“Mobile Integrated Healthcare”
Helping Enhance Healthcare System Capacity
About MedStar...

• Governmental agency (PUM) serving Ft. Worth and 14 Cities
  o Self-Operated
  o 880,000 residents, 421 Sq. miles
  o Exclusive provider - emergency and non emergency
• 117,000 responses annually
• 350 employees
• $36 million budget
  o No tax subsidy
• Fully deployed system status management
• Medical Control from 14 member Emergency Physician’s Advisory Board (EPAB)
  o Physician Medical Directors from all emergency departments in service area + 5 Tarrant County Medical Society reps
“EMS” Safety Net

• 9-1-1 safety net access for non-emergent healthcare
  o 36.6% of 9-1-1 requests
    • 12 months Priority 3 calls (37,508 (P3) / 102,601 (Total))

• Reasons people use emergency services
  o To see if they needed to
  o It’s what we’ve taught them to do
  o Because their doctors tell them to
  o It’s the only option

• 37 million house calls/year
  o 30% of these patients don’t go with us to the hospital

2012 NASEMSO Report
A few more frivolous trips to the E.R. and I'll earn a free CAT scan.
• Better Patient Care
• Better Population Health
• Reduce Cost
“EMS” & Healthcare $ Reform

• ACA creates an environment for innovation
  o Aligned incentives & risk sharing
  o New partnerships to reduce preventable ED visits and readmissions
  o A new “EMS” role emerges
    • “Mobile Integrated Healthcare Practice”
      ▪ A.K.A. Community Paramedicine
Resource Consumption

• ED consumption
  o JPS Health Network\(^1\)
    • 3,110 ACSC visits to ED
  o Texas Health Resources\(^1\)
    ▪ 19,296 ACSC visits to ED
  o 6 hours/ED visits
    • 134,436 bed hours

\(^1\)1115a Waiver CMS Approved Project Documents
Resource Consumption

- 4.6 million Medicare beneficiaries with CHF
  - 14% of beneficiaries have HF
  - 43% of Medicare spending on HF
  - One CHF admission cost CMS $17,500
  - 30-day readmission rate for CHF = 24.7%
  - 52% of CHF patients readmitted within 30 days did not see their doc between discharge and readmit (NEJM)

- MedPAC = $12 billion CMS expenditures for Potentially Preventable Readmissions
Resource Consumption

• CMS Observation admissions
  o 69% increase in 5 years (1.6 million annually)
  • > 24 hour stays doubled between 2006 & 2011
The gap between physician shortage vs. demand grows...

There’s a growing shortage of physicians that’s only expected to get worse after full implementation of the Affordable Care Act. The Association of American Medical Colleges anticipates that the shortage in all specialties will grow from 7,400 in 2008 to 130,600 by 2025 (65,800 in primary care alone).

Source: American Medical Colleges, 2010
New Partnerships...
Patient Navigation

- 9-1-1 Nurse Triage
- Community Health Program
- System Abusers
- CHF/High Risk Dx Readmissions
- Observational Admission Avoidance
- Hospice Revocation Avoidance

“Mobile Integrated Healthcare Practice”
Community Health Program

• “EMS Loyalty Program”
  o Proactive home visits
  o Educated on health care and alternate resources
  o Enrolled in available programs = PCMH
  o 10-digit access number 24/7
  o Flagged in computer-aided dispatch system
    • Co-response on 9-1-1 calls
    • Ambulance and MHP
  o **85.9%** sustained reduction in 9-1-1 use to the ED
    • 989 ED transports avoided
    • 6,000 bed hours returned to ED
    • $1.2 million expenditure savings
Patient Satisfaction - Community Health Patients

- Willingness to listen: 4.85
- Time to answer questions: 4.92
- Time with you: 4.73
- Understand explanations: 4.88
- Understand instructions: 4.77
- Comprehensive exams: 4.77
- Health advice: 4.54
- Overall satisfaction: 4.96
- Quality of care: 4.92
- Level of compassion: 5.00
9-1-1 Nurse Triage

- Navigate low-acuity 9-1-1 calls to most appropriate resource
- Low acuity 9-1-1 calls (ALPHA & OMEGA)
  - Warm handoff to specially trained in-house RN
- Uses RN education and experience
  - With Clinical Decision Support software
- Referral eligibility determined by:
  - IAED Physician Board
  - Local Medical Control Authority
- 42.9% of referred patients to alternate dispositions
  - 455 ED trips avoided
  - 2,700 bed hours returned to ED
  - $544,000 expenditure savings
9-1-1 Nurse Triage Satisfaction Scores

As of: 8/31/2013

9-1-1 Nurse Triage - Alternate Disposition Patient Satisfaction Scores

N=166

- 911 Call Taking: 4.8
- Satisfied with the Nurse: 4.7
- Nurse Understood Caller Issue: 4.8
- Satisfied with Recommendation: 4.6
- Satisfied with Transport Arrangements: 4.7

Did Your Condition Get Better?

- 90.4%

Talking with Nurse Helped

- 93.4%
**CHF Readmission Reduction**

- At-Risk for readmission
  - Referred by cardiac case managers
  - Routine home visits
    - *In-home education!*
    - Overall assessment, vital signs, weights, ‘environment’ check, baseline 12L ECG, diet compliance, med compliance
    - Feedback to primary care physician (PCP)
  - 96% reduction in readmissions
  - $262,000 expenditure savings
Observation Admission Avoidance

- Partnership with ACO
  - ED Physician (*Case Manager*) identifies eligible patient
    - Refer to MedStar Community Health Program
    - Non-emergency contact number for episodic care given to patient
  - In-home care coordination with referring physician
  - Assure attendance at PCP follow-up next business day
  - 55 Obs Admissions avoided
  - 1,300 bed hours returned to ED
  - $429,000 expenditure savings
Hospice Revocation Avoidance

• Enroll patients “at risk” for revocation
• Visit at home
  o Counsel – instruct – 10 digit access
  o “Register” patient in CAD
    • Co-respond with a “9-1-1” call
    • Help family through process
      ▪ While awaiting hospice RN
  o 104 patients enrolled
    • 94 revocations/admissions avoided
    • $1.4 million expenditure savings
Additional Partnerships...

- **Delivery System Reform Incentive Payments**
  - 1115a waiver - Regional Health Partnership
  - IGT Based
  - New process for **Disproportionate Share Hospitals**
  - Paid for programs that meet:

  - How “EMS” is changing the landscape of healthcare?
### Regional Healthcare Partnership

#### Region 10

#### Summary of Categories 1-2 Projects

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Brief Project Description</th>
<th>Related Category 3 Outcome Measure</th>
<th>Estimated Incentive Amount (DSRIP) for DYs 2-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>126675104.2.8 MedStar patient navigation</td>
<td>Expand 911 Nurse Triage program and MedStar CHF program</td>
<td>126675104.3.29 IT-3.2 Reduction CHF readmission -126675104.3.52 IT-2.11 Ambulatory care sensitive conditions admission</td>
<td>$4,814,232</td>
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<td>Metric 1 I-8.1: 911 Nurse Triage - Reduce ED visits (pre and post navigation services) by 35% for the 911 Nurse Triage Program. Goal: 630 patients (35% of the 1,800 DY-4 enrollees) will be navigated away from the ED.</td>
<td>Enroll 1800 new patients into the program. <strong>Data Source:</strong> MedStar 911 Records</td>
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Service Delivery Innovation Profile

Trained Paramedics Provide Ongoing Support to Frequent 911 Callers, Reducing Use of Ambulance and Emergency Department Services

Snapshot

Summary
The Area Metropolitan Ambulance Authority (more commonly known as MedStar), an emergency medical service provider serving the Fort Worth, TX, area, uses community health paramedics to provide in-home and telephone-based support to patients who frequently call 911 and to other patient populations who are at risk for potentially preventable admissions or readmissions. Working as part of MedStar’s Mobile Integrated Healthcare Practice, these paramedics conduct an indepth medical assessment, develop a customized care plan based on that assessment, and periodically visit or telephone the patient and family to support them in following the plan. Support generally continues until they can manage on their own. Three additional similar programs serve individuals with congestive heart failure, patients who can be managed transitionally at home versus an overnight observational admission in the hospital, and in-home hospice patients who are at risk for hospice revocation. These programs have significantly reduced the number of 911 calls, the number of potentially preventable emergency department visits and hospital admissions, the number of overnight observational admissions, and the number of hospice revocations, leading to declines in emergency medical services and emergency department charges and costs, and freeing up capacity in area emergency departments.

See the Description section for an update on programs, identification of eligible individuals, patient assessment, and special protocols for patients with congestive heart failure; the Patient Population section for a description of patients served; the References section for two new resources; the Results section for updated data on the decline in ambulance and emergency department usage, charges, and costs, as well as results related to congestive heart failure and hospice patient admissions; the Planning and Development section for information about a hospice patient pilot test; the Resources section for updated staffing and cost data; the Funding section for updated information about program funders; and the Use by Other Organizations section for updated data on program adopters (updated January 2013).

Evidence Rating (What is this?)
Moderate: The evidence consists of pre- and post-implementation comparisons of 911 calls from program participants, along with estimates of the cost savings generated and emergency department capacity freed up as a result of the reduction in calls.
“Navigation” Ready Workforce

• Adept at navigating patients through the healthcare system
• Large-scale incidents
  o Assess, treat and refer
MIHC *Helps* Preparedness

- Increase healthcare system capacity
  - Return bed hours to ED and inpatient
- Improve collaboration across healthcare continuum
  - Work together to enhance delivery
- Navigation-Ready workforce
  - For large scale incidents