



**Community Integrated Paramedicine (CIP)**

# COMMUNITY PARAMEDICINE AND MOBILE INTEGRATED HEALTH

- The concept is not new, programs began as early as 2000.
- International footprint: Australia, Canada, England, Germany, Ireland, Israel, Norway, Switzerland
- United States footprint: Some form of community paramedicine or mobile integrated healthcare established in over half of the states in the U.S.
- No state reports 'zero activity' – everyone is at least exploring it
- Resources for further exploration at the end of this presentation

# MICHIGAN IS NOT LIKE OTHER STATES ALTERING THE WHEEL WITHOUT REINVENTING IT

## Other states (not all)

- One EMS Agency Medical Director per agency
- Agency Medical Director plays a different (bigger) role than in Michigan



- Michigan Stat EMS Office – 20 people
- AGENCIES – 800 (ALL LEVELS)
  - 220 + Advanced Life Support (ALS)
  - 225-230 Volunteer
- PERSONNEL – 29,000 (ALL LEVELS)
  - 9,000 Paramedics
  - 300 AEMT
  - 13,000 EMT
  - 6,500 MFT
- VEHICLES - 4,500-5,000
- 87 Counties
- 63 Medical Control Authorities
- **63 Physicians to 800 agencies and 29,000 personnel**

# WHAT COMMUNITY PARAMEDICINE IS

- Gap filler
- Utilization of an untapped resource (EMS)
- \*\*\*Collaboration\*\*\*
- Continuity of care
- Marginalized persons and populations
- Underserved persons and populations

# PATIENTS THAT MAY BE SERVED BY A CP PROGRAM

Patients who...

Patients who...

- are discharged from the hospital and refuse home health care services or are not eligible for home health services
- are discharged from the hospital and will have a delay in receipt of home health care services
- frequent the emergency department instead of seeing a primary care physician or using an urgent care for low acuity complaints
- require frequent EMS assistance but no transport for falls or vague low acuity complaints
- cannot/will not complete primary care appointments
- cannot/will not navigate telehealth without assistance
- are not ready to formally enter or navigate the world of recovery for substance use disorder
- could benefit from care regarding prenatal or postpartum care and preventive care for newborns
- reside in long term care facilities and require transport to an emergency department for a relatively minor procedure
- cannot/will not participate in follow up care (cardiac rehabilitation, diabetes self management education, early detection hearing intervention)

## OTHER SERVICES CP PROGRAMS MAY BE INVOLVED IN

- Mass testing, vaccination or out-patient treatment efforts
- Community outreach programs
- In home education (infant CPR, safe sleep, car seat installation)
- Health screenings

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# WHAT COMMUNITY PARAMEDICINE IS NOT

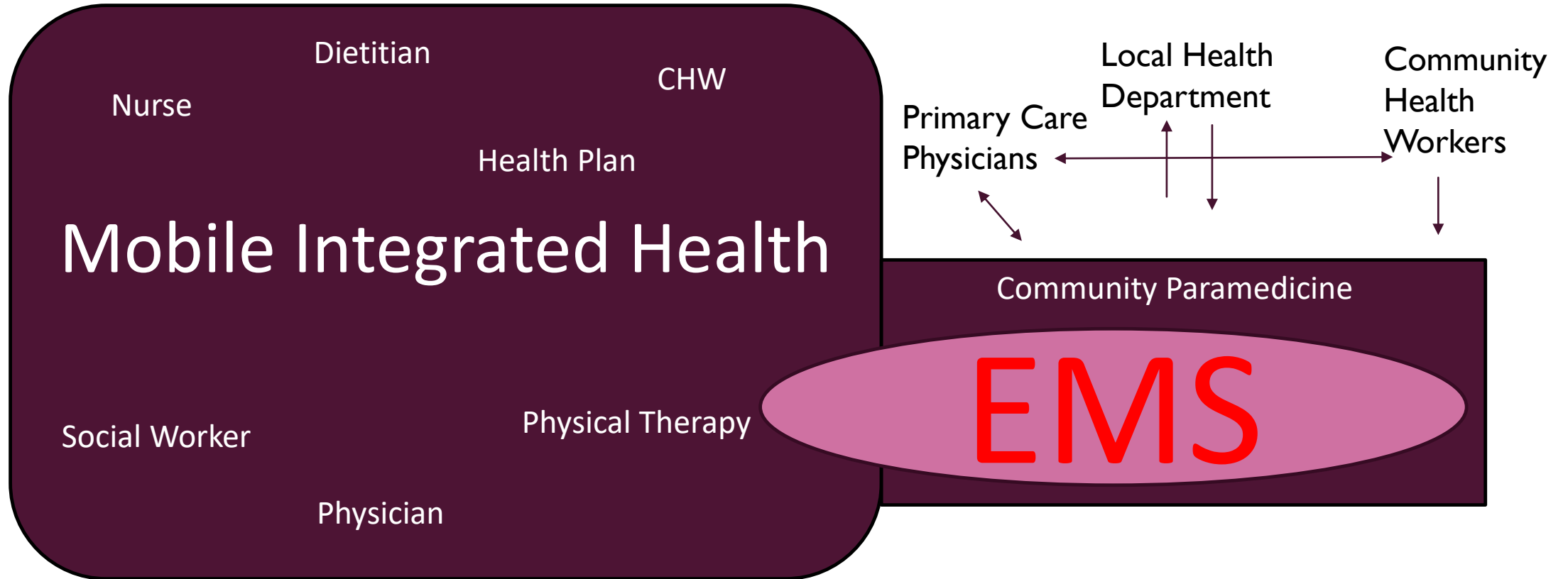
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- An answer for everything
  - Duplication or competition of established services
  - A good idea for everyone

# PROJECT GOALS – GRANT FROM MICHIGAN HEALTH ENDOWMENT FUND

- Initial Project – Community Paramedicine Project 2018 & 2019
  - Make Community Paramedicine a replicable, standardized, sustainable practice in Michigan.
- Program evaluation both nationally and within Michigan.
  - #1 Standardize
  - # 2 Flexible/scalable
  - #3 Replicable
  - #4 Sustainable



# #1.1 STANDARDIZED LANGUAGE COMMUNITY INTEGRATED PARAMEDICINE



Somewhat of a closed system

Heavy on bidirectional referrals

# AFTER RECATEGORIZATION AND A FEW CLOSURES

Less than a dozen programs. Only 6 that were truly doing Community Paramedicine by definition:

**Huron Valley Ambulance (HVA)**

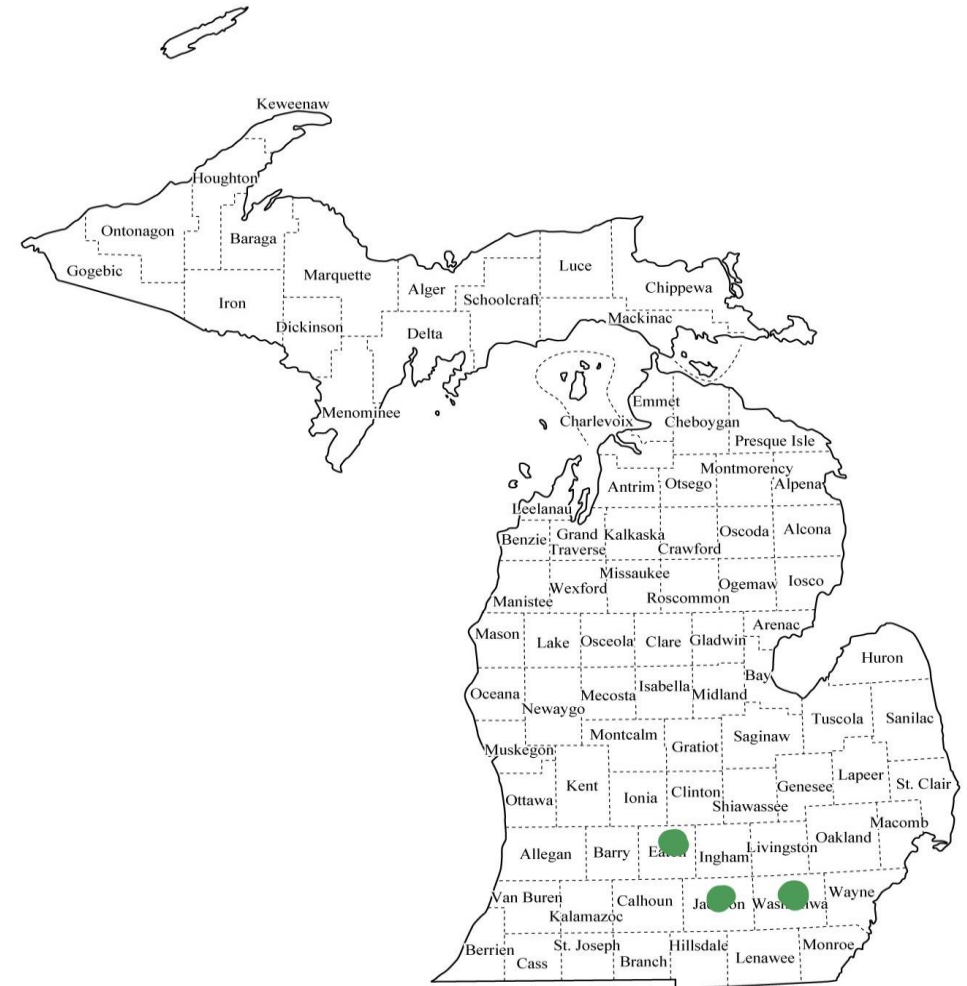
Livingston Community Ambulance,

**Jackson Community Ambulance**

ProMed Ambulance,

Clinton Area Ambulance

**Eaton Area EMS**



## #1.2 STANDARDIZED EDUCATION

- Online but out of state college
  - Hennepin Technical College
- Within Michigan
  - Huron Valley Ambulance Center for EMS Education (HVA/EHP)
  - Munson Healthcare System
  - Lansing Community College
- Standardized Minimum Curriculum
  - [MDHHS CIP Tab](#)

# #1.3 STANDARDIZED CLINICAL PROTOCOL SUITE

## Program Protocols

- 11-01 CIP Program Policy
- 11-02 CIP Medical Director Roles and Responsibilities
- 11-03 CIP Medical Direction
- 11-04 CIP Scope of Service/Treatment Capabilities
- 11-05 CIP Documentation
- 11-06 CIP Program Enrollment
- 11-07 CIP Patient Service Plan/Care Plan
- 11-08 CIP Program Discharge

## Procedure and Treatment Protocols

### **PROCEDURES**

- 11-26 CIP Fall Risk Reduction Assessment
- 11-27 CIP SDOH Assessment
- 11-28 CIP Medication Audit
- 11-33 CIP Specimen Collection
- 11-38 CIP Vaccinations

### **TREATMENT**

- 11-50 CIP Patient General Assessment and Care

# A LA CARTE

## Procedure Protocols

- 11-26 CIP Fall Risk Reduction Assessment
- 11-27 CIP SDOH Assessment
- 11-28 CIP Medication Audit
- 11-29 CIP Feeding Tube
- 11-30 CIP Urinary Catheter
- 11-31 CIP Ostomies
- 11-32 CIP Nasal Packing
- 11-33 CIP Specimen Collection
- 11-34 CIP Point of Care Testing for Blood Analysis
- 11-35 CIP Suture Removal
- 11-36 CIP Otoscope
- 11-37 CIP PICC Access
- 11-38 CIP Vaccinations
- 11-39 CIP Naloxone Leave Behind
- 11-41 CIP Naloxone Medication Kit Contents and Distribution

## Treatment Protocols

- 11-50 CIP Patient General Assessment and Care
- 11-51 CIP Diabetic Care
- 11-52 CIP Asthma Care
- 11-53 CIP Chronic Obstructive Pulmonary Disease Care
- 11-54 CIP Congestive Heart Failure Care
- 11-55 CIP Chronic Hypertension Care
- 11-56 CIP Post MI or Cardiac Intervention Care
- 11-57 CIP Post Orthopedic Surgery Care
- 11-58 CIP Post Stroke Care
- 11-59 CIP Prenatal Care
- 11-60 CIP Mother/Infant Postpartum Care
- 11-61 CIP Sleep Apnea Care
- 11-62 CIP Wound Care
- 11-63 CIP Substance Use Disorder Care

### Treatment Protocols: Complaints

- 11-75 CIP Skin Rash Complaints
- 11-76 CIP Urinary Complaints
- 11-77 CIP Gastrointestinal Complaints
- 11-78 CIP Suspected Respiratory Infection Complaints
- 11-79 CIP Sore Throat Complaints
- 11-80 CIP Nontraumatic Nosebleed Co

## #2 SCALABLE AND FLEXIBLE

### SCALABLE

Wayne County: 1.8 million people  
3,000 people per square mile

Keweenaw County: 2,000 people  
4 people per square mile



***Rural vs. Suburban vs. Urban***

### FLEXIBLE

Population primarily over 65 – unlikely to have the maternal infant protocols but may have the Post Orthopedic Care protocol

Substance Use Disorder protocol - to what extent does the CP need to engage based on existing resources

Maternity Dessert – Prenatal Care protocol, or high infant mortality rate – Mother/Infant Care protocol

## #3 REPLICABLE

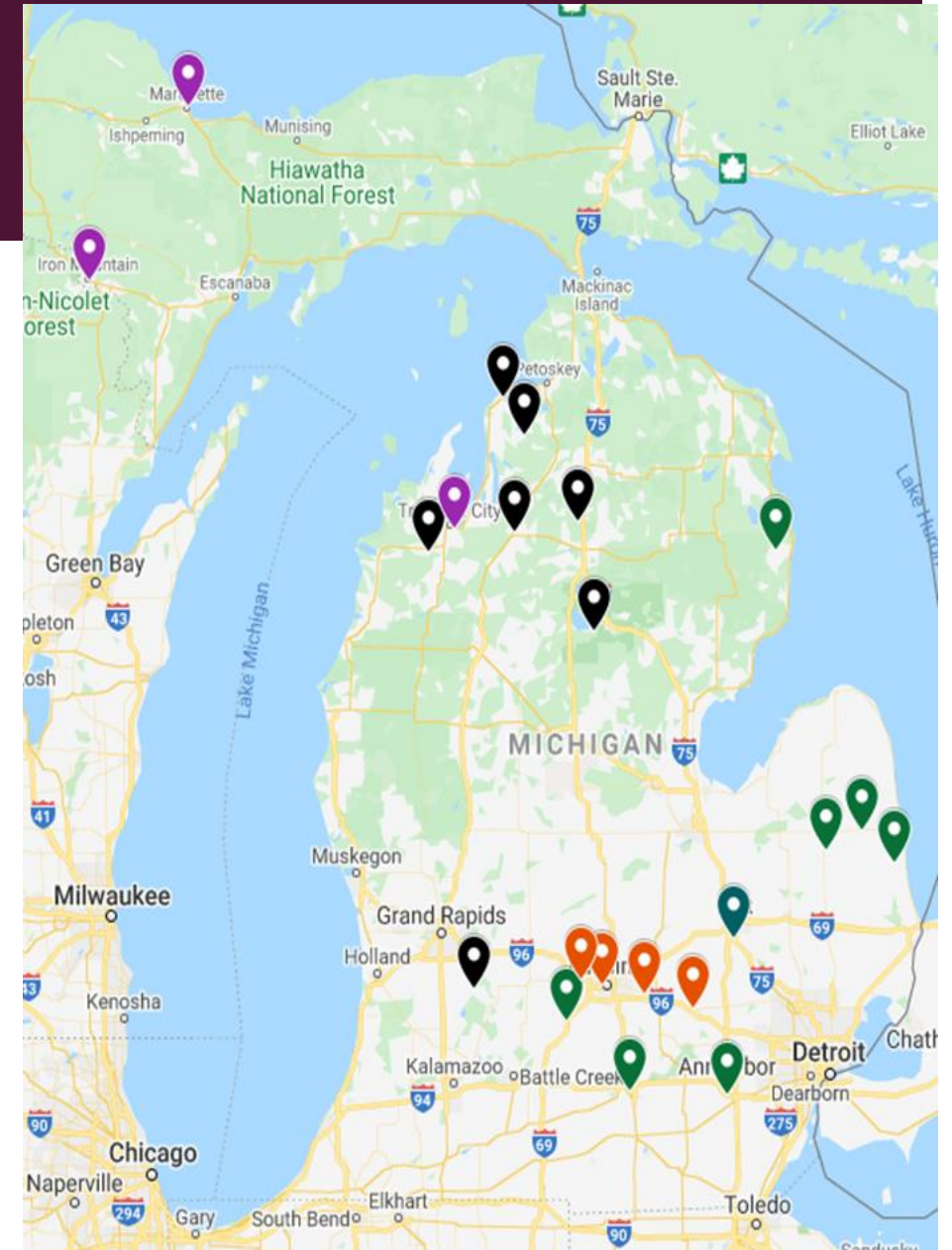
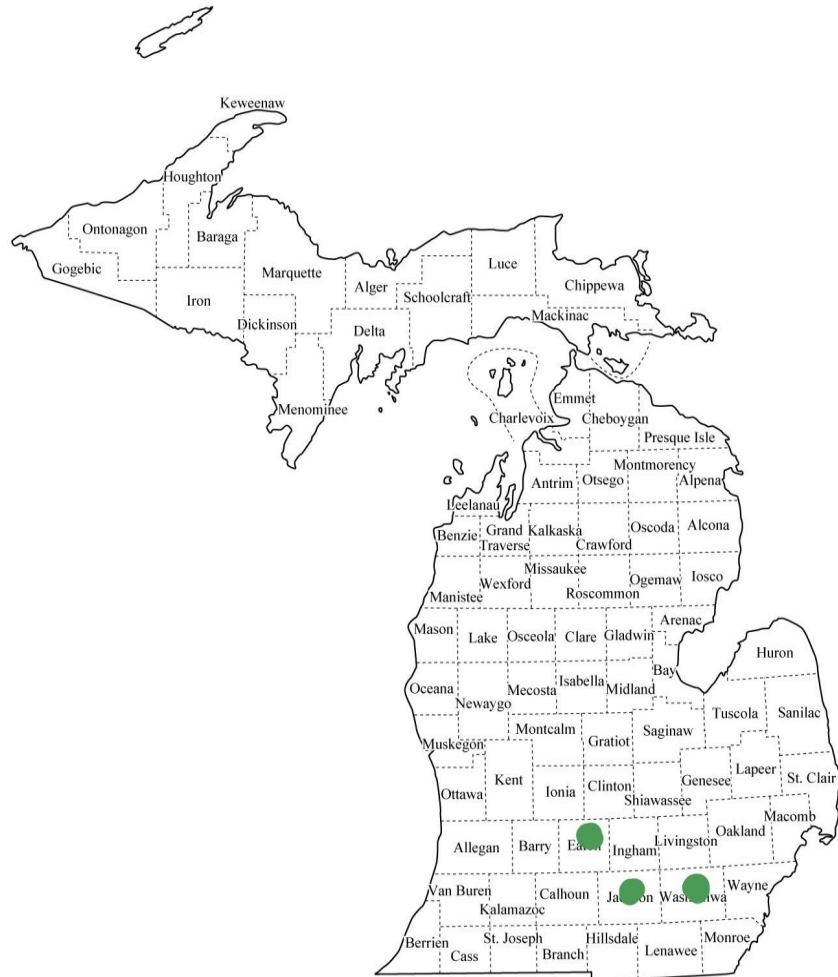
### ■ REQUIREMENTS

- Licensed EMS Agency (Advanced Life Support)
- Paramedics successfully completed Community Paramedic education (MDHHS approved)
- Protocols (suite already approved)
- Medical Control Authority (MCA) approval for the program and protocols
- Physician Director (MCA physician or appointee)
- ALS vehicle (transporting or non-transporting)

### ■ SPECIAL STUDY STATUS

- Streamlined the application (by agency)
- Presentation to Quality Assurance Task Force (QATF) approval.

# SUCCESSFUL EXPANSION/REPLICATION





# #4 THE FINAL PIECE – SUSTAINABILITY

## #4 SUSTAINABILITY

- In order to be sustainable a product or service in health care should be
- Evidence based
  - Data collection (grant #2)
- Standardized (mostly done)
- **Formalized** (working on)
- Replicable
  - Integrated into the EMS System

## Community Integrated Paramedicine Infrastructure Improvement – Grant #2

- 2020-2021
  - Education Infrastructure
    - Education must be accessible to areas most in need of CP services
  - Documentation & data
    - CQA/CQI
    - Efficacy/ROI
  - Health Information Exchange (HIE)

Formalization + Integration into the EMS System for easy replication will = sustainability

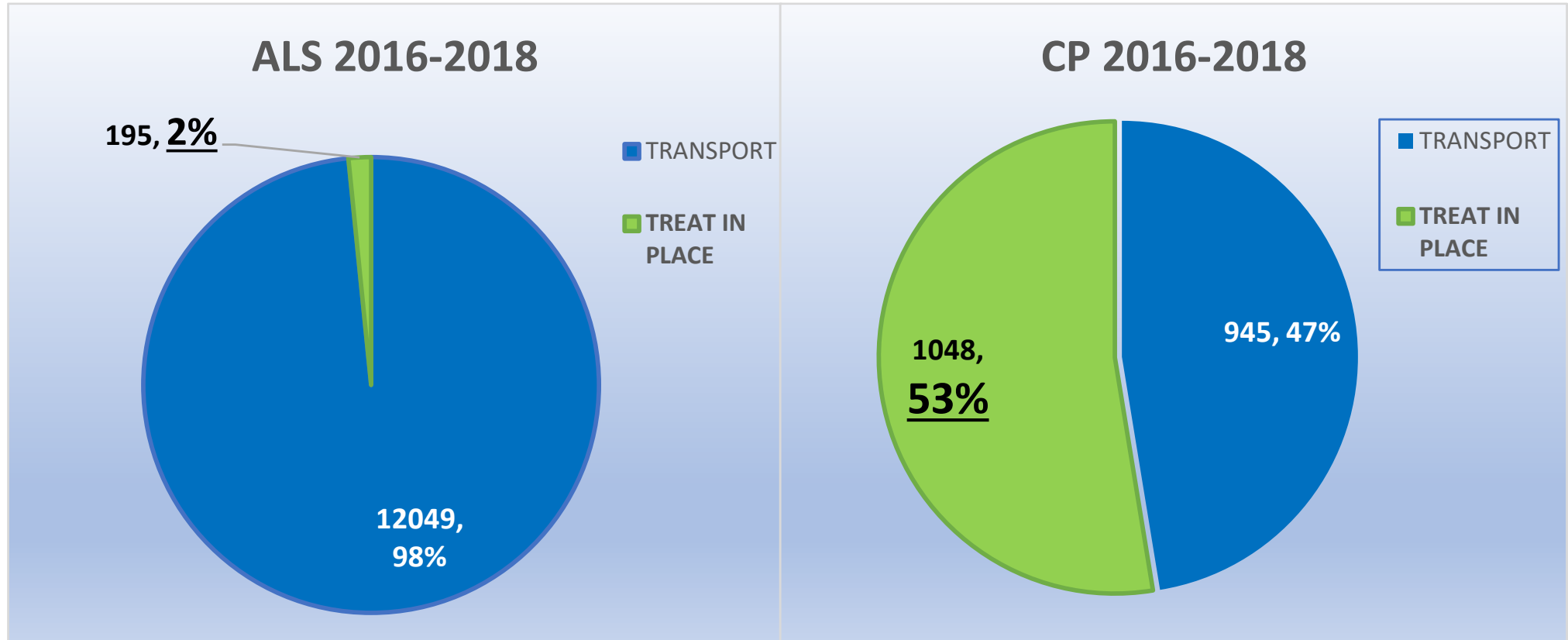
# EMS Opioid Outreach

- Community Paramedic Program
  - Overdose follow up
    - EMS or ED referral for post overdose follow up
  - Opioid Use Disorder Education
    - Specific education modules developed for CIP's

# EMS Opioid Outreach

- Leave Behind Naloxone
- Quick Response Teams (QRT)
  - MDHHS MODA grants
- Established partnerships
  - Michigan Center for Rural Health
    - NMORC
    - SOMRC
    - EUP
  - MiREMS Beyond the Save project
  - Families Against Narcotics (FAN)

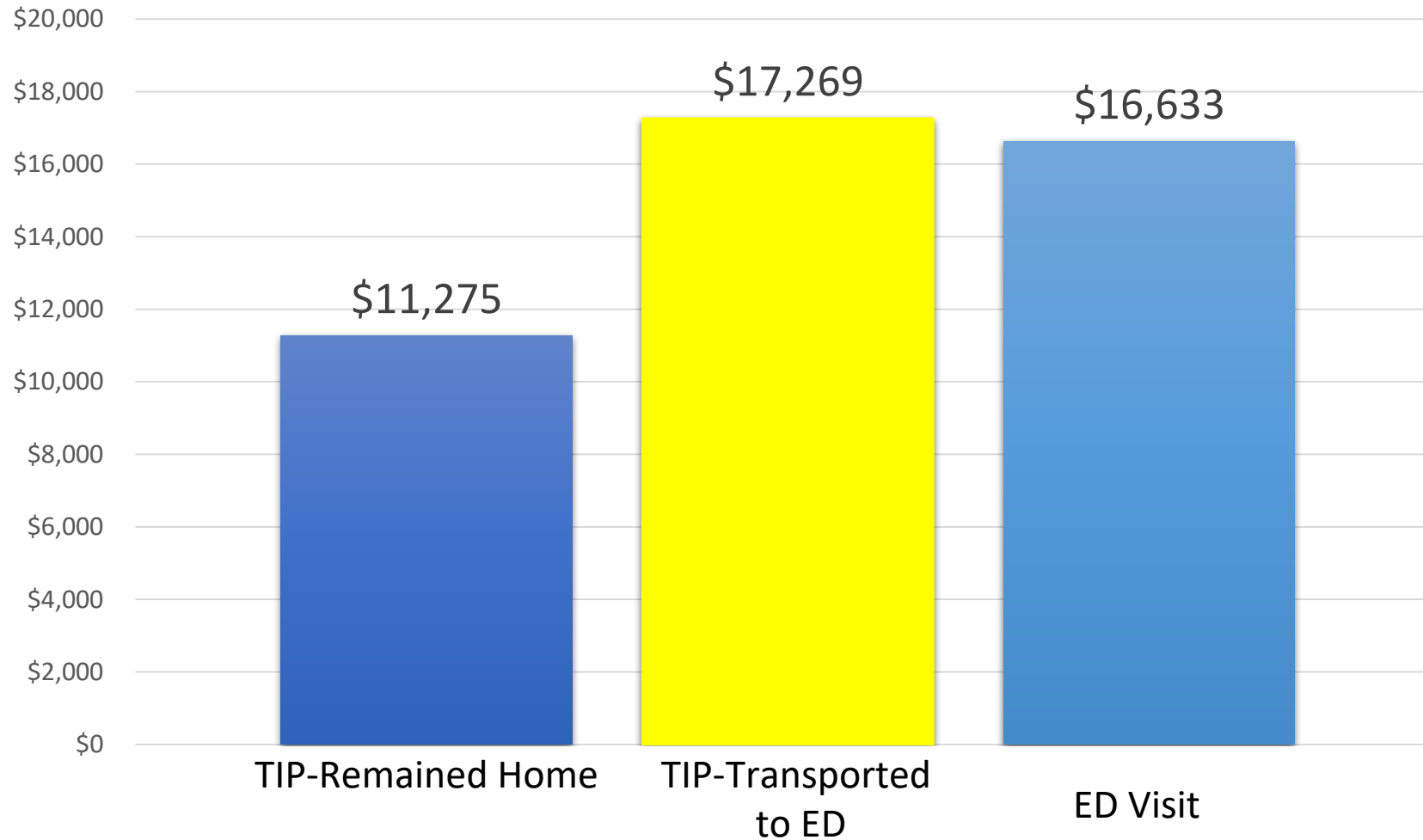
Successful Treatment at Home of Low Acuity Emergency Patient  
Typical ALS (Paramedic) Ambulance VS Community Paramedic (CP)



Washtenaw County

System Saving ~ \$2.3M over 3 years

## Cost of Care Comparison-Community Paramedic Treat at Home vs Transport to Emergency Department



Partnership between  
HVA-Trinity to track the  
impact of Community  
Paramedic ED Diversion

**Date Range:**

July 2017-July 2020

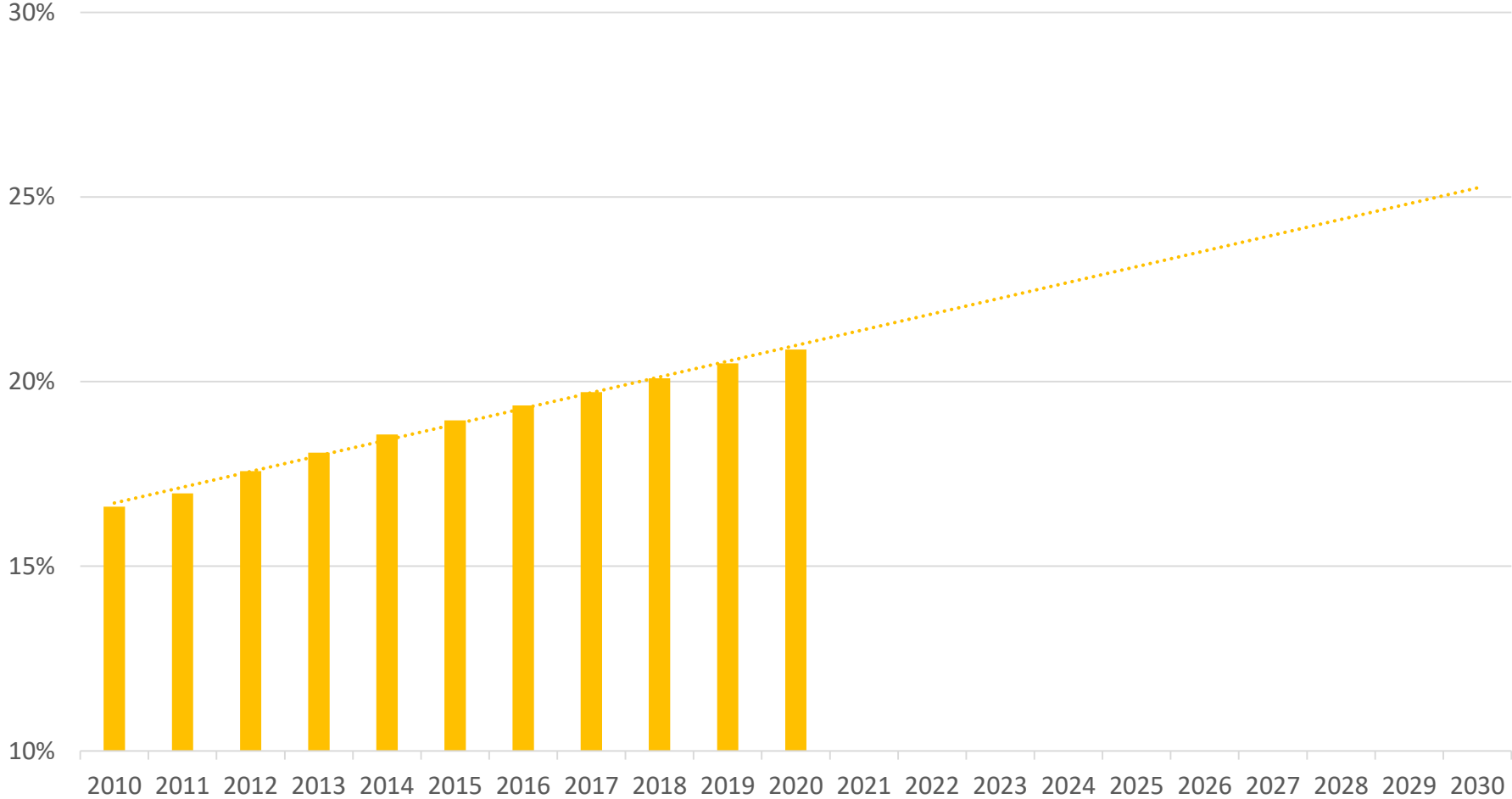
**Patient Encounters:**

N=443

Control group includes only Medicare patients who had an ED encounter.  
90 Days started with CP Visit or ED encounter.

# Potential Need for Community Paramedicine

## Michigan Medicare Beneficiaries % of Total Population



# Henry Ford Allegiance Health (HFAH) and Community Paramedics (CP)

\*Jackson County

**Objective:** Reduce Readmissions, Reduce Emergency Department Utilization, Improve Care Transitions

- HFAH and CP began collaboration April 2017; initially seen respiratory patients with a diagnosis of Chronic Obstructive Pulmonary Disease (COPD) and/or Pneumonia
- Readmission rates decreased notably for respiratory patients; added additional diagnosis for Community Paramedics to visit
- Patients with the following diagnosis are currently referred for Community Paramedic services
  - COPD, Pneumonia, Heart Failure, Total Hip replacement, Total Knee replacement, Sepsis, New onset diabetes
- Community Paramedics & Henry Ford Allegiance Health Process
  - Clinical staff at HFAH refer patients to Community Paramedic services
  - Community Paramedics do an initial visit with patients while they are still in hospital; discuss services; initiate care
  - Schedule a follow up visit at the patient's home ~24-48 hours after expected discharge date
  - Continue to visit the patient weekly for up to 30 days after discharge; patients can call CP any time for additional visits
  - Work in collaboration to mitigate readmission causes, identify key barriers that the patient did not share while an inpatient, address home environment, medication review, assess medical equipment, ensure patient is following discharge plan, reinforce patient education, early identification of deterioration & prompt treatment
- Community Paramedic collaboration with HFAH Continuum of Care Services
  - Home care, physicians' offices, heart failure clinic, transitions of care nurses, telemonitoring, emergency department discharges, COVID pandemic







# TAKE A LOOK

## National Resources

- Rural Health Information Hub (RHlhub) <https://www.ruralhealthinfo.org/topics/community-paramedicine#mobile-integrated-healthcare>
- National Association of State EMS Officials (NASEMSO) <https://nasemso.org/committees/community-paramedicine-mobile-integrated-health/>
- International Round Table of Community Paramedicine (ircp) <http://ircp.info/>

## A few CP Programs Michigan has collaborated with & learned from

- Shalom Project – Indianapolis, Indiana <https://www.indystar.com/story/news/crime/2016/06/21/perkins-and-hardwick-new-crime-fighting-duo-indianapolis/86037756/>
- Mom & Baby - Crawfordsville, Indiana <https://www.emsworld.com/article/1222819/indiana-mih-program-focuses-new-moms-babies>
- Opioids - Stanley County, North Carolina <https://www.thesnaponline.com/2019/09/10/new-community-paramedic-program-helps-opioid-patients-receive-treatment/>