Farm to Clinic: Connecting the Gap Between Food Waste and Food Insecurity in Eastern North Carolina

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**Background**
- Food insecurity is often defined as inadequate access to food due to limited money or resources.
- Twelve percent, or about 15.6 million American households were food insecure in 2016.
- Rural, southern households are more likely to experience food insecurity—N.C. is ranked 15th in the country.

![Figure 1: A choropleth map of food insecurity rates by household for each NC county in 2017. Wayne had a rate of 17.4%](image)

**Methods**
- This study was on the farm to clinic program (F2C) at the Wayne Action Teams for Community Health (W.A.T.C.H.) Clinic in Wayne County, North Carolina.
- The research focus was on perceptions and experiences of patients participating in F2C.
- Weekly bundles of unsold produce donated by local farmers were provided to 30 patients over 8 weeks, along with recipes.
- A weekly survey was provided to measure produce and recipe use, effects on produce and recipe use, produce familiarity, and interest in using the produce again.
- Responses were grouped by week and SPSS was used to generate frequencies and percentages.
- Bivariate analysis was performed on produce use, familiarity, recipe use, effects on producerecipe use, and repeated interest.

![Figure 4: The Leroy James Farmers Market in Pitt County was one of the produce collection locations.](image)

**Results**
- Most of the respondents each week reported using most or all produce.
- Over 70% of the respondents each week agreed that they were interested in using the produce again.
- Familiarity with the produce was linked to reported produce use (p=.000).
- Recipe use was linked to interest in using again (p=.007).
- Produce unfamiliarity was linked with recipe use (p=.039).

**Figure 7: Bivariate analysis of produce use compared to interest in using the produce again and produce unfamiliarity.**

![Figure 6: Bivariate analysis of associations between produce use, recipe use, and produce familiarity (n=76).](image)

<table>
<thead>
<tr>
<th>Produce Use</th>
<th>All</th>
<th>Most</th>
<th>Some</th>
<th>None</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you use the provided recipes?</td>
<td>No</td>
<td>47</td>
<td>9</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>How much produce were you unfamiliar with?</td>
<td>None</td>
<td>54</td>
<td>3</td>
<td>58</td>
<td>0</td>
</tr>
<tr>
<td>Some</td>
<td>2</td>
<td>8</td>
<td>10</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Most</td>
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<tr>
<td>All</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**Future Research**
- Future studies may investigate:
  - Impact of food literacy interventions on personal taste, as a part of produce prescription.
  - Whether F2C has measurable effects on the diet and overall health outcomes of participants.
  - Effects of the program on farmers and methods to decrease any burdens associated with F2C.
  - Strategies for dealing with produce variability throughout the season.
  - Examine potential of the program to reduce food waste in a sustainable way.

**Acknowledgements**
Many thanks to the staff at the W.A.T.C.H. Clinic for hosting the pilot Farm to Clinic Program and to the generous farmers who donated their produce. We are also grateful to all the ECU students who drove many miles to make the deliveries.

**Sources**