California Community Paramedicine
Community Paramedicine: How did we get here?

Howard Backer, MD, MPH, FACEP, Director

Lou Meyer, Program Manager
Current EMS Model

- Based on 1965 CMS rules
  - Paid for transport to ED, between hospitals, SNF, or dialysis
  - Combined with First Response without call triage based on assumptions of cardiac resuscitation
- Uses the most expensive form of transportation to respond within minutes and to take patients to the most expensive place of care
Innovation Opportunities for EMS

People utilize EDs more often because of a lack of access to other providers as opposed to the seriousness of their complaints.

Pre-hospital EMS system is uniquely positioned to care for 911 patients and assist less emergent patients with transport to the most appropriate care setting based on medical and social needs... reducing the cost of care and ED burden.

White Paper: HHS ASPR, DOT, HRSA 2013
Enhanced healthcare roles for EMS

- Evidence-driven protocol for appropriate disposition of patients who call 911
  - Appropriately triage patients away from ED
  - Treat and refer
  - Transport patients to alternate destinations
- Partner with public health, social service, hospitals and ACOs to provide mobile medical services in underserved communities

Innovation Opportunities for EMS, White Paper: HHS ASPR, DOT, HRSA 2013
Working Definition of Community Paramedicine

A locally determined community-based, collaborative model of care that leverages the skills of paramedics and EMS systems to address care gaps identified through a community-specific health care needs assessment.

- New models of community-based health care that bridge primary and emergency care
- Utilizes paramedics outside their traditional emergency response and transport roles
Why Paramedics?

- Service most communities, urban and rural
- Always available (24 / 7 / 365)
- Work in home and community-based settings
- Trusted and accepted by the public
- Trained to make health status assessments, recognize and manage life-threatening conditions outside of the hospital
- Licensed and operate under medical control as part of an organized, systems approach to care
Types of CP Programs: Pre-hospital

1. Triage 911 calls at dispatch to determine level of care and potential destination

2. Transport patients with specified conditions to non-ED (“alternate”) locations after determining ED care is not needed

3. Assess, treat, and refer with follow-up at the scene of an emergency response rather than transport them to a hospital ED.

4. Connect frequent 911 callers or ED visitors with primary care and/or social services
Types of CP Programs: Post-hospital or Community

5. Provide support for persons recently discharged from the hospital or observation unit and at substantial risk of a return visit to the ED or readmission

6. Provide support for community residents with chronic conditions by making periodic checks and providing education about how to proactively manage the condition(s)

7. Partner with community health workers to provide disease prevention care

8. Partner with public health or home health to address temporal gaps
California Statutory Limitation of Paramedic Practice

HSC 1797.52 and 1797.218

... an advanced life support program which provides services utilizing EMT-P for the delivery of emergency medical care to the sick and injured at the scene of an emergency, during transport to a general acute care hospital, during inter-facility transfer, and while in the emergency department of a general acute care hospital ...
OSHPD Health Workforce Pilot Program (HWPP)

HSC 128125 The Legislature finds that there is a need to improve the effectiveness of health care delivery systems. One way of accomplishing that objective is to utilize health care personnel in new roles and to reallocate health tasks to better meet the health needs of the citizenry.

...for purposes of this experimentation, a select number of publicly evaluated health workforce pilot projects should be exempt from the healing arts practices act.
Advantages to HWPP

• Ability to test a variety of project options
• Demonstrates feasibility in CA healthcare system
• Assures patient safety and data to demonstrate benefit and lack of harm
• Creates partnerships that may support option for permanent program
• Provides strong evidence for legislature, if successful
Requirements for CP projects

- Collaborations and partnerships to address identified gaps in care or service delivery.
- Receive additional education and training commensurate with the focus of the CP program.
- Should not duplicate or compete with other health care services or providers.
**Additional requirements from OSHPD and from the Steering Group**

- IRB for each project
- Patient consent (required by regulation)
  - Exempted patients who cannot consent due to inebriation or mental incapacity for mental health pilot if medics have specialized training
- More consistent protocols between sites
- Additional data elements
- Immediate notification of any patient safety concerns or adverse consequences
Levels of oversight and patient safety for California CP Pilot Projects

1. Every program has emergency medicine medical director and project manager/QI (often emergency RN)
2. Availability of on-line consultation during encounters, and 100% retrospective review of patient encounters
3. The local steering committees must approve protocols and data collection and will review results and data.
4. The state steering committee will oversee and review all projects and quarterly reports.
5. The Independent Evaluator will review data regularly and raise any concerns about patient safety.
6. OSHPD reviews program sites and raises any issues that may affect patient safety.
Objections to CP Pilots

• Dangerous to patients—patient safety issue
• Paramedics can’t make required decisions
• Only emergency physicians are capable of determining if emergency exists
• Nurses are more appropriate personnel to do home evaluations
• Patients who call 911 expect and deserve to go to an emergency department

Public comments on HWPP proposal, 2014
CA Pilot CP Programs

1. Transport patients with specified conditions to non-ED (“alternate”) locations if ED care is not needed
   Los Angeles – Carlsbad – Orange County
2. Screen and transport psych patients directly to acute psych facility
   Stanislaus County
3. Connect frequent 911 callers or ED visitors with primary care and/or social services
   City of San Diego – Alameda County
4. Provide short-term support for persons with chronic conditions recently discharged from the hospital or observation unit
   Solano – Alameda – Butte – San Bernardino --Orange – LA
5. Collaborate with home health to improve the care provided to hospice patients when 911 is activated, and
6. Partner with public health to administer directly observed TB treatment
   Ventura County
Project Funding

- A California HealthCare Foundation (CHCF) Grant supports:
  - EMSA Project Manager
  - Independent Evaluator (UCSF)
  - Development and Delivery of the Core Training Programs
  - And stipends to support Local Site Data Collection
- Funding for Operational Implementation and staffing is the responsibility of each pilot site
Core Training Modules

1. Role of the CP in the Health Care System
2. Public Health and Primary Care Role of the CP
3. Social Determinants of Health
4. Developing Cultural Competence
5. The CP Role within the Community
6. CP’s personal safety & wellness review
7. Clinical assessment, application and skills
8. Pilot site specific education

96 hrs classroom + 56 hrs independent = 152 hrs core
Plus 50-100 hours site specific training
Specific program barriers encountered

- Finances and personnel issues
- Lack of physician or capability at urgent care
- Clinic has become too busy to accept patients
- Hospital and psych facility under same license
- University IRB questions liability
- Medical director concerns over his/her liability
- Health system facility that will not take all patients
Timeline of California CP Pilots

1. **Analyze issue, involve stakeholders, solicit support, develop report**
   - 2012-13

2. **CHHS agency consent, solicit project applications**
   - 2012-13

3. **OSHPD application and approval process**
   - 2013-14

4. **OSHPD application and approval process**
   - 2014-15

5. **Run projects, collect data**
   - 2015-17

6. **Education, promotion, Legislative initiative**
   - 2017-18
Community Paramedicine Symposium

09.22.16
California Health Care Foundation

Dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo.
Health Care That Works for All Californians

At CHCF, we believe health care that works is:

1. Easy to access & available to all
2. Respects patient wishes
3. Available when & where you need it
4. Proven to be effective
5. Meets both behavioral & physical needs
6. Sustainable today & tomorrow
CHCF & the Community Paramedicine Pilot Projects

• CHCF Interested in meaningful, measurable improvements in the way the health care delivery system provides care

• CP pilot project designed to determine whether paramedics working in an expanded role can help improve health system integration, efficiency, and fill locally identified health care needs.

• CP pilot projects are advance CHCF goal of expanding access to underserved populations and way of improving care by aligning patient need and resource provided
Many Partners

Pilot Sites & Partners
paramedic time for training and interventions; data collection

EMSA
executive oversight; public owner; official sponsor

CHCF
• project manager – housed at EMSA (Meyer)
• independent evaluator (UCSF – Coffman)
• core training program (UCLA – Center Pre-Hospital Care)
• pilot site stipends to assist with data collection
• symposium & other educational activities
Assets

• Access pressures are real and need solution
• Community Paramedicine offers a variety of models/interventions that can address a broad range of local problems
• State sponsor – EMSA
• LEMSAs and partner organizations want the flexibility to address local problems
Community Paramedicine Implementation: What Do the Early Data Show?

Dr. Janet Coffman, MPP, PhD (presenter)
Cynthia Wides, MA

Philip R. Lee Institute for Health Policy Studies
University of California, San Francisco
Outline

• Background
• Overview of evaluation plan
• Findings applicable to all CP concepts
• Findings for specific CP concepts
Background

• HWPP approved the Community Paramedicine pilot projects on Nov. 14, 2014, and renewed approval for an additional year on Nov. 14, 2015.

• Request for extension through Nov. 14, 2017, has been submitted to OSHPD.
Background

Six concepts:

• Post-Discharge
• Frequent 911 Callers
• Tuberculosis
• Hospice
• Alternate Destination – Behavioral health
• Alternate Destination – Medical care
CP Pilot Project – Evaluation Plan Overview

The evaluation is a three phase process.

– Phase I focused on “baseline” data collection and reporting, reflecting care as it is given prior to the pilot program.
– Phase II focused on training of the CPs.
– Phase III covers the implementation period.
Findings Applicable to All Concepts
Data Collected for All Sites and Concepts

- Cumulative enrollment
- Cumulative eligible but not enrolled (ENE)
  - Did not consent
  - All other reasons
- Demographic Characteristics
- Payer Type
## Enrollment by Project, Q2 2016

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Concept</th>
<th>Enrolled for the First Time</th>
<th>Total Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>April</td>
<td>May</td>
</tr>
<tr>
<td>CP002</td>
<td>Post-Discharge</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>CP004</td>
<td>Post-Discharge</td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>CP007B</td>
<td>Post-Discharge</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>CP008</td>
<td>Post-Discharge</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>CP013</td>
<td>Post-Discharge</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>CP007A</td>
<td>Frequent 911 Callers</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>CP010</td>
<td>Frequent 911 Callers</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CP005</td>
<td>Tuberculosis</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>CP006</td>
<td>Hospice</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>CP012</td>
<td>Alternate Destination</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>CP001</td>
<td>Alternate Destination</td>
<td>12 in quarter</td>
<td>n/a</td>
</tr>
<tr>
<td>CP003</td>
<td>Alternate Destination</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CP009</td>
<td>Alternate Destination</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>All Projects</td>
<td></td>
<td>94</td>
<td>82</td>
</tr>
</tbody>
</table>
## Cumulative New Patients

<table>
<thead>
<tr>
<th>Concept</th>
<th>Cumulative # enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Discharge</td>
<td>781</td>
</tr>
<tr>
<td>Frequent 911 Callers</td>
<td>72</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>25</td>
</tr>
<tr>
<td>Hospice</td>
<td>111</td>
</tr>
<tr>
<td>Alternate Destination – Behavioral Health</td>
<td>139</td>
</tr>
<tr>
<td>Alternate Destination – Medical Care</td>
<td>46</td>
</tr>
<tr>
<td>All Projects</td>
<td>1,174</td>
</tr>
</tbody>
</table>
Number of New Patients Enrolled, June 2015 - June 2016
## Eligible but not Enrolled by Project

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Concept</th>
<th>Eligible but not enrolled</th>
<th>Total Q2/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Refused consent</td>
<td>All other reasons</td>
</tr>
<tr>
<td>CP002</td>
<td>Post-Discharge</td>
<td>116</td>
<td>34</td>
</tr>
<tr>
<td>CP004</td>
<td>Post-Discharge</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>CP007B</td>
<td>Post-Discharge</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>CP008</td>
<td>Post-Discharge</td>
<td>65</td>
<td>136</td>
</tr>
<tr>
<td>CP013</td>
<td>Post-Discharge</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>CP007A</td>
<td>Frequent 911 Callers</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>CP010</td>
<td>Frequent 911 Callers</td>
<td>14</td>
<td>382</td>
</tr>
<tr>
<td>CP005</td>
<td>Tuberculosis</td>
<td>0</td>
<td>98</td>
</tr>
<tr>
<td>CP006</td>
<td>Hospice</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>CP012</td>
<td>Alternate Destination</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>CP003</td>
<td>Alternate Destination</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>CP009</td>
<td>Alternate Destination</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>All Projects</strong></td>
<td></td>
<td><strong>272</strong></td>
<td><strong>726</strong></td>
</tr>
</tbody>
</table>
Enrolled Patients’ Demographics

– The majority of patients were male.

– Patients’ average age varied greatly across projects.

– The majority of patients are non-Hispanic and Caucasian

% of Enrolled Patients

- Medicare: 45%
- Medi-Cal: 27%
- Uninsured: 14%
- Private Insurance: 14%
Findings for Specific CP Concepts
Post-Discharge
Post-Discharge: 30-Day Readmission Rate Trends

% Readmitted - Any Reason

% Readmitted - Qualifying Diagnosis

0% 5% 10% 15% 20% 25%


10/11/2016
## Post-Discharge: 30-Day Readmission Rate, All Cause

<table>
<thead>
<tr>
<th>Population</th>
<th>30-Readmission Rate, All Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Paramedicine Pilot Project Enrollees, 2015-2016</td>
<td>13%</td>
</tr>
<tr>
<td>California, 2013 (OSHPD data)</td>
<td>18%</td>
</tr>
<tr>
<td>United States, 2013 (HCUP data)</td>
<td>24%</td>
</tr>
</tbody>
</table>
Post-Discharge Medication Reconciliation

- All post-discharge sites reported devoting substantial time to medication reconciliation
- Many patients had 10+ prescriptions
- One site found at least one contraindication for every patient
Frequent 911 Callers
Frequent 911 Callers – Patient Progress

Common referrals for needed services:

• Alameda
  • Alameda Fire Department Fall Prevention Program, Domestic violence resources, Food assistance, Housing Assistance, Senior home safety equipment installation services, Transportation assistance

• San Diego
  • 211-San Diego County Services Referral Agency, Alcohol recovery, Homeless assistance program, Mental health services, Veteran's services
Frequent 911 Callers – ED Visits

- Differences between the patients targeted by Alameda and San Diego make comparisons difficult.
  - San Diego focuses primarily on patients with 20+ ED visits in the previous year
  - Alameda enrolls all who are referred to the program
- San Diego’s patients have more ED visits than Alameda’s but the program has achieved substantial reductions in EMS and ED use
- For one patient, the number of 911 calls was reduced from 40 per month to 5 per month (87.5% decrease)
DOT for Tuberculosis
Direct Observed Therapy - Tuberculosis

CPs augment TB clinic work force:

• 25 TB patients to date (some completed, some still in treatment)

• Call patients who miss a scheduled appointment are until they are found and treated.

• More medical training than community health workers employed by TB clinic.

• Better cooperation from challenging patients.
Direct Observed Therapy - Tuberculosis

Contact Investigations

• CPs assist the staff of Ventura’s TB clinic with contact investigations to screen persons who may have been exposed to TB

• 6 contact investigations have been undertaken since implementation; 1 in June 2016.
Hospice
## Hospice – Transports to ED –

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Total Enrolled</th>
<th>Number of Transports</th>
<th>Percent Transported</th>
<th>Number Removed from Hospice Care</th>
<th>Percent Removed from Hospice Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>9</td>
<td>4</td>
<td>44%</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>May</td>
<td>8</td>
<td>3</td>
<td>38%</td>
<td>3</td>
<td>38%</td>
</tr>
<tr>
<td>June</td>
<td>7</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>29%</td>
</tr>
<tr>
<td>Total–Q22016</td>
<td>24</td>
<td>7</td>
<td>29%</td>
<td>8</td>
<td>33%</td>
</tr>
</tbody>
</table>
Alternate Destination – Behavioral Health
Alternate Destination – Behavioral Health

Persons screened, Sept. 2015 – June 2016 (n = 550)

- Medically eligible and enrolled: 27%
- Medically eligible not enrolled: 43%
- Did not pass mental health clearance and well person algorithms: 30%
Alternate Destination – Behavioral Health

In Q2 2016, no individuals were transferred to the ED from the BHC. Examples of why individuals were transferred in previous months are provided in the table.

<table>
<thead>
<tr>
<th>Month</th>
<th>No. Patients Enrolled</th>
<th>No. Patients transferred ED within 6 hours</th>
<th>Reasons for transfer to the ED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>16</td>
<td>1</td>
<td>Incontinence.</td>
</tr>
<tr>
<td>Feb</td>
<td>18</td>
<td>1</td>
<td>Patient required CPAP for sleeping which is not available at facility.</td>
</tr>
<tr>
<td>March</td>
<td>10</td>
<td>2</td>
<td>Agitation that facility could not manage.</td>
</tr>
</tbody>
</table>
Alternate Destination – Medical Care
## Alternate Destination – Medical Care Q2 2016

<table>
<thead>
<tr>
<th>Project No.</th>
<th>No. Patients Enrolled</th>
<th>Treated at UCC and Discharged</th>
<th>Continuous transfers</th>
<th>ED Transfers within 6 hours</th>
<th>Reasons for transfer to the ED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP001</td>
<td>12</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3 requested for opioid medication; 2 issues with diagnostic equipment; 1 chest pain.</td>
</tr>
<tr>
<td>CP003</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CP009</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total – April – June 2016</td>
<td>18</td>
<td>12</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Alternate Destination – Medical Care

- Barriers to enrollment
  - Limited hours during which UCCs are open
  - Limited services offered by UCCs
  - Enrollment limited to non-elderly Kaiser enrollees (Carlsbad)
  - Initially did not train all paramedics (Orange)
Conclusion & Next Steps
Conclusion

• Findings indicate that CP projects are safe
  – Transfers from urgent care centers and behavioral health center due to
    • Inability to provide needed services
    • Conditions that did not put patients’ lives at risk
Conclusion

• Decreases in
  – 30-day readmission rates for patients enrolled in post-discharge projects
  – Transports of hospice patients and behavioral health patients to EDs
  – ED visits among frequent 911 callers

• Increase in
  – Patient knowledge of how to manage chronic illness
  – Access to medical and social services
  – Number of TB patients receiving DOT
Next Steps for the Evaluation

• Report on evaluation findings to be released in early 2017

• Will include
  – Description of patients served and services provided by pilot projects
  – Outcomes of pilot projects
  – Estimates of cost and savings associated with pilot projects
Through its singular focus on health, UCSF is leading revolutions in health.

Thanks are extended to our pilot sites, project participants, the California Healthcare Foundation, the California Emergency Medical Services Authority, and the California Office of Statewide Health Planning and Development.
- Family Owned and Operated since 1979
- Solano, Sacramento and Placer Counties (California)
- CAAS Accredited (First in Northern California)
- ACE Accredited
- 45,000 calls p/year (38,000 – ALS/9-1-1)
- 1,600,000 Miles traveled
- 60 Emergency Vehicles
- 225 Employees
- CCT / ALS /BLS / Wheel Chair - Gurney Services
Why MIH/CP Programs (Provider)

- Because its Wave of the Future for EMS
- It can separates your from other competition
- Want your organization to be a leader in EMS
- CP/MIH is a service our community needs!
- This can really make a difference in our patients lives!
## Reasons for Starting MIH/CP Programs

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap analysis of health needs</td>
<td>68%</td>
</tr>
<tr>
<td>Community assessment</td>
<td>66%</td>
</tr>
<tr>
<td>Other CP programs</td>
<td>30%</td>
</tr>
<tr>
<td>Other healthcare stakeholders</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
<tr>
<td>Combat repeat users</td>
<td>1%</td>
</tr>
</tbody>
</table>

Respondents were able to select more than one response, resulting in a percentage total greater than 100%.

Source: NAMET / JNEMSLF Survey; AMR Envision Health
Foundation of Current Program

• We were approached by Kaiser Group in 2013 to submit a pilot to EMSA
• Needed Local EMSA approval
• Local EMSA wanted all local hospitals offered opportunity to participate in pilot
• NorthBay and Kaiser confirmed, Solano EMS approved, and all submitted letters in support of our pilot submission
Foundation of Current Program

• Steering Committee Established

• Build a sustainable model with Funding coming from Hospitals on a Fee for Service Model

• 2 Main Goals to Pilot
  • Reduce re-admissions for 30 days post discharge for COPD/CHF admissions
  • Improve patient overall health and disease process understanding
CP PILOT PROGRAM MEMBERS HOSPITAL

Operate (2) two Hospitals within Solano County
- Northbay Medical Center, Fairfield, CA
- Vacavalley Medical Center, Vacaville, CA

- ACS Verified Level II Trauma Center
- Designated STEMI Receiving Center
- 24 / 7 Neurosurgical Services
- Manage Western Health Advantage (WHA) patients in Solano County
VALUE

• Measure Everything
• Track and Trend everything
• Signed with EMS Survey Team to do 100% of patient satisfaction surveys via phone call
• Constant communication with all involved parties
• Weekly Case Management Team Reviews to go over trends, disease management and communicate with Pilot Medical Director
Results

We have had great Successes within Pilot

September 15, 2015 - Current

Patients referred to the program = 91
Patients enrolled in the program = 66
   38 patients enrolled to HF = 57%
   28 patients enrolled to COPD = 43%
Results

• Visits completed- 124 visits completed

• **Unplanned readmissions = 6 (6/66) = 9.1%**
  • 4/6 patients re-admitted with Pneumonia
  • 3 males 2 with HF and readmit Dx of PNA / 1 – ETOH FALL
  • 3 females:
    • 1 HF
      • 1 with Dx acute bronchitis, renal failure, hepatic encephalopathy
    • 2 COPD
      • 1 with Dx of PNA
      • 1 with Dx of anxiety and COPD
Results

- Visits took place at patient’s permanent residence = 86%
- Percent of Patients that CP identified medication errors with = 49%
- Percent of patients that needed CP help understanding their DC instructions = 72%
- Average, in minutes length of first visit 109 minutes
  - Shortest = 60
  - Longest = 181
- Patient self-identified improvements first visit to last:
  - DC improvement = 12%
  - Overall health improvement (5Q-3D-5L) = 18%
  - Understanding of Medication side effects improved = 8%
- 13% of visits took place outside patient home
Executive Summary

This report contains data from 15 Medic Ambulance Service patients who received services between 09/15/2015 and 05/13/2016.

The overall mean score for the standard questions was 96.12; this is a difference of 1.95 points from the overall EMS database score of 94.17.

The current score of 96.12 is a change of 96.12 points from last period's score of 0. This was the 2nd highest overall score for all companies in the database.

You are ranked 1st for comparably sized companies in the system.

85.09% of responses to standard questions had a rating of Very Good, the highest rating. 100.00% of all responses were positive.

5 Highest Scores

<table>
<thead>
<tr>
<th>Service Provided</th>
<th>Your Score</th>
<th>Total DB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall satisfaction with the service provided</td>
<td>96.67</td>
<td>95.48</td>
</tr>
<tr>
<td>How helpful were the instructions regarding medication and follow-up care</td>
<td>96.67</td>
<td>96.39</td>
</tr>
<tr>
<td>How was the advice given to you on how to stay healthy</td>
<td>96.67</td>
<td>94.39</td>
</tr>
<tr>
<td>How would you rate the quality of the medical care/evaluation you received</td>
<td>96.67</td>
<td>94.39</td>
</tr>
<tr>
<td>How well the medic explained things in a way you could understand</td>
<td>96.67</td>
<td>95.19</td>
</tr>
</tbody>
</table>

5 Lowest Scores

<table>
<thead>
<tr>
<th>Service Provided</th>
<th>Your Score</th>
<th>Total DB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you feel your overall health has improved with this service</td>
<td>92.86</td>
<td>90.39</td>
</tr>
<tr>
<td>The amount of time taken to answer your questions</td>
<td>90.64</td>
<td>93</td>
</tr>
<tr>
<td>The overall rating of the amount of time spent with you</td>
<td>96.43</td>
<td>95.03</td>
</tr>
<tr>
<td>How was the thoroughness of the examination</td>
<td>96.43</td>
<td>94.2</td>
</tr>
<tr>
<td>How would you rate the quality of the medical care/evaluation you received</td>
<td>96.67</td>
<td>94.39</td>
</tr>
</tbody>
</table>
Obama sets out to nominate new justice

The Associated Press

WASHINGTON -- It may be the last chance that President Barack Obama will have to appoint a new judge to the Supreme Court, seeing as his administration is coming to a close.

Obama will announce his choice on Tuesday, according to a senior administration official. The announcement is expected to mark the end of an intense and divisive battle over the future of the court that could have been avoided had Republican leaders not blocked his nominee in 2016.

The official said the president will make the announcement at the White House. The official spoke on condition of anonymity to discuss a private matter.

The court currently has eight justices, two fewer than is required by law. Obama has said he will not let politics influence his choice.

The official said the court has been a focal point of political wrangling since the death of Justice Antonin Scalia in 2016, when Republican leaders blocked Obama's nominee, Merrick Garland, who was nominated by Garland.

The announcement on Tuesday will be the latest in a series of high-profile appointments that have divided the country.

The announcement follows a tense period for the court, which has faced challenges from the Trump administration and the Republican-controlled Congress.

The court has been the subject of much focus in recent weeks, as Republican leaders have pushed to confirm conservative justices to the bench.

The announcement on Tuesday will be another test for Obama, who has been a vocal supporter of Garland and has called for the Senate to confirm his nomination.

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PILOT PROGRAM

Paramedics deliver more attention

State-wide program launched in Solano County

By Irma Widjojo

Paramedic Elisa Martinez said she is usually always in “emergency mode” at work. However, lately things have been a little different.

Martinez is one of the six paramedics at Medic Ambulance that have been trained as community paramedics.

The new state-wide pilot program launched in Solano County mid-September. The Medic Ambulance’s Community Paramedicine Program is a collaborative effort with North Bay Healthcare, and is sponsored by California Emergency Medical Services Authority and California Healthcare Foundation. It is one of 12 such programs throughout California.

The two-year pilot program focuses on patients diagnosed with chronic obstructive pulmonary disease and congestive heart failure that have been treated at NorthBay Medical Center.

“The goal is to keep the patients of the hospital and not get readmitted for those reasons,” said James Pierson, Medic Ambulance vice president of operations. The patients that are eligible for the program are identified by NorthBay Medical Center staff by a scoring tool.
Medic Ambulance community paramedic program explained
Community paramedic program helps patients physically and mentally

The two-year pilot program focuses on patients diagnosed with chronic obstructive pulmonary disease and congestive heart failure

Dec 23, 2015

By Irma Widjo
Times-Herald

VALLEJO, Calif. — Paramedic Elisa Martinez said she is usually always in "emergency mode" at work.

However, lately things have been a little different.

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The two-year pilot program focuses on patients diagnosed with chronic obstructive pulmonary disease and congestive heart failure that have been treated at NorthBay Medical Center.
Results / Conclusions

• We Celebrated collaboratively early wins of the Program
• News articles, local radio, twitter, facebook, etc !
• Patients are very happy and satisfied with this service lien
• Within 30 days NorthBay expanded pilot to start seeing COPD Patients
• Great collaborative partnership with local partners
• Have been in negotiations with Kaiser to add them into program
• Currently in negotiations with an additional local hospital group about seeing their high risk CHF/COPD Patients
Community Paramedic Effectiveness Strategies for Congestive Heart Failure (COMPARE)
Rationale

• 23% readmission rate for CHF within 30 days
• Suboptimal for patient well-being
• Limits inpatient monitored beds
• Economic Costs
• Medicare Penalties
Description of Program

• Dedicated Community Paramedic
• Specialized training in CHF
• Assigned to Adventist Medical Center
• Partnership with Care Transitions Office and Cardiology Department
• Offered home visit to all admitted pts with CHF
• 48-72 hours post-discharge
• IRB/Informed Consent
Outcomes

601 Total CHF Admissions in 12 mos
154 Consented
107 Home Visits

30 day follow-up data on 90 pts

8 readmitted for CHF exacerbation
8 readmitted for other causes

Combined Readmission Rate: 17.8%
Pre-Pilot Comparison

Based on 601 CHF admissions

17.8% all-cause readmission rate = 107 readmissions

Pre-COMPARE Data

21% readmission rate = 126 readmissions = 19.2 readmissions saved

Ave Nat’l Cost $11,000/readmission* = $211,200 (plus CMS penalties)

*Institute for Health Care Improvement (IHI) E. Coleman, U Colorado, 2013
What Worked

• Smooth integration of CP into the inpatient team
• Having a dedicated CP to have ownership of the program
• Engaging family for home visits
• Ability to contact PMD or home health directly from patient’s home
• Commitment from GFD and Adventist Research Division
• Regular phone conferences
What We Learned

• Patient consent long and detailed
• Financial and personnel commitment by GFD was critical
• Some patients were hard to track
• Pilot projects can lead to expanded efforts
ALAMEDA COMMUNITY PARAMEDIC PROGRAM

Ricci Zombeck, MS
EMS Chief, Alameda Fire Department

Daniel Gerard, MS, RN
EMS Coordinator, Alameda Fire Department

Armando Baldizan, EMT-P
Firefighter/Community Paramedic, Alameda Fire Department

A Pilot project in partnership between Alameda Fire Department and Alameda County EMS Agency
Post Hospital Discharge

https://archive.org/details/KTVU_20150820_130000_KTVU_Mornings_on_2_at_6am#start/2700/end/2760
PROGRAM GOALS

- Promote the overall health and safety of our vulnerable populations
- Improve client population’s ability to manage their medical needs and to connect them to social resources
- Reduce 911 calls for non-emergency response
- Reduce hospital admissions and readmissions
- Prevent unnecessary emergency department visits
Discussion Points

- Why Post Discharge in Alameda
- How we’re doing
- Lessons to pass on
  - What our community needs to facilitate the program
  - Other considerations
ALAMEDA’S POST DISCHARGE POPULATION

- Over 30% of the 9000 discharge patients from Alameda Health Services had one of the six diagnoses: CHF, COPD, Sepsis, PNA, DM, MI
- Local hospital readmission rate at 10.8% for all patients
SUCCESSIONS

- Reduction in hospital readmissions
  - CP client readmissions rate at 2.75% vs. baseline at 10.8%
- Improved outcomes of P/D clients
  - Early recognition of negative trends
- Increased collaboration with stakeholders and resources
  - Established key relationships with collaborators
  - Acceptance within the community
LESSONS LEARNED

- Community Needs Assessment
- Risk Assessment (LACE Scores)
- Client reticence
  - Social status
  - Economic
  - Reluctance to change
  - Expectations
- Client dissonance
LESSONS LEARNED

- Collaborators
  - Local hospitals
  - Public Health Department
  - Adult Protective Services
  - Other Out Patient Health Providers
- Programs
  - Detox Program (Medical & Social)
  - Substance abuse programs
  - Housing
- Services
  - Mental Health
  - Social Services
  - Meal services
  - Transportation Services
  - Clinic (same day services)
CONTACT

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Firefighter/Community Paramedic, Alameda Fire Department
QUESTIONS
The Orange County Alternate Destination (AD) Study asked the question:

Can experienced paramedics, with AD training, properly evaluate, make appropriate disposition recommendations, and perform an informed consent process for potentially low-acuity patients?
4 potential primary impressions (PIs) included

- Isolated closed extremity injury
- Laceration with controlled bleeding
- Soft tissue injury or infection
- Isolated fever and/or cough

Initial Trained AD Paramedics: 24

- Additional 25 ADPs trained in May 2016; approved by UCI IRB to enroll this month.
- QA analysis included their dispositions starting in June 2016.
ADP Training & Education

• ADPs educated in criteria for evaluating patients more likely to require extended ED or hospital care.

Beyond UCC Transport

• ADPs asked to record disposition recommendations for all patients with included PIs.
## Languages Spoken

<table>
<thead>
<tr>
<th>Language</th>
<th>Pilot</th>
<th>Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>87.83%</td>
<td>87.07%</td>
</tr>
<tr>
<td>Spanish</td>
<td>2.61%</td>
<td>2.89%</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>1.74%</td>
<td>1.73%</td>
</tr>
<tr>
<td>Unknown</td>
<td>3.48%</td>
<td>5.31%</td>
</tr>
<tr>
<td>Other</td>
<td>2.61%</td>
<td>1.96%</td>
</tr>
</tbody>
</table>

Additional Languages spoken by <1% of patients in Baseline and/or Pilot periods:

- Arabic
- Chinese
- German
- Japanese
<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
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<tr>
<td>18-30</td>
<td>7</td>
<td>10</td>
<td>17 (14.79%)</td>
</tr>
<tr>
<td>31-40</td>
<td>4</td>
<td>0</td>
<td>4 (3.48%)</td>
</tr>
<tr>
<td>41-50</td>
<td>8</td>
<td>3</td>
<td>11 (9.57%)</td>
</tr>
<tr>
<td>51-60</td>
<td>5</td>
<td>9</td>
<td>14 (12.17%)</td>
</tr>
<tr>
<td>61-70</td>
<td>6</td>
<td>12</td>
<td>18 (15.65%)</td>
</tr>
<tr>
<td>71-80</td>
<td>5</td>
<td>16</td>
<td>21 (18.26%)</td>
</tr>
<tr>
<td>81-90</td>
<td>9</td>
<td>13</td>
<td>22 (19.13%)</td>
</tr>
<tr>
<td>91-100</td>
<td>0</td>
<td>7</td>
<td>7 (6.09%)</td>
</tr>
<tr>
<td>100-110</td>
<td>0</td>
<td>1</td>
<td>1 (0.87%)</td>
</tr>
<tr>
<td>Gender</td>
<td>44 (38.2%)</td>
<td>71 (61.8%)</td>
<td>115 (100%)</td>
</tr>
</tbody>
</table>

**Average Patient Age**

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Period</td>
<td>64</td>
</tr>
<tr>
<td>Pilot Period</td>
<td>63</td>
</tr>
</tbody>
</table>
## Field Disposition of “Appropriate for UCC” Patients

<table>
<thead>
<tr>
<th>Field</th>
<th>Refused Transport</th>
<th>Transport to Partner ED</th>
<th>Transport to Other ED</th>
<th>Transport to UCC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>25</td>
<td>50</td>
<td>19</td>
<td>21</td>
<td>115</td>
</tr>
<tr>
<td>Musculoskeletal Trauma</td>
<td>10</td>
<td>27</td>
<td>12</td>
<td>12</td>
<td>61</td>
</tr>
<tr>
<td>Laceration</td>
<td>13</td>
<td>19</td>
<td>6</td>
<td>7</td>
<td>45</td>
</tr>
<tr>
<td>Soft Tissue Infection</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fever and/or Cough</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>--</td>
<td>7</td>
</tr>
<tr>
<td>Pain</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Primary Impression</td>
<td>Admit</td>
<td>Discharged</td>
<td>HLOC Transfer</td>
<td>AMA</td>
<td>UCC to ED</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------</td>
<td>------------</td>
<td>---------------</td>
<td>-----</td>
<td>-----------</td>
</tr>
<tr>
<td>Musculoskeletal Trauma</td>
<td>2</td>
<td>29</td>
<td>--</td>
<td>--</td>
<td>3</td>
</tr>
<tr>
<td>Laceration</td>
<td>--</td>
<td>23</td>
<td>1</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Soft Tissue Infection</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Fever/Cough</td>
<td>1</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Pain</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>55</td>
<td>1</td>
<td>--</td>
<td>4</td>
</tr>
</tbody>
</table>

- 3 of 4 “UCC to ED” Transfers were discharged from ED
- Outcomes data received from “Partner EDs” & UCCs only
Primary Outcome

- Total EMS contact in 9 months: 21,168
- Total EMS contacts with eligible PIs: 2020
- Total eligible PI contacts by ADPs: 659
- “Appropriate for UCC” by ADP: 115
- Offered Enrollment: 39
- Enrolled: 24
Secondary Outcomes

Satisfaction with Paramedic Care
Phone Follow-up with Enrolled patients after 96 hours:
• 13 of 24 (54.1%) visited another medical provider
  – 10 of the 13 (77%) saw personal physician
• 86.5% confidence in paramedic disposition
• 100% satisfaction with ADP care

Turn-Around Time
Total paramedic time on call (from dispatch to availability of unit after call), enrolled > non-enrolled = 9 minutes,
• Consistent with expected time for consent process.
Alternate Transport Destination

Los Angeles County
Glendale
Santa Monica
Partners

UCLA Santa Monica Bay Physicians Urgent Care

Adventist Health Urgent Care
Rapid Care – Glendale
Urgent 9 Urgent Care Center
Verdugo Hills Medical Associates
Why Alternate Transport Destination?

- ED overcrowding
- Wall time
- Growing EMS response
- Community/population health
- Progressive fire chiefs
Description of Program

• Two communities (Glendale & Santa Monica)
• Conservative patient inclusion criteria (low acuity calls)
• Paramedic trained in Alternate Transport offered option to patient
• Patient Consents
• Transport to approved UCCs
  – MD present
  – Capacity
  – Willing to take all-comers
What worked?

• Great commitment by all partners
• Leadership by LA County EMS Agency
• Trained and retrained all department members
• Regular bi-weekly meetings
• Glendale community closed 8/31, Santa Monica continues
What we learned?

- Patient consent long and detailed
- You’ve seen one UCC, you’ve seen one UCC
- Funding was almost non-existent
- Fewer calls than anticipated
- High number of patients treated and released
- Time for follow-up underestimated (QI-ing calls that could appeared to meet criteria)
- Limited operating hours of UCCs
QUESTIONS
City of San Diego
Community Paramedics

We address the needs of vulnerable EMS patients and preserve safety net resources
RAP is the strategic social arm of Fire/EMS

- 1350+ Frequent 911 Callers
- 0.1% of residents generate 11.4% of EMS calls
- Cost of $10M per year
- High prevalence of vulnerability
  - 65% Mental Illness
  - 40% Homeless
  - 35% Elderly
  - 33% Addiction
- Joined pilot project to extend existing services
RAP is a Public Safety Based CP Program

- Post-Discharge Follow-Up
- Care For Chronic Conditions

Public Safety
- Alternate Destinations
- Frequent User Management

Healthcare

Public Health
- Communicable Disease Management
RAP versus CP

Traditional RAP Program
- Identifies self as a representative of the Fire/EMS department
- Addresses social issues only
- Provides navigation, education

Pilot Enhanced Program
- Identifies self as a Paramedic or Community Paramedic
- Addresses medical and social issues
- Provides care, navigation, education
Pilot Concepts Tested

Frequent User Management
- Alternate Destinations
- Alternate Resources
- Post-Discharge Follow-Up
- Care for Chronic Conditions
Types of patients

- Use EMS as a primary coping method
- Call for prescription refills
- Call for social complaints
- Intentional manipulation (errands, transportation, etc.)
- 911 calls conflict with primary care goals
- Serial Inebriation without acute medical CC
- Better served by a non-ED facility
- Repetitive exacerbations of poorly controlled medical or psychiatric condition
Intervention Model – Identify

- System surveillance through data mining and big data techniques
- Crowd sourcing to identify less noticeable individuals
Intervention Model – Identify

Top Chief Complaints
- Alcohol use, unspecified (92)
- ETOH Abuse (59)
- Poisoning by unspecified drugs, medicaments and biological substances, undetermined (25)
- Alcohol use, unspecified with unspecified alcohol-induced disorder (23)
  (17)

Top Calling Locations

[Graph showing the number of incidents from April 15 to March 16]
Intervention Model - Engage
RAP Provides Intervention and Case Management

Engage

Monitor

Support

Stabilize

Connect

Enrollment

Alternate Destination Protocol

Alternate Resource Protocol
Care for Chronic Conditions

Post-Discharge Follow-Up
If the client enrolls in the pilot

- Primary RAP Medic presents case to Medical Directors
- Attempts to engage primary care providers
- No interventions allowed until case planning is complete – wait for next call
Plan on Relapses

1. Engage
2. Monitor
3. Support
4. Connect
5. Stabilize

Cycle through these steps to manage relapses.
Contact Us

• Administrators
  – ajensen@sandiego.gov
  – (619) 481-8214

• Community Paramedics
  – rap@sandiego.gov

Photographs

• Used with permission from The San Diego Union-Tribune. Copyright 2015 The San Diego Union-Tribune, LLC. All rights reserved.
ALAMEDA Community Paramedic program

Ricci Zombeck, MS
EMS Chief, Alameda Fire Department

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Firefighter/Community Paramedic, Alameda Fire Department

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Familiar Faces

domain

https://archive.org/details/KTVU_20150820_130000_KTVU_Mornings_on_2_at_Gam#start/2700/end/2760
Program goals

➢ Promote the overall health and safety of vulnerable populations
➢ Improve client population’s ability to manage their medical needs and to connect them to social resources
➢ Reduce 911 calls for non-emergency response
➢ Reduce hospital admissions and readmissions
➢ Prevent unnecessary emergency department visits
Discussion Points
- Why Familiar Faces in Alameda
- How we're doing
- Lessons to pass on
  - What our community needs to facilitate the program
  - Other considerations
ALAMEDA familiar faces - 2013

- 163 patients in Alameda County were transported more than 20 times
- 32 patients were transported more than 50 times
- 11 patients transported more than 100 times
Successes

- Decrease in 911 usage through client placements and dogged persistence
- 911 usage down by 47% over baseline
- Three of the high 911 users placed into substance abuse programs
- Improved outcomes of F/F clients
- Client placements into service and treatment programs
- Increased acceptance within the community
- Established key relationships with collaborators
- Brand name recognition
Lessons learned

- Community Needs Assessment
- Risk Assessment (LACE Scores)
- Client reticence
  - Social status
  - Economic
  - Reluctance to change
  - Expectations
- Client dissonance
Lessons learned

- Collaborators
  - Local hospitals
  - Public Health Department
  - Adult Protective Services
  - Other Out Patient Health Providers

- Programs
  - Detox Program (Medical & Social)
  - Substance abuse programs
  - Housing

- Services
  - Mental Health
  - Social Services
  - Meal services
  - Transportation Services
  - Clinic (same day services)
Contact

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QUESTIONS
COMMUNITY PARAMEDICS
VENTURA COUNTY, CA
Ventura EMS/Public Health TB Partnership
Partners

- AMR
- Gold Coast
- Lifeline
- Ventura County EMS Agency
- TB clinic
  - Dr. Castel
  - Eva Reeder, RN
Background on TB

• 1/3 of the world’s population is infected with TB
  • 1.5 million TB-related deaths in 2014 (cdc.gov)

• LTBI vs TB Disease

• Directly Observed Therapy (DOT)
  • Over months
Clinic Limitations

- Hours
- Weekends/Holidays
- Flexibility
- Mobility
Standard DOT
<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Formulation</th>
<th>Chemical Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoniazid</td>
<td><img src="image" alt="Isoniazid" /></td>
<td><img src="image" alt="Isoniazid Structure" /></td>
</tr>
<tr>
<td>Rifampin</td>
<td><img src="image" alt="Rifampin" /></td>
<td><img src="image" alt="Rifampin Structure" /></td>
</tr>
<tr>
<td>Ethambutol</td>
<td><img src="image" alt="Ethambutol" /></td>
<td><img src="image" alt="Ethambutol Structure" /></td>
</tr>
<tr>
<td>Pyrazinamide</td>
<td><img src="image" alt="Pyrazinamide" /></td>
<td><img src="image" alt="Pyrazinamide Structure" /></td>
</tr>
</tbody>
</table>
Side Effects

- Identify
- Provide feedback to clinic MD and RNs
- Management
Contact Investigations

- In home
- Local High School
Cost for Providers

- Supervisors (Community Paramedics) are staffed 24 hours
  - No additional cost
Cost Savings for Clinic

- Bubble Packs
- Gas/Vehicle Maintenance
- Reduce Clinic OT
Patients

- Since Partnership began (2014)
  - 46 Patients

- Pilot Phase (June 2015-July 2016)
  - 29 patients
  - 3 MDR
What the Data doesn’t show...
Partners

- AMR
- Gold Coast
- Lifeline
- Ventura County EMS Agency
- Hospice Providers
  - Assisted
  - Livingston Memorial
  - Buena Vista
  - TLC
  - Hospice Care of the Valley
  - Vitas
  - Oakhurst
Hospice

• Good Death
• At home symptom management
• Family Support
Train our CPs using Hospice RN curricula

Move Physician guidance from EMS Physician to Hospice Physician

Extension of the Hospice team
Fill a Gap

- 911 is called

- Hospice RN arrives to provide care
Theory vs Reality

- Theory
  - Comfort Pack

- Reality
  - Family Support
  - Social Services
Cost

- Supervisors (Community Paramedics) are staffed 24 hours
  - No additional cost
- Loss in transport revenue
What the data doesn’t show...

• Our very first Hospice call...
QUESTIONS
California Community Paramedicine
In Crisis:
Managing mental health patients in overloaded EMS systems

Kevin Mackey MD, FACEP
Medical Director, Mountain Valley EMS Agency
drmackey@comcast.net
Disclosure
“INSANITY IS DOING THE SAME THING, OVER AND OVER AGAIN, BUT EXPECTING DIFFERENT RESULTS.”

ALBERT EINSTEIN
<table>
<thead>
<tr>
<th>Physician</th>
<th>TT</th>
<th>Comments</th>
<th>Lab</th>
<th>X-Ray</th>
<th>Orders</th>
<th>Consult</th>
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<td>[1/2] 00:00</td>
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<td>19:19</td>
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<td>[15/16]</td>
<td>08:07</td>
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<td>06:22</td>
<td>nicom</td>
<td>[10/13]</td>
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<td>91:06</td>
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<td>[8/9]</td>
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<td>36:17</td>
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<td>Need utox</td>
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<td>[14/15]</td>
<td>02:49</td>
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<td>CHRL... Mackey, Kevin</td>
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<td>[15/17]</td>
<td>00:22</td>
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**IP SnapShot**

- **05/31 0700**
- **05/31 1358**
- **98.2**
- **94**

**Report**

- **Most Recent**
  - **98.2 (36.8)**
  - **94**

**Dear Doctor**

- MD to MD Note
  - Pt on 5150. However, no previous psych history found. Supp...
  - Becoming agitated at 23:50. Sending back from 1 N to the ED.
  - Plan, hold medications overnight. Ger-psych, Dr. Mason to a...
“THE SECRET OF CHANGE IS TO FOCUS ALL OF YOUR ENERGY, NOT ON FIGHTING THE OLD, BUT ON BUILDING THE NEW.”

— SOCRATES
Re-engineering our Resources
Project #12

Screening and Medical Clearance of Behavioral Health Patients for Transport DIRECTLY to Behavioral Health Facilities
Community Paramedic Decision Process

- MIHP Access
  - 911 Ambulance
  - Psych Facility (CERT)
  - Law Enforcement

- Behavioral Health Patient
  - Community Paramedic Dispatched (QRV) via VRECC

- Community Paramedic (WPA/MHCA) Assessment
  - Failed Assessment

- Community Paramedic (WPA/MHCA) Assessment
  - Eligible – Not Enrolled (No BH Resources)

- Community Paramedic (WPA/MHCA) Assessment
  - Eligible – Enrolled

- Transport Ambulance to ED

- Transport Ambulance to ED

- Transport Ambulance to CERT
Step #1: Sick/Not Sick

Well Person Algorithm
1. Vitals “Normal”?  
2. No medical or traumatic complaints (other than superficial cut)

** Every Paramedic Learned this Algorithm **

Step #2: Screen for Safe Disposition

Mental Health Clearance Algorithm
1. Reconfirm WPA  
2. Assess for safety (nonaccidental poisoning, Risk of alcohol withdrawl, wound eval, etc)

** MIHP Specific Algorithm**
***Insurance Evaluation if passes MHCA***
60% OF THE TIME
IT WORKS, EVERY TIME
Paramedic Impression v MIHP Evaluation (Monthly Averages)

![Bar Chart]

- PI Psych: 97
- MIHP Eval: 52
MIHP Total Patient Contacts

- 167 Failed WPP/MHCA
- 198 Eligible, Not Enrolled
- 255 Eligible, Enrolled

Total Contacts: 520
Failed Well Person Protocol/MHCA

Total = 255
Eligible, Not Enrolled

Total = 198
Eligible, Enrolled

Total = 167

- CERT: 159
- Back to ED: 8
Average Age

<table>
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<tr>
<th>Age</th>
<th>Elig Enrolled</th>
<th>Elig Not Enrolled</th>
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<tbody>
<tr>
<td>18</td>
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<tr>
<td>58</td>
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</table>
More Demographics: Eligible Enrolled

- Average age: 34.2 years
- Caucasian > Hispanic > Black
- English >
Transport Destinations
Arrival to Disposition

![Bar chart showing arrival times to disposition by month and service (MIHP, DMC, MMC).]
“Faithful Customers”
What about $$$$$?

Emergency Department billed costs for one patient transported by EMS, including nursing time, labs, MD medical clearance and consultation for discharge/placement?

$7634*

* Based upon hospital reported charges according to standardized patients representing a typical mental health patient presenting to the emergency department
$7634 \times 159 = 1,213,806
$7634 \times 357 = $2,725,338
The “Past”
The “Present”
The “Future”

SUSTAINABILITY

MORE!!!
Thank You!
Show me the Money!

The Why, Who, and What Payers are Paying for MIH/CP Services

Matt Zavadsky, MS-HSA, EMT
Chief Strategic Integration Officer
MedStar Mobile Healthcare

© 2016 MedStar Mobile Healthcare
About MedStar...

- Governmental agency (PUM) serving Ft. Worth and 14 Cities
  - Self-Operated
  - 978,000 residents, 434 Sq. miles
  - Exclusive provider - emergency and non emergency
- 135,000 responses annually
- 460 employees
- $50 million budget
  - No tax subsidy
- Fully deployed system status management
- Medical Control from 16 member Emergency Physician’s Advisory Board (EPAB)
  - Physician Medical Directors from all emergency departments in service area + 5 Tarrant County Medical Society reps
What We’re Gonna Do...

• Healthcare Finance 3.0
  – Motivating factors for payers
• Examples of who is paying
  – And why
• Key messages for you to potential payers
• Future of payment reform for “EMS”
And....

• Learn certain words that have a **whole** different meaning in Texas...

**Summer:**

• What it means everywhere else: *A time for vacation, road trips, and fun in the sun.*

• What it means in Texas: *Hell on Earth where the temperatures rarely dip below 100 degrees.*
Healthcare Finance 3.0

- FFS ➔ **OUTCOMES**
- Readmission & VBP penalties
- MSPB calculations = 2015
  - Medicare Spending Per Beneficiary
- Bundled payments
  - CCJR
  - Cardiac
- Push to Managed Medicare/Medicaid
- Merger and Acquisition activity
Healthcare Finance 3.0

• ACOs
  • 838 as of April 2016
  – 28.3 million covered lives

How Much Does “EMS” REALLY Cost?
131 Million ED Visits (2011)

- The most common reasons for ED visits resulting in discharge were fever and otitis media (infants and patients aged 1–17 years), superficial injury (all age groups except infants), open wounds of the head, neck, and trunk (patients aged 1–17 years and adults aged 85+ years), nonspecific chest pain (adults aged 45 years and older), and abdominal pain and back pain (all adult age groups except those aged 85+ years).

<table>
<thead>
<tr>
<th>YEAR</th>
<th>% OF ED PATIENTS ARRIVING BY EMS</th>
<th>OVERALL ED ADMISSION RATE (%)</th>
<th>% OF EMS ARRIVALS WHO ARE ADMITTED</th>
<th>% OF WALK-IN PATIENTS ADMITTED</th>
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<td>2013</td>
<td>17</td>
<td>16.5</td>
<td>39</td>
<td>12.5</td>
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<td>2012</td>
<td>16</td>
<td>16.5</td>
<td>39</td>
<td>12.2</td>
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<td>2011</td>
<td>17</td>
<td>17.6</td>
<td>42</td>
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<td>2010</td>
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<td>18.0</td>
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<td>2009</td>
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<td>17.3</td>
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<td>2008</td>
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<td>2007-2004</td>
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<td>16.3</td>
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# ED Expenditure Analysis

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<tr>
<th>Category</th>
<th>Amount</th>
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<tbody>
<tr>
<td>All ED Visits (2011)</td>
<td>$131,000,000</td>
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<tr>
<td>Average Expenditure (3)</td>
<td>$969</td>
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<tr>
<td><strong>ED Expenditure</strong></td>
<td><strong>$126,939,000,000</strong></td>
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<table>
<thead>
<tr>
<th>Category</th>
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</thead>
<tbody>
<tr>
<td>% EMS ED Arrivals Discharged (1)</td>
<td>61%</td>
</tr>
<tr>
<td>Patients Treated &amp; Streeted (1)</td>
<td>13,584,700</td>
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<td>Average Expenditure (3)</td>
<td>$969</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$13,163,574,300</strong></td>
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<table>
<thead>
<tr>
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<tr>
<td>% EMS ED arrival (1)</td>
<td>17%</td>
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<tr>
<td>Patient Arrivals</td>
<td>22,270,000</td>
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<td>Average Expenditure (3)</td>
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<td><strong>EMS ED Expenditure</strong></td>
<td><strong>$21,579,630,000</strong></td>
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<thead>
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<td>% of EMS patients Alt. Dest.</td>
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<td>ED Patients Referred</td>
<td>2,037,705</td>
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<td>Average Expenditure (3)</td>
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<td><strong>Potential ED Savings</strong></td>
<td><strong>$1,974,536,145</strong></td>
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## References:

Truck:

What it means everywhere else: A machine used for hauling heavy loads.

What it means in Texas: Every other vehicle on the road.
“EMS” proving value?

“Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to the treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public’s emergency medical safety net.”
Why would a **HOSPITAL** pay us to **NOT** bring them patients?

- Increasing financial pressures
  - Unfunded patients
- Shared-Risk arrangements
  - ACO or other
- CMS bonus and penalties
  - Readmits
  - Medicare Spending Per Beneficiary post acute care bonus and penalties
  - Reduced length of stay
Hospitals Are Paying For...

- 9-1-1 Nurse Triage
  - Reduce preventable ED visits
  - Improve HCAHPS scores
- High Utilizer Group (HUG) patients
  - Reduce preventable ED visits
  - Improve HCAHPS scores
  - 1115a Waiver projects
    - Delivery System Reform Incentive Payments (DSRIP)
Hospitals Are Paying For...

- Readmission prevention programs
  - Reduce preventable readmits
  - Reduce penalties
    - Or keep up with reductions
  - Improve HCAHPS scores
    - Transition home

- Transitional response units (medic w/NP)
  - Reduce preventable ED visits
  - Reduce preventable admissions/readmissions
HCAPHS Focus
Hospitals Are Paying For...

- BPCI//CCJR
  - Hospitals//Ortho bundled payment for knee surgery
  - Desire to < preventable ED visits/Admissions
- Use MedStar CCPs to:
  - Reduce cancelations pre-procedure
  - Express rehab if possible based on home environment
  - Reduce length of stay for the procedure
  - Intervene in 911 response 90 days post-procedure
Radiologist Selfie...
Why would a Physician IPA pay us to NOT transport patients?

- **Reduce spend**
  - In a shared risk contract with 3rd party payer
- **Improve patient experience**
  - NCQA Accreditation standards
- **Improve outcomes**
  - Fewer hospitalizations
  - Fewer Hospital Acquired Conditions (HAC)
IPA is Paying For…

• High Utilizer Group (HUG) patients
  – Reduce preventable ED visits
  – Improve HCAHPS scores

• Admission/Readmission prevention programs
  – Reduce preventable admissions
    • Pre and beyond 30-days
    • Care about the SPEND
  – Improve Physician HCAHPS scores
    • Transition home
IPA is Paying For...

- Observational admission avoidance
  - Reduce spend
    - Shared risk contract
- Palliative Care project
  - Meet patient goals
  - Transition to Hospice
  - Reduce spend
Football:

What it means everywhere else: A popular American team sport.

What it means in Texas: Religion.
Why would *Hospice* pay us **NOT** transport patients?

- **Voluntary disenrollment**
  - Patient wishes not met
  - High cost / lost revenue
  - CMS penalty?

- **Involuntary revocation**
  - Patient wishes not met
  - High cost / lost revenue
  - CMS penalty?
**Hospice is Paying For...**

- Notification of response
  - Start the hospice nurse enroute to scene
- Back-up episodic intervention
  - While awaiting Hospice nurse
- 9-1-1 redirection
  - Respond/assess/consult
  - Care at home or direct admit to inpatient hospice
Why would HOME HEALTH pay us to see *their* patients (and notify them if a patient calls 9-1-1)?

• Reduce spend
  – After hours RN home visits
  – Avoid sending RN to patient not at home

• Improve outcomes
  – Fewer re-hospitalizations
    • Increased referrals from referring agencies?

• Improve patient/customer satisfaction
  – Referring agency referral source
  – NCQA Accreditation standards
Home Health is Paying For

• Register patients on their service in our CAD
  – Notify them if we respond to the residence
  – On-scene care coordination
    • < transport rate

• Provide after hours home visits
  – Intervene to prevent HH visit & ED transport
Why would a 3rd Party Payer Pay for us to **NOT** transport a Patient?

- Reduce spend for unnecessary ambulance transports
- Reduce spend for unnecessary ED visits
- Reduce spend for preventable admissions
- Improve patient experience of care
  - HEDIS measures/NCQA
3rd Party Payers are Paying for...

- High utilizer programs
  - UPMC Community Connect
    - Highmark and UPMC Health
  - Minnesota Community Paramedics
    - Medicaid
  - Maine Community Paramedics
    - Medicaid
  - Idaho Community Paramedics
    - Medicaid & SIM CMMI
  - Albuquerque Community Paramedics
    - Patient Education
How 3rd Party Payers are Paying...

- Patient contact fee (Medicaid)
- Capitated rate
  - PMPM for population
    - All or members “at risk”
Post-Acute Care Providers

• Contracts for post-acute care
  – Post Acute Analytics
  – TrustedCare
  – WellMed
  – Kindred
How Medicare is Paying...
Economic Models...

• Follow the $$
  – Who’s at risk for the cost/spend
• Don’t talk to mid-level managers
  – Perceive this a ‘work’ without reward
  – CFO buy in key
Economic Models...

- Direct funding
- Patient contact fees
- Enrollment fees
- Pseudo capitated
- Population based
- Shared savings/risk
Packing:
What it means everywhere else: Putting stuff away in preparation of a move.

What it means in Texas: How much firepower you’re carrying.
### Show me the Money!

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<th>Year to Date Actual</th>
<th>Year to Date Actual</th>
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<td>EMS</td>
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<td>N/S Gross Fees</td>
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<td>N/S Medicare - Medicaid</td>
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<td>Uncompensated Care</td>
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<td>(685.00)</td>
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<td><strong>Total Net Ambulance Fees</strong></td>
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<td><strong>Total Net Revenues</strong></td>
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<td>Education</td>
<td>0.00</td>
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<tr>
<td><strong>Total Other Revenue</strong></td>
<td>543,924.63</td>
</tr>
<tr>
<td><strong>Total Revenues, Gains &amp; Other Support</strong></td>
<td>$ 1,569,520.10</td>
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<table>
<thead>
<tr>
<th>Year to Date Actual</th>
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<tr>
<td><strong>Expenditures</strong></td>
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<tr>
<td>Payroll</td>
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<tr>
<td>Total Payroll Expenses</td>
</tr>
<tr>
<td>Total Other Expenses</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
</tr>
<tr>
<td><strong>Net Retained Earnings</strong></td>
</tr>
</tbody>
</table>
Customer Messages...

• Hospitals
  – How can we help improve your readmission rate?
  – How can we help improve your HCAHPS scores?
  – How can we help with your MSPB?
    • Especially in pre and post-acute admissions metric
    • As well as length of stay

• Shared-Risk providers
  – How can we help reduce your spend on admissions?
  – How can we help reduce your spend on Obs admits?
  – How can we help improve your HCAHPS scores?
Customer Messages...

• Home Health
  – How can we help increase your referral base?
  – How can we help reduce your spend for after hours services?
  – How can we help prevent you from arriving and no one is home?
Customer Messages...

• Hospice
  – How can we help assure the patient’s wishes are met?
  – How can we help reduce your spend for ambulance and ED services?
  – How can we help prevent voluntary disenrollment's and revocations?
Future of EMS Economic Model

- **Supplier** to **Provider** status
- Part of a bundled payment
- Shift to outcome-based payments
  - Like the rest of healthcare
- Shared risk contracting
  - Payers, other providers
  - Part of an ACO (for real)
  - Capitated fees (happening now)
- Pay for performance
  - Adherence to clinical bundles
  - Proven to make a ‘clinical’ difference
    - STEMI, Stroke, Trauma, COPD clinical bundles
10: Congress, in consultation with the U.S. Department of Health and Human Services, should identify, evaluate, and implement mechanisms that ensure the inclusion of pre-hospital care (e.g., emergency medical services) as a seamless component of health care delivery rather than merely a transport mechanism.
Possible mechanisms that might be considered in this process include, but are not limited to:

- **Amendment of the Social Security Act such that emergency medical services is identified as a provider type, enabling the establishment of conditions of participation and health and safety standards.**

- **Modification of CMS’s ambulance fee schedule to better link the quality of pre-hospital care to reimbursement and health care delivery reform efforts.**

- **Establishing responsibility, authority, and resources within HHS to ensure that pre-hospital care is an integral component of health care delivery, not merely a provider of patient transport.** The existing Emergency Care Coordination Center could be leveraged as a locus of responsibility and authority (see Recommendation 4) but would need to be appropriately resourced and better positioned within an operational division of HHS to ensure alignment of trauma and emergency care with health delivery improvement and reform efforts.
Texas:

What it means everywhere else: A place full of rodeos, boots, horses, and cowboys.

What it means in Texas: Home, and the only place that matters.
SHOW ME THE MONEY
The Value of Community Paramedicine for Kaiser Permanente

Stacy Elmer, MA, MPA, EMT
Community Paramedicine Symposium
September 22, 2016
Meet the Elmer Family
The Elmer Family
A Tale of the Elmer’s Unnecessary Utilization of the Local Emergency Department

(Subtitle: Nightmare on Kaiser Street)
Models of MIH Cost of Care
Avoided ambulance rides & ED visits

Individual Care
Prevention & most appropriate care providers
Alternative Destination Transport
Treat & Release/ Refer
Frequent 911/ED Utilizers

Population Health
Connecting to primary care & social services

URGENT CARE

Cost of Care
Avoided ambulance rides & ED visits
Post-Discharge Follow Up
Alternative Destination Mental Health
Hospice Support

Triple Aim Impact
Why Systems Matter

HOSPITALS

CLINICS & SPECIALTY CARE FACILITIES

DOCTORS

NURSES

PAYER/HEALTH INSURANCE COMPANIES

PARAMEDICS & OTHER CARE PROVIDERS

PATIENTS

PHARMACIES

DATA
Why Systems Matter
Why Systems Matter

HOSPITALS

CLINICS & SPECIALTY CARE FACILITIES

DOCTORS

PAYER/HEALTH INSURANCE COMPANIES

PATIENTS

PHARMACIES

DATA

NURSES & OTHER CARE PROVIDERS
Why Systems Matter
Why Systems Matter to CP Programs

- Decreases overcrowding
- Lower cost of care
- Revenue loss

- Payers/Health Insurance Companies
- Hospitals
- Clinics
- Other Care Providers
- Doctors
Why Systems Matter to CP Programs

- Increases opportunities for improved patient care
- Creates cost savings to the system
- Diminishes overcrowding in EDs & urgent care
Kaiser and Community Paramedicine

911 Response-Based Models

- Alternative Destination Transport
- Treat & Release/Refer
- Pre-scheduled visits
Current Partnerships with Fire Based EMS

- Anaheim Fire: Treat & Release/Refer
- Los Angeles Fire: Treat & Release/Refer
- Orange County Fire: Alternative Destinations
- Carlsbad Fire: Alternative Destinations
Kaiser and Community Paramedicine

Kaiser Based EMS Models

- Post-discharge follow-up
- Management of chronic conditions
- Mental & behavioral health
The Value Proposition

- Kaiser + other payers
- Kaiser only
Pilot Process Development

Steps Taken

1. Held MCAT meeting

2. MCAT formed ED High Utilizers Workgroup

3. Pulled Pan City ED data

4. Visualized the data

5. Chart review super high utilizers
Pilot Process Development

1. ED High Utilizers Workgroup – Meeting 1
   ➢ Identified the problem
   ➢ Socialized the data analysis process – introduced Tableau

2. ED High Utilizers Workgroup – Meeting 2
   ➢ Reviewed data analysis
   ➢ Narrowed down subgroups to target

3. Chart Review Party!!!!
5. Utilize video ethnography capability to talk with members in the identified subgroups about their ED utilization

6. ED High Utilizers Workgroup – Meeting 4
   - Review video ethnography
   - Empathy map members in targeted subgroups
   - Identify quality improvement needs in existing assets
   - Develop options for solutions to address gaps
7. Validate proposed solutions with members

8. Convene ED High Utilizers Workgroup – Meeting 5
   - Review member input
   - Design plan for operationalizing solutions

9. Present proposal to MCAT

10. Present proposal to SCAL leadership

11. Implement pilot program
Know the Problem You are Trying to Solve

- High utilizers of 911
- ED high utilizers
- ED high cost utilizers
- Outside medical expenses
Data as We Typically Know It
Frequency of ED Utilization per Member

![Scatter plot showing frequency of ED utilization per member. The x-axis represents the number of members, and the y-axis represents the number of ED visits. The distribution is wide, with many members having no ED visits and a few having a higher frequency.](image-url)
‘Super High’ Utilizers
A note about ‘super high’ utilizers
Biggest Trends for ‘Super’ High Utilizers

- Drug and/or alcohol abusers
- Mental/behavioral health issues
- Homeless
We started with all ED encounters that occurred at the Panorama City Medical Center from July 2014 – June 2015 (one calendar year).

**62,152 encounters**

Kept only the ED encounters attributable to **patients who live in the Panorama City Service Area.**

*Before 62,152 encounters*

*After 51,348 encounters*
Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area.

*Before 51,348 encounters*

*After 45,613 encounters*
Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area who are **age 18 or older.**

**Age (group)**
- Blue: 0-17
- Orange: 18-35
- Green: 36-55
- Red: 56+

**Before 45,613 encounters**

**After 35,987 encounters**
Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area who are age 18 or older and are KP members.
Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area who are age 18 or older, are KP members, and were either discharged to home or otherwise left without being admitted.
Among these 20,501 encounters, these are the top discharge diagnosis categories, stratified by whether or not the individual arrived in an ambulance.
Among these 20,501 encounters, these are the top discharge diagnosis categories, stratified by whether or not the encounter is from a “high utilizer”.

[Chart showing top discharge diagnosis categories, stratified by utilizer category]
Among the target subset (San Fernando Valley, Panorama City Members, Age 18+)

<table>
<thead>
<tr>
<th>Utilization Level</th>
<th>Unique Patients</th>
<th># Encounters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-time utilizers</td>
<td>9,759</td>
<td>9,759</td>
</tr>
<tr>
<td>Low Utilizers (2-5 times)</td>
<td>4,155</td>
<td>8,524</td>
</tr>
<tr>
<td>Moderate-to-High Utilizers (6-21 times)</td>
<td>362</td>
<td>2,993</td>
</tr>
<tr>
<td>Super High Utilizers (22+ times)</td>
<td>10</td>
<td>225</td>
</tr>
</tbody>
</table>
**Dead ends** - older patients would have longer ED stays since they were more complex, but that didn’t turn out to be a huge effect. Younger adult patients had much shorter lengths of stays. What conclusion to draw of this? It was uncertain.
**Nice to know** - we looked at race/ethnicity of ED utilizers by age, and noted that it reflects the changing demographic of Panorama City’s membership – younger patients are more likely to be Hispanic, older patients are more likely to be White.
Cost Analysis – Predicted High Utilizers

8.9% of ED encounters were due to Predicted High Utilizers.

1 out of every 20 of this subgroup is predicted to be a member who might spend close to $60,000 per year (compared to the average member yearly cost of $5,300).
Closing Thought

DATA IS THE KEY
Questions?

Stacy.Elmer@kp.org
The Value of Community Paramedicine: Stakeholder Perspectives

Base Hospital/ED – Chris Kahn, MD, MPH
Disclaimers

- Base hospital medical director
- Board certification: EM and EMS
- Participant in San Diego Fire-Rescue CP project
- Invited to speak by the California Hospital Association
Problems In My World

• ED crowding
  – Lots of patients coming in
  – Hard to get patients physically admitted

• Acute care resources used on patients with chronic problems
  – Alcoholism and other substance abuse
  – Psychiatric illness

• Funding concerns
  – Always in flux, and in doubt
Complaints In My World

• Patients
  – Why is it taking so long to take care of me?
  – Why doesn’t anybody have the time to keep me updated?
  – Why have I been in this waiting room for five hours?
  – They told me I was being admitted; why am I still in the ED instead of a real bed upstairs?
Complaints In My World

• Hospital providers
  – Why doesn’t the administration understand how hard it is to get things moving here?
  – Why do patients keep coming in with the same complaints when we’ve already assessed them and discharged them?
  – Why do we see the same patients all the time for the same things?
  – Why don’t I have any good options to take care of patients with psych/substance use issues?
Complaints In My World

- **EMS providers**
  - Why do we see the same patients all the time for the same things?
  - Why don’t we get any feedback on what’s going on with the patients we’ve seen?
  - Why do we always end up waiting over an hour to offload patients at <redacted>?
  - Why do we end up sitting on the wall when there are empty beds?
Complaints In My World

- Hospital administrators
  - How are we going to keep this business operational with all of the costs and potential penalties being imposed on us?
  - How do we maintain the market share we need to stay in business?
  - How do we balance the rapidly varying needs of staffing and throughput without needlessly wasting resources?
  - Why can’t we just discharge the patients that we’ve already seen, assessed, and recently discharged?
Outcomes That Matter

• Triple Aim
  – Improving patient experience of care
  – Improving population health
  – Reducing per capita cost of healthcare

• EMS Outcomes Project
  – Death
  – Disease
  – Disability
  – Discomfort
  – Dissatisfaction
  – Destitution
Outcomes That Matter

• Get the right care to the right patient at the right time in the right place
Community Paramedicine

- **Right care**
  - Resuscitation? Repair of a wound? Refill?
- **Right patient**
  - Every patient
- **Right time**
  - Immediately? Later today? Tomorrow?
  - Before being asked for help?
- **Right place**
  - ED? Urgent care? PMD? Detox?
Can Hospitals Do All This?

• Right care
  – Absolutely! All hospitals can do some things, and some hospitals can do almost all things.
    • However, we might provide “too much” care, particularly if we don’t already know you very well
    • We also might not have the specialty care that you need, especially if you’re complicated

• Right patient
  – We’ll care for anybody
    • However, if you’re already in our system, we’d really like you to come back to us, and if you’re always seen somewhere else, well…
Can Hospitals Do All This?

• Right time
  – ED is always open
    • … but sometimes it’s really busy, and our clinics can get really overbooked, and there are times when the specialist you need is an allied health professional rather than a doctor, and we don’t have them quite as available

• Right place
  – We can always figure it out
    • Of course, if we already figured it out, we’d prefer that you just go there instead of making us figure it out again
Community Paramedicine

To the rescue…

… or just making things worse?
Hospital Perspective

• Opportunities
  – Reduce readmissions (0.16%, or $135,859.66)
  – Improve throughput
  – Ensure services available

• Risks
  – Patients going elsewhere = loss of revenue
  – Fragmentation of information
  – Safety
Loss of Revenue

• Less patients coming in means less money coming in
• Some potential offset by losing the readmission penalties
  – Perhaps pay for performance penalties as well
• The not-so-sick patients are still a revenue source, and they don’t actually add that much to our workload or expenses, since we’re already staffed for anything and everything
Loss of Revenue – not really

- Need to consider the value we’re providing (and receiving) along with the services we provide
- Being able to “weed out” some of the patients that don’t really need our care leaves us with more capability to care for those who really do…
  - … and those patients are more likely to generate revenue for both the ED and the hospital
- Potential to partner with community paramedicine agencies to provide new service lines
Fragmentation of Information

- Potential for patients to be seen outside of our hospital “territory”
- Consequently, potential for increased costs related to duplicative care
- Difficult to share information between hospitals and EMS agencies
  - Hospitals may not always have access to a care plan devised by a PMD and given to an EMS agency’s community paramedic program
Fragmentation of Information – maybe

• Need to ensure that regional health information exchanges proactively reach out to sites and agencies that may provide or receive our patients

• While respecting HIPAA and CMIA, need to make information sharing the norm rather than the difficult-to-reach exception
Safety

- Hard to give up even partial control of something so important – our patients’ health – to another entity
- Concern for liability over using non-hospital personnel to conduct any portion of patient care
- General uncertainty regarding just what a community paramedic is, and what she or he can do
Safety – still being protected

- Need to ensure that vigorous, omnidirectional CQI/QA is conducted
- Need to help reinforce the broader health care infrastructure to be more resilient
  - Joint educational opportunities
  - Care plan discussions that include all stakeholders
  - Single point of contact for immediate care concerns
    - Consider using EMS medical director
Hospital Benefits

• Reducing health care costs overall is better for our patients, better for our providers, and better for business
• Potential loss of revenue likely more than offset not just by reduced penalties, but improved throughput that will make up for mild decrease in ambulance patient census
• Being able to provide effective and realistic alternatives for patients makes us both happy
Hospital Benefits

• Marketability of the “improved health and wellness” message
  – Potential for improved outreach to rural, underserved communities, as well as traditionally underserved urban populations

• Cost-shifting to non-hospital entities
  – May need to provide financial support to CP programs to maintain them
Outcomes That Matter

• Triple Aim
  – Improving patient experience of care
  – Improving population health
  – Reducing per capita cost of healthcare

• EMS Outcomes Project
  – Death
  – Disease
  – Disability
  – Discomfort
  – Dissatisfaction
  – Destitution
Next Steps for Hospitals

• Provide data to effect meaningful research
• Work with other health care providers to conduct resource inventory and needs assessment
  – “Coopetition”
  – May benefit from sharing case management, social work resources with CP programs
• Work with EMS and regulators to discuss appropriate reimbursement plans, both private and governmental, that address innovative care delivery models
Next Steps for Hospitals

• Be open to innovation
• Don’t fear change
• Continue to champion patients’ health above all other concerns
  – Might need to redefine “success”
• Recognize and respect our professional partners
Thank you!

• California Hospital Association
• California Health Care Foundation
• California Emergency Medical Services Authority
Questions?
COMMUNITY PARAMEDICINE
LA COUNTY EMS AGENCY
PERSPECTIVE

Cathy Chidester, Director
September 22, 2016
cchidester@dhs.lacounty.gov
Objectives

- List two Community Paramedic pilot projects
- Describe ways that data may be used by systems to improve community health and wellness
- Identify benefits of additional knowledge from the Community Paramedic curriculum
About me:
Worked for EMS Agency 26 years
RN - Started in pediatrics, ED, EMT education, paramedic education,
Director of PTI, Assistant Director, Director
“I USE TO BE FUN”
About LA County

• Los Angeles County
  – 4,000 square miles
  – >10 million people
  – 33 public 9-1-1 provider agencies
  – 36 licensed ambulance companies
  – 74 receiving hospitals
  – >4,000 paramedics
  – >600,000 EMS transports/year

— We are BIG!
DIVERSE MODE OF DELIVERING PARAMEDICS (BIKE, SEADOO, BOAT, HELICOPTER)
LA County Perspective

• Disclaimer – my general perspective, not reflective of the individual projects

• Our pilot projects –
  – Alternate Transport Destination (ALTrans)
  – CHF patient follow up (ComPARE)
    • post discharge home visits
Community Paramedic Pilot Project Team
We are:

- Supportive of expanding the scope of practice
- Excited about Community Paramedic concept
- The biggest advocates for EMS
Let’s Review Historical Changes

“know your history in order to plan your future”
Nurses Supervising Paramedics Pre-Wedsworth-Townsend Act
TV SHOW "EMERGENCY"
Upgraded Ambulances
Expanded the type of vehicles
New Monitor/Defibrillators
Upgrades to Uniforms
List of “other” modifications

- Specialty Center Destinations
- 12 Lead EKG
- Nurse educators involvement
- Electronic Data Capturing (beginning)
- M.D. involvement – EMS Boards
Scope of Practice Changes

- CPAP
- Capnography
- Intraosseous (IO)
- Community Paramedic Pilot Project
  - Biggest proposed change since 1969 - 47 years!
Time is Right to Expand EMS Role

• There is more to EMS than, “you call/we haul”

• “No one is left to die in the street, we are doing good, right?”

• Society changes are impacting EMS decisions

• Data gives us the ability to identify specific needs of a community and establish policy and programs based on the “need”
Example of Data Trends

- We are looking at data in general terms
- Soon will be drilling down to details
LA County Trauma Data
LA County Trauma Data
EMS is Unique in that we:

- Have specific data on communities
  - Incident types
  - Incident location
  - Repeat incidents

- Enter homes/facilities and see risks

- Can measure success and outcome
Community Paramedicine
Driven by Local Needs

- LEMSAs should assist each city to evaluated their data
- Each city should use their data to determined need for Community Paramedics
- Let’s look at a basic example:
City “Z” in LA County

- Fire based EMS
- Suburban
- Some industry
- 21 Square Miles
- 145,000 population
- 6 Fire Stations
Let’s see what EMS data tells us about City “Z’s” issues
Total EMS Responses

Graph showing the number of EMS responses from 2001 to 2015. The numbers increase overall, with some fluctuations. The highest number of responses is in 2015 with 10,070. The lowest number is in 2001 with 7,892.
EMS Responses by Age and Gender
Medical Chief Complaints

2015 Medical Complaints = 7,592 (73%)

- Weak/Dizzy (17%) - 1310
- Altered Level of Consciousness (8%) - 627
- Behavioral (8%) - 583
- Shortness of Breath (8%) - 571
- Other (7%) - 564
- Abdominal Pain (7%) - 554
- Chest Pain (6%) - 447
- Other Pain (6%) - 439
- Syncope (6%) - 426
- Nausea/Vomiting (4%) - 322
- Seizure (4%) - 293
- No Complaint (2%) - 181
- Cough/Congestion (2%) - 155
- Dead on Arrival (2%) - 142
- Local Neuro (2%) - 137
- Head Pain (1%) - 106
Trauma Incidents

2015 Traumatic Injuries = 2,679 (27%)

- FALL (48%) = 1,274
- MOTOR VEHICULAR ACCIDENT (24%) = 653
- ASSAULT (6%) = 161
- AUTO VS PEDS/BIKE (4%) = 111
- SELF-INFLICTED-ACCIDENT (4%) = 107
- SPORTS/RECREATIONAL (4%) = 101
- OTHER (3%) = 82
- SELF-INFLICTED-INTENTIONAL (2%) = 48
- UNKNOWN (1%) = 30
- MOTORCYCLE/MOPED ACCIDENT (1%) = 29
- WORK RELATED (1%) = 26
Cardiac Arrest and by-stander CPR for City “Z”
The Conclusion is:

- City “Z” would benefit from a Community Paramedic program to address issues:
  - Fall cause
  - Fall prevention
  - Repeat patients
  - By-stander CPR
Community Paramedics may be:

- Specific to a community
- General for the entire system
For LA County:
System-wide program Community Paramedics

– Treat and release with aftercare instructions
  • 10-20 percent of patients are not transported
    – Do not need an urgent care or ED
      » High risk
        • Need a good assessment
        • Video consult
        • Referral and aftercare instructions
COUNTY OF LOS ANGELES
EMERGENCY MEDICAL SERVICES AFTERCARE INSTRUCTIONS

ANIMAL BITES

You have been evaluated in the field by emergency medical services personnel. If you have been given this form, you are refusing medical treatment and/or transportation to a hospital emergency department for further evaluation at this time. Be advised that the EMS evaluation in the field is not as thorough as an evaluation done at a hospital. By not being seen in the emergency department, the risks of undetected injuries or a poor outcome increase.

The field assessment indicates you have an animal bite. As with all animal bites, there is the possibility that this wound could become infected and put you at risk for rabies. Without proper care, infections can develop into serious conditions including, but not limited to, blood poisoning, nerve injury, vascular problems, decreased strength and possible loss of limb. Animal bites to any area of the body can be very serious; however, bites on hands or near joints are very serious and should be evaluated in an emergency department. This is only a partial list of potentially serious injuries.

If you refuse medical care or transportation to the hospital, here are some things you should know:

• Infections are not always immediately apparent and may develop over several days. Signs and symptoms of infection to watch for are fever > 101°F Fahrenheit, redness, swelling, pain and heat in the infected area, or any numbness or tingling in the area of the bite.
• Watch for any lumps that develop in the groin or under the arms. If you develop any trouble speaking, breathing, difficulty swallowing or if your jaw/neck are stiff, seek medical attention immediately.
• Call Animal Control immediately for an animal bite, whether the animal was tame or wild. The animal may need to be caught and impounded so it can be checked for rabies immediately.
• Keep the bite area clean. Wash the area three times a day with soap and water. Cover with a loose sterile dressing and watch for signs of infection.
• Remember, you may call 9-1-1 at any time.

I have been provided with a copy of these instructions. They have been explained to me and I understand them.

Patient (or guardian) signature __________________________ Date ________________

Witness signature __________________________ Date ________________
Alternate Transportation

- Get the patient to the right place the first time and begin treatment:
  - Psychiatric Urgent Care
  - Sobering Centers
General Considerations

- We need to be careful not to take on the hospital’s or insurance responsibilities setting up unsustainable programs
- Focus on improving what EMS does best
- There are roles for Community Paramedics throughout a system and specific to individual communities within a system
Farewell Tour (Conclusions)

“when you look good/we look good!”

• LEMSA’s should Assist the provider agency
  – Data analysis
  – Data presentation
  – Making connections in the community
  – Coordinating data and provider agency efforts
  – Advocating for the provider agency with the political bodies
Finale Farewell Tour

- Community Paramedic programs should be driven by data and analysis
- Recognize that each community has unique needs that would benefit by Community Paramedics
- One size does not fit all
Absolute!

Finale Farewell Tour

- *Let’s not wait to the 50 year mark to change the scope of paramedic practice!*
Thank you for your attention!
Any Questions?
Community Paramedicine: Where do we go from here?

Howard Backer, MD, MPH, FACEP, Director

Lou Meyer, Program Manager
Timeline of California CP Pilots

- **Analyze issue, involve stakeholders, solicit support, develop report**
  - 2012-13

- **CHHS agency consent, solicit project applications**
  - 2012-13

- **OSHPD application and approval process**
  - 2013-14

- **OSHPD application and approval process**
  - 2014-15

- **Run projects, collect data**
  - 2015-16

- **Education, promotion, Legislative initiative**
  - 2017-18
The End Game: Requirements for full CP/MIH Implementation

• Data demonstrate successful pilot programs
• Increased integration of EMS with other parts of healthcare system and gain their support
• Training program appropriate and standardized
• EMS embracing the medical model
• Health information technology and exchange
• New models of reimbursement
• Statutory change
HWPP Intent: Implementation

HSC 128125. Further, it is the intent of this legislation that existing healing arts licensure laws incorporate innovations developed in approved projects that are likely to improve the effectiveness of health care delivery systems.
THANK YOU

TRAVEL SAFE