Attachment A: **TEMPLATE FOR TRANSFORMATION PROJECT SUGGESTIONS**

Contact Information	**Primary Contact:** Colleen Culbertson, Empire Health Foundation, 509-919-3045 **Organizations Involved in Developing Project Suggestion:** Better Health Together (BHT- our region's ACH), Empire Health Foundation (EHF)
Project Title	School Based Strategies to Prevent Obesity

Rationale for the Project

Problem statement – why this project is needed

- In Washington, 27.3% of adults, 14% of 2-4 year-olds from low-income families, and 11% of 11-17 year-olds are obese.[i] Children who are obese are more likely to be obese as adults. Obesity is a leading factor in many health complications, shorter life expectancy, and chronic diseases. In 2004, the cost of obesity to Medicare and Medicaid was estimated to be $365 million in Washington State.[ii]
- Especially in lower income areas, a majority of children eat meals at school, making up as much as half their total caloric intake. In Washington, 45% of all students receive free or reduced-price meals. It is imperative that we ensure those meals are as healthy and nourishing as possible, and unfortunately the existing standards for breakfast and lunch programs are very low compared to current research about health and nutrition (e.g., they allow highly processed, nutrient poor foods to make up a majority of school menus). Districts need start-up resources, training and ongoing support to improve the health quality of meals served without increasing overall cost of the food program .
- Designation as an ACH transformation project is key to scaling and leveraging the impact of work that has proven successful on a smaller scale. Broad implementation of healthy school policy changes requires significant coordination and development of community relationships that the ACHs are uniquely positioned to provide. Designation as a transformation project would allow a level of coordination between community-based efforts and clinical-community linkages (e.g. chronic disease management resources) that has not previously been possible, providing even greater opportunities to reduce health inequities.

Supporting Research (evidence-based and promising practices) for the value of the proposed project

- Empire Health Foundation (EHF) has been implementing an obesity prevention program in 9 school districts of various sizes (194-30,000 students) in our ACH region. This program has demonstrated significant improvements in the nutritional value of 2 million school meals per year, and a robust evaluation conducted by Washington State University demonstrates evidence of reduced obesity rates.
- Cheney school district has seen decreases in overweight and obesity rates over several school years, with a 4.6% decrease in 2012-13, a 6.0% decrease in 2013-14, and a 7.5% decrease in 2014-15. This amounts to as many as 11 students (out of a sample of 397) moving from at-risk to healthy weight each year, and many more whose weight decreases within the at-risk categories (moving from obese to simply overweight, for example). See ROI section for cost savings projections.
- Data collected and analyzed by an independent accounting firm indicates that healthy scratch cooking is a financially sustainable operation.
- $5 million was included in the 2015 Capital Budget to support scratch-cooking/wellness related equipment purchases inspired by this initiative.

Relationship to federal objectives for Medicaid[iii] with particular attention to how this project benefits Medicaid beneficiaries

- 48% of our region's students receive free or reduced price meals, and we can assume that at least this many students are Medicaid beneficiaries.[iv] These numbers are significantly higher in some areas of the state. For example, 80% of students in Othello school district receive free and reduced price lunches.
- This initiative has the potential to significantly improve health outcomes for Medicaid and low-income populations. While the interventions affect an entire student population, students receiving free and reduced-price lunch are more likely to eat meals (even a majority of their total meals) at school. Some studies report incidence of obesity treatment to be as much as six times higher among Medicaid beneficiaries, so population-level interventions have a disproportionate impact on Medicaid beneficiaries. EHF is partnering with Better Health Together (our region's ACH) because we are particularly interested in reducing health inequities and improving outcomes for Medicaid beneficiaries, and we have prioritized our investments in districts with high percentages of students qualifying for free and reduced priced lunches.

Project Description

Which Medicaid Transformation Goals[v] are supported by this project/intervention?

- Reduce avoidable use of intensive services
- Improve population health, focused on prevention

Which Transformation Project Domain(s) are involved?

Population Health Improvement – prevention activities

Region(s) and sub-population(s) impacted by the project.

Target population includes all children enrolled in public schools in the intervention region. There are currently over 1 million children enrolled in Washington State schools. Approximately 94,000 of these students are in our region's ACH, and we estimate approximately half are currently Medicaid beneficiaries. Expanding this program would allow it to serve 58,000 additional students, and all 94,000 would benefit from new coordination opportunities under the ACH model. In addition, given that 1/3 of adults in our region are Medicaid beneficiaries, we can assume that this program would also serve over 31,000 new adult Medicaid beneficiaries. In 2009, the percentages of nonelderly adult Medicaid beneficiaries with diabetes, cardiovascular disease, and respiratory disease were 9%, 28%, and 23% respectively. This amounts to a significant number of adults receiving new chronic disease management assistance.

Relationship to Washington's Medicaid Transformation goals.

This intervention is directly related to the goal of improving population health with a focus on prevention of diabetes, cardiovascular disease, and pediatric obesity. It is also directly related to the ACH priority of decreasing obesity rates across all populations through prevention. EHF and other private philanthropy has invested over $2 million in this initiative over the past four years and is interested

in a public-private partnership to expand and scale the interventions across the region and the state. Local private philanthropy is also invested in the transformation goals supported by this project.

Project goals, interventions and outcomes expected during the waiver period:

History:

The project was developed as the result of a collaborative process between a variety of stakeholders in our ACH region, including EHF, local school districts, Eastern Washington University, Spokane Regional Health District and Washington State University. In 2013, the initiative was recognized by the U.S. Department of Housing and Urban Development (HUD) as one of 10 recipients across the country of the Secretary's Award for Public-Philanthropic Partnerships.

Anchor Strategy:

Districts participating in this program implement a variety of strategies, both "calorie-in" (school food reform, breakfast participation, nutrition education, reduce unhealthy competitive foods) and "calorie-out" (daily recess, recess before lunch, physical education), with the goal of creating a holistically healthy school environment. The most significant change districts undergo is converting their school breakfast and lunch program from heat-and-serve to healthy, scratch-cooked food. This transition requires some basic culinary training for food service staff as well as some upfront equipment purchases. By pairing education with environment change, the program aims to make behavior change an "easy choice" that is sustainable throughout a lifetime. These multi-pronged strategies were developed based on promising practices from Shape Up Sommerville (MA) and school food reform work in Denver, CO. Healthy school lunches are supported as an obesity prevention strategy by the CDC, Robert Wood Johnson Foundation, Harvard School of Public Health, and many others.

Wellness Coordinators:

Along with the school food transition, districts will hire wellness coordinators to implement policies that make the school environment healthier and assist families with chronic disease prevention and management. Healthy policies include healthy vending, fundraiser, and party policies, active physical education and recess, and focused nutrition and physical education curriculum that extends into the home. District Wellness Coordinators (.5-1.0 FTE depending on district size) are key to implementing these changes so districts do not have to rely on overburdened staff. By partnering with health plans, wellness coordinators could also work with entire Medicaid beneficiary families, helping them navigate the network of resources available to them outside of the school (such as BHT's Community Health Worker Chronic Disease Self-Management program). By working with both school districts and individual families, wellness coordinators will be able to provide families consistent messaging that extends a healthy environment into the home and prompts behavior change for whole families. As the wellness coordinator position will be new to most districts, our ACH will be able to play a backbone training and support role for a community of wellness coordinators.

Experience:

Our ACH region, and EHF in particular, has significant experience implementing these interventions in a variety of districts, and has developed a successful summer training for food service staff that could be made available on a broader scale. EHF is willing to transfer this programmatic experience to and share lessons learned through our region's ACH by the end of 2016 to take this to scale region wide and eventually statewide.

Outcomes and Evaluation:

During the waiver period, target outcomes would include a 5% reduction in elementary school overweight and obesity rates for participating districts by the second year of the program. EHF is contracted with a local university to evaluate the current program, and this evaluation model could easily be expanded. Evaluation involves measuring height and weight of students each fall and spring (usually already collected in physical education classes) to calculate changes in BMI percentile. This data can also be correlated with other data points such as free and reduced lunch status, academic performance, or disciplinary incidences to evaluate the program's impact on these areas as well.

Readiness:

As it is already underway, this project would be easily ready to move under the waiver on January 1, 2017. In preparation, our ACH would launch a significant readiness assessment process to determine implementation timing for individual districts. BHT would also develop a curriculum to train wellness coordinators in the basics of guiding their districts through the school environment transition process. In the past, funding for staff capacity as well as providing a clear implementation process and timeline has helped districts embrace these significant changes.

Collaboration and Aligned Resources:

This project has already received significant funding from EHF, Providence Community Benefit, JPMorgan Chase Global Philanthropy, and Washington State (in the form of capital budget funding for cooking equipment and other wellness-related equipment purchases). All of these stakeholders are eager to see the model scale, and EHF is interested in investing through public-private partnership opportunities that will help the model expand more quickly. EHF has committed $369,000 to this initiative in 2016.

Links to complementary transformation initiatives

There is a strong link between this transformation project and BHT's Community Health Worker (CHW) workforce. As described above, the School-Based Wellness Coordinators could play a significant role in prioritizing and connecting Medicaid beneficiaries and their families to chronic disease prevention and management programs, and will be in close partnership with BHT's CHW network through shared trainings and a coordinated learning community managed at BHT. In BHT's region, the INHS Community Wellness Center and the YMCA Diabetes Prevention Program are just two examples of community-based education and lifestyle behavior intervention programs for people with diabetes or significant risk factors.

Potential partners, systems, and organizations needed to be engaged to achieve the results of the proposed project.

Our region's ACH has a robust network of partners already established that we can deploy for this transformation effort which can be leveraged to help replicate and scale the work. Key partners ready to act include: regional school districts, Washington State University

(or other evaluation partner), BHT, and EHF, as well as a team of culinary training experts and wellness coordinators. Additional partners that will greatly enhance the effectiveness and scalability of the program include the Office of Superintendent of Public Instruction (OSPI) Child Nutrition Services department, local health jurisdictions, and other community-based agencies that can support a culture change that extends beyond the school environment.

Core Investment Components

How many people you expect to serve, on a monthly or annual basis, when fully implemented.

When fully implemented throughout the region, the program would serve approximately 94,000 students, representing an estimated 45,600 Medicaid beneficiaries. This number would be far greater including families who benefit from wellness coordinator services.

How much you expect the program to cost per person served, on a monthly or annual basis.

Based on the existing intervention model, the cost per person served is approximately $24 per person for the 1st year, $11 per person for the following 3 years, and less than $1 per person thereafter. The ongoing cost is not necessary to sustain the school food reform efforts, but it is recommended to continue supporting the cost of the wellness coordinator on an ongoing basis to ensure all district-level efforts are sustained, and students at risk of diabetes can be connected to community-based prevention services with their families. The costs outlined above include training for school district employees and kitchen staff, equipment, and a wellness coordinator per district, or per 5,000 students.

How long it will take to fully implement the project within a region where you expect it will have to be phased in.

Implementation time is flexible and largely dependent on funding availability. The main implementation activities include: outreach to school district leadership, recruitment of wellness coordinators, summer culinary training, recruitment of chef educators. Most districts take one year to fully implement scratch cooking and other healthy policy changes. The project could be phased in over two years, with volunteer early adopters participating in the first year.

The financial return on investment (ROI) opportunity, including estimated amounts and associated ROI timeline.

The major ROI timeline is long-term, as obesity costs are most significant in adulthood. If Cheney 2014-2015 data is extrapolated, for every 100 children participating we could expect 1.5 fewer obese children in a single year. According to a 2014 literature review in *Pediatrics*, the average lifetime incremental cost of a child who is obese compared to a child who is not is $19,000.[vi] The expected long-term savings of a single year of this project in a group of 100 students is therefore at least $28,500 (again, this excludes students who lose a smaller amount of weight or simply do not become obese as the result of the intervention). If these results were extended throughout our ACH region, there would be a total savings of $26,790,000 and a $13,395,000 savings to Medicaid over the lifetime of these children.[vii] This is a conservative estimate, as it accounts only for those students who left the obese category, and not those who are no longer overweight or who never became overweight or obese. Given the estimated costs of the program over a full 10-year period ($5,035,000), this is an $8,360,000 estimated savings to Medicaid alone, even after reinvestment of some of those savings to sustain the program. This is a very cost effective population health prevention model.

Project Metrics

Key process and outcome measures

- Year-by-year changes in BMI percentile and % overweight and obese
- Longitudinal analysis change in BMI percentile of students in program over multiple years
- % districts/meals per year meeting scratch cooking/clean label standards
- % districts implementing attached policy changes
- Community-based Service Utilization
- Reduction in avoidable use of institutions

If no specific benchmark performance data are currently available, what efforts will be undertaken to establish benchmark performance ahead of any proposed project implementation?

All participating school districts would be required to collect and report BMI data for all students at the onset of the program, and twice per year thereafter.

[i] http://stateofobesity.org/states/wa/

[ii] Finkelstein EA, Fiebelkorn IC, Wang G. State-level estimates of annual medical expenditures attributable to obesity.*Obesity Research* 2004; 12(1):18–24.

[iv] We feel this is an appropriately conservative estimate as the income limit to qualify for Medicaid for children is significantly higher than the limit to qualify for free/reduced lunch (210-312%FPL vs. 130-185% FPL)

[vi] http://pediatrics.aappublications.org/content/early/2014/04/02/peds.2014-0063

[vii] Assumes that all students receiving free/reduced-priced lunch are also Medicaid beneficiaries. See note iv.