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Overview

• Flex Program/rural health system development expectations
• Categories of State Flex Program EMS activities
• Opportunities to integrate EMS into rural systems of care
• In-depth Example: Regional STEMI/stroke systems of care
• In-depth Example: Community paramedicine programs
• State Flex Program Role
• 3rd core area of Flex activity - limited to 1/3rd of award
• Flex Programs are required to support CAHs in:
  – Develop collaborative systems of care across the continuum
  – Address community needs; and/or
  – Integrate EMS in those regional and local systems of care.
• Logic:
  – CAHs cannot be viable without community support/CAHs are hubs of local service systems
  – EMS is an integral part of rural health care delivery systems
  – Maximize and rationalize use of scarce local resources
  – Improve functioning of local system of care
• Work plan must include at least one of the following:
  – Support CAHs, communities, other hospitals, EMS, community providers in developing local/regional systems of care
  – Support inclusion of EMS into local/regional systems of care including trauma systems.
  – Support CAH/community collaboration on assessments to identify unmet community health needs
  – Support CAH/community collaboration on projects/initiatives addressing unmet health needs
  – Support sustainability/viability of EMS within the community (optional)
HSD/CE FMT Studies

- Community impact of CAHs
- Community benefit and safety net role of RHCs
- CAH SNF closures and long term care services
- Developing regional STEMI systems of care
- National and state reports on community benefit activities of CAHs, non-metro and metro hospitals
- State Flex Program EMS activities
- Evidence-base for community paramedicine programs
Categories of Flex EMS Activity

• Integrating EMS into local/regional systems of care
  – EMS participation in community assessments
  – STEMI, stroke, trauma systems of care
  – Community paramedicine programs

• EMS training and education
  – Comprehensive Advanced Life Support & Rural Trauma Team Development
  – Medical Director, management, and leadership

• EMS performance improvement and sustainability
  – Billing, coding, and group purchasing
  – Quality and performance improvement
  – Recruitment and retention
Figure 1: Health System Development and Assessment Logic Model
State Flex EMS Activities: Developing Regional/Local Systems of Care

**Inputs**
- State Flex staff
- State EMS staff
- CAH/rural hospital staff
- Referral hospital staff
- Coordinating Committees
- Research, evidence base
- Local EMS staff
- Specialty medical associations
- Financial Resources

**Strategies**
- Engage policymakers and statewide coalitions
- Facilitate development of regional/local coalitions
- Support EMS and hospital education
- Provide/supplement technical assistance and consulting support to coalitions
- Provide training on conducting EMS and community assessments

**Outputs**
- # of Flex Programs engaged in statewide coalition building
- # of regional/local coalitions formed
- # of EMS units, CAHs, community organizations participating in regional/local coalitions
- # of organizations receiving TA/support on developing systems of care and conducting CHNAs

**Short-Term Outcomes**
- # of regional/local coalition developing initiatives to implement system of care
- # of coalitions assessing local health care needs, delivery systems, barriers to performance, and needed changes
- # of CHNAs conducted and implementation plans developed
- # of regional/local systems developing protocols to coordinate systems of care

**Intermediate Outcomes**
- Local/regional systems of care implemented
- Systems collecting/monitoring performance data
- Systems use data to manage/improve system of performance
- Local initiatives tracked/revised as necessary
- CAHs, EMS, local collaboratives implement local interventions
- Local implementation plans implemented

**Long-Term Outcomes**
- Systems of care remain viable/operational
- Local priority needs are addressed
- Local gaps in services filled
- Regional/local delivery systems strengthened
- Improved outcomes for condition of interest
Community Assessments

- Tax Exempt hospitals are required to conduct community health needs assessments (CHNAs)
- Encourage engagement of EMS and local providers in the process
- Examples of State Flex Activities
  - Conduct four CHNAs in rural communities to identify unmet health needs and service gaps (including EMS)
  - Conducting CAH community case studies that include an EMS component
  - Training hospitals and community to conduct CHNAs
Regional Systems of Care

• STEMI and stroke
  – Education and outreach
  – System of care planning
  – Development of treatment protocols
  – Participation in statewide committees
  – Conferences, training, and workshops

• Trauma
  – Trauma systems of care planning and development
  – CAH trauma designation
  – Trauma system assessments/Benchmark, Indicators, and Scoring (BIS) facilitation process
Local Systems of Care

- Encourage community-level collaboration between CAHs, EMS, public health, and other providers
  - Needs assessments
  - Shared resources
  - Local clinical information sharing
  - Address service gaps
  - Improve quality of care
  - Improve local delivery system performance

- Represent rural and EMS issues on statewide committees
Community Paramedicine

• Conduct community paramedicine needs assessments
• Develop pilot programs
• Expand CP model
• Workshops/education
• Convene stakeholders at state and community levels
• Support protocol and training development
EMS Training and Education

- Comprehensive Advanced Life Support and Rural Trauma Team Development Course training
  - Sponsor courses for regional CAH and EMS staff at rural sites
  - Use trained hospital/EMS staff to mentor untrained providers
  - Coordinated trainings

- Medical Director, management, and leadership training
  - Joint leadership and management training targeting EMS and CAH staff
  - Medical Director training encouraging coordination across systems

- Conferences and webinars
  - Sponsor regional and statewide programs
  - Share information and resources and encourage collaboration
EMS Performance Improvement and Sustainability

• Billing, coding, and group purchasing programs
  – Offer regional workshops to increase knowledge across EMS units
  – Develop regional billing services
  – Encourage EMS units to join existing purchasing organizations

• Quality and performance improvement
  – Develop EMS quality collaboratives – regional data exchanges
  – Develop EMS quality/performance measures and data system
  – Support EMS systems standards

• Recruitment and retention
  – Develop EMS programs for CAH catchment areas
  – EMS/trauma workshops focused on recruitment and retention priorities
ST-Elevation Myocardial Infarction (STEMI)

- 400,000-500,000 events annually/30% of ACS patients
- Treatment: percutaneous coronary intervention (balloon angioplasty) or fibrinolytics (clot busting drugs)
- Treatment is “a systems problem of local communities”
- Time is muscle!
- 30% do not receive PCI or fibrinolysis in the absence of contraindications to their use
- Fewer than 50% of fibrinolysis patients and 40% of PCI patients are treated within guidelines
- 70% of patients ineligible for fibrinolytics do not receive PCI
AHA Mission: Lifeline Guidelines

• Improve STEMI care by defining components of the system and how they should work together
• Defines capacities of “ideal” EMS, STEMI referral, and STEMI receiving hospitals
• Maintains a role for non-PCI hospitals - key in rural areas
• Key aspects of system functioning:
  • Multi-disciplinary team meetings to evaluate outcomes and QI data
  • Process for prehospital identification and activation (EMS)
  • Destination protocols for STEMI receiving hospitals
  • Referral hospital transfer protocols
Barriers to Timely Reperfusion

- Patients fail to recognize symptoms or seek medical attention
- EMS system limitations
- Long travel distances
- Delays at STEMI referral (non-PCI) hospitals related to diagnosis, transport and/or treatment
- Delays at PCI hospitals in processing and treating patients
Spectrum Health Reed City Hospital

- STEMI performance improvement project
  - CAH in the rural lower peninsula of Michigan
  - Part of Spectrum Health in Grand Rapids and the Meijer Heart Center
  - Travel time 70 minutes by ground, 25 minutes by air (70 miles)
  - Team - Reed City, 2 EMS agencies, Meijer, Aeromed, Spectrum Health
  - D2B time averaged 120 minutes
  - Barriers to achieving 90 minute D2B times
    - Lack of 12 lead ECG capability in one EMS agency
    - Long travel distance with delays caused by weather conditions
    - Delays in mobilizing Aeromed services
  - Results: D2B times within 90 minutes with some as low as 56-60 minutes
SH Reed City (continued)

• Team developed/implemented the following:
  – AMI bag containing drugs, IV fluids, and supplies was created
  – ED staff trained to perform 12 lead ECGs
  – Standardized order set to evaluate and treat AMI/STEMI patients
  – County equipped all ambulances with 12 lead ECGs
  – Reed City provided 12 lead ECG interpretation classes for paramedics
  – Aeromed and cath lab activation based on prehospital ECGs
  – Nurse/physician meet EMS at hospital prior to Aeromed rendezvous
  – Nurse brings AMI bag to landing pad and administers meds under orders
  – All hospital and EMS staff educated on new STEMI protocols
Washington’s AMI/STEMI Initiative

• Project of Rural Healthcare Quality Network (funded by Flex)
  – Ongoing initiative for Washington’s 34 CAHs
    o Standardized protocols, standing orders, data tools, and education materials
    o TA and support, assistance with data collection/analysis
    o Disseminated information on best practices for AMI/STEMI care
    o Worked with DOH, ECS Work Group, and ACC to develop protocols and standards for two levels of cardiac centers
    o Works with CAHs, PCI hospitals, and EMS to implement Level 1 protocols
    o Convenes regional and state meetings with key stakeholders
    o Publishes quality newsletters for CAHs
  – Door to transport times dropped from 197 to 100 minutes
  – Door to ECG goal of 2 minutes improved from 62% to 81% of patients
Illinois Critical Access Hospital Network (ICAHN)

- Supports CAH and rural EMS participation in regional STEMI systems
  - Assist CAHs/EMS to develop/implement standardized TX protocols and algorithms, standing orders, clinical/reperfusion pathways, transport protocols
  - Encourage development of data collection and QI systems to support multidisciplinary STEMI teams
  - Implement processes to monitor STEMI care provided by EMS
  - Conduct needs assessment to assess gaps and needs
  - Support collaboration by attending meetings and developing relationships
  - Organize professional education resources
  - Develop community awareness program
Defining Community Paramedicine

• CPS operate in expanded roles connecting underutilized resources with underserved populations. (CP Evaluation Tool, 2012)

• CPs apply training and skills in community-based environments. CPs practice within an “expanded scope” (using specialized skills/protocols beyond that which he/she was originally trained for), or “expanded role” (working in non-traditional roles using existing skills). (International Roundtable on Community Paramedicine)

• Organized system of services, based on local need, provided by CPs integrated into local/regional health care system and overseen by emergency and primary care physicians. (Rural & Frontier EMS Agenda for the Future, 2004)
What is a Community Paramedic?

A state licensed EMS professional

- Complete formal internationally standardized Community Paramedic educational program through an accredited college or university,
- Demonstrate competence in the provision of health education, monitoring and services beyond the roles of traditional emergency care and transport, and in conjunction with medical direction.
- Specific roles and services are determined by community health needs and in collaboration with public health and medical direction.

(HRSA, Community Paramedicine Evaluation Tool, Appendix B, 2012)
Rural/Urban Goals for Community Paramedicine

Rural addresses
- Primary care shortages
- Geographic distances to nearest hospital
- Utilization of paramedics during “down time”
- Career path opportunities

Urban addresses
- High volume of 911 calls
- Wait time in the ED

Both look to keep patients in their homes, reduce hospital readmissions and frequent ambulance transports
Community Paramedic Services

Depends on community needs but typically includes:

- Assessment
- Blood draws/lab work
- Medication compliance
- Medication Reconciliation
- Post-discharge follow-up within 48-72 hours as directed by hospital, PCP, or medical director
- Care coordination
- Patient education
- Chronic disease management (CHF, AMI, Diabetes)
- Home safety assessment: e.g. falls prevention
- Immunizations and flu shots
- Post-surgical wound care (not all CPs have this in their scope of practice)
- Referrals (medical or social services)
State Flex Program CP Activities

• 2010-2011: Five states Flex programs undertook community paramedicine initiatives
• 2012: Nine states included community paramedicine initiatives in their State Flex Grant applications, with six states providing funding for CP activities
• State Flex offices/staff provide facilitation of stakeholder meetings and dissemination of CP opportunities.
• Partnership of State Offices of Rural Health and State EMS agencies
Maine CP Pilot Program

- Maine Flex supported/funded development of CP pilot and worked closely with State EMS Bureau (good relationship)
  - Funded meetings, education, consultants
  - CAH QI Director and CEO meetings provide a forum to disseminate information about CP
- Legislator approved CP pilot project (capped at 12 pilot sites)
- 6-8 applications for participation have been approved, many from rural EMS units
- Applications focus on unique community needs and resources
- No state reimbursement for services – Applicants are committed to demonstrating need for and value of CP
Role of State Flex Programs

• Engage policymakers/statewide coalitions of providers
• Facilitate development of local and regional coalitions
• Support EMS and hospital training
• Support Systems of Care involving CAHs
• Support development of hospital and EMS standardized tools, treatment and transport protocols, data collection, etc.
• Disseminate information on best practices and successful initiatives