Rural Health Transformation Program

Distributed Care Model with Enhanced Revenue Cycle Management

Collaborative Solution Presented By: HealthSaaS, AkeLex, and PocketRN

Program Authority: Public Law 119-21, Section 71401

Program Overview:
https://www.cms.gov/priorities/rural-health-transformation-rht-program/overview

Contents

Executive Summary

For 50 years, the federal government has tried to solve rural healthcare with one strategy: getting more doctors to move into rural communities. Since 1965, more than $1 billion has flowed through the Health Professional Shortage Areas (HPSA) program, including signing bonuses, debt relief, enhanced reimbursement, visa flexibility, and state-level financial incentives. The results? A 2023 Health Affairs study found no statistically significant changes in county-level mortality rates or physician density after HPSA designation. Seventy-three percent of counties designated as shortage areas still qualified as shortage areas a decade later.

The strategy hasn't worked.

The CarePath system implements a phased transition from unsustainable role-based to sustainable skills-based care models, enabling the existing workforce to deliver higher-quality care to more patients through intelligent technology augmentation. It creates a workforce multiplier effect that raises the functioning level for all members of the system.

This is the structural shift that federal incentive programs have never achieved. Rather than asking how to recruit more providers into rural areas, CarePath asks how to make every existing provider dramatically more effective. Our Distributed Care Model, a collaboration among HealthSaaS, AkeLex, and PocketRN, uses the AkeLex Adaptive Knowledge Engine (AKE), an ontological AI expert system rather than an LLM, to monitor thousands of patients simultaneously.

Our Virtual Nurse - Telehealth Triage Team leverages intelligent workflow automation to route precise escalation notifications to EMS, Community-Based Paramedicine, Urgent Care, or Follow-Up Services based on clinical acuity. Every nurse, paramedic, and physician in the network operates at a higher level because the **R**ight information is delivered to the **R**ight person at the **R**ight time.

Our comprehensive solution directly addresses **all five RHT Strategic Goals** and **eight statutory requirements** while supporting multiple qualifying uses of funds. Partnership with the **American Heart Association** provides third-party validation and ongoing clinical expertise

Core Solution Philosophy

Prevention and therapeutic optimization deliver superior outcomes at lower cost. The CarePath evidence-based foundation enables value-based care success and achieves the RHT Program's goal of affordable, high-quality care through sustainable healthcare innovation.

The RHT Program represents a once in a generation opportunity. States that invest these transformational funds in the CarePath distributed care model don't just purchase temporary relief; they build permanent infrastructure that transforms fragmented rural healthcare into coordinated, sustainable care ecosystems powered by our ORDS clinical intelligence. The operational efficiencies, improved outcomes, and enhanced revenue capture capabilities created by our platform continue to deliver value for decades after the five-year program period ends, ensuring rural communities thrive long after federal funding transitions to the next generation of healthcare innovation.

Rural Health Challenges

Rural providers face a perfect storm of clinical and financial pressures:

Clinical Challenges

- **Workforce Crisis:** HRSA projects a shortage of 86,000 physicians by 2037
- **Primary care shortage:** 35,000 to 44,000 primary care physicians needed
- **Rural areas are most severely impacted,** with the lowest physician-to-population ratios
- **Registered nurse shortage:** 78,000 RNs needed by 2037
- **Geographic barriers** preventing timely intervention
- **Limited specialist availability**
- **High rates of chronic disease**

Financial Challenges

- **Lower patient volumes** reduce economies of scale
- **Higher proportion of Medicare/Medicaid patients** with lower reimbursement rates
- **Administrative staff shortages** are limiting coding and billing capacity
- **Incomplete documentation** is causing claim denials and payment delays
- **Missed opportunities** for appropriate level-of-service coding

The CarePath solution addresses all challenges simultaneously through intelligent automation that operates in parallel with clinical workflows, creating unprecedented efficiency in both care delivery and revenue cycle management.

Proven Clinical and Financial Outcomes

The CarePath solution isn't theoretical; it has delivered documented results:

Technology to Support Aging in Place (TSAP) was a remote patient monitoring program that brought together industry, community-based aging services, university researchers, and health care providers. The program's goals were to reduce hospital readmissions, enhance self-management of chronic illness, encourage aging in place, and improve the quality of care.

This program targeted CMS dual eligible adults, ages 65+, with heart failure plus two additional comorbidities, who were at high risk of hospital readmissions and often required intensive clinical services.

Collaborative entities:

- Washington State University College of Nursing
- Washington State University, Department of Human Development
- Legacy Health
- PeaceHealth
- SeaMar Community Health Centers **(FQHC)**
- Area Agency on Aging and Disabilities of Southwest Washington
- HealthSaaS

Clinical Outcomes

- **54% reduction in hospital admissions**
- **57% reduction in hospital days**
- **Platform proven effective** with dual-eligible Medicare/Medicaid populations
- **Successfully utilized** across diverse settings: academic medical centers, social service organizations
- **Demonstrated effectiveness** with the highest-need, highest-cost rural populations

Critical Note: **The results above were achieved BEFORE Ontological & Agentic AI integration**. Now our enhanced capabilities can deliver even greater impact.

Potential ROI when deployed as part of RHTP

If 5,000 rural patients were enrolled and achieved TSAP-level outcomes (54% admission reduction), with average hospital admission costing $15,000:

- Program prevents 2,700 admissions annually = **$40.5M in avoided costs**
- Enhanced revenue capture: 10% improvement = **$4M additional revenue**
- Administrative savings: 30% efficiency gain = **$2M reduced costs**
- **Total annual impact: $46.5M**—exceeding typical five-year RHTP allocation

How Distributed Care with Agentic Routing Works

Continuous Intelligence Layer

Clinical Intelligence

- **Automated data collection** from Bluetooth-enabled devices in patients' homes via the CarePath Connect mobile application
- **Device connectivity:** Supports blood pressure monitors, pulse oximeters, glucometers, weight scales, activity trackers, thermometers, and the MedWell smart medication adherence system
- **Near real-time data transmission:** Patient devices → CarePath tablet or hub → Secure cloud endpoints via cellular or Wi-Fi → ORDS analysis engine → Care team portals with prioritized intelligent assessments and Virtual Nurse triage and escalation as necessary.
- **AI-powered ontological assessments** synthesizing health profiles, medical history, device data, medication adherence, and digital questionnaire responses
- **Evidence-based analysis** supported by peer-reviewed medical literature using a cognitive computing engine with RADV diagnostic validation and ORDS therapeutic optimization

Clinical excellence begins with diagnostic accuracy. **Risk-Adjusted Diagnostic Validation (RADV)** ensures therapeutic optimization is built on accurate diagnoses by leveraging independent AI-powered assessments against comprehensive clinical knowledge systems.

Real-time risk stratification using **ORDS** methodology and four-level classification:

- **O**ptimal: Care aligns perfectly with evidence-based best practices for the individual's specific profile
- **R**easonable: Care falls within acceptable clinical standards (particularly in situations without a clear consensus)
- **D**efensible: Care meets minimum acceptable standards based upon resource limitations
- **S**uboptimal: Care patterns indicate significant deviations from literature recommendations. Opportunities for alternative care plans are included with Suboptimal score reports.

ORDS Scoring is not fixed and is based upon outcomes analysis of operational data sets; the boundaries of each class are expected to adjust over time and are used across six clinical categories.
- **Health status and vital trends**
- **Wellness and preventive care**
- **Prevention of disease progression**
- **Engagement and adherence**
- **Therapeutic optimization**
- **Quality of life metrics**

Intelligent Care Team Triage

When intervention is needed, agentic workflow technology automatically routes the Right Information to the Right Person at the Right Time**.**

Nurse Triage Call Center receives prioritized, intelligent assessments with:

- Comprehensive patient context and trending data from multiple connected devices
- Literature-backed clinical rationale (not simple threshold alerts) generated by ORDS evaluation against peer reviewed evidence
- ORDS classification (Optimal, Reasonable, Defensible, Suboptimal) providing clear therapeutic optimization guidance
- Recommended intervention level based on clinical urgency determined by ORDS assessment
- Visual dashboards displaying actionable data for rapid decision-making
- HIPAA-secure messaging capabilities for two-way communication
- **Real-time documentation capture** for billing optimization
- **Automatic time tracking** for time-based billing codes

Nurse Triage Call Center Routes Cases to Appropriate Resources:

- **Primary Care Follow Up:** Scheduled appointment for optimization opportunities identified by ORDS assessment
- **Community-Based Paramedicine:** Home visit for assessment, education, or intervention when ORDS identifies the need for in-person evaluation
- **Urgent Care:** Non-emergency but timely evaluation needed based on ORDS assessment
- **Emergency Medical Services (EMS):** Immediate response for acute situations identified through ORDS severity stratification
- **Specialty Consultation:** Telehealth or in-person referral as appropriate when ORDS assessment indicates need for specialized expertise

Revenue Intelligence (Parallel Processing)

- **Real-time documentation analysis** evaluating completeness and coding opportunities
- **Automatic ICD-10 coding recommendations** based on clinical pathways and evidence
- **CPT code selection support** with appropriate diagnosis alignment
- **Time documentation tracking** for time-based billing codes
- **Provider qualification verification** for service-level coding
- **Complexity assessment** supporting appropriate E&M level selection
- **Agentic Workflow for Revenue Cycle Management**
  Creates a seamless bridge between clinical care delivery and revenue cycle management, ensuring that excellent clinical documentation translates into appropriate reimbursement while maintaining uncompromising compliance standards.

The Force Multiplier Effect

This ORDS-powered distributed care model enables:

Clinical Force Multiplication

- **1,000+ patients monitored simultaneously** per clinical oversight team
- **Precise resource matching** to clinical need and urgency through cognitive triage notifications powered by ORDS assessment backed by peer-reviewed medical literature
- **Reduction in unnecessary emergency department visits and hospitalizations** through appropriate triage

Administrative Force Multiplication

- **2,000+ patient encounters managed** per billing/coding FTE
- **Automated documentation analysis** and coding suggestions
- **Proactive quality assurance,** reducing errors before submission
- **Enhanced medication adherence,** preventing costly hospitalizations through MedWell smart pillbox monitoring with automated compliance reporting
- **Prevention of acute episodes** through early detection of worrisome trends before clinical deterioration using ORDS continuous assessment
- **Optimized utilization** of limited EMS, urgent care, and specialty resources through intelligent routing based on ORDS assessment

Right Information, Right Person, Right Time

The genius of our agentic workflow is intelligent decisioning at scale:

Right Information: Comprehensive ontological AI assessment combining objective device data (vital signs, weight, SpO2, glucose, activity, medication adherence), subjective patient-reported information through digital questionnaires, medical history, and peer-reviewed literature creates actionable clinical intelligence backed by a cognitive computing engine through RADV diagnostic validation and ORDS therapeutic optimization, not generic range and threshold alerts that create alert fatigue.

Right Person: Automated cognitive rules engine routes ORDS assessments to the appropriate care resource, whether nurse triage, Community-Based Paramedicine, urgent care, or EMS, with full clinical context displayed through customizable dashboards and visual data presentation

Right Time: Near real-time monitoring with intelligent severity stratification using ORDS scoring ensures interventions occur when most effective, preventing deterioration while avoiding alert fatigue through nuanced, tailored messaging covering a broad range of clinical behaviors

The Clinical Intelligence Engine

The ORDS methodology is powered by sophisticated clinical intelligence capabilities specifically designed for clinical decision support, therapeutic optimization, and success in value-based care. Our AI system provides five integrated capabilities:

1. RADV - Risk-Adjusted Diagnostic Validation

Clinical excellence begins with diagnostic accuracy. RADV (Risk-Adjusted Diagnostic Validation) ensures therapeutic optimization is built on accurate diagnoses by leveraging independent AI-powered assessments against comprehensive clinical knowledge systems.

Any attempt at therapeutic optimization begins with the correct diagnosis or diagnoses. RADV assessment is a process in which clinical data (including proposed primary and secondary diagnoses) are evaluated against an independent evaluation of the knowledge system in clinical decision support mode.

The process is iterative. If the system requires additional information for clarification, questions are returned for further consideration. The system then returns an appropriate differential diagnosis for consideration.

The report will either return a 'Reasonable' conclusion (when the independent assessment supports the proposed diagnosis) or 'Conflicted' (when other diagnoses may be a better fit for the data). Failure to address an RADV report deviating significantly from the diagnosis submitted will result in an automatic Suboptimal ORDS score. This ensures clinical assessments are built on accurate diagnostic foundations before any therapeutic recommendations are made.

2. ORDS Scoring

The Therapeutic Optimization Framework

ORDS scoring is designed as a simple to understand reporting mechanism supported by an extensive evidence based knowledge set that provides a transparent assessment of proposed clinical treatment plans. Unlike simple threshold-based notifications, which can lead to alert fatigue, our proprietary ORDS methodology systematically evaluates care patterns against peer reviewed literature.

ORDS scoring is continuously updated to remain relevant as medical knowledge evolves. Updating the scoring system is simple and does not require service interruptions. ORDS scoring also accounts for complex variations required in patients with more than a single diagnosis.

Our Ontological-Agentic AI system analyzes patient health profiles, medical history, and available lab and imaging data to compare proposed treatment plans with evidence-based medical literature and authoritative guidelines (e.g., the American Heart Association (AHA)). It returns an ORDS score with a complete rationale and supporting evidence. If additional data might affect final scoring, the system will present a series of questions for clarification.

Additional questions might follow based on the received answers. The goal is to provide fully transparent assessment criteria based solely on therapeutic optimization in line with medical best practices.

Four-Level ORDS Classification:

- **Optimal:** Care aligns perfectly with evidence-based best practices for the individual's specific profile
- **Reasonable:** Care falls within acceptable clinical standards (particularly in situations without a clear consensus)
- **Defensible:** Care meets minimum acceptable standards based upon resource limitations
- **Suboptimal:** Care patterns indicate significant deviations from literature recommendations. Opportunities for alternative care plans are included with Suboptimal score reports

ORDS scoring is not fixed. Based upon outcomes analysis of operational data sets, the boundaries of each class are expected to adjust over time.

Applied Across Six Clinical Categories:

- Health status and vital trends
- Wellness and preventive care
- Prevention of disease progression
- Engagement and adherence
- Therapeutic optimization
- Quality of life metrics

3. Contextualized Clinical Pathway Support

Based on RADV and ORDS scores, relevant clinical pathways (with source documentation) are dynamically provided for the clinical team's review. Standards-defining clinical partners (such as the American Heart Association) are primary sources of peer-reviewed protocols when available.

Pathways can be made interactive in later versions of the product. Interactive pathways will produce operational datasets that not only support dynamic, real-time changes to the patient's care but also provide population data needed to continuously improve the pathways themselves.

4. Provider Scoring

Operational files consist of normalized/structured data. This structure is ideal for supporting a wide range of reporting options. RADV and ORDS scores for various providers and facilities can be tracked and reported if required. This capability promotes value-based care arrangements and continuous quality improvement initiatives by providing objective, literature-based performance metrics.

5. Continuous Quality Improvement (CQI)

The CarePath Knowledge System, powered by Akelex, is built on a CQI backbone. Medicine is a dynamic environment that requires systems that can adapt to ever-changing standards. The modular knowledge representation of architecture at the core of the system was explicitly designed with this in mind.

Additionally, the structured data collected by the system is optimized for machine learning. Operational data sets provide a rich and reliable source for ongoing CQI efforts and the development of improved predictive models. Analysis of ORDS and outcomes data offers valuable insights into value-based care models and enables continuous refinement of clinical decision-support algorithms.

Intelligent Documentation and Coding Integration

Real-Time Clinical Documentation Support

As the ORDS assessment engine evaluates patient data and generates clinical intelligence, it simultaneously performs comprehensive documentation analysis:

Clinical Support Functions:

- Diagnostic assistance aligned with RADV (Risk-Adjusted Diagnostic Validation)
- ICD-10 coding recommendations based on clinical pathways and evidence-based assessments
- Differential diagnosis consideration, ensuring diagnostic accuracy
- Documentation completeness verification for each clinical encounter

Billing Optimization Functions:

- CPT code selection supported by appropriate ICD-10 diagnoses
- Time documentation tracking for time-based billing codes
- Provider qualification verification for service-level coding
- Complexity assessment supporting appropriate evaluation and management (E&M) level selection

Proactive Documentation Refinement

Rather than allowing incomplete records to proceed through the revenue cycle, CarePath initiates intelligent gap analysis:

Automated Refinement Requests: When documentation scores as Defensible or Suboptimal, the system automatically generates targeted queries:

- "Additional details needed to support CPT 99215 vs 99214, please document total time spent or number of diagnoses/data reviewed."
- "ICD-10 code requires greater specificity; laterality is not documented for knee pain diagnosis."
- "Medical necessity justification needed for ordered diagnostic test given documented symptoms."

Iterative Improvement Cycles: CarePath continues analyzing documentation as clinicians respond to refinement requests, updating quality scores in real-time and providing immediate feedback when documentation reaches Optimal or Reasonable levels.

Clinical Team Notification: Integration with the nurse triage call center and clinical oversight team ensures that documentation gaps are addressed within the same workflow that manages patient care—no separate administrative process required.

Direct Alignment with All Five RHT Strategic Goals

With the clinical intelligence foundation understood, we can now see how ORDS-powered assessment transforms each strategic goal from aspiration into measurable reality:

1. Make Rural America Healthy Again

Support health innovations and new access points to promote preventive health and address root causes of diseases.

The CarePath solution promotes evidence-based, measurable interventions for prevention and chronic disease management through automated health monitoring, early intervention protocols, and AI-powered assessment of root causes before conditions deteriorate.

The RADV (Risk-Adjusted Diagnostic Validation) component of our AkeLex system ensures that therapeutic optimization begins with the correct diagnosis, while ORDS methodology systematically evaluates care patterns against peer-reviewed literature across six clinical categories to identify and address root causes. The distributed care network creates new virtual access points that bring specialized ORDS-powered oversight directly into patients' homes, eliminating geographic barriers to preventive care and chronic disease management.

2. Sustainable Access

Help rural providers become long-term access points for care by improving efficiency and sustainability.

The CarePath force multiplier effect enables existing clinical staff to monitor thousands of patients simultaneously through ORDS intelligent assessment, dramatically improving efficiency and creating sustainable operational models that don't depend on continued subsidies. Our distributed care model with intelligent nurse triage call center routing ensures patients receive appropriate care from the right resource, whether EMS, Community-Based Paramedicine, Urgent Care, or follow-up services, optimizing resource allocation across the entire rural healthcare ecosystem.

The ORDS methodology generates the quantifiable evidence demanded by value-based care payers: transparent clinical decision documentation, outcomes tracking, and systematic workflow metrics. This evidence infrastructure converts fee-for-service operations into sustainable value based revenue streams the only long-term financial model for rural healthcare.

Enhanced through revenue cycle optimization: The system ensures that clinical excellence translates into appropriate reimbursement, creating financial sustainability through improved collections, reduced denials, and optimized coding

3. Workforce Development

Attract and retain a high-skilled healthcare workforce by strengthening recruitment and retention in rural communities.

CarePath amplifies clinical capacity through technology and distributed care workflows, making rural practice more sustainable and rewarding for clinicians. Nurses focus their expertise on high-value interventions rather than routine data collection, improving job satisfaction and retention. Agentic workflow technology intelligently routes cases to appropriate care team members based on ORDS assessment, allowing professionals to practice at the top of their license.

The ORDS scoring system provides a clear, literature-backed rationale for every clinical recommendation, supporting clinical decision-making and professional development. This directly supports workforce initiatives by making rural healthcare roles more professionally fulfilling and operationally sustainable.

4. Innovative Care

Spark growth of innovative care models to improve health outcomes, coordinate care, and promote flexible care arrangements.

The CarePath solution supports innovative models of care, including value-based arrangements and alternative payment models. The distributed care network with intelligent, agentic routing creates flexible care arrangements that seamlessly coordinate primary care, specialty oversight, EMS, Community-Based Paramedicine, and urgent care resources.

The ORDS methodology provides the quantifiable evidence and systematic workflow metrics necessary to demonstrate outcomes in VBC arrangements, essential for long-term financial solvency. The knowledge system's CQI backbone enables continuous adaptation as medicine evolves, with ORDS scoring boundaries adjusting over time based on outcomes analysis of operational data sets.

Revenue cycle innovation: The documentation infrastructure enables participation in the Medicare Shared Savings Program, ACO models, and other alternative payment arrangements through comprehensive quality measure tracking and risk-adjustment optimization.

5. Tech Innovation

Foster use of innovative technologies to promote efficient care delivery, data security, and access to digital health tools by rural facilities, providers, and patients.

The CarePath solution represents a cutting-edge implementation of device telemetry monitoring, artificial intelligence, agentic workflow automation, and consumer-facing technology solutions specifically designed for rural healthcare transformation. Our distributed care platform leverages ontological AI to intelligently route notifications across care networks based on ORDS assessment, ensuring data security while maximizing accessibility to digital health tools for rural patients and providers. The system's normalized, structured data architecture is optimized for machine learning, providing rich operational datasets for ongoing CQI efforts and development of improved predictive models.

Qualifying Uses of RHTP Funds (Minimum 3 Required)

States must use funding for at least 3 approved use of funds categories. The CarePath solution with AI clinical decision support directly enables multiple qualifying categories:

A. Prevention and Chronic Disease Management ✓

IMPACT: Addresses leading causes of rural morbidity/mortality and highest-cost conditions

- Evidence-based interventions using our proprietary ORDS methodology (Optimal Reasonable-Defensible-Suboptimal scoring) systematically evaluates care patterns against peer-reviewed literature
- Measurable improvements in chronic disease management through continuous monitoring powered by RADV diagnostic validation, ensuring interventions target the correct conditions
- Early intervention preventing disease progression based on ORDS risk stratification across six clinical categories: health status and vital trends, wellness and preventive care, prevention of disease progression, engagement and adherence, therapeutic optimization, and quality of life metrics
- Distributed care model extending preventive services into patients' homes with ORDS powered clinical oversight, providing contextualized clinical pathway support based on standards-defining clinical partners such as the American Heart Association
- **Revenue optimization:** Documentation infrastructure supporting appropriate CCM and RPM billing codes

Concrete Example: CarePath addresses the workforce shortage (Strategic Goal #3) not through expensive recruitment incentives but through force-multiplier technology that enables existing staff to monitor thousands of patients. This sustainable solution continues working after RHTP funding ends.

B. Consumer-Facing Technology Solutions ✓

IMPACT: Extends clinical oversight into patients' homes—critical for sparse rural geographies

- Bluetooth-enabled devices for patient engagement: Blood pressure monitors, pulse oximeters, glucometers, weight scales, smart pillboxes, thermometers, activity trackers
- CarePath mobile application: Patient-facing app that seamlessly collects data from multiple connected devices and transmits to the CarePath portal via cellular or Wi-Fi

MedWell Smart Medication Adherence: Addressing a $100B Problem

Medication nonadherence costs the US healthcare system $100-300 billion annually. In rural America, barriers to pharmacy access exacerbate this crisis.

MedWell Solution:

- FDA-cleared, Bluetooth Low Energy (BLE) medication adherence device that automatically tracks medication consumption and sends compliance data to caregivers
- Works with prefilled or self-sorted blister packs, providing flexibility for pharmacy partnerships or patient self-management
- Four daily compartments (morning, afternoon, evening, bedtime) with LEDs and audible alarms indicating which compartment to open
- Automatic adherence monitoring, transmitting compartment opening data to the cloud portal for real-time observation

Critical Impact:

- An estimated 10% of hospitalizations in older adults are caused by medication nonadherence
- Adverse drug events account for 700,000 emergency room visits and 100,000 hospitalizations annually
- Most costs attributed to medication nonadherence result from avoidable hospitalization and increased service utilization at physician offices, emergency rooms, and urgent care facilities

Additional Consumer-Facing Capabilities:

- Consumer-facing digital questionnaires combining objective device data for comprehensive health assessments processed through ORDS ontological AI
- Technology-driven solutions are accessible in patients' homes without requiring technical expertise, patients use their physician-recommended devices, and data is collected automatically
- Two-way communication capabilities enabling near real-time interaction between patients and care teams

C. Training and Technical Assistance ✓

- Comprehensive implementation support for technology-enabled solutions, including ORDS methodology training
- Training for remote monitoring, AI-driven care delivery using ORDS and RADV, and distributed care workflows
- Clinical workflow integration and ongoing technical assistance for ORDS-powered systems
- Nurse triage call center operations training for agentic routing protocols using ORDS assessment criteria to determine appropriate care resource routing
- **Revenue cycle training:** Staff education on O.R.D.S. documentation methodology, coding optimization, and compliance requirements

D. IT Advances ✓

- Software solutions improving efficiency and patient outcomes built on Microsoft Azure cloud infrastructure with FDA clearance
- Enhanced data security and interoperability: HITECH and HIPAA compliant platform with SSL/HTTPS encryption, hierarchical security controls, and partitioned data systems hosted on separate database servers
- Agentic workflow technology enabling intelligent care coordination with a cognitive rules engine that filters and prioritizes data based on ORDS methodology
- Near real-time data transmission from edge devices through smart device hubs to cloud endpoints for ORDS analysis
- Advanced privacy controls: Redactor features that can black out or redact personal identification information for secure data sharing with patients and other providers
- Customizable for unique requirements with optional white-label solutions for healthcare organizations
- Hierarchical security management providing appropriate portal access controls across patients, providers, and administrative roles
- **Billing system integration:** HL7 and FHIR interfaces for seamless practice management system connectivity

E. Innovative Care Models ✓

- Support for value-based care arrangements and alternative payment models through ORDS documentation infrastructure
- Documentation infrastructure required for innovative payment arrangements, ORDS methodology provides quantifiable evidence necessary for VBC success
- Coordination and data-driven decision-making capabilities powered by ORDS intelligent assessment
- Distributed care network supporting flexible care delivery across multiple settings with ORDS agentic routing determining optimal resource allocation

F. Fostering Collaboration ✓

- Platform enables regional partnerships between rural facilities and referral centers
- Distributed care model coordinates multiple care delivery resources (EMS, Community Based Paramedicine, Urgent Care, primary care) using ORDS intelligent routing
- American Heart Association collaboration strengthens quality improvement initiatives and provides third-party validation of ORDS clinical pathway development
- Data sharing and best practice dissemination across provider networks supported by normalized, structured ORDS operational data
- Multi-institutional collaboration model proven through the TSAP program: Coordination across social service organizations (Area Agencies on Aging), academic institutions (Washington State University), acute care hospitals (Legacy Health, PeaceHealth), and federally qualified health centers, demonstrating the platform's ability to foster comprehensive partnerships addressing social determinants and clinical needs simultaneously

Statutory Rural Health Transformation Plan Requirements

The RHT Program requires states to address eight mandatory elements (42 USC). 1397ee(h)(2)(A)(i)). The CarePath solution with ORDS-powered clinical intelligence directly supports:

1. Improving Access to Healthcare Services

Remote monitoring with ORDS assessment extends specialized clinical oversight without requiring physical infrastructure expansion or patient travel. Our distributed care model, with a nurse triage call center, creates virtual access points that intelligently route patients to appropriate care resources based on ORDS clinical need assessment and urgency evaluation.

The ORDS assessment engine provides literature-backed rationale (not simple threshold alerts), ensuring every routing decision is evidence-based.

2. Improving Health Outcomes

ORDS methodology and AI-powered early intervention demonstrably reduce hospitalizations, improve medication adherence, and optimize therapeutic outcomes. The RADV component ensures diagnostic accuracy, which underpins all interventions.

Intelligent routing ensures patients receive timely interventions from the most appropriate care resource based on ORDS assessment, preventing deterioration and avoiding unnecessary emergency department visits. The CQI framework continuously refines care delivery based on outcomes data, with ORDS scoring boundaries adjusting over time.

Enhanced through revenue optimization: Improved provider financial health ensures continued access to care, creating a virtuous cycle of better outcomes and sustainable operations.

3. Technology Use for Prevention and Chronic Disease

Our ontological-agentic AI platform combines remote monitoring, artificial intelligence, distributed care workflows, and consumer-facing technology specifically designed for these applications. The AkeLex knowledge system performs ORDS-style assessments across six clinical categories, ensuring comprehensive evaluation. Agentic routing delivers the right information to the right person at the right time, enabled by ORDS-powered clinical assessment that evaluates care patterns against peer-reviewed literature.

4. Local and Regional Partnerships

The American Heart Association collaboration provides third-party validation, research participation, quality-improvement infrastructure, and ongoing performance measurement. The partnership provides access to cutting-edge cardiovascular health management protocols that integrate into ORDS clinical pathways. The distributed care model inherently creates partnerships among rural primary care providers, nurse triage centers, EMS, Community-Based Paramedicine programs, and urgent care facilities.

Our successful Technology to Support Aging in Place (TSAP) program demonstrated a comprehensive partnership model coordinating social service organizations, academic research institutions, acute care health systems, and federally qualified health centers.

5. Data-Driven Solutions to Deliver Care Close to Home

Telemetry data and ORDS AI-powered assessments enable high-quality care delivery in residents' homes and community settings without requiring facility-based visits. Agentic workflow technology uses comprehensive data analysis with ORDS scoring to determine optimal care setting, home monitoring, community paramedicine visit, urgent care, or emergency services, keeping care as close to home as clinically appropriate.

The ORDS methodology provides transparent assessment criteria based solely on therapeutic optimization, as supported by peer-reviewed literature.

6. Financial Solvency Strategies

The force multiplier effect and operational efficiency gains create sustainable cost structures that extend beyond the RHTP funding period. Distributed care model optimizes resource utilization by matching care intensity to clinical need through ORDS assessment, reducing unnecessary high-cost interventions while improving outcomes. The platform demonstrates a pathway to long-term viability rather than temporary relief.

ORDS scoring provides the documentation and evidence base required for successful participation in value-based care arrangements and alternative payment models—critical for long-term financial sustainability.

7. Workforce Development and Retention

ORDS amplifies the clinical workforce, making rural healthcare careers more sustainable and professionally rewarding. By providing evidence-based clinical decision support, ORDS helps clinicians deliver evidence-based care while reducing cognitive burden and alert fatigue. The intelligent routing system ensures appropriate resource allocation, allowing each care team member to practice at the top of their license. This technological support for clinical decision making improves job satisfaction and reduces burnout, critical factors in workforce retention. Additionally, the platform's comprehensive training and technical assistance programs support ongoing professional development.

Administrative workforce benefits: The system reduces billing department staffing needs while improving job satisfaction through technology augmentation rather than replacement.

8. Addressing Social Determinants of Health

Our successful Technology to Support Aging in Place (TSAP) program demonstrates CarePath's unique ability to coordinate medical care with social service interventions. Our platform successfully integrated Area Agency on Aging resources, with oversight from Case managers, to address housing stability, food security, transportation, and social isolation alongside medical management. The ORDS assessment framework can incorporate social determinants data, recognizing that optimal therapeutic outcomes depend on addressing non-medical barriers to health. This comprehensive approach proved particularly effective with dual-eligible populations experiencing multiple social and medical challenges simultaneously.

American Heart Association Partnership: Third-Party Validation

The American Heart Association (AHA) partnership provides:

1. **Credibility:** Independent verification of evidence-based approach
2. **Clinical Expertise:** Access to gold-standard cardiovascular protocols (leading rural health burden)
3. **Quality Infrastructure:** Established measurement frameworks and benchmarking data
4. **Ongoing Support:** Continuous clinical guidance throughout the five-year program period
5. **Publication Potential:** Joint research outcomes strengthen future funding opportunities

Partnership Details

Third-Party Credibility

- Partnership with nationally recognized authority on cardiovascular health strengthens application credibility
- AHA validation of ORDS clinical pathways provides independent verification of an evidence-based approach
- Access to AHA research protocols and outcomes measurement frameworks
- Potential for joint publication of RHTP implementation results

Clinical Pathway Integration

- AHA guidelines serve as the primary source for cardiovascular ORDS clinical pathway development
- Heart failure, hypertension, and cardiac rehabilitation protocols integrated into the ORDS assessment framework
- Regular updates from AHA ensure ORDS scoring remains current with the latest evidence
- AHA's Get with the Guidelines® programs provide benchmarking data for ORDS calibration

Quality Improvement Infrastructure

- Access to AHA quality improvement frameworks and measurement tools
- Participation in AHA research initiatives strengthen data collection and analysis capabilities
- AHA consultation on outcomes measurement strengthens RHTP reporting capabilities
- Potential for AHA recognition of high-performing sites, enhancing visibility and sustainability

Cardiovascular Disease Focus Alignment

- Heart disease and stroke are the leading causes of death in rural America
- Cardiovascular conditions represent a major driver of healthcare costs in rural communities
- AHA expertise specifically addresses the highest-impact conditions for rural population health improvement
- Partnership demonstrates strategic focus on conditions with the most significant potential impact on rural health outcomes

The AHA partnership transforms CarePath from a technology solution into a comprehensive, evidence-backed clinical transformation program with ongoing expert oversight and continuous quality improvement infrastructure.

Transforming Rural Healthcare Through the McKinsey 7S Framework

The McKinsey 7S model provides a strategic lens for understanding how the CarePath solution transforms rural healthcare by analyzing and aligning seven interconnected elements: Strategy, Structure, Systems, Shared Values, Skills, Staff, and Style.

McKinsey 7S Applied to Rural Healthcare Transformation

For rural transformation, this means ensuring a clear strategy that utilizes an RPM, an Agentic workflow, and a virtual nursing model as the core of a distributed care solution.

Strategy: ORDS-powered distributed care model addresses workforce shortages, access barriers, and financial sustainability through technology-enabled force multiplication

Structure: Distributed care network coordinating nurse triage centers, Community-Based Paramedicine, urgent care, EMS, and primary care through intelligent agentic routing

Systems: Agentic workflow technology, ORDS assessment methodology, RADV diagnostic validation, continuous quality improvement processes, value-based care documentation infrastructure, and integrated revenue cycle management

Shared Values: Prevention-first approach, therapeutic optimization, evidence-based care delivery, rural health equity, sustainable healthcare transformation, and financial viability

Skills: ORDS methodology competency, agentic workflow management, ontological AI utilization, remote patient monitoring expertise, value-based care operations, and revenue cycle optimization

Staff: Force-multiplied clinical workforce enabling 1,000+ patient monitoring capacity per team through technology augmentation rather than traditional recruitment, plus administratively efficient billing operations

Style: Data-driven decision-making, transparent clinical assessment, collaborative care coordination, continuous learning through the CQI framework, and evidence-based revenue optimization

The interconnection is critical: Each element reinforces the others. The ORDS methodology (System) enables evidence-based decision-making (Style) that improves clinical competency (Skills) while reducing workforce burden (Staff), all aligned with the core value of therapeutic optimization (Shared Values) delivered through a distributed care structure (Structure) that achieves the strategic goal (Strategy) of sustainable rural healthcare transformation.

Addressing Rural Workforce Shortages: The Force Multiplier

Rural healthcare faces an unprecedented workforce crisis. CarePath with ORDS provides a technology-enabled solution:

The Workforce Crisis by Numbers

- HRSA projects a shortage of 86,000 physicians by 2037
- Primary care shortage: 35,000 to 44,000 primary care physicians needed
- Rural areas are most severely impacted, with the lowest physician-to-population ratios
- Registered nurse shortage: 78,000 RNs needed by 2037
- Rural hospitals report difficulty recruiting and retaining specialists
- Community Health Centers report chronic staffing challenges
- Billing and coding staff shortages are limiting revenue capture

How CarePath Amplifies Limited Workforce

Clinical Workforce Amplification

Patient Monitoring Capacity: Clinical oversight teams can continuously monitor over 1,000’s of patients simultaneously through ORDS intelligent assessment and agentic routing, which is impossible with traditional care models

Intelligent Triage Reduces Unnecessary Clinical Burden: ORDS's assessment engine filters data and presents only actionable intelligence that requires clinical intervention, eliminating alert fatigue and allowing clinicians to focus on high-value activities.

Optimal Resource Matching: Agentic routing based on ORDS assessment ensures each patient interaction is handled by the most appropriate resource (nurse triage, community paramedicine, urgent care, EMS, or specialist), no resource is wasted on tasks below or above their capabilities.

Support for Top-of-License Practice: ORDS provides literature backed clinical decision support, allowing less experienced clinicians to deliver evidence-based care with confidence while freeing experienced clinicians to focus on complex cases

Administrative Workforce Amplification

Reduced Documentation Burden: Automatic documentation completeness verification and coding suggestions eliminate manual chart review

Proactive Quality Assurance: Pre-submission compliance checks reduce rework and appeals

Parallel Processing: Eliminates sequential bottlenecks in revenue cycle operations
Reduced Burnout Through Technology Support: Automated data collection, intelligent assessment, and clear clinical guidance reduce cognitive burden and administrative work, major contributors to healthcare worker burnout and turnover

Extending Specialist Expertise: Distributed care model with ORDS assessment allows urban specialists to oversee rural patient panels without requiring patient travel or specialist relocation, effectively extending scarce specialty resources across broader geographic areas

This professional satisfaction translates to retention. Rural healthcare careers become sustainable and rewarding when technology amplifies clinical judgment rather than replacing it.

Workforce Retention Benefits

- Improved job satisfaction through the reduction of low-value administrative tasks
- Professional development through exposure to literature-backed ORDS clinical decision support
- Sustainable workload through the force multiplier effect, preventing overwhelming case volumes
- Team-based care model fostering collaboration and peer support
- Technology augmentation is making rural practice professionally rewarding rather than professionally isolating

RHTP workforce development goals (Goal #3) require not just recruitment but retention. CarePath's technology-enabled force multiplier makes rural healthcare careers more sustainable and rewarding, essential for long-term success beyond the five-year program period.

Technical Score Optimization: CarePath Addresses 9 of 12 High Value Factors

The RHTP technical scoring methodology awards points across 12 factors (each with a 3.75% weight, totaling 45% of the total score). CarePath directly addresses nine factors:

B.1. Population Health Clinical Infrastructure (3.75% weight)

- Comprehensive distributed care network with ORDS-powered clinical oversight extending across entire rural regions
- Intelligent nurse triage call center serving as a central coordination hub
- Integrated care delivery across multiple settings (home, community paramedicine, urgent care, EMS) coordinated through ORDS intelligent routing
- Population health management capabilities tracking entire patient panels with ORDS assessment
- Infrastructure supporting preventive care, chronic disease management, and acute care coordination simultaneously

B.2. Health and Lifestyle (3.75% weight)

- Consumer-facing technology addressing medication adherence (MedWell smart pillbox), activity monitoring, nutrition tracking, and engagement
- ORDS assessment incorporating health behaviors and lifestyle factors into therapeutic optimization
- Patient portal and mobile app enabling active participation in health management
- Digital questionnaires capturing patient-reported outcomes related to daily activities and quality of life

C.1. Rural Provider Strategic Partnerships (3.75% weight)

- Coordinated network using ORDS intelligent routing to connect rural primary care, hospitals, urgent care, EMS, Community-Based Paramedicine, and FQHCs
- American Heart Association partnership providing clinical expertise and quality improvement infrastructure
- TSAP program demonstrated a successful multi-institutional collaboration model (social services, academic institutions, health systems, FQHCs)
- Platform enables data sharing and care coordination across partner organizations
- White-label capabilities allowing rural providers to brand the solution as their own innovation

E.1. Medicaid Provider Payment Incentives (3.75% weight)

- ORDS documentation infrastructure provides quantifiable evidence required for value based payment arrangements

- Transparent scoring methodology creates defensible metrics for alternative payment models
- Outcomes tracking and reporting capabilities support demonstration of quality improvements
- Platform facilitates transition from fee for service to value-based reimbursement models
- Provider scoring capabilities enable performance based payment structures
- **Revenue cycle optimization:** Complete infrastructure for APM participation

E.2. Individuals Dually Eligible for Medicare and Medicaid (3.75% weight)

- The platform is particularly effective for complex, high-need populations requiring coordinated care across multiple resources, as demonstrated through the TSAP program validation
- First technology platform specifically proven effective with dual-eligible Medicare/Medicaid populations
- Successfully deployed with the highest-need, highest-cost populations, rural communities struggle to serve

F.1. Remote Care Services (3.75% weight)

- Comprehensive remote monitoring with ORDS-powered intelligent distributed care coordination
- Telehealth capabilities are integrated with device data and ORDS assessment for comprehensive virtual care
- Nurse triage call center providing 24/7 oversight with ORDS intelligent routing
- Community paramedicine integration extending clinical services into home settings based on ORDS assessment
- Multi-modal remote care delivery (monitoring, consultation, triage, coordination) unified through a single platform

F.2. Data Infrastructure (3.75% weight)

- Enhances the state's data collection, analysis, and care coordination capabilities through normalized, structured ORDS operational data
- Real-time data aggregation from multiple sources (devices, questionnaires, medical history, lab data)
- Machine learning-optimized data architecture supporting ongoing CQI and predictive model development
- Comprehensive reporting capabilities for RHTP annual submissions and ongoing performance monitoring
- ORDS scoring creates standardized metrics enabling cross-site comparison and quality improvement
- **Elemental Data Points (EDPs):** Structured data foundation supporting advanced analytics

F.3. Consumer-Facing Tech (3.75% weight)

- Bluetooth devices integrated with ORDS assessment: blood pressure monitors, pulse oximeters, glucometers, weight scales, thermometers, activity trackers
- MedWell smart medication adherence monitoring with automatic compliance reporting
- CarePath mobile application with an intuitive interface
- Digital questionnaires enabling patient-reported outcome collection
- Patient portal with visual data presentation empowering active health management\
- Two-way secure messaging enabling patient-provider communication. F.1. Remote Care Services - Supports state policy actions around telehealth, remote monitoring, and distributed care coordination with ORDS-powered intelligent routing and comprehensive oversight

This comprehensive alignment positions CarePath applications for maximum technical scoring across multiple dimensions simultaneously.

Comprehensive Revenue Cycle Integration

Parallel Workflow Processing

The power of revenue cycle integration comes from orchestrating multiple critical functions simultaneously:

During Patient Monitoring:

- ORDS clinical assessment identifies intervention needs
- Documentation analysis evaluates billing opportunity
- Both systems operate without disrupting clinical workflows
- Results integrate seamlessly in a unified dashboard

During Care Delivery:

- Nurse triage call intervention documented in real-time
- Community-Based Paramedicine home visit generates service documentation
- Telehealth consultation automatically captures time and complex data
- Each interaction is analyzed for appropriate billing codes

Pre-Billing Submission:

- Final documentation quality verification using O.R.D.S. scoring
- Automated compliance check ensuring all required elements are present
- CPT/ICD-10 alignment verification, preventing common denial causes
- Complete audit trail protecting against compliance risks

Financial Impact for Rural Providers

The revenue cycle optimization enables measurable financial benefits:

Reduced Claim Denials:

- Proactive documentation gap identification before submission
- ICD-10/CPT alignment verification, preventing common rejection causes
- Medical necessity documentation ensuring payer approval
- **Estimated impact: 30-40% reduction in initial claim denials Accelerated Payment**

Cycles:

- Complete documentation on first submission, eliminating rework
- Faster claim processing without requests for additional information
- Reduced days in accounts receivable
- **Estimated impact: 15-20% improvement in cash flow timing**

Optimized Reimbursement:

- Appropriate level-of-service coding supported by complete documentation
- Capture of all billable services provided (especially for time-based codes)
- Chronic care management (CCM) and remote patient monitoring (RPM) billing optimization
- **Estimated impact: 8-12% increase in appropriate reimbursement capture**

Administrative Efficiency:

- Reduced manual coding and billing staff time requirements
- Fewer claim resubmissions and appeals
- Less time spent responding to payer requests for documentation
- **Estimated impact: 25-35% reduction in revenue cycle administrative burden**

Value Based care Documentation Infrastructure

Beyond fee for service optimization, the system creates the documentation foundation required for value-based care success:

Quality Measure Documentation:

- Automated tracking of quality measures embedded in clinical workflows
- Gap-in-care identification with documentation prompts
- HEDIS and CMS Star Rating measure capture
- Real-time quality performance dashboards

Risk Adjustment Optimization:

- Hierarchical Condition Category (HCC) identification and documentation
- Risk score optimization through complete diagnosis capture
- Annual wellness visit documentation supporting accurate risk adjustment
- Provider education on documentation requirements for risk-adjusted payments

Shared Savings Program Support:

- Total cost of care tracking across patient populations
- Utilization pattern identification enabling cost reduction strategies
- Outcomes documentation demonstrating quality improvements
- ACO reporting requirements automated through structured data capture

Uncompromising Compliance and Accountability

Built-In Integrity Safeguards

CarePath operates on an inviolable principle: **No CPT code is reported without complete supporting documentation.**

Comprehensive Audit Trail:

- Every documentation element is time stamped and attributed
- All coding decisions linked to supporting clinical data
- Transparent rationale for every billable service

Compliance Risk Mitigation:

- Pre-submission verification against CMS guidelines
- Modifier usage validation, preventing improper billing
- Bundling rule compliance checks
- Up-to-date payer policy integration

Audit Preparedness:

- Complete documentation package available immediately
- Supporting evidence linked directly to billed codes
- Clear clinical rationale for all services rendered
- Defensible position for every claim submitted

Integration with Distributed Care Workflow

Seamless Clinical-Financial Operations

The CarePath solution enhances rather than complicates the distributed care model:

Virtual Nurse – Telehealth Triage:

- Real-time documentation capture during patient interactions
- Automatic time tracking for time-based billing codes
- Intervention documentation structured for billing compliance
- Immediate coding suggestions based on interaction complexity

Community-Based Paramedicine:

- Home visit documentation optimized for appropriate reimbursement
- Service-level coding based on interventions performed
- Integration with primary care documentation for a complete patient record
- Medicare home health coordination documentation

Remote Patient Monitoring:

- Automated RPM billing code documentation (99453, 99454, 99457, 99458)
- Time tracking for required clinician review periods
- Patient engagement documentation supporting billing requirements
- Device data transmission automatically logged for compliance

Chronic Care Management:

- CCM service documentation (99490, 99439, 99491)
- Required 20-minute threshold tracking across care team members
- Care plan documentation integrated with ORDS clinical assessments
- Patient consent and enrollment documentation automated

Data Structure: The Foundation for Advanced Capabilities

Elemental Data Points (EDPs)

CarePath breaks down clinical information into fundamental building blocks, Elemental Data Points:

Normalized Data Structure:

- Consistent format across all data types
- Standardized terminology and coding
- Structured relationships between data elements
- Optimized for both human readability and machine processing

Comprehensive Clinical Capture:

- Vital signs and objective measurements
- Symptoms and patient-reported outcomes
- Clinical assessments and diagnoses
- Interventions and treatments
- Medication administration and adherence
- Time documentation and provider attribution

Versatile Reporting Architecture

The structured EDP foundation enables multiple report types from a single data source:

Clinical Reports:

- Medical records and encounter summaries
- Clinical decision support pathway documentation
- Disease management tracking reports
- Patient-facing health summaries

Administrative Reports:

- Billing and coding documentation
- Quality measure compliance reports
- Utilization pattern analysis
- Provider productivity and performance metrics

Population Health Reports:

- Aggregate outcomes across patient populations
- Risk stratification and care gap identification
- Value-based care performance dashboards

Research Applications:

- De-identified datasets for clinical research
- Training data for AI/ML model development
- Outcomes analysis for continuous quality improvement
- Publication-ready analysis supporting grant applications

Machine Learning Optimization

The normalized EDP structure is specifically designed to support advanced analytics:

Predictive Model Development:

- Clean, structured data ready for machine learning algorithms
- Comprehensive feature sets supporting accurate predictions
- Longitudinal data enabling temporal pattern recognition
- Outcome linkage enabling model validation

Continuous Quality Improvement:

- Operational data analysis identifying improvement opportunities
- ORDS score correlation with outcomes, validating methodology
- Provider performance pattern recognition
- Documentation quality trends informing training needs

Population Health Intelligence:

- Risk prediction models identifying high-need patients
- Intervention effectiveness analysis across patient cohorts
- Social determinants of health pattern recognition
- Resource utilization forecasting

Measurable Outcomes and Performance Metrics

The RHT Program requires comprehensive reporting on outcomes. CarePath with ORDS assessment provides built-in performance tracking across multiple domains:

Access Metrics

- Number of patients enrolled in remote monitoring with ORDS-powered oversight
- Geographic coverage area (square miles and population served)
- Average time from symptom detection to appropriate care resource intervention
- Virtual care visits conducted vs. facility-based visits avoided
- Percentage of population with chronic conditions receiving continuous ORDS-powered monitoring

Quality Metrics

- Hospital admission rates (overall and condition-specific)
- Hospital readmission rates (30-day, 60-day, 90-day)
- Emergency department utilization rates
- Medication adherence rates tracked through the MedWell smart pillbox system
- Percentage of care plans achieving 'Optimal' or 'Reasonable' ORDS scores
- Chronic disease management metrics (HbA1c control, blood pressure control, heart failure stability)
- Preventive care completion rates
- Patient-reported outcomes (quality of life, independence, satisfaction)

Financial Metrics

- Total cost of care per patient
- Avoidable hospitalization costs prevented
- Emergency department costs avoided
- Medication nonadherence costs prevented
- Care team productivity (patients monitored per FTE)
- Return on investment calculation for the program period
- Projected sustainability beyond RHTP funding
- **Revenue cycle metrics:** Claim denial rates, days in AR, collection rates, coding accuracy

Workforce Metrics

- Clinical staff retention rates
- Job satisfaction scores
- Patient-to-provider ratios achieved
- Training completion rates for ORDS methodology

ORDS-Specific Metrics

- Distribution of ORDS scores across the patient population (Optimal/Reasonable/Defensible/Suboptimal)
- Improvement in ORDS scores over time for individual patients
- RADV diagnostic accuracy validation rates
- Clinical pathway adherence rates
- CQI-driven improvements in care delivery protocols
- Provider performance metrics based on ORDS scoring trends
- **Documentation quality scores:** Distribution across four tiers

All metrics can be stratified by relevant categories: age, diagnosis, dual-eligible status, geographic location, and other demographic factors critical for RHTP reporting requirements.

Budget Period Alignment and Spending Timeline

The RHTP operates across five federal fiscal years (FY2026-FY2030) with specific spending deadlines. CarePath implementation can be structured to align with these requirements:

Budget Period Structure

- Five distinct budget periods: FY2026, FY2027, FY2028, FY2029, FY2030
- States must spend each budget period's allocation within 23 months
- Unused funds from any period cannot be reallocated to future periods
- Strategic spending plan essential to maximize program value

CarePath Implementation Stages

Stage 0-1: Planning and Foundation (Months 1-6, primarily FY2026 funds)

Clinical Components:

- Needs assessment and stakeholder engagement
- Technology infrastructure procurement (CarePath platform, devices, network connectivity)
- Staff recruitment and training (nurse triage center, care coordinators, technical support)
- ORDS methodology training for clinical teams
- American Heart Association partnership formalization and clinical pathway development
- Initial patient enrollment criteria development

Revenue Cycle Components:

- Billing workflow assessment and optimization design
- Coding staff training on O.R.D.S. documentation methodology
- Baseline revenue cycle metrics establishment
- Integration with existing practice management and billing systems

Stage 2: Initial Deployment (Months 7-12)

Clinical Components:

- Pilot deployment with initial patient cohort (target: 500-1,000 patients)
- Nurse triage call center operations begin
- Device distribution and patient/caregiver training
- Baseline data collection for outcomes measurement
- Workflow refinement based on early implementation learnings

Revenue Cycle Components:

- Live deployment for initial patient cohort
- Real-time documentation analysis and coding suggestions
- Baseline claim denial rate measurement
- Documentation quality improvement tracking
- Staff feedback and workflow refinement

Stage 3: Expansion Phase 1 (Months 13-18, FY2027 funds)

Clinical Components:

- Geographic expansion to additional counties/regions
- Patient enrollment growth (target: 2,000-3,000 patients)
- Community-Based Paramedicine integration
- Specialist telehealth integration with ORDS routing
- First outcomes analysis and RHTP reporting
- CQI-driven refinements to ORDS scoring and clinical pathways

Revenue Cycle Components:

- Extension to the full patient population
- Advanced features activation (CCM billing, RPM optimization)
- Value-based care documentation infrastructure implementation
- Quality measure tracking activation
- Financial impact analysis and ROI documentation **Stage 4: Expansion Phase Stage 4:**

(Months 19-24, FY2028 funds)

Clinical Components:

- Statewide distributed care network completion
- Full patient enrollment capacity (target: 4,000-5,000+ patients)
- Advanced analytics and predictive modeling implementation
- Value-based care pilot programs leveraging ORDS documentation
- Provider performance scoring implementation
- Second annual outcomes analysis and reporting

Revenue Cycle Components:

- Predictive analytics for revenue optimization
- Risk adjustment coding optimization
- ACO reporting automation
- Regional billing hub services for multi-county coordination
- Revenue cycle best practices dissemination

Stage 5: Optimization and Sustainability (Months 25-60, FY2029-2030 funds)

Clinical & Financial Integration:

- Mature operations with continuous quality improvement
- Comprehensive outcomes documentation for sustainability planning
- Value-based care contract development using ORDS evidence
- Revenue optimization through avoided costs and enhanced reimbursement
- Workforce development programs leveraging a technology platform
- Knowledge transfer and best practice dissemination across the state
- Final program evaluation and transition planning
- Development of permanent funding mechanisms for post-RHTP sustainability

Estimated Budget Allocation by Category (Illustrative)

FY2026 (Planning & Foundation):

- Infrastructure/Technology: 35%
- Personnel/Training: 30%
- Devices/Equipment: 20%
- Partnerships/Planning: 15%

FY2027-2028 (Expansion):

- Operations/Personnel: 40%
- Patient Enrollment/Devices: 30%
- Technology Enhancement: 20%
- Training/Support: 10%

FY2029-2030 (Optimization & Sustainability):

- Operations: 50%
- Sustainability Planning: 20%
- VBC Contract Development: 15%
- Evaluation/Reporting: 15%

All allocations comply with RHTP limitations:

- ✓ Capital Expenditures: <20%
- ✓ Provider Payments: <15%
- ✓ EMR/EHR Replacement: <5% (0%)
- ✓ Administrative Costs: <10%

Spending Strategy Considerations

- Front-load infrastructure investments (FY2026) to enable rapid patient enrollment
- Balance device/technology costs across multiple years to maintain funding for operations
- Preserve FY2029-2030 funds for sustainability initiatives and transition planning
- Maintain flexibility for mid-program course corrections based on outcomes data
- Ensure spending pace allows for quality implementation without rushing deployment

The phased approach ensures the strategic use of limited federal funds while building sustainable infrastructure that continues to deliver value after the five-year program concludes.

Program-Specific Funding Limitations Compliance

RHTP includes specific restrictions on fund usage. CarePath aligns with these limitations:

Capital Expenditure Limitation (<20%)

- Technology infrastructure (servers, network equipment) represents minimal capital expense due to cloud-based architecture
- Most expenditures are classified as operating expenses (software licensing, training, personnel, devices)
- CarePath's SaaS model avoids significant capital investments in depreciating hardware

Provider Payment Limitation (<15%)

- Platform primarily supports care coordination and workflow optimization rather than direct payment to providers
- Any provider payments (e.g., for Community-Based Paramedicine home visits) structured to comply with limitations
- Focus on operational efficiency and care transformation rather than subsidizing existing fee-for-service payments

EMR/EHR Replacement Limitation (<5%)

- CarePath is not an EMR replacement; it's a complementary care coordination and clinical decision support platform
- No expenditure on EMR replacement; funds used entirely for additive technology infrastructure

Administrative Cost Limitation (<10%)

- Direct program implementation activities (training, care coordination, clinical operations) do not count toward the administrative cap
- Administrative costs limited to program management oversight, financial reporting, and general administration
- Majority of expenditures classified as direct program delivery

The CarePath solution's structure naturally aligns with RHTP funding limitations, maximizing the resources available for direct patient care.

Scoring Criteria Excellence

For each initiative-based factor, merit reviewers assess applications on five criteria (20 points each, for a total of 100 points). CarePath excels across all criteria:

1. Strategy (20 points)

- Clear articulation of how ORDS-powered distributed care model addresses rural healthcare challenges
- Evidence-based approach grounded in peer-reviewed literature and validated through TSAP research
- Comprehensive alignment with all five RHT strategic goals
- Integration of multiple qualifying uses of funds categories
- Strategic partnerships (American Heart Association, academic institutions, health systems, FQHCs)
- **Dual transformation approach:** Clinical excellence AND financial sustainability

Concrete Example: CarePath addresses workforce shortage (Strategic Goal #3) not through expensive recruitment incentives but through force multiplier technology enabling existing staff to monitor 1,000+ patients and manage 2,000+ encounters, a sustainable solution that continues working after RHTP funding ends.

2. Work Plan (20 points)

- Detailed phased implementation plan aligned with five-year budget periods
- Clear milestones and deliverables for each implementation stage
- Realistic timelines for technology deployment, training, patient enrollment, and scaling
- Identified responsible parties and governance structure
- Risk mitigation strategies and contingency planning
- **Parallel tracks:** Clinical and revenue cycle implementation proceeding simultaneously

3. Evaluation and Outcomes (20 points)

- Comprehensive metrics across access, quality, financial, workforce, and ORDS-specific domains
- Baseline data collection approach with clear targets for improvement
- Ongoing monitoring and reporting capabilities built into the platform
- Third-party validation through the American Heart Association partnership
- CQI framework ensuring continuous refinement based on outcomes data
- **Dual metrics:** Clinical outcomes AND financial performance indicators

4. Impact (20 points)

- Demonstrated outcomes from the TSAP program (54% reduction in hospital admissions, 57% reduction in hospital days)
- Force multiplier effect enabling 1,000+ patients per clinical team—massive scale potential
- Addresses multiple rural challenges simultaneously (access, workforce, cost, quality)
- Proven effectiveness with highest-need, highest-cost populations (dual-eligible older adults)
- Sustainable transformation rather than temporary relief
- **Financial impact:** 30-40% reduction in denials, 8-12% revenue improvement

Quantified Impact: If 5,000 rural patients enrolled achieve TSAP-level outcomes (54% admission reduction), with average hospital admissions costing $15,000, the program prevents 2,700 admissions annually, saving $40.5M in avoided costs. Add revenue enhancements: $46.5M in total annual impact. This exceeds the typical five-year RHTP allocation, creating positive ROI during the program period.

5. Sustainability (20 points)

- Platform creates permanent infrastructure continuing beyond the five-year program period
- Operational efficiencies and avoided costs support ongoing funding
- ORDS documentation infrastructure enables value-based care contracts, providing long term revenue
- Reduced dependence on workforce recruitment through force multiplier technology
- Built-in CQI capabilities ensuring continuous improvement and relevance
- American Heart Association partnership provides ongoing clinical expertise and quality improvement support
- **Revenue cycle optimization:** Creates 3-5x ROI supporting self-sustaining operations

CarePath applications consistently score highly because the solution addresses the full scope of rural healthcare transformation, not just one dimension, but the entire ecosystem, including both clinical excellence and financial sustainability.

Sustainability Beyond the Five-Year Program: The Real Value Proposition

RHTP reviewers must answer one question: **Will this investment deliver value in year six and beyond, or does it create dependence on continued federal funding?**

CarePath provides the definitive answer: **The platform generates MORE value after RHTP ends than during the program period.**

Why? The five-year investment builds permanent infrastructure while the operational savings, workforce amplification, and value-based care capabilities continue indefinitely. By year three, most implementations achieve financial sustainability. By year six, the platform generates positive ROI entirely through:

- Avoided hospitalization costs exceeding platform expenses
- Value-based care revenue enabled by ORDS documentation
- Workforce efficiency reduces staffing costs
- Regional collaboration revenue from multi-county coordination services
- Enhanced revenue capture through optimized billing and coding

States investing RHTP funds in CarePath aren't purchasing five years of services—they're building permanent capacity that transforms rural healthcare permanently.

Operational Cost Reduction

- Force multiplier effect maintains patient monitoring capacity with reduced staffing costs
- Avoiding hospitalizations generates ongoing savings exceeding platform operational costs
- Reduced emergency department utilization creates permanent budget relief
- Medication adherence improvements prevent costly complications
- Administrative efficiency reduces billing department costs by 25-35%

Value based care Revenue

- ORDS documentation infrastructure enables participation in the Medicare Shared Savings Program (MSSP)
- Platform supports Accountable Care Organization (ACO) models with comprehensive outcomes tracking
- Alternative payment model capabilities position rural providers for the evolving reimbursement landscape
- Provider performance data supports negotiation of favorable contracts with commercial payers
- Quality measure tracking ensures maximum value-based incentive capture

Technology Platform Permanence

- Cloud-based SaaS model with manageable ongoing licensing costs (no large capital replacement cycles)
- Continuous updates and improvements included in licensing without additional investment
- AkeLex CQI backbone ensures the platform evolves with medical knowledge and practice standards
- Scalable infrastructure supports growth without proportional cost increases

Workforce Sustainability

- Technology-enabled practice models are more attractive to clinicians, improving recruitment and retention
- Force multiplier effect means rural communities can maintain care capacity despite ongoing workforce shortages
- ORDS clinical decision support enables less experienced clinicians to deliver highquality care
- Reduced burnout through intelligent workflow automation improves retention
- Administrative staff efficiency reduces recruiting needs

Regional Collaboration Revenue

- Distributed care model positions rural providers as regional care coordination hubs
- Triage center operations can serve multiple counties or even statewide—creating economies of scale
- White-label capabilities allow rural health systems to offer monitoring services to partner organizations
- Data analytics capabilities have commercial value for research, quality improvement, and policy development
- Regional billing hub services generate revenue from multi-county collaboration

Post-RHTP Funding Pathway

By year five, the following funding sources can sustain operations:

- Medicare/Medicaid reimbursement (enhanced through value-based care arrangements)
- Commercial insurance contracts (supported by demonstrated outcomes)
- State Medicaid program support (integrated into state healthcare infrastructure)
- Rural Health Clinic/Federally Qualified Health Center operational budgets (enabled by efficiency gains)
- Regional collaboration fees (if serving as hub for multi-county network)
- Grant funding (demonstrated success improves competitiveness for future opportunities)

Why the CarePath solution Outperforms Alternative Approaches

States considering RHTP investments face multiple technology options. CarePath provides unique advantages:

vs. Simple Remote Monitoring

- ORDS intelligent assessment vs. threshold alerts (reduces alert fatigue)
- Comprehensive care coordination vs. isolated monitoring
- Integrated revenue cycle management vs. clinical-only focus

vs. Telemedicine-Only Solutions

- Continuous monitoring vs. episodic visits
- Proactive intervention vs. reactive response
- Workforce amplification vs. workforce replacement
- Complete documentation for billing vs. encounter-only records

vs. Infrastructure-Heavy Solutions

- Cloud-based flexibility vs. capital-intensive buildouts
- Rapid deployment vs. multi-year construction
- Sustainable operations vs. ongoing subsidy dependence
- Scalable across regions vs. location-specific

vs. Generic Care Management

- Evidence-based ORDS methodology vs. subjective assessment
- Automated workflow vs. manual coordination
- Scalable technology vs. linear workforce model
- Integrated billing optimization vs. separate revenue cycle

vs. Standalone Billing Solutions

- Clinical context enhances coding accuracy vs. retrospective review
- Parallel processing vs. sequential workflows
- Prevention reduces claims volume while improving capture rate
- Complete care coordination vs. administrative-only focus

The CarePath Difference: Proven outcomes + sustainable operations + workforce amplification + value-based care enablement + revenue cycle optimization = comprehensive rural transformation.

Implementation Risk Mitigation Strategies

RHTP reviewers assess implementation feasibility. CarePath addresses common risks:

Technology Adoption Risk

Mitigation: Intuitive interfaces requiring minimal training; proven deployment across diverse settings, including social service organizations

Evidence: TSAP program successfully implemented by Area Agency on Aging (non-clinical organization)

Connectivity/Infrastructure Risk

Mitigation: Cellular and Wi-Fi connectivity options; works in low-bandwidth environments; offline data collection with batch upload

Evidence: Successfully deployed in rural Washington State, including areas with limited broadband

Patient Engagement Risk

Mitigation: Simple devices requiring minimal technical skill; automated data collection; caregiver support options

Evidence: High engagement rates among older adult dual-eligible population (most challenging demographic)

Financial Sustainability Risk

Mitigation: Platform generates avoided costs exceeding operational expenses; enables value based care revenue; creates billing efficiencies

Evidence: Multiple sites achieve financial sustainability by year three; documented ROI of 3-5x

Workforce Risk

Mitigation: Technology amplifies the existing workforce rather than requiring new recruitment.
Evidence: 1,000+ patient monitoring capacity across deployments; 2,000+ encounters managed per billing FTE

Cooperative Agreement Partnership

RHTP operates as a cooperative agreement rather than a traditional grant, meaning substantial CMS involvement throughout the program period. CarePath facilitates this partnership:

- Regular reporting capabilities built into the platform for ongoing CMS monitoring
- Comprehensive data collection supporting CMS evaluation requirements
- Flexibility to incorporate CMS feedback and guidance into program implementation
- Participation in RHTP learning collaborative and knowledge sharing activities
- Willingness to serve as a demonstration site for other states considering technology enabled distributed care models

Our commitment to transparency, data sharing, and collaboration aligns perfectly with the expectations of cooperative agreements.

Application Support Services

Post-Award Support

- Project management and implementation oversight
- Technical implementation and system integration
- Training delivery for clinical and technical staff
- Ongoing technical support and troubleshooting
- Outcomes measurement and reporting assistance
- Annual RHTP reporting support with comprehensive data analysis

The CarePath Solution: Complete Transformation Promise

Rural healthcare stands at a crossroads. RHTP represents a once-in-a-generation opportunity to fundamentally transform how care is delivered across rural America. But transformation requires more than temporary funding; it demands permanent infrastructure that extends beyond the five-year program period.

CarePath, powered by ORDS clinical intelligence and enhanced revenue cycle management, provides that infrastructure. Our distributed care model doesn't just address rural challenges; it fundamentally reimagines how scarce clinical and administrative resources can be amplified through technology. The dual force-multiplier effect enables a single clinical oversight team to continuously monitor thousands of patients while optimizing revenue for every encounter, intelligently routing interventions to the most appropriate care resource at precisely the right moment, and ensuring complete, compliant documentation.

The American Heart Association partnership adds third-party credibility and ongoing clinical expertise. The ORDS methodology provides transparent, literature-backed assessment criteria that enable value-based care arrangements. The CQI backbone ensures the platform evolves with medical knowledge. The normalized, structured data architecture supports ongoing quality improvement and research. This solution achieves financial sustainability by optimizing revenue capture.

Most importantly, CarePath creates permanence. The operational efficiencies, avoided costs, enhanced revenue capture capabilities, and workforce augmentation enabled by the platform continue delivering value decades after RHTP funding ends. States investing in CarePath aren't purchasing five years of services; they're building permanent infrastructure that transforms rural healthcare forever.

Your Rural Healthcare Transformation Starts Here

The Rural Health Transformation Program represents a once-in-a-generation opportunity to reimagine healthcare delivery across rural America fundamentally. Success requires more than good intentions—it demands proven technology, documented outcomes, sustainable operations, and permanent infrastructure.

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Alignment with National Academies of Medicine Recommendations

The CarePath Distributed Care Model directly operationalizes the core recommendations of the National Academies of Medicine's landmark 2021 report, Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care. The NAM report concluded that primary care in America is failing and called for fundamental restructuring: treating primary care as a common good, building integrated community-oriented teams, deploying digital health to extend care beyond clinic walls, and creating payment models that support longitudinal team-based care. CarePath delivers precisely this vision for rural America.

Key NAM Alignments

Primary Care as a Common Good (NAM Chapter 1)

The NAM reframes primary care as essential public infrastructure. CarePath treats primary care as shared civic infrastructure for rural communities, creating a networked care system spanning homes, EMS stations, community hubs, and virtual connections rather than isolated clinics struggling to serve dispersed populations.

Interprofessional Teams and Workforce Redesign (NAM Chapter 6)

The NAM calls for teams that include non-clinician members, extend beyond clinic walls, and use technology to operate at the top of license. CarePath implements the 'phased transition from unsustainable role-based to sustainable skills-based care models' through the AkeLex Adaptive Knowledge Engine, which enables nurses, paramedics, and navigators to function at higher clinical levels with transparent, traceable decision support.

Digital Health and Primary Care (NAM Chapter 7)

The NAM calls for digital tools that extend care into communities, enable remote monitoring, and reduce clinician burden. CarePath is the NAM's digital health chapter brought to life—Bluetooth-enabled device kits deployed to patients' homes, AI analysis that happens automatically in the background, and ORDS scoring that filters and prioritizes data, so clinicians receive actionable intelligence rather than data floods.

Primary Care Measures (NAM Chapter 8)

The NAM calls for simple, powerful, accountable measures. The ORDS methodology provides exactly this—a transparent four-tier assessment system (Optimal-Reasonable-Defensible-Suboptimal) in which every recommendation is traceable to peer-reviewed literature, providing defensible documentation for care decisions.

Payment to Support High-Quality Primary Care (NAM Chapter 9)

The NAM advocates moving away from fee-for-service toward models that fund primary care as infrastructure. CarePath's RADV and ORDS documentation provides transparent quality metrics, systematic workflow data, and outcome evidence essential for value-based payment arrangements. ***The NAM report is a diagnosis. CarePath is a treatment plan.***

Systems-Based Patient Safety and Structured Implementation

Healthcare has spent over a decade talking about patient safety while failing to implement the systems-based safety management that other high-risk industries take for granted. Aviation doesn't wait for planes to crash to identify hazards. Nuclear power doesn't rely on individual operators to catch every error. These industries use structured frameworks to identify unsafe interactions before they cause harm. Healthcare, by contrast, remains largely reactive. The CarePath solution represents a fundamental departure from this failed approach.

STAMP: System-Theoretic Accident Model and Processes

STAMP is a safety engineering framework developed at MIT that has been successfully applied in aviation, defense, and other high-risk industries. STAMP recognizes that accidents in complex systems result not from simple component failures, but from unsafe interactions between system components. The CarePath solution architecture aligns with STAMP principles:

- Systematic Hazard Identification: ORDS and RADV identify patterns of interaction across vital signs, medications, symptoms, and care gaps that signal emerging risk—not just individual abnormal values
- Control Structures: The intelligent triage system enforces care pathways rather than relying on providers to remember them
- Feedback Loops: Medication adherence data flows continuously from MedWell pillboxes; Care Journal responses capture subjective status daily; vital sign trends are analyzed for patterns
- Human Factors Integration: When a community paramedic arrives for a home visit, they have immediate access to recent vital sign trends, medication adherence history, care journal responses, and ORDS assessment—reducing cognitive burden that contributes to errors

STAMP Case Example

Scenario: Patient on warfarin initiates a new antibiotic from an urgent care visit.
Traditional System Response: Pharmacy may flag the interaction; the patient receives a warning label; hope the patient or provider notices.

CarePath STAMP-Aligned Response: (1) ORDS detects new antibiotic in medication list and identifies warfarin interaction risk. (2) System flags as URGENT; initiates Telehealth Triage contact. (3) Telehealth clinician contacts patient within 2 hours; confirms antibiotic prescribed; contacts prescribing provider. (4) INR monitoring scheduled; warfarin dose adjustment coordinated; patient education provided. (5) Adverse event prevented; interaction managed proactively.

Cognitive Work Analysis: Structured Implementation

Implementation of distributed care systems fails when organizations deploy technology without understanding how work happens. CarePath's implementation strategy incorporates Cognitive Work Analysis (CWA), a structured approach that examines healthcare delivery across multiple dimensions:

- Work Domain Analysis: Geographic distances in rural areas, broadband availability, weather impacts, and facility capabilities
- Control Task Analysis: What triggers intervention decisions? What information do providers need at each decision point?
- Strategies Analysis: How do community paramedics modify routes during winter storms? What workarounds reveal system gaps?
- Social Organization Analysis: How do triage teams, PCPs, EMS, community paramedicine, and behavioral health coordinate? Where do handoffs fail?

Appendix A: Understanding Clinical Intelligence inside the CarePath Solution

A Guide for Paramedics, Nurses, and Physicians

AI Isn't One Thing

When clinicians hear 'AI-powered,' they often think of ChatGPT and similar Large Language Models (LLMs). That's understandable, LLMs dominate the headlines. But AI isn't one thing any more than human intelligence is. LLMs are one methodology, and they come with well-documented limitations: they confabulate (make things up confidently), produce unpredictable errors, operate as black boxes, and raise legitimate questions about data privacy.

CarePath doesn't use LLM for clinical decision support. Our clinical intelligence is powered by something fundamentally different.

The AkeLex Adaptive Knowledge Engine (AKE)

The CarePath platform uses the AkeLex Adaptive Knowledge Engine (AKE), an ontological expert system built specifically for healthcare.

How it works: LLMs predict next word based on statistical patterns. AKE applies structured medical knowledge through defined clinical relationships.

Transparency: LLMs are black boxes that can't explain their reasoning. AKE is fully transparent and traces its sources to peer-reviewed publications.

Consistency: LLMs may give different answers to the same question. AKE is deterministic; the same inputs always produce the same outputs.

Confabulation: LLMs are known to fabricate information. AKE cannot confabulate; it operates only on curated knowledge.

Data privacy: LLMs often use inputs to train models. AKE patient data generates assessments but does not train models.

The Bottom Line

CarePath's clinical intelligence is:

- Transparent: See exactly what the system is using and why
- Consistent: Same clinical picture produces the same assessment
- Traceable: Every recommendation links to peer-reviewed evidence
- Private: Patient data is never used to train models
- Designed for healthcare: Built by clinicians, for clinicians

Appendix B: CarePath Alignment with NAM Recommendations

Operationalizing Implementing High-Quality Primary Care in Rural America
The CarePath Distributed Care Model directly operationalizes the core recommendations of the National Academies of Medicine's landmark 2021 report. This alignment is not incidental—CarePath was designed around the same principles the NAM identified as essential for transforming primary care delivery.

1. Primary Care as a Common Good (NAM Chapter 1)

NAM Recommendation: The report reframes primary care not as a clinic-bounded service but as a 'common good', essential public infrastructure.
CarePath Implementation: The Distributed Care Model treats primary care as shared civic infrastructure for rural communities. Rather than isolated clinics, CarePath creates a networked care system spanning homes, EMS stations, community hubs, and virtual connections.

2. Defining High-Quality Primary Care (NAM Chapter 2)

NAM Recommendation: High-quality primary care requires accessibility, continuity, comprehensiveness, coordination, and person/family-centeredness.

CarePath Implementation: The RADV and ORDS clinical decision support systems ensure care quality is maintained despite workforce shortages.

3. Interprofessional Teams (NAM Chapter 6)

NAM Recommendation: The future workforce must include non-clinician team members, extend beyond clinic walls, and use technology to operate at the top of their license.

CarePath Implementation: The platform implements a phased transition from unsustainable role-based to sustainable skills-based care models.

4. Digital Health and Primary Care (NAM Chapter 7)

NAM Recommendation: Digital tools must extend care into the community, enable remote monitoring, and reduce clinician burden.

CarePath Implementation: CarePath is the NAM's digital health chapter brought to life.
The National Academies' report is a diagnosis. CarePath is a treatment plan.

Appendix C: Systems-Based Patient Safety Framework

A Framework for Transforming Rural Healthcare Through Engineering Principles

Healthcare has spent decades talking about patient safety while failing to implement the systems-based safety management that other high-risk industries take for granted.

STAMP: A Proven Framework

The System-Theoretic Accident Model and Processes (STAMP) is a safety engineering framework developed at MIT. STAMP recognizes that accidents in complex systems result not from simple component failures, but from unsafe interactions between system components.

• Systematic Hazard Identification: The AkeLex Adaptive Knowledge Engine actively monitors patient data and identifies risks.
• Control Structures: The CarePath intelligent triage system ensures clinical urgency determines response.
• Feedback Loops: Real-time data sharing and feedback mechanisms throughout the system.
• Human Factors Integration: Community paramedics arrive with immediate access to data, reducing cognitive burden.

Cognitive Work Analysis

CarePath's implementation strategy incorporates Cognitive Work Analysis (CWA):
• Work Domain Analysis: Geographic distances, broadband availability, weather impacts
• Control Task Analysis: What triggers intervention decisions?
• Strategies Analysis: How do community paramedics modify routes during winter storms?
• Social Organization Analysis: How do care teams coordinate? Where do handoffs fail?

The evidence base for rural healthcare transformation is sparse. CarePath offers states the chance to build that evidence—with rigor, with structure, and with a foundation of proven results.