS Executive
Relationships

450+

LHS C-suite
Members

150+

Innovative Industry
Members

How We Serve Health System Members



Convene exceptional peer groups that facilitate meaningful relationships and knowledge exchange



Create world-class leadership development programs designed to prepare next generation healthcare leaders



Produce original research leveraging member insights on healthcare's greatest challenges and opportunities



Deliver innovation surveillance and strategic roadmaps to help health systems navigate strategic transformation



Facilitate novel partnerships to address critical industry issues that demand collective action