

University of Maryland Rehabilitation & Orthopaedic Institute

Strategic Hospital Transformation Plan

**Executive Summary and Overall Goal**

The University of Maryland Rehabilitation & Orthopaedic Institute (UM Rehab) is licensed as an acute care hospital and provides care for patients that need orthopaedic surgery, physical rehabilitation, pain management and dental care. UM Rehab is in a unique position in that we operate in the acute medical surgical, ambulatory and post-acute care arenas delivering rehabilitation and orthopaedic services to the community and region. We play a critical role in the State in rehabilitating patients who have suffered a serious injury or illness. Twenty percent of all inpatient rehabilitation in Maryland is provided at UM Rehab. We treat 85% of all Shock Trauma patients in need of inpatient rehabilitation, regardless of where they live in the state. This is a critical function in order to keep efficient patient flow through the Maryland Institute for Emergency Medical Services Systems (MIEMSS) and to provide more cost effective and appropriate post-acute care to those after an illness or injury.

Consistent with Maryland's new Medicare waiver, the overall goal of the University of Maryland Rehabilitation & Orthopaedic Institute's Strategic Hospital Transformation Plan is to achieve the "Triple Aim" for populations in the State of Maryland who need our services. The "Triple Aim" has been defined by the Institute for Healthcare Improvement (IHI) as:

- Improving the patient experience of care (including quality and satisfaction);
- Improving the health of populations; and
- Reducing the per capita cost of health care.

IHI's innovation team has developed a concept design and described an initial set of components of a system that would fulfill the Triple Aim, including:

- Focus on individuals and families
- Redesign of primary care services and structures
- Population health management
- Cost control platform
- System integration and execution

Accomplishing this will require a major paradigm shift as we move from silos of care to population health. This shift in health care delivery will involve caring for patients in a more holistic manner while being sensitive to cultural diversity, disparities in care, and the growing population of vulnerable seniors. To improve population health, Maryland needs more primary and specialty care, more effective patient education and support related to managing health, a greater emphasis on prevention, and comprehensive care coordination. It will take a proactive approach with community partners to design programs to help individuals with preventable complications avoid unnecessary hospitalization. Tertiary prevention also

has room for growth and support. With this population health approach, the goals of reducing readmissions and preventing potentially avoidable utilization should be attainable. While much has already been accomplished, much remains to be done. The targets to keep clearly in focus are assuring patients get the right care, in the right setting, at the right time.

As part of our 2015 population health initiative we focused on two high risk populations, individuals who have sustained spinal cord and traumatic brain injuries. Of those injured in Maryland, we provide inpatient rehabilitation care to 50% of all those with traumatic brain injuries and 30% of all individuals with spinal cord injuries on our diagnostic-specific specialty units. Our intense inpatient and outpatient programs are designed to improve both physical and cognitive function. After inpatient rehabilitation, we work to connect patients to a network of 23 locations for outpatient services or other providers. Our ultimate goal is to return individuals to the “community”, defined as their former living situation, while helping them reach their highest level of physical and cognitive function and actively participate in living. This includes developing skills of daily living, assisting with on-going support and connecting them with community based programs.

### **STRATEGY #1**

**Enhance our existing Patient Navigator program and develop program offerings by expanding our educational efforts and identifying additional partners among payers, primary care providers and other community partners.**

Specifically, UM Rehab will identify primary care providers interested in treating individuals with traumatic brain injury, and provide an education program on how to most effectively treat this population. We will also develop a support group that addresses substance abuse for individuals with a TBI, as the rate of substance abuse is very high prior to and following the original injury. Additionally, we are hosting a program in three locations throughout the State for clinicians who provide care for individuals with spinal cord injury who require skilled rehabilitation, as well as for allied health students, with support of a grant from Paralyzed Veterans of America Education Foundation.

While we have partnered with the Brain Injury Association of Maryland (BIAM) for many years, they currently occupy in-kind space outside our TBI unit; we are looking to further expand our relationship in 2016. We have renewed discussions on how patients can more effectively and more timely access Maryland’s Home and Community Based Services Waiver for Adults with Traumatic Brain Injury. While we have not set a time limit for our navigators to follow our patients, we believe BIAM may be able to assist us in long-term follow-up, and are currently discussing the needed resources to support that program.

### **Target Population**

The target populations are individuals with Spinal Cord Injury and Traumatic Brain Injury who are at high risk for readmission.

### **Metrics**

Measures of success will include:

- Decreasing the number of readmissions for individuals with TBI or SCI as measured by CRISP data
- Increasing the number of PCPs on our referral list able to treat individuals with TBI
- Increasing the number of outpatient rehabilitation facilities in the state able to treat individuals with TBI and SCI

- Increasing the time individuals with TBI are followed beyond 30 days as tracked by BIAM
- Tracking progress of patients with TBI and SCI post-discharge through personal follow-up phone calls beginning 72 hours after and continuing weekly to assure successful transition back to the community
- Monitoring status of individuals with TBI who've attended the substance abuse support group

### **Partners**

Partners include: University of Maryland R. Adams Cowley Shock Trauma Center, Brain Injury Association of Maryland, Mobility MTA, Blue Cross/Blue Shield, Maryland Department of Health and Mental Hygiene, managed Medicaid organizations, primary care physicians in UMMS and in the community, licensed therapists (PT/OT/ST), and Paralyzed Veterans of America (PVA).

### **Financial Sustainability**

In 2016 we will be developing and investing in a data base to track our results which is estimated to cost \$30,000.

### **STRATEGY #2**

**Expand our existing Patient Navigator program to include our Comprehensive Medical Rehabilitation and Stroke programs.**

In 2016 we will be expanding our current Patient Navigator program and adding two additional Patient Navigators. Our first additional navigator will serve on our Comprehensive Medical Rehabilitation Unit (CMR); these patients are medically complex and have a number of chronic conditions, they are also at high risk for readmission. Often these patients are post-transplant, have cardiac and pulmonary conditions, suffer from significant debility, or have amputation due to medical conditions such as diabetes. Due to the nature of their medical conditions, they often have experienced multiple hospitalizations, use multiple medications with a complex regimen, and have significant physical disabilities; they are excellent candidates for a navigator program. As an example, a patient who is post-transplant may need guidance and support on medications, medical appointments, mobility, housing, etc.

Our second additional navigator will be working with our stroke population. Often these patients have incurred a stroke due to lifestyle issues; poor diet and lack of exercise, obesity, excessive use of tobacco and alcohol, and untreated high blood pressure and cholesterol. With a rise in younger stroke patients, we see increasing challenges and needs for these patients as they often are returning to work and have families to care for and support. They are excellent candidates for a navigator program as they face dramatic lifestyle changes and chronic disease management. We need to offer guidance and support on self-management, healthy eating and exercise, as well as ensuring primary care appointments are made and medications are taken compliantly.

### **Target Population**

The target population includes individuals who've had a transplant, those with cardiac or pulmonary conditions, or those who've experienced a stroke.

### **Metrics**

Measures of success will include:

- Hiring and training two additional Patient Navigators

- Decreasing the number of readmissions for individuals from CMR and Stroke programs as measured by CRISP data

### **Partners**

Partners include University of Maryland Medical Center Transplant team, UMMS Stroke Navigators, Maryland Comprehensive Stroke Conference.

### **Financial Sustainability**

Our two existing Patient Navigators have an on-going annual cost of \$202,000. We estimate the cost of the additional navigators will be approximately the same; we also expect to incur a cost of an additional \$30,000 to develop a tracking data base.

### **STRATEGY #3**

**Reduce 30-day readmission rate by developing a Chronic Disease Self-Management program.**

To support the population health initiatives with chronic high utilizers, UM Rehab & Ortho Institute will begin to offer the Living Well/Chronic Disease Management Program to patients and the community in the first quarter of 2016. Coupled with ongoing support from the Patient Navigators, this evidence-based program will help foster self-management skills in individuals with a chronic disease, thereby reducing recidivism in this population. The two existing Patient Navigators are now trained facilitators and will begin instructing individuals with TBI and SCI in January. The goal will be to conduct four 6-week sessions throughout the year.

### **Target Population**

The target population includes any individual who has been newly diagnosed with a chronic disease as well as their caregivers; traumatic brain injury and spinal cord injury are both considered chronic disease.

### **Metrics**

Measures for success will include:

- Decreasing the number of readmissions for individuals from UM Rehab as measured by CRISP data
- Tracking the number of patients that attend the self-management classes, and measuring readmissions compared to those patients who do not attend the self-management classes
- Of patients that attend the self-management classes, tracking the number of follow-up appointments scheduled before patients discharge and measuring percentage of those that were actually kept

### **Partners:**

Stanford University facilitator training was provided by the State of Maryland. Other partners include: BIAM, Christopher Reeves Mentor Program, Paralympic Sport Club, Trauma Survivors Network, UMMC/Midtown Campus

### **Financial Sustainability:**

The costs to develop and provide the Chronic Disease Self-Management program are approximately \$5,000 annually and include training, room space, class materials, collaterals and refreshments.

#### **STRATEGY #4**

##### **Improve our post-acute care integration for our all UM Rehab patients transitioning from our facility.**

In our role as the largest provider of inpatient rehabilitation, we are often viewed as a resource and partner. We are committed to expanding that role in 2016 by hosting quarterly multi-disciplinary Resource Fairs to learn about services in the community and create a Resource Guide from those identified through the fair. Our plan is to compile and disseminate the Resource Guide to patients, staff, and community partners. This work would include our partners such as Brain Injury Association of Maryland, durable medical equipment companies, home health agencies and the Maryland Department of Rehabilitation Services with whom we support and partner.

In addition to working with the Brain Injury Association of Maryland, we are also participating in the Maryland Hospital Association's Behavioral Health Task Force to identify the needs and gaps in the community for behavioral health services. This will allow us to work with existing partners such as NeuroRestorative, as well as identify and develop new partners.

We also participate in the West Baltimore transformational grant which provides us the resources to assist our patients returning to their community in West Baltimore who are in need of primary care, substance abuse and mental health services as well as specialty care.

For our patients who cannot return to the community, we will be enhancing the information we share in 2016 in selecting a skilled nursing home as well as working with our skilled nursing home partners to better choose programs which meet those patients' needs. We are currently developing information and a better process between our patients and families, and case managers and partners to meet the needs of patients. We will work with our current post-acute care partners including Genesis and Future Care to gain a better understanding of the programs they offer by location, and look to identify the programs that may need to be developed.

#### **Target Population:**

The target population includes all individuals who are transitioning from UM Rehab back to their community or on to other settings, and including residents of West Baltimore.

#### **Metrics:**

Measures of success will include:

- Tracking the number of community partners who attend the Resource Fairs
- Decreasing the number of readmissions from nursing homes based on CRISP data
- Decreasing the number of readmissions for all individuals who've discharged from UM Rehab as measured by CRISP data

#### **Partners:**

Partners include: Brain Injury Association of Maryland, Maryland Department of Rehabilitation Services, Maryland Hospital Association, NeuroRestorative, Genesis, Future Care, durable medical equipment companies, home health agencies, Baltimore Adapted Recreation & Sports (BARS), Baltimore City Parks and Recreation department and Paralympic Sport Club.

#### **Financial Sustainability:**



The projected costs to improve post-acute care integration are approximately \$5,000 and include hosting four Resource Fairs during the year as well as developing and producing the community resource materials.

Appendix

- A. UMMS Population Health Strategy
- B. Patient Navigator Program

### **UMMS Population Health Strategy**

The University of Maryland Medical System (UMMS) is committed to transforming the current health care delivery system to better manage populations of patients, particularly those patients with multiple chronic diseases. In order to achieve this goal, UMMS has embarked on a two-pronged strategy focusing on inpatient medical management, a key driver of success under Global Budget Revenue, and the development of an ambulatory care network that engages community physicians.

Consistent with UMMS' mission and larger strategic vision, the system seeks to create a population health management capability that will enable it to successfully perform under value-based contracting arrangements (i.e., better patient experience, improved outcomes, reduced cost growth, and enhanced provider satisfaction) with various commercial, Medicaid, and Medicare Advantage payers. This vision includes the following:

- Enabling a significant and growing portion of system revenues to come from sustainable and mutually beneficial risk contracts.
- Operationalizing a high-performing population health management function (i.e., a Population Health Services Organization) and care delivery model that is all-payer and all-patient capable.
- Establishing an attractive and scalable physician clinical integration vehicle that can be systematically deployed across regions.

In implementing these strategies, UMMS has engaged two operating partners with expertise in successfully developing and implementing these types of programs – Davita HealthCare Partners and Lumeris.

#### **Inpatient Medical Management**

UMMS has engaged Davita HealthCare Partners (DHCP) to improve the inpatient medical management capabilities at each of the hospitals in the system. The goals of the engagement with DHCP are to:

- Improve the quality of care
- Improve patient satisfaction
- Reduce unnecessary admissions
- Reduce readmissions
- Reduce length of stay

UMMS' engagement with DHCP focuses on specific areas:

- Designing, developing, and enhancing hospitalist programs

- Designing, developing, and enhancing transitions of care programs. This includes developing collaborative programs with post-acute providers including Skilled Nursing Facilities, Home Health Programs, Hospices, and other providers.
- Enhancing UMMS' existing care management and discharge planning programs
- Identifying alternative sites of care for patients to utilize as an alternative to the emergency room or inpatient stays

### **Ambulatory care network**

UMMS has engaged Lumeris as an operating partner to accelerate the transition from volume- to value-based care and deliver improved clinical and financial outcomes. With a combination of clinical, operational, and information technology expertise, Lumeris is partnering with UMMS to set up a Population Health Services Organization (PHSO) as a shared service within the organization.

The PHSO will provide services to the UMMS Quality Care Network, a Clinically Integrated Network of providers that have a shared responsibility for the care of a defined population of patients and can contract as one entity with payers.

A PHSO employs a portfolio of people, programs and interventions including but not limited to:

- Care managers deployed toward high risk individuals
- Transitions of care programs
- Dedicated programs for high risk patients
- Pharmacy and therapeutics management programs
- Patient engagement technologies
- Practice transformation
- Provider education, coaching, support, and information

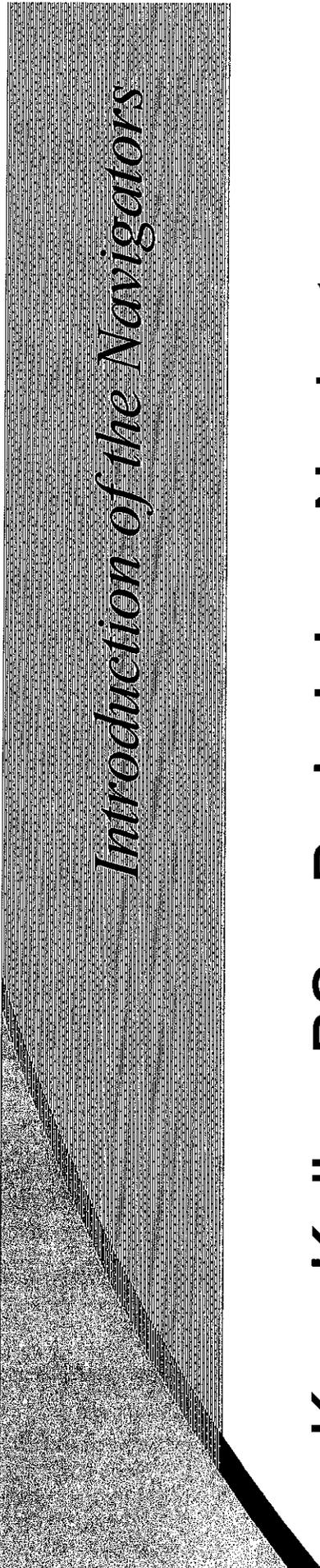
The PHSO and its staff are enabled by robust technology that is focused on:

- Consolidating disparate data sources into a single source of truth about a patient
- Supporting deep analytics related to segmentation, utilization, costing, and expectations
- Enabling care management work flows by various care managers and affiliated providers
- Supporting active and sustainable financial management of affiliated risk bearing entities



UNIVERSITY of MARYLAND  
REHABILITATION &  
ORTHOPAEDIC INSTITUTE

*Patient Navigator Program*



*Introduction of the Navigators*

**Kara Keller, BS – Brain Injury Navigator**

**Harriet Straus, CRRN, BSN, MAOM,  
Spinal Cord Navigator**

*Triple Aim—Mandated Under ACA and  
Released March 21, 2011*

**Better Care:**

- “Improve the overall quality, by making health care more patient patient-centered, reliable, accessible and safe”

**Healthy People/Healthy Communities:**

- “Improve the health of the US population by supporting proven interventions to address behavioral, social and environmental determinants of health in addition to delivering higher quality care”

**Affordable Care:**

- “Reduce the cost of quality health care for individuals, families, employers and government”

Source: National Quality Strategy, at  
<http://www.healthcare.gov/center/reports/quality03212011a.html#center/html>

# *History of Patient Navigation*

- **Pioneered in 1990 by Harold P. Freeman at Harlem Hospital**
- **Originally focused on cancer patients**
- **Goals were to eliminate barriers to timely cancer screening, diagnosis, treatment, and supportive care**
- **Focused on medically underserved or minority communities because of financial, communication, health care system and cultural barriers to care**
- **U.S. policymakers came together to support the Patient Navigator Outreach and Chronic Disease Prevention Act of 2005**
- **In 2010 grants were made by the Secretary of Health and Human Services. Over 5 years \$25 million dollars was awarded for the development of patient navigator programs.**

# *Traditional Roles of a Patient Navigator*

- Promote safety, health and wellness
- Creative problem solving
- Support patients while they navigate the medical system
- Ensure understanding of medical care and treatments
- Build relationships with healthcare providers, patients and resource providers
- Reduce barriers that keep patients from receiving timely appointments, treatments or DMEs
- Directing patients to resources for financial, legal, administrative, psychosocial, or employment support.



## *Our Function in the Patient Navigator Role*

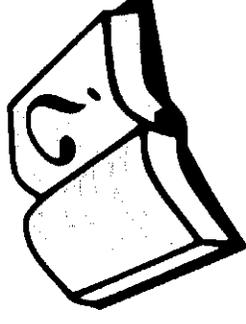
- Assist patients and caregivers in navigating through appropriate services in our continuum
- Facilitate participation in services- attend appointments, coordinate communication between providers and the patient, seek collaboration in coordinating care, and help the patient self-manage
- Maintain systems that include identifying potential clients, internal and external, that would benefit from coordinated services, building networks and referral patterns
- Participate in business development regarding specific patient diagnosis
- Serve as a resource for community education



# *Overview of the UM Rehab Navigator Program*

- **Purpose**
- **Goals**
- **Populations selected**

PL3



**Slide 7**

---

**PL3** suggest using a different photo  
Patricia, Lori, 9/25/2015

## *Brain Injury Implementation*

### **Initial findings:**

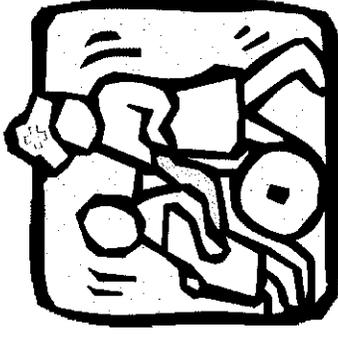
- Inadequate number of community based primary care physicians comfortable managing the care of individuals with a brain injury.
- Access to transportation
- Prevalence of substance abuse
- Challenges maintaining communication once discharged to Skilled Nursing Facility.
- Inadequate comparable baseline data for measuring success

# SCI Implementation

## Initial Findings:

- Inadequate number of community based primary care physicians comfortable managing the care of individuals with a spinal cord injury
- Access to Transportation
- Durable Medical Equipment
- Pain Management
- Inadequate comparable baseline data for measuring success

PL4



**Slide 9**

---

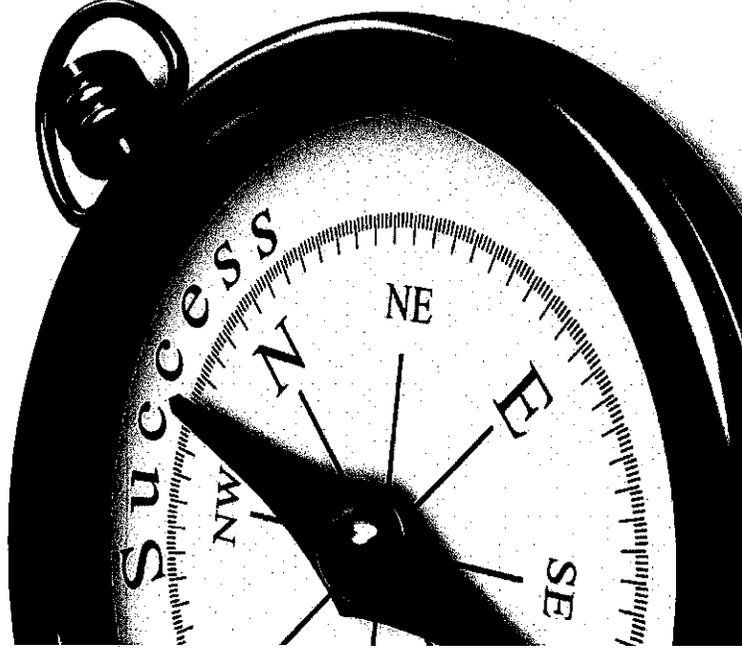
**PL4**

change photo. Use a picture of a person to make it "real"

Patria, Lori, 9/25/2015

# *What qualifies someone for Patient Navigation?*

- No health insurance at discharge
- History of rehospitalizations
- Co-morbidities
- Alcohol and/or substance abuse history
- Inadequate family support
- Language or communication barriers
- No primary care doctor established
- Transportation barriers
- Homelessness
- History of non-adherence



## *Patient Navigation Process*

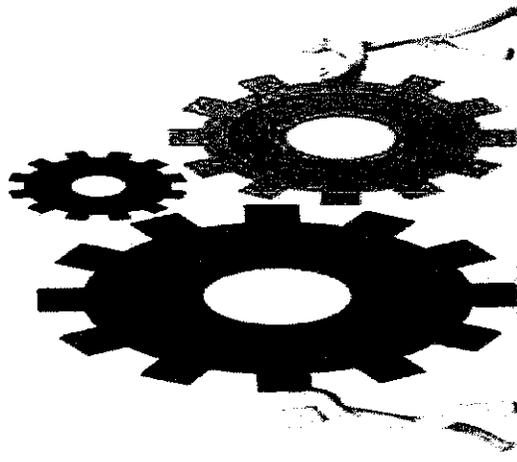
**Patient is referred to the patient navigator by a member of the rehabilitation team**

**The navigator meets with patient and loved ones at some point before hospital discharge. Also, the navigator attends the family conference if applicable**

**Navigator follows up within 72 hours of discharge to see how things are going**

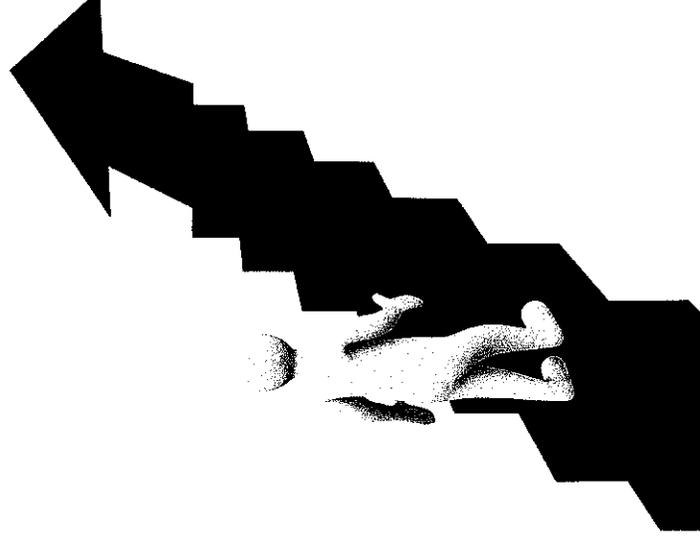
**A phone call is placed at least once a week to check in**

**After a minimum of 30 days the patient is evaluated for continued services**



## *Outcome Goals for Patient Navigation*

- Decrease re-hospitalization rates
- Increase attendance of follow up appointments
- Maximize safety and independence
- Improved quality of life
- Provide education to the community as appropriate to facilitate the goals listed above



*Coming Soon*

- Establishing Outcome Measurement Tool and Database
- Implementation of a substance and alcohol abuse support group for Brain Injured individuals.
- Further Integration and Coordination of services within Integrating within the University of Maryland Medical System
- Community Education

**Slide 13**

---

**PL9**

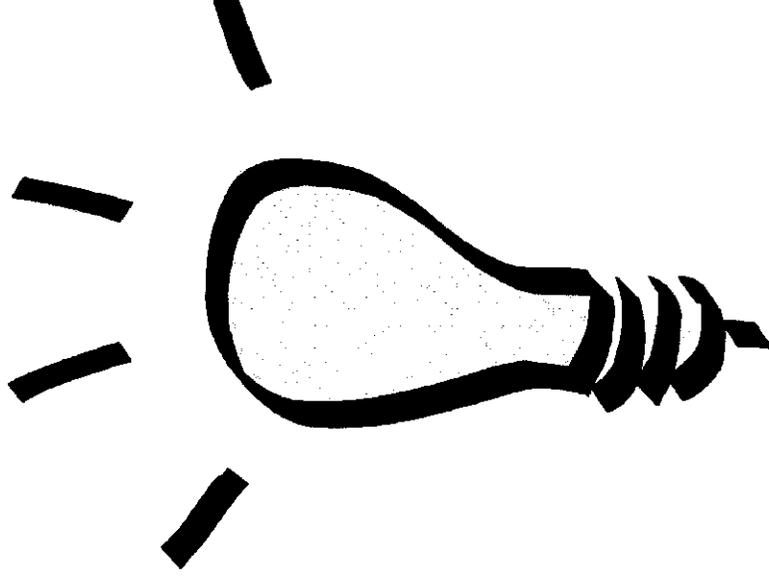
Community Education  
Patria, Lori, 9/25/2015

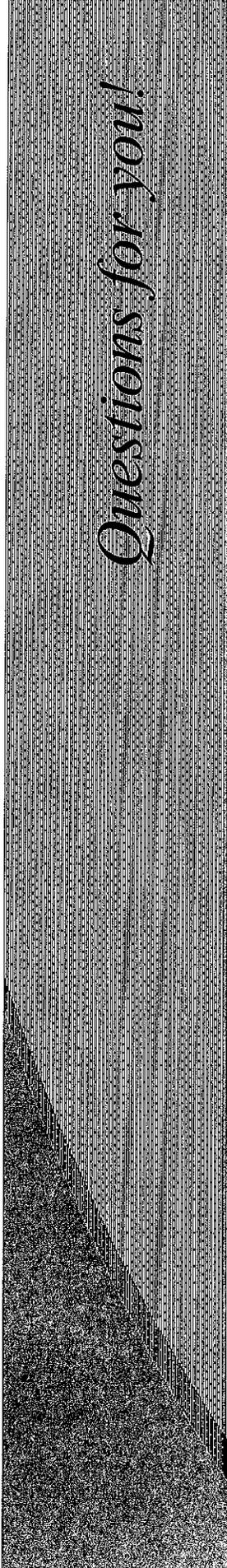
## *Strategies to prevent loss at follow up*

Build stronger relationships with co-workers and social workers at Skilled Nursing Facilities

Begin and promote alcohol and substance abuse support group for individuals with Brain Injuries

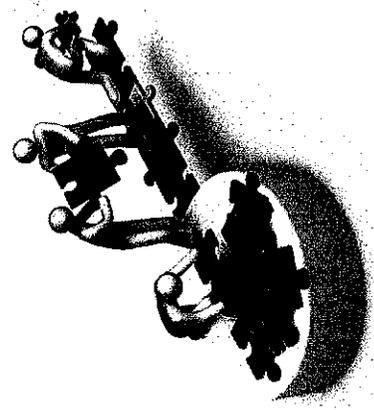
Try and obtain lifeline phones for patients without cell phones



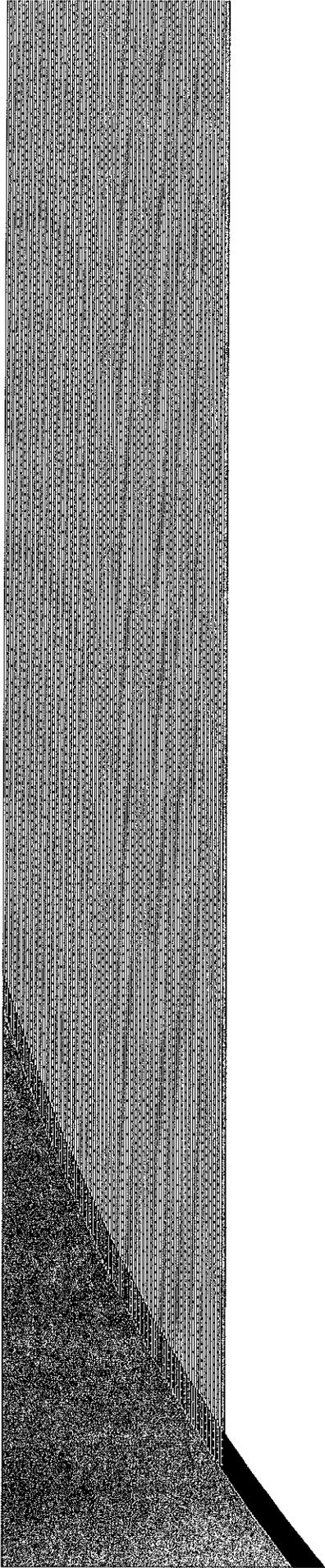


*Questions for you!*

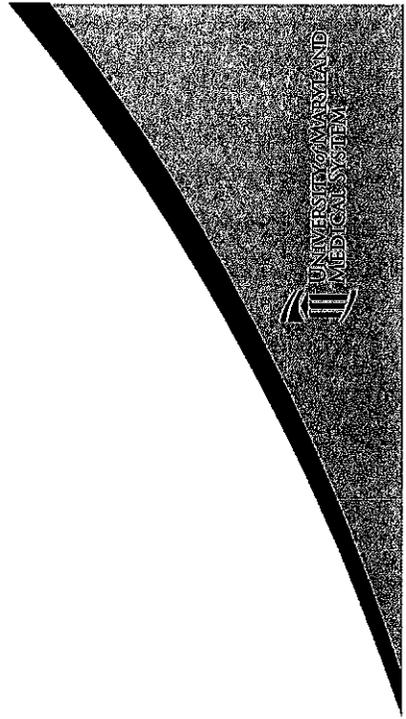
What ways do you see that we could partner in order to ensure the best health and functional outcomes, highest consumer satisfaction and lowest cost?

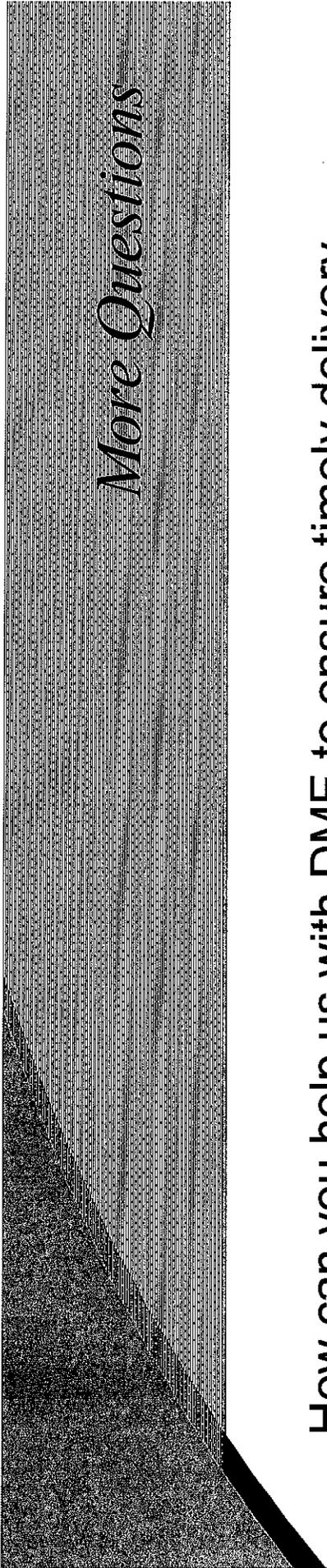


**SUCCESS**



What Outcomes do you collect?  
Would you share?





## *More Questions*

How can you help us with DME to ensure timely delivery,  
reduce substitution, increase patient satisfaction?