

For projects to be considered for inclusion in the Medicaid Transformation Project List, please provide the information requested in the template. We are looking for summarized information – **2-3 pages maximum per project**.

Please email completed templates by **January 15, 2016**, to [MedicaidTransformation@hca.wa.gov](mailto:MedicaidTransformation@hca.wa.gov) with the subject **Medicaid Waiver Project**. Thank you for your interest and support.

<b>Contact Information</b>	<p>Bridget Igoe, 360-236-3629 (desk) or 312-515-0529 (mobile), <a href="mailto:bridget.igoe@doh.wa.gov">bridget.igoe@doh.wa.gov</a></p> <p><b>Organizations consulted for this idea include:</b> ACHs in King County and Greater Columbia, Anti-Hunger and Nutrition Coalition, Better Health Together (ACH), Bremerton Farmers Market, Catholic Charities of Spokane, City of Seattle – Office of Sustainability and Environment, Department of Health (multiple programs within the Offices of Healthy Communities and Nutrition Services), Fresh Bucks farmers market programs statewide, Public Health – Seattle &amp; King County, MultiCare Health System, Safeway Foundation, Skagit Valley Farmers Market Coalition, Spokane Regional Health District, University of Washington Center for Public Health Nutrition, United General District 304, Wholesome Wave (would share nationally tested tools and resources, technical assistance), Yakima Valley Memorial Hospital.</p>
<b>Project Title</b>	<b>Fruit and Vegetable Prescription Program</b>
<b>Project Abstract</b>	<p>The <b>Fruit and Vegetable Prescription Program</b> is a strategy to prevent and treat food insecurity and chronic diet-related diseases (e.g. obesity, diabetes, cardiovascular disease) in patients of Federally Qualified Health Centers (FQHCs) and clients of supportive housing services (<i>Medicaid Transformation Initiative #3</i>).</p> <p><b>Step 1:</b> Healthcare providers and supportive housing sites screen patients/clients for food insecurity (FI) using a 2-question screening tool that is sensitive, specific, and valid among low-income families and is suitable for clinical or community outreach use (<a href="#">Hager et al. 2010</a>).</p> <p><b>Step 2:</b> Patients/clients identified as food insecure are provided nutrition wraparound support and services (e.g. assistance applying for WIC and/or SNAP, referrals to community food resources). Patients also receive Fruit and Vegetables Prescriptions (equal to \$1 per household member per day).</p> <p><b>Step 3:</b> Patients/clients bring their prescriptions to any participating retailer (e.g. farmers market, grocery stores) where they can be redeemed for fresh fruits and vegetables. Eligible patients/clients start accessing WIC and SNAP benefits.</p> <p><b>Step 4:</b> Patient/client outcomes are tracked by healthcare providers and supportive housing services.</p>
<b>Rationale for the Project</b>	
<p>Food insecurity (FI) is unacceptably high in Washington and it may be undermining our efforts to treat chronic diet-related diseases (e.g. obesity, diabetes, cardiovascular disease) effectively. Nearly 15 percent of Washington households struggle with FI (<a href="#">USDA, 2011</a>)—limited or uncertain availability of nutritionally adequate and safe foods. For critically and chronically ill people, nutritious food is fundamental for improving health outcomes and lowering health care costs. Conversely, FI is associated with poor health status and poor health outcomes. Food insecurity affects physical and mental health status (<a href="#">Pobutsky et al. 2015</a>); increases stress and reduces coping abilities (<a href="#">Canales et al. 2015</a>); and may advance obesity and central adiposity (a risk factor for metabolic and cardiovascular diseases) in children and adolescents (<a href="#">Holben et al. 2015</a>). Food insecurity also causes people to adjust their behaviors in ways that are detrimental to their health and their ability to manage chronic health conditions.</p>	

Research suggests that people living in food insecure households reduce, skip, delay or use lower-cost medications to compensate for lack of household resources to purchase food ([Berkowitz et al 2014](#), [Soumerai et al 2006](#)). In the US, recent research shows there is a significant dose-response relationship between food insecurity and cost-related medication underuse in adults (aged 18-64 years) ([Herman et al. 2015](#)) and in older adults (aged 65 and older) ([Alfulani 2015](#)).

Food insecurity may be aggravating the diabetes epidemic in Washington. Data from the 2011 National Health Interview Survey show that 1 in 6 adults with diabetes reported food insecurity, 1 in 5 of adults with diabetes reported cutting back on medications, and 1 in 4 adults with diabetes may have difficulty obtaining foods appropriate for a diabetic diet ([Knight et al 2015](#)). In low-income patients, food insecurity is associated with poor glucose control ([Mayer et al 2015](#), [Heerman et al 2015](#)) and less adherence to recommended self-care behaviors ([Heerman et al 2015](#)). Food insecurity contributes to healthcare costs. Research in Canada suggests that household food insecurity is a robust predictor of health care utilization and costs incurred by adults (aged 18-64), independent of other social determinants of health ([Tarasuk et al 2015](#), [Fitzpatrick et al 2015](#)). See below for more details.

***Research shows Fruit and Vegetable Prescription Programs help prevent and treat chronic diet-related diseases***

This project is modeled off of [Wholesome Wave's Fruit and Vegetable Prescription® Program \(FVRx®\)](#), a proven evidence-based model of preventative health care. Wholesome Wave reported the following impacts on patients who participated FVRx in 2014: 82 percent were covered by Medicaid, 69 percent increased their fruit and vegetable consumption by almost double, 47 percent decreased their BMI, 45 percent of patient households reported an increase of food security, and over three-quarters agreed they were happier with their diabetes care because of their ability to buy fresh fruits and vegetables (76%), are better able to take care of their diabetes (79%), and learned new things about how to take care of their diabetes (Wholesome Wave 2014 Blue Cross Report).

In another fruit and vegetable prescription program, Prescription for Health in Washtenaw County, Michigan, 81 percent of participants reported that the program helped them manage a health condition and participant consumption of fruits and vegetables increased by nearly one cup per day ([Sheldon 2015](#)). Consumption of fruits and vegetables is associated with reduced risk of many chronic cardiovascular diseases, obesity, and may be protective against certain types of cancer ([DGA 2010](#), [Hung et al 2014](#), [WHO 2016](#)).

In addition to providing fruit and vegetable prescriptions, this project will increase participation in WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) and SNAP (Supplemental Nutrition Assistance Program) by helping eligible, food insecure patients/clients apply for these federal nutrition assistance programs. A new report from the [White House Council of Economic Advisors](#) shows that SNAP plays an important role in lifting people out of poverty, improving maternal health, childhood health, and overall health for people living with chronic metabolic diseases like diabetes. WIC Program is cost effective in protecting or improving the health/nutritional status of low-income women, infants and children ([USDA, 2013](#)).

***By reducing food insecurity in participating households, Fruit and Vegetable Prescription Programs would decrease healthcare costs while also contributing to the local economy***

Addressing food insecurity could save Washington healthcare costs. Research in Canada suggests that household food insecurity is a robust predictor of health care utilization and costs incurred by adults (aged 18-64), independent of other social determinants of health ([Tarasuk et al 2015](#), [Fitzpatrick et al 2015](#)). Adjusted annual costs were 16 percent (\$235) higher in households with marginal food insecurity, 32 percent (\$455) higher in households with moderate food insecurity and 76 percent (\$1092) higher in households with severe food insecurity ([Fitzpatrick et al 2015](#)). Fruit and vegetable prescriptions are often spent on local produce, and this benefits the local economy ([Wholesome Wave 2014](#), [Sheldon 2015](#)). Wholesome Wave estimated that nearly \$500,000 in FVRx were spent on fruits and vegetables benefitting local and regional farmers and community retailers.

**Project Description**

Which Medicaid Transformation Goals<sup>i</sup> are supported by this project/intervention? Check box(es)

- 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? Check box(es)

Fruit and Vegetable Prescription Program described here focuses on care delivery redesign by developing clinical-community linkages (clinic and food system, housing and food system) and integrating federal nutrition assistance programs (WIC, SNAP) into clinical services. Additionally, this program focuses on population health improvement by addressing food insecurity, a condition which precipitates and exacerbates diet-related chronic diseases.

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

**Target Population:** Food insecure patients/clients who receive care or services at FQHCs and supportive housing sites (*Medicaid Transformation Initiative #3*) in Yakima, Pierce, King, Grant, Jefferson, Lewis, and Spokane counties (these are the counties where potential implementing partners are located).

**Alignment with Washington’s Medicaid Transformation goals:** The Fruit and Vegetable Prescription Program focuses on prevention and management of diet-related chronic diseases and whole-patient care by screening for food insecurity (FI) and directly addressing FI by increasing affordable access to fruits and vegetables. Food insecurity is negatively associated with performance metrics WA is trying to improve, including medication adherence, chronic disease management self-care behaviors, blood glucose control, and healthcare costs.

**Interventions:**

- FQHCs and supportive housing services implement a 2-question food insecurity screening tool ([Hager et al. 2010](#)). Individual FI screening results are tracked in the electronic medical records and housing records.
- Healthcare providers and supportive housing sites issue Fruit and Vegetable Prescription to food insecure patients/clients. Prescriptions are equal to \$1 per household member per day.
- Healthcare providers and supportive housing sites assist eligible patients/clients to apply for WIC and SNAP benefits and refer them to community food resources.
- Patients/clients visit any participating retailer (e.g. farmers market, grocery stores) to redeem their prescriptions for fresh fruits and vegetables. Retailers track prescription redemption.
- Eligible patients/clients start accessing WIC and SNAP benefits to help improve access to healthy food.
- Patient/client outcomes are tracked by healthcare providers and supportive housing services.

**Expected outcomes during the waiver period:**

- Food insecure patients with diet-related chronic diseases are provided affordable access to fresh fruits and vegetables.
- Connections between healthcare, community health, and the food system are strengthened.
- At least 70% of participants will consume more fruits and vegetables.
- At least 50% of participants will decrease their BMI.
- At least 90% of participants will agree or strongly agreed that they were happier with their health care because of their participation in the Fruit and Vegetable Prescription Program.
- Increased participation in WIC and SNAP.
- Prevalence of household food insecurity will decrease among participants.
- *See below for other key project metrics that would be measured.*

A Fruit and Vegetable Prescription Program would complement *Medicaid Transformation Initiative #3* on supportive

housing. Clients accessing supportive or transitional housing would also be screened for FI. Food insecure clients would be linked to WIC and SNAP (if eligible) and community food sources, and they would also receive fruit and vegetable prescriptions. In WA, food insecurity is a significant concern among people with housing insecurity (DOH analysis of 2014 WA BRFSS data). In Canada, high-cost users of health care most strongly associated with food insecurity, personal income, and non-homeownership ([Fitzpatrick 2015](#)).

*Potential partners, systems, and organizations needed to be engaged to achieve the results of the proposed project:* ACHs throughout WA, Safeway (currently piloting a fruit and vegetable Rx program for SNAP beneficiaries), additional grocery retailers as recruited, farmers markets (currently piloting a fruit and vegetable Rx program for SNAP beneficiaries), WIC and SNAP-Ed programs (DOH), SNAP (DSHS), Washington Information Network (WIN) 211, King County Promotoras Network, Medicaid Managed Care Plans (e.g. Americgroup, Community Health Plan, Coordinated Care, Molina Healthcare, United Healthcare). **For other potential partners, please see page 1 (Organizations consulted for this idea).**

**Core Investment Components**

Many of the core investments and systems needed to implement and administer a Fruit and Vegetable Prescription Program are already in place. This project could leverage the existing partnerships established through DOH’s *Food Insecurity Nutrition Incentives* (FINI) grant (for more details, see [DOH News Release](#) or the attached FINI fact sheet). Starting in 2016, community-based health providers participating in FINI will distribute fruit and vegetable prescriptions (vouchers in \$10-increments) to patients participating in SNAP. Patients will be able to redeem their FINI Rx at any Safeway store in WA or at participating farmers markets. FINI Rx will be implemented in Yakima, Pierce, King, Grant, Jefferson, Lewis, and Spokane counties.

Since farmers market and Safeway grocery stores already have the systems in place to redeem and track Fruit and Vegetable Prescription Programs, the main activities to get this Medicaid Transformation project off the ground would be to 1) engage the ACHs; 2) engage Medicaid Managed Care Plans, FQHCs, and supportive housing sites, 3) work with participating clinics and housing sites to implement the 2-question food insecurity screening tool and to track results; 3) establish community nutrition wraparound services (linkages to WIC and SNAP), and 4) design a monitoring and evaluation plan.

This project could serve 20,000 patients/clients per year *just by leveraging the FINI Rx networks in Yakima, Pierce, King, Grant, Jefferson, Lewis, and Spokane*. The table below presents several budget scenarios based on patients/clients served per year (10,000-20,000 range) and project duration (12 months-36 months range).

[A] Medicaid Clients/Year	[B] Household Size	[C] Rx (\$) per month	[D] # of Months	[E] Total Rx Costs	[F] Rx Cost as % of Total Medicaid Spending
20,000	2.5	\$75	36	\$135,000,000	1.30%
20,000	2.5	\$75	24	\$90,000,000	0.87%
20,000	2.5	\$75	12	\$45,000,000	0.43%
10,000	2.5	\$75	36	\$67,500,000	0.65%
10,000	2.5	\$75	24	\$45,000,000	0.43%
10,000	2.5	\$75	12	\$22,500,000	0.22%

**Col A:** Estimated number of Medicaid clients per year (for budget scenario purposes).  
**Col B:** Average household size in Washington.  
**Col C:** Col B\*\$1/day\*30 days/month; the Rx is equal to \$1 per household member per day.  
**Col D:** Number of months for this Medicaid Transformation Project. The max number of months would be 36 (3 years) to enable one year for start up and one year for final report writing.  
**Col E:** Col A\*Col B\*Col C\*Col D; these Rx costs do not include administrative costs.  
**Col F:** The cost of this proposed project as a percentage of total Medicaid spending in WA (FY 2014): \$10,403,319,036. Source: <http://kff.org/medicaid/state-indicator/total-medicaid-spending/?state=WA>

The financial return on investment (ROI) for a Fruit and Vegetable Prescription Program has never been calculated, but it is estimated here to be 20%. On average, fruit and vegetable prescriptions are estimated to cost \$900/year per Medicaid household (\$75/month\*12months=\$900/year), but could save \$1092/year in healthcare costs ([Fitzpatrick et al 2015](#)) by improving patient food security. The ROI is the net gain (\$1092 - \$900 = \$192) divided by the investment cost (\$900), \$192/\$900, or 20%. This is likely a conservative estimate of ROI since the potential healthcare savings for addressing household food insecurity are based on research conducted in Canada, and Canada has a lower per-capita spending on healthcare compared to the US.

#### Project Metrics

Key project metrics could include:

- Number of patients/clients screened for food insecurity
- Percentage of patients/clients with food insecurity
- Mental health status
- BMI/weight gain
- Medication adherence
- Healthcare costs
- Diabetes management (blood sugar, HbA1c)
- Satisfaction with care and nutrition counseling as a result of the Fruit and Vegetable Prescription Program