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Rural EMS Assessment and Performance Monitoring: Lessons for State Flex Program

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Overview

- EMS remains a challenging area of activity for states
 - Heavy focus on training, meetings, committee participation
 - Reliance on process/output rather than outcome measures
 - Somewhat unclear theories of change
- Flex Program legislative authority
 - Support and integrate EMS into local/regional systems of care
 - Improve EMS capacity and performance in CAH communities
- Guidance requirements for competitive funding

cycle:

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States interested in undertaking EMS projects were required to conduct an EMS assessment in Year 1





Allowable Flex EMS Activities

- Community-level Rural EMS System Assessment
 - Use a standard assessment tool to assess EMS capacity and performance
 - Engage local stakeholders;
 - Conduct assessments;
 - Identify capacity and performance issues
 - Engage stakeholders in setting priorities
 - Identify common priorities by/across communities.





Allowable Flex EMS Activities (cont'd)

- Improve Time Critical Diagnoses (TCD) EMS System Capacity
 - Improve local/regional system capacity for STEMI, stroke, and trauma
 - Engage EMS agencies and systems of care to develop integrated service systems
 - Improve the capacity of EMS agencies to diagnose and treat TCD episodes of care
 - Expand EMS use of nationally recognized protocols related to TCD and emergency dispatch





Allowable Flex EMS Activities (cont'd)

- Improve EMS Capacity and Operational Projects
 - Improve local EMS system capacity in CAH communities using data from the EMS assessments and other sources
 - Target and address issues specific to identified capacity gaps.
 - Develop collaborative linkages between CAHs, community providers, and EMS agencies to improve local pre-hospital and emergency care capacity
 - Improve capacity of EMS agencies to collect/report quality data and use data for performance improvement
 - Enhance billing, collection, and financial systems of EMS agency and their use of financial data for performance improvement





Assessing EMS Needs

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Summary of State EMS Assessments

- 22 states undertook EMS assessments in FY 2015
 - 12 conducted EMS focused assessments using a variety of different tools and engaging a range of collaborative partners
 - 10 conducted assessments using existing CHNAs conducted by rural hospitals and communities to identify local needs
- In-depth focus on 5 state assessments
 - Arizona – Statewide survey of rural and urban EMS
 - California – Targeted survey of EMS serving CAH communities
 - Minnesota – Statewide survey of rural EMS
 - Nebraska – Local assessments of at-risk communities





Arizona

- 105 survey focused on trauma, STEMI, dispatch protocols, billing practices, quality, and operational issues
- Delivered electronically with assistance from EMS partners
- Collaborative partners: EMS Regional Councils, EMS and Trauma System, Advisory Council on Indian Health Care
- State Flex funds and in-kind support from SORH and partners
- Statewide and regional reports





California

- 33 agencies serving CAH communities
- 27 questions focused on Flex Guidance requirements
- Online survey
- Collaborative partners: Local EMS Agencies and California EMS Authority
- State Flex funds
- Assessment reports distributed widely





Minnesota

- 59 question survey focused on TCDs, recruitment, agency capacity, and sustainability
- Delivered electronically to rural communities with communication plan to encourage participation
- Collaborative partners: MN Ambulance Association, (and its Rural Sustainability Committee), MN EMS Regulatory Board, MN Department of Health's Center for EMS and Heart Disease and Stroke Prevention Unit and MN EMS Association
- State Flex funds, in-kind contributions from

partners

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Assessment reports





Nebraska

- Local targeted assessments of at-risk communities – 2 to three per year conducted by EMS consultants
- Survey of the 18 attributes of successful EMS developed with the Joint Committee on Rural EMS Care
- Distributed by NE Office of Emergency Health Systems – communication plan to ensure participation
- Collaborative partners: EMS Regional Councils and contract with Wisconsin SORH for data analysis
- State Flex funds

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Nebraska

- Local targeted assessments of at-risk communities – 2 to three per year conducted by EMS consultants
- Survey of the 18 attributes of successful EMS developed with the Joint Committee on Rural EMS Care
- Distributed by NE Office of Emergency Health Systems – communication plan to ensure participation
- Collaborative partners: WI EMS Section and two state EMS Associations
- State Flex funds; in-kind contributions from

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Wisconsin

- JCREC's survey of 18 attributes of successful EMS agencies
- Second survey developed by WI SORH focused on TCDs
- Online survey
- Collaborative partners: WI EMS Section and two state EMS Associations
- State Flex funds; in-kind contributions from partners
- Assessment reports posted on websites and distributed widely





Key Findings

- Surveys served different purposes
 - California focused directly on Flex Guidance requirements
 - The remainders were more broadly based and took longer to complete
- Delay in completion may have compromised their use in planning for subsequent Flex activities
- States varied in their degree of alignment with Guidance requirements
- Difference between the assessment as a planning tool and the assessment as an intervention
 - Both are valid but may not be compatible in the short





Key Findings (cont'd)

- State Flex funding is a critical resource to support state assessments
- Collaboration with key state and regional EMS stakeholders is essential
- Strong communication plans at the start, throughout the process, and distributing results helps support participation, encourages higher response rates, and improves buy-in
- Comprehensive assessments take much longer than expected





Recommendations for Future Assessments

- Explore the use of phased assessments to support State Flex Program planning and state EMS planning
 - Shorter process focused on quantifying EMS capacity rather than individual agency performance
 - Rely more heavily on key informant/stakeholder interviews, use of secondary data already collected by state EMS agencies, and shorter targeted survey tools
- Statewide surveys and assessments may be suitable to capture data for policymakers and planners
- Consider the use of a standardized assessment

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Monitoring the Impact of State Flex Program EMS Activities

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Organizing Framework for Monitoring Impact of Flex EMS Activity

- Focus on improving EMS engagement with CAHs
- System of care orientation
- Assess local EMS capacity and system issues
- Concentrate on TCDs – STEMI, stroke, trauma
- Focused on following three domains:
 - Capability, capacity, and access
 - Recognition and diagnosis
 - Integration and coordination of care
- Goal – document system performance improvement





Year 1: Assessment and Planning

- **Capability, capacity, access (Domain 1)**
- System Assessment
 - Assess EMS capacity and performance using standardized tools/protocols
 - Develop interventions addressing priority needs
 - Begin implementation of interventions
 - Focus leadership programs on EMS capacity building





Year 2/3: Performance Improvement and System Building

- **Capability, capacity, access (Domain 1)**
- EMS Agency Data and Reporting Capacity
 - Agencies collect and use data to manage and improve performance and engage in collaborative discussions to improve performance across the system
- EMS Agency and Protocol Use (TCDs/systems of care)
 - Agencies use nationally recognized protocols for TCDs and emergency dispatch for patients of all ages





Year 2/3: Performance Improvement and System Building (cont'd)

- **Recognition and diagnosis (Domain 2)**
 - Train staff to use evidence-based protocols for TCDs to identify specific episodes of care
- **Coordination of care (Domain 5)**
 - Agencies are working with other participants in local systems of care to plan for and develop integrated services systems





System Assessment Measures

- % of SFPs conducting assessments
- % of SFP EMS initiatives that address priority needs identified
- % of SFPs that track and evaluate progress towards addressing priority needs
- % of local rural health systems with local system assessment and planning processes involving community providers and stakeholders





EMS Agency Data and Reporting Capacity

- % of EMS agencies able to bill third party payers and patients for services rendered
- % of EMS agencies able to access patient billing and agency financial data for PI
- % of agencies with formal quality improvement protocols/continuous quality improvement (CQI) processes
- % of agencies that use quality data for PI
- % of local/regional systems of care in which participants meet regularly to review data on quality and system performance





EMS Agency Protocol Use (TCDs/systems of care)

- % using the CD's Guidelines for the Field Triage of Injured Patients (trauma) of all ages
- % using the American Heart Association's Mission (AHA): Lifeline Guidelines (STEMI)
- % using protocols that meet current American Stroke Association/AHA guidelines for stroke care
- % of units with emergency dispatch protocols





Recognition and Diagnoses

- Recognition and Diagnosis of TCD episodes of care
 - % of EMS staff trained on: STEMI recognition, stroke recognition, and trauma/field triage-all ages
 - EMS protocol use
 - % using AHA Mission: Lifeline Guidelines (STEM)
 - % using protocols meeting ASA/AHA stroke care guidelines
 - % using CDC guidelines for field triage of injured patients





Recognition and Diagnoses

- Staff training
 - % of EMS staff trained on STEMI and stroke recognition
 - % of staff with training trauma/field triage protocols for all ages





Coordination of Care

- Governance, shared accountability, handoffs and transitions, and communication
 - % of EMS agencies with local system planning committees involving relevant local CAHs and other hospitals, health care providers, fire/law enforcement officials, and community stakeholders
 - % of EMS agencies with local system planning committees that have developed plans to address emergency system resource, work force, and training needs





Long Term (Years 3+) Measures

- % of systems functioning as integrated systems of emergency care
- % of EMS agencies with improved performance on key TCD measures (e.g., D2B of \leq 90 minutes)
- % of EMS agencies with improved financial and quality performance





Thank You!

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