INTRODUCTION & BACKGROUND

Healthy Food Access in WIC Households
The Project

**GOALS**

- Improve access to healthy foods in WIC families in targeted parts of south King County
- Students will use mixed methods to assess the current status of WIC family access to healthy foods in selected neighborhoods in south King County. Students will use the recent report on Access to Healthy Foods in Washington State and the results of the assessment to develop recommendations for improving food access for these families. Project findings will be disseminated.

**OBJECTIVES**

- Assess the financial, physical, nutritional and cultural aspects of family food access in WIC families who are served by WIC clinics in the Highpoint, North SeaTac, and White Center neighborhoods.
- Develop recommendations for policy changes to assure that WIC families have access to healthy foods.
Our Translation of The Project

- Assess food insecurity among WIC clients and where they are currently using their WIC benefits

- Report on outcomes of food access evaluation in WIC families

- This information will provide current healthy food access and food security in WIC families and recommendations for WIC services in South King County
Measuring Food Insecurity

- “Limited or intermittent access to nutritionally adequate, safe and acceptable foods accessed in socially acceptable ways”

- 2009 Statistics: 6% of King County Households were insecure, ~15% in Washington

- Indicators of food insecurity and access
  - SNAP participation
  - Question Survey Tools
Determinants of Healthy Food Access

- Physical Access
  - no true food deserts
  - consider land use, public transportation and walkway safety

- Economical Access
  - income
  - housing costs & utilities
  - household size

- Cultural & Nutritional Access
  - immigration status vs. U.S. citizen women
  - race
  - cultural food preference
METHODS

Healthy Food Access in WIC Households
**Study Design:** Descriptive, cross-sectional study

<table>
<thead>
<tr>
<th>AIM</th>
<th>DATA COLLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>To assess the current status of access to healthy foods and food insecurity in families who participate in WIC.</td>
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<tr>
<td></td>
<td>1. White Center Public Health Center</td>
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<tr>
<td></td>
<td>2. Highline Medical Group</td>
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<tr>
<td></td>
<td>3. High Point Medical Clinic</td>
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</tbody>
</table>
Key Informant Interviews

- Interviews were conducted between Jan 13-Feb 3, 2011 by Nutritional Sciences grad students from UW

- **Food Access and Security Survey**
  - 8Q assessing food shopping patterns, use of food assistance benefits, and access to culturally relevant foods
  - 3Q assessing SNAP usage and access to nutritious foods
  - USDA Six-Item Short Form of the Food Security Survey Module
    - Correctly classifies 97.7% of food insecure households
Analysis & Mapping

ANALYSIS

Data was entered into a Microsoft Excel spreadsheet database and analyzed for:

- Food-shopping patterns
- SNAP usage
- Food security status
  - Determined by assigning food security scale scores based on the USDA six-item Food Security Survey

MAPPING

- Participants provided information regarding the location of the main store where their household purchases food
- Information was combined with data from WA State Geospatial Data Archive and the WA State Department of Health
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- Incentive: enter a drawing for a $25 gift card
Data was entered into a Microsoft Excel spreadsheet database and analyzed for:

- Food-shopping patterns
- SNAP usage
- Food security status
  - determined by assigning food security scale scores based on the USDA six-item Food Security Survey

Participants provided information regarding the location of the main store where their household purchases food.

Information was combined with data from WA State Geospatial Data Archive and the WA State Department of Health.
RESULTS
Healthy Food Access in WIC Households
## Characteristics of WIC survey participants (n=92) by clinic site

<table>
<thead>
<tr>
<th>WIC Clinic</th>
<th>n (%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White Center</td>
<td>60 (65%)</td>
<td></td>
</tr>
<tr>
<td>High Point</td>
<td>20 (22%)</td>
<td></td>
</tr>
<tr>
<td>Highline</td>
<td>12 (13%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>92 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SNAP usage</th>
<th>n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White Center</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>High Point</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Highline</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total, n, (%)</strong></td>
<td>64 (70%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Food Insecure*</th>
<th>n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White Center</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>High Point</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Highline</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>Total, n, (%)</strong></td>
<td>47 (51%)</td>
<td></td>
</tr>
</tbody>
</table>

* Food-insecure households include those with low food security and very low food security.
# Food Insecurity* and SNAP access of WIC participants

<table>
<thead>
<tr>
<th></th>
<th>Not accessing SNAP, n</th>
<th>Food Insecure and not accessing SNAP, n</th>
<th>Food Insecure and accessing SNAP, n</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Center</td>
<td>17</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>(n=60)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Point</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>(n=20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highline</td>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(n=12)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (n=92), n, %</td>
<td>28 (30%)</td>
<td>12 (13%)</td>
<td>35 (38%)</td>
</tr>
</tbody>
</table>

SNAP access among Food–Insecure* respondents
n=47

- 26% Did access SNAP
- 74% Did not access SNAP

*Food-insecure households include those with low food security and very low food security
“Main store” where respondents (n=92) reported their household purchases food

*Ethnic: Bombay-Fiji Bazaar, Castillo, Towfiq Halla Meat & Deli, Viet Wah
Other retailers: Red Apple, Cash & Carry
Locations of the “Main store” where respondents (n=92) reported their household purchases food
"Other" grocery stores where participants (n=92) reported they purchase food

<table>
<thead>
<tr>
<th>Store Type</th>
<th>Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other large retailers</td>
<td>Trader Joe's, Walgreens, Central Market, Red Apple, Seafood City, Sam's Club, Target, Thriftway, Whole Foods</td>
</tr>
<tr>
<td>Other small retailers</td>
<td>Saars, Tukwila Trading Co., Grocery Outlet, Larry in Tukwila, Sarah's Market, Melina Market, High Point Mini Mart, Lam Seafood, Burney &amp; Boys</td>
</tr>
<tr>
<td>Ethnic</td>
<td>Viet Wah, Cambodian-Inco store, Asian supermarket, Somali store, Africana store, Hing Long, Marwa, Castillo, 99 Ranch Market</td>
</tr>
</tbody>
</table>

- Albertsons: 33%
- Safeway: 33%
- WinCo Foods: 25%
- Fred Meyer: 18%
- Costco: 17%
- QFC: 12%
- Walmart: 7%
- Other large*: 17%
- Other small*: 20%
- Ethnic*: 10%
Grocery stores where participants (n=84) reported they redeem some of their WIC checks

<table>
<thead>
<tr>
<th>Store</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safeway</td>
<td>54%</td>
</tr>
<tr>
<td>Albertsons</td>
<td>31%</td>
</tr>
<tr>
<td>Other*</td>
<td>19%</td>
</tr>
<tr>
<td>QFC</td>
<td>12%</td>
</tr>
<tr>
<td>Fred Meyer</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Other: Burney & Boys, Target, Saars, Tukwila Trading Co., Thriftway, Sarah's Market, Walgreens, Central Market, WinCo, Towfiq, Walmart, Marwa, Somalian Store
Participants’ (n=92) reported method of transportation to the store where they primarily purchase food

Reported methods of transportation to “other” stores was very similar. Bike and taxi are excluded because they were not selected by any respondents. *The “Ride with Friends” category also included family members with a car.
Other sources where participants (n=92) reported they obtain food:

- Food Bank: 30%
- Friends and Family: 33%
- Farmer's Market: 33%
- Garden: 8%
- Other: 7%
- DK/Refused: 5%
Participants’ beliefs/attitudes on ease of finding foods that are nutritious and culturally appropriate

<table>
<thead>
<tr>
<th></th>
<th>It is very easy/not too hard to provide my family with foods that are nutritious</th>
<th>It is very easy/not too hard to provide my family with foods that are right for my culture or religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Center (n=60)</td>
<td>53</td>
<td>59</td>
</tr>
<tr>
<td>High Point (n=20)</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Highline (n=12)</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Total (n=92), n, %</td>
<td>78 (85%)</td>
<td>89 (97%)</td>
</tr>
</tbody>
</table>
DISCUSSION

Healthy Food Access in WIC Households
Household Food Security

- Higher rate than national average in 2006-receiving WIC benefits
  - 51% food insecure
  - 29% low food security
  - 22% very low food security

- Food insecurity is associated with adverse health effects
  - obesity, depression, behavioral problems in children, nutrient deficiencies

- Limitation and considerations: current economic downturn and selection bias
SNAP Usage

Results

- A good portion of food insecure households are not using SNAP.
- 70% live in household with SNAP in last 12 mos.
- 26% food insecure households did not receive SNAP in last 12 mos.

Considerations\(^\text{11}\)

- Application barriers
- Food prices\(^\text{12}\)
  - 11% higher in Western region
  - SNAP value will purchase less than other regions
Grocery Store Utilization

- Safeway is the main store for food purchases as well as WIC check use
  - 59% redeem some of WIC checks at main store
  - 3% ethnic grocery store was main, 5% as other
    - limitation of survey

- Over 2/3 use WIC checks at Safeway or Albertsons
  - 41% chose to redeem WIC checks other than main store
    - WinCo Foods, ethnic grocery store, Tukwila Trading Co., Costco

- Other stores covered a wide geographical range
  - distance is not a determining factor
  - bias in study due to language or circumstance or sample size
Other sources where respondents obtain food

- More than 30% receive food from friends & family, farmer’s market and/or food bank in past 12 mos.
- Regional price disparities leads to other food source needs
- Multiple forms of assistance and coalitions with WIC & SNAP
Reported ease or difficulty in providing nutritious & culturally appropriate food for their families

- 97% say it’s very easy or not too hard to provide culturally appropriate food
  - language and selection bias
  - contradictory to literature reviews
    - existing interventions in place
- 85% say it’s very easy or not too hard to provide nutritious food
  - undefined, unclear
- Farmer’s Markets
  - 33% utilize this resource
  - significant nutrient value for low-income\(^5,14\)
  - culturally appropriate\(^6\)
Limitations

- Language
- Bias in owning a car
- Investigator & response bias
- Methods & study design
RECOMMENDATIONS

Healthy Food Access in WIC Households
Increase SNAP Usage

- 26% of the food insecure population surveyed are not enrolled in SNAP
- Disconnect between WIC and SNAP Eligibility
- Obstacles in the application process
- Continue promotion of SNAP in WIC clinics
Increase Communication Between WIC and WIC Approved Stores

- Promote availability of WIC authorized foods
  - WIC approved stores directory
  - shelf labels
- Events aimed at WIC clients
  - cooking seminars
  - store tours
- Beneficial to both parties
Pair Up With Food Banks

- 33% of those surveyed had received food from a food bank
- White Center WIC Clinic
- 75% of the 33% were White Center WIC clients
- Convenience
Improve Access To Healthy Foods

- Corner Stores
  - Healthy Corner Stores Initiative
  - WIC approval

- Farmer’s Markets
  - 33% of those surveyed purchased food from a farmer’s market
  - WIC Farmer’s Market Nutrition Program
Promote Nutrition Education

- Community kitchens
  - SOUL community kitchen
  - Cooking classes
  - Social capital

- Recipes
  - culturally and age appropriate
  - include WIC authorized foods
More Research Is Needed

- What makes highly frequented stores such as Safeway, the store of choice?

- What are the zoning impacts on food access in these communities?

- Is the Farmer’s Market usage and the WIC Farmer’s Market Nutrition Program linked and could it be expanded?

- What are the shopping habits of WIC clients including transportation and store preference?

- Continued monitoring of WIC participation and food security
FINAL QUESTIONS & THANKS!

To the audience & from the audience


