



Community Paramedicine in a Primary Care Group Practice

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No conflicts of interest to disclose

International Roundtable on Community Paramedicine

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Presentation Overview

- Cleveland Clinic
 - Center for Connected Care
 - Medical Care at Home
- Community Paramedicine Pilot & Services Provided
- Research Study Design & Outcomes
- Lessons Learned
- Future Directions
- Our Team

Cleveland Clinic

- Tertiary care center located in Cleveland, OH
- US News & World Report's #2 US hospital in 2017
- 652,000 ED visits per year
- 220,000 hospital admissions per year

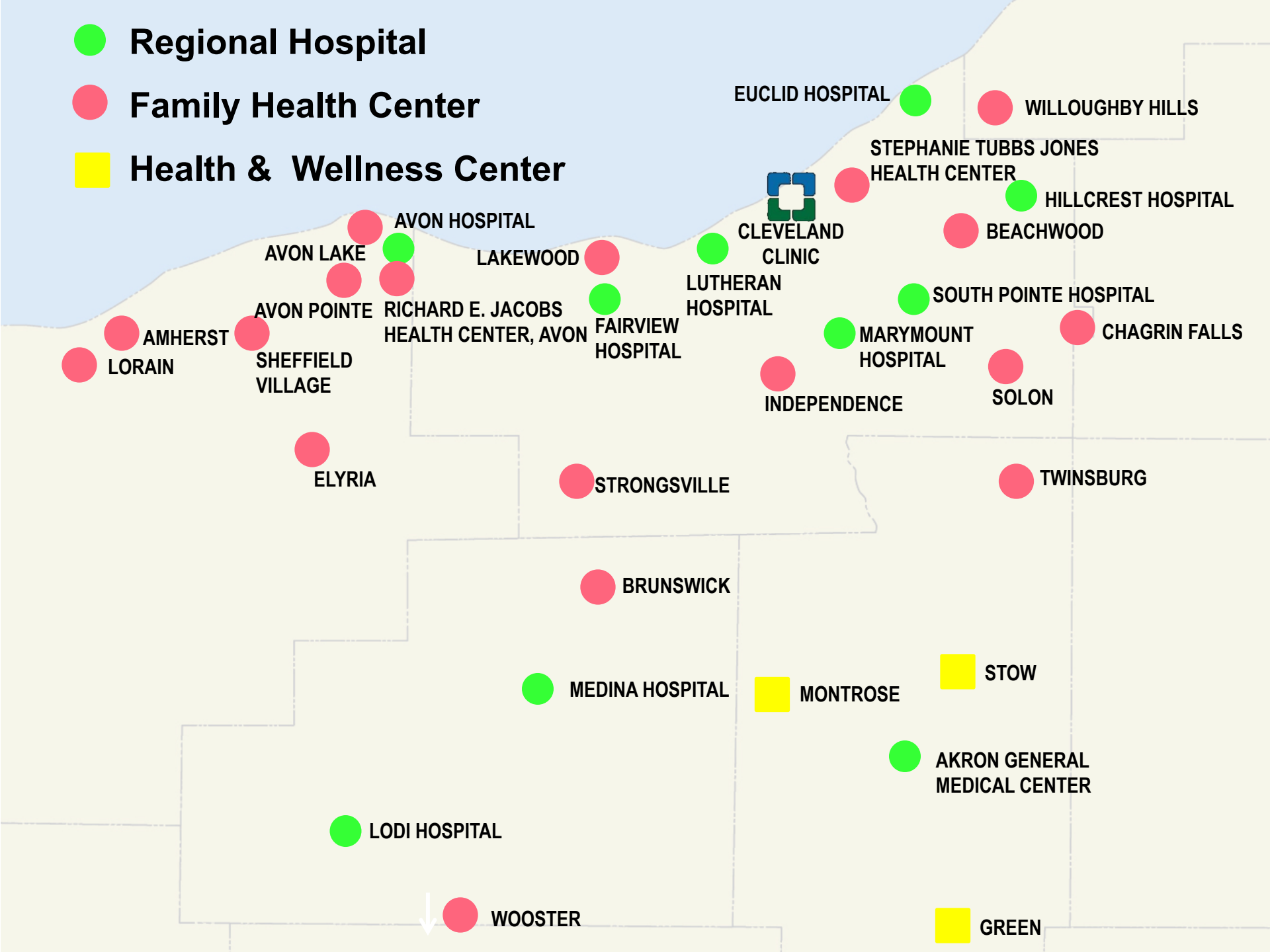
NATIONAL & INTERNATIONAL LOCATIONS



 **Regional Hospital**

 **Family Health Center**

 **Health & Wellness Center**



Center for Connected Care & Medical Care at Home

- **Center for Connected Care** provides multispecialty care to 12,000 patients transitioning to home from hospital or post-acute care
- **Medical Care at Home (MCH)** provides in-home MD services to 1,300 patients across 8 counties
 - Elderly, mobility issues, complex health needs



Community Paramedicine Pilot

- Prior to July 2017:
 - MCH physicians making urgent home visits to help avoid unnecessary ED/hospital use
 - Not leveraging mobility & training of paramedics, or available Telehealth technology
- **Goals: decrease time-to-visit, increase physician productivity and positive patient outcomes**
- After July 2017:
 - Trained & employed 2 community paramedics (advance care paramedics) to address post-hospital & urgent patient care needs

Services Provided

3 Visit Types:

- Post-Hospital
- Urgent
- Scheduled Follow-Up

Each Visit Includes:

- Full medication review
- Home safety evaluation (including oxygen use)
- ADL assessment
- Physical examination
- Telehealth Visit (AmWell) with Physician

Cleveland Clinic Express Care® Online

Connect in minutes to the care you need right now – from home or anywhere via your smartphone, tablet or computer.

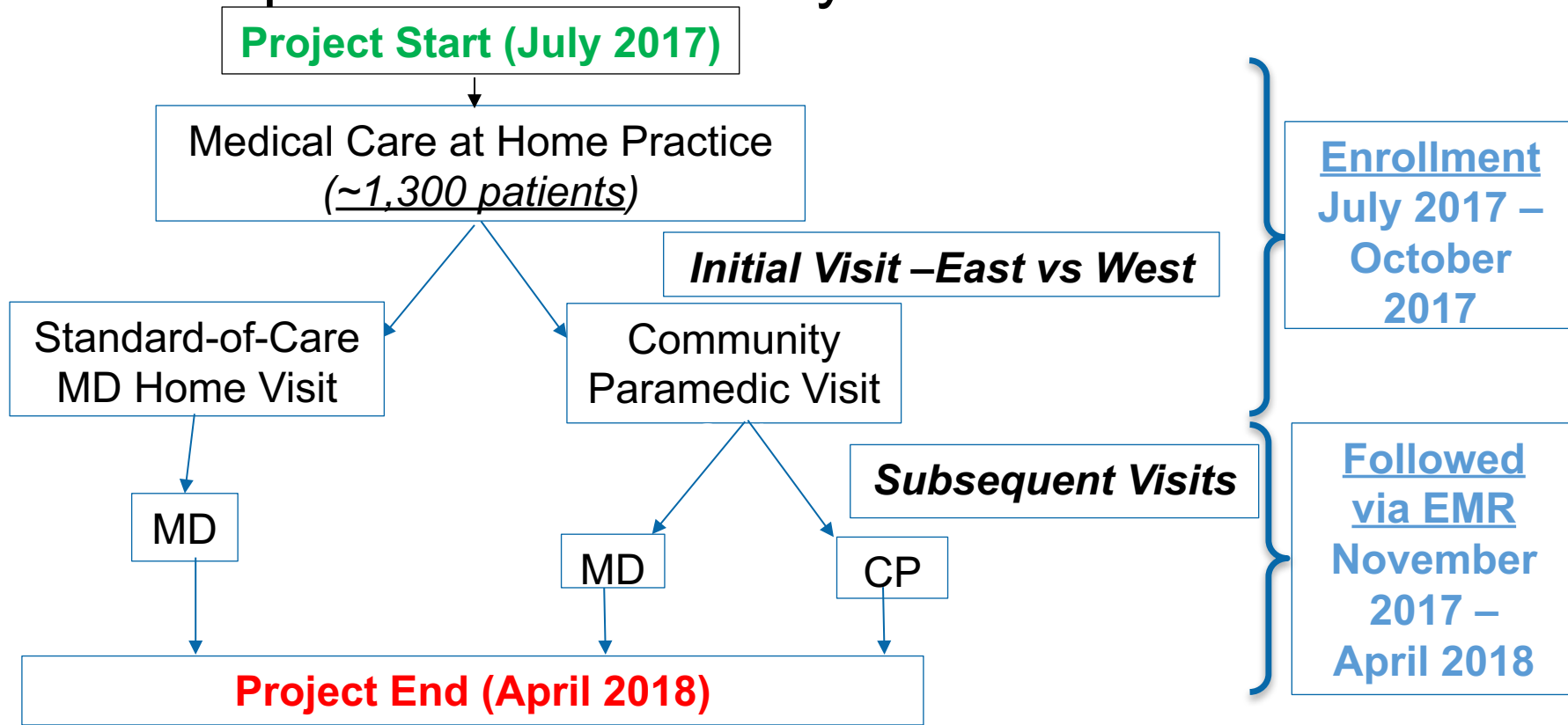


A promotional banner for Cleveland Clinic Express Care Online. It features the Cleveland Clinic logo and the text 'Express Care Online'. Below this, it says 'REGISTER FOR FREE Smartphone or Tablet Apps' and shows 'Download on the App Store' and 'GET IT ON Google play' buttons. It also mentions 'Laptop or Desktop Website' and has a 'See a Provider Now' button. The background shows a laptop screen with a doctor's video feed and a smartphone displaying the app interface.

You don't need an appointment. Just a connection.

Study Design

- **Question: Does an operational change in community paramedic-to-MD staffing ratios result in improved patient outcomes?**
- **Prospective cohort study – East vs West**



Outcomes of Interest

- Modeled after *Measurement Strategy Overview* via NAEMT MIH-CP Program Toolkit
- In addition:
 - Physician productivity
 - Time-to-appointment
 - Practice visit volume

Preliminary Data - Demographics

- 1,155 patients eligible to see paramedic
- 533 community paramedic visits for 314 patients July 10 – October 10
 - 55% urgent
- Age = 76 +/- 15 years
- Gender = 66% F

Preliminary Data - Descriptives

Top 5 Presenting Chief Complaints:

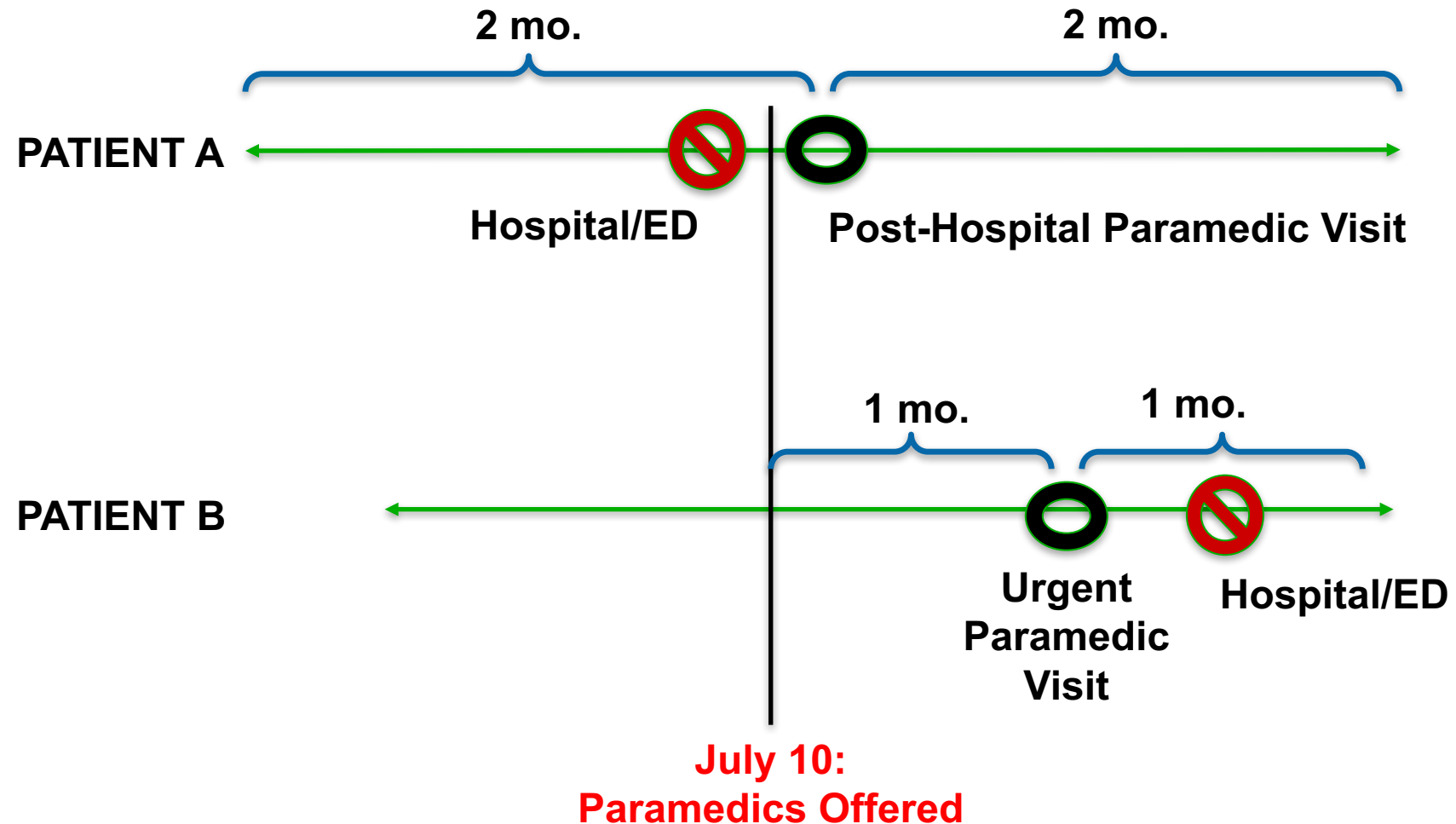
- (1) SOB – 58 (11%)
- (2) Muscle/joint pain – 53 (10%)
- (3) Cough – 41 (8%)
- (4) Wound check – 31 (6%)
- (5) Abdominal pain – 26 (5%)

Preliminary Data - Analysis

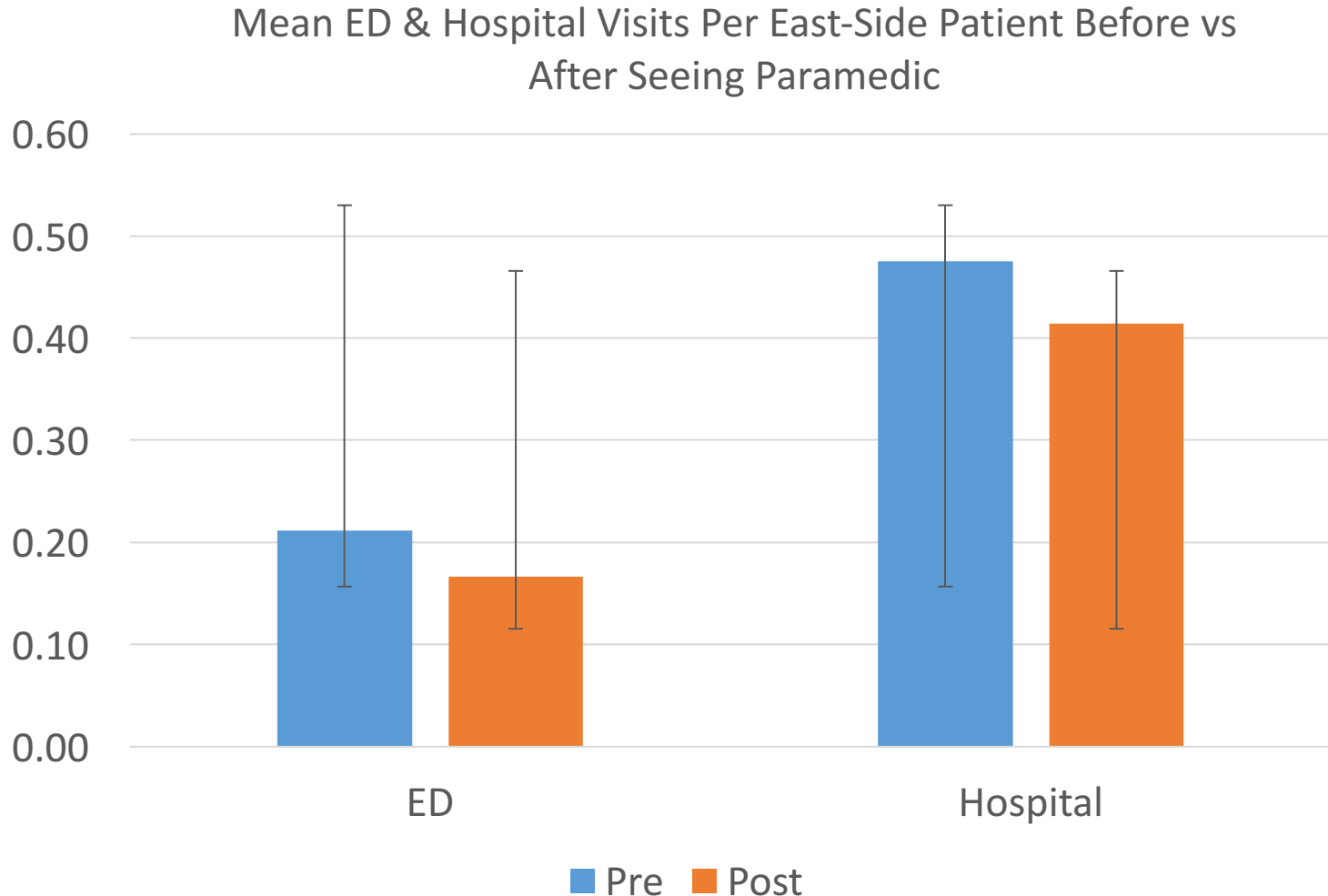
- Post-Hospital Time-to-Visit
30% within 1d/45% within 2d of discharge
90% seen within 1wk of discharge
- Urgent Time-to-Visit
75% seen within 24h of phone call
90% seen within 32h of phone call
- Physician Productivity ***122% increase***
 - 18 pts/wk pre vs. 40 pts/wk post

Preliminary Data - Analysis

Initial Analysis – comparing patients to themselves over the same time:



Preliminary Data - Analysis



***Mortality Rate: 0.04 (N=13) is unchanged from baseline 2017 data**

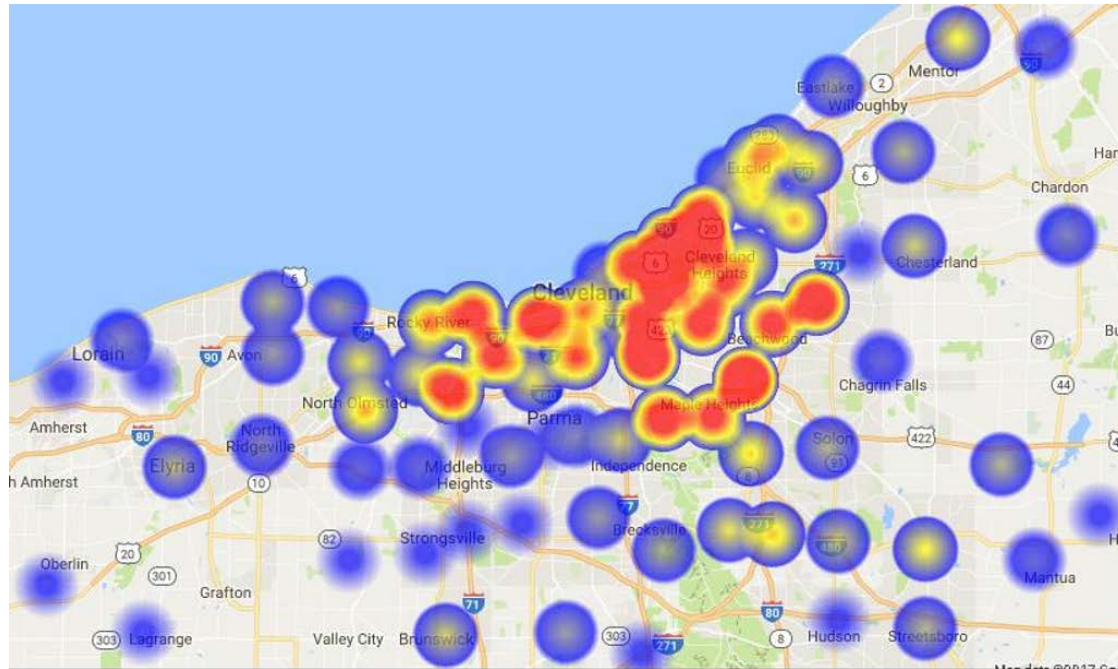
Lessons Learned

- Building rapport within the primary care world
- Program advertisement & patient utilization of urgent visits
- Protocol for high-utilizers despite frequent community paramedic visits
- Connectivity & AV difficulties
- Data loss to outside hospitals/facilities
- Value-added service that is not billable
- Paramedic futures – training & education

Future Directions

- Expand services to include:
 - Immunizations
 - Blood draws & POC labs (BMP, H/H, BNP, UA)
 - Advance directives
 - Medication disposal
- Utilize new technology:
 - InTouch (bluetooth peripheral devices)
 - Mobile HotSpot

Future Directions



- Algorithm for $>40\%$ risk of 30d readmission
- Combination of recurring scheduled paramedic visits & urgent visits over 30d
- Revise protocols to reduce number of encounters requiring MD telehealth visit

Our Team

Paramedics:

Aaron Packard

Paul McClintock

Physicians:

Dr. Jan Bautista

Dr. Bill Zafirau

Dr. Seth Podolsky

Dr. Robert Wyllie

Nursing:

Jelayne Roberts

Evelyn Calloway

Lauren Currie

Carol Krestel

James Bryant

Administration:

Don Carroll

Kathy Brezine



Cleveland Clinic

Every life deserves world class care.

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