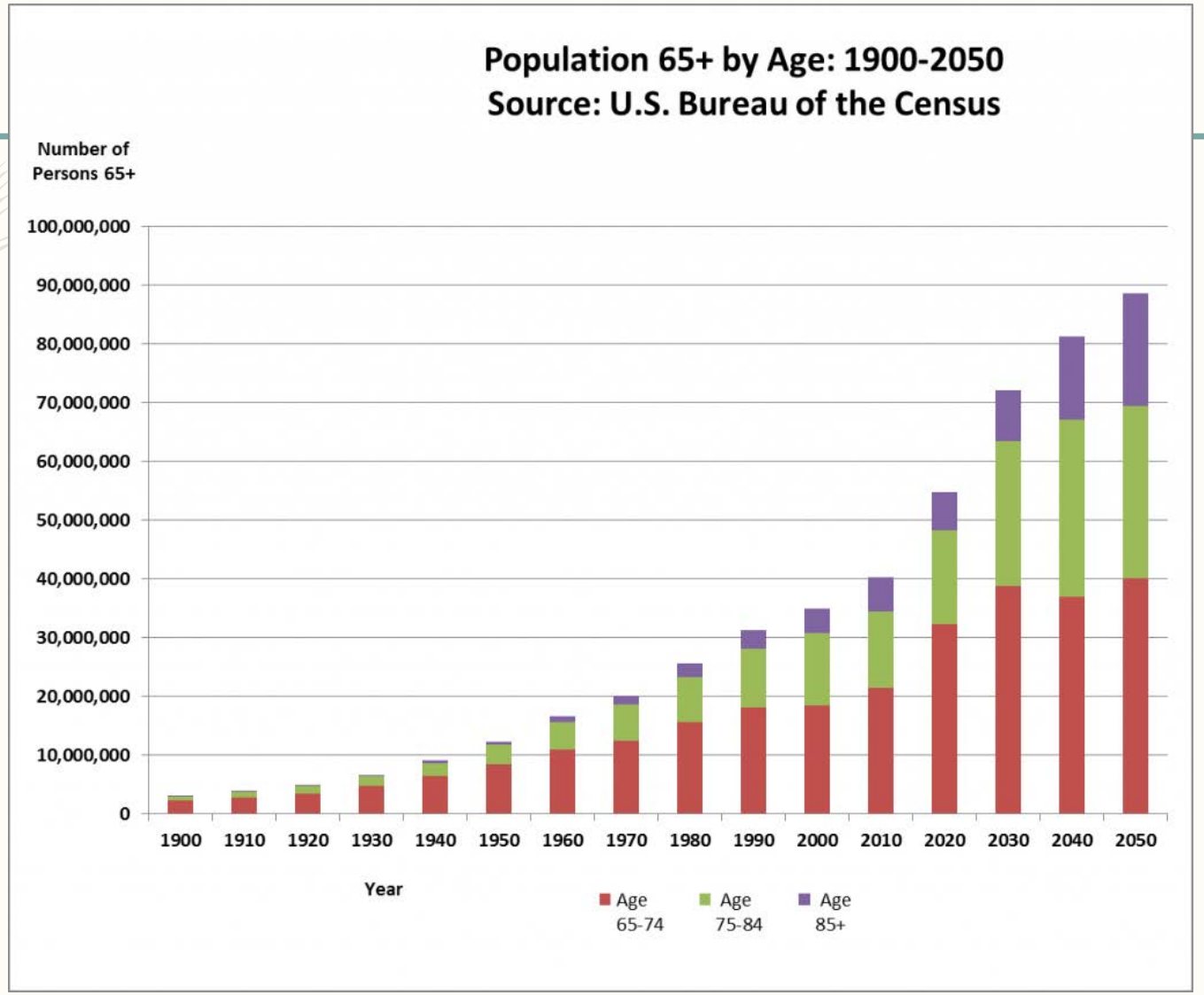
Community Paramedicine in the land of 10,000 lakes

Susan Long, NRP, MA, BA, AS

Allina Health EMS

St. Paul, MN

The Health Care Challenge



Finding the Balance

Increasing demands from Consumers

Decreasing reimbursements

Population increases

Lack of primary care providers

Accountable Care Act

EDs are over-utilized for non-emergent care

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Minnesota Initiatives

- In 2007, pilot program to educate skilled paramedics to increase their role in providing primary care unto the needy members of their communities
- A “Flex Grant” was provided by the Minnesota Department of Health, Office of Rural Health, to train 10 paramedics to this role.

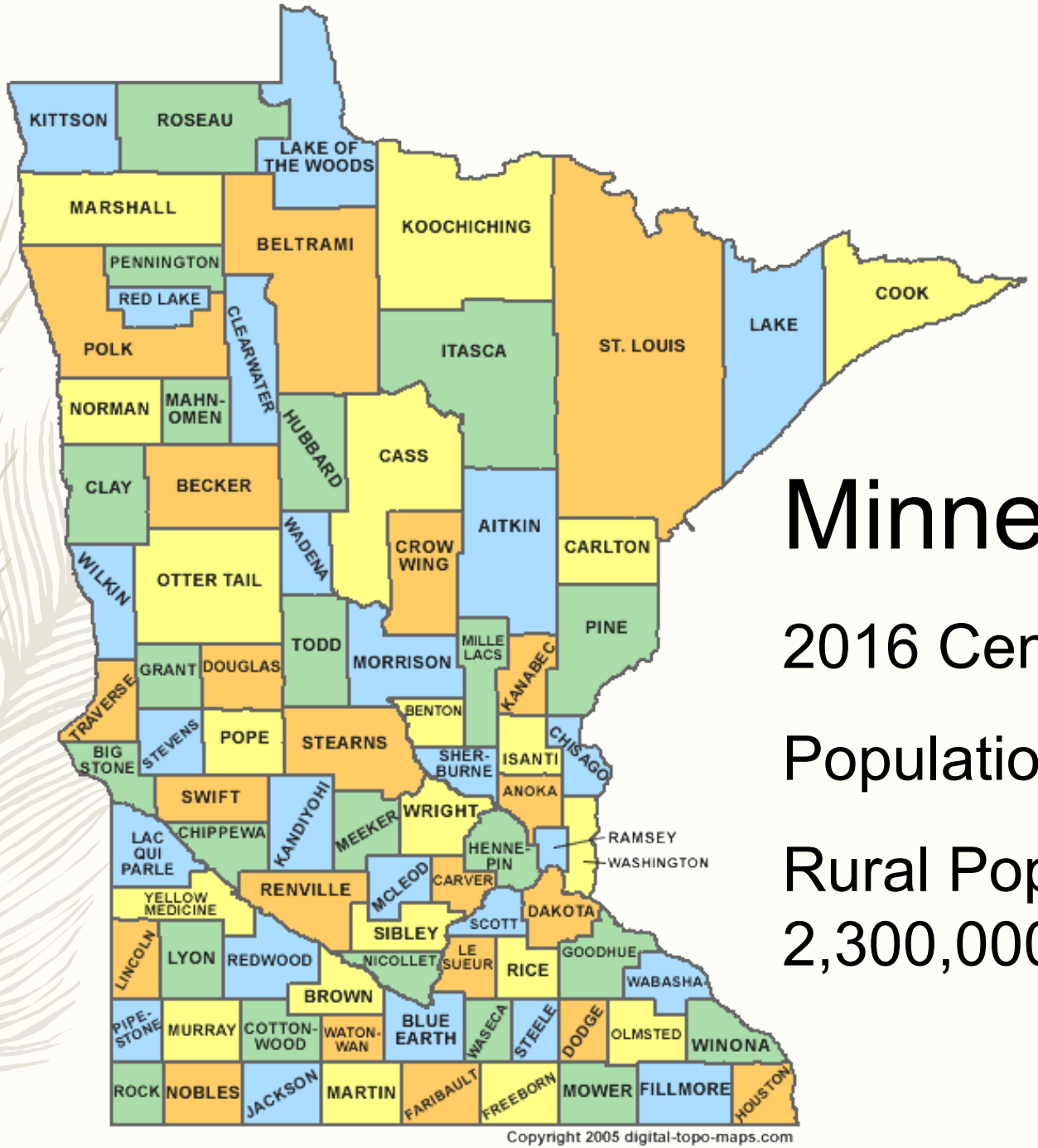
Advancing Community Paramedicine in MN

- In 2011, Minnesota passed legislation to assist in paying these providers to do their work.
- In 2012, the Minnesota Department of Employment/Economic Development, provided a $250,000 Jobs Skills Partnership grant to EMS organizations who wished to train a portion of their paramedics in pursing this career path


NQuil
adidas

Active community paramedicine programs	Developing community paramedicine programs
Allina Health EMS – St. Paul	CentraCare Health – Monticello
Bridges Medical Center d/b/a Essentia Health Ada	Essentia Health/Innovis Health – Moorhead
F-M Ambulance – Moorhead	Essentia Health St. Mary's – Detroit Lakes
HealthEast Care System – St. Paul	Warroad Area Rescue
HCMC EMS- Minneapolis	Rice Memorial Hospital EMS – Willmar
North Memorial Ambulance – Robbinsdale	Virginia Fire and Ambulance Department
North Memorial Ambulance – Brainerd	Renville Ambulance Service
Meds 1 Ambulance – Grand Rapids	Essentia Health – Deer River
Perham Ambulance	
Rice County – Faribault	
Ringdahl Ambulance – Fergus Falls	
Lakewood Health System – Staples	
Tri County Hospital EMS – Wadena	
St. Paul Fire – St. Paul	
Scott County – Mobile Clinic	
Cuyuna Regional Medical Center – Crosby	

Minnesota Community Paramedic Programs 2016



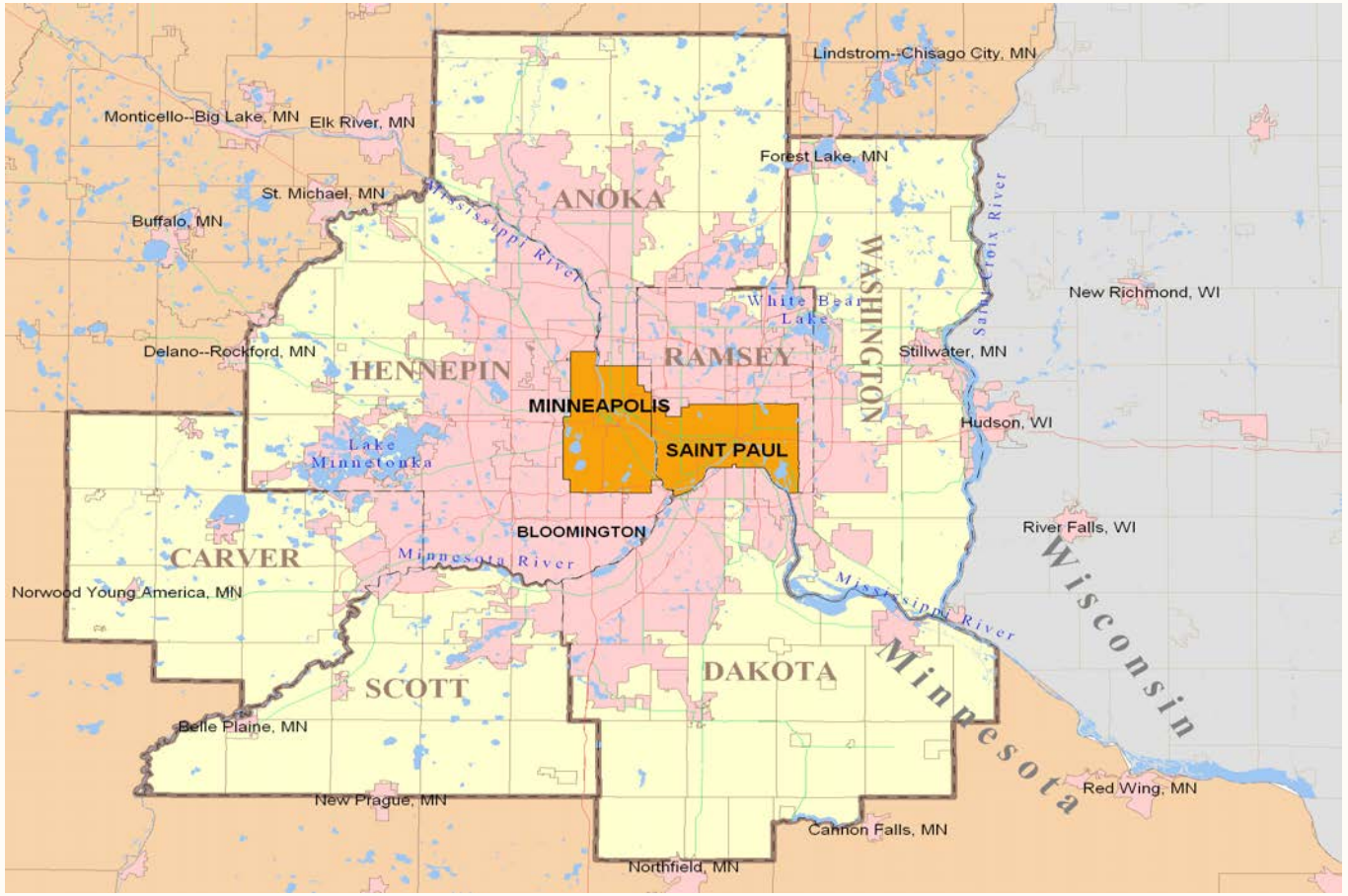
Minnesota

2016 Census

Population: 5.52 million

Rural Population: 2,300,000 (est)

Metro Community Paramedic Programs



North Memorial Health Care

- Two Hospitals (One is Level 1 Trauma Center)
- Ambulance Services
  - Multi-state: Critical Care, Air Care, Ground Services
- Primary and Specialty Clinics
  - 14 Primary Care Clinics certified as Healthcare Homes
- Urgent Care and Urgency Centers

North Memorial Health Care

North Memorial Community Paramedics

- Integrated with primary care
- Documentation in hospital/clinic EMR
- Diagnoses: MI/CVA (Anti-coagulation), Behavioral Health, CHF, Diabetes
- Referrals come from all members of the care team and multiple settings: ED, Home Care, Primary Care

North Memorial Health Care

North Memorial Community Paramedics

- Initial Referral Triggers
  - Not quite homebound: ineligible for Home Health services
  - Polypharmacy
  - High ED utilization

North Memorial Health Care

Initial Data Review – the Value Discussion

- EMR data shows that CPs reduce utilization of hospital, emergency care for patients selected for program because of over-utilization of ED
- Comparison of utilization 8 and 12 weeks before and after initiation of CP intervention shows up to a 50% reduction in inpatient/ED utilization
- Applying national average cost data for inpatient/ED allows a conservative cost savings of $8,500 per patient (based on fewer readmissions/ED visits) within specified time frame

Average cost of ED visit (Truven Health Analytics): http://img.en25.com/Web/TruvenHealthAnalytics/EMP_12260_0113_AvoidableERAdmissionsRB_WEB_2868.pdf
Average cost of hospitalization (AHRQ): http://www.hcup-us.ahrq.gov/reports/statbriefs/sb181-Hospital-Costs-United-States-2012.pdf

Hennepin County EMS

- Serve 14 municipalities, covering 266 square miles and a population of over 700,000.
- CP staffing - 3.7 FTEs

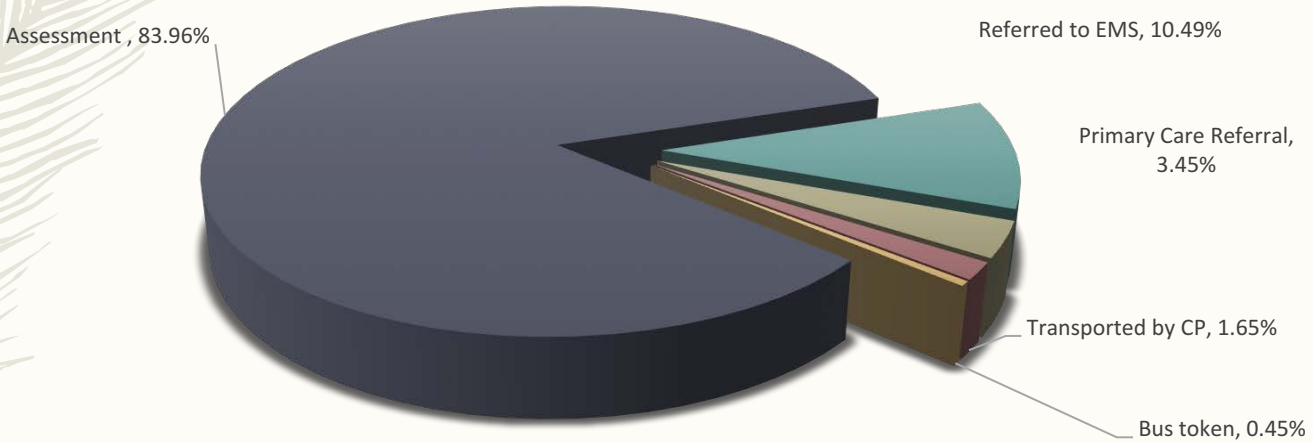
Hennepin EMS CP Goals

- Increase client access to health and social services
- Improve client engagement with therapy
- Decrease Emergency Department and EMS utilization
- Decrease admission and readmission rates

Salvation Army Harbor Light

- Grant Funded
- CP staffed Friday-Monday 14:00-00:00
- Results
  - 480 patient contacts
  - In first 5 months, ↓ unnecessary 911 calls by 7%
- Three year grant, funding not continued

Patient Dispositions



Home Visits

- CHF
- Diabetes
- Hepatitis C
- Lab draws

- Next steps: How to integrate into 911, along with home visits

Scott County Public Health

- Mobile Clinic (2010)
  - 3 times/month
  - Staffed by MD, CP and Public Health RN
  - CP sees patient, creates a plan and reviews with MD. MD writes prescriptions as needed. PH RN helps with referrals to other services as needed.
  - Urgent Care -- patients range from HTN (need med refill) to scabies
- Patients say “I don’t go to ED because I know clinic will be here next week”
- Great training ground for new CPs

Scott County Jail

- Clinic staffing (2017)
- 7 CPs, staff clinic when no RN
- Operate on same protocols as RNs
  - Heroin withdrawal protocol
  - Diabetics – administer sliding scale insulin
  - Goal is to treat on site, not transport to ED
- Setting can cause conflict with biases and ethics

Long Term Care Support

- Phone triage
  - Cover when MDs not available.
  - TCU Staff call in, CP does intake
  - Protocol driven for many issues, call MD for items not under protocols.
  - 20 LTC facilities - CPs handle 8-10 calls/hr on average

Rural Minnesota Community Paramedic Programs

Granite Falls Health - Ambulance, MN

- Prioritization Rubric
  - Risk for Falls- Cane, Walker, Wheelchair-bound, Unsteady gait.
  - Number of ER visits over 12 months
  - Number of Hospitalizations over 12 months
  - Number of Medications
  - High Risk Medications- Anticoagulant, Narcotic, Seizure Prophylaxis, therapeutic-window medications.
  - Number of Diagnosis/co-morbidities
  - Cognitive/Emotional -Confusion, Agitation, Mental Health
  - Chemical Dependency- prescription, street drugs, alcohol, etc

6 months of enrollment in CP Program (n= 14)

- *Decreased ER visits by 64% (39-14) and Hospitalizations 52% (23-11)- 1 Readmission to Hospital within 30 days of discharge.*
- *Hospitalization savings Over $80,000 in billable savings to insurance*
- *Emergency Room savings Over $25,000 in billable savings to insurance*
- *Totaled=over $100,000 for ER/Hospitalizations with only 14 patients over 6 months.*

Findings

- Medication Compliance including understanding of medication is less than 10%.
- Nearly all patients not taking medications correctly, unfilled prescriptions, polypharmacy, multiple physicians prescribing medications with contraindications, etc. Use of Medication Therapy Management with Pharmacist is key.
- Primary Care Provider unaware of polypharmacy, other providers involved in patient care, excessive use of the system.
- Chronic disease poorly managed. Patients do not have a good understanding of chronic disease and management. Education is key and must be continuous.

Case Study

72 y/o female lives alone in home; had not been out of her house in over 3 months; 4 ER visits with various non-emergent complaints over 3 months, 6-911 ambulance calls-; Hx of cancer and she believed every ache and pain was the cancer coming back. Called PCP almost daily for medical advice but refused to come to clinic. Had been sexually abused by a doctor 40 years ago and struggles with trust issues.

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FM Ambulance (MN and ND)

- 1 FTE of CP, part of FTE for admin
- Guiding tenants
  - Our services are designed to be short term in nature.
  - We do not provide services to patients that qualify for other care (i.e., if a patient qualifies for home health but does not want it, that is their decision).

Program Outcomes

- Average patient age is 59.9 years old with a 56% males and 44% females.
- We see a sustained average of 19% reduction in ED visits & 10% reduction in hospitalizations.
- 24% of our patients have DM, 45% HTN, 24% Depression, & 16% have substance abuse (identified prior to our involvement in their care).
- Our diabetic population has an average A1C of 10.7 on entering the program & averages 8.9 on their next A1C within 6 months after intervention.
- Our population with depression enters with an average PHQ9 of 11.9 and that is down to 10.3 within the following 6 months after intervention.
- Our population with HTN diagnoses who enter the program with an uncontrolled BP (SBP > 140 or DBP > 90) have an average BP of 159/88 upon program entry and are down to 128/74 within the following 6 months.

Jason Eblen, BUS, NRP, Community Paramedic

F-M Ambulance Service

2215 18th St S

Fargo, ND 58103

(W) 701.364.1708 | (F) 701.364.1705

http://www.fmambulance.com

http://med.UND.edu/sim-nd

Funding a CP Program

- Grant Funded
- Fee for services
- Funded by EMS service

Working Together

- Minnesota Ambulance Association
  - CP Advisory Committee
    - *February 15-16, 2018*
  - CP Operations Committee

Both are collaborative groups working to discuss and collaborate on advancement of CP in Minnesota

- Education Programs
  - Hennepin Technical College
  - Inver Hills / Century College

Resources

Community Paramedic Toolkit

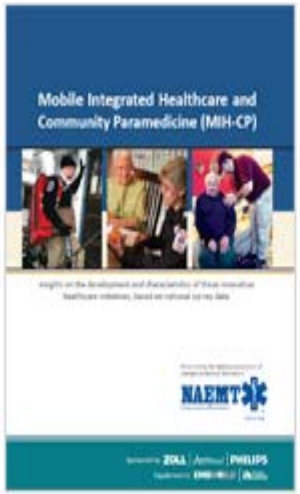
MDH Minnesota Department *of* Health
OFFICE OF RURAL HEALTH AND PRIMARY CARE
EMERGING PROFESSIONS PROGRAM

health reform MINNESOTA
A Better State of Health

Minnesota Department of **Human Services**

NAEMT Publication

- Mobile Integrated Healthcare-Community Paramedicine



2015 National Survey on Mobile Integrated Healthcare and Community Paramedicine provides insights on the development and characteristics of these innovative healthcare initiatives.

Future Expansions

Community EMT

Remember:

If you've seen one community paramedic program, you've seen one community paramedic program.