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Nutrition risk factors as predictors of hospitalisations and mortality among Māori and non-Māori community-living octogenarians

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

Master of Science in Human Nutrition and Dietetics

At Massey University, Albany, New Zealand

Sylvia Michelle North
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Abstract

*Aim:* The aim was to examine the consequences of high nutrition risk (hospital admissions and mortality at 24-months) using the Seniors in the Community: Risk Evaluation for Eating and Nutrition, Version II (SCREEN II) nutrition risk domain scores among the participants of the Life and Living in Advanced Age Cohort Study New Zealand.

*Methods:* Demographic, lifestyles, and health data from 421 Māori (177 males, age: 82-90) and 516 non-Māori (237 males, age: 84-86) was examined at baseline. The Senior’s in the Community: Risk Evaluation for Eating and Nutrition (SCREEN II) tool was used to examine three key domains of nutrition risk (1: “weight change”; 2: “dietary intake”; 3: “factors affecting intake”). Multiple regression analyses examined the relationship between SCREEN II domain scores and all-cause hospitalisations and all-cause mortality.

*Results:* Half of the participants were at high nutrition risk (Māori 49.4%; non-Māori 38.3%), with a higher prevalence among women (Māori 54.2%; non-Māori 48.6%). For Māori, the SCREEN II “dietary intake” domain score was negatively associated with mortality [OR (95%CI) 0.74 (0.71-0.98), p=0.034], once adjusted for age, gender, socioeconomic deprivation, education level, previous hospital admission, comorbidities, and activities of daily living. There was trend toward a negative association for all-cause hospitalisations (p=0.150). There was no significant relationship between SCREEN II domain scores and hospital admissions or mortality for non-Māori.

*Conclusions:* For older Māori at high nutrition risk, dietary intake is the strongest nutrition risk predictor of all-cause mortality and may predict risk of hospitalisation. Strategies to ensure dietary adequacy and consumption of a variety of foods may assist to improve health outcomes.
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# Glossary of Māori Terms

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<tr>
<th>Māori name</th>
<th>Translation</th>
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<tbody>
<tr>
<td>hapū</td>
<td>sub-tribe</td>
</tr>
<tr>
<td>iwi</td>
<td>tribe</td>
</tr>
<tr>
<td>kai</td>
<td>food</td>
</tr>
<tr>
<td>kuia</td>
<td>older women</td>
</tr>
<tr>
<td>kaumātua</td>
<td>older men</td>
</tr>
<tr>
<td>te Tangata Whenua</td>
<td>The indigenous people of New Zealand.</td>
</tr>
<tr>
<td>whakapapa</td>
<td>genealogical ties</td>
</tr>
<tr>
<td>whānau</td>
<td>family, usually inclusive of extended family</td>
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# List of Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tr>
<td>ADLs</td>
<td>Activities of daily living</td>
</tr>
<tr>
<td>BMI</td>
<td>Body mass index</td>
</tr>
<tr>
<td>DALYs</td>
<td>Disability Adjusted Life Years</td>
</tr>
<tr>
<td>GDS-15</td>
<td>Geriatric depression scale, 15 item index</td>
</tr>
<tr>
<td>LiLACS NZ</td>
<td>Life and Living in Advanced Age: a cohort study in New Zealand</td>
</tr>
<tr>
<td>NEADL</td>
<td>Nottingham Extended Activities of Daily Living</td>
</tr>
<tr>
<td>SCREEN II</td>
<td>Seniors in the Community: Risk Evaluation for Eating and Nutrition version II</td>
</tr>
<tr>
<td>2008/09 NZANS</td>
<td>2008/09 New Zealand Adult Nutrition Survey</td>
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