



Rural Emergency Hospital conversion: critical factors for EMS support

Authors: Julie Bosak, DrPHc, CNM; Jed Hansen, PhD, FNP

Introduction

Access to emergency medical care is vital to the health of rural communities across the United States. Composed of a two-part system, including rural designated hospitals and emergency medical services (EMS), each part is an integral component of first-line treatment during a medical emergency in rural America.

Unfortunately, a trend of hospital closures since 2010 has reduced the ability for many rural Americans to receive the timely care needed to survive a health emergency. Hospital closure in a community can mean the loss of both a local emergency department and public EMS. For those communities that maintain EMS agencies, longer transportation times, due to distances between emergency departments, have been shown to adversely affect health outcomes with higher mortality rates attributed to increased driving times.ⁱ

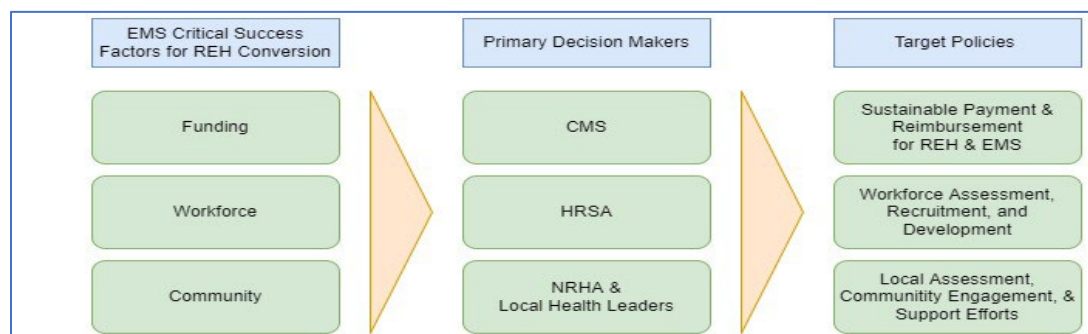
One solution to prevent hospital closures and retain access to emergency services is the creation of the Rural Emergency Hospital (REH) designation under the Consolidated Appropriations Act of 2021. REH designation allows rural hospitals to maintain outpatient and emergency department payment from Medicare without a requirement of inpatient acute care services (see Appendix A). The REH model is thought to be advantageous for small, independently owned rural hospitals with low inpatient volumes, low net patient revenues, and a recent history of financial distress.ⁱⁱ Patient transfers from a REH location to a designated trauma center will rely heavily on community EMS providers that are often trained volunteers in rural settings.

This policy brief develops REH specific influences and recommendations from NRHA’s broader EMS-related policies [“Rural EMS Workforce: A Call to Action” \(2021\)](#) and [“EMS Services in Rural America: Challenges and Opportunities” \(2018\)](#).

Critical Factors for Supporting EMS

As projected use of EMS services increases in communities with REH conversion, existing barriers to rural EMS delivery, including workforce, funding, and individualized community solutions, must be effectively addressed. Failure to proactively mitigate the challenges of rural EMS delivery as a component of REH conversions will likely lead to a further erosion of rural health systems and accelerate the closure of the very hospitals the REH legislation is designed to protect.

Figure 1. Overview of targeted policies to address critical factors





Funding to support EMS

Traditionally, EMS is funded through a mix of state funds, municipal tax revenues, grants and charitable contributions, and fee-for-service payments from both public and private payers, as well as by donations of time from volunteer EMS providers. For rural communities this equates to smaller tax-bases, a higher percentage of uninsured or underinsured residents, and a poorer population than urban locations, meaning fewer dollars are available to fund EMS services.

EMS services have significant readiness costs associated with the need to maintain expensive ambulance and emergency medical equipment along with substantial training and certification costs. These fixed expenses create a higher cost per EMS interaction in low-volume services, even with significantly lower personnel costs due to the donation of volunteer time.ⁱⁱⁱ

Municipal Tax Revenue challenges

Funding for EMS at the state and local level is often insufficient and unreliable with rural communities receiving smaller percentages of total funding. With a shift away from federal funding through the 1981 omnibus legislation, states rarely allocate sufficient funds to support adequate EMS services. Recent figures suggest mean spending to be around \$2 million total per state general fund budget for EMS services, with minimum funding as little as \$29,000.^{iv} As an example, Iowa and Washington State statutes place a maximum mill levy of 0.405 and 0.500 per \$1,000 of assessed value. In 2016, the last year with aggregated data available, this equated to approximately \$1.2 million and \$8.9 million respectively from each state general fund. Total funding by state through state-by-state specific mechanisms is higher, ranging from \$422,000 in South Dakota to and an outlier of \$144 million in Virginia.^v These total funds are often achieved through a patchwork of state funding comprised of ambulance service fees, state dedicated funds, and motor vehicle related tickets and fines that require reallocation on an annual basis. The inconsistent and unreliable state-level funding means that local EMS must seek funding elsewhere. On average, each state receives over \$500,000 in private donations and grants each year and an additional \$570,000 in licensure fees.⁷

Fee for service payments

Efforts focused on sufficient reimbursement for rural EMS services and transport continue to highlight the importance of adapting current financial reimbursement models. Current reimbursement for EMS services is billed only when transportation of a patient occurs. Current studies estimate only 25% of calls end with a transportation.^{vi} Like all volume-based reimbursement models, the current fee-for-service payment model has a more detrimental impact on low-volume rural EMS if an individual does not have insurance or refuses transport after receiving medical care at the scene. Transportation of Medicare patients to REH could face additional challenges due to a current reimbursement designation gap. Language within the Medicare Benefit Policy Manual does not identify REH as a covered reimbursable designation. Without an addition to the language, Medicare patients may be required to pay the full cost of their emergency transportation when a REH is involved.

Workforce

EMS services in the US are delivered through a mix of over one million volunteer, paid volunteer, and employed professionals. By license level, about two-thirds of EMS workers are either emergency medical technicians (EMT) which account for 55 percent or emergency medical responders (EMR) which account for 11 percent. Paramedics compose most of the remaining workforce at 25 percent.^{vii} In rural



communities, ambulance services report a heavy reliance on volunteer EMTs and EMRs with over half of rural agencies staffed by non-employed individuals. Unfortunately, changing economic and demographic environments over the past two decades have led to decreased stability in rural EMS agency staffing. This workforce vulnerability is particularly noticeable in communities with heavy reliance on volunteers with as many as 70 percent of rural communities reporting difficulties in finding adequate numbers of volunteers to staff 911 calls.^{viii}

Moreover, administrative obligations, training, and ongoing clinical competencies create additional barriers to recruiting quality EMS personnel beyond pay. Along with administrative tasks, certification for EMS volunteers takes over 150 hours to complete, with written and practical tests and annual training and skills verification required in addition to certification.^{ix} Paramedics have even higher educational requirements logging over 2,000 hours of pre-professional hours with college courses, clinical training, and licensing examinations. Continuing education is required every two years for recertification with EMTs needing 40 hours and paramedics 60 hours.^x

Projected increases in the number of inter-facility transfers and the increased time associated with longer distances between hospitals will likely exacerbate rural EMS staffing shortages in communities with REH converted facilities. Further, as treatment capabilities at REH converted facilities decrease, acuity of patients needing transport to distant hospitals will increase. This increase in acuity may require additional training or higher levels of EMS licensure for EMS providers. Additional requirements, both initially and annually, place further burden on volunteers and will further exacerbate rural EMS staffing shortages. The need to counteract volunteer shortages with paid personnel will have a dramatic impact on EMS budgets.^{xi}

Various solutions exist for these widely recognized EMS workforce deficits and could be applicable for the REH conversion. Currently, the Federal Office of Rural Health Policy through the Medicare Rural Hospital Flexibility (Flex) program is supporting pilot care delivery initiatives at eight pilot sites across the US focused on addressing identified rural EMS barriers, sustainable EMS workforce models, quality metrics, and data reporting.^{xii} Community paramedicine is one model that is being piloted and has already been proven throughout North America, the United Kingdom, and Australia to improve outcomes, lower costs, and enhance overall medical support within underserved communities.^{xiii} This approach supports the highly trained paramedic providing appropriate community based care beyond the current emergency response and transportation model.^{xiv} In addition to improving initial emergency care outcomes by having the highest level of medical care delivery in the field, this diversified role enhances a low volume system's capacity for supporting paramedic positions.

Community

The REH conversion process presents similar community challenges seen with the medical assistance facility or community access hospital conversion in the 1980-90's. Key community stakeholder engagement and support was identified as a core priority for those crucial community health system evolutions. A thoughtful and comprehensive community engagement process supports building appropriate, more responsive local systems and a community of people able to collectively problem solve their own local issues.^{xv} Community engagement must be prioritized in the creation of an appropriate and sustainable system for both the broader REH conversion decision process and the adaptation of EMS services.^{xvi}



Local assessment

As part of the community level approach, a focused, local EMS assessment is necessary for each possible REH conversion site given the multitude of factors impacting the EMS system and the heterogeneity of rural EMS systems. The individual communities, with appropriate support, can understand their fragmented EMS system, workforce barriers, local tax base support, and quality concerns. One approach is the Informed Community Self-Determination (ICSD) process which provides a template for communities to work with a trained EMS expert evaluator to assess their local EMS status, future needs and feasible community driven solutions that address workforce, funding, quality, and oversight. NRHA with support from the Health Resources and Service Administration's (HRSA) Federal Office of Rural Health Policy (FORHP) supported the development of this EMS assessment tool. Currently, both FORHP and the Joint Committee on Rural Emergency Care support utilizing the ICSD for evaluation. The existing ICSD program requires slight adaptation for the REH conversion contextual factors such as anticipated shifts in EMS volume, acuity and capacity needed for an increase in prolonged transfer times. For the existing ICSD process experts estimate a \$15,000 cost in consulting and associated fees for a community to complete the process, but training of local in-state sponsors can diminish this cost.^{xvii}

Community engagement

The current community engagement approach in the ICSD recommends a community meeting or series of meetings with taxpayers and community decision-makers to collaborate on level of service choice and funding streams.^{xviii} Overall, the most effective and involved community engagement encompasses full leadership and decision-making collaboration, building trust, and commitment to the outcome.^{xix} Ideally, a community wide advisory group populated by a broad spectrum of community stakeholders will adapt the process for local contextual factors and guide this initiative. The advisory group should be inclusive of locally identified leadership from business, social services and government, health system service-users, plus hospital and EMS representation.^{xx} A comprehensive approach starts with a series of facilitated community listening sessions, then community meetings to present relevant data and decision factors culminating in a collaboratively crafted plan.^{xxi} Developing local expertise to manage a comprehensive community engagement process will likely require technical assistance and financial support.

EMS Policy Recommendations

The goal of these targeted recommendations is to outline the policies needed to create a feasible process for assessment and implementation, along with a funding stream for REH conversion communities to be the next wave of pilots for rural EMS reform.

Oversight

FORHP should provide the oversight management for implementing the targeted assessments and EMS adaptations recommended with an REH conversion.^{xxii}

- FORHP oversees critical access hospitals, rural health innovation and technical assistance and the Flex funding program. Building on the existing system of the technical assistance support for State Offices of Rural Policy will facilitate implementation of these recommendations.^{xxiii}
- Extend the current EMS Flex monitoring program to encompass REH conversion. Building off the findings from the initial evaluations on the current EMS flex pilot programs a subsequent phase of



research informed pilots can be implemented through the four targeted State Offices of Rural Health.^{xxiv} The current pilots address streamlining a local EMS system, workforce, quality, and data collection.

- Pilot these targeted recommendations in the four states with the highest number of facilities identified most likely to convert, a total of 32 in Kansas, Nebraska, Texas, and Oklahoma.^{xxv}

Community

Community level assessment and engagement is critical to a successful EMS transition.

- Facilitate the utilization and adaptation of the ICSD process to support individual communities' assessments. Additionally, the integral community engagement steps of ICSD could be effectively aligned with broader community decision-making for an REH conversion.
 - Create a working group of EMS experts to identify additional REH adaptation criteria for the ICSD evaluation program. Relevant stakeholders to participate in the working group should cover those knowledgeable of rural EMS system issues such as representatives from national EMS organizations, State offices of Rural Health Policy, critical access hospitals, rural political representation, and private and public insurance.^{xxvi}
 - Additional decision criteria should consider overall configuration and medical oversight, types and volume of service, affiliation with trauma centers (level I II or III) and the creation of an efficient regional network.^{xxvii}
 - Propose how to integrate the ICSD process within the REH conversion community decision-making that should have a significant community engagement component.
- Ensure Rural Emergency Hospital Technical Assistance Program funding requested in FY 2022 appropriations can be applied to the ICSD consulting and assessment process for REH conversion facilities.^{xxviii} The technical assistance funding support will ensure REH communities' ability to effectively address local EMS needs in the context of an REH conversion.
 - To make the application of ICSD financially feasible, the technical assistance funds could support dissemination through one in-person statewide training in the four prioritized states by an expert EMS evaluator to train a network of in-state specialists. This increases the upfront investment to approximately \$100,000 in total but builds in state capacity to integrate the ICSD approach within existing local administrative state policy roles.

Funding: Sustainable payment options

Rural EMS needs funding to appropriately support the workforce, training, and capital for transportation vehicles and medical equipment. REH designated facilities will likely require increased capacities of emergency transportation services. Policies for both REH and EMS can address the funding shortages of rural ambulance operations through either expansion of current Centers for Medicare and Medicaid Services (CMS) allowable costs or through novel payment or reimbursement within the new REH model.

- Regulate REH facilities value-based reimbursement model with EMS services considered a critical service provision.
- Increase the CMS Ambulance Fee Schedule to reflect the level of medical care being provided during patient transfers. Additionally, allow for CMS reimbursement on a per "run" basis to allow EMS services to recoup money for total time in service and not just for medical services associated with transportation, which is the current fee structure allowed under CMS.^{xxix}



- Decrease CMS mileage distance requirements from 35 miles to 20 miles (or eliminate mileage criteria) to allow CAH and REH facilities to maintain and manage ambulance services on a cost-based payment for rural ambulance services.
- Support a new “REH transit bonus” CMS reimbursement as incentive for the REH partner facility who receives transfer patients. This could be modeled on the Medicare physician bonus scheme provided in health care shortage areas^{xxx}
- Increase the CMS REH facility payment by \$750,000 per ambulance service annually to account for the costs of maintaining and staffing an EMS service.

Workforce development

Rural EMS services have relied on a volunteer workforce model that may not be sustainable with the increased demands felt in REH conversion communities. Policies targeting REH and EMS should seek to increase the total workforce, training, and retention of rural EMS professionals by expanding HRSA and Department of Health and Human Services programs.

- Pilot workforce capacity building through community paramedicine. Prioritizing community paramedicine programs in REH communities would introduce a proven way to leverage and diversify a paramedics role. With uptake of the recommended funding model changes to cost-based reimbursement, along with the additional funds in a facility fee, the REH will have the financial capacity to own and operate an EMS service that supports the higher-level paramedic role. A diversified paramedic role can overcome staffing issues in a pared down REH facility and broaden community-based care.^{xxxii}

Workforce for all EMS services^{xxxiii}

- Collect data nationally through the HHS Emergency Preparedness and Response program to better understand the needs and shortage areas of EMS and other rural emergency infrastructures and services.
- Designate EMR, EMT, and paramedics as workforce shortage occupations through HRSA to allow for loan repayment and workforce grants for training and retention of EMS professionals.
- Increase funding through mechanisms discussed above to allow for more competitive pay and salaries for EMS professionals in rural communities.

Conclusion

Given the importance of EMS services to the success of the REH model, the REH implementation should become a catalyst for the re-configuration of local EMS agencies. Failure to proactively mitigate the challenges of rural EMS will accelerate the closure of the very hospitals the REH legislation is designed to protect and further threaten health equity in vulnerable rural communities.



Appendix A

Table 1: Criteria for REH facility (effective January 1, 2023)

<p>REH requirements</p> <ul style="list-style-type: none"> • May not provide acute inpatient care • May not exceed an annual per patient average length of stay of 24 hours • Staffed 24 hours-a-day, seven days-a-week by a physician, nurse practitioner, clinical nurse specialist, or physician assistant • Meets the licensure requirements and staffing responsibilities of an ED • Has a transfer agreement in place with a level I or II trauma center • Meets conditions of participation applicable to CAH emergency services and hospital EDs
<p>REHs can also furnish additional medical services needed in their community, including:</p> <ul style="list-style-type: none"> • observation care • outpatient hospital services • telehealth services • ambulance services • skilled nursing facility services

Source: National advisory committee on rural health and human services (2021).

ⁱ Maine Rural Health Action Network. (2020). *Engaging Communities to Preserve Access to Emergency Medical Services in Rural Maine*. Retrieved from: NewEnglandRHA.org/ME-RHAN

ⁱⁱ Pink, G., Thompson, K., Howard, A., Holmes, M. (2021). *How Many Hospitals Might Convert to a Rural Emergency Hospital (REH)?*

ⁱⁱⁱ Coburn, A. F., Knudson, A., Lundblad, J. P., McBride, M. T. D., & MacKinney, A. C. (2021). *Characteristics and Challenges of Rural Ambulance Agencies—A Brief Review and Policy Considerations*.

^{iv} National Association of State EMS Officials. (2020). *National emergency medical services assessment*. https://nasemso.org/wp-content/uploads/2020-National-EMS-Assessment_Reduced-File-Size.pdf

^v Iowa Department of Management, 2013.

^{vi} Shekhar (2020). *How Police Officers Can Save Rural EMS*. *Journal of Emergency Medical Services*.

^{vii} National Association of State EMS Officials (2020).

^{viii} RHI Hub, 2021

^{ix} McLaughlin et al., (2021). *Rural EMS Workforce: A Call to Action*. National Rural Health Association Policy Brief.

^x National Registry of Emergency Medical Technicians. (2021). <https://www.nremt.org/>

^{xi} Coburn, A. F., Knudson, A., Lundblad, J. P., McBride, M. T. D., & MacKinney, A. C. (2021)..

^{xii} Pearson, K., Gale, J., Kahn-Troster, S. (2020). *Implementation of Flex EMS Supplemental Funding Projects: Year one Activities*.

^{xiii} O'Meara, P., Wingrove, G., & Nolan, M. (2018). *Frontier and remote paramedicine practitioner models*. *Rural Remote Health*, 18(3), 4550. doi:10.22605/RRH4550

^{xiv} Chan, J., Griffith, L. E., Costa, A. P., Leyenaar, M. S., & Agarwal, G. (2019). *Community paramedicine: A systematic review of program descriptions and training*. *CJEM*, 21(6), 749-761. doi:10.1017/cem.2019.14

^{xv} Kenny, A., Hyett, N., Sawtell, J., Dickson-Swift, V., Farmer, J., O'Meara, P. (2013). *Community participation in rural health: a scoping review*. *BMC Health Serv Res*, 13(64).

^{xvi} *The Rural Emergency Hospital and Value Based Care*. (2021). Retrieved from www.ruralhealthvalue.org

^{xvii} Maine Rural Health Action Network (2020).

^{xviii} McGinnis, KK; Wingrove, G. "Process Template for Informed Community Self-Determination in EMS" (Concept Implementation Draft). April 2019. Accessed 4/17/2020: <https://nasemso.org/wp-content/uploads/2020-Template-for-Informed-Community-Self-Determination-v-6.1.pdf>

^{xix} Montesanti, S. R., Abelson, J., Lavis, J. N., & Dunn, J. R. (2015). *The value of frameworks as knowledge translation mechanisms to guide community participation practice in Ontario CHCs*. *Soc Sci Med*, 142, 223-231. Doi: 10.1016/j.socscimed.2015.08.024

^{xx} Maine Rural Health Action Network (2020).

^{xxi} Montesanti, S. R., Abelson, J., Lavis, J. N., & Dunn, J. R. (2015).

^{xxii} National Advisory Committee on Rural Health and Human Services. (2021). *Rural Emergency Hospital Policy Brief*.

^{xxiii} Pearson, K., Gale, J., Kahn-Troster, S. (2020). *Implementation of Flex EMS Supplemental Funding Projects: Year one Activities*.

^{xxiv} Ibid.

^{xxv} Pink, G., Thomspson, K., Howard, A., Holmes, M. (2021).

^{xxvi} Maine Rural Health Action Network (2020).

^{xxvii} Greenwood-Erickson, M. (2021). *Personal Communication*. [Outstanding Rural Emergency Hospital (REH) Policy Issues].



- ^{xxviii} National Rural Health Association (2021). *NRHA FY2022 Appropriations Request*. Retrieved from Washington, DC Retrieved from: [https://www.ruralhealth.us/getmedia/e7687f82-dd8f-43bd-83bb-f6f8b1d024d4/NRHA-FY-2022-Appropriations-Request-\(Medicare-FLEX-program\).aspx](https://www.ruralhealth.us/getmedia/e7687f82-dd8f-43bd-83bb-f6f8b1d024d4/NRHA-FY-2022-Appropriations-Request-(Medicare-FLEX-program).aspx)
- ^{xxix} MedPac. (2020). *Ambulance Services Payment System*. Retrieved from www.medpac.gov
- ^{xxx} The Lewin Group (2015). *Health Practitioner Bonuses and Their Impact on the Availability and Utilization of Primary Care Services*. Retrieved from https://aspe.hhs.gov/sites/default/files/private/pdf/116816/FinalReport_HealthPractitionerBonuses_8_13_15%2520%2528v2%2529.pdf
- ^{xxxi} National advisory committee on rural health and human services (2021).
- ^{xxxii} NRHA Policy Briefs on EMS Workforce and EMS Services in Rural America