Diet, lifestyle and healthy ageing in European elderly

Daan Kromhout
Division of Human Nutrition, Wageningen University
The Netherlands

Helsinki, 14 September 2006
HALE
Healthy Ageing: Longitudinal study in Europe

A multi-disciplinary approach to healthy ageing and its determinants in 13 European countries

5th Framework programme EU
Quality of Life and Management of Living Resources
Key action “The ageing population and their disabilities”

Grant no.: QRLT-2000-00211
Health and survival curves to age
### Prospective cohort studies in HALE project

<table>
<thead>
<tr>
<th>Study</th>
<th>Number</th>
<th>Age (y) baseline</th>
<th>Follow-up (y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seven Countries</td>
<td>6518</td>
<td>40-59</td>
<td>35</td>
</tr>
<tr>
<td>FINE</td>
<td>1457</td>
<td>70-90</td>
<td>10</td>
</tr>
<tr>
<td>SENECA</td>
<td>2230</td>
<td>70-75</td>
<td>10</td>
</tr>
</tbody>
</table>
Diet, lifestyle and 10-year mortality in the HALE project

<table>
<thead>
<tr>
<th>Protective factors</th>
<th>CHD Adjusted(^1)</th>
<th>All-causes Adjusted(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RR  (95%CI)</td>
<td>RR  (95%CI)</td>
</tr>
<tr>
<td>Mediterranean diet</td>
<td>0.61  (0.43-0.88)</td>
<td>0.77  (0.68-0.88)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>0.60  (0.40-0.88)</td>
<td>0.78  (0.67-0.91)</td>
</tr>
<tr>
<td>Physical activity</td>
<td>0.72  (0.48-1.07)</td>
<td>0.63  (0.55-0.72)</td>
</tr>
<tr>
<td>Non-smoking</td>
<td>0.80  (0.54-1.17)</td>
<td>0.65  (0.57-0.75)</td>
</tr>
</tbody>
</table>

\(^1\) = adjusted for the other dietary and lifestyle factors, age, gender, number of years of education, BMI, and study population

Survival curves and number of healthy lifestyle factors

- 0/1 healthy lifestyle factor
- 2 healthy lifestyle factors
- 3 healthy lifestyle factors
- 4 healthy lifestyle factors
Cups of coffee at baseline and 10-year cognitive decline (The FINE Study)

Cups of coffee per day

Cognitive decline

p<0.05  ** p<0.001  Van Gelder et al, Eur J Clin Nutr, accepted
Quartiles of baseline intensity of physical activity and 10-year cognitive decline (The FINE Study)

Van Gelder et al. Neurology 2004;63: 2316-21
Recommendations for healthy ageing based on results of the HALE project

• Use a Mediterranean type of diet
• Be physically active preferably 30 minutes per day
• If you use alcohol, do so in moderation
• Do not smoke