Community Paramedicine: Lessons Learned from South Carolina

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Rural Health Care Leadership Conference
February 7, 2015
Our People & Our Services

Smaller. Smarter. Safer.
25-bed Critical Access Hospital located in rural Abbeville County, South Carolina

<table>
<thead>
<tr>
<th></th>
<th>Abbeville County</th>
<th>State</th>
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<tbody>
<tr>
<td>Total Population</td>
<td>25,101</td>
<td>4,723,723</td>
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<tr>
<td>Percent of population ≥65</td>
<td>17.9%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Percent of Individuals below poverty level</td>
<td>20.2%</td>
<td>18.3%</td>
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<tr>
<td>Median Household income</td>
<td>$35,456</td>
<td>$43,290</td>
</tr>
<tr>
<td>Percent uninsured, adults</td>
<td>23%</td>
<td>24%</td>
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Our People...

At AAMC, we have an experienced and compassionate team of doctors, nurses, therapists and other staff members who are dedicated to making patients have a good stay.
Smaller. Smarter. Safer.

Care with a personal touch
Advanced technology
Low infection rates
Our Services…

AAMC offers a full range of services designed to meet your healthcare needs. From diabetes care to surgery to wound care, we are here to meet our community’s needs!

PATIENT TESTIMONIAL

Loretta Swartzentruber
Swartzentruber Bakery

When a routine mammogram detected a suspicious growth, my initial reaction was fear. Within days, I had a stereotactic breast biopsy performed at Abbeville Area Medical Center. While facing the uncertainty of a life-changing diagnosis, the nurses and technicians at Abbeville treated me with a personal touch. I was not walking the path alone. They were right there with me every step of the way. The good news: the growth turned out to be non-cancerous. I was truly blessed by the care I received at Abbeville!
Why Community Paramedicine?

- Limited primary care capacity (especially for un-insured, underserved populations)
- Inefficient community care transitions = ED and EMS overutilization
- Opportunity for another level of care coordination for population health in areas of asthma/COPD, diabetes, hypertension, and congestive heart failure
- Opportunity of immediate referral of patients through HOP
A Partnership is Born…
South Carolina Healthy Outcomes Plan (HOP)

✓ Program of the SC Medicaid agency
✓ Started in October 2013 (same time as CP Program)
✓ AAMC’s goal = enroll 75 uninsured patients; 100% care plan completion
✓ Primary purpose is to decrease emergency room visits for non-emergent needs
✓ AAMC chose to utilize the CP program
HOP Enrollment Process

✓ Identify Patients
  ✓ Review ER Logs and Records on a daily basis
  ✓ Work with UCMAC (free clinic) every week to identify patients
  ✓ Inpatient referrals
  ✓ Home Health referrals

✓ Contact patients

✓ Perform home visit to enroll into HOP and CP Program (dual consent)

✓ Perform assessments, including:
  ✓ Social Determinants
  ✓ GAIN
  ✓ PAM
HOP Services

- Develop plan of care
- Coordinate financial screenings
- Assignment of Medical Home (UCMAC) utilizing our community partners
- Follow-up home visits and reassessments
Community Paramedic Liaison

✓ Receives referrals
✓ Rides along on initial visits
✓ Coordinates care plan with Medical Director
✓ Performs medication reconciliation on initial visit
✓ Provides community resource linkages and additional disease specific education as needed
✓ Follows-up on patients as needed
Mentoring & Training Roles

- Care Transitions Nurse (CP liaison) is a former Home Health Nurse and has vast knowledge about taking care of homebound patients
- Reviews documentation and care plans with CPs
- Provides feedback reports for training
- Develops clinical partnerships with CPs and other staff
- Designs patient education sheets
- Supports discharge process
- Assists with continuing education training program for CPs
Abbeville’s program was monitored and evaluated by the SC Rural Health Research Center at the University of South Carolina in 2014. As Medical Director it was important that we know the program was succeeding. The research center collected utilization and outcome measures such as Utilization: ER, Inpatient, Ambulatory, CP visits and Outcomes such as Disease Specific: blood pressure, A1c, medication compliance, etc.
Here are our results from the first audit.

Total Patients: 70

- 17 HTN Only
- 4 Diabetes Only
- 4 COPD/Asthma Only
- 45 Combination

An Extremely Sick Group
Improvement Results of HOP

- 22 Patients now have insurance
- 62 Patients Have A Medical Home
- 24 Patients Report Complying With A Healthy Diet
- 22 Patients Report Complying With An Exercise Routine
Clinical Results of HOP

72.7%

Of Patients Have Decreased Their BP Since Enrolling Into The CP Program
Clinical Results of HOP

85.0%

Of Patients Have Decreased Their BGL Since Enrolling Into The CP Program
How about the ED?

58.1%

Drop In ER Usage
How about Inpatient Visits?

60.0%  
Drop In inpatient stays

ALOS
2.3
1.8
Total costs of ED/IP visits in a 6 month period:

- IP decreased from $284,492.00 to $149,608.00.
- ER decreased from $140,947 to $66,012.
Sustaining the program:

- Initially Funded By SCORH
- Funded Through The Duke Endowment 2013-2014
- Application for an additional Duke Endowment Grant Expansion & FORHP Rural Health Care Services Outreach Grant was denied
- Question: So HOW are we making it work?
- Answer: you’ll find out in the next presentation
THANK YOU!

Contact Info

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Abbeville County Community Paramedic Program
Abbeville County Emergency Services

- 515 square miles
- 25,500 residents
- 4 ALS ambulances 24/7
- 1 peak hour transport BLS ambulance
- Tasked with delivering both EMS and Emergency Management duties to the community
The Problem

- Many With Chronic Diseases
- Lack of Access to Primary Care
- Abnormally High ED Use

One Overworked System
The Solution?

COMMUNITY PARAMEDIC™
“An organized system of services, based on local need, which are provided by EMTs and Paramedics integrated into the local or regional health care system and overseen by emergency and primary care physicians. [It] not only addresses gaps in primary care services, but enables the presence of EMS personnel for emergency response in low call-volume areas by providing routine use of their clinical skills and additional financial support from these non-EMS activities”

Rural and Frontier EMS Agenda for the Future from ORHP’s Community Paramedicine Evaluation Tool
2012: The Beginning of The CP Program

Summit Gave Idea For CP Program
Opportunities Existed

• Align EMS Closer With Healthcare Community
• Recruitment And Retention Of EMS Personnel
Developing Partnerships

Our Partners...

- Community Paramedic
- Abbeville County Emergency Management
- UCMAC
- Abbeville Area Medical Center
- Family Medicine Associates
- South Carolina Office of Rural Health
- United Way
- Abbeville County
- Health Related Home Care
- Abbeville County Coalition
2012-2013: Conceptual Phase

Concept Presentation Given To:

South Carolina Office of
Rural Health

...And Accepted
June 2013: Grant Awarded

Partnered with Abbeville Area Medical Center To Apply For (And Awarded) Duke Endowment Grant

James B. Duke

THE DUKE ENDOWMENT
October 1, 2013: Program Launch
The Make Up Of A CP

Highly Motivated
Highly Qualified
Clinical, Management, and Customer Service
Highly Trained
Hours of Didactic, Cross Agency Training, and Field Training
What Does A CP Do?

Prevention
- Home Safety Assessment

Cardiovascular
- Blood Pressure Monitoring
- 12 Lead ECG
- Education

Follow up/Post Discharge
- Diabetic follow up/education
- Post injury/illness evaluation

- Respiratory
  - COPD Management
  - CHF Management
  - MDI/Nebulizer Use evaluation
  - Peak flow meter education
  - O2 Sat check

- General
  - Assessment/H&P
  - Medication reconciliation
  - Weight check
Our 3 Part Strategic Plan: Crawl

Manageable Patient Load
Constant Improvement
100% Review of All Calls
5 Day/Week Operation
Our 3 Part Strategic Plan: Walk

Constant Influx of HOP Patients Begin Discharging Patients 7 Day/Week Operation
Our 3 Part Strategic Plan: Run

Multiple Referrals From Providers
CP Self Initiate Calls
Scene Calls
24/7 Operation
So are we running?

- We have continued to see patients, but on a small scale

- New programs are being initiated by the Hospital which will grow our volume:
  - A budget for the HOP program was developed in the last budget year – the hospital plans on buying services from the County for the CP program. The hospital will pay the CP program per patient per month to manage HOP patients and produce quality outcomes
  - PCMH Level 3 Designation is facilitating care coordination at FMA and AIM – these high utilizers will be managed by the CP Program
  - Discharge program – CP sees patient within 72 hrs. of Discharge to reduce readmission rate back into the hospital
A Final Evaluation Program was done by SC RHRC SC

Key Process Findings Measured Included:
- Address Social Determinants of Health
- Reduce System Fragmentation
- Biophysical Approach
- Adherence Promotion
- Increase EMS Capacity
## Findings

### Address Social Determinants of Health

<table>
<thead>
<tr>
<th>Goal</th>
<th>Results</th>
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<tbody>
<tr>
<td>A. Home Safety Assessment Rate</td>
<td>100% of pts receive Home Safety Assessment</td>
</tr>
<tr>
<td>B. BOOST Screening Rate</td>
<td>100% of appropriate pts receive BOOST screening</td>
</tr>
<tr>
<td>C. Number of Referrals to Community Services/Resources</td>
<td>50% of pts are connected to one or more community services</td>
</tr>
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### Reduce System Fragmentation

<table>
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<th>Goal</th>
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<tbody>
<tr>
<td>A. Patient Care Satisfaction Rate</td>
<td>Pt Satisfaction scores greater than 85%</td>
</tr>
<tr>
<td>B. Enrollment Rate for Health Affordability Program</td>
<td>100% of pts eligible for Health Affordability Program enrolled</td>
</tr>
<tr>
<td>C. Rate of Appropriate Primary Care Physician Utilization</td>
<td>100% of pts see a PCP within 14 days of dx</td>
</tr>
<tr>
<td>D. Non-emergent 911 Call Rate</td>
<td>20% reduction in non-emergent 911 calls</td>
</tr>
<tr>
<td>E. Non-emergent Ambulance Transport Rate</td>
<td>20% reduction in non-emergent ambulance transports</td>
</tr>
<tr>
<td>F. Readmission Rate</td>
<td>20% reduction in AAMC 30-day readmission rate</td>
</tr>
<tr>
<td>G. Average Times for Primary Ambulances</td>
<td>10% reduction in “return to service” times for primary ambulances</td>
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## Findings

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<tr>
<th>Biopsychosocial Approach</th>
<th>Goals</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Patient Medical Home Rate</td>
<td>80% of pts have medical home</td>
<td>100%</td>
</tr>
<tr>
<td>B. In-Home Health Education Rate</td>
<td>100% of pts receive in-home health education</td>
<td>100%</td>
</tr>
<tr>
<td>C. ED Visit Rates</td>
<td>10% reduction in number of potentially avoidable ED visits and costs</td>
<td>58.7%*</td>
</tr>
<tr>
<td>D. Rate of COPD Readmissions</td>
<td>Re-admissions for COPD decreased</td>
<td>75%*</td>
</tr>
<tr>
<td>E. Rate of A1C Use</td>
<td>A1C for diabetes monitored</td>
<td>BGL was monitored for all diabetic patients, but not A1C</td>
</tr>
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<thead>
<tr>
<th>Adherence Promotion</th>
<th>Goals</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Care Encounter Rate</td>
<td>100% of pts have at least one primary care encounter where they receive preventive screenings &amp; interventions</td>
<td>100%</td>
</tr>
<tr>
<td>Fall Screening Rate</td>
<td>90% of pts screened for risk of falls</td>
<td>100%</td>
</tr>
<tr>
<td>Medication Compliance Rate</td>
<td>Medication utilization/compliance monitored?</td>
<td>100%</td>
</tr>
<tr>
<td>Hypertension Monitoring Rate</td>
<td>Blood pressure readings for Hypertension monitored</td>
<td>100%</td>
</tr>
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<thead>
<tr>
<th>Increase EMS Capacity</th>
<th>Goal</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Employee Satisfaction Rate</td>
<td>Employee satisfaction scores greater than 90%</td>
<td>100%</td>
</tr>
<tr>
<td>B. Special Medical Needs Registry Rate</td>
<td>80% of pts are entered into special medical needs registry</td>
<td>None</td>
</tr>
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Key Outcomes Accomplished:

As of June 2015 the CP Program had:

- Enrolled 75 patients accounting for 773 visits
- Decreased ER utilization by 58.7%
- Decreased IP utilization by 60.0%
- Decreased 30-day readmission rate by 41.2%
- 85% of diabetic patients showing improved health outcomes
- 69.9% of hypertension patients showing improved health outcomes
Key Recommendations

- Shift the program focus to focus on high utilizers
- Explore alternative transportation for CP patients
- Explore options for scheduling CP visits and routes
- Alter the visit documentation to improve flow and care management
- Continue to foster community relationships
Sustainability

- Patients were our priority and we needed to continue
- Too much invested to not continue the program
- Restructuring of the current EMS program came about because of a change in leadership
- In the future will assign a leader for the CP program amongst the ranks
Contact Info

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South Carolina Office of Rural Health
Statewide Prospective

“Dedicated to providing access to quality health care in rural communities”
It Takes a Village

“Dedicated to providing access to quality health care in rural communities”
Why Me?

- SCORH, a 501(c)3 organization, serves the entire state
- SCORH is the Medicare Rural Hospital Flexibility Program (Flex) grantee for South Carolina
- Provide technical assistance and training for SC’s Critical Access Hospitals and EMS
  - Building local capacity
  - Preparing for the future
- Coordinate with statewide partners on programmatic efforts

“Dedicated to providing access to quality health care in rural communities”
How?

• The Abbeville CP program was able to develop through the financial support of public and private funds:
  ➢ The Federal Office of Rural Health Policy
  ➢ The Duke Endowment
A Statewide Platform

- Center stage for EMS innovation
- Community Paramedic Blueprint – February 2014
- Collaboration with SC Medicaid – May 2014
- Community Paramedic Stakeholder Summit – July 2014
- SC Community Paramedic Advisory Committee – November 2014-current
Timing is Everything

“Dedicated to providing access to quality health care in rural communities”
“One Voice”

- SC CP Advisory Committee Training Guidelines
- Didactic Modules – 125 hours minimum
  - Health Care Environment – 22 hours
  - Role within the Community – 40 hours
  - Role with the Primary Referring / Control Physician – 25 hours
  - Role with the Patient – 30 hours
  - Continual Development of the CP Role – 8 hours
- Clinical Module – 125 hours minimum
- Continuing Education – 24 hours minimum annually

“Dedicated to providing access to quality health care in rural communities”
“One Voice”

- CP Advisory Committee Recommendations:
  - CP Guidelines Review Period
  - CPs = Paramedics and agency-sponsored
  - Training pre-requisites required
  - Reciprocity with Hennepin program
  - Field time; recommended but not mandatory
  - Medical Control oversight
  - Predominately online offering
  - Clinical faculty recommendations that are local
  - Recommended training organizations

- Next step: data challenge
Where To?

• Training Guidelines approved (!)
• New pilot programs established
• Continued development of Abbeville program
• Continued advocacy for reimbursement structure
• Continued support of EMS as health care providers
Contact Information

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http://www.scorh.net
http://twitter.com/scruralhealth
http://www.facebook.com/SCORH
http://www.youtube.com/user/scruralhealth

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