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| <b>Project Title</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Community Active Transportation Initiative                                                                                                                                                                                                                  |
| <b>Rationale for the Project</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                             |
| <p>The Community Active Transportation Initiative will implement a suite of interventions to increase physical activity rates among very low-income children and adults. The Initiative will be among the largest and most comprehensive active transportation initiatives directly targeting low-income populations in the country.</p> <p>Low-income youth and adults face health disparities compared with the general population. Physical activity and exercise, including walking and biking, have been proven to improve these health outcomes, specifically related to obesity, hypertension, heart disease, depression, and diabetes.</p> <ul style="list-style-type: none"> <li>• Active commuting that incorporates cycling and walking is associated with an overall 11% reduction in cardiovascular risk<sup>1</sup>.</li> <li>• A San Francisco Bay Area study found that increasing biking and walking from 4 to 24 minutes a day on average would reduce cardiovascular disease and diabetes by 14% and decrease GHGE by 14%<sup>2</sup>.</li> <li>• A study of nearly 2,400 adults found that those who biked to work were fitter, leaner, less likely to be obese, and had better triglyceride levels, blood pressure, and insulin levels than those who didn't actively commute to work<sup>3</sup>.</li> </ul> <p>Unfortunately life circumstances, including lack of money, time and education, are barriers to exercise for low-income people. This Initiative will increase physical activity rates through active transportation, not just improving health outcomes for Medicaid recipients, but also contributing to a savings of money and time, both commodities among the low-income population.</p> <p>By taking all components of the Community Active Transportation Initiative to scale and reaching more than 17,000 Medicaid recipients, the Community Active Transportation Initiative will markedly improve population health through prevention.</p> |                                                                                                                                                                                                                                                             |
| <b>Project Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                             |
| <p><i>This proposal supports Medicaid Transformation Goal: Improve population health, focused on prevention. The proposal involves the Transformation Project Domain: Population Health Improvement – prevention activities</i></p> <p>The Community Active Transportation Initiative will implement a suite of high-impact interventions that have the ability to move the needle on physical activity rates by increasing biking and walking, in order to improve the health of Medicaid recipients. All programs are based on nationally recognized best-practices. The Initiative focuses on introducing sustainable interventions such as infrastructure and bicycle distribution to ensure long-term impacts beyond the grant period. The program intends to impact more than 17,000 youth and adults on Medicaid within three years.</p> <p>This initiative targets all Medicaid eligible adults and youth in Seattle, with particular emphasis on residents living in low-income neighborhoods with higher numbers of Medicaid recipients, like Southeast Seattle. The total population in Seattle eligible for Medicaid is nearly 180,000.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                             |

<sup>1</sup> Hamer, M., and Y. Chida, 2007 - [Active commuting and cardiovascular risk: A meta-analytic review, Preventive Medicine, 46, 9-13](#)

<sup>2</sup> Maizlish, N. et al 2012 - [Health Cobenefits and Transportation-Related Reduction in Greenhouse Gas Emissions in the San Francisco Bay Area](#)

<sup>3</sup> Gordon-Larsen, P., et al., 2009 - [Active commuting and cardiovascular disease risk, Archives of Internal Medicine, 169, 1216-1223](#)

Components of the Community Active Transportation Initiative are as follows:

1. Access to Bikes – The initiative increases access to bicycles through four mechanisms.
  - a. Prescribe-A-Bike – Building on a promising pilot in Boston, and through a partnership with health clinics, community health centers and hospitals, medical professionals will be able to “Prescribe-a-Bike” to Medicaid patients. Recipients will receive either \$5 bike share membership (normally \$85) or a \$5 refurbished bicycle. Helmets and lights will be included and training provided either on-site or through customized videos. *Statistic: Each additional bicycle in a household is related to 1.1 additional days that someone walks or bikes per week in low-income groups.*<sup>4</sup>
  - b. Reduced-Cost Bike Share Memberships – Following best practices in Chicago, Philadelphia, and Boston, Seattle will offer \$5 bike share memberships to eligible low-income residents, accept cash payments for the unbanked, and offer support for those without access to computers or the internet. *Statistic: 54% of low-income adult recipients of \$5 Hubway bike share memberships in Boston reported riding at four or more times a week, up 68% from before receiving a membership.*
  - c. WeCreate The Wheel – In concert with the City’s Safe Routes to School program which will be training every 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grader on safe walking and bicycling starting fall of 2016, WeCreate The Wheel will ensure that every graduating 5<sup>th</sup> grade public school student owns a bicycle by donating a refurbished bicycle to all students without a bike. This grant will only cover expenses for students eligible for the free or reduced-cost lunch program. *Statistic: In Boston, more than three quarters (82%) of youth recipients of donated bikes reported riding at least 1x/week after receiving a bicycle versus 25% before the donation.*
2. Infrastructure
  - a. Low-Income Bike Share Stations – This grant will pay a portion of the costs for 30 bike share stations to be placed in low-income neighborhoods in Seattle, ensuring a suitably dense network of stations. The subsidy will ensure that 30% of all Seattle bike share stations are located in low-income neighborhoods, on par for equity with only Philadelphia’s bike share system. *Statistics: The North American City Transportation Officials concludes, “To increase ridership in low-income areas, cities should increase station density by adding infill stations.”*<sup>5</sup> *A recent study of Barcelona’s bike sharing program, Bicing, found that the health benefits of using the system outweigh the risks by a ratio of 77 to one.*<sup>6</sup>
3. Encouragement
  - a. Walking School Buses and Bike Trains - One of the most promising initiatives, this program will work with the schools to introduce daily escorted walking and biking groups known as “walking school buses” and “bike trains” that provide a safe, fun way to get to school without being driven in a car. Research into walking school buses by Dr. Jason Mendoza of Seattle Children’s Hospital shows that at low-income public elementary schools in Houston, TX, regular participation in a walking school bus program increases children’s active commuting to school and also increases their daily moderate-to-vigorous physical activity. Similar research on walking school buses and bike trains in Seattle is currently underway. *Statistic: Walking school buses increase the percentage of children walking to school to nearly 40% compared to the national average of 5-14% and are highly successful at reducing the BMI of the students who participate.*<sup>7</sup>
  - b. Ciclovía – Seattle will create an annual open streets event, called a “SeaClovía,” in Southeast Seattle, in which the 3-10 miles of road are open exclusively to people, not cars for walking, biking, skating, and other physical activity. *Statistic: A 2012 study of multiple ciclovías reveals a “cost-benefit ratio for health*

<sup>4</sup> Xi Zhu and Cynthia Chen “The built environment affects non-motorized travel behaviors differently for lower- and higher-income people”

<sup>5</sup> “North American City Transportation Officials, “NACTO Station Density - Better Bike Share”

<sup>6</sup> Rojas-Rueda, D., et al., 2011 - *The health risks and benefits of cycling in urban environments compared with car use: health impact assessment study, BMJ 2011;343:d4521*

<sup>7</sup> (Quarles 2011).

*benefit from physical activity was 3.23-4.26 for Bogotá, 1.83 for Medellín, 1.02-1.23 for Guadalajara, and 2.32 for San Francisco”.*<sup>8</sup>

The City already has strong relationships with the majority of required partners. Required partners include:

1. Prescribe-A-Bike – All health centers, hospitals, clinics in Seattle. Best practices from Boston indicate that a large number of partners are critical.
2. Reduced-Cost Bike Share Memberships – Neighborhood non-profits, social service agencies, religious institutes, public housing, health clinics, libraries and community centers. Likewise, best practices point to the need for a large number of partners.
3. WeCreate the Wheel – Bike Works, Public Schools
4. Bike/Walk to School Trains – Local colleges, Seattle Neighborhood Greenways, Cascade Bike Club, Feet First, Public Schools
5. Ciclovía – Seattle Neighborhood Greenways, Cascade Bike Club, Feet First, local neighborhood groups

### Core Investment Components

All programs will reach full size in Year 3. Costs, participants, and ROI below.

|                            | 3 Year Cost        | \$/Pers        | Total PP      | Total Recipients Served |              |               | ROI        |
|----------------------------|--------------------|----------------|---------------|-------------------------|--------------|---------------|------------|
|                            |                    |                |               | Yr 1                    | Yr 2         | Yr 3**        |            |
| Prescribe-A-Bike           | \$210,000          | \$280          | 750           | 100                     | 250          | 400           | unknown    |
| Bike Share Stations        | \$600,000          | \$273          | 2,200         | 600                     | 700          | 900           | 2.3        |
| Reduced-Cost Memberships   | \$390,000          | \$130          | 3,000         | 500                     | 1,000        | 1,500         | 1.2        |
| WeCreate The Wheel         | \$520,000          | \$80           | 6,500         | 1,000                   | 2,000        | 3,500         | 2.1        |
| Bike/Walk to School Trains | \$204,000          | \$120          | 1,700         | 150                     | 500          | 1,050         | 4.1        |
| Ciclovía                   | \$126,000          | \$14           | 9,000         | 1,000                   | 3,000        | 5,000         | 2.0        |
| <b>TOTAL/ (AVG)</b>        | <b>\$2,050,000</b> | <b>(\$149)</b> | <b>23,150</b> | <b>3,350</b>            | <b>7,450</b> | <b>12,050</b> | <b>2.3</b> |
| <b>MEDICAID SPECIFIC</b>   | <b>\$1,536,750</b> | <b>(\$149)</b> | <b>17,363</b> | <b>2,513</b>            | <b>5,588</b> | <b>9,263</b>  | <b>2.3</b> |

*Bike Share ROI from Sam Schwartz Engineering Benefit Cost Analysis of Bike Share for Seattle. Ciclovía RO – see footnote below. ROI for Reduced Cost memberships and WeCreate the Wheel based on University of Northern Iowa 2011 study that shows \$492 health benefit per bike commuter per year. Using \$492, calculations above assumes 1/3 of program participants become regular cyclists. Bike/Walk to School Trains uses Northern Iowa data and assumes 100% of participants benefit.*

### Project Metrics

Key measurements will be as follows:

- WeCreate the Wheel & Bike/Walk to School Trains – total participants, before/after physical activity rates (through survey)
- Prescribe-A-Bike and Reduced-Cost Memberships – number of bike share memberships, average trips per person and minutes per trip, before/after physical activity rates (through survey)
- Ciclovía – Total participants, estimated participants on Medicaid through survey or demographic data
- Bike Share Stations – Total trips originating/departing from station, estimated members on Medicaid through survey or demographic data

<sup>8</sup> Do health benefits outweigh the costs of mass recreational programs? An economic analysis of four Ciclovía programs. Montes F<sup>1</sup>, Sarmiento OL, Zarama R, Pratt M, Wang G, Jacoby E, Schmid TL, Ramos M, Ruiz O, Vargas O, Michel G, Zieff SG, Valdivia JA, Cavill N, Kahlmeier S.