**TRANSFORMATION PROJECT – MEDICAID WAIVER PROJECT APPLICATION**

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| **Contact Information** | *Contact:* Gillian Mittelstaedt, Chair, Washington Asthma Initiative, (800)717-2118, Ext. 2, gmittelstaedt@thhnw.org<br>*Organizations Participating in Pilot Scoping:* Please see list under "Partners" section. |
| **Project Title** | ***Leveraging Non-Medicaid Resources to Achieve Quality of Life and Equitable Outcomes for Medicaid's Asthma Population*** |

**Rationale for the Project**

***Problem statement:*** Asthma is prevalent among Medicaid beneficiaries of all ages and is the most common pediatric chronic disease[i]. It is the number one reason children are admitted to Seattle Children's and is a recurrent but preventable drain of Medicaid dollars. In 2012, Medicaid spent nearly $60 per member on asthma medications – the highest of any category in traditional trend[ii]

Asthma is a disease that cannot be controlled through reform of care delivery systems alone. The challenge is the phenotype of asthma: it is not only genetic, but environmental and socio-economic factors influence the disease. In Washington State, and nationally, research shows that mitigation of these factors results in a positive ROI for payers. Yet these determinants of health have not been addressed at a statewide or population-level. As a result, Medicaid asthma patients across our state continue to require urgent and acute care. Medicaid funds are thus funneled into symptom treatment. With reform, Medicaid dollars could instead be invested in wellness, disease prevention, and the elimination of disparities.

This reform effort was crafted by organizations that provide a variety of services to our state's Medicaid population. Elements of the pilot are adapted from the Women, Infants and Children (WIC) model, which provides their population with preventive, coordinated, whole-person services. This pilot seeks to ***leverage non-Medicaid resources to mitigate environmental and socio-economic risk factors, enabling Medicaid to invest in preventive, high-quality care that transforms lives.*** The pilot includes:

1. **Linking a Constellation of Untapped Services:** Asthma patients are frequently eligible for but unfamiliar with and therefore unable to access the *existing* medical, educational and environmental services. There is no single service provider that is responsible for helping an asthma patient navigate and utilize these services. This pilot will utilize a Navigator who is assigned to each patient, coordinating delivery of non-Medicaid funded services. These evidence-based services include: school nursing based-care[iii], weatherization-plus health[iv], low-income home repair programs, medical-legal partnerships[v], and tenants-rights advocacy. Complimenting these programs, patients will also receive the guidelines-based care that Community Health Workers[vi] (CHWs) deliver: in-home visits, patient counseling and low-cost supplies to control triggers.

2. **Cohesive, Clustered Delivery of Proven Interventions:** Interventions such as spirometry, patient education, in-home assessments and weatherization are all shown to reduce asthma exacerbations. However, in the current approach, they are provided in a piecemeal and responsive fashion, meaning after a patient has been discharged from ER or when their community receives a temporary grant to provide home repairs. In the WIC model, their high-risk population receives intensive, coordinated services and graduates from the program. Clustering services increases self-efficacy and the WIC model's ROI is evidence of this hallmark public health approach[vii]. This pilot will enroll patients into an 18 to 24 month program in which medical, educational and environmental interventions are delivered in a cohesive, intensive fashion. Enrolling patients into the program (potentially in a statewide registry), Navigators will be able to follow patients who may changes homes (foster children), change providers or change insurance plans.

3. **Applying Preventive Focus in Recruitment:** Medicaid will be an even stronger safety net for those with asthma when there are simply fewer patients who require care. The WIC model serves new mothers, but equally invests in pregnant women, preventing complications and future disease in their newborns. In this pilot, *high-risk* Medicaid patients (uncontrolled asthma/high acute care use) are included, along with *at-risk* Medicaid patients. Pregnant, low-income women with diagnosed atopy or asthma have a higher demonstrated likelihood of having a child that develops asthma, due to both genetic and environmental risk factors[viii]. This pilot will recruit and enroll high-risk and at-risk populations in order to prevent disease onset or delay onset of symptoms in their child. These established preventive actions[ix] can reduce the overall number of Medicaid beneficiaries with an asthma diagnosis and produce long-term cost savings.

4. **Incentivizing Payers**: Payment reform is central to this pilot, tying fiscal incentives to quantifiable, measurable patient outcomes. A bundled approach will enable payers to provide the baseline asthma interventions covered by Medicaid (spirometry, case management, patient education). In this pilot, however, payers will also receive funds for the Navigator,

who will coordinate and ensure delivery of the non-Medicaid interventions.

***Relationship to federal objectives for Medicaid:*** Through leveraging, timing and integration of non-Medicaid services, this pilot seeks to reform systems of care in a way that will control costs and improve care. Through its recruitment of both high-risk and at-risk patients, this pilot will demonstrate ***increased access to and use of preventive services***.

**Project Description**

*Which Medicaid Transformation Goals are supported by this project/intervention?*

- ☑ Reduce avoidable use of intensive services
- ☑ Improve population health, focused on prevention
- ☑ Accelerate transition to value-based payment
- ☑ Ensure Medicaid per-capita growth is below national trends

*Which Transformation Project Domain(s) are involved?*

- ☑ Health Systems Capacity Building
- ☑ Care Delivery Redesign
- ☑ Population Health Improvement – prevention activities

***Regions and sub-populations impacted:*** The pilot will be implemented in multiple geographic regions across the state and could be seated within the Accountable Communities of Health. The target population includes Medicaid asthma patients from specific communities: low-income urban, rural, tribal, and foster-care. The sub-population includes high-risk *and* at-risk asthma patients. ***High-risk*** includes pediatric and adult asthma patients with one or more inpatient hospital stays and/or two or more ED visits in the prior 12 months ***or*** a patient with poorly-controlled symptoms. ***At-risk*** includes low-income pregnant women with atopy or asthma, whose genetic predisposition and socio-economic conditions are associated with an elevated risk of her newborn developing asthma or asthma precursors (Bronchiolitis, Reactive Airway Disease, and Respiratory Syncytial Virus).

***Relationship to Washington's Medicaid Transformation goals:*** This pilot will help lower that proportion of the asthma population whose poorly-controlled symptoms or environmental risk factors result in *costly Medicaid expenses*. Focused on prevention versus symptom treatment, the pilot will improve quality of life for *individual* Medicaid beneficiaries as well as improve our state's *overall population health*. Payment reform will help accelerate the transition to value-based payments and expansion of CHW skills and services supports Washington's goals.

***Project goals, interventions and outcomes:*** Our goal is to pilot a program that ***leverages non-Medicaid resources to address environmental and socio-economic risks, enabling Medicaid to invest in prevention, quality of life and equitable outcomes.***

***Interventions:*** Patients enrolled will meet the high-risk or at-risk criteria. Recruitment may be through chart review, ER discharge or provider referral. Referrals will also be sought from providers who see clients in non-clinical settings: in their homes or apartments, at schools or child-care centers and by those whose work brings them into contact with this population. Once enrolled, Navigators will coordinate delivery of the clustered clinical and community-based interventions. Navigators may be housed in a primary care clinic, hospital, tribal clinic, public health or social service agency. In many settings, a CHW will likely be the best fit[x] to fulfill the Navigator role. Training for Navigators will be developed and may include certification. Through data-sharing agreements and a technology infrastructure, Navigators will be able to use a "dashboard" to view the status, timing and results as their patient receives program interventions. ***Outcomes*** of this approach include:

- A reduction in the total annual Medicaid expenditures for urgent and acute asthma care;
- A reduction in the overall number of Medicaid patients with an asthma diagnosis;
- An increase in the number of Medicaid patients with quality of life improvements from the environmental, socio-economic or legal interventions they receive;
- A reduction in school absenteeism and increase in workplace productivity as measured by a decline in asthma-related hospitalizations;
- Establishment of a data and technology infrastructure that provides innovative service coordination;
- A model for collaboration among organizations that, when scaled up, can produce system-level reform;
- A model for payment that incentivizes and enables payers to provide whole-person, preventive care; and
- A measurable change in key asthma metrics, including the two state performance measures for asthma.

***Links to complementary transformation initiatives:*** Asthma is identified as a condition that has potential for new investment strategies and is one of the top five chronic diseases identified for reform. The care coordination and prevention pieces in this pilot align with Healthier Washington. The CHW role in this pilot aligns with the 2015 CHW Task Force recommendations for Healthier Washington. Outside Medicaid, this pilot compliments a recent state legislature initiative, which funds the WA Dept. of Commerce's "Weatherization plus Health" program and has newly added funds for asthma education. This pilot will enable weatherization agencies to leverage these new investments through coordination with our patients and Navigators.

***Potential partners, systems, and organizations****:* The following organizations were involved in a 2015 Task Force to explore Medicaid and asthma care reform. They expressed either general support of asthma reform or direct support as a potential pilot partner. This Task Force will become a statewide partnership, if the pilot is funded, providing advisory, scientific and policy guidance for the duration of the waiver. (Organizations in bold are potential pilot partners)

***Seattle-King County Public Health***, ***Seattle Children's Hospital – Pediatric Pulmonology***, ***Coordinated Care Health***, Puget Sound Asthma Coalition, ***Children's Hospital– Medical/Legal Partnership***, Children's Alliance, ***Clean Air for Kids/Tacoma-Pierce-County Health Department***, Swedish Medical Group – Pediatric Pulmonary Medicine, ***American Lung Association of Washington***, ***Yakima Valley Farm Workers Clinic***, US EPA, HUD Office of Lead Hazard and Healthy Homes, Indian Health Service, ***Tulalip Tribes***, Swinomish Tribe, Spokane Tribe, Quinault Tribe, Affiliated Tribe of Northwest Indians - Health Subcommittee, Tribal Healthy Homes Network, DHHS Region X Office of Regional Minority Health, ***Washington State Department of Health***, ***Pediatric Pulmonary Center - University of Washington***, Dr***. Greg Ledgerwood, Allergy/Immunology – Rural Clinician (Brewster)***, ***Opportunity Council serving Whatcom County, Island and San Juan County***, Northwest Center for Alternative to Pesticides, Northwest Clean Air Agency

**Core Investment Components**

***Activities (estimated over 5-year waiver period):***

- ***Activities (Years 1-5):*** A. Enrollment of organizations who provide non-Medicaid services in multiple regions and ACHs. B. Enrollment of payers who provide coverage to target population (Medicaid high-risk and at-risk). C. Building data-sharing agreement for care and service coordination. D. Building technology platform for Navigator to view dashboard, tracking patient's health care utilization, non-Medicaid service utilization. E. Providing training for Navigators. F. Targeting population for maximum recruitment and enrollment. G. Providing clinical care, non-clinical care, and community-based services. H. Setting up and beginning data collection for monitoring population metrics and individual patient outcomes.
- ***Benchmarks (Years 2-3):*** Have enrolled 10% of Medicaid asthma patients within each of the payer's enrolled membership. Be actively administering clinical and community-based services. Have data-sharing agreement, infrastructure and possible statewide registry operating. Be reporting on early outcomes and key metrics. Have begun policy and program analysis of barriers and opportunities to scale program statewide.
- ***Return on Investment:*** 15% reduction in annual pediatric asthma ED visits for Medicaid/CHIP children (estimated at $433/visit, with an average of 8,531 visits/yr in Washington = $3,696,000[xi]). Results in $554,400 in cost savings for pediatric ED visits alone. (Cost of asthma-related hospitalizations not available in Washington, but national pediatric average is approximately $3,600 and $5,200 for adults[xii]. Cost savings from a 15% reduction in hospitalizations would thus be substantially greater than the cost savings achieved from reduced ED visits.)

**Project Metrics**

- ***Population Measures:*** Through primary prevention emphasis, a key metric of this pilot is to reduce asthma prevalence at the statewide, population level.
- ***Clinical Setting Measures:*** *#30* – Use of appropriate asthma medications, #42 – Potentially avoidable ED visits
- ***Health Care Cost Measures:*** #51 – Asthma-specific Medicaid spending per enrollee
- ***Other:*** Customized measures for the pilot will be developed using HEDIS (Healthcare Effectiveness Data and Information Set), and CMS measures endorsed by the National Quality Forum.

[i] Global Initiative For Asthma. Global strategy for asthma management and prevention. NHLBI/WHO Workshop Report. Publication 95-3659.National Institutes of Health, 1995.

[ii] Express Scripts 2012 *Drug Trend Report*.

[iii] Noreen M. Clark, PhD, Christy R. Houle, MPH, and Martyn R. Partridge, MD. Educational Interventions to Improve Asthma Outcomes in Children. JCOM October 2007 Vol. 14

[iv] Erin Rose, Beth Hawkins, Bruce Tonn, Debbie Paton and Lorena Shah Exploring Potential Impacts of Weatherization and Healthy Homes Interventions on Asthma-related Medicaid Claims and Costs in a Small Cohort in Washington State. Oakridge National Laboratory Report. September, 2015.

[v] Sandel M., et. al. Medical-legal partnerships: transforming primary care by addressing the legal needs of vulnerable populations. Health Affairs. September 2010; 29(9): 1697-1705.

[vi] Krieger JW, Takaro TK, Song L, Weaver M. The Seattle-King County Healthy Homes Project: A Randomized, Controlled Trial of a Community Health Worker Intervention To Decrease Exposure to Indoor Asthma Triggers. American Journal of Public Health. 2005;95(4):652-659. doi:10.2105/AJPH.2004.042994.AND Noreen M. Clark, Herman E. Mitchell, Cynthia S. Rand. Effectiveness of Educational and Behavioral Asthma Interventions. Pediatrics. March 2009, VOLUME 123 / ISSUE Supplement 3

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[vii] US Department of Agriculture, Food and Nutrition Service. WIC Combined Federal and State WIC NSA Outlays and In-Kind Reports for Fiscal Year 2013 (FNS-978A).

[viii] The Canadian Childhood Asthma Primary Prevention Study: Outcomes at 7 years of age

[ix] S H Arshad, B Bateman, S M Matthews. Primary prevention of asthma and atopy during childhood by allergen avoidance in infancy: a randomized controlled study. Thorax 2003;58:489–493

[x] Based on CHW recommendations identified in the *Draft Executive Summary for Coordinated Care Collaboration Evaluation Report* - Clean Air for Kids (CAFK) - Tacoma Pierce County Health Department.

[xi] According to NHAMCS-ED data, Medicaid/CHIP enrollees younger than 18 made an estimated 628,759 asthma-related ED visits in 2010. Using the Marketscan Medicaid database, estimated that the average cost per visit was $433. Given these estimates, pediatric asthma-related ED visits cost the Medicaid/CHIP programs a combined $272,453,850 in 2010. http://www.cdc.gov/pcd/issues/2014/14_0139.htm

[xii] Marguerite L. Barrett, M.S., Lauren M. Wier, M.P.H., and Raynard Washington, Ph.D., M.P.H. Trends in Pediatric and Adult Hospital Stays for Asthma, 2000–2010. Agency for Healthcare Research and Quality.

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| **State** | Estimated Asthma Prevalence Among Children, % | Estimated No. of Children Covered by Medicaid/CHIP | Estimated No. of Medicaid/CHIP-Covered Children with Asthma | Estimated No. of Asthma-Related ED Visits Covered by Medicaid/CHIP | Estimated Cost of Medicaid/CHIP Child ED Visits ($)b |
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| **WA** | 5.6 | 796,010 | 44,577 | 8,531 | 3,696,000 |