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An Evaluation of Food Insecurity & Health Behavior among Rural Community Supported Agriculture (CSA) Participants

Michael Capata
Ian Crane
Taylor Goller
Angie Li
Erin McElroy

See next page for additional authors

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An Evaluation of Food Insecurity and Health Behavior among Rural Community Supported Agriculture (CSA) Participants

Capata, Michael; Crane, Ian; Goller, Taylor; Li, Angie; McElroy, Erin; Quinlan, Noah; Shamsian, Deborah; Delaney, Thomas; Jemison, Jill
University of Vermont College of Medicine; Feenan, Paul; Knaut, Breck; Vermont Youth Conservation Corps

Background
It has been well established that a healthy and nutritious diet can reduce the risk of developing cardiovascular disease, the number one cause of death in the United States. However, for many individuals, access to healthy foods continues to be a major barrier to achieving a nutritious diet. While the causes of food insecurity have been researched, research on the impact of community supported agriculture (CSA) programs with regard to food insecurity and related health behaviors of participants is limited.

Methods
- **Population:** Participants of the VYCC Health Care Share Program (CSA) that were initially identified as food insecure by their healthcare providers.
- **Survey:** Adapted from the National Cancer Institute’s Food Attitudes and Health Behaviors (FAB) Survey:
  - Included 30 questions to assess demographics, food security and health behaviors
  - Distributed in a weekly CSA share to a total of 230 families
  - A total of 50 responses were received

Results
- A statistically significant increase in mean fruit consumption (\( p = 0.017 \)) and mean healthy eating confidence scores (\( p = 0.005 \)) was found for individuals who reported CSA use of more than once per month as compared to individuals who reported CSA use of less than once per month.
- Mean vegetable consumption and frequency of physical activity was not significantly different between individuals with high vs. low CSA use.

Do you eat the same vegetables year round?

<table>
<thead>
<tr>
<th>Type</th>
<th>Same Year Round</th>
<th>Less Than One Per Month</th>
<th>More Than One Per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>High CSA Use</td>
<td>37%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>Low CSA Use</td>
<td>30%</td>
<td>41%</td>
<td>29%</td>
</tr>
</tbody>
</table>

How often do you go out of your way to buy fruits and vegetables?

<table>
<thead>
<tr>
<th>How often do you go out of your way to buy fruits and vegetables?</th>
<th>At least once per week</th>
<th>Less than one per month</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>High CSA Use</td>
<td>38%</td>
<td>30%</td>
<td>12%</td>
</tr>
<tr>
<td>Low CSA Use</td>
<td>26%</td>
<td>40%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Discussion
- According to Healthy Vermonters 2020, only 38% of Vermont’s population reported eating 2 or more servings of fruit per day and only 30% reported eating 3 or more servings of vegetables per day. These results highlight the importance of implementing programs that promote healthy eating in our state.
- A statistically significant increase in mean fruit consumption and mean healthy eating confidence scores among frequent CSA users suggests a positive and frequency-dependent impact of CSA use on both food security and healthy eating behaviors.
- For food insecure individuals, CSA share programs may therefore improve health outcomes by serving as a tool for improving access to nutritious foods and encouraging healthy eating behaviors.

Future Directions
- Recommendations for future analysis to guide improvement of the Health Care Share Program:
  - Distribute surveys at both the onset and conclusion of the CSA share delivery
  - Distribute surveys to a control population of similar demographics who also identify as food insecure, but who are not receiving weekly CSA shares
  - Assess the subgroup of CSA share recipients who attended the optional cooking classes provided by the VYCC
  - Engage healthcare providers to link frequency of CSA participation with health outcomes (e.g. BMI, blood pressure)

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