

Maryland Telehealth Transformation and Lessons Learned

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April 20, 2018

Maryland Health Care Commission

Role of the Center for Health Information Technology and Innovative Care Delivery

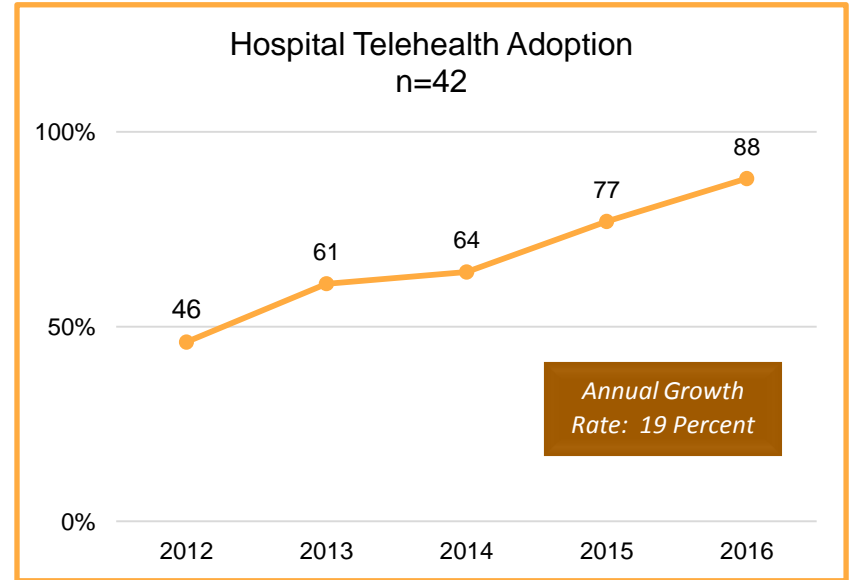
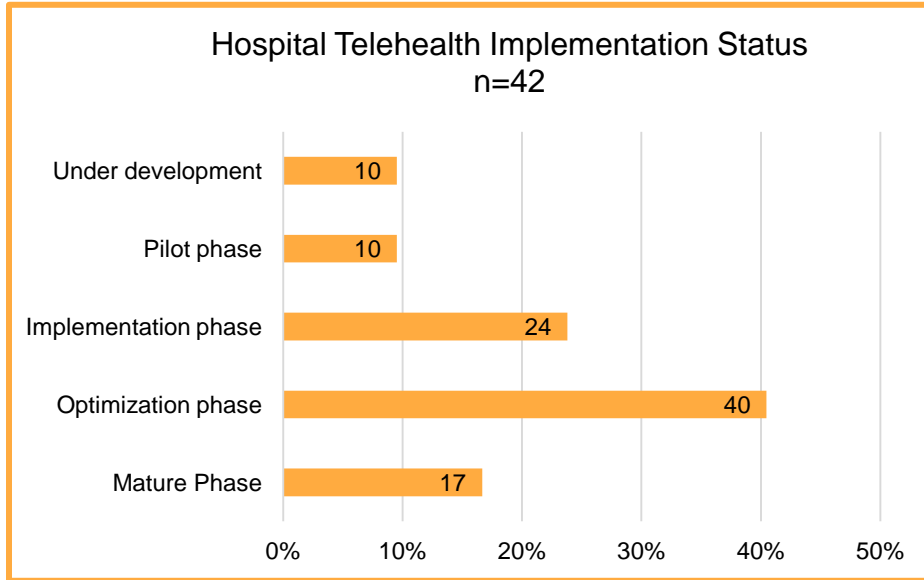
- Advance health information technology adoption to improve quality and safety in patient care
- Support new models of care delivery and payment
- Implement a statewide HIE and harmonize service area HIE efforts
- Balance the need for information sharing with strong privacy and security policies

Overview

- Telehealth adoption in Maryland
- MHCC funded telehealth projects
 - Transformation projects and impact
 - Key lessons learned
- Future telehealth initiatives

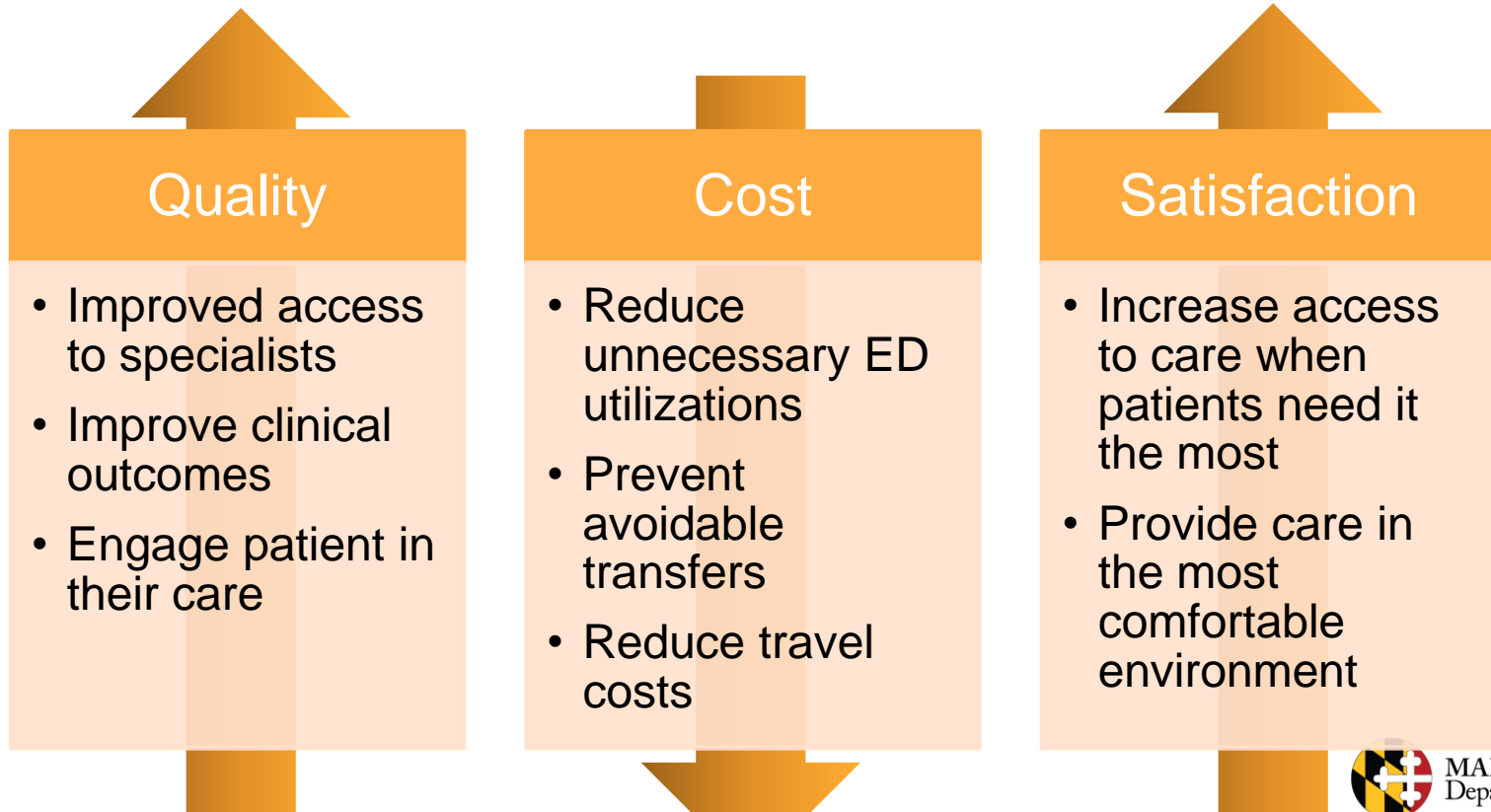


Maryland Telehealth Adoption



Source: Maryland Health Care Commission (2018). Health Information Technology: An Assessment of Maryland Acute Care Hospitals.

What is the Value of Telehealth?



Maryland Grant Funded Telehealth Projects



The Value of Telehealth Grants

- Diverse telehealth use cases provide an opportunity to test the effectiveness of telehealth with various technology, patients, providers, clinical protocols, and settings
- Challenges and successes from each round of projects are shared with the next – building on successes
- Lessons learned from these projects will inform:
 - Better practices and industry expansion efforts
 - Policies to support the advancement of telehealth
 - The design of telehealth programs across the State

Key Projects – Transformation

- *Support our Elders (SOE)* - Gilchrist Greater Living (Gilchrist)
- *Improving Inner City Pediatric Asthma* – Johns Hopkins Pediatrics at Home (Peds at Home)
- Valuable tool to facilitate a multi-disciplinary approach
- Reduced barriers to care for hard to reach and medically underserved patients

Remote Patient Monitoring

- **What:** Remote patient monitoring and videoconferencing provided at home
- **Why:**
 - Support case management and early intervention for chronically ill patients
 - Improve clinical data indicators
 - Reduce readmissions and admissions to an acute care hospital

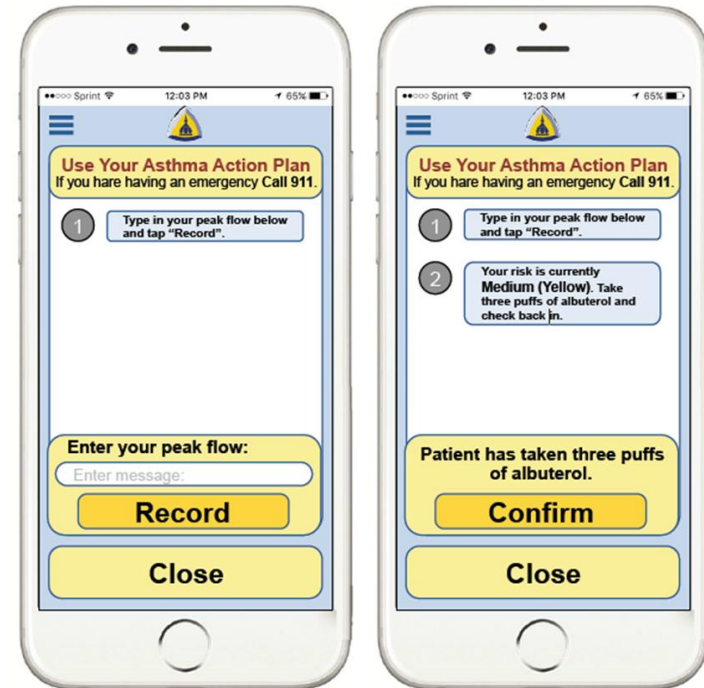


Intervention Impact (cont.)

- Approximate reductions in ED visits by 69%; hospital admissions by 40%; and readmissions by 45% compared to 12-month baseline
- Fewer urgent home visits were reported (about 1.9% less) as compared to all SOE patients
- High patient satisfaction was reported throughout the grant period and near 95 percent at conclusion

Improving Inner City Pediatric Asthma

- **What:** Manage inner city pediatric asthma patient receiving care at East Baltimore Medical Campus using a mobile, multimedia software platform for RPM
- **Why:**
 - Empower pediatric patients
 - Improve quality of life
 - Support clinicians

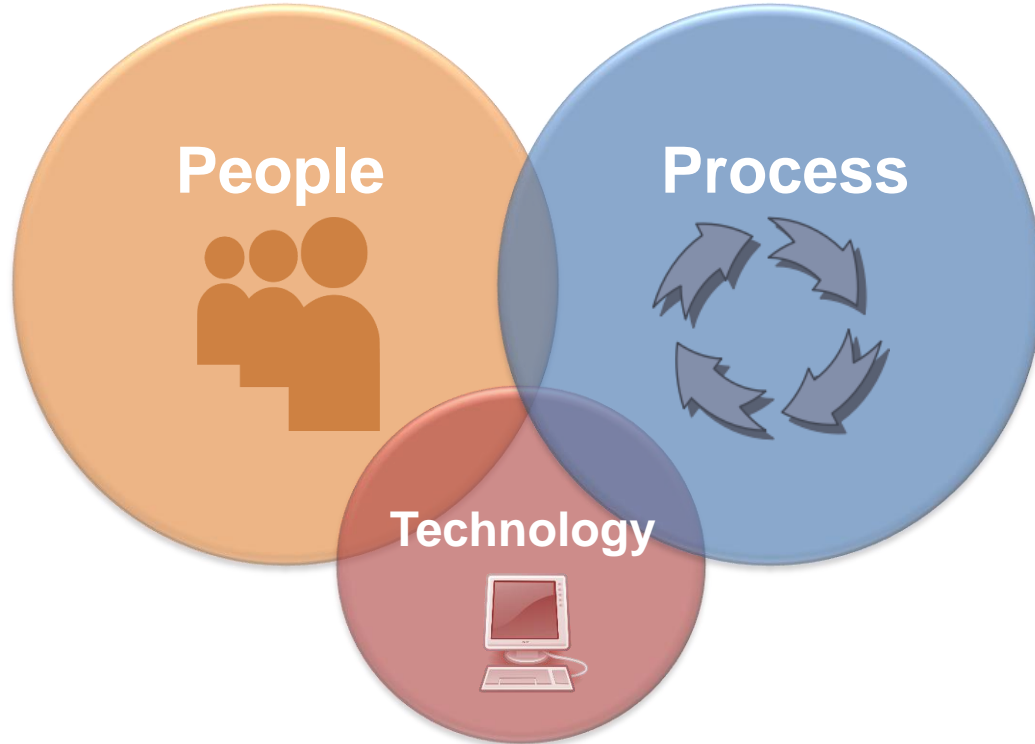


Preliminary Impact

- Patient engagement
 - Patients typically use the application six times monthly (more than the four times per month expected)
 - 87% of patients regularly use the application (four log-ins/month)
- Clinical resource utilization
 - 19% improvement in hospital utilization on program compared to 90-days baseline
 - 32% improvement 90-days after program as compared to 180-day baseline



Lessons Learned



Assess and Evaluate Technology

Selection of cost-effective, goal oriented, and sustainable technology solutions is crucial

Ensure technology functionality

Secure adequate Bandwidth and Wi-Fi connectivity

Conduct weekly technology checks

Bandwidth and improved reliability of wifi connectivity

Technology staff

Coordination with IT staff from each entity

Ability to train clinical staff

Ability to provide support to hospital or LTC facility when needed

Technology needs

Assess technology against defined criteria aligned with the project's and organization's goals

Targeted to meet the needs of the specific patient population that will use it

Integration of EHRs or other systems

Analyze and Adjust Workflow

- Develop workflow charts, and specific protocols
- Ensure seamless integration into routine
- Assess, reassess and adjust workflows when needed to optimize use



Staff Training

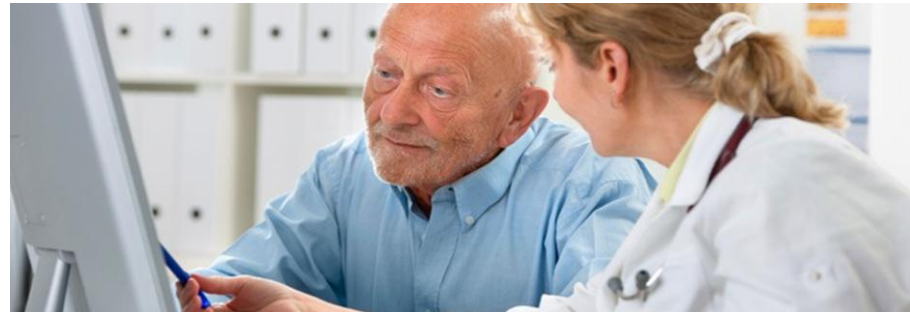
- Hold educational training meetings
- Develop online on-demand videos
- Training by mentor/champion
- Staff retraining and frequent opportunities to test the use of the telehealth equipment is important to ensure successful telehealth encounters and continued use and competencies



Educate and Engage Consumers

Patient acceptance of telehealth must be garnered through relationship building and maintenance

- Educating patients and families prior to the use of telehealth increases acceptance and willingness to use telehealth
- Use marketing material, including on-demand videos
- Ensure patient has a trusted single point of contact for technical and clinical issues
- Include family members
- Bring telehealth to places where community members are



Secure Physician and Nurse Champions

- Early identification and ongoing involvement of physician and nurse champions is essential to the success of a telehealth project
- Physician champions provide leadership and are role models for the whole organization, ensuring hospital staff are prepared to implement telehealth
- Nurse champions are essential in the long term care facility to support the patient, utilize the technology and communicate with hospital physicians



Confirm Professional Liability Coverage

- Carriers' coverage of telehealth practices may not be clearly outlined in the policy language
- Coverage can vary widely by carrier including
 - Telehealth as an included service
 - Requiring a supplemental policy
 - Not providing any coverage for telehealth services
- Physicians should work with carrier to determine if telehealth coverage is available and the extent of coverage allowed under their policy
- Carriers may assess telehealth practices including
 - Practicing over state lines
 - Providing treatment only to patients with a pre-existing relationship



Project Sustainability

- Most grantees are using operating budget funds to sustain their telehealth project; limitations exist on third party payor reimbursement (e.g., locations, types of providers, services, etc.)
- To ensure a financially viable telehealth project, sustainability planning must occur in parallel to implementation planning
- Small community based organizations (e.g., small practices, social services, etc.) are valuable partners in using telehealth to enhance care delivery; partnering with larger organizations in developing telehealth projects ensures better access to operational, technical, and financial support, and access to a more viable funding source

What's Next?

Telehealth Grants on the Horizon

- Medication management and reconciliation (MM&R)
 - Optimize MM&R through telehealth to improve care coordination, and provide pharmacists support to aid health care providers in managing therapeutic regimens
 - Use CRISP to support the sharing, increased awareness, and availability of reconciled and updated patient medication lists
 - Awarded April 2018 to University of Maryland Quality Care Network

Telehealth Grants on the Horizon *(Cont.)*

- Medication assisted treatment (MAT) for opioid use disorder treatment
 - Expand access to MAT with buprenorphine in underserved areas of Maryland for residents that have an opioid dependence
 - Goals:
 - Increase access to a licensed health care provider with expertise and legal authority to provide MAT with buprenorphine;
 - Support somatic and behavioral health care providers in addressing a needed service for their patients through an integrated approach;
 - Increase treatment retention and decrease positive drug screening
 - To be awarded May 2018



Telehealth Readiness Assessment Tool

- MHCC Staff selected a vendor to develop questions and a scoring methodology for a Telehealth Readiness Assessment (TRA) tool
- The Need:
 - Existing telehealth evaluation tools are generally not adequate to assess practice readiness; most provide checklist guidance and do not necessarily: 1) guard against biases of the organization and/or 2) provide a deep dive into assessing patient and caregiver readiness/candidacy for telehealth
 - Practices often misjudge their technical, financial, provider, and patient and caregiver readiness to adopt telehealth, and incorrectly assume that commitment equates to success



Telehealth Readiness Assessment Tool *(Cont.)*

- The TRA tool would allow users (mostly independent practices) to:
 - Determine practice readiness to implement telehealth and identify areas/gaps that should be addressed prior to implementing telehealth
 - Assist in identifying providers, patients, and caregivers that would be meaningful participants in a telehealth program
 - Assess practice readiness based on a numeric value derived from a series of questions where questions are weighted and an algorithm is used to provide scores in various domains; practice can use the output to inform decision making in addressing gaps

School-Based Telehealth

- At the request of the Senate Finance Committee, MHCC will convene a workgroup to identify deficiencies in existing policies related to school-based telehealth and develop an approach for correcting these deficiencies
- Recommendations from the workgroup will be used by MHCC to develop the final report due November 2019
- Meetings will occur every four to six weeks either in person or virtually beginning this summer through August 2019
- MHCC plans to fund two school-based telehealth pilot projects to help inform the workgroup's recommendations

ANY
QUESTIONS
?



The MARYLAND
HEALTH CARE COMMISSION

Contact and Publications

Reports

- [Advancing Population Health and Primary Care Transformation via Telehealth: A Compilation of 2015 & 2016 Telehealth Grant Final Reports \(2018\)](#)
- [Adoption of Telehealth – Office-Based Physicians \(2018\)](#)
- [Comprehensive Care Facilities: Adoption of Health Information Technology \(2018\)](#)
- [Health Information Technology: An Assessment of Maryland Acute Care Hospitals \(2018\)](#)
- [Remote Patient Monitoring Telehealth Grants: Brief and Final Reports \(March 2017\)](#)
- [Long Term Care and Hospital Telehealth Project Grants: Brief and Final Reports \(April 2016\)](#)

(access hyperlink of the above reports in slideshow mode)

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Visit MHCC Telehealth website for
more

http://mhcc.maryland.gov/mhcc/pages/hit/hit_telemedicine/hit_telemedicine.aspx

Appendix

Round One Grants: Completed October 2015

Goal: Demonstrate the impact of using telehealth on coordinating care delivery between a comprehensive care facility and a general acute care hospital.

<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
Atlantic General Hospital (Worcester County)	Video consultations between the Emergency Department (ED) and Berlin Nursing and Rehabilitation Center (BNRC) to reduce ED visits and hospital admissions of patients residing in a long term care facility (LTC).	\$30,000	\$87,922
Dimensions Healthcare System (Prince Georges County)	Laurel Regional Hospital and Prince Georges Hospital used mobile tablets to conduct video consultations with patients residing at two LTCs, Sanctuary of Holy Cross and Patuxent River Health and Rehabilitation Center to reduce unnecessary hospital transfers.	\$30,000	\$42,316
University of Maryland Upper Chesapeake Health (Harford County)	Remote telemedicine examinations and consultations between hospital and a fully equipped exam room and lab located at Lorien, Bel Air facility. Technology provided EKG monitoring, sonogram and multiple cameras.	\$27,888	\$45,633
Total		\$87,888	\$175,871

Round Two Grants: Completed December 2016

Goal: Demonstrate the impact of remote patient monitoring on hospital readmissions in various settings to reduce hospital encounters.			
<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
Crisfield Clinic, LLC (Somerset County)	Rural health clinic provided mobile devices for middle school and high school aged patients to assist them in managing chronic conditions including asthma, diabetes, childhood obesity, and behavioral health issues.	\$20,000	\$93,983
Lorien Health Systems (Baltimore & Harford Counties)	Skilled nursing facility and residential service agency used devices installed in patients' home to monitor chronic conditions including uncontrolled diabetes, congestive heart failure, and hypertension, and provided clinical support to improve care and avoid hospital admissions.	\$30,000	\$63,600
Union Hospital of Cecil County (Cecil County)	Hospital provided chronic care patients with mobile tablets and peripheral devices to capture blood pressure, pulse, and weight, and provide patient education to facilitate patient monitoring.	\$30,000	\$60,000
Total		\$80,000	\$217,583

Round Three Grants: Dec 2015 – May 2017

Goal: Demonstrate the impact of using telehealth technology to improve the overall health of the population being served and the patient experience.

<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
Associated Black Charities (Dorchester & Caroline Counties)	Community association assisted minority and rural communities with navigating the health care system; used mobile tablets to facilitate primary care and behavioral health video consultations with a licensed nurse care coordinator from Choptank Community Health System.	\$30,000	\$90,000
Gerald Family Care, LLC (Prince George's County)	Patient Centered Medical Home practice implemented telehealth video consultations services between patients at three family practice locations, and Dimensions Health System specialists provided orthopedics, gastroenterology, neurology, and behavioral health services.	\$30,000	\$66,726
Union Hospital of Cecil County (Cecil County)	Built upon the original grant providing chronic care patients with mobile tablets and peripheral devices to capture blood pressure, pulse, weight and glucose levels to facilitate patient monitoring, which supports data sharing with primary care and Emergency Department providers.	\$30,000	\$60,000
Total		\$90,000	\$216,726

Round Four Grants: June 2016 – December 2017

Goal: Demonstrate the impact of using telehealth technology to support value-based care delivery in primary care to expand patient access to health services tailored to the needs of different communities and patient populations.

<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
MedPeds, LLC (MedPeds)	MedPeds, a family medicine practice, uses a mobile device application with patients to facilitate 24/7 video-based telemedicine with MedPeds providers, make appointments, and access electronic health records with the goal of increasing patient access to primary care providers and improving outcomes for diabetic patients.	\$61,154	\$122,309
Gilchrist Greater Living (Gilchrist)	Gilchrist, a comprehensive primary care geriatric medical practice, provides senior patients with in-home telehealth monitoring devices to support case management and early intervention for chronically ill patients with the goal of reducing hospital admissions.	\$56,000	\$112,289
Total		\$117,154	\$234,598

Mobile Health Grant: December 2016 – June 2018

Goal: Demonstrate the impact of using mobile health to manage pediatric asthma in patients.

<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
Johns Hopkins Pediatrics at Home (JH PAH)	JH PAH is demonstrating the impact of using mHealth to manage pediatric asthma in patients served by East Baltimore Medical Center. The project utilizes a mobile application to conduct regular health assessments, track the patient's Asthma Action Plan, provide real time-time clinical and educational feedback, and facilitate secure communication between the patient and a JH PAH nurse.	\$100,000	\$200,000

Round Five Grant: January 2017 – July 2018

Goal: Demonstrate the impact of using telehealth technology to increase access to health care and improve population health in rural communities of the eastern shore.

<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
University of Maryland Shore Regional Health (UMSRH)	UMSRH will implement telehealth to provide palliative care services to patients within University of Maryland Shore Medical Center at Chestertown (UMSMC-C) and Shore Nursing and Rehabilitation Center at Chestertown with the goal of increasing access to palliative care services and reducing hospital encounters. UMSRH will also implement telehealth to increase access to emergency department psychiatric services at both UMSMC-C and Shore Regional Emergency Center at Queen Anne's and inpatient psychiatric consultations at UMSMC-C.	\$75,149	\$150,303

Round Six Grant: April 2018 – October 2019

Goal: Demonstrate the impact of using telehealth to advance medication management and reconciliation within a multi-disciplinary care team.

<i>Name</i>	<i>Use Case</i>	<i>Grant Award</i>	<i>Grantee Match</i>
University of Maryland Quality Care Network (UMQCN)	UMQCN will implement telehealth to optimize medication reconciliation to improve health outcomes, improve the quality of primary care, and reduce in-patient and emergency room costs for patients with COPD. UMQCN partnered with the e-Health Center at the University of Maryland School of Pharmacy, the University of Maryland Medical System Telemedicine Program (e-Care), and the University of Maryland Community Medical Group of the Eastern Shore for the project.	\$150,000	\$.