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.
Demographics

Statistics

Population: 47,798
Population 65+ years: 8,269
Median age: 42.6
Population 65+ living alone: 2,420
Persons per square mile: 128.5
Queen Anne's County is one of only two counties in Maryland without a hospital.

One free-standing emergency department

The Queen Anne's Emergency Center in Queenstown
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 Hygiene
- QAC Area Agency on Aging
- Zoll Medical Corporation
Funding

- UMMS Shore Regional Health
- Queen Anne's County Government
- Queen Anne's County Dept. of Health
- Dept. of Health and Mental Hygiene
- QAC Addictions and Preventions Services
**MICH Criteria**

**Inclusion**
- Adults 18 years and older.
- Five 911 calls in any 6 month interval
- Resident of Queen Anne’s County

**Exclusion**
- Receiving Home Health Care or Visiting Nurse Agency services.
- Refusal to participate in the program.
Performance Measures

- To reduce the number of 911 calls by program participants by 25% during the fiscal year.

- To ensure that 75% of program participants have a primary care provider.

- To ensure that 90% of program participants will receive at least one referral to a community resource as the result of a MICH home visit.
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
911 Referrals

Addition of a service defined question to the eMEDS patient care report.

Answering the question is mandatory to achieve 100% completion of the report.

A referral report is ran every other day.
MICH Team

Combination Field Team

Department of Health Nurse / Nurse Practitioner

Queen Anne's County Paramedic

Behavioral Health Professional

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 NP / 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 three evidenced based scales to determine home and personal safety of each patient.

The three 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
Data and Demographics

Total time spent on home visits

211.2 hours

Avg. time spent per home visit

78 minutes

Referral Sources

- 911 CAD Data (17.82%)
- QA DES (67.33%)
- QA ER (5.45%)
- Self-Referral (0.99%)
- Chestertown ED (0.50%)
- AAMC D/C (0.99%)
- Easton SPACC (6.93%)
Data and Demographics

Age and Gender Breakdown

- 18-64 (36.51%)
- 65+ (63.49%)

Female (56.25%)  Male (43.75%)

Age Statistics

- Oldest Patient: 97
- Average Age: 69
- Youngest Patient: 32
Data and Demographics

Insurance Breakdown

- Medicare (70.83%)
- Medicaid (13.54%)
- BC/BS (6.25%)
- United Healthcare (4.17%)
- Aetna (2.08%)
- Self Pay (2.08%)
- Priority Partners (1.04%)
**Data and Demographics**

**Top 10 Existing Diagnosis**

- **HTN**
- **High Cholesterol**
- **GERD**
- **Injuries From Falls**
- **Diabetes**
- **Chronic Pain**
- **Depression**
- **CHF**
- **COPD**

**Avg. Number of Comorbidities**: 5.93
Data and Demographics

Results From Rx Inventories

- No Problems Identified (77.50%)
- Problems Identified (22.50%)

Avg. Number of Medications/Patient

9.74
Data and Demographics

PEAT Score Results

- Healthy (50%)
- Less than Optimal (30%)
- Referral Assistance (20%)

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
911 Transport Data

Reduction of 911 transports for patients who have been in MICH for at least one year:

35.4%
ED Utilization Data

Total number of ED visits that were avoided in one year by patients post-MICH enrollment

136.2
Data and Demographics

Satisfaction Survey Results

BMPH - Better able to manage your personal health
IQOL - Improved Quality of Life
WRA - Were referrals appropriate/useful

BMPH
- Strongly Agree
- Agree
- Disagree
- No Opinion

IQOL
- Strongly Agree
- Agree
- Disagree
- No Opinion

WRA
- Strongly Agree
- Agree
- Disagree
- No Opinion

Legend:
Challenges Faced

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

- Deciding what data to capture.
- Consolidating data from multiple different systems/services.
- Determining baseline data and control groups.
- HIPAA and data sharing.
Declinations

Getting people to say "yes" to a home visit often proves challenging.

Many patients are difficult to contact.
- Disconnected numbers.
- Won't answer when called.

Many patients are too proud to accept help from outside sources.

Make sure the program is adequately explained.
Social Isolation and Mental Health

Resistance to Senior Centers

Senior Centers are stigmatized

A large proportion of our elderly patients have undiagnosed depression.

Ageism.

Ignorance.

Shortage of services.

Affordability
Many patients have expressed frustration and despair with the inability to leave their house.

The lack of transportation contributes to feelings of loneliness.

Lack of transportation also contributes to noncompliance with medication refills and physician visits.
Home Safety Issues

Many of our patients have been found to be living in less than ideal conditions.

Some conditions are deplorable and unsafe.

With a limited budget, what can be done?
Many patients who are frequent 911 and ED users have long lists of ailments and comorbidities.

Complex medical patients will require multiple visits and resources.

An action plan will need to be developed with frequently scheduled follow-up visits.
What Does the Future Hold?

- Broadening referral sources
- Linking with post discharge clinics
- Search for financial sustainability
- Investigate and plan for the utilization of telemedicine