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Evaluating the Nutritional Risk of Older Adults Participating in the South Carolina Older Americans Act

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Background

The Healthy People 2020 goal is to “improve the health, function and quality of life.” For older adults, proper nutrition is essential for health and functionality as well as for social, cultural and psychological quality of life. Poor nutrition in older adults exacerbates diseases, increases disability, decreases resistance to infection, and extends hospital stays, all of which could result in increased caregiving demand and national health care expenditures.

The Older Americans Act (OAA) is the primary vehicle for delivering social and nutrition programs to older individuals. The largest health program in the OAA is the nutrition program, which includes congregate dining and home-delivered meals. OAA nutrition programs seek to:

- Reduce hunger and food insecurity;
- Promote socialization of older adults; and
- Promote the health and well-being of older adults by giving them access to nutrition and other disease prevention and health promotion services.

The nutrition program targets adults who are 60 years of age or older with greatest economic and/or social need, with particular attention to low-income minorities, those in rural areas, and those with limited English proficiency.

In order to be a service recipient, each client is initially assessed and reassessed annually, as well as when the client has a life altering change in her/his status. The assessment includes a nutritional screening section that consists of the Determine Your Nutritional Health Checklist, a tool developed by the Nutrition Screening Initiative. The checklist is based on the following warning signs: disease, eating poorly, tooth loss/mouth pain, economic hardship, reduced social contact, multiple illnesses, involuntary weight loss/gain, and needs for assistance in self-care. Participants with a high risk score (6 or higher) as a result of their assessment are prioritized for OAA program services.

Methods

- Assessments from February 2013-March 2014 were included.
- For those clients with multiple assessments, only the most recent one was included for data analysis.
- Total nutrition risk scores were calculated for each client using the DETERMINE checklist.
- Mean Nutrition Risk Scores were obtained for each region. Student t-tests were conducted to identify statistically significant differences in nutrition risk scores between regions.
- Descriptive statistics were used to determine which questions were most relevant in regions with nutrition risk scores.

Results

Population

- Assessments of 15,310 older adults were analyzed.
- Age (mean ± SD): 78.05 ± 9.13
- Gender: 73.02% Females and 26.98% Males
- Race: 53.02% African American, 45.88% White and 1.10% Other

![Fig. 1 South Carolina’s Areas Agencies on Aging and South Carolina I-95 Corridor](image)

Table 1. South Carolina’s Area Agencies on Aging Mean Nutrition Risk Score

<table>
<thead>
<tr>
<th>Area Agency on Aging</th>
<th>N</th>
<th>Mean Nutrition Risk Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pee Dee</td>
<td>1640A</td>
<td>10.87</td>
</tr>
<tr>
<td>Berkeley-Charleston-Dorchester</td>
<td>2473B</td>
<td>10.52</td>
</tr>
<tr>
<td>Lower Savannah</td>
<td>1647C</td>
<td>9.82</td>
</tr>
<tr>
<td>Appalachian</td>
<td>2207</td>
<td>9.11</td>
</tr>
<tr>
<td>Santee Lynches</td>
<td>1050D</td>
<td>9.07</td>
</tr>
<tr>
<td>Waccam</td>
<td>1280E</td>
<td>8.35</td>
</tr>
<tr>
<td>Low Country</td>
<td>966F</td>
<td>8.34</td>
</tr>
<tr>
<td>Catawba</td>
<td>1416</td>
<td>8.06</td>
</tr>
<tr>
<td>Central Midlands</td>
<td>1341F</td>
<td>7.88</td>
</tr>
<tr>
<td>Upper Savannah</td>
<td>1288G</td>
<td>7.30</td>
</tr>
</tbody>
</table>

*Levels not connected by the same letter are significantly different

![Fig 2. Older adults that have an illness or condition that made me change the kind and/or amount of food they eat vs. Area Agency on Aging](image)

Discussion

South Carolina’s I-95 Corridor is a diverse and expansive region of 17 counties and nearly a million people, stretching from North Carolina to Georgia. Despite advantages, including proximity to the coast and major transportation routes, the Corridor has long been underdeveloped. With that underdevelopment have come problems ranging from cyclical poverty to lacking health and social well-being indicators.

Preliminary results show that older adults receiving services from Area Agencies on Aging in the South Carolina’s I-95 Corridor Region have higher nutrition risk scores. Two major factors that contribute to these high nutrition risk scores found in the study are the presence of chronic diseases and food insecurity. The existence of a single chronic condition is a significant predictor of functional status decline, with the risk increasing up to the presence of four or more chronic conditions. In the United States, approximately 80% of all persons 65 years of age and older have at least one chronic condition, and 50% have at least two chronic conditions. Dietary patterns and lifestyle practices are associated with mortality from heart disease, cancer, stroke, chronic lower respiratory diseases, Alzheimer’s disease diabetes mellitus, and influenza and pneumonia diseases, which were among the top five leading causes of death for all persons 65 years and older in 2007.

In 2012, 2.8 million (8.8%) households with seniors experienced food insecurity. Of the seniors living alone 1.1 million (9.1%) experienced food insecurity. Those more likely at-risk of hunger are those aged 60 years and older, living at or below poverty, high school drop out. African American or Hispanics, divorced or separated or living with a grandchild, participants in the Supplemental Nutrition Assistance Program (SNAP), and renters. Decrease earning potential and lack of access to food leaves the already vulnerable at increased risk for comprised health and quality of life.

Conclusion

Monitoring nutrition status at geographic levels will help track older adult at high nutritional risk and the factors affecting the nutritional status. This will lead to a better understanding of the unmet needs and will help identify strategies to enhance delivery of food and nutrition services to meet the needs of vulnerable older adults. This research could be used to engage and solicit active participation of various key players in the state to improve nutritional status of older adults. Results could also be helpful in seeking to ensure adequate of economic resources and minimize the risk of financial challenges.

References