



International Roundtable on Community Paramedicine Trip Report



The 10th Annual International Roundtable on Community Paramedicine conference was held in Reno, Nevada from 3-5 September 2014. The recorded slideshow presentations can be found at <http://ircp.info/Meetings/2014>.

Pre-Hospital Emergency Care-Through the Lens of the Institute for Healthcare Improvement **David Williams, PhD: IHI**

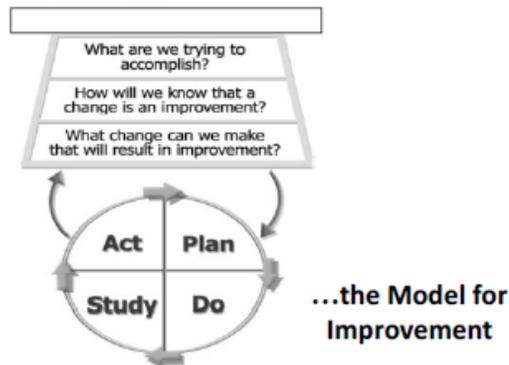
Triple Aim: A model that has been designed to focus on three areas of the healthcare system to enhance quality of care:

- 1) Experience of Care
- 2) Health of a Population
- 3) Per Capita Cost

The goals are to introduce the Triple Aim model into Healthcare, Public Health, and Social Services settings while integrating the individuals and their families, defining primary care, reducing cost, honing in on prevention services and health promotion as they have become primary pathways into major systems.

The model for improvement used:

Aims, Measures, & Tests of Change

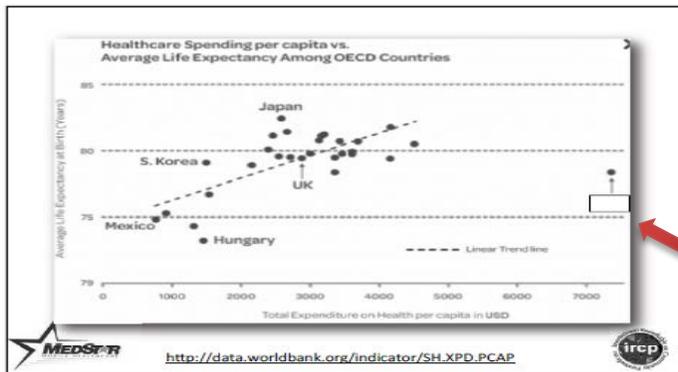


There is a great deal of focus on research in EMS to evaluate how Mobile Integrated Health (MIH) or Community Paramedicine (CP) can be validated with evidence and outcome information to make long term decisions in meeting the goals and objectives of the Triple Aim. The Institute for Health Improvement will be watching the nation for: ■ Evidence of improved patient experiences and care outcomes ■ MIH/CP articulating a draft change theory and measurement strategy ■ Movement from pilots and enrolled population to population segmentation ■ Serving a population ■ Evidence of per capita cost reduction ■ Peer reviewed publications of work over the next 5 years.

Data Measurement in Mobile Integrated Healthcare & Community Paramedicine

Matt Zavadsky, MS-HAS, EMT: MedStar Mobile Healthcare

MedStar is a governmental agency serving Ft. Worth and 14 cities covering 880,000 residents and 421 Sq. miles. They have an annual call volume of 120,000 with a \$37.5 million budget with no tax subsidy.



They have in place a Medical Control Advisory Board that consists of Emergency Department (ED) Physicians from all EDs in the county plus Tarrant County Medical Society Representatives. So why do stakeholders care about MIH/CP? The data shows that they spend \$8,608 per capita in health expenditures. Figure 1. shows a capture of other countries on how well they do in managing a healthcare system costs. The arrow points to the US, with a far more costly system.

Figure 1. Healthcare Spending per capita vs. Average Life Expectancy Among OECD Countries

The US ranks dead last in the Healthy Survey rankings for highest healthcare spending per capita. Once again, the metric foundation of change uses the IHI's Triple Aim Initiative to evaluate what stakeholders specifically are interested in studying within the EMS system. They are considering utilization of EMS, ED, PCP and admissions from an EMS call. Stakeholders are looking at expenditures of savings that resulted from change in utilization of EMS services. They are also evaluating the expenditure savings plus alternate setting expenses such as admissions, unnecessary transports, etc. Some examples of those outcome based metrics being considered by stakeholders are:

- High Utilizer ED Reduction
- CHF Readmission Avoidance
- 911 Nurse Triage
- Hospice Revocation Avoidance
- Observation Admit Avoidance

The MedStar CP program is based on a payer enrolling their patient into the CHP program for a flat fee of up to \$1800 per patient to be serviced by MedStar. Data shows on average they have saved \$44,861 for what the patient would have been charged and \$20,948 what the payer would have actually reimbursed. Total charges avoided for the entire group of 95 patients enrolled was \$4,261,804 and total reimbursement saved was \$1,990,057. MedStar also evaluated the 911 Nurse Triage lines, which resulted in cost savings. In addition they focus their program on patient and provider surveys to capture the effectiveness and enhance their system. Once a patient is enrolled, they graduate from the program and become a manager of their own health. MedStar is seeking accreditation as the first EMS agency to achieve with the NCQA Disease Management Accreditation and Certification. This process, like any other, has standards of measure:

- Evidence-Based Programs
- Patient Services
- Practitioner Services
- Care Coordination
- Measurement and Quality Improvement
- Program Operations
- Performance Measurement

The goal of Accreditation is to define the MEDSTAR MIH/CP Program to achieve national recognition as part of the healthcare system. MedStar said "You're Welcome" for being the first!

A Paradigm Shift for the US Fire Service
Les P. Caid: Rico Rico Fire Department

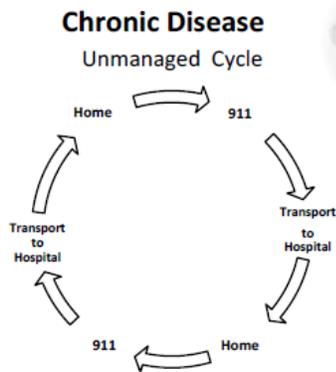
Rico Rico is located in Southeastern Arizona servicing 22,000 residents. The population is high, but the community is considered rural as the nearest hospital facility is miles away. Access to healthcare is very limited. Barriers to healthcare, as for most rural health communities, are under resourced, fragmented and uncoordinated delivery systems. Additionally, they are geographically isolated. Back in 1966, the group of people who established Medicare decided it would only reimburse an ambulance service if it transported someone to the hospital. For almost five decades, the fire based system has transported people to the hospital regardless of their illness or injury.

Fire Service Mission is focusing on acute care as they have essentially worked themselves out of a job with the manner in which they provide prevention and fire safety. For over 50 years Fire Service has been providing EMS!!

In 2012 the Total Fire Service Calls in the US consisted of:

- 21.7 million EMS calls
- 2.4 million false alarms
- 1.4 million actual fires

What does Chronic Disease look like to a Fire Fighter?



The U.S. Fire Service has proven to provide prevention effectively in their field. They are good at pulling people out of the river, but now are moving up stream to keep them from falling in compared to delivery of EMS care.

Rico Rico Fire Department focuses on bridging the gaps in community healthcare education. They are fostering a proactive approach to building a more reliable patient centered culture of individual health management. Today the Affordable Care Act emphasizes patient outcomes, bundled

care, and primary care services. Fire-based EMS services have the opportunity to become a social resource. Fire Services are geographically positioned throughout the states. They conducted a community health needs assessment, identified stakeholders and focused on building strategic partnerships which granted them approval from Arizona’s Department of Health & Welfare in January 2014 to implement a CP program to expand the roles of their paramedics not scope of practice. Their data collection to validate the program consisted of reduction in readmissions, fewer high utilizers, measure medication management, prevent falls, and identify environmental issues with chronic diseases such as diabetes, asthma, CHF, COPD, medication management and home safety scans.

Rico Rico Fire Department has focused on working together and eliminating the barriers to healthcare by opening the communication. The Fire Service must collaborate on a fundamental paradigm shift in Fire-based EMS that will continue to evolve around system thinking, dialogue, shared visions, data, partnerships, strategic thinking and most important sharing success stories.

Outside of day to day EMS services, wildfires would benefit tremendously with CP programs that can provide a Primary Care service to those involved in fire management.

Not always where there is a Fire Department is there EMS
But always where there is an EMS need there is a Fire Department

Fire Departments As First Responders

In 2008, fire departments nationwide responded to more than three times as many calls for medical help as they did in 1980.

Number of calls U.S. fire departments responded to
17.5 million calls for...

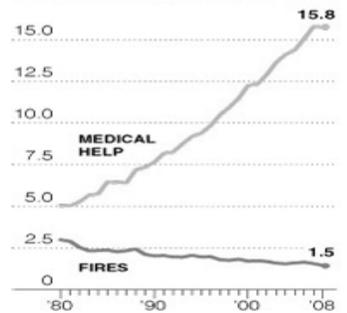


Figure 2. Fire Department Responses

The Role of Community Paramedics in Disaster Relief Efforts **Ryan Kozicky: Calgary EMS Community Paramedics (Canada)**

The City of Alberta was devastated by a disastrous flood in June 2013. They had accumulation of 12.8 inches of rain in less than 48 hours. Total damages exceeded \$1.7 billion and the flood was labeled as the costliest disaster in Alberta's history. Eighty thousand people were evacuated, including 32 communities, to only six evacuation sites. There were 400 water rescues done within 15 hours.

Initially a total of ten Community Paramedics were deployed within four units that provided roaming coverage to the population and sites from the hours of 0600-2200. The role of Community Paramedics was to provide access to Primary Care and Urgent Care as needed. They performed assessments, diagnostics (ECG, SPO₂, temperature, blood pressure and labs), medication administration and management. They implemented all services provided with one medical director and a pharmacist.

The demographics of the patient population focused on complex high needs

Frail and Elderly, Lower Socioeconomics, Homeless, No Social Support Networks and Chronic Disease

The secondary surge of patients had different needs: Access to medications (left in flood or no pharmacy services available), need for immunizations, exacerbation of chronic disease (living conditions contribute to poor health), and mental illness (devastation sets in, confined spaces, previous mental disorders are more observable), and minor trauma (people returning to homes to clean up).

It was estimated that 80% or 185 events resulted in an EMS call or emergency department avoidance. Those events that were not transported received medical care or medication distribution that saved thousands of unnecessary fees to the patient or the healthcare agency. The highest number of patients seen were diabetics, then respiratory illness or exacerbation followed by cardiac and psychiatric. Most medication administration was given to trauma and pain patients. The most frequently given medications were tetanus boosters, acetaminophen and ibuprofen. Most transports were cardiac patients. The majority of care given was primary care services.

First tool of preparedness for future should be focused on:

- **Understand your needs-conduct a hazard risk, vulnerability (HRV) assessment**

Second tool of preparedness for the future planning should be focused on:

- **Engage stakeholders early and be a part of local emergency planning**
 1. Understand who the local emergency management agencies are in your area
 2. Create partnerships and share HRV assessment
 3. Collaborate around emergency management planning that includes CP

Ultimately, the use of Community Paramedics during a natural disaster resulted in less utilization of EDs and professional enhancement of support and utilization of CPs while improving healthcare outcomes tremendously. Lessons learned were: how well a system comprised of EMS, physicians, pharmacies and other allied healthcare workers are well equipped to handle the complexities of a major disaster. The greatest need for medical care is the continuation of chronic disease care. The most valuable concept learned was **“Not every victim requires a trip to the hospital or hospitalization”**.

College and University education of Community Paramedics
Anne Montera, RN & Baxter Larmon, PhD: UCLA EMS Research Department

American College of Emergency Physicians state report card gave an “F” to California in which it provides Emergency Services. Average wait time for the state ED was 344 minutes which identified an overcrowding EDs is expected to get worse. A report entitled “Community Paramedicine: A Promising Model for Integrated Emergency and Primary Care”, funded by The California Healthcare Foundation and prepared by the UC Davis Institute for Population Health Improvement (IPHI), outlines the opportunities and barriers that exist for CP in California. The report also discusses the policy options that are available to further explore the development of Community Paramedicine in California. The EMS Research Department at UCLA was awarded a contract from the state to develop a program to build a Community Paramedicine Program.

There were several goals identified in developing the curriculum for CP and those were:

- Meet the needs as outlined in the Agenda of the Future and the IOM report, to partner with Public Health
- Provide assistance where community healthcare gaps were acknowledged
- Not to develop an independent practitioner or to replace existing workforce

Development of curricula looked at what is currently being used throughout the country. A survey was completed to identify what works and what is not working within the programs already established in other states. There were different curriculum reviews conducted and at various levels of education such as Associates, Bachelor, and Master programs. Research was conducted titled “A survey of Community Paramedicine Course Offerings and Planned Offerings”. The results concluded that there was 35 colleges teaching or ready to teach CP curricula in the country. It is projected that there will be 167 active colleges in the next five years.

What makes the need to have such a curriculum developed is the change in the way a paramedic provides EMS mainly focusing on what was not taught when they initially complete their education and licensure process. The current curriculum for Community Paramedicine focuses on 7 different modules:

1. Role in the healthcare system
2. Social deterrents of health
3. Public Health and primary role
4. Cultural Competency
5. Role within the community
6. Personal safety and wellness
7. Clinical experience

The ultimate goal of the State Public Health and contract awarded is to standardize the core competencies of Community Paramedicine within the education system to ensure that all paramedics who pursue a path to completion of the certificate program do so with consistent curricula. They have identified that currently it will stay within the associates/certificate program path however, the desire is to move it to higher levels of education and also provide a career pathway within Community Paramedicine as it does focus around management of care.

In Conclusion

There were several different programs presented in addition to the capture of some of the various topics not included in this report covering:

- Telemedicine, Hospital readmission, career paths, Nursing Partnerships, an overview of Burning Man and our very own **Ada County Community Paramedics briefed on going from Pilot to Program!**
- REMSA presented up to date information on the innovation award that was granted for \$9.9 million and in turn they were required to save \$10.5 million over a 3 year period that runs from 2012 to 2015.

As mentioned at the beginning of this report, more detailed presentations and recordings can be found at <http://ircp.info/Meetings/2014>. The future of Community Paramedicine hinges on the commitment and dedication that comes from the EMS systems across the country that continues to explore ways to be part of the primary care system. The energy currently surrounding Community Paramedicine is projected to create movement, allowing EMS a chance to become more engaged in the health of their community while providing quality care to the general population.

****11th Annual Conference will be held next year in Australia****

This report was drafted by Mindi Anderson, Idaho State Bureau of EMS and Preparedness.

If there are any questions please call (208) 334-4003.