Project Option 2.2.1 - C8 Redesign the Outpatient Delivery System of UT Physicians to Coordinate Care for Patients with COPD - Expand Chronic Care Management Models

Unique RHP Project Identification Number: 111810101.2.3
Performing Provider Name/TPI: UTHealth, UTPhysicians / 111810101

Project Description:

Almost half of all Americans live with a chronic condition, and almost half of all people with chronic illness have multiple conditions. This also the situation in our region, as our community needs assessment shows that there are high rates of chronic diseases in our population, including COPD.

Because chronic care requires ongoing interaction between patients and the health system, there often arises challenges in care coordination. The evidence-based Chronic Care Model (Coleman et al. Evidence On The Chronic Care Model In The NewMillennium Health Affairs 28, no. 1 (2009): 75–85; 10.1377/hlthaff.28.1.75), summarizes the basic elements for improving care of chronic disease patients, and there is need to apply such a model, if care outcomes are to be improved for COPD patients.

The outpatient delivery system of UT Physicians will be redesigned to coordinate care for patients with COPD, based on Wagner's chronic care model and National Institute for Clinical Excellence (NICE) COPD clinical guidelines. This will entail the following: Multidisciplinary working (COPD care should be delivered by a multidisciplinary team that includes respiratory nurse specialists, when defining the team's activity consider identifying people at risk of exacerbation and providing care to prevent emergency admissions, and providing education and exercise advice, referred patients do not always have to be seen by a respiratory physician-referral could be to a specialist department, which may include physiotherapy, dietetic advice, occupational therapy, social services, and multidisciplinary palliative care teams), follow-up and review (review people with mild or moderate COPD at least once a year and those with very severe COPD at least twice a year, at each visit, cover the assessments and measurements stipulated in guidelines, people with stable severe COPD do not normally need regular hospital review, but there should be locally agreed mechanisms to allow rapid hospital assessment when necessary, people requiring interventions such as long-term Non-invasive ventilation (NIV) should be reviewed regularly by specialists, offer pneumococcal vaccination and an annual influenza vaccination as recommended by guidelines), ensuring patients can access their care teams by phone or email as well as access their medical information through an electronic patient portal.

Also, regular COPD self-management education and support sessions will be provided free of charge to patients at these clinics. These will entail the folowing: Patient education packages should take account of the different needs at different stages of education the disease, Inform people with moderate and severe COPD about Non-invasive ventilation (NIV)and its benefits and limitations, Encourage people at risk of having an exacerbation to respond quickly to the symptoms of an exacerbation (by starting oral corticosteroid therapy (unless contraindicated) if increased breathlessness interferes with activities of daily living, starting antibiotic therapy if their sputum is purulent, adjusting bronchodilator therapy to

control symptoms, Giving people at risk of exacerbations a course of antibiotic and corticosteroid tablets to keep at home. Monitor the use of these drugs and advise people to contact a healthcare professional if their symptoms do not improve), and Smoking cessation programs (Encouraging patients with COPD to stop smoking is one of the most important components of their management. All COPD patients still smoking, regardless of age, should be encouraged to stop, and offered help to do so, at every opportunity).

Finally, quality improvement processes will be put in place to assess project impacts and opportunities for continuous improvement

Goals and Relationship to Regional Goals:

To develop and implement chronic disease management interventions that are geared toward improving effective management of chronic conditions and ultimately improving patient clinical indicators, health outcomes and quality, and reducing unnecessary acute and emergency care utilization.

The implementation of chronic care management models for COPD patients will ensure better outcomes for these patients, in line with regional goal to "transform health care delivery from a disease-focused model of episodic care to a patient-centered, coordinated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary or duplicative services, and builds on the accomplishments of our existing health care system."

Challenges:

Need: 1) High rates of chronic disease and inadequate access to treatment programs and services for illnesses associated with chronic disease. 2) Lack of access to programs providing health promotion education, training and support, including screenings, nutrition counseling, patient education programs

Implementation: 1) Willigness of physicians to transit to a 'team-based' model of care that gives greater roles to other providers. 2) Low health literacy levels and low economic resources can influence patients' ability to be effective partners in their own care. With training on the chronic care model and its application to chronic care, physicians and other providers will be better motivated to work as a team to deliver proactive care that keeps chronic disease patients stable and without a need for urgent care. The care team will also be made up of support personnel that will provide education and other support services that will help to assist patients in overcoming barriers to their participation in self-care.

5-Year Expected Outcome for Provider and Patients:

Successful implementation of the chronic care model in COPD care will lead to better monitoring by the patient's care team and increased patient engagemment in self-care, thereby reducing the need for acute episodic care. We expect to see a decrease in the usage of ED for COPD care.

Starting Point/Baseline:

To be determined during DY3.

Rationale:

Chronic lower respiratory diseases, primarily COPD, are the third leading cause of death in the United States, and 5.1% of U.S. adults report a diagnosis of emphysema or chronic bronchitis (Morbidity and Mortality Weekly Report (MMWR) March 2, 2012 / 61(08);143-146. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6108a3.htm?s_cid =mm6108a3_w. Accessed 10/15/12). Excess health-care expenditures are estimated at nearly $6,000 annually for every COPD patient in the United States (Deaths from Chronic Obstructive Pulmonary Disease - United States, 2000--2005. November 14, 2008 / 57(45);1229-1232. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a4.htm. Accsessed 10/15/12), Uncontrolled COPD leads to deterioration in lung function and eventually death.)

Through the Redesign the Outpatient Delivery System of UT Physicians to Coordinate Care for Patients with COPD Program, we propose to meet all required project components listed below.

a) Design and implement care teams that are tailored to the patient's health care needs, including non-physician health professionals, such as pharmacists doing medication management; case managers providing care outside of the clinic setting via phone, email, and home visits; nutritionists offering culturally and linguistically appropriate education; and health coaches helping patients to navigate the health care system
b) Ensure that patients can access their care teams in person or by phone or email
c) Increase patient engagement, such as through patient education, group visits, self-management support, improved patient-provider communication techniques, and coordination with community resources
d) Implement projects to empower patients to make lifestyle changes to stay healthy and self-manage their chronic conditions
e) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

For the Redesign the Outpatient Delivery System of UT Physicians to Coordinate Care for Patients with COPD Program, we have chosen the below milestones and metrics based upon the above project components and relationship to project goals and population needs. All baselines and goals will be determined during DY2.

Milestones & Metrics:

Process Milestones and Metrics

- Milestone 1 [P-3.]: Develop a comprehensive care management program for COPD
- Metric 1 [P-3.1.]: Documentation of Care management program. The Wagner Chronic Care Model will be utilized in program development.
- Milestone 2 [P-2.]: Train staff in the Chronic Care Model, including the essential components of a delivery system that supports high-quality clinical and chronic disease (COPD) care

- Metric 1 [P-2.1.]: Increase percent of staff trained
- Milestone 3 [P-4.]: Formalize multi-disciplinary teams, pursuant to the chronic care model defined by the Wagner Chronic Care Model or similar
- Metric 1 [P-4.1.]: Increase the number of multi-disciplinary teams (e.g., teams may include physicians, mid-level practitioners, dieticians, licensed clinical social workers, psychiatrists, and other providers) or number of clinic sites with formalized teams

Improvement Milestones and Metrics:

- Milestone 4 [I-17.]: Apply the Chronic Care Model to targeted chronic disease (COPD), which is prevalent locally
- Metric 1 [I-17.1.]: X additional patients receive care under the Chronic Care Model for COPD
- Milestone 5 [I-18.]: Improve the percentage of patients with COPD that have self-management goals
- Metric 1 [I-18.1.]: Patients with COPD with self-management goals

Unique community need identification numbers the project addresses:

This project addresses community needs CN.11 (High rates of chronic disease and inadequate access to treatment programs and services for illnesses associated with chronic disease) and CN.20 (Lack of access to programs providing health promotion education, training and support, including screenings, nutrition counseling, patient education programs).

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:

This project represents a new initiative. UT Physicians proposes to provide chronic care management to its patients with COPD, based upon Wagner's Chronic Care Model, which is a comprehensive, pro-active, patient-centered model of care, that is tailored specifically to this disease and the patient's needs for managing it.

Related Category 3 Outcome Measure(s):

OD-9 Right Care, Right Setting

IT-9.2 ED appropriate utilization (Stand-alone measure) (COPD)

Reduce Emergency Department visits for

- Chronic Obstructive Pulmonary Disease

Relationship to other Projects:

1.1 (C3) - Expanded capacity in primary care will ensure the availability of staff to implement the expansion of the chronic care management model for patients with COPD.

1.2 (A2, SPH1) - Part of the innovative training of primary care providers will be centered on the chronic care model with emphasis on team-based practice.

1.3 (C12) - The disease management registry (Information Technology support) is a very improtant component of Wagner's Chronic Care Model.

1.7 (A1) - Telemedicine will help to ensure that chronic care patients will get specialist input into their care when and where needed.

1.9 (C4) - Also, the expansion of specialty care in the primary care setting will help to ensure that chronic care patients will get specialist input into their care when and where needed.

1.10 (MS1) - The QI project will aid in the adoption of a 'whole systems' approach to chronic management, enabling the implementation of a comprehensive and proactive approach to chronic care in which the patient is kept in continuos contact with the care team.
2.1 (C1) - The expansion of chronic care management models will ensure more effective care for patients enrolled in UT Medical Homes.

Relationship to Other Performing Providers' Projects in the RHP: TBD

Plan for Learning Collaborative:
UTHealth will participate in a region-wide learning collaborative(s) as offered by the Anchor entity for Region 3, Harris Health System. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:
The anchor, Harris Health System, provided a spreadsheet which contained 6 criteria, which could be rated on a 10-point scale each project. The ratings for each criteria were weighted, summed for each project to arrive at a total score (value weight) for each project. The sum of all the project's total scores were then divided by the percent of total DSRIP funds available for that year to arrive at a dollar value multiplier to be applied towards each project's total score (value weight), thereby allocating a greater proportion of available funds towards those projects valued highest based upon the 6 criteria. UTHealth used this approach, with a couple of exceptions. First, we did not use two of the criteria and second, we began with a 5-point scale for each criteria rated, then doubled the score to put it on a 10-point scale. Following are the criteria, the way points were awarded for projects using that criteria, and the reasons two of the criteria were not used:

1. Transformational Impact (Weight = 20%): Points were awarded for projects that meet the community benefit criteria. Score – 1 point for each of the following: improves access; improves quality; improves costs (long-term cost-savings); transformative (Innovative), collaborative (partners with other organization(s)).

   This project's score for this criteria: 3 X 2 = **6**

2. Population Served/Project Size (Weight = 20%): Points were awarded based on the size of the population affected and whether the target population is uninsured or on Medicaid. Score - Four points for the whole population, 3 points for a relatively large population, 2 points for a moderate-sized population, and 1 point for a relatively small population. If a significant proportion of the target population is uninsured/Medicaid, add 1 additional point.

   This project's score for this criteria: 1 X 2 = **2**

3. Aligned with Community Needs (Weight = 20%): Points were awarded based on judgments in two categories: whether or not the CNA indicates a need in the area of the project and the severity of the health/healthcare need(s) the project addresses. Score A - CNA indication: 2 points for strong support (bottom 25%), 1 point for moderate support. Score B - Severity: 3 points for issues judged to have significant impact on population health, healthcare access, and quality; 2 points for moderate severity issues.

This project's score for this criteria: 2 X 2 = **4**

4. Cost Avoidance (Weight = 15%): Points were awarded based on judgment of project's cost effectiveness relative to similar projects. Score – 5 points for very low cost per person, 4 points for low cost per person, 3 points for moderate cost per person, 2 points for high cost per person, 1 point for very high cost per person.

This project's score for this criteria: 3 X 2 = **6**

5. Partnership/Collaboration (Weight = 10%): ***This was not rated***, because UTHealth plans to partner with Harris Health to perform many similar projects, so the rating would have been the same for all projects. This would have diluted the scores, hiding the more significant variations in other value criteria.

6. Sustainability (Weight = 15%): ***This was also not rated***, because UTHealth does not consider any of the projects to be unsustainable, or at the very least do not consider one project less sustainable than another, so giving the projects the same, or very similar ratings on this criteria would have again had a diluting effect, hiding the more significant variations in other value criteria.

Total Valuation Score for this project: **3.3**

111810101.2.3	***OPTION 2.2.1***		***C8 REDESIGN THE OUTPATIENT DELIVERY SYSTEM OF UT PHYSICIANS TO COORDINATE CARE FOR PATIENTS WITH COPD***	
UTHealth, UTPhysicians				*111810101*
Related Category 3 Outcome Measure(s):	*111810101.3.14*	*IT-9.2*	*ED appropriate utilization (Stand-alone measure) (COPD)*	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-3.]: Develop a comprehensive care management program for COPD Metric 1 [P-3.1.]: Documentation of Care management program. The Wagner Chronic Care Model will be utilized in program development. Baseline/Goal: TBD Data Source: Program materials Milestone 1 Estimated incentive payment: $ 1,544,349		Milestone 2 [P-2.]: Train staff in the Chronic Care Model, including the essential components of a delivery system that supports high-quality clinical and chronic disease (COPD) care Metric 1 [P-2.1.]: Increase percent of staff trained Baseline/Goal: TBD Data Source: HR, training program materials Milestone 2 Estimated incentive payment: $ 853,433 Milestone 3 [P-4.]: Formalize multi-disciplinary teams, pursuant to the chronic care model defined by the Wagner Chronic Care Model or similar Metric 1 [P-4.1.]: Increase the number of multi-disciplinary teams (e.g., teams may include physicians, mid-level practitioners, dieticians, licensed clinical social workers, psychiatrists, and other providers) or number of clinic sites with formalized te Baseline/Goal: TBD Data Source: TBD by UT	Milestone 4 [I-17.]: Apply the Chronic Care Model to targeted chronic disease (COPD), which is prevalent locally Metric 1 [I-17.1.]: X additional patients receive care under the Chronic Care Model for COPD Goal: TBD Data Source: Registry Milestone 4 Estimated incentive payment: $ 1,825,951	Milestone 5 [I-18.]: Improve the percentage of patients with COPD that have self-management goals Metric 1 [I-18.1.]: Patients with COPD with self-management goals Goal: TBD Data Source: Registry Milestone 4 Estimated incentive payment: $ 1,764,204

111810101.2.3	***OPTION 2.2.1***		***C8 REDESIGN THE OUTPATIENT DELIVERY SYSTEM OF UT PHYSICIANS TO COORDINATE CARE FOR PATIENTS WITH COPD***	
UTHealth, UTPhysicians				*111810101*
Related Category 3 Outcome Measure(s):	*111810101.3.14*	*IT-9.2*	*ED appropriate utilization (Stand-alone measure) (COPD)*	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	Physicians Milestone 3 Estimated incentive payment: $ 853,434			
Year 2 Estimated Milestone Bundle Amount: $1,554,349	Year 3 Estimated Milestone Bundle Amount: $1,706,867		Year 4 Estimated Milestone Bundle Amount: $1,825,951	Year 5 Estimated Milestone Bundle Amount: $1,764,204
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD*:* $6,851,371				

Title of Outcome Measure (Improvement Target): OD-9 Right Care, Right Setting

Unique RHP outcome identification number(s): 111810101.3.14

Outcome Measure Description:
IT-9.2 ED appropriate utilization (Stand-alone measure) (COPD)
Reduce Emergency Department visits for
o Chronic Obstructive Pulmonary Disease

Process Milestones:

- DY2:
  - P-1 Project planning - engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
- DY3:
  - P-3 Develop and test data systems
  - P-2 Establish baseline rates

Outcome Improvement Targets for each year:

- DY4:
  - IT-9.2 Reduce by 3% the percentage of Emergency Department visits for COPD.
- DY5:
  - IT-9.2 Reduce by 5% the percentage of Emergency Department visits for COPD.

Rationale:

This project aims to develop and implement evidence based chronic disease management interventions (Coleman et al. Evidence on the Chronic Care Model in the New Millennium. Health Affairs 28, no. 1 (2009): 75–85) that will ultimately improve patient clinical indicators, health outcomes, and reduce unnecessary acute and emergency care utilization for patients with COPD. Thus measuring ED visits for asthma will be a good way of assessing its impact.

Outcome Measure Valuation:

Using the same project valuation scores assigned to the projects, the dollars allotted for each year were distributed across the projects' related Category 3 measures. For demonstration year 2 the amount was 5%, and for DYs 3, 4, and 5, the proportion of the funds allotted were 10%, 10%, and 20%, respectively.

111810101.3.14	*3.IT-9.2*	*ED appropriate utilization (Stand-alone measure) (COPD)*	
UTHealth, UTPhysicians			*111810101*
Related Category 1 or 2 Projects:	*111810101.2.3*		
Starting Point/Baseline:	*To be determined during DY3.*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-1]: Project planning - engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Project reports and documents Process Milestone 1 Estimated Incentive Payment*:* $ 81,808	Process Milestone 2 [P-2]: Establish baseline rates Data Source: Provider reports Process Milestone 2 Estimated Incentive Payment: $ 94,826 Process Milestone 3 [P-3]: Develop and test data systems Data Source: Project reports, EMR, claims Process Milestone 3 Estimated Incentive Payment: $ 94,826	Outcome Improvement Target 1 [IT-9.2]: Reduce by 3% the percentage of Emergency Department visits for COPD. Data Source: EMR, Claims Outcome Improvement Target 1 Estimated Incentive Payment*:* $ 202,883	Outcome Improvement Target 2 [IT-9.2]: Reduce by 5% the percentage of Emergency Department visits for COPD. Data Source: EMR, Claims Outcome Improvement Target 2 Estimated Incentive Payment*:* $ 441,051
Year 2 Estimated Outcome Amount: $ 81,808	Year 3 Estimated Outcome Amount: $ 189,652	Year 4 Estimated Outcome Amount: $ 202,883	Year 5 Estimated Outcome Amount: $ 441,051
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD*:* $ 915,394			