Mobile Integrated Community Health

Overview

A team approach to population health.

Jared Smith MA, BS, NRP

Mission Statement

To improve health outcomes among citizens of Queen Anne's County through integrated, multi-agency, and intervention-based healthcare.

Vision Statement

To provide mechanisms for citizens to have better access to healthcare and to enhance individual health outcomes.

Partnerships

- QAC Dept. of Emergency Services
- QAC Department of Health
- MIEMSS
- UMMS Shore Regional Health
- QAC Commissioners
- QAC Addictions and Prevention Services
- QAC Dept. of Health and Mental Hygeine
- QAC Area Agency on Aging
- Anne Arundel Medical Center

Funding

- UMMS Shore Regional Health
- Anne Arundel Medical Center
- Queen Anne's County Government
- Queen Anne's County Dept. of Health
- Carefirst Telehealth Grant
- QAC Addictions and Preventions Grant

MICH Criteria

Inclusion

Adults 18 years and older.

Five 911 calls in any 6 month interval

Resident of Queen Anne's County

Exclusion

Refusal to participate in the program.

Referral Phases

First Phase - Frequent 911 Callers

Second Phase - EMS Referrals

Third Phase - ED Referrals and QA ER Referrals

Fourth Phase - Shore Regional Health Post Discharge
&
AAMC Post Discharge

MICH Team

Combination Field Team

Department of Health Nurse

Queen Anne's County Paramedic

Mental Health/Substance Abuse Counselor

Telehealth Component

Hospital Based Pharmicist

Management

Health Officer / EMS Medical Director
Joseph A Ciotola, Jr., M.D.

MICH Home Visit

QAC DES Paramedic

- Program introductions and overview
- Physical examination assessment of physical health
- Health and home safety assessment
- Discuss home safety issues with the patient and need to modify identified hazards

QAC DOH RN

- Program introductions and overview
- Assessment of health history, Rx inventory, review of systems and current status
- Assessment of patient education and assessment of support system
- Referrals to appropriate health and community services

Health and Home Safety

The EMS Provider utilizes four evidenced based scales to determine home and personal safety of each patient.

The four assessment scales that will be utilized are:

- **The Hendrich II Fall Risk Model**
- **The Physical Environment Assessment Tool**
- **Alcohol Use Disorder Identification Test**
- **Drug Abuse Screening Test**

Telehealth

Mobile WiFi secured through oMG Mobile Gateway by Sierra Wireless.

- Verizon Hotspot used as a back-up

Panasonic Toughbook

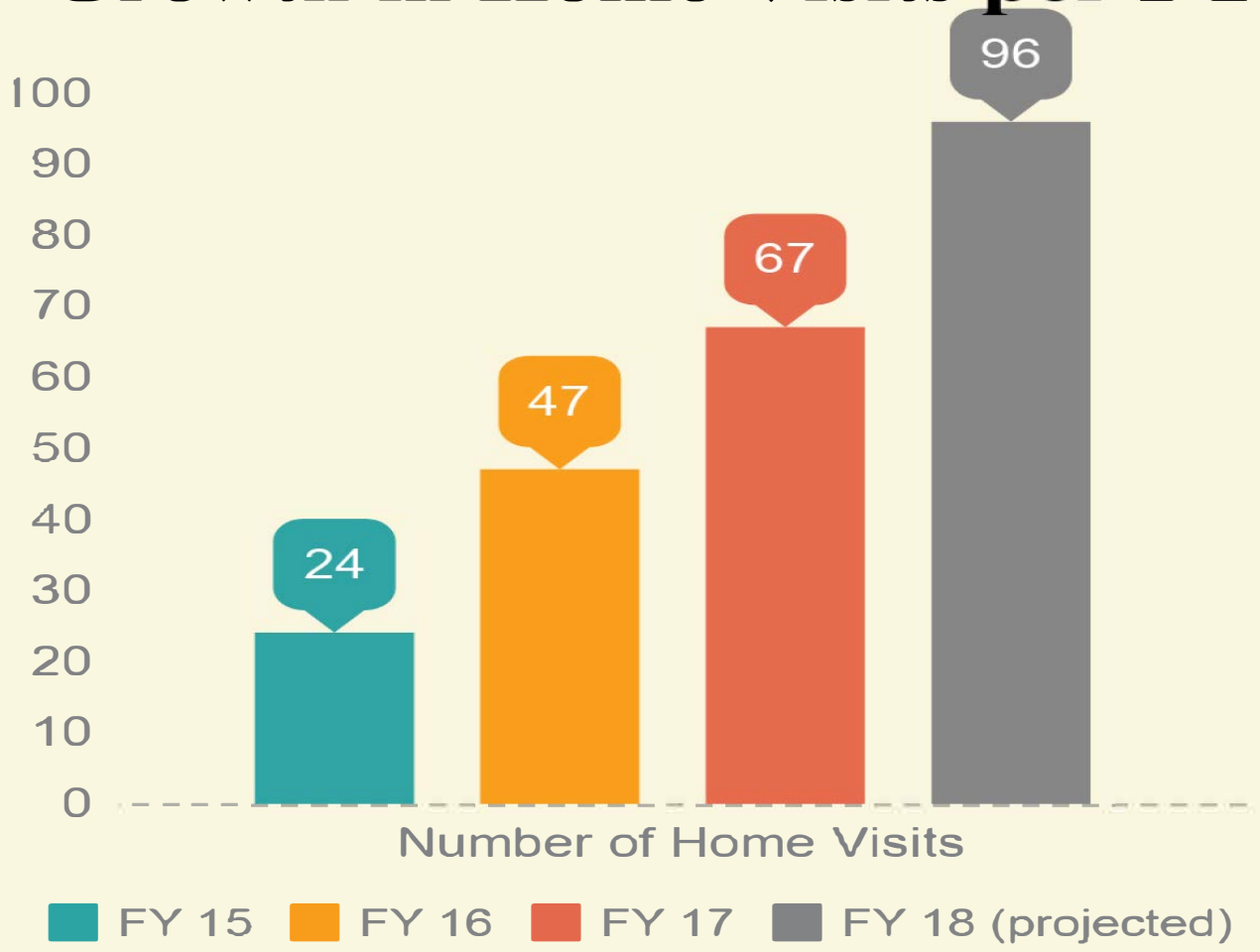
- Very durable. Will stand up to most rigorous environments

VIA3 Unity

- Provides several layers of end-to-end AES encryption
- Willing to sign a BAA to satisfy HIPAA HITECH Act
- Interoperablility and provides 720p HD video and file sharing

Data and Demographics

Growth in Home Visits per FY



Growth Percentage

From FY 15 to FY 16: **91.7%**

From FY 16 to FY 17: **43.5%**

From FY 15 to FY 17: **65.8%**

Data and Demographics

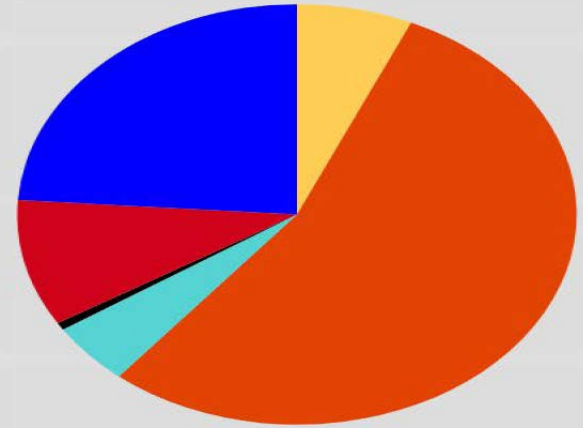
Total time spent on home visits

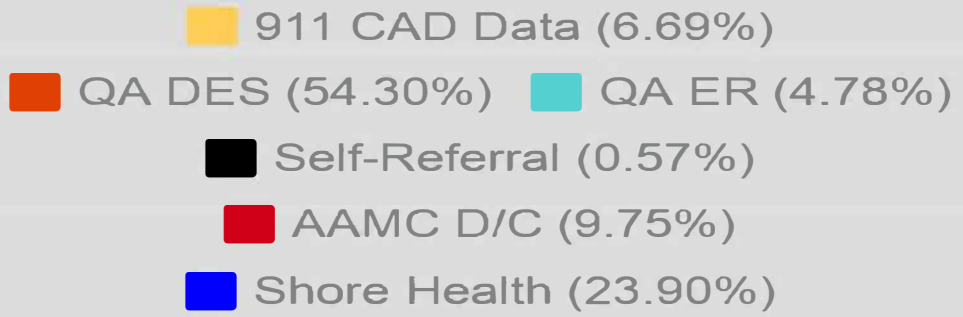
464 hours

Avg. time spent per home visit

81 minutes

Referral Sources





Data and Demographics

Age

18-64 (22.33%) 65+ (77.67%)

Race

African American (23.36%)
Caucasion (76.64%)

Gender

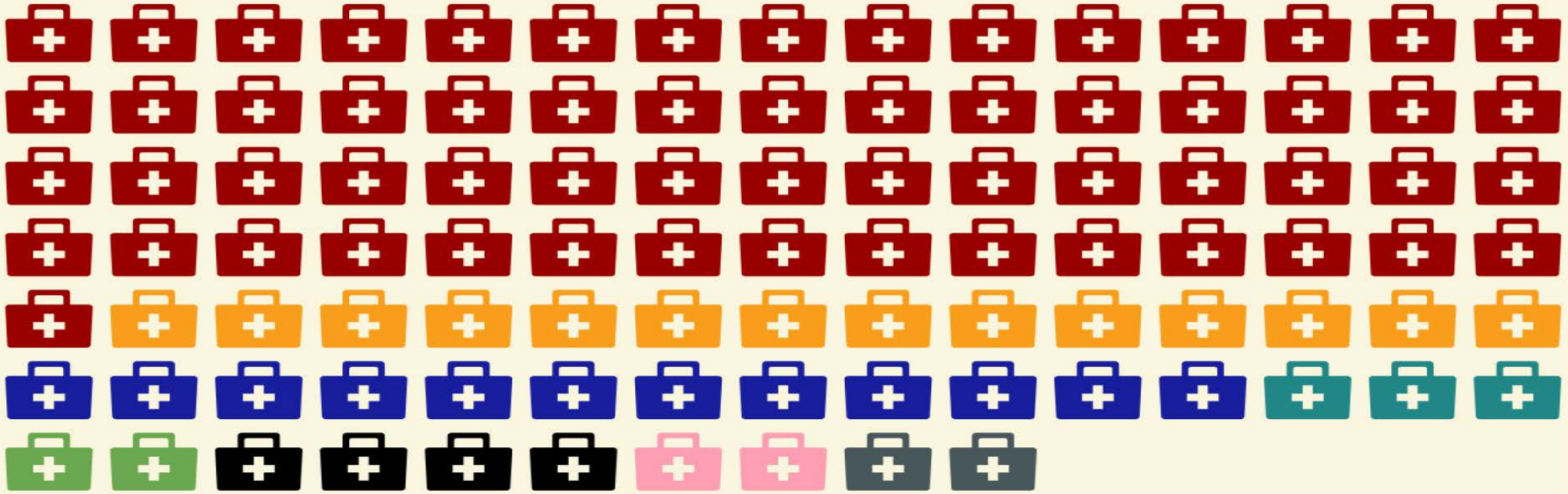
Female (55.81%) Male (44.19%)

Age Statistics

Oldest Patient:	98
Average Age:	69
Youngest Patient:	22

Data and Demographics

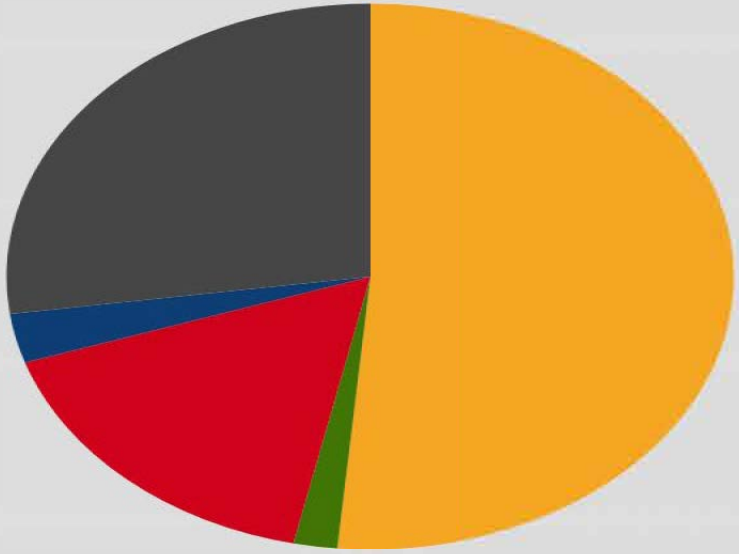
Insurance Breakdown



Medicare (61.36%) Medicaid (13.90%) BC /BS (11.53%)
United Healthcare (2.71%) Aetna (2.37%) AARP (4.07%)
Priority Partners (2.37%) Tricare (1.69%)

Data and Demographics

Education Status



HS Diploma or Equivalent (51.46%)

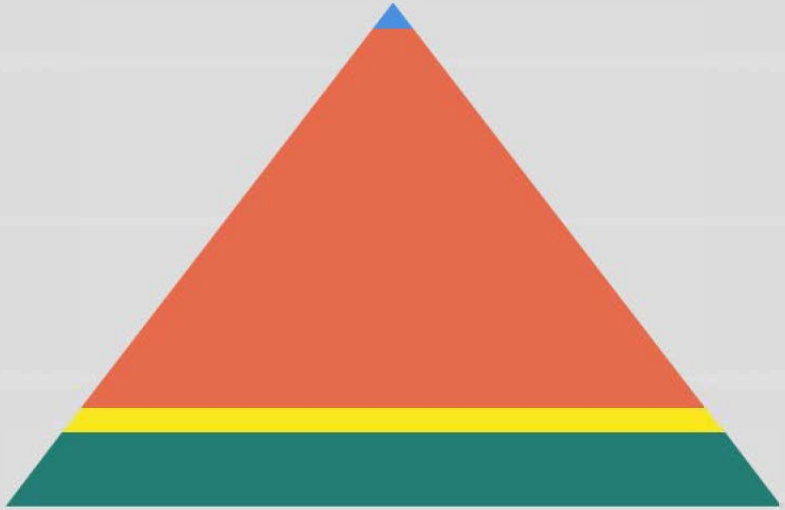
Associate's Degree (1.94%)

Bachelor's Degree (16.50%)

Master's Degree (2.91%)

Less Than HS (27.18%)

Employment Status



Unable to Work (14.53%)

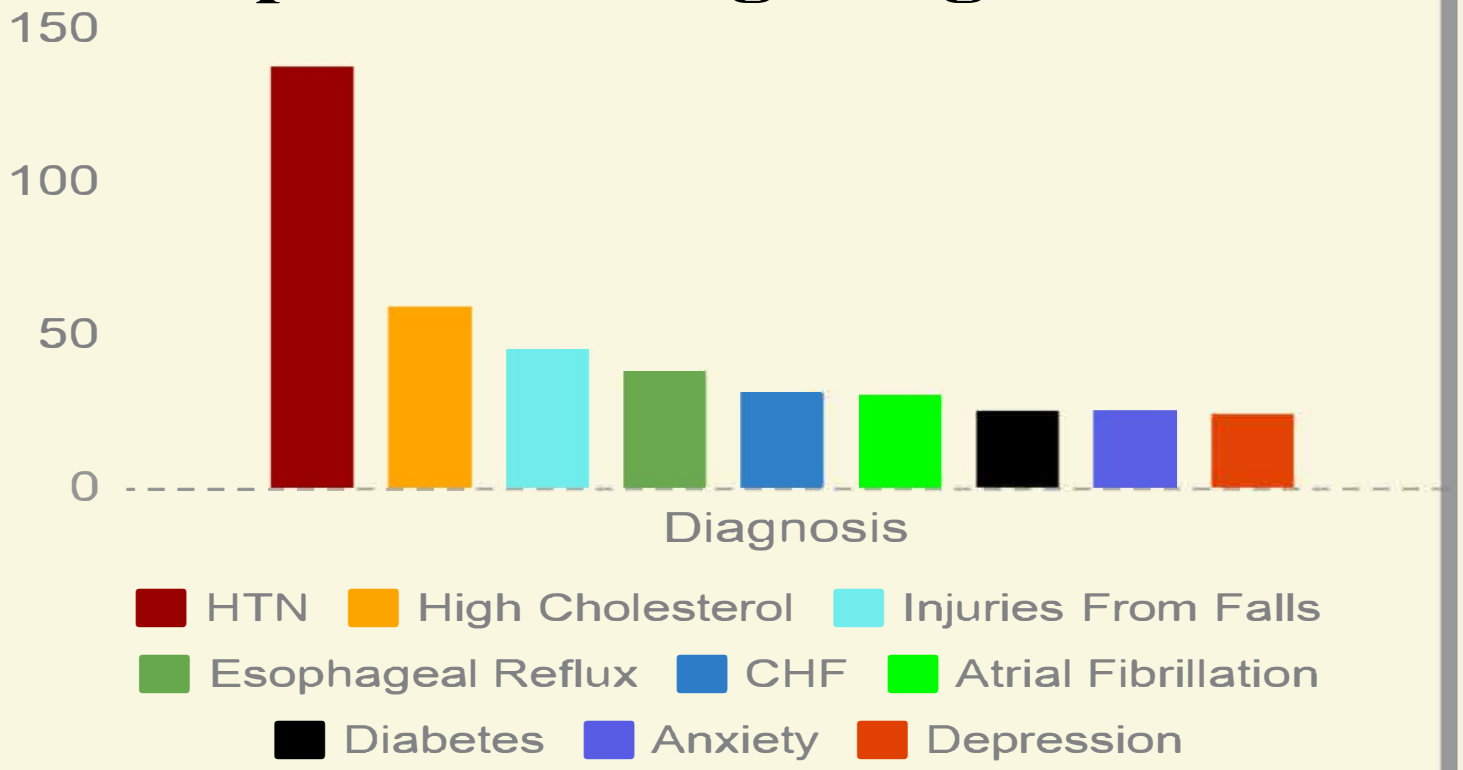
Unemployed (5.13%)

Retired (75.21%)

Employed (5.13%)

Data and Demographics

Top 10 Existing Diagnosis

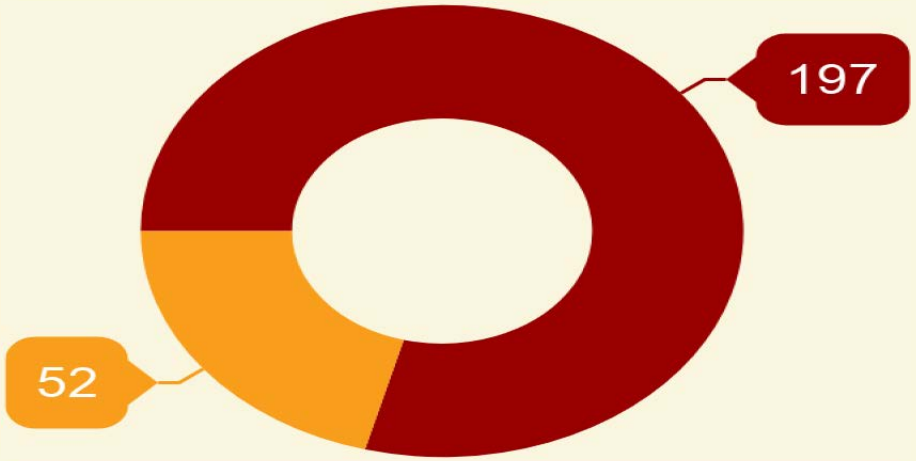


Avg. Number of Diagnoses/Patient

6.04

Data and Demographics

Results From Rx Inventories



No Problems Identified (79.12%)

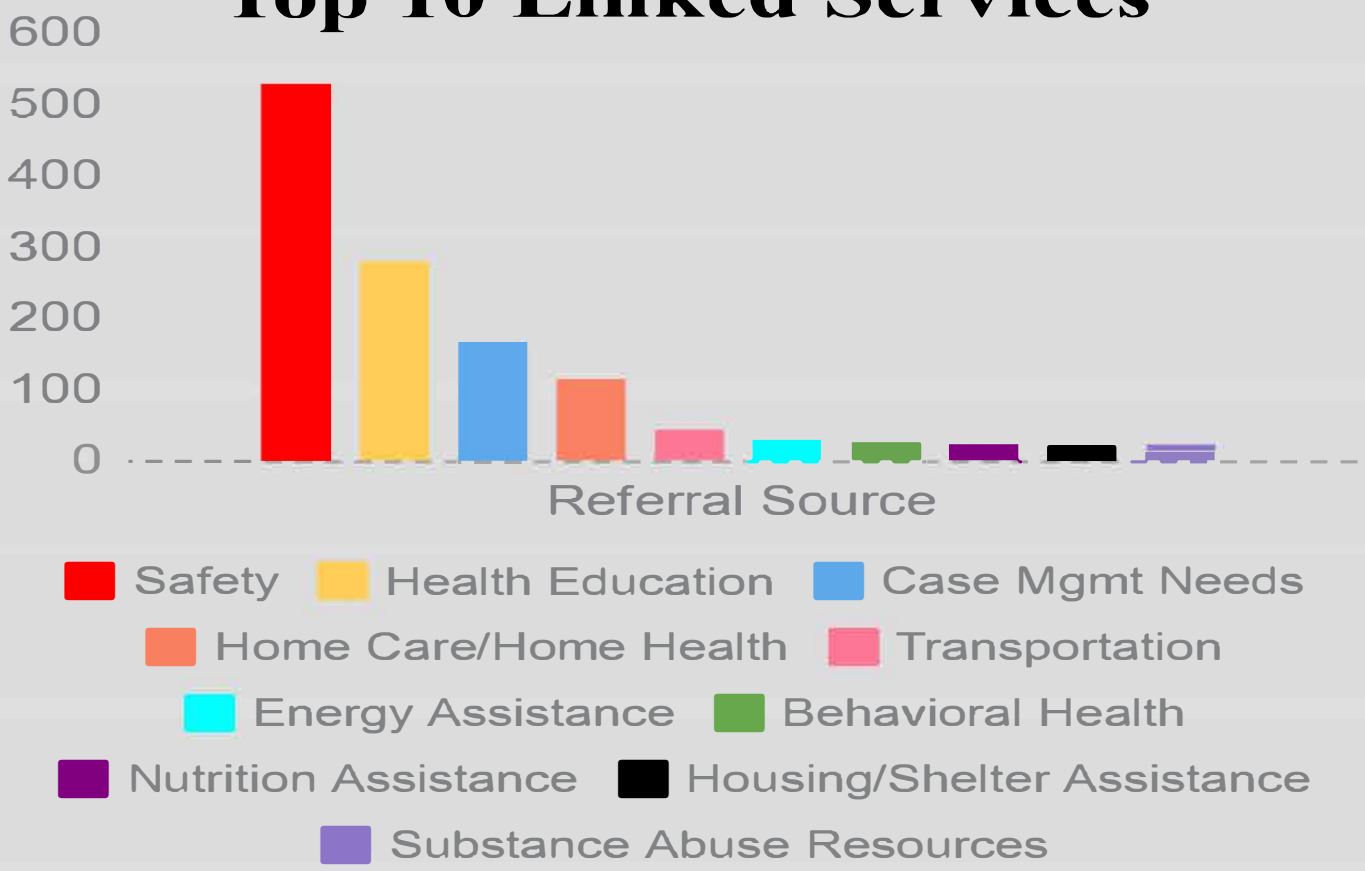
Problems Identified (20.88%)

Avg. Number of Medications/Patient

10.07

Data and Demographics

Top 10 Linked Services



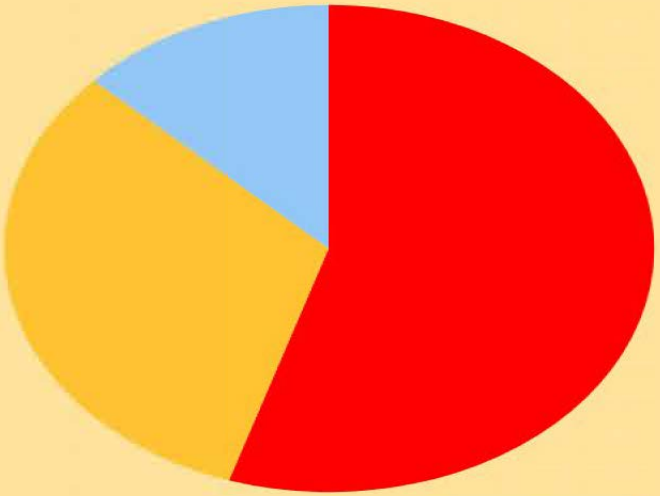
Total Services Linked to Patient

1375

Avg. Linked Services/Patient: 6.46

Data and Demographics

PEAT Score Results



Healthy (54.95%)
Less than Optimal (32.18%)
Referral Assistance (12.87%)

Safety Hazards

Unmarked prescription pill bottles

Space heaters next to curtains

Complete lack of smoke detectors

A light plugged into an outlet and dangling over the bath tub

Soft floors and sagging ceilings

Multiple layers of throw rugs

Extension cords running across rooms from wall to wall

Data and Demographics

911 Transport Data

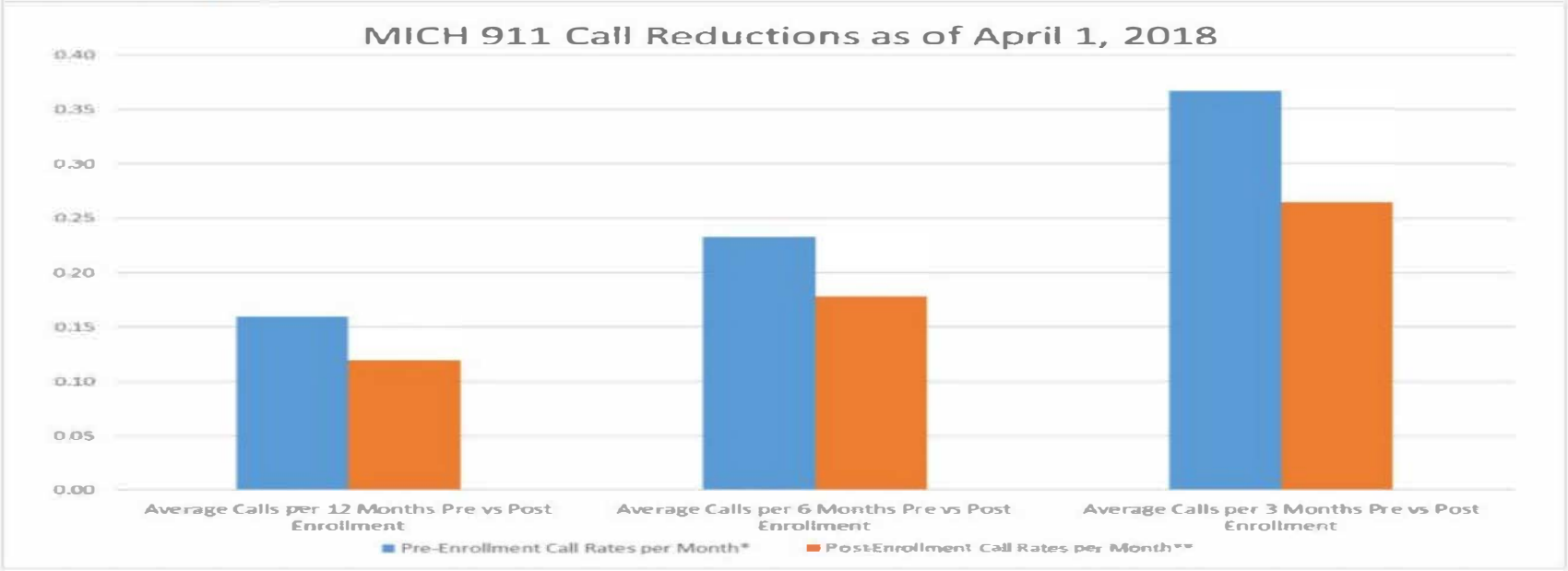
Mobile Integrated Community Health Program: 911 Call Reduction Analysis

The following data is based on the Queen Anne's County Mobile Integrated Community Health Program patient list as of April 20, 2018, and 911 call data from July 1, 2012-March 30,2018.

Pre-Enrollment Call Rates per Month*		Post-Enrollment Call Rates per Month**		% Reduction
Average Calls per 12 Months Pre Enrollment	0.16	*Average Calls per 12 Months Post Enrollment*	0.12	**25%**
Average Calls per 6 Months Pre Enrollment	0.23	*Average Calls per 6 Months Post Enrollment*	0.18	**23%**
Average Calls per 3 Months Pre Enrollment	0.37	*Average Calls per 3 Months Post Enrollment*	0.26	**28%**

*Pre-enrollment rates established as average number of 911 calls per month among all MICH participants with pre-enrollment call records.

**Post-enrollment rates established as average number of 911 calls per month among all MICH participants after enrollment. Patients were excluded if they died before the end of the reporting period.



Data and Demographics

ED Utilization Data

MICH – Hospital Utilization – 6 Months – (All Payer) (ED Only)

Pre/Post Analysis

Analysis of 6 Months of Visits Before and After the Enrollment Date For MICH - 7-14-17

The analysis is based on admissions before and after the enrollment date. Please select the number of months, the types of visit to include in the analysis and sorting order for other hospitals. Depending on the number of months selected, some participants might not be included in the analysis, if they do not have data for the entire period before and after the analysis. Number of Members with data for the analysis shows, the number of members that are included in the report for a given selection.

All Hospitals

Total Number of Members in the Panel: 110

Number of Members with Data for Analysis: 96

Number of Members with Visits during Analysis Period

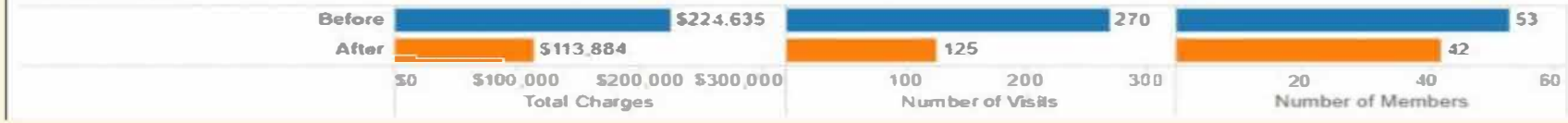
MICH – Hospital Utilization – 12 Months – (All Payer) (ED Only)

Pre/Post Analysis

Analysis of 12 Months of Visits Before and After the Enrollment Date For MICH - 7-1417

The analysis is based on admissions before and after the enrollment date. Please select the number of months, the types of visit to include in the analysis and sorting order for other hospitals. Depending on the number of months selected, some participants might not be included in the analysis, if they do not have data for the entire period before and after the analysis. Number of Members with data for the analysis shows, the number of members that are included in the report for a given selection.

All Hospitals

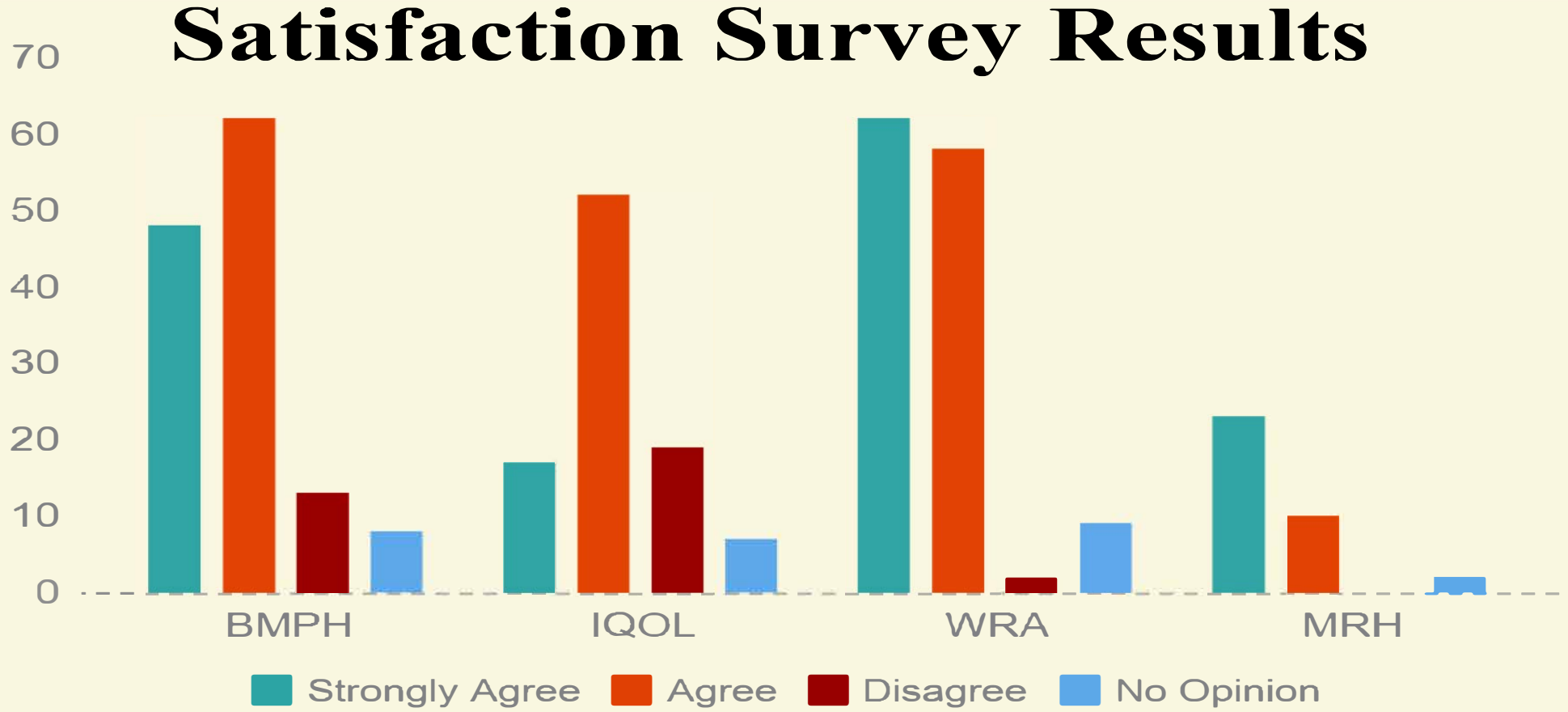


Total Number of Members in the Panel: 110

Number of Members with Data for Analysis: 66

Number of Members with Visits during Analysis Period

Data and Demographics



BMPH - Better able to manage your personal health

IQOL- Improved Quality of Life

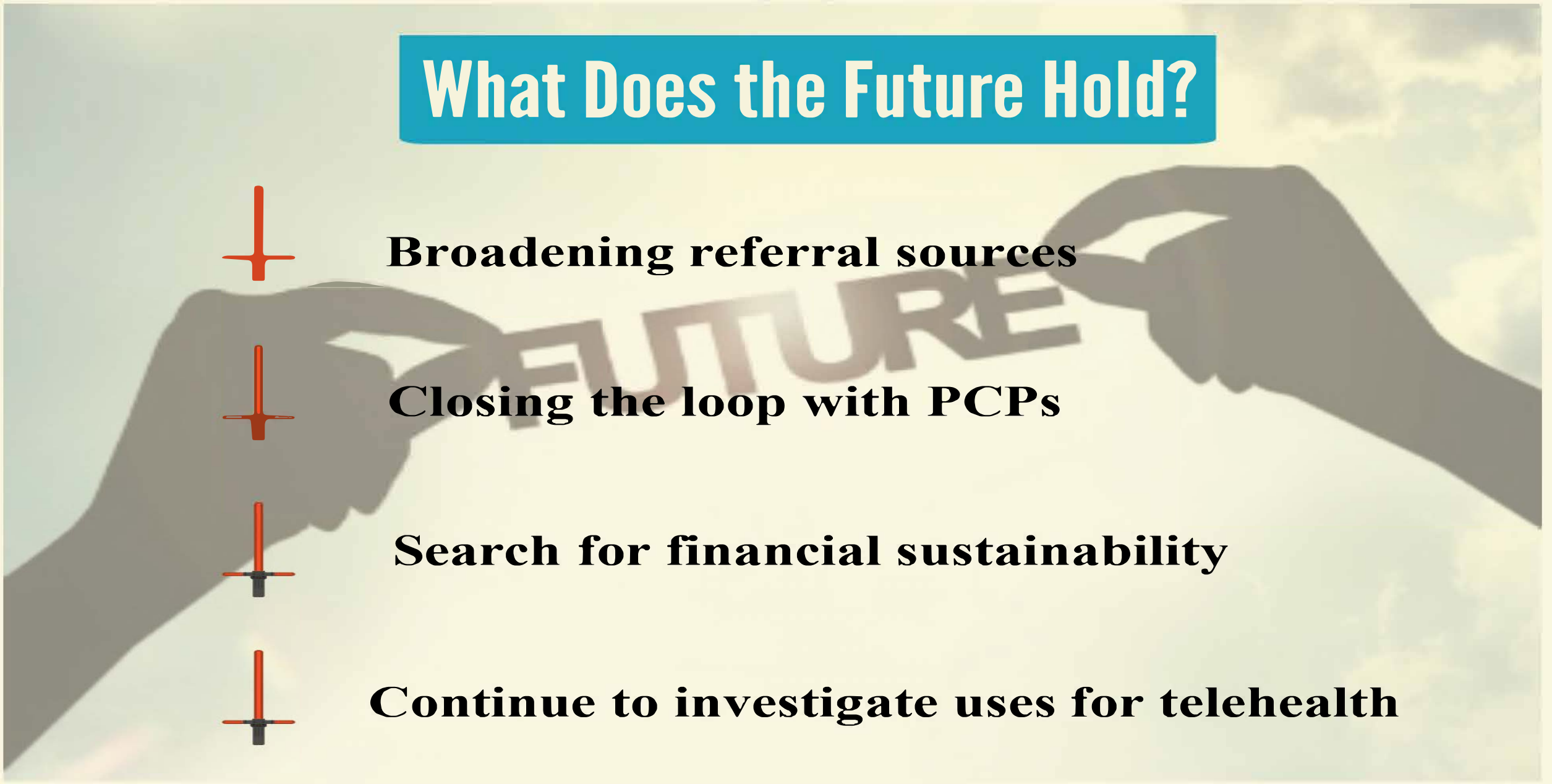
WRA - Were referrals appropriate/useful

MRH - Medication review was helpful

Challenges Faced

- Data Collection
- Dealing with Declinations
- Social Isolation and Mental Health
- Financial Sustainability
- Medically Complex Patients

What Does the Future Hold?



- Broadening referral sources
- Closing the loop with PCPs
- Search for financial sustainability
- Continue to investigate uses for telehealth

Questions?