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Prevalence of nutrition risk and associated social risk factors in community living older adults in the New Zealand Health, Work and Retirement Study

A thesis presented in partial fulfillment of the requirements for the degree of

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at Massey University, Auckland, New Zealand

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Abstract

Background: The New Zealand population is ageing as a result of declining mortality and birth rates. In order for older adults to remain in optimal health, good nutrition is vital. Previous research indicates approximately 50% of New Zealand’s community living older adult population are at some degree of nutrition risk. Understanding nutrition risk prevalence and factors associated with increased nutrition risk is vital to reduce healthcare spending. This study aims to determine nutrition risk prevalence and associated health and social risk factors amongst community-living older adults across New Zealand.

Methods: A total of 3050 community-living older adults were invited to respond to the 2014 Health, Work and Retirement (HWR) postal survey. This included a nutrition risk assessment using the Seniors in the Community: Risk Evaluation for Eating and Nutrition, abbreviated version (SCREENII-AB) as well as demographic, social and health characteristic measures. Social provisions were determined with the 24-item Social Provisions Scale, and Social and Emotional loneliness were assessed with the 6-item De Jong Gierveld Loneliness Scale. Alcohol intake was determined by using the Alcohol Use Disorders Identification Test (AUDIT-C), and living standards assessed with the Economic Living Standards Index Short Form (ELSI-SF). Overall, 136 participants did not complete one or more of the SCREENII-AB items, reducing the sample size to 2914.

Results: Of the 2914 participants, 37.2% were found to be at nutrition risk. Half (51.2%) of Māori participants were at nutritional risk compared to a 32.7% of non-Māori. Independent risk factors for Māori were being un-partnered (OR 1.87) and rating general health as fair (OR 4.83). Independent risk factors for non-Māori were being un-partnered (OR 1.94), rating general health as good, fair or poor (OR 2.03, 3.18, 4.39), life satisfaction (OR 0.40), as well as increased total health conditions counts (OR 1.11), and emotional loneliness (OR 1.35).

Conclusions: These findings suggest that social eating is required to reduce nutrition risk amongst older adults. Those who are un-partnered may benefit from public health intervention promoting social eating. As Māori had a higher prevalence of
nutrition risk than non-Māori, culturally appropriate strategies are needed to encourage healthy eating practices.
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## Abbreviations

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<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>AUDIT</td>
<td>Alcohol Use Disorders Identification Test</td>
</tr>
<tr>
<td>AUDIT-C</td>
<td>Alcohol Use Disorders Identification Test (Short Form)</td>
</tr>
<tr>
<td>AMDR</td>
<td>Average Macronutrient Distribution Range</td>
</tr>
<tr>
<td>ANSI</td>
<td>Australian Nutrition Screening Initiative</td>
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<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>BMR</td>
<td>Basal Metabolic Rate</td>
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<tr>
<td>DALY</td>
<td>Daily Adjusted Life Year</td>
</tr>
<tr>
<td>ELSI-SF</td>
<td>Economic Living Standard Index Short Form</td>
</tr>
<tr>
<td>LiLACS NZ</td>
<td>Life and Living in Advanced Age: a Cohort Study in New Zealand</td>
</tr>
<tr>
<td>HWR</td>
<td>Health, Work and Retirement</td>
</tr>
<tr>
<td>NZ</td>
<td>New Zealand</td>
</tr>
<tr>
<td>NZANS</td>
<td>New Zealand Adult Nutrition Survey</td>
</tr>
<tr>
<td>MNA-SF</td>
<td>Mini Nutritional Assessment Short Form</td>
</tr>
<tr>
<td>MUST</td>
<td>Malnutrition Universal Screening Tool</td>
</tr>
<tr>
<td>MPR</td>
<td>Multiple Pass Recall</td>
</tr>
<tr>
<td>NSI</td>
<td>Nutrition Screening Initiative</td>
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<tr>
<td>OR</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>SCREENI</td>
<td>Seniors in the Community; Risk Evaluation for Eating and Nutrition, version I</td>
</tr>
<tr>
<td>SCREENII</td>
<td>Seniors in the Community; Risk Evaluation for Eating and Nutrition, version II</td>
</tr>
<tr>
<td>SCREENII-AB</td>
<td>Seniors in the Community; Risk Evaluation for Eating and Nutrition, version II, Abbreviated Version</td>
</tr>
<tr>
<td>SNAQ</td>
<td>Simplified Nutritional Assessment Questionnaire</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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