

*On behalf of the three partner hospitals,*

*Western Maryland Regional Medical Center,*

*Frederick Memorial Hospital,*

 *And*

 *Meritus Medical Center*

*Response to Request for Proposals*

*HSCRC Transformation Implementation Program*

Presented to the
Maryland Health Services Cost Review Commission (HSCRC)

*December 21, 2015*

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# 1. Target Population

The Alliance Regional Partnership (comprising Western Maryland Regional Medical Center (WMHS), Frederick Memorial Hospital (FMH), and Meritus Medical Center (MMC)) organized teams including members of each hospital’s care management department, to analyze the utilization and demographic data for the region to develop the Care Management Models to address the health care priorities for our collective communities. We used a data-driven approach to hone in on the greatest health needs in our tri-county region and used this information to identify target populations and care models that will have a significant impact on cost, quality, and outcomes. The geographic scope of the Trivergent Health Alliance, LLC (Alliance) is the three counties that our hospitals and affiliated providers serve: Allegany, Frederick and Washington counties (the Region). More than 455,000 Marylanders live in our Region and will be reached through our efforts. The Alliance Regional Partnership target population is detailed by zip code in Appendix A, Table 1. The incorporated cities and towns in the Regional Partnership target population included within the geo-political county boundaries are detailed below:

*Incorporated cities and towns within the Alliance service area*

|  |  |
| --- | --- |
| **Allegany County** | Cumberland, Frostburg, Barton, Lonaconing, Luke, Midland, Westernport |
| **Frederick County** | Brunswick, Burkittsville, Emmitsburg, Frederick City, Middletown, Mt. Airy, Myersville, New Market, Rosemont, Thurmont, Walkersville, Woodsboro |
| **Washington County** | Sharpsburg, Williamsport, Hagerstown, Clear Spring, Hancock, Boonsboro, Smithsburg, Funkstown, Keedysville |

The need to form a partnership to collaborate, and develop and integrate programs that target the Medicare population throughout the region is becoming more urgent each year. Allegany and Washington counties have a significantly higher percentage of the population over the age of 65 compared to the statewide total (18 and 14 percent, respectively, compared to 12 percent). According to the Maryland Department of Planning’s population projections, the population in these three counties is aging both in real terms and as a percentage of the population.

Additionally, analyses of county-specific data show significant health and social needs throughout our three counties.[[1]](#footnote-1) Table 2 below summarizes these data to show the top chronic conditions by population, in the Region, demonstrating the significant overlap in chronic disease burden across populations and across counties. These findings are based on data from community health needs assessments, hospital data, and other National, State and Regional sources.

***Table 2. Chronic Conditions within the Top 3 Most Common by Population, in One or More Alliance Counties***

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total Population1 | Medicare FFS2 | High Utilizers with Chronic Conditions3 |
| Hypertension | **🗸🗸🗸** | **🗸🗸🗸** | **🗸🗸🗸** |
| Lipid disease/Hyperlipidemia | **🗸🗸🗸** | **🗸🗸🗸** | **🗸🗸** |
| Diabetes | **🗸🗸** | **🗸** | **🗸** |
| Mental health condition - other (not cognitive or mood disorders) | **🗸** |  |  |
| Mental health condition – mood disorder |  |  | **🗸** |
| Cardiac arrhythmia | **🗸** |  | **🗸🗸** |
| Arthritis |  | **🗸** |  |
| Ischemic heart disease |  | **🗸** |  |

Note: Check marks indicate the number of counties in which the chronic condition was within the top 3 most common

1 HSCRC data, 2012, based on hospital data, all inpatient and outpatient encounters

2 CMS CCW data, 2012, based on all Medicare FFS encounters

3 HSCRC data, 2012, based on data for patients with 3 or more admissions or observations stays within the year

In addition to analyzing which chronic conditions were the most prevalent in the Region, we also compared the prevalence of each chronic condition to the statewide average to determine which chronic conditions were more of a burden in these counties as compared to the state as a whole.

Table 3 below exhibits these comparisons.

***Table 3. Chronic Conditions Statistically Significantly Higher than the Statewide Average by Population, in One or More Alliance Counties***

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total Population1 | Medicare FFS2 | High Utilizers with Chronic Conditions3 |
| Mental health condition – mood disorder (incl. depression) | **🗸🗸🗸** | **🗸🗸🗸** | **🗸🗸** |
| COPD | **🗸** | **🗸🗸🗸** | **🗸🗸** |
| Mental health condition - other (not cognitive or mood disorders) | **🗸🗸** |  | **🗸🗸🗸** |
| Lipid disease/Hyperlipidemia | **🗸** | **🗸🗸🗸** | **🗸** |
| Arthritis | **🗸** | **🗸🗸🗸** | **🗸** |
| Hypertension | **🗸** | **🗸🗸** |  |
| Coronary artery disease | **🗸** |  | **🗸** |
| Ischemic heart disease |  | **🗸🗸** |  |
| Diabetes |  | **🗸🗸** |  |
| Cardiac arrhythmia | **🗸** |  |  |

Note: Check marks indicate the number of counties in which the chronic condition were significantly higher, statistically than the statewide average, at the p<.05 level

1 HSCRC data, 2012, based on hospital data, all inpatient and outpatient encounters

2 CMS CCW data, 2012, based on all Medicare FFS encounters

3 HSCRC data, 2012, based on data for patients with 3 or more admissions or observations stays within the year

Substance abuse has also been noted by each of our hospitals as a key area of need. Substance abuse is generally more pervasive among younger populations than in the Medicare population, although it is frequently a secondary diagnosis in the patient population with more than 3 chronic conditions. Nevertheless, given its impact on a person’s ability to effectively cope with and manage other health concerns, and ultimately the effect on health care costs, it is a critical area of focus – for all patients, regardless of payer.

By reviewing this data, and particularly the findings from our respective Community Health Needs Assessments (CHNAs), we identified that the burden of these chronic diseases and the associated utilization of hospital services and associated cost is extensive, with a great need for better care coordination and engagement of patients. We have therefore defined the Regional Partnership’s target populations and focus as:

* **Patients with Behavioral Health (BH) diagnoses.** This includes all BH diagnoses, with the top five being Depression, Anxiety, Bipolar, Psychosis and Substance Abuse, with a focus on patients who have had an inpatient BH stay and/or Emergency Visit (ED) visit with BH diagnosis.
* **High utilizers of inpatient services who may benefit from Complex Care Management.** These patients have three or more Inpatient/Observation discharges in a year with diagnoses of diabetes, cardiac disease including Congestive Heart Failure (CHF), and/or respiratory disease including Chronic Obstructive Pulmonary Disease (COPD), as well as anticoagulation patients.
* **High utilizers of Emergency Department (ED) Services**. The patients who have six or more ED visits in a year.

Our hospitals are independently tackling some of these conditions and high-cost patient populations; however we believe that a more robust, collaborative approach that allows us to share resources and best practices will be most effective at moving us toward achieving the triple aim of CMS and the goals of Maryland’s innovative All-Payer Model. Our initiatives will have the most significant impact on high-cost Medicare patients, many of whom have multiple chronic conditions as well as underlying behavioral health issues. However, our efforts are not limited to Medicare patients. We expect patients from all payers to benefit from the enhanced care management and collective delivery system improvements that we will make as part of this process. Consistent with the state’s goals and the intent of the HSCRC Regional Planning grant, the Alliance vision is to transform the health care delivery system in the Western region of Maryland into one that provides coordinated, high-quality physical health care, behavioral health care, and community-based services and to implement population health strategies that result in improved health care costs, quality and outcomes.

# 2. Proposed Program or Intervention(s)

We concluded during our Regional Planning Process that we would define our initiatives as either Model of Care (MOC) initiatives that will target current health system patients through interventions at the point of care; or as Population Health (PH) initiatives that take an upstream approach with the goal of community-wide prevention. We expect that our approach will most significantly impact our highest-need, highest-cost Medicare and dual eligible patients, who will benefit from intense and targeted intervention; as a secondary but equally important focus, these initiatives will impact patients from all payers who meet our target population criteria. The improved processes and workflows that we implement across the region will strengthen our health systems and lower all-payer costs.

The Regional Partnership has defined four interventions based on assessment of internal data, CHNA data, and CRISP data. Three of these interventions will directly impact patients and are designed to address conditions and utilization patterns identified in our data analysis. The fourth is an infrastructure investment, to enhance regional hospital and community based resources needed to work with these patient populations. Our interventions are summarized and numbered in Table 4 below, for ease of reference throughout this application, and then described in further detail, including target populations, services, and the roles of participating partners.

Table 4. Summary of Proposed Alliance Interventions/Strategies

|  |  |
| --- | --- |
| Intervention/Strategy | Description: |
| Strategy 1: Improve Behavioral Health care management, detection and community awareness (BH) | **Implement a multi-faceted Behavioral Health (BH) strategy including outpatient BH case management, early detection, and effective and timely support for at-risk patients**. The strategy also includes a community-wide educational, Population Health element aimed at reducing stigma and increasing understanding of behavioral health needs. This strategy will be implemented via several initiatives:* **1.1:** Implement BH Care Management leveraging the best practice model currently in place at WMHS.
* **1.2:** Integrate BH into primary care to identify patients at-risk and link them to appropriate resources.
* **1.3:** With community partners, reduce stigma and increase understanding of BH needs through community health education, such as Mental Health First Aid (MHFA).
 |
| Strategy 2: Implement Complex Care Management for HU populations | **Expand access to Complex Care management (CCM) for hospital** **High Utilizer (HU) populations with certain chronic disease conditions,** building on and refining a successful practice model at Alliance hospitals, and utilize standard common metrics for a regional model of care. |
| Strategy 3: Reduce Potentially Avoidable Emergency Department (ED) Visits | **Reduce potentially avoidable (PAU) ED use through**:* Improved care coordination and transitions
* Provision of high-touch support to ED High Utilizers to identify needs early, aid in care transitions, and engage community-based support
 |
| Strategy 4: Create a Regional Care Management Education Center (RCMEC) | **Establish a regional center to offer standardized and responsive care management education programs** serving Alliance member Hospital Care Management (CM) professionals including Community Health Workers, and Alliance partner CM and staff working with HU and at risk patients. |

**Relationship to Alliance Hospitals Strategic Plans**

The Strategic Planning Reports for the Alliance Hospitals provide detail that the four Strategies listed above will enable them each to achieve their Hospital specific transformation goals surrounding improvement in quality, service, performance and culture. Specifically the four strategies will support their transformation goals to reduce potentially avoidable utilization (PAU), improve the quality of care delivered, reduce admissions and readmissions, improve access to care at the right setting and the right time, increase outreach and education to improve community health, wellness and engagement.

|  |
| --- |
| Strategy 1: Implement a multi-faceted Behavioral Health (BH) strategy including outpatient BH care management, early detection, and effective and timely support for at-risk patients. |

Our BH strategy has 3 complementary elements, including a population health intervention.

* 1. **Implement BH Care Management, leveraging the best practice model currently in place at WMHS.**

**Description of services:** The goals of this intervention are to: a) Complete comprehensive psychosocial assessments of adult patients with a primary BH diagnosis; b) Link adult patients to BH treatment and support based on individual needs; c) Reduce BH Emergency Department (ED) revisits within 30 days of ED visit, and d) Reduce BH readmissions to Behavioral Health Units (BHU) within 30 days of discharge. This intervention adapts and spreads the WMHS Behavioral Health Care Management (BHCM) program, utilizing a team approach focused on supporting patients upon discharge from the BHU and by preventing the first admission to the BHU by diverting the patient from the ED. To achieve these goals, the team works directly with the patient to secure an outpatient provider and other resources to address their needs. All patients that have contact with the ED and see a crisis counselor as well as all patients discharged from the BHU will be offered case management services, including connections with community resources to help promote overall wellbeing. Referrals may include, but are not limited to, targeted case management, psychiatric rehabilitation services, residential services, nursing homes, personal cares homes, home health care, adult day cares, primary care centers, behavioral health programs outpatient and inpatient rehabilitation services, and crisis beds. The BHCM team can also provide crisis interventions in the community and make on-site referrals to crisis beds to avoid processing in the ED. This patient-centered method engages patients by meeting them in a geographic location where they are to provide the right care, at the right place, at the right time.Patients and providers will be educated about alternatives to using the ED as a crisis service.

**Target population**: The target population for this initiative is all adult individuals discharged from the ED or from an inpatient hospital stay with a primary behavioral health diagnoses (including mental health or substance abuse diagnoses). In FY15, this totaled about 7223 unique patients across our three hospitals.

**Roles of participating partners:** This intervention will improve the relationship between hospital Behavioral Health Professionals (BHP) and community partners who serve patients with BH needs by increasing collaboration, and expanding access to and referrals for community based programs. To be successful in reducing ED visits and readmissions, the BHCM will need to link patients with more appropriate community resources and work with community partners to address social determinants. By incorporating this strategy, community partners will be engaged in care planning and provision of less expensive care.

**Infrastructure and workforce needs**: 10.5 FTE Masters prepared licensed Behavioral Health Professionals (BHP) are needed to support this initiative. FTE requirements were determined per hospital based from WMHS BHCM caseload per FTE, and then extrapolating that out to meet the volume needs for this target population. The allocation of FTE by hospital are provided in Section 8.

**Relationship to existing programs:** This intervention builds on WMHS BHCM model to reduce BH readmissions by expanding coverage 24 hours a day, seven days a week at WMHS and replicating the core elements regionally. Specifically for MMC and FRHS the addition of BHP to their existing outpatient care management infrastructure will provide the additional specialized resources to more readily work with this target population and coordinate a plan of care across the continuum.

**Population Health Impact:** This intervention directly connects to the population health measure in SHIP that measures ED visits related to behavior health.

* 1. **Integrate BH into primary care to identify patients at risk and link them to appropriate resources.**

**Description of services:**

The goals of this initiative are to:

1. Leverage the identified industry best practice, as deployed by MMC, as a Regional Model of Integrated Behavioral Health Care open to all regional Primary Care Practices (PCP).
2. Standardize an annual depression screening process to identify and treat at-risk adult patients. All adult patients will receive PHQ2 depression screening during their office visit in a 12-month period; those who screen positive will be given a PHQ9 screening which is more in-depth.
3. Improve coordination of behavioral health care using an evidence-based protocol to include specialty referrals, education, and linkage to community supports as indicated.
4. In conjunction with the Community Advisory Council (CAC) create plans for connecting screened individuals at low risk to community based resources to help address social determinants impacting BH needs.

To achieve integration of BH into primary care, we will implement universal depression screening for adult patients at PCP practices and provide support of BHP in practices through addition of BHP resources via this grant. This will also ensure appropriate referrals and community linkages for patients based on their screening results.

While some Primary Care Practices (PCP) are screening for depression, the process of reporting and tracking is not consistent. To standardize the screening and implementation, a phased deployment will be used. Deployment will start with hospital employed primary care physicians, to identify the most efficient and effective methods to incorporate the PHQ-2 and PHQ-9 depression screening tools into the existing workflow. Once the workflow is standardized, we will integrate the process into the community based physician network/ACO providers affiliated with the Alliance Sponsor Hospitals. We will standardize the data collection of screening results so that they can be captured and reported electronically for the Regional Partnership.  We will uniformly risk stratify patients from their screening results as: normal (score of 1-4), mild depression risk (5-8), moderate risk (9-14), moderately severe risk (15-19), and severe risk for depression (20-27). Early intervention with patients at risk can facilitate identification of resources to initiate treatment in the outpatient settings and thus prevent the need for costly ED and Inpatient utilization. BHP at the practices will enable timely response to patients at greater risk and strengthen the integration of care with the PCP.

**Target population** – All adults seen annually in participating primary care practices and those adults who screen positive for depression using PHQ-2 and PHQ-9.

**Roles of participating partners:** This intervention will support Primary Care practices in early identification and treatment of patients at risk for depression, and will improve education of PCPs and their practice staff around BH needs and available resources. This initiative relies on collaboration with existing primary care providers and their practice staff. They will be engaged in the development of processes, training and documentation. The in-practice physical presence of the BHPs will support improved care planning between BHPs and PCPs and enhance integration of the patient’s physical and behavioral health needs, including integrated care plans in the PCP electronic health record.

**Infrastructure and workforce needs:** 11.8 FTE Masters- level prepared BH Professionals (BHP) are needed to support to a regional total of 46 hospital-employed primary care, and/or hospital affiliated ACO primary care providers. MMC’s experience regarding deploying BHPs in employed primary care practices provided the needed empirical data to determine the FTE’s needed to meet the demand volume for WMHS and FRHS. FTE per Hospital detail is provided in Section 8. The expectation is that a BHP will be on site in PCP practices on a pre-scheduled basis to provide the BHCM services.

**Relationship to existing programs:** This intervention builds on MMC’s outpatient CM model with existing infrastructure that included two BHPs to provide initial support of 9 primary care practices. Within 6 months of initiation, the need for integrated BHPs in the primary care setting has exceeded the current infrastructure necessitating the additional FTE request to be able to handle the volume associated with this defined target population.

**Population Health Impact:** This intervention is expected to facilitate early BH interventions by providing the PCPs with a BHP who can assess and initiate a treatment plan after the PCP has determined BH intervention is needed. On-site access to BHPs will close the gap and improve timely access to care and interventions. By screening all adults and offering more timely and appropriate BH care, the severity of need should be more controlled in the population.

* 1. **With community partners, reduce stigma and increase understanding of BH needs through community health education, including Mental Health First Aid (MHFA)**

**Description of Services:** The goals of this Population Health initiative are to:

1. To collaborate with the Community Advisory Council, identify target groups external to care delivery models for training and outreach, such as:
	* Law enforcement
	* Community Health Workers (CHW)/peer-lay outreach
	* Teachers
	* Senior providers such as senior centers, nursing homes, assisted living
	* Health care providers/medical care providers/FQHCs, hospice
	* Individuals impacted with/by behavioral health needs
2. Increase awareness through creation of appropriate materials for use with Community Advisory Council members/LHICs.
3. Improve appropriate access to needed behavioral health services
4. Conduct 30 MHFA trainings a year, reaching over 500 people yearly.

This strategy contributes to the larger overarching Population Health goals for the State and Regional Partnership by working with community partners to develop consistent messages and coordinate education and outreach. MHFA, (a 200+ hour orientation, education, and training program), teaches participants how to listen to and support individuals in crisis or developing behavioral health needs, such as the use of zone cards that identify warning signs and appropriate actions for individuals to use in self-management of various BH conditions. Through expansion of and regionalization of infrastructure and common goals to support increased delivery of trainings, we expect to improve the knowledge and number of individuals trained to identify and intervene with individuals who show signs of needing mental health supports, and expand capacity into the community. We also plan to train our new cadre of Community Health Workers in MHFA, as a core element of their ability to work effectively with patients. MHFA trainings will also be offered to providers, care managers and office staff. Inclusion of behavioral health awareness may be added as part of mandatory diversity training. Finally we also hope to engage high functioning patients as advocates who are able and willing to help with community education regarding BH to help reduce the current stigma associated with individuals with BH needs. In addition to MHFA, the Alliance will work with the CAC and LHIC to create consistent understandable messages regarding behavioral health for use throughout the region.

**Target Population:** Adults who are engaged with community health education and outreach; also the provider staff of the Alliance Sponsor Hospitals.

**Roles of participating partners:** The MHFA trainings that are at the heart of this initiative will be led by the Core Service Agency in Allegany County, the Washington County Mental Health Authority, Brook Lane (the only agency that treats children; an area for future expansion), and the Frederick Mental Health Association. During the Community Partner Information and Feedback sessions conducted in November, Western Maryland’s Area Health Education Centers (AHEC) verbalized willingness to partner with us to coordinate, and teach this program; this collaboration is in discussion. The Alliance proposes to improve infrastructure by adding a Regional Coordinator role to support region-wide planning and execution of services. The Alliance has worked with the CSAs in all 3 counties to deliver MHFA and the Regional Coordinator will support CSAs and community partners as part of the development of additional community education focused on BH, provide a linkage across counties in managing enrollment, materials and regional public relations and marketing efforts.

**Infrastructure and workforce needs:** 1 FTE Regional Coordinator (RC) and funds for training materials will be needed. Though certified trainers are available in the region, and may be available for some training, a RC will need to be hired to ensure availability of an instructor and to coordinate and facilitate community partner engagement, (to help teach the curriculum if possible), and utilization of the training. As MHFA and the other community health education/outreach are integrated into other education requirements and processes are established, the coordination time will be reduced and a portion of the RC’s time can be reallocated to facilitate the community engagement coordination required to support Strategy 4 near the end of year 2, and fully in year 3. Community partnerships will impact the direct costs of this strategy. This position can provide the MHFA training if needed but also can identify certified trainers to facilitate training in the region. Further description is provided in Section 8, budget narrative.

**Relationship to existing programs:** This intervention builds on the work of the CSAs in each of our counties, and MHFA training for Alliance hospital-employed staff will be done as adjunct to our other direct care interventions with patients needing BH and complex care services.

**Population Health Impact:** This intervention is expected to directly support improved awareness of mental health needs and expand the ability of staff and community to provide early intervention and referral.

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| **Strategy 2: Expand access to Complex Care management (CCM) for hospital** **High Utilizer (HU) populations with certain chronic disease conditions, building on and refining successful practice model at the Alliance hospitals, and utilize standardize common metrics for a regional model of care.** |

**Description of Services:** The goals of this strategy are to 1) Reduce inpatient admissions and readmissions for HU patients with certain chronic diseases; 2) Replicate and refine components of local best practices for identifying, engaging and supporting HU patients into a complex care management program; and 3) Establish a common reporting process to track outcomes including costs avoided for patients enrolled in CCM. In order to achieve these goals, the Alliance will invest in a common set of processes and a staffing model to engage HU patients in an intensive care management model that will:

1. Identify HU patients with chronic diseases including CHF, diabetes, COPD or other respiratory conditions, and patients with diseases requiring anti-coagulation therapy;
2. Engage the patients via referral and direct communications and outreach;
3. Enroll the HU patients in an multidisciplinary complex care management model that assigns a primary CM, assesses needs and designs a patient specific care plan to ensure monitoring and follow up;
4. Utilize the multi-disciplinary team for the specific needs identified for each patient;
5. Focuses on patient self-management skill development and appropriate coordination with PCP/Specialists;
6. Ensures safe discharge from CCM when patient is determined to have met care plan goals and can safely self-manage.

Patients will be identified for CCM by a variety of means, including:

* Identification by the inpatient team via assessments for discharge planning and high risk screening tools
* Identified by outpatient team, primary care provider through screening and utilization trending
* Referrals are accepted from providers, staff, patients, family members, etc.

Each hospital currently has a variety of transition/outpatient programs designed to address these chronic needs which include outpatient CMs working in PCP offices, Transition Clinic, telephone follow up, and support for disease management services. This strategy will build on the successful model of the Center for Clinical Resources (CCR) at WMHS, which provides integrated multidisciplinary resources to support HU patients, and also includes use of pharmacists (Pharm-D), respiratory therapists (RT), social workers (SW), nurse practitioners (NP), registered dieticians (RD), and Community Health Workers (CHW) to work with HU patients, in addition to RN CMs. CHWs will be used to visit and meet with CCM patients and will complete a modified assessment to identify barriers to the care plan that may be identified in home or community settings. The Primary Care Provider or the Nurse Practitioners (NPs) in the transition clinics will be utilized to provide hands on patient care for complex chronic patients, develop treatment plans in conjunction with patients' primary provider where necessary, and provide hands on patient care for those patients without a PCP. The team members will create Patient Centered Multidisciplinary Care Plan which includes the physical, psychosocial and social determinants of health.

**Target population -** To understand the specific characteristics of its HU population, the Alliance analyzed all patients at the three hospitals who met the following criteria for the period 7/1/14- 6/30/15. As a result we defined our target population is defined as HU patients who:

* Have 3 or more inpatient discharges and/or observation stays of any length in a 12 month period and who have the following primary diagnoses: (Excludes discharges from OB, special care nursery and rehab; Includes discharges from BH units and palliative care services)
	+ Endocrine, nutritional and metabolic disease and immunity disorders
	+ Disease of the Circulatory System
	+ Disease of the Respiratory System
	+ Diseases Requiring Anti-Coagulation Therapy

Using specific diagnoses within these categories, we identified 1,153 HU patients among our three hospitals who accounted for 2,067 admissions, 565 readmissions, and inpatient/observation charges amounting to $20,323,779, and readmission charges of $6,867,767. During further analysis, we discovered that when looking at all reasons for admission, not just the specific primary diagnoses above, we found that these 1,153 HUs actually account for 5,079 visits, 1,506 readmissions and $52,500,880 in total charges. Therefore we believe implementing a CCM program for these HU patients will have a significant reduction in inpatient utilization and associated costs.

A high percentage of these patients exhibit an underlying BH condition (an area to be pursed as expansion of this Strategy that could directly be supported by Strategy 1 as its capacity grows).

All zip codes in primary and secondary areas for our hospitals were included. Due to the large geographical areas encompassed by zip codes in the region no trends were noticed except for a specific tract within the City of Cumberland MD. Additional analysis of this tract demonstrated that a significant percentage of high utilizers live in this area, but may not have one of the specific diseases above but contribute significantly to the readmission costs incurred at WMHS. In addition it was noted that there is limited access to primary care providers to serve these individuals. Therefore as part of this grant application, we have requested NP staff to work with those patients who have trouble accessing or who do not yet have a PCP.

**Roles of participating partners:**  We anticipate that our CCM initiative will include significant communication with PCP practices as we develop and share integrated care plans for the HU population. Care management for the HU population will also include linkages withBehavioral Health Providers, Skilled Nursing Facilities, Pharmacies, Adult Day Care, Assisted Living, Members of the LHIC Health Departments, and community service programs offered by our Area Agencies on Aging like Meals on Wheels, Associated Charities, and Mission of Mercy.

**Infrastructure and workforce needs:** In order to implement our CCM strategy, we will need significant investment of 45.7 FTE in interdisciplinary care management staff at all 3 hospitals. We have identified the following needs (please see Section 8 for allocation by Hospital):

RN CM: 6.0 NP: 3.5 RD: 4.0 RT: 2.0 CHW: 20 SW: 5 Pharm-D: 3.2 Support: 2.0

These staffing levels are based on a ratio of 1 CM to 125 HU patients, 1 CHW to 50 HU patients, while other types of staff are based on WMHS and MMC service structure, including dedicated pharmacy resources for medication management, Respiratory Therapist to support COPD self-management, RD to provide nutrition care, and SW CM for patients with comorbid BH and social needs.

**Relationship to existing programs:** As described above, this will build on existing CM programs, but provide standard levels of resources and be built to meet the volume needs as defined in our analysis.

**Population Health Impact:** Our expectation and goal is that as our capacity grows to enroll more patients in CCM who ultimately are able to self-manage, and as our care coordination with PCPs and specialists improves, we will begin to see concomitant improvements in the ability of teams caring for HU patients to manage and drive education and wellness activities upstream as part of population health improvements.

**Strategy 3: Decrease Emergency Department (ED) Potentially Avoidable Use (PAU) through improved care coordination and transitions and Provision of high-touch support to ED High Utilizers to identify needs early, aid in care transitions, and engage community-based support.**

**Description of Services:** Our Third Strategy deals with the decrease of ED use and PAU from all populations; this will necessitate alignment with ED providers and PCPs. The Alliance is fortunate that all three Hospitals have the same contract ED group of providers, which will enable these MOC initiatives to be more easily deployed across the region. This strategy is designed with a goal of reducing avoidable ED visits by implementing 4 initiatives:

* Implement a Friday “Tuck In” service to call and check in with identified HU patients before weekends. Based on results that were shared by an ACO in Colorado that implemented the program and reduced ED utilization by over 50% in the targeted HU population. Implementation of this program involves RNCM calling targeted ED HUs to complete a focused assessment regarding the patient’s current status to identify any needed prescription refills and assessing for any needed interventions to preclude emergency treatment through initiation of a care plan or facilitation of any needed communication and engagement of appropriate PCP or community based resources.
* The addition of CHW staff to work directly with ED HU patients to provide high touch support through a variety of interventions including: coaching, advocacy and connection to community based services, assistance with entitlement programs, transportation, housing, employment, primary care, medication resources. CHWs are able to meet the patients in their home environment to complete risk/needs assessments in order to ID risk factors, including social determinants of health to then collaborate with a CM nurse and patient to develop and implement a patient centered care plan. Timely, hands on intervention will help to ensure coordination of care and follow up with the patient to ensure barriers are not present. If present, mitigation plans and engagement of the appropriate community based resources can be coordinated by the CM nurse to prevent the patient from reaching the crisis point, thus avoiding ED use. Hand held mobile technology can facilitate capturing and transmitting risk assessment data collected by the CHW to the CM nurse timely. The hand held technology also provides a platform to track progress to ID early trends to cue early engagement of a CM nurse. Resources necessary to provide this technology are described in Section 8, Budget Narrative.
* Implement a paramedic outreach service in each county that would involve geographically hot spotting ED HU via EMS calls to pro-actively reach out via telephone to provide a warm paramedic connection to known ED HU patients and assess for risk factors and need, thereby proactively preventing an ED visit. If needs are identified, the RNCM can be alerted to engage with the patient and facilitate coordinating resolution of the need, or engaging the appropriate level of community based support to prevent a crisis EMS call.
* Implement a tele monitoring process/service for a subset of ED HU patients. Tele monitoring equipment, (blood pressure machines, scales, pulse oximetry, glucometers, and chronic disease education), will be deployed to a sub-set of the EU target population based on pre-defined criteria, who would benefit from CM nurse guided self-monitoring, and reporting techniques. Once equipment is deployed, the data trends will be monitored by RNCMs to allow for early detection of needed intervention. This early notification of undesired trends initiates the RNCM to engage with the patient to do a more thorough assessment, incorporate the patient and all care team members needed (RT, Dietician, Pharmacy, PCP, NP, BH CM, external community partner resources) to ensure the patient has the needed community based support.

All initiatives are designed to increase patient involvement in their care, and work with ED providers and PCPs by improving hand-offs and communications through workflow and process changes.

**Target population -** To understand the specific characteristics of its ED HU population, the Alliance analyzed all patients at the three hospitals who had 6 or more ED visits from 7/1/14 – 6/30/15 with no associated hospitalizations with the following primary diagnostic service (and associated ICD-9 code):

* Disease of the nervous system (320-359)
* Disease of the respiratory system (460-519)
* Disease of the digestive system (520-579)
* Disease of the genitourinary system (580-629)
* Disease of the musculoskeletal system and connective tissue (710-739)
* Symptoms, signs, and ill-defined conditions (780-799)
* Injury and poisoning (800-999)

Our analysis showed that these visits are primarily associated with complaints of pain, headaches, upper respiratory infections, asthma and dental pain issues.

In addition, we identified that a second target sub population for Strategy 3 is comprised of the 1,153 unique patients from the complex care management HU target population from Strategy 2. These HU inpatients eligible for CCM enter the system via the ED, but also use ED services that may not always result in hospitalization. We calculated (based on data from one hospital) that on average, the complex care management high utilizers from Strategy 2 had 2.3 ED visits annually that do not lead to a hospitalization; therefore we will target them in this ED strategy. (Please note that to avoid duplication we are not counting patients with BH diagnoses in this strategy, as they are identified and addressed in Strategy 1).

Based on the data analysis, 3171 unique patients in both of these categories across our 3 counties met criteria for ED PAU interventions. They account for 1.96% of total ED unique patients, 9.55% of all ED visits in FY 15 and their ED charges total $10.48 M, or 9.38% of all ED charges.

**Roles of participating partners:**  This strategy will have significant collaboration with several key partners. This includes ED physicians, who will have access to CHWs stationed in the EDs to engage with HU patients when they present and work to identify and educate patients on alternate resources and appropriate ED use. They will also work to connect patients to their PCPs or find PCPs for those who are unattached to a care team. Additionally, this strategy will work directly with EMS companies through coordinating resolution of needs for HUs who make frequent calls to EMS. The Friday Tuck-In service will necessitate RNCMs working closely with PCPs to develop care plans and address HU needs before they become urgent over a weekend. Patients receiving tele monitoring services will be triaged by the RNCM, who will utilize early warning alerts from the technology and deploy appropriate community based services to address the issue/need.

**Infrastructure and workforce needs:** This strategy will require investment in staff to include .33 FTE RNCM at each hospital to make Friday Tuck-In calls, 9.6 FTE CHW across all 3 hospitals and 3.0 FTE Paramedics, one per hospital. The technology needed for this Strategy includes tele monitoring equipment and hand held technology for the CHW’s with to complete risk assessments and timely transmission of data to a Nurse, as well as track progress.

**Relationship to existing programs:** These interventions are not currently in place in any Alliance hospital, but will strengthen the existing and expanded Care Management programs.

**Population Health Impact:** Similar to our CCM strategy, our expectation and goal is that as our capacity grows to engage with HU patients at the time of ED use and to proactively work with ED HU patients through CCM and CHW touches, we will begin to see concomitant improvements in the ability of teams caring for HU patients to manage and drive education and wellness activities upstream as part of population health improvements.

**Strategy 4: Establish a Regional Care Management Education Center (RCMEC) to offer standardized and responsive care management education programs** **serving Alliance member hospital Care Management (CM) professionals including Community Health Workers, and Alliance partner CM and staff working with HU and at risk patients**.

**Program Description:** This strategy represents an investment in infrastructure building with the goal of supporting and investing in the training and education needed to support the workforce necessary for enhanced regional care management and population health initiatives. This center is an enabling strategy that supports the other strategies to ensure consistent model of care application across the region. It will enable standardized staff onboarding and continuous staff education, focus on critical workforce competencies, and will be made available to and foster common standards, regular communication and sharing of best practices among Alliance hospital and partner staff. During the planning phase we surveyed our current care management staff across the region. The results indicate there is heavy interest in educational topics regarding care management strategies, community resources, regulatory changes, healthcare trends, and advanced care planning. This regional education center will provide a standard approach to address all these educational needs identified by the current care management staff of this region. Our goal is to administer a survey with our partner CMs to identify where their educational needs and our interests by end of the first year of operation.

**Target population:** Regional Care Partnership-Employed and affiliated health systems across the continuum of care that provide that provide Care Management services, including community partners, ambulatory, inpatient, emergency, behavioral health and specialty services. We expect the target population to be about 500 staff from our three hospitals and partner organizations. As of December 2015, the target population among the sponsor hospital employed staff is approximately 250 individuals, including: nurses, social workers/mental health professionals, community health workers and ancillary staff performing support functions. There will be a specific focus in supporting the onboarding of new staff hired to meet the 3 strategies discussed in this proposal. In addition, the RCMEC will provide education and training services to Care Management professional and ancillary staff from our partner organizations. We expect that this will include an additional 250 individuals who all work in the Washington, Allegany and Frederick counties.

**Roles of participating partners:**  While the initial focus will be in meeting the training and education needs of newly hired Alliance care management team members and special attention to the onboarding of large numbers of CHW’s, the RCMEC is envisioned to be a regional resource. Partner entities with similar staff will be able to participate in trainings, and community leadership will be invited to identify key issues for collaboration and communication that could be further improved as part of educational offerings. Additionally, as the outcomes of the Alliance initiatives are measured, the RCMEC will serve as vehicle to share the results, engage community partners in closing gaps identified, and be the place where regional CM staff are oriented to relevant new regional programs and relevant state policy. RCMEC will allow for leveraged investments in technology to support CM activities (such as licensing virtual learning programs for CMs and CHWs). Finally, the RCMEC will serve as the coordinating entity for Regional MHFA trainings.

**Infrastructure and workforce needs:** The Alliance plans to hire 4.0 FTE to support the RCMEC, including 1.0 FTE each RN CM Education Specialist, a Bachelors prepared Health Educator with a Mental Health Focus, Community Partner Liaison (CPL) and a Coordinator. These staff would be responsible for overall CM and BHCM education programs and schedules, registration management, and curriculum development. The coordinator will support the MHFA program including delivering trainings. The CPL will be dedicated to working with community agencies and ensuring collaboration in program development.

**Relationship to existing programs:** These interventions are not currently in place in any Alliance hospital, but will strengthen the existing and expanded Care Management programs.

**Population Health Impact:** As this is an enabling strategy, we do not expect direct impact on Population Health, however believe the education and training function is integral to improved PH capacity.

# 3. Measurement and Outcome

For all of our strategies, the Alliance captured baseline data to identify target populations, and set goals for improvements based on implementation of our strategies, that are consistent with Maryland’s All Payer Model. Overall, our initiatives are expected to have reduced utilization of hospital inpatient services and associated reductions in readmissions, based on improvements in care management processes for patients with BH and chronic medical conditions. Our BH strategies will be implemented based on the recognized evidence based practices of screening for early detection of depression and referring the patient to the right level of supports based on the screening results. The BHCM interdisciplinary CCM models are based on best practice in identifying, engaging and supporting patients to understand and learn to self-manage their health conditions, and in particular, looking to engage both high risk and rising risk patients. Our initiatives in CCM and ED PAU both incorporate robust use of Community Health Workers, who are trained to meet the patient “where they are”, by understanding and working to address social determinants that may be impacting a patient’s health status. We are incorporating motivational interviewing and health coaching to support the patient in managing their health needs. Finally, we are investing in a comprehensive education and training program to ensure that our staff and community partner staff keep current on best practices and have the opportunity to share successes and challenges as part of ongoing education and professional development. Following are details on each of our initiatives. A summary table of our baseline data for the Alliance initiatives can be found in ***Attachment A, Table 5.***

**Strategy 1.1: Implement BH Care Management**

**Baseline Performance:** Our target population encompasses 7223 unique patients who have been treated in the ED or admitted with a primary behavioral health diagnosis. This population accounts for 9,098 ED visits in FY 15. Their total ED and inpatient charges equal $28,470,477. Our current performance on key metrics for this strategy are in ***Attachment A, Tables 5 and 6***. In 2013, WMHS piloted BHCM, specifically targeting 30-day readmissions, and the program has seen a reduction in total readmissions within 30 days and the total readmission rate. ED revisits within 30 days will be added as a metric for FY16 and tracking with the intervention has begun. Based on WMHS’s successful implementation of BH CM and the positive outcomes achieved to reduce ED visits and readmission rates (as shown ***Attachment A: Table 6a and 6b*** in the highlighted values), the regional plan is to replicate the core elements of the WMHS BHCM program at MMC and FRHS. We also intend to track and report BH ED visits and readmission rates per 1000 of the population, but do not currently have that baseline information.

**Expected Outcomes:** We expect to see a further reduction in the BH ED Visit and 30 day Inpatient Readmission rate from our BHCM program expansion. Our goal is 6 % reduction.

**Strategy 1.2 Integrate BH into primary care to identify patients at risk and link them to appropriate resources.** To estimate the potential impact of this initiative, we looked at the 7,223 patients and then drilled down to identify all of the of ED or Inpatient primary behavioral health diagnosis visits that were specific to mood disorders, and found that 81% of the BH primary diagnosis were mood disorder related, and account for more than half of the $28,470,477 in total charges. With appropriate outpatient support and follow up for this diagnosis, ED care and inpatient stays can often be avoided. Data analysis of the target population for Strategies 1.1 and 1.2 by zip code revealed that utilization was concentrated in the zip codes associated with the major cities of the three counties.

**Baseline Performance: Number of low, medium and high risk individuals screened by PHQ-9 and referred for follow up:** Only 45.6% of our employed and affiliated PCP practices are currently screening for depression. ***See Table 7*:** *Number of Employed and ACO Practices Using PHQ-2 and PHQ-9/hospital*.

While some primary care practices are screening for depression, the process, reporting and tracking is not consistent.The goal of this intervention is to standardize use of PHQ-2 and PHQ-9 screenings for all adult patients on a predictable schedule to facilitate early detection, comprehensive care planning and facilitation of early engagement of a Masters licensed BHP.Based on a review of 10 practices using the PHQ-2 or PHQ-9 depression screenings within the Frederick Integrated Health Network ACO (FIHN), with a total of 10,988 MSSP patients, we found that 24.72 % of patients were screened. Those that received a PHQ-9 screening were distributed by the following risk levels: low (mild) (57.9%), medium (moderate) (29%) and high (moderately severe and severe) (12.9%).  During implementation, we will standardize the data collection of these results so that they can be captured and reported electronically across the regional partnership.  We will uniformly risk stratify patients from their screening results as: normal (score of 1-4), mild depression risk (5-8), moderate risk (9-14), moderately severe risk (15-19), and severe risk for depression (20-27). The goal is to identify patients who are at mild to moderate risk so that referrals, care plans and linkages to needed resources so that treatment can be initiated in the outpatient settings preventing the need for costly BH-related ED and inpatient utilization. We will phase in this intervention, starting with implementation of universal screening with those practices already administering the PHQ-2 and PHQ-9; then deploy to the remainder of the hospital-employed primary care practices; then we will include all ACO-engaged primary care providers.

**Expected Outcomes:** We are targeting 100% of the employed and ACO practices to screen for depression.

**1.3 Reduce stigma and increase understanding of behavioral health needs through community health education, such as Mental Health First Aid (MHFA).**

**Baseline Performance:** The MHFA trainings that are at the heart of this initiative will be led by the Core Service Agency in Allegany County, the Washington County Mental Health Authority, Brook Lane, and the Frederick Mental Health Association. 440 individuals were trained in FY 15, and the number of trainings held in FY 15 and types of individuals trained are shown below:

* Washington County: 6 community training events with 142 persons (3 law enforcement trainings, 55 city police officers and 8 sheriff’s deputies)
* Allegany County: 16 trainings and  194  (121 core - of which 72 law enforcement, 69 youth, 4-TA)
* Frederick County: 17 trainings with 104 core, 2 police officers, 22 youth

**Expected Outcomes:** Our goal is to train 500 individuals on MHFA across all three counties in Year 1, which will include newly hired and continuing education to support strategies 1, 2 and 3 as appropriate.

**Strategy 2: Complex Care Management (CCM)**

For this strategy, we want to reduce admissions and readmissions, as well as hospital cost of care for HUs by deploying a CCM model of care.

**Baseline Performance:** We identified 1,153 HU patients with 3 or more inpatient or observation stays in one year among our three hospitals who accounted for 2,067 admissions, 565 readmissions, and inpatient/observation (OBS) charges amounting to $20,323,779, and readmission charges of $6,867,767, or 33.4% of inpatient/OBS charges due to readmission. The Alliance current baseline performance and total costs by primary diagnosis category for the target population is shown ***Attachment A, Table 5 and 8.*** With more analysis, we discovered that when looking at all reasons for admission, not just the specific diagnoses shown in ***Table 8,*** we found that these 1,153 HUs actually accounted for 5,079 admissions/OBS, including 1,506 readmissions and $52,500,880 in total inpatient and OBS charges.

**Expected Outcomes:** Our goal in implementing this best practice CCM model is to reduce admissions and readmissions, and we will track our progress by measuring costs avoided. We will utilize the measurement system WMHS has created that follows patients enrolled in CCM and looks at prior utilization and compares it to utilization as captured by total charges, after CCM management. We will also track:

-Total hospital cost per capita for patients enrolled in CCM

-Readmissions for patients enrolled in CCM

-% HU with completed care plan

-Reduction in PQI for patients enrolled in CCM

**Strategy 3: Reduce Potentially Avoidable Emergency Department Utilization**

**Baseline Performance:** Strategy 3’s target population encompasses 3,171 unique patients across our three counties, accounting for combined patient visits totaling 18,057, and representing $10,485,129 in total ED charges. We have baseline information on 2 subsets of ED HU patients. ***(See Table 5 in Attachment A).***

1. The first sub-population (high utilizers with 6 or more ED visits in 12 months) is 2,018 unique patients. These patients account for 14,961 ED visits that total $9,064,633 in ED charges.

* Per capita charges for the ICD-9 codes selected are $4,510 and total ED charges are $9,064,633. Over half of these visits were coded as lower level emergency room acuity, and therefore could likely have been treated in a lower level setting.

2. The second sub target population, a subset of the Complex Care Management patients from

Strategy 2: 1,153 unique patients, accounting for 2,306 ED visits that equals $1,420,496 in ED charges. (The $52,500,880 in total charges reported for Strategy 2’s HU’s was only inclusive of inpatient charges only to avoid overlap with Strategy 1 and 3.) Further data analysis of Strategy 2’s HU population found that, on average, those patients had 2.3 ED visits annually with no associated hospitalization. The total associated ED charges for this population equal $1,420,496.

**Expected Outcomes:** Our goal for this strategy is to reduce ED utilization and ED revisits. Target values will be established for the following metrics within the first six months of 2016 per the implementation plan. We will track the following measures to monitor our progress:

* ED visits per capita
* Number of ED HU patients with subsequent ED visit
* Reduction in HU percent of total ED visits and charges
* Percent of HU ED patients who have follow up appointment with PCP
* Process metrics will be defined for the paramedic outreach and Friday Tuck-In Service once the workflow has been defined.

**Strategy 4: Regional Care Management Education Center (RCMEC)**

Because this is a support strategy that involves launching a new education center, there is no baseline data to report on this initiative. However, we intend to measure our outcomes through the following process metrics:

-Number of staff trained, by job type

-Number of staff trained, by community partner and by hospital

-Number of trainings offered by quarter

-Highest areas of interest for training by CM staff surveyed

-Number of trainees reporting satisfied or highly satisfied with training provided

# 4. Return on Investment

The financial sustainability of our initiatives is based in large part on cost reductions for High Utilizers, complex patients, and behavioral health patients through better care management and reductions in avoidable, ambulatory-sensitive utilization. The target populations we have identified are among the highest-cost, highest-need patients we see, and we believe there is vast opportunity for improving the processes and tools we use to treat them that will yield positive results, both in reduced medical costs and improved patient outcomes.

These are fluid populations as patients will be stabilized and move out of the intervention and additional patients are identified through case finding.

We expect to achieve a four-year, cumulative Medicare and Dual Eligible cost savings of $13,629,629 and an overall Return on Investment (ROI) of 2.78 (please see the ROI template below.) Savings will build from year one. We expect to remain sustainable via the ongoing hospital retention of the global budgets at each hospital, which will provide dollars to invest in strategies for additional target populations that are not addressed here such as end of life care and admissions, and ED utilization and use of observation by Patients at Skilled Nursing Facilities (SNF), only a portion of whom have been addressed here.

**Medicare and Dual Eligible Savings per ROI Template Provided in Implementation RFP**



**Specifically, savings and income that will contribute to our sustainability include:**

* Reductions in potentially avoidable ED visits and inpatient admissions, and decreased readmissions for patients with chronic diseases and patients with BH conditions as a result of intensive care management;
* Cost savings from early identification and service referral of patients with depression/BH needs due to early screening at PCP visits.
* Improved efficiencies from collaboration between the three hospitals (i.e., centralized care management infrastructure, education, tools and processes).
* Improved efficiencies from collaboration between providers (i.e., reducing unnecessary tests and services).
* We have accounted here for implementation ramp up as follows: Year one costs have been pro-rated to account for the ramp of implementing the strategies; i.e. recruitment and training
* Goals for Targeted Savings increases over the course of the 4 years.
	+ Year 1- Interventions will be in place approximately 9 months of the calendar year, and will not reach all patients in target HU populations due to the lead time of orientation, training, and start-up.
	+ Year 2- % return will increases because strategies will be implemented at this point, coordination with community and physician partners will be established, and the interventions will be deployed to the entire HU target population. We will also be able to begin case finding as we identify additional patients that can benefit from these strategies.
	+ Year 3 & 4- Accounts for efficiencies that are anticipated to be gained since we will have had 1.5 years to build the foundation and problem solve issues. New patient populations will be screened and identified to allow our case workers to expand their caseloads with additional patients as they become more proficient in case management and care coordination with our community care partners.
* Variable savings utilized: Year 1- 30%, Year 2- 40%, Year 3-40%, Year 4-40% based on the logic that the patients are admitted throughout the hospital and are not centrally located. Fixed costs impact will be minimal during the time periods as the HU’s are not placed in one particular area of the hospitals to warrant FTE reduction; only marginal soft savings will be yielded early on for these populations of high utilizers.

The Strategies detailed above will improve outcomes and financial savings for the Medicare and Dual Eligible population in alignment with the State’s quality and financial objectives but not be provided solely to the Medicare and Dual Eligible populations. The improvements will undoubtedly have a **quality and financial benefit to all payers**; therefore see the table below for the Medicare and Dual Eligible costs and savings calculation following the same logic listed above, but the ROI is calculated to show the all payer saving and costs by dividing Annual Gross Charge Saving by total interventions cost (H/C) which yields a cumulative 1.89 ROI in four years; achieving **$ 5,547,376 in 4 year cumulative net saving for Medicare and Dual Eligible minus the total intervention cost for all payers and all patients. Achievement of a** 2.13 ROI in Year 3 and 4, proves sustainability. ***Attachment B*** contains an “All Payer ROI” calculation sheet detailing each strategy performance per CY 2016 – 2019; and includes an “All 4 Years Combined” column.

Unique patient populations will be fluid as patients meet and, no longer meet criteria. Reports will be created, and run quarterly or semi-annually to update the HU target populations.

The Cumulative Savings of $5,547,376 represents just the cumulative variable savings over four years minus the total costs for Medicare and Dual Eligible. The total savings for all payers of $55,645,962 exceeds the total intervention costs for all payers of $29,436,309 to result in a four year cumulative savings of $26,209,653. After completing the Projected ROI tables above, we have identified the need to carve out a segment of HU population from Strategy 2 to avoid duplication of MMC grant resources and progress reporting. This will result in Strategy 2’s HU number of patients decreasing to 1,009, number of Medicare and Dual Eligible patient’s reduces to 769, total annual charges reduce to $48,076,047, results in a net decrease in the overall cumulative ROI for all 3 strategies for all 4 years to 1.78.For all ROI calculations it was necessary to keep some values consistent to establish the impact achievable through the strategies:

* The number of patients (sum of the HU target population for all three strategies), while volume will vary year to year based on new patient’s meeting the HU criteria, other factors (successful patient management, deaths, etc. will impact attrition);
* Inflation was not factored in as we felt using constant dollars would not confuse the variable associated with the program maturity and improvement of process.
* The number of patient visits/encounters remained unchanged, although patients will achieve some stabilization and new cases will be identified.

**All Payer ROI Calculation (Row H/C within the Table)**





**Savings by Strategy:** The savings will accrue to each hospital as utilization drops as the Strategies are deployed and utilization is reduced. The Alliance has calculated the ROI by strategy for each of these initiatives: reference ***Attachment B***. Strategy 2 and has the largest ROI because the HU population for this strategy is 79% Medicare/Dual eligible and thus the interventions directly impact Medicare. Strategy 1 has only 10% Medicare/Dual eligible population and thus has the least Medicare impact. The greatest impact for Strategy 1 will be reduced cost to Medicaid and commercial populations, which represent the greatest portion of these populations. Strategy 3 has a 41:59 ratio of Medicare and Dual eligible to Commercial and Medicaid. The detail regarding cost for all Strategies by sponsor hospital is provided in ***Attachment G.***

**Savings to Payers:** All payers will receive savings as ED, Inpatient, and Behavioral Health inpatient utilization rates decrease. Medicare and Dual Eligible patients will see the most savings from the complex care initiative of Strategy 2, as the Medicare and Dual Eligible patients account for 79% of this total HU target population. Strategy 1 target populations of Medicare and Dual Eligible patients (is only11% while 41% of Strategy 3)HU population is Medicare and Dual Eligible , therefore a large proportion of the savings attributed to strategies 1 and 3 will accrue to other payers than Medicare and Dual Eligible, largely as a result of decrease in ED utilization and improved BH care.

Because 58% of all Medicaid patients in these counties are covered by Maryland Physicians Care (MPC) MCO, representing 42,600 of 74,000 covered lives, we believe that the savings generated from these strategies for Medicaid lives will be shared with MPC through reduced utilization The owners of MPC—Holy Cross Health System, St. Agnes HealthCare, MMC, and WMHS—are committed to a strong, viable HealthChoice program that is built on solid, actuarially sound financing. We are four nonprofit Maryland health systems which have participated in HealthChoice since its inception in 1996. Our health plan, MPC, has stepped up time and again to help the Department of Health and Mental Hygiene and the State to resolve serious threats to Maryland’s Medicaid program.

The owner health systems are mission-driven, community-based organizations with a focus on high quality health care. Each of the owners’ health system boards ensures adherence to mission by reinvesting any health system operating gains back into their communities. MPC is governed as a mission-driven health plan which partners with local providers, health departments, advocacy groups, and other community organizations to find practical solutions to local health care challenges. We have reinvested operating gains (when available) into health plan operations to meet specific strategic goals including solving local, regional, and statewide health care problems. MPC has and will be engaged in the development of these new models of care strategies.

# Scalability and Sustainability

These strategies exhibit by year two a continuing return on the investments without expansion of the patients populations involved. The Community Health Workers and Care Managers will be able to refine their capabilities and perform case finding to identify new patients beyond the diagnosis identified here. We have only begun to touch on the populations that could be served by outpatient care management as described here. The Alliance also intends to address Skilled Nursing facility utilization. With the Strategy 2, we identified that approximately 17% of the HU patients were residents of a SNF. We believe that further investigation in each of our communities is warranted for this patient population as a group unto itself. We also believe that there is opportunity in each of our communities to address end of life care. The Alliance has reached out to the Hospice Community Care Partners in each community to address programs for patients receiving end of life care. This is a second population that warrants in depth analysis as well. FRHS has begun a community discussion (including its Hospital Board) about “the Conservation” regarding end of life discussions. WMHS has endeavored to educate and discuss its Hospital board medical staff and community about the Book, “Being Mortal” which discusses end of life decisions as well. MMC has engaged in pursuit of a relationship with Hospice of Washington County to establish a free standing Hospice House. The Alliance Hospitals believe that the Strategies are sustainable without additional rate increases. The Alliance hospitals intend to share the Program Director, the finance staff to evaluate and track performance, the data analysts necessary to track the data; the work team leads will continue to meet as will the Executive Committee to oversee and expand the project initiatives. The Executive Committee will formulate additional strategies, oversee the implementation of the Models of care and report on to the Alliance Board on the progress of these programs. The Alliance will utilize the Accountable Care Organizations (ACO)that each hospital has created to contract to contract PCP’s to embed the CHW, CM and BHC within the PCP practices to avoid overburdening the PCP practices with added costs and to avoid issues with Stark regulations. The Alliance will investigate means to utilize the ACO to align financial incentives between physicians, other providers and the Regional Partnership for Care transformation. The Alliance was formulated to reduce costs and improve the health of the populations that are served throughout the Western Maryland Region and to improve the quality of care at the three hospitals. The commitment to this endeavor is embodied in the Mission, Vison and Values of the Alliance. The sponsor hospitals provided the initial equity funding for the Alliance, and are committed to the scalability of the strategies defined here in support of our goals and mission.

# Participating Partners and Decision-Making Process

The Trivergent Health Alliance (Alliance), LLC, (see the ***Organizational Chart in*** ***Attachment C***) was created in May 2014 to further the Triple Aim (lower cost, improve quality and improve the health of the populations served by the three hospitals). The Alliance is the sole member of the Trivergent Health Alliance MSO, LLC, which was created to further the cost saving portion of the triple aim. The Alliance Board of Directors is comprised of nine individuals: the Chairperson, Vice Chairperson, and CEO of each hospital (WMHS, MMC, and FRHS); the MSO Board is comprised of 6 individuals including the CEO and CFO of each of the hospitals.

The Regional Partnership (see ***Organizational Structure in Attachment C***) has developed a transparent and collaborative regional governance structure that includes representation from each of our three health systems. The Executive Committee, reporting to the Alliance Board of Directors (see the ***Organizational Structure in Attachment C***), meets biweekly and provides hands-on oversight of the multidisciplinary work teams. There are dedicated work teams to support each strategy that will remain in place during implementation. Each work team has representation from each hospital, has a designated Chief Financial Officer to provide financial advice, a data analyst, and designated team lead(s). The Executive Committee is the decision-making body that includes senior leadership from FRHS, MMC and WMHS. The Executive Committee provides recommendations and updates to the Alliance Board of Directors. Decisions are made based on achieving consensus among representatives from all three Alliance hospitals. The Community Advisory Council (CAC) (see the Membership in ***Attachment D***) reports to and collaborates with the Executive Committee; the charter is provided as ***Attachment E***. The Alliance Board of Directors meets quarterly or as needed to review and approve key items such as clinical initiatives, financial models and funds allocation, and staffing.

The Alliance receives substantial project management, infrastructure and implementation support from the Trivergent Health Alliance MSO, whose CEO serves on the Executive Committee and has hired a full-time Project Manager dedicated to Regional Partnership care delivery transformation initiatives.

The Alliance Executive Committee – with leadership, guidance, and support from the Alliance Board of Directors – reviews, recommends, and approves the following before they can be implemented regionally. Decisions include but are not limited to:

* Care delivery transformation initiatives that should be prioritized and pursued regionally vs. at the individual hospital level.
* Regional provider, stakeholder and community partnership communication and engagement.
* Oversight, implementation and evaluation decisions related to delegated regional strategies.
* Performance monitoring and improvement decisions related to regional partnership initiatives (i.e., ensuring that the partnership achieves the state’s All Payer Model objectives).

The Executive Committee makes recommendations to Alliance Board regarding the following (but not limited to):

* Formal provider relationships and agreements, focused on regional care delivery and alignment.
* Regional financial strategy and implementation, including funds distribution and deployment of regional partnership resources
* Infrastructure needs, including recruiting and hiring staff at the regional partnership level.
* Identification of and recommendations for resolution of legal and compliance issues at the regional partnership level.
* The proposed funding for each member of the Alliance is as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sponsor Hospital: | CY 2016 | CY 2017 | CY 2018 | CY 2019 |
| WMHS | $1,989,485 | $2,248,938 | $2,182,272 | $2,182,272 |
| MMC | $2,343,346 | $2,697,758 | $2,631,092 | $2,631,092 |
| FRHS | $2,380,710 | $2,760,929 | $2,694,262 | $2,694,262 |
| Regional Request by Year: | **$6,713,541** | **$7,707,625** | **$7,507,626** | **$7,507,626** |

In recognition that the requested funds exceeds the maximum Grant Award, once the award value is known the Alliance Hospital’s will adjust the budget at each hospital to bring the interventions cost to match the award value. Savings generated from avoided utilization at each sponsor hospital will remain with that hospital.

# Implementation Work Plan (Separate File Name: Trivergent Alliance Care Transformation Work Plan)

# Budget and Expenditures/Appendix D Budget Template and Narrative

|  |  |
| --- | --- |
| Hospital/Applicant: | Alliance Hospitals: WMHS, MMC, FRHS |
| Number of Interventions:  |  4  |
| Total Budget Request ($): | Total Intervention costs for all Strategies:2016, Yr. 1: $6,713,481 2017, Yr. 2: $7,707,608 2018, Yr. 3: $7,507,6082019, Yr. 4: $7,507,608  |

**Complete the budget table below, listing each type of budget line item, narrative summary description for each, and amount of expenses estimated.**

Year 2, CY 2017 budget line items have been used to populate the table below as this calendar year’s budget details the cost for one full year of fully implemented interventions, inclusive of salary and benefits. The total cost of interventions for CY 2016 detailed above was pro-rated to account for a three month ramp up once grant award notification is received in February. The proration takes into account time needed to recruit, hire, and train new workforce members for deployment. The 2016 pro-rated amount will support 9 months of implementation, including paid training.

Please note that this Budget Table includes an “Enabling Strategies” section. This includes the cost of hiring 7.5 FTE, not directly related to any specific strategy, but required as part of overall implementation and project management to support the initiatives, including Project Manager and Coordinators, Fiscal/Accountant for tracking grant costs, Decision Support Analysts to support informatics needs, and3 Supervising RN Care Managers to assist with the resources on boarded and deployed at each of the hospitals. In addition, the IT/Technology section shows the resources required for each of the 4 years, with a declining need after the first ramp up year.

|  |  |  |
| --- | --- | --- |
| Workforce/Type of Staff | Description | Amount |
| **Strategy 1: Behavioral Health** |
| **FRHS, MMC and WMHS:** |
| 8.7 FTE/Masters Level BH CM7.6 FTE/Masters Level BH CM6.0 FTE/Masters Level BH CM | To support BH initiative 1.1 and 1.2 at FRHS To support BH initiative 1.1 and 1.2 at MMCTo support BH initiative 1.1 and 1.2 at WMHS**Full Year of Implemented** **Strategy 1.1 and 1.2 Workforce Cost:** | $655,406$572,538$452,004**Total: $1,679,948** |
| **Strategy 2: Complex Care Management** |
| **FRHS:** |
| FTE | Workforce/Type of Staff | Description | Amount |
|

|  |
| --- |
| 1.0 |
| 1.5 |
| 1.0 |
| 1.0 |
| 9.0 |
| 2.0 |
| 1.0 |
| 1.0 |
|  |

 |

|  |
| --- |
| RN -Care Manager |
| Nurse Practitioner |
| Registered Dietician |
| Respiratory Therapist |
| CHW |
| RN CM |
| Receptionist |
| CM SW |

 |

|  |
| --- |
| Clinical Care Manager |
|  |
|  |
|  |
| Community Health Workers (CHW) |
| Registered Nurse Care Managers (RN CM) |
|  |
| Care Management Social Worker (CM SW) |

 |

|  |
| --- |
| $130,000 |
| $284,700 |
| $81,900 |
| $104,000 |
| $351,000 |
| $195,000 |
| $32,500 |
| $97,500 |

 |
| 17.5 Total FTE Request | FRHS workforce that needs to support Strategy 2. | Sub Total: $1,276,600 |
| **MMC:** |
|

|  |
| --- |
| 9.0 |
| 1.0 |
| 1.0 |
| 2.0 |
| 3.0 |
| 2.2 |

 |

|  |
| --- |
| CHW |
| RN CM |
| Respiratory Therapist |
| Registered Dietician |
| SW |
| Pharmacist |

 |

|  |
| --- |
| Community Health Workers |
| Registered Nurse Care Managers |
|  |
|  |
|  |
|  |

 |

|  |
| --- |
| $351,000 |
| $97,500 |
| $104,000 |
| $163,800 |
| $292,500 |
| $286,000 |

 |
| 18.2 Total FTE Request | MMC workforce resource need in addition to existing infrastructure and resources to support Strategy 2. | Sub Total: $1,294,800 |
| **WMHS:** |
|

|  |
| --- |
| 2.0 |
| 1.0 |
| 2.0 |
| 2.0 |
| 1.0 |
| 1.0 |
| 1.0 |

 |

|  |
| --- |
| NP |
| MA/Registrar  |
| CHW |
| RN CM |
| Registered Dietician |
| Pharmacist |
| SW |

 |

|  |
| --- |
| Nurse Practitioner (NP) |
| Medical Assistant (MA) /Registrar (Dual Role Position) |
| Community Health Workers |
| Registered Nurse Care Managers |
|  |
|  |
| Care Management Social Worker |

 |

|  |
| --- |
| $260,000 |
| $32,500 |
| $78,000 |
| $195,000 |
| $81,900 |
| $130,000 |
| $195,000 |

 |
| 10 Total FTE Request | WMHS workforce resource need in addition to existing infrastructure and resources to support Strategy 2. | Sub Total: $972,400 |
| **Full Year of Implemented Strategy 2 Workforce Cost:** | **Total: $3,543,800** |
| Strategy 3: Decrease ED PAU |
| **Regional Partnership Need:** |
| 1.00 FTE CM RN Total Request: | Friday Tuck-In Service working 7am to 7 PM on Fridays at each hospital | Sub Total: $110,109 |
| 9.6 FTE CHW Total Request: | To provide high-touch coordination with ED HU in: | Sub Total: $374,400 |
|

|  |
| --- |
| 3.2 |
| 3.2 |
| 3.2 |

 |

|  |
| --- |
| CHW |
| CHW |
| CHW |

 |

|  |
| --- |
| Frederick County- FRHS |
| Washington County- MMC |
| Alleghany and Garrett Counties- WMHS |

 |

|  |
| --- |
| $124,800 |
| $124,800 |
| $124,800 |

 |
| 3.0 FTE Paramedic Total Request: | Resource to provide Paramedic outreach to geographic hot spotted ED HUs in | Sub Total: $156,000 |
|

|  |
| --- |
| 1.0 |
| 1.0 |
| 1.0 |

 |

|  |
| --- |
| Paramedic |
| Paramedic |
| Paramedic |

 |

|  |
| --- |
| Fredrick County- FRHS |
| Washington County- MMC |
| Alleghany and Garrett Counties- WMHS |

 |

|  |
| --- |
| $52,000 |
| $52,000 |
| $52,000 |

 |
| **Full Year of Implemented Strategy 3 Workforce Cost:** |  **Total: $640,510** |
| **Strategy 4: Regional Care Management Education Center** |
| **Regional Partnership Need:** |
| 1.0 | Care Management Education Specialist |  | $117,000  |
| 1.0 | Coordinator |  | $104,000  |
| 1.0 | Community Partner Liaison |  | $84,500  |
| 1.0 | BS HED w/MH |  | $67,600  |
| **Full Year of Implemented Strategy 4 Workforce Cost:** | **Total: $373,100** |
| IT/Technologies | Description | Amount |
| **Strategy 3: Reduce Potentially Avoidable Emergency Department Utilization** |
| **Regional Partnership Need:** |
| Tele-Monitoring Technology | Support Tele-Monitoring of a subset of the ED HU’s (250 patients) Purchase of monitoring devices | **Total: $112,251** |
| **Strategy 4: Regional Care Management Education Center (RCMEC)** |
| Laptops with Docking Station | $1500 X100 needed | $ 150,000 |
| Cell Phone with Data Tethering | $70/month x 50 needed (annual cost) | $ 42,000 |
| CM Training System | 1 license per facility utilizing established best practice as per American Case Management Association (ACMA) | $ 50,000 |
| Tech. for CHW documentation and communication with Care Team | Equipment, services, bandwidth, license | $ 80,000 |
| Centralized Internet Registration Program | Development of regionally centralized system to facilitate enrollment and engagement of Regional Partnerships employed staff and Community Partners. | $ 78,000 |
| Teleconferencing / Web Conferencing Infrastructure | Equipment, services, bandwidth | $ 300,000 |
| Disease Management Curriculum | 1 license per facility; ensures consistency in regional educational material utilizing best practice | $ 300,000 |
| Technology/Training and Orientation | To support the onboarding training of Strategies 1, 2 and 3; existing employees, new hires, community partners including primary care practices. | Total: 2016,Year 1 Cost: $1,000,000**2017,Year 2 Cost: $500,000** 2018,Year 3 Cost :$300,0002019, Year 4 Cost:$300,000 |
| Other implementation Activities | Description | Amount |
| **Enabling Infrastructure** |
| 1.0 FTE |  Project Manager | Manage, coordinate and facilitate Regional Care Transformation work. | $143,000 |
| 1.0 FTE | Project Coordinator | Assist Project Manager | $76,050 |
| 1.0 FTE | Staff Accountant | Track and Reporting of project savings and expenditures | $92,950 |
| 1.5 FTE | Decision Support Analyst | Support the sponsor hospitals in standardized data mining, analysis, and reporting of metrics regionally. | $156,000 |
| 3 FTE | Manager | Clinical management of resources to support all 3 strategies, with primary need being to support Strategy 2. | $390,000 |
| Full Year of Enabling Strategy Cost: | **Total: $858,000** |
| Other Indirect costs | Description | Amount |
| N/A at this time. |  | None Defined |
| Total Expenses/investments |  |  |
| Total Intervention costs for all payers for ALL Strategy Interventions: | 2016, Yr. 1: **2017, Yr. 2:** 2018, Yr. 3: 2019, Yr. 4:  | $6,713,481 **$7,707,608** $7,507,609$7,507,609  |
|  |  |  |

# Budget and Expenditures Narrative

**Summary:** The Alliance is requesting investment over the 4 years period as follows:

|  |  |
| --- | --- |
| All Strategies Per Year & 4 Year Cumulative | Grand Total |
| Cost Center | Total FTE's | Year 1, 2016 | Year 2, 2017 | Year 3, 2018 | Year 4, 2019 | **Total Project** |
| Salaries- Strategies 1, 2 and 3 |  82.6  | $4,482,381  |  $5,976,509  |  $5,976,509  |  $5,976,509  |  $22,411,909  |
| Strategy 4: RCMEC Staffing Cost |  4.0  |  $ 373,100  |  $373,100  |  $ 373,100  |  $ 373,100  |  $ 1,492,400  |
| Technology/ Training and Orientation |   | $ 1,000,000  |  $500,000  |  $ 300,000  |  $300,000  |  $2,100,000  |
| Enabling Infrastructure |  7.5 |  $ 858,000  |  $858,000  |  $ 858,000  |  $858,000  |  $3,432,000  |
| Total |  94.1  |  $6,713,481  | $ 7,707,609  | $ 7,507,609  |  $7,507,609  |  $29,436,309  |

The request assumes that in 2016, the total cost of $6,713,481 is inclusive of all costs to implement the four strategies but has been pro-rated to fund 9 months of implementation given the award notice will be received in February, and allotting for the needed time to recruit and hire. The next 3 years, 2017, 2018, and 2019 total costs include full implementation of all four strategies. The changes in total request amount for each of these years reflects the reduction in startup costs for IT and technology costs over the implementation year, as well as acquisition of relevant materials and licenses for the RCMEC after start up. The increased FTE costs for CY 2017 and future years reflect a fully loaded FTE cost after start up in the 9 months of CY 2016.

Our 3 model of care strategies include costs incurred as part of our RCMEC build out. We identified the need to build infrastructure to enable the successful implementation through improvements in overhead support for Project Management, Analytics and Decision Support and Financial management of grant activities. These costs were distributed to each of the MOC strategies as follows:

* Regional Education Center and Technology/Training and Orientation costs: Allocated to strategies based on # of new FTEs per strategy/total FTEs for all MOC strategies combined;
* Enabling Strategies costs: Allocated to strategies evenly for all years (1/3 of total annual costs to each MOC strategy per each year).

Our total cost by Strategy by Year is shown below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strategy: | 2016 | 2017 | 2018 | 2019 |
| Strategy 1- BH | $1,916,216 | $2,201,379 | $2,147,449 | $2,147,449 |
| Strategy 2- CCM | $3,702,624 | $4,312,274 | $4,201,754 | $4,201,754 |
| Strategy 3- ED PAU | $1,094,640 | $1,193,955 | $1,158,405 | $1,158,405 |
| Total Cost per Year | $6,713,480 | $7,707,608 | $7,507,608 | $7,507,608 |

Details of cost per strategy and showing allocation to each strategy for CY 2016-2019 is detailed in ***Attachment F***. A breakdown of total cost for each sponsor hospital by strategy for CY 2016-2019 is included in ***Attachment G***. Please note that all Budget Descriptions that follow are based on Year 2 need, following ramp up.

**Budget Description: Strategy 1: Behavioral Health: $2,201,379 (CY2017)**

The BH request includessalary and benefit cost to hire 22.3 Master’s prepared Behavioral Health Professionals. 10.5 FTE are needed to implement Strategy 1.1 to implement BH CM leveraging the best practice model currently in place at WMHS. FTE requirements were determined per hospital based from WMHS BHCM caseload volume to FTE experience and then extrapolating that out to meet the volume needs for this target population. The remaining 11.8 FTE are needed to integrate BH into primary care to identify patients at-risk and link them to appropriate resources. MMC’s experience regarding deploying BH Professionals in employed primary care practices provided the needed experiential data to determine the FTE’s needed to meet the demand volume for WMHS and FRHS. Please note that the workforce need to support our BH Population Health initiative to reduce BH stigma and provide MHFA trainings is included under the resources for the RCMEC, as the education and training resources will be associated with the RCMEC.

**Strategy 2: Complex Care Management: $4,312,274 (CY2017)**

The main component of the budget request for CCM is the **hiring of 45.7 FTE.** The workforce needs were determined by defining what roles would be needed to manage the target population and to create interdisciplinary teams including CHWs to provide the needed intervention for this patient population and to create consistency in the core functional abilities of service offerings within the Alliance Hospitals. The number of FTE’s needed were specifically determined utilizing best practice staffing level ratios and, designating resources to build service capability if it did not exist within the existing platform per hospital. RN Care Management positions were based on a 1 CM: 125 HU patient, and the CHW FTE request was based on a 1 CHW to 50 HU patient ratio. The FTE’s requested will build upon the existing infrastructure at each sponsor hospital (FRMHS’s Bridges Clinic, MMC’s Outpatient CM platform, and WMHS Center for Clinical Resources).There is a higher percentage of total IT costs is because CCM strategy requires acquisition of Care Management educational tools for training, laptops and hand held devices for CMs and CHWs to work in the field, and associated telecommunication costs. The RCMEC share of costs reflects the number of trainees to be on boarded and trained for the CCM initiative.

**Strategy 3: Reduce Potentially Avoidable Emergency Department Utilization: $1,193,955(CY2017)**

This strategy’s primary component is to hire 3 **categories of staff, for a total of 13.6 FTEs** staffing is as follows:

* 9.6 CHWs
* 3 Paramedics,
* 1 FTE RN CM

The CHWs will support the sponsor hospitals in reducing potentially avoidable (PAU) ED use through to improved care coordination and transitions, and to provide high-touch support to ED High Utilizers. The CHW FTE request was determined based on the same CHW: HU ratio as used in Strategy 2, 1 CHW: 125 HU. This ratio was applied to the total ED HU per hospital to define the number of FTE needed per hospital. The paramedics will engage with ED HUs through outreach and to prevent an unnecessary call for ambulance transport to the hospital. The RNCM will provide the Friday night tuck in service and relevant follow up at each hospital. The allocation of other costs is beginning in Year 2:

In addition, this strategy requires acquisition of **Tele-Monitoring technology** in the first year to monitor approximately 250 patients within the ED HU target population. This technology will allow CM RN’s to be alerted timely when ED HUs clinical presentation changes. Changes in patients condition allows the nurse to be alerted so that outreach to the patient can be pro-active and early on, which increases the ability detail a custom care plan to leverage community based resources and prevent crisis situations and avoid ED utilization. $80,000 will be utilized to equip newly deployed CHW’s working with the ED HU’s with the needed technology to complete risk-assessments and transmit the data back to a nurse for evaluation, initiating care planning, and track progress that can be then transmitted to the nurse to aid in decreasing PAU, and improve care coordination.

**Strategy 4: RCMEC: Costs Allocated back to Strategies 1 - 3**

The RCMEC is an enabling strategy that will support the on-boarding, training, and continuing educational needs for Strategy 1, 2 and 3 as well as provide community education as specified in Population Health Strategy 1.3. Therefore the funds needed to support the RCMEC peak with the initiation of implementing Strategies 1, 2 and 3 during the first year of operation. There are several components to the RCMEC, all of which have been allocated back to the Strategies as described earlier.

**RCMEC Workforce Needs**: The RCMEC is designed to be a learning Hub for all new and existing employees, physician practices and their office staff, and community partners. **4 FTEs at a total annual cost of $373, 100** are allocated back to the Strategies based on the total number of staff each strategy will need to have trained. These FTE include a Coordinator to facilitate day to day operational needs such as scheduling of course offerings, ensure learning materials are ready for use when needed, coordinate WebEx scheduling and hosting of Web based learning events for all the CM specific curriculum. The Coordinator will also provide daily support to RCMEC staff - Care Management Education Specialist, Community Partner Liaison and Bachelor’s prepared Health Educator. The Care Management Education Specialist will primarily be responsible for development of CM specific new hire, and existing CM core curriculum development with the aid of the care management and disease management system. Bachelor’s prepared Health Educator with experience in Mental Health will be trained as a MHFA trainer to be able to teach when needed. That role will be responsible for developing other training and educational material to implement the Population Health interventions detailed within Strategy 1.3. The goal is to train 500 individuals related to CM curriculum the first year. Strategy 1.3 has also set a goal to train 500 adults in MHFA. A Community Partner Liaison is needed to coordinate scheduling of MHFA and other BH focused training opportunities given Strategy 1.3 is focused year 1 and 2 providing MHFA training to community partners and employed staff.

**IT/Technology:** In CY 2016, $1,000,000 is expected in IT start-up costs to cover acquisition of on line curriculum licenses, laptops, handheld devices, telecommunications fees and conferencing software In order to facilitate evidence based, standardization of care management training across the region and extending out to community partners, a care management training system is needed along with a care management system a disease management system is needed in order to provide care management disease current with the most current evidence based information available, as detailed in section 8.

Given the RCMEC is to serve employees of all 3 sponsor hospitals, community partner, physician partners and their office staff, a centralized registration to program is need to facilitate registration, and because our regional partnership covers a large geography ,to help minimize the time away from providing care, web conferencing infrastructure is a necessity. In CY 2017 that annual amount decreases to $500,000 and decreases to $300,000 for years 3 and 4. The costs after Year 1 represent ongoing yearly licensing and software maintenance fees, as well as some onboarding costs included in Year 2. By Years 3 and 4 the RCMEC will have already incurred all of the initial start-up costs and will require a sustainment budget of $300,000 annually.

**Enabling Infrastructure: Costs Allocated back to Strategies 1 - 3**

To support, facilitate, coordinate and manage the 4 strategies we have included **7.5FTE at an annual cost of $858,000, allocated** equally among strategies and hospital partners. Staff includes a project manager and project coordinator to track implementation time lines, process and outcome metrics, support the Team Leads, assist with problem solving and facilitate continuous improvement utilizing Lean methodology. Additional staff includes 1 data analytics and 1.5 financial staff to support performance and financial outcomes tracking. There are 3 FTE Clinical Manager leads (one at each hospital) that will support the many new CM staff.

# Summary of Proposal

|  |  |
| --- | --- |
| Hospital/Applicant: | Trivergent Health Alliance Regional Partnership, consisting of three co-lead applicants: Meritus Medical Center (MMC), Western Maryland Health System (WMHS), Frederick Regional Health System (FRHS) |
| Date of Submission: | December 21, 2015 |
| Health System Affiliation: |  Trivergent Health Alliance, LLC. |
| Number of Interventions:  | 4 |
| Total Budget Request ($): | $7,707,608 (Year 2, following ramp up completion in Year 1) |

## Appendix C Summary Template

**Complete the summary table delineating differences by intervention for each category, if applicable.**

|  |
| --- |
| Target Patient Population (Response limited to 300 words) |
| The Alliance Regional Partnership has four interventions with three distinct target populations within our tri-county region of Allegany, Frederick and Washington counties: 1. **Patients with Behavioral Health (BH) diagnoses.** This includes all BH diagnoses, with the top five being Depression, Anxiety, Bipolar, Psychosis and Substance Abuse, with a focus on patients who have had an inpatient BH stay and/or ED visit with BH diagnosis.
2. **High utilizers of inpatient services who may benefit from Complex Care Management.** These patients have three or more Inpatient/Observation discharges in a year with diagnoses of diabetes, cardiac disease including Congestive Heart Failure (CHF), and/or respiratory disease including Chronic Obstructive Pulmonary Disease (COPD), as well as anticoagulation patients.
3. **High utilizers of Emergency Department (ED) Services**. These patients have six or more ED visits in a year.

These target populations capture many of our highest cost Medicare and dual eligible patients, to align with the goals of the All-Payer Model. Although the preliminary focus is on the Medicare population, the target population also includes patients from all other payers who meet the criteria. Our long-term plan is to improve population health for the 455,000 Marylanders in our region, which includes all zip codes and cities/towns in our three counties.  |
| Summary of program or model for each program intervention to be implemented. Include start date, and workforce and infrastructure needs (Response limited to 300 words) |
| 1. **Behavioral Health (BH):** We will provide outpatient BH case management, early detection, and support for at-risk patients, including:
* **1.1:** **Implement BH Care Management (leveraging the model in place at WMHS).** The start date is April 2016. Masters-level BH Case Managers are needed to support this initiative.
* **1.2:** **Integrate BH into primary care to identify patients at-risk and link them to appropriate resources.** The start date is April 2016. The Masters-level BH CM’s added for BH initiative 1.1 along with primary care office teams will work together to implement this initiative.
* **1.3:** **A Population Health initiative to reduce stigma and increase understanding of BH needs through community health education, such as Mental Health First Aid (MHFA).** The start date is April 2016. Workforce and infrastructure needs for this initiative are the hiring of an MHFA regional coordinator as well as books and supplies for the trainings.
1. **Complex Care Management for High Utilizers:** We will replicate and refine components of local best practices and standardize common metrics for a regional care management model for hospital High Utilizers with certain chronic disease conditions. The start date is April 2016 .The workforce and infrastructure needs are 45.7 FTE.
2. **Potentially Avoidable ED Visits:** We will reduce potentially avoidable ED use by (a) improving care coordination and transitions, and (b) providing high-touch support to ED High Utilizers to identify needs early, aid in care transitions, and engage community-based support. The start date is April 2016. The workforce and infrastructure needs are 13.6 FTE.
3. **Regional Care Management Education Center (RCMEC):** The RCMEC will offer education programs to Care Management professionals and relevant support staff of the Alliance member hospitals and partners. The start date is May 2016. The workforce and infrastructure needs are 4 FTE, plus $1M technology start up.
 |
| Measurement and Outcomes Goals (Response limited to 300 words) |
| Progress will be gauged using process and outcome measures, including quality, patient experience, and financial indicators. We will use CRISP data to monitor and track the overarching measures that are critical to the success of the All-Payer Model (such as hospital costs per capita, readmission rates, and ED visits per capita). We will also use hospital data for intervention-specific metrics such as behavioral health admission and readmission rates. Measures will be collected and analyzed at least monthly. Progress will be tracked at the hospital and the regional level using a centralized dashboard that provides actionable information about areas for needed improvement. ***Attachment A, Table 5*** shows, by strategy, our FY15 baselines on key metrics for each target population, including:* **1.1:** In FY15, this target population had 9,098 behavioral health ED visits. Goal: 6% reduction.
* **1.2:** Currently 46% of employed and ACO practices screen annually for depression. Goal: Universal screening (100%).
* **1.3:**  In FY15, 440 individuals were trained Mental Health First Aid. Goal: 500 individuals in Yr1.
* **2:** In FY15, there were 4.4 admissions and 1.3 readmissions per High Utilizer patient; in total, they incurred ~$52.5 million in inpatient and observation charges. Goal: Reduce HU admissions, readmissions, and charges, using the WMHS costs avoided algorithm to track progress.
* **3:**  In FY15, the target population had 5.7 ED visits per patient and ~$10.5 million in total ED charges. Goals will be established by July 2016.
* **4:**  We will track the # of individuals trained through the new RCMEC and establish baseline in Yr1.

Spanning all initiatives, we will use CRISP/HSCRC data to measure aggregate improvements on All-Payer measures listed in the RFP, which are closely linked with our intervention-specific measures. The evidence supporting our initiatives can be found in the literature and in the positive outcomes experienced within our individual hospitals.  |
| Return on Investment. Total Cost of Care Savings. (Response limited to 300 words) |
| We expect to achieve a four-year, cumulative Medicare and Dual Eligible cost savings of $13,629,629 and an overall Return on Investment (ROI) of 2.78, using the ROI template provided in the RFP. Savings will build from year one, and we expect the initiatives to remain sustainable via the ongoing hospital retention of the global budgets at each hospital. The total savings for all payers of $55,645,962 exceeds the total intervention costs for all payers of $29,436,309 to result in a four year cumulative savings of $26,209,653. These savings will accrue as a result of our proposed initiatives due to the reduction of PAU, Readmissions, Admissions, ED visits, and Observation visits among the target populations. Strategy 2 has the largest ROI because the High Utilizer population for this strategy is 79% Medicare/Dual Eligible and thus the interventions directly impact Medicare costs. Additional detail on ROI by strategy and by payer can be found in ***Attachment B.*** We plan to reinvest these savings we achieve as a Regional Partnership in hospital care management programs and outpatient care managers and BH counselor programs to sustain the existing programs. We also expect to identify new opportunities and areas for potential investment. Additional areas of opportunity that we would like to explore to achieve All-Payer aims include end-of-life care and improving utilization and costs in Skilled Nursing Facilities. The CHWs, BH counselors, and care managers that will be hired as part of our Regional Partnership initiatives will also be able to expand their caseloads as they become more experienced in working with these populations, resulting in additional efficiencies and returns. All payers (Medicare, Medicaid, commercial) are expected to receive savings via reductions in ED, Inpatient, and Behavioral Health inpatient utilization rates.  |
| Scalability and Sustainability Plan (Response limited to 300 words) |
| The financial sustainability of our initiatives is based in large part on cost reductions for High Utilizers, complex patients, and behavioral health patients through better care management and reductions in avoidable, ambulatory-sensitive utilization. The target populations we have identified are among the highest-cost, highest-need patients we see, and we believe there is vast opportunity for improving the processes and tools we use to treat them that will yield positive results, both in reduced medical costs and improved patient outcomes. The sponsor hospitals have provided the Initial Equity Funding for the Trivergent Health Alliance, and the Trivergent Health Alliance MSO. The Alliance also intends to address Skilled Nursing facility utilization. With the Strategy 2, we identified that approximately 17% of the HU patients were residents of a SNF. We believe that further investigation in each of our communities is warranted for this patient population as a group unto itself. Because 58% of all Medicaid patients in these counties are covered by Maryland Physicians Care (MPC) MCO, we believe that the savings generated from these strategies for Medicaid lives will be shared with MPC through reduced utilization The nonprofit Maryland health systems have participated in HealthChoice since inception. MPC has helped the DHMH and the State to resolve serious threats to Maryland’s Medicaid program. We also believe that there is opportunity to address end of life care. The Sponsor Hospitals have committed their senior Leadership teams as well as their Board Chairs and Vice Chairs to provide guidance and support to the Executive teams. These corporations (LLC’s) were created for the purpose of furthering the triple aim of CMS as embodied in the mission, vision, and values of the Alliance: reduce costs, improve quality, and improve the health of the populations of the geographic regions served by the three sponsor hospitals.  |
| Participating Partners and Decision-making Process. Include amount allocated to each partner. (Response limited to 300 words) |
| Trivergent Health Alliance was created to pursue the Triple Aim as embodied in its mission, vision, and values. The Alliance Regional Partnership has developed a transparent and collaborative regional governance structure that includes representation from each of our three health systems. The Executive Committee, reporting to the Alliance Board of Directors, meets biweekly and provides hands-on oversight of the multidisciplinary work teams. Dedicated work teams support each strategy that will remain in place during implementation. Each work team has representation from each hospital, has a designated Chief Financial Officer to provide financial advice, a data analyst, and designated team lead(s). The Executive Committee is the decision-making body that includes senior leadership from FRHS, MMC and WMHS. The Executive Committee provides recommendations and updates to the Alliance Board of Directors. Decisions are made based on achieving consensus among representatives from all three Alliance hospitals. The Alliance Board of Directors meets quarterly, or as needed, to review and approve key items such as clinical initiatives, financial models, funds allocation, and staffing. If our proposed funding amount is approved, the amount we will allocate to each Alliance hospital by CY 2017 when the initiatives have scaled will be: **WMHS:** $2,248,938; **MMC:** $2,697,758; **FRHS:** $2,760,929; **Total:** $7,707,625. Additionally, physician and community partners are foundational to the success of Regional Care Transformation, both have voiced their support and willingness to engage in the strategies detailed in this application. Physician and community partner groups are engaged at the front lines with our work teams. The Alliance has also established a Community Advisory Committee (CAC), comprising community partner representatives including LHICs, Core Service Agencies, Skilled Nursing Facilities, Departments of Social Services, and Hospice agencies. The first CAC meeting was held in November. The group will continue to meet every other month and participate in the implementation process.  |
| Implementation Plan (Response limited to 300 words) |
| The implementation work plan begins upon receipt of the award in February. Once the award value is known, the project budget will be brought into alignment with the award value. After finalizing the projects budgets, the new FTE positions will be posted. For year 1, an aggressive plan to deploy four strategies, their respective processes, workforce and technology needs, and a phased flagging process to identify the targeted HUs across the regional continuum of care has been defined. During year 1, engagement of PCP’s will be phased: first to focus on deployment of the strategies in sponsor hospital employed practices, and then to deploy the strategies across hospital affiliated ACO PCPs. Community Partners will be engaged through the Community Advisory Council and partner with the strategy work teams during process development and refinement. RCMEC will be launched and utilized to train the new staff for Strategies 1, 2, and 3. Year 2 will focus on continuous process improvement of the newly deployed strategies to ensure desired outcomes are being achieved; if not, apply Lean principles regarding problem solving to foster the cycle of continuous improvement. Year 2 into 3, opportunity to deploy the strategies to non-affiliated PCPs will be pursed within compliance of the Stark Laws. During Year 3 and 4, processes will be hard wired; areas for expansion will be identified and pursued based on regional data and applying Lean continuous improvement methodology. Community and physician partners’ engagement is vital for a successful implementation of the strategies proposed in the application. The implementation timeline defines their engagement from Feb. 2016 thru Dec. 2019, The level of engagement and specific key physician partners will evolve and change over time pending the needs of the targeted HU populations.  |
| Budget and Expenditures: Include budget for each intervention. (Response limited to 300 words) |
| Our summary costs by hospital and by strategy are shown below. This includes all of the costs (workforce, IT/Technology, and enabling infrastructure) to implement the four strategies. All Year 1 FTE costs have been pro-rated to fund nine months of implementation, given that the award notice will be received in February, and allotting for the time needed to recruit and hire. The 2017, 2018, 2019 total costs include full implementation of all four strategies.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sponsor Hospital: | CY 2016 | CY 2017 | CY 2018 | CY 2019 |
| WMHS | $1,989,485 | $2,248,938 | $2,182,272 | $2,182,272 |
| MMC | $2,343,346 | $2,697,758 | $2,631,092 | $2,631,092 |
| FRHS | $2,380,710 | $2,760,929 | $2,694,262 | $2,694,262 |
| Regional Request by Year: | **$6,713,541** | **$7,707,625** | **$7,507,626** | **$7,507,626** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strategy: | CY 2016 | CY 2017 | CY 2018 | CY 2019 |
| Strategy 1- BH | $1,916,216 | $2,201,379 | $2,147,449 | $2,147,449 |
| Strategy 2- CCM | $3,702,624 | $4,312,274 | $4,201,754 | $4,201,754 |
| Strategy 3- ED PAU | $1,094,640 | $1,193,955 | $1,158,405 | $1,158,405 |
| Total Cost per Year | $6,713,480 | $7,707,608 | $7,507,608 | $7,507,608 |

 |

# Attachment A – Alliance Baseline and Outcome Measures

Table 1: Alliance Regional Partnership Target Population identified by Zip codes:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 21501 | [21529](http://www.zipcodestogo.com/Ellerslie/MD/21529/) | [21556](http://www.zipcodestogo.com/Pinto/MD/21556/) | 21709 | 21759 | 21780 | 21720 | 21748 |
| [21502](http://www.zipcodestogo.com/Cumberland/MD/21502/) | [**21530**](http://www.zipcodestogo.com/Flintstone/MD/21530/) | [**21557**](http://www.zipcodestogo.com/Rawlings/MD/21557/) | **21710** | **21762** | **21788** | **21721** | **21749** |
| [21503](http://www.zipcodestogo.com/Cumberland/MD/21503/) | [**21532**](http://www.zipcodestogo.com/Frostburg/MD/21532/) | [**21560**](http://www.zipcodestogo.com/Spring%20Gap/MD/21560/) | **21714** | **21769** | **21790** | **21722** | **21750** |
| [21504](http://www.zipcodestogo.com/Cumberland/MD/21504/) | **21536** | [**21562**](http://www.zipcodestogo.com/Westernport/MD/21562/) | **21716** | **21770** | **21792** | **21733** | **21756** |
| [21505](http://www.zipcodestogo.com/Cumberland/MD/21505/) | [**21539**](http://www.zipcodestogo.com/Lonaconing/MD/21539/) | [**21766**](http://www.zipcodestogo.com/Little%20Orleans/MD/21766/) | **21717** | **21771** | **21793** | **21734** | **21767** |
| [21521](http://www.zipcodestogo.com/Barton/MD/21521/) | [**21540**](http://www.zipcodestogo.com/Luke/MD/21540/) | **21701** | **21718** | **21773** | **21798** | **21740** | **21779** |
| 21522 | [**21542**](http://www.zipcodestogo.com/Midland/MD/21542/) | **21702** | **21727** | **21774** | **21711** | **21741** | **21781** |
| 21523 | [**21543**](http://www.zipcodestogo.com/Midlothian/MD/21543/) | **21703** | **21754** | **21775** | **21713** | **21742** | **21782** |
| [21524](http://www.zipcodestogo.com/Corriganville/MD/21524/) | [**21545**](http://www.zipcodestogo.com/Mount%20Savage/MD/21545/) | **21704** | **21755** | **21777** | **21715** | **21746** | **21783** |
| [21528](http://www.zipcodestogo.com/Eckhart%20Mines/MD/21528/) | [**21555**](http://www.zipcodestogo.com/Oldtown/MD/21555/) | **21705** | **21758** | **21778** | **21719** | **21747** | **21795** |

## Table 5. Alliance Strategy-Specific Core Outcome and Process Measures, with Baseline Data

This table provides hospital baseline data and metrics that will be used to track progress on our Regional Partnership strategies.

|  |  |  |  |
| --- | --- | --- | --- |
| Strategy | Metric | Metric Type | Baseline (Year) |
| 1.1 Implement BH Care Management | # of patients in the target population | Outcome | 7,223 target patients(FY2015) |
| 1.1 Implement BH Care Management | Total # of Behavioral Health (BH) ED visits per year for patients in the target population (aggregate) | Outcome | 9,098 BH ED visits (FY2015) |
| 1.1 Implement BH Care Management | # of BH ED visits per patient per year for patients in the target population | Outcome | 1.29 BH ED visits per patient per year (FY2013 - FY2015) |
| 1.1 Implement BH Care Management | Total # of inpatient visits for patients in the target population | Outcome | 3,115 inpatient visits(FY 2015) |
| 1.1 Implement BH Care Management | Total ED and inpatient charges for patients in the target population | Outcome | $28,470,477(FY 2015) |
| 1.2 Integrate BH into primary care to identify patients at risk | # and % of hospital-employed or ACO-affiliated PCP practices using annual PHQ-2 and/or PHQ-9 screenings for adult patients | Process | 21 (i.e., 46%) of hospital-employed or ACO-affiliated practices currently use the screenings(CY2015) |
| 1.2 Integrate BH into primary care to identify patients at risk | % of adult primary care patients screened annually using the PHQ-2 and/or PHQ-9  | Process | 24.72% of MSSP patients in FMHS’s ACO were screened in year. *(Baseline screening rates not available for MMC and WMHS, but will be collected going forward.)* |
| 1.3. Reduce stigma and increase understanding of behavioral health needs through community health education | # of Mental Health First Aid (MHFA) trainings held in our service area per year | Process | 39 trainings held (FY2015) |
| 1.3. Reduce stigma and increase understanding of BH needs through community health education | # of individuals in our service area trained on MHFA per year  | Process | 440 individuals trained(FY 2015) |
| 1.3. Reduce stigma and increase understanding of BH needs through community health education | Rate of ED visits related to mental health disorders (per 100,000 population per year) | Outcome | 4,800 ED visits per 100,000 population(2014) |
| 2. Complex Care Management (CCM) | # of patients in the high utilizer target population annually | Outcome | 1,153(FY 2015) |
| 2. Complex Care Management (CCM) | Total inpatient/OBS charges for target primary diagnoses in the high utilizer target population annually | Outcome | $20,323,779 |
| 2. Complex Care Management (CCM) | Total readmission charges for target primary diagnoses in the high utilizer target population annually | Outcome | $6,867,767 |
| 2. Complex Care Management (CCM) | # of admissions per patient per year in the high utilizer target population (all causes) | Outcome | 4.4 admissions per patient per year(FY 2015) |
| 2. Complex Care Management (CCM) | # of readmissions per patient per year in the high utilizer target population (all causes) | Outcome | 1.3 readmissions per patient per year(FY 2015) |
| 2. Complex Care Management (CCM) | Total inpatient and observation charges for the high utilizer target population per year | Outcome | $52,500,880 (FY 2015) |
| 3. Decrease PAU | # of patients in the ED high utilizer target population group per year | Outcome | 3,171 patients (FY 2015) |
| 3. Decrease PAU | # of ED visits per patient per year in the target population group | Outcome | 5.7 ED visits per patient per year(FY 2015) |
| 3. Decrease PAU | Total ED charges per year for patients in the target population | Outcome  | $10,485,129(FY 2015) |
| 3. Decrease PAU | % of all ED visits attributed to this target population, per year | Outcome | 9.55% of ED visits(FY 2015) |
| 3. Decrease PAU | % of all ED charges attributed to this target population, per year | Outcome | 9.38% of ED charges(FY 2015) |

Table 6a. BH ED Visits Baseline Data (Strategy 1)

|  |  |  |  |
| --- | --- | --- | --- |
| Time Period | WMHS | FMHS | MMC |
| ED Visits | 30 Day Revisit Rate | ED Visits | 30 Day Revisit Rate | ED Visits | 30 Day Revisit Rate |
| FY 13 | 2,697 | 16% | 2,775 | 16% | 3,065 | Not available |
| FY 14 | 2,551 | 17% | 3,130 | 20% | 3,344 | 30% |
| FY 15 | 2,593 | 14% | 3,172 | 19% | 3,333 |  27% |

Table 6b. 30-Day Inpatient Admissions and Readmission Rate (Strategy 1)

|  |  |  |  |
| --- | --- | --- | --- |
| Time Period | WMHS | FMHS | MMC |
| Inpt. Visits | Readmission Rate | Inpt. Visits | Readmission Rate | Inpt. Visits | Readmission Rate |
| FY 13 | 1,207 | 19.7% | 944 | 14% | 1,031 | 7% |
| FY 14 | 1,107 | 12.92% | 1,002 | 18% | 1,049 | 6% |
| FY 15 | 1,126 | 11.35% | 907 | 13% | 1,082 | 11% |

**Note: For FY 13, 14, and 15:** MMC’s 30-Day Inpatient Admission and Readmission Rate was the lowest in the region yet the ED readmission rate is the highest in the region. The treatment of BH patients at MMC is focused at the Psychiatrist level with minimal mid-level involvement and is believed to create this anomaly in the utilization pattern.

Table 7: Number of Employed and ACO Practices Using PHQ-2 and PHQ-9

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sponsor Hospital** | **# of Hospital Employed PCP Practices**  | **# of Non-Employed PCP Practices in ACO**  | **Total # of PCP Practices Currently Utilizing PHQ- 2 and PHQ- 9** | **% of Practices Currently using /Total Hospital Employed & ACO PCP Practices** |
| **WMHS** | **3**  | **7** | **3** | **3/10 (30%)**  |
| **MMC** | **9** | **12** | **3** | **3 /21 (14%)**  |
| **FMHS** | **3** | **12** | **15** | **15/15 (100%)**  |

Table 8. Chronic Care Management (Strategy 2)

This table provides a more detailed look at the utilization and costs of the High Utilizer target population for Strategy 2, by primary diagnoses.

|  |  |
| --- | --- |
| Endocrine, nutritional and metabolic disease and immunity disorders | * Represents 210 Admissions/OBS visits
* Represent 58 readmissions for a **27% readmission** % with a charge of $520,000
* Represents $2,003,671 in total charges
 |
| Disease of the Circulatory System   | * Represents 498 Admissions/OBS visits
* Represents 158 readmissions for a **40% readmission** % with a charge of $2,132,195
* Represents $5,310,154 in total charges
 |
| Disease of the Respiratory System | * Represents 905 Admissions/OBS visits
* Represents 252 readmissions for a **27.8%** readmission rate with a charge of $3,163,025
* Represents $9,163,188 in total charges
 |
| Diseases Requiring Anti-Coagulation Therapy | * Represents Admissions/OBS visits
* Represents 97 readmissions for **20%** readmission with a charge of $961,878
* Represents $3,846,767 in total charges
 |

# Attachment B – ROI by Strategy for CY 2016-2019; including All 4 Years Combined

## Strategy 1 ROI: Behavioral Health (BH)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | CY 2016, Year 1 | CY 2016, Year 2 | CY 2016, Year 3 | CY 2016, Year 4 | Years 1 - 4 Combined |
| A. Number of Patients |  **7,223**  |  **7,223**  |  **7,223**  |  **7,223**  |  **7,223**  |
| B. Number of Medicare and Dual Eligible |  **798**  |  **798**  |  **798**  |  **798**  |  **798**  |
| C. Annual Intervention Cost |  **$ 1,916,216**  |  **$ 2,201,379**  |  **$ 2,147,449**  |  **$ 2,147,449**  |  **$ 8,412,494**  |
| D. Annual Intervention Cost/Patient |  **$ 265** |  **$ 304**  |  **$ 297**  |  **$ 297**  |  **$ 1,164**  |
| E. Annual Intervention Cost (B x D) For Medicare and Dual Eligible Patients |  **$ 211,704** |  **$ 243,209**  |  **$ 237,251**  |  **$ 237,251** |  **$ 929,415**  |
| F. Annual Charges (Baseline) |  **$ 28,470,478** | **$ 28,470,478**  | **$ 28,470,478**  | **$ 28,470,478** | **$ 113,881,912**  |
| G. Annual Charge Savings % Target | **9%** | **12%** | **12%** | **12%** | **11%** |
| H. Annual Gross Charge Savings (F x G) |  **$ 2,562,343** |  **$ 3,416,457** |  **$ 3,416,457**  |  **$ 3,416,457**  |  **$ 12,811,715**  |
| I. ROI: Gross Charge Savings Per Intervention Cost Invested (H / C) |  **$ 1.34**  |  **$ 1.55**  |  **$ 1.59**  |  **$ 1.59**  |  **$ 1.52**  |
| J. Variable Savings % | **30%** | **40%** | **40%** | **40%** | **38%** |
| K. Variable Savings (H x J) |  **$ 768,702** |  **$ 1,366,582**  |  **$ 1,366,582** |  **$ 1,366,582.** |  **$ 4,868,451** |

## Strategy 2 ROI: Complex Care Management (CCM)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | CY 2016, Year 1 | CY 2016, Year 2 | CY 2016, Year 3 | CY 2016, Year 4 | Years 1 - 4 Combined |
| A. Number of Patients | **1,153** | **1,153** | **1,153** | **1,153** | **1,153** |
| B. Number of Medicare and Dual Eligible | **907**  |  **907**  |  **907**  |  **907**  |  **907**  |
| C. Annual Intervention Cost | **$ 3,702,624** | **$ 4,312,274** | **$ 4,201,754** | **$ 4,201,754** | **$ 16,418,409** |
| D. Annual Intervention Cost/Patient | **$ 3,211** | **$ 3,740** | **$ 3,644** | **$ 3,644** | **$ 14,239** |
| E. Annual Intervention Cost (B x D) For Medicare and Dual Eligible Patients | **$ 2,912,645** | **$ 3,392,223** | **$ 3,305,283** | **$ 3,305,283** | **$ 12,915,435** |
| F. Annual Charges (Baseline) | **$ 52,500,880** | **$ 52,500,880** | **$ 52,500,880** | **$ 52,500,880** | **$ 210,003,520** |
| G. Annual Charge Savings % Target | **13%** | **18%** | **21%** | **21%** | **18%** |
| H. Annual Gross Charge Savings (F x G) |  **$ 6,825,114**  |  **$ 9,450,158**  | **$ 11,025,184**  |  **$ 11,025,184**  | **$ 38,325,642**  |
| I. ROI: Gross Charge Savings Per Intervention Cost Invested (H / C) |  **$ 1.84**  |  **$ 2.19**  |  **$ 2.62**  |  **$ 2.62**  |  **$ 2.33**  |
| J. Variable Savings % | **30%** | **40%** | **40%** | **40%** | **38%** |
| K. Variable Savings (H x J) |  **$ 2,047,534**  | **$ 3,780,063**  |  **$ 4,410,073**  |  **$ 4,410,073**  |  **$ 14,647,745**  |

## Strategy 3 ROI: Decrease ED Potentially Avoidable Use (PAU)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | CY 2016, Year 1 | CY 2016, Year 2 | CY 2016, Year 3 | CY 2016, Year 4 | Years 1 - 4 Combined |
| A. Number of Patients |  **3,171**  |  **3,171**  |  **3,171**  |  **3,171**  |  **3,171**  |
| B. Number of Medicare and Dual Eligible |  **1,291**  |  **1,291**  |  **1,291**  |  **1,291**  |  **1,291**  |
| C. Annual Intervention Cost |  **$ 1,094,640**  | **$ 1,193,955**  | **$ 1,158,405**  | **$ 1,158,405**  | **$ 4,605,406**  |
| D. Annual Intervention Cost/Patient |  **$ 345.20**  |  **$ 376.52**  |  **$ 365.31**  |  **$ 365.31**  |  **$ 1,452.35**  |
| E. Annual Intervention Cost (B x D) For Medicare and Dual Eligible Patients |  **$ 445,657.81**  |  **$ 486,091**  |  **$ 471,618**  |  **$ 471,618**  |  **$ 1,874,985**  |
| F. Annual Charges (Baseline) |  **$ 10,485,129**  |  **$ 10,485,129**  | **$ 10,485,129**  | **$ 10,485,129**  |  **$ 41,940,516**  |
| G. Annual Charge Savings % Target | **5%** | **8%** | **15%** | **15%** | **11%** |
| H. Annual Gross Charge Savings (F x G) |  **$ 524,256**  |  **$ 838,810**  |  **$ 1,572,769**  |  **$ 1,572,769**  |  **$ 4,508,605**  |
| I. ROI: Gross Charge Savings Per Intervention Cost Invested (H / C) |  **$ 0.48**  |  **$ 0.70**  |  **$ 1.36**  |  **$ 1.36**  |  **$ 0.98**  |
| J. Variable Savings % | **30%** | **40%** | **40%** | **40%** | **39%** |
| K. Variable Savings (H x J) |  **$ 157,276**  |  **$ 335,524**  |  **$ 629,107**  |  **$ 629,107**  |  **$ 1,751,016**  |

# Attachment C – Governance Structure & Members

 



**Members of the Alliance Governing Bodies**

|  |
| --- |
| Members of the Alliance Governing Bodies |
| Alliance Governing Body | **Name** | **Title** | **Organization** |
| Alliance Board Chair | Ann-Herbert Rollins  | FMH Board Chair | FRHS |
| Alliance Board & MSO Board | Tom Kleinhanzl | CEO | FRHS |
| Alliance Board | Jim Reinsch | FMH Board Vice-Chair | FRHS |
| Alliance Board & MSO Board | Joseph Ross | CEO | MMC |
| Alliance Board | James Stojak  | MMC Board Chair | MMC |
| Alliance Board | Steven Hull | MMC Board Vice-Chair | MMC |
| Alliance Board & MSO Board | Barry Ronan | CEO | WMHC |
| Alliance Board | John Davis  | WMHS Board Chair | WMHS |
| Alliance Board | Rolf Haarstad | WMHS Board Vice-Chair | WMHS |
| MSO Board | Michelle Mahan | CFO | FMHS |
| MSO Board | Tom Chan | CFO | MMC |
| MSO Board  | Kim Repac | CFO | WMHC |
| Regional Partnership Care Transformation Executive Committee |
| Executive Committee | Gerald Goldstein | Senior Vice President/CMO | WMHS |
| Executive Committee | Nancy Adams | SVP, Chief Operating Officer/CNE | WMHS |
| Executive Committee | Eileen Jaskuta | VP Quality | MMC |
| Executive Committee | Raquel Samson | Exec. Director THP/ACO | MMC |
| Executive Committee | Jennifer Teeter | AVP, Payer Contracts | FRHS |
| **Executive Committee** | Manny Casiano, MD | Senior Vice President/CMO | FRHS |
| Executive Committee | Raymond Grahe | Staff | THA |

# Attachment D – Community Advisory Council (CAC) Members

|  |
| --- |
| **Community Advisory Council Members** |
| Representation Needed: | FRHS | WMHS | MMC |
| **(2) LHIC and Cores Service Agency (CSA) Representatives** | Barbara A. Brookmyer, MD, MPHFrederick County Health Care Coalition Board of DirectorsHealth Officer | Lesa Diehl, Director   Allegany Co. Health Dept., MHSO, CSA      | Rod MacRae, MA MHP, Director, Washington County Health Department |
| Josh PedersenFrederick County Health Care Coalition Board of DirectorsCEO, United Way of Frederick | Cathy Chapman, CRNPChapman and Associates Health Care | Rick Rock, LCSW-C,Executive Director, Washington County Mental Health Authority, CSA |
| **Law Enforcement** | Designated Washington Co. Rep.to be the Regional Representative | Todd Kerns, Washington County Sheriff Representative |
| **Area Agency For Aging** | Designated Washington Co. Rep.to be the Regional Representative |  Amy Olack Executive Director Commission on Aging |
| **Consumer Advocacy Group or Consortium** | Dr. Joseph Berman; Advocates for the Aged in Frederick County; (Back-up rep.: Cindy Powell) | Designated Frederick Co. Rep.to be the Regional Representative |
| **SNF** | Designated Alleghany Co. Rep.to be the Regional Representative |  Christopher P. Adams, MBA,  LHNA, Devlin Manor Healthcare Center | Designated Alleghany Co. Rep.to be the Regional Representative |
| **Hospice** | Helen Kimble; Hospice of Frederick County | Candy Adams; Nurse Manager | Eric Klimes, CEOHospice of Washington County |
| **DSS** | Richard Paulman, Ed. D.Director, Allegany County Department of Social Services | Designated Frederick Co. Rep.to be the Regional Representative |
| **Exec. Committee Representation** | Eileen Jaskuta, MMC and Manny Casiano, FRHS |
| **Membership from Alliance** | Work Team Leads: Allen Twigg, Nancy Forlifer, Jo Wilson, Andrea Horton, Heather Kirby |
| **Liaison between CAC, EC, and Work Teams** | Work Team Leads: Allen Twigg, Nancy Forlifer, Jo Wilson, Andrea Horton, Heather Kirby |
| **CAC Meeting Facilitator** | Kristie Carbaugh, Regional Partnership Project Management Director |
| **CAC Chair** | To be determined within the next two CAC meetings; will need Executive Committee Approval |

# Attachment E – Community Advisory Council (CAC) Charter

**ALLIANCE REGIONAL CARE TRANSFORMATION**

**COMMUNITY ADVISORY COUNCIL**

**CHARTER**

**REVIEWED AND APPROVED BY ALLIANCE REGIONAL PARTNERSHIP**

**HEALTHY LIFESTYLES/COMMUNITY PARTNERS TASK FORCE**

**Charter:** The Alliance Regional Partnership (RP) Community Advisory Council has been formed to discuss, respond to and advise the Alliance Regional Partnership on coordinated and targeted population health activities to improve the health status of the communities in the Alliance counties of Allegany, Frederick and Washington. It will be charged with reviewing common planning efforts, obtaining feedback from county based LHIC members and other partners, and advising the Alliance on implementation and resource needs.

**Membership:** Members are appointed by the Alliance Board of Directors and will comprise of at least 2 members from each county Local health Improvement Council and representatives of other key community partner organizations as relevant to the Alliance RP population health focus. Membership is for a 2 year term and terms will be staggered to facilitate continuity. CAC chair to be determined. Meetings are held bimonthly.

**Roles of the Regional Partnership CAC:**

* Focus on a regional view of population health activities;
* Disseminate information and innovation that could impact health outcomes in the RP;
* Review performance data of the RP related to the identified areas of focus;
* Ensure community engagement by bringing Regional Partnership information, ideas and actions back to their counties for discussion;
* Serve as the communication loop between the RP and the LHICs;
* Provide input to health systems for potential opportunities and practices to advance regional population health;
* Serve as a forum for education and training among CAC members to better understand how each impacts each other;
* Engage stakeholder not providing direct care services (e.g., libraries, schools, etc.);
* Provide input on creating patient-centered processes;
* Evaluate regional health data and ensure that target populations are appropriately selected;
* Identify and address social determinants of health;
* Advise on necessary and available resources to implement regional plans.

**Guiding Principles:**

* We support a highly collaborative regional model, with customized local models of care, built on best practices;
* We will assess and suggest interventions based on an understanding of the health status and needs of our region;
* We will support early opportunities for regional collaboration where we can make a difference in a relatively short period of time;
* We will provide feedback on needed initial and ongoing investments and resources;
* We will provide leadership and information to foster innovation and change to promote and improve the health of our communities.

# Attachment F – Cost Per Strategy per Calendar Year (2016-2019)

Allocation methodology applied:

* Regional Education Center and Technology/Training and Orientation cost allocated to teams based on # of FTE's per team/total FTE's for all teams combined.
* Enabling Strategies cost allocated to teams evenly for all years (1/3).
* Technology/Training and Orientation cost reduced from $1,000,000 in year 2 to $500,000, and from $500,000 to $300,000 for year 3 and 4.

Cost per Strategy for all four years combined:

|  |  |
| --- | --- |
|  | **Calendar Years 1 - 4 Combined (2016-2019)** |
| **Strategy 1: BH** | **Strategy 2: CCM** | **Strategy 3: Reduce Avoid. Use** | **All 3 Strategies Combined** |
|
| **A. Number of Patients** | **7,223** | **1,153** | **3,171** | **11,547** |
| **B. Number of Medicare and Dual Eligible** | **798** | **907** | **1,291** | **2,996** |
| **C. Annual Intervention Cost**  | **$ 8,412,494** | **$ 16,418,409** | **$4,605,406** | **$ 29,436,309** |
| **D. Annual Intervention Cost/Patient (C/A)** | **$ 1,164** | **$ 14,239** | **$ 1,452** |  **$ 2,549** |
| **E. Annual Intervention Cost (B x D) For Medicare and Dual Eligible Patients** | **$ 929,415** | **$ 12,915,435** | **$ 1,874,985** | **$ 15,719,837** |
| **F. Annual Charges (Baseline)** | **$ 113,881,912** | **$ 210,003,520** | **$41,940,516** | **$365,825,948** |
| **G. Annual Charge Savings % Target** | **11%** | **18%** | **11%** | **15%** |
| **H. Annual Gross Charge Savings (F x G)** | **$ 12,811,715** | **$ 38,325,642** | **$ 4,508,605** | **$ 55,645,962** |
| **I. ROI: Gross Charge Savings Per Intervention Cost Invested (H / C)** | **1.52** | **2.33** | **0.98** | **1.89** |
| J. Variable Savings % | **38%** | **38%** | **39%** | **38%** |
| **K. Variable Savings (H x J)** | **$ 4,868,451** | **$ 14,647,745** | **$ 1,751,016** | **$ 21,267,213** |

The following Tables Detail Cost per Strategy/year for 2016-2019.

## Attachment F cont. – Cost Per Strategy per Calendar Year (2016-2019)

|  |  |
| --- | --- |
| Strategy 1: Behavioral Health | **4 Year Summary Total** |
| Cost Center | **Total FTE's** | **2016**  **Year 1** | **2017 Year 2** | **2018 Year 3** | **2019 Year 4** | **Total Project** |
| Salaries | 22.30 | $ 1,259,961  | $ 1,679,948  |  $1,679,948  |  $1,679,948  | $ 6,299,805  |
| Strategy 4: Regional CM Education Center (RCMEC) |   | $ 100,606  | $ 100,606  | $ 100,606  | $ 100,606  | $ 402,424  |
| Technology/Training and Orientation |   | $ 269,649  | $ 134,825  | $ 80,895  | $ 80,895  | $ 566,264  |
| Enabling Strategies |   | $ 286,000  | $ 286,000  | $ 286,000  | $ 286,000  | $ 1,144,000  |
| Total | 22.30  | $ 1,916,216  | $ 2,201,379  | $ 2,147,449  | $ 2,147,449  | $ 8,412,494  |

|  |  |
| --- | --- |
| **Strategy 2: Complex Care Management** | 4 Year Summary Total |
| Cost Center | **Total FTE's** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Total Project** |
| Salaries | 45.70  | $2,657,850  | $ 3,543,800  | $ 3,543,800 | $ 3,543,800  | $ 13,289,250  |
| Strategy 4: Regional CM Education Center (RCMEC) |   | $ 206,174  | $ 206,174  | $ 206,174  | $ 206,174  | $ 824,699  |
| Technology/Training and Orientation |   | $ 552,599  | $ 276,299  | $ 165,779  | $ 165,779  | $ 1,160,459  |
| Enabling Strategies |   | $ 286,000  | $ 286,000  | $ 286,000  | $ 286,000  | $ 1,144,000  |
| Total | 45.70  | $ 3,702,624  | $ 4,312,274  | $ 4,201,754  | $ 4,201,754 | $ 16,418,409  |

|  |  |
| --- | --- |
| Strategy 3: Complex Care Management | 4 Year Summary Total |
| Cost Center | **Total FTE's** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Total Project** |
| Salaries | 14.70  | $ 564,570  | $ 752,761  | $ 752,761  | $ 752,761  | $ 2,822,853  |
| Strategy 4: Regional CM Education Center (RCMEC) |   | $ 66,318  | $ 66,318  | $ 66,318  | $ 66,318  | $ 265,275  |
| Technology/Training and Orientation |   | $ 177,750  | $ 88,875  | $ 53,325  | $ 53,325  | $ 373,276  |
| Enabling Strategies |   | $ 286,000  | $ 286,000  | $ 286,000  | $ 286,000  | $ 1,144,000  |
| Total | 14.70  | $ 1,094,640  | $ 1,193,955  | $ 1,158,405  | $ 1,158,405  | $ 4,605,406  |

|  |  |
| --- | --- |
| All Strategies Per Year (2016 – 2019) & 4 Year Cumulative | 4 Year Summary Total |
| Cost Center | **Total FTE's** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Total Project** |
| Salaries | 82.70  | $ 4,482,381  | $ 5,976,509  | $ 5,976,509  | $ 5,976,509  | $ 22,411,909  |
| Strategy 4: Regional CM Education Center (RCMEC) |   | $ 373,100  | $ 373,100  | $ 373,100  | $ 373,100  | $ 1,492,400  |
| Technology/Training and Orientation |   | $1,000,000  | $ 500,000  | $ 300,000  | $ 300,000  | $ 2,100,000  |
| Enabling Strategies |   | $ 858,000  | $ 858,000  | $ 858,000  | $ 858,000  | $ 3,432,000  |
| Total | 82.70  | $ 6,713,481  | $7,707,609  | $ 7,507,609 | $ 7,507,609  | $ 29,436,309  |

# Attachment G – Sponsor Hospital-specific cost detail for all Strategies

|  |
| --- |
| **FRHS Cost For All 4 Strategies** |
|  |  |  |  | **Year 2, 3 and 4 Annual Cost** | **Year 1 Pro-Rated for Start-Up** |
| **Work Team 1** |  |  |  |  |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| Masters Level BH  | 8.7 | $57,950 | $75,334 | $655,406 |  |
| **Total Cost WT 1** |  |  |  | **$655,406** | **$491,554** |
| **Work Team 2** |  |  |  |  |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| RN - Manager/Clinician | 1.0 | $100,000 | $130,000 | $130,000 |  |
| NP | 1.5 | $146,000 | $189,800 | $284,700 |  |
| Registered Dietician | 1.0 | $63,000 | $81,900 | $81,900 |  |
| Respiratory Therapist | 1.0 | $80,000 | $104,000 | $104,000 |  |
| CHW | 9.0 | $30,000 | $39,000 | $351,000 |  |
| RN CM | 2.0 | $75,000 | $97,500 | $195,000 |  |
| Receptionist | 1.0 | $25,000 | $32,500 | $32,500 |  |
| SW | 1.0 | $75,000 | $97,500 | $97,500 |  |
|  **Total Cost WT 2** | 17.5 |  |  | **$1,276,600** | **$957,450** |
| **Work Team 3** |  |  |  |  |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| CM for Tuck in Service working 7am to 7 PM on Fridays at each hospital | 0.34 | $23,800 | $30,940 | $30,940 |  |
|  Relief | 0.04 | $2,800 | $3,640 | $3,640 |  |
|  Shift Differential  | 0.34 | $2,618 | $3,403 | $3,403 |  |
|  |  |  |  | **$37,983** |  |
| ED High Utilizers | FTE | Salary | 30% Benefits | Total |  |
| CHW | 3.2 | $30,000  | $39,000  | $124,800 |  |
|  |  |  |  | **$124,800** |  |
| Tele monitoring  |  |  |  |  |  |
| Technology |  |  |  | **$37,417** |  |
| Paramedic Program | FTE | Salary | 30% Benefits | Total |  |
|  | 1.0 | $40,000  | $52,000.00  | $52,000 |  |
|  |  |  |  | **$52,000** |  |
|  **Total Cost WT 3** | 4.92 |  |  | **$252,200** | **$189,150** |
| **FRHS Cost For All 4 Strategies** |
| Regional Education Center Shared Cost-divided by FTE |  |  |  |  |  |
|  | Frederick | Meritus | WMHS |  |  |
| # of FTE for all 3 Strategies | 31.12 | 25.99 | 24.79 | 81.9 |  |
| % of FTE/Hospital | 38.00% | 31.73% | 30.27% | 100.00% |  |
| **Regional Education Center** | FTE | Salary | 30% Benefits | Total |  |
| Care Management Education Specialist | 1.0 | $90,000  | $117,000  | $117,000  |  |
| Coordinator | 1.0 | $80,000 | $104,000  | $104,000  |  |
| Community Partner Liaison  | 1.0 | $65,000 | $84,500  | $84,500  |  |
| BS HED w/MH  | 1.0 | $52,000 | $67,600  | $67,600  |  |
|  |  |  |  | **$373,100**  |  |
| **Fredericks Share (38% share)** |  |  |  | **$124,056** | **$124,056** |
| **Technology/Training and Orientation for all 3 Strategies** |  |  |  |  |  |
| Year 1- $1,000,000 |  |  |  |  | $1,000,000 |
| Year 2- $500,000 |  |  |  |  |  |
| Year 3- $300,000 |  |  |  |  |  |
| Year 4- $300,000 |  |  |  |  |  |
| **Fredericks Share** |  |  |  |  |  |
| Year 1- $332,500 |  |  |  |  | $332,500 |
| Year 2- $166,667 |  |  |  | See detail to left |  |
| Year 3- $100,000 |  |  |  |  |  |
| Year 4- $100,000 |  |  |  |  |  |
| **Enabling Strategies: 1/3 Share Each** | FTE | Salary | 30% Benefits | Total |  |
| Project Manager | 1.0 | $110,000 | $143,000 | $143,000 |  |
| Project Coordinator | 1.0 | $45,000 | $58,500 | $76,050 |  |
| Staff Accountant | 1.0 | $55,000 | $71,500 | $92,950 |  |
| Decision Support Analyst | 1.5 | $80,000 | $104,000 | $156,000 |  |
| Manager  | 3.0 | $100,000 | $130,000 | $390,000 |  |
| Total Enabling |  |  |  | $858,000 |  |
| **Fredericks Share** |  |  |  | **$286,000** |  |
| **FRHS Cost for All 4 Strategies Year 1-4 Summary** |
| **Year 1 Annual FRHS Cost of Strategies:** | $2,380,710 |  |  |  |
| **Year 2 Annual FRHS Cost of Strategies:** | $2,760,929 |  |  |  |
| **Year 3 Annual FRHS Cost of Strategies:** | $2,694,262 |  |  |  |
| **Year 4 Annual FRHS Cost of Strategies:** | $2,694,262 |  |  |  |

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| **MMC Cost For All Strategies** |
|  |  |  |  | **Year 2 and 3 Annual Cost** | **Year 1 Pro-Rated for Start-Up** |
| **Work Team 1** |   |   |   |   |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| Masters Level BH  | 7.6 | $57,950 | $75,334 | $572,538 |  |
| **Total Cost WT 1** |   |   |   | **$572,538** | **$429,403.80** |
| **Work Team 2** |   |   |   |   |  |
|   | FTE | Salary | 30% Benefits | Total |  |
| CHW | 9.0 | $30,000 | $39,000 | $351,000 |  |
| RN CM | 1.0 | $75,000 | $97,500 | $97,500 |  |
| Respiratory Therapist | 1.0 | $80,000 | $104,000 | $104,000 |  |
| Registered Dietician | 2.0 | $63,000 | $81,900 | $163,800 |  |
| SW | 3.0 | $75,000 | $97,500 | $292,500 |  |
| Pharmacist | 2.2 | $100,000 | $130,000 | $286,000 |  |
| **Total Cost WT 2** | 18.2 |   |   | **$1,294,800** | **$971,100.00** |
| **Work Team 3** |   |   |   |   |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| CM for Tuck in Service working 7am to 7 PM on Fridays at each hospital | 0.33 | $23,100 | $30,030 | $30,030 |  |
|  Relief | 0.03 | $2,100 | $2,730 | $2,730 |  |
|  Differential  | 0.33 | $2,541 | $3,303 | $3,303 |  |
| ED High Utilizers  | FTE | Salary | 30% Benefits | Total |  |
| CHW | 3.2 | $30,000  | $39,000  | $124,800  |  |
|   |   |   |   | **$124,800**  |  |
| Tele monitoring  |   |   |   |   |  |
| Technology |   |   |   | **$37,417** |  |
| Paramedic Program | FTE | Salary | 30% Benefits | Total |  |
|   | 1.0 | $40,000  | $52,000.00  | $52,000 |  |
|   |   |   |   | $52,000 |  |
|  **Total Cost WT 3** | 4.89 |   |   | **$250,280** | **$187,710.23** |
| **Regional Education Center Shared Cost-divided by FTE** |   |   |   |   |  |
|  | Frederick | Meritus | WMHS |   |  |
| 25.29 | 25.99 | 24.79 | 76.07 |  |
| 33.25% | 34.17% | 32.59% | 100.00% |  |
| **MMC Cost For All Strategies- Continued** |
| **Regional Education Center** | FTE | Salary | 30% Benefits | Total |  |
| Care Management Education Specialist | 1.0 | $90,000  | $117,000  | $117,000  |  |
| Coordinator | 1.0 | $80,000 | $104,000  | $104,000  |  |
| Community Partner Liaison  | 1.0 | $65,000 | $84,500  | $84,500  |  |
| BS HED w/MH  | 1.0 | $52,000 | $67,600  | $67,600  |  |
| **Regional Total:** |   |   |   | **$373,100**  |  |
| **MMC’s Share (34.17%)** |   |   |   | **$127,473** |  |
| **Technology/Training and Orientation for all 3 Strategies** |  |  |  |  |
| Year 1- $1,000,000 |  |  |  |  | $1,000,000 |
| Year 2- $500,000 |  |  |  | See detail to left. |  |
| Year 3- $300,000 |  |  |  |  |  |
| Year 4- $300,000 |  |  |  |  |  |
| MMC’s Share |
| Year 1- $332,500 |  |  |  |  | $332,500 |
| **Year 2- $166,667** |   |   |  | See detail to left. |  |
| **Year 3- $100,000** |  |  |  |  |  |
| **Year 1- $1,000,000** |  |  |  |  |  |
| **Enabling Strategies** |   |   |   |   |  |
| Shared 1/3 each |   |   |   |   |  |
|   | FTE | Salary | 30% Benefits | Total |  |
| Project Manager | 1.0 | $110,000 | $143,000 | $143,000 |  |
| Project Coordinator | 1.0 | $45,000 | $58,500 | $76,050 |  |
| Staff Accountant | 1.0 | $55,000 | $71,500 | $92,950 |  |
| Decision Support Analyst | 1.5 | $80,000 | $104,000 | $156,000 |  |
| Manager  | 3.0 | $100,000 | $130,000 | $390,000 |  |
|  Total Enabling |   |   |   | $858,000 |  |
| **Meritus Share** |   |   |   | **$286,000** |  |
| **MMC Cost for All Strategies Year 1-4 Summarized** |
| **Total Annual MMC Cost of Strategies For Year 1**  | **$2,343,346** |  |
| **Total Annual MMC Cost of Strategies For Year 2**  | **$2,697,758** |  |
| **Total Annual MMC Cost of Strategies For Year 3**  | **$2,631,092** |  |
| **Total Annual MMC Cost of Strategies For Year 4** | **$2,631,092** |  |

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| **WMHS Cost for All Strategies** |
|  |   |   |   | **Year 2 and 3 Annual Cost** | **Year 1 Pro-Rated for Start-Up** |
|  WT 1 |   |   |   |   |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| Masters Level BH  | 6.0 | $57,950 | $75,334 | $452,004 |  |
| **Total Cost WT 1** |   |   |   | **$452,004** | **$339,003.00** |
| **Work Team 2** |   |   |   |   |  |
| NP | 2.0 | $100,000 | $130,000 | $260,000 |  |
| MA/Registrar  | 1.0 | $25,000 | $32,500 | $32,500 |  |
| CHW | 2.0 | $30,000 | $39,000 | $78,000 |  |
| RN CM | 2.0 | $75,000 | $97,500 | $195,000 |  |
| Registered Dietician- added 11/21/15 | 1.0 | $63,000 | $81,900 | $81,900 |  |
| Pharmacist | 1.0 | $100,000 | $130,000 | $130,000 |  |
| SW | 1.0 | $75,000 | $97,500 | $195,000 |  |
|  **Total Cost WT 2** | 10.0 |   |   | **$972,400** | **$729,300.00** |
| **Work Team 3** |   |   |   |   |  |
| Proposed Staffing | FTE | Salary | 30% Benefits | Total |  |
| CM for Tuck in Service working 7am to 7 PM on Fridays at each hospital | 0.33 | $23,100 | $30,030 | $30,030 |  |
|  Relief | 0.03 | $2,100 | $2,730 | $2,730 |  |
|  Differential  | 0.33 | $2,541 | $3,303 | $3,303 |  |
|   |   |   |   | **$36,063** |  |
| ED HU  | FTE | Salary | 30% Benefits | Total |  |
| CHW | 3.2 | $30,000  | $39,000  | $124,800  |  |
|   |   |   |   | **$124,800**  |  |
| Tele monitoring  |   |   |   |   |  |
| Technology |   |   |   | **$37,417** |  |
| Paramedic Program | FTE | Salary | 30% Benefits | Total |  |
| Paramedic | 1.0 | $40,000  | $52,000.00  | $52,000 |  |
|   |   |   |   | $52,000 |  |
|  **Total Cost WT 3** | 4.89 |   |   | **$250,280** | **$187,710.23** |
| **Regional Education Center Shared Cost-divided by FTE** |   |   |   |   |  |
|   | FRHS | MMC | WMHS |   |  |
|   | 25.29 | 25.99 | 24.79 | 76.07 |  |
|   | 33.25% | 34.17% | 32.59% | 100.00% |  |
| **Regional Education Center** | FTE | Salary | 30% Benefits | Total |  |
| Care Management Education Specialist | 1.0 | $90,000  | $117,000  | $117,000  |  |
| Coordinator | 1.0 | $80,000 | $104,000  | $104,000  |  |
| Community Partner Liaison  | 1.0 | $65,000 | $84,500  | $84,500  |  |
| BS HED w/MH  | 1.0 | $52,000 | $67,600  | $67,600  |  |
| **Regional Total:** |   |   |   | **$373,100**  |  |
| **WMHS Share (32.59%)** |   |   |   | **$121,587** |  |
| **Technology/ Training and Orientation for All Strategies** |   |   |   |   |   |
| Year 1- $1,000,000 |   |   |   |   |  |
| Year 2- $500,000 |   |   |   |   |  |
| Year 3- $300,000 |  |  |  |  |  |
| WMHS’s Share |  |  |  |  |  |
| Year 1- $332,500 |  |  |  |  | $332,500 |
| **Year 2- $166,667** |   |   |  | See detail to left. |  |
| **Year 3- $100,000** |  |  |  |  |  |
| **Year 1- $1,000,000** |  |  |  |  |  |
| **Enabling Strategies** |   |   |   |   |  |
| Shared 1/3 each |   |   |   |   |  |
|   | FTE | Salary | 30% Benefits | Total |  |
| Project Manager | 1.0 | $110,000 | $143,000 | $143,000 |  |
| Project Coordinator | 1.0 | $45,000 | $58,500 | $76,050 |  |
| Staff Accountant | 1.0 | $55,000 | $71,500 | $92,950 |  |
| Decision Support Analyst | 1.5 | $80,000 | $104,000 | $156,000 |  |
| Manager  | 3.0 | $100,000 | $130,000 | $390,000 |  |
| Total Enabling |   |   |   | $858,000 |  |
| **WMHS Share** |   |   |   | **$286,000** |  |
| **WMHS Cost for All Strategies Year 1-4 Summarized** |
| **Total Annual WMHS Cost of Strategies for yr. 1**  | **$1,989,485** |   |  |
| **Total Annual WMHS Cost of Strategies for yr. 2**  | **$2,248,938** |   |  |
| **Total Annual WMHS Cost of Strategies for yr. 3** | **$2,182,272** |   |  |
| **Total Annual WMHS Cost of Strategies for yr. 4** | **$2,182,272** |  |  |
|  |
|  |
| Cost for All Strategies Year 1-4 |  |  |  |
| **Total Cost of All Strategies for all Year 1** | **$6,713,541** |      |
| **Total Cost of All Strategies for all Year 2** | **$7,707,625** |
| **Total Cost of All Strategies for all Year 3** | **$7,507,625** |
| **Total Cost of All Strategies for all Year 4** | **$7,507,625** |

1. Data sources include: Community Needs Assessments conducted by Frederick Regional Health System, Meritus Medical Center, and Alleghany County (jointly performed by Western Maryland Health System and the county health department), the Health Services Cost Review Commission, U.S. Census, County Health Rankings (a collaboration of the [Robert Wood Johnson Foundation](http://www.rwjf.org/) and the [University of Wisconsin Population Health Institute](http://uwphi.pophealth.wisc.edu/)), The Centers for Medicare & Medicaid Services (CMS) Chronic Condition Warehouse, Maryland Vital Statistics, the Maryland Department of Planning, and the Behavioral Health Risk Factor Surveillance System. [↑](#footnote-ref-1)