CHRONIC DISEASE AND HEALTHY LIFESTYLE TRANSITIONS (HLTs)

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Chronic Disease and HLTs
J Aging and Health, 2007; 19 (3)
CHRONIC DISEASE AND LIFESTYLE TRANSITIONS
Results from the Longitudinal Aging Study Amsterdam

• CH van Gool (Natl Inst Publ Health & Environm)
• GIJM Kempen (Maastricht University)
• BWJH Penninx (VU University Medical Center)
• DJH Deeg (VU University Medical Center)
• JThM van Eijk (Maastricht University)
Introduction

- Central premise

Healthy lifestyle transitions (HLT’s), eg. smoking cessation, alcohol consumption moderation, initiating physical activity, are associated with more favourable course of disease (eg. diabetes [Clark & Hampson, 2001], respiratory diseases [Eagen, Gulsvik et al., 2004], arthritis [Song, Lee et al., 2003]) compared to persistence in unhealthy lifestyles.
Introduction

• Study objectives:

1. Study lifestyles across prevalent chronic diseases

2. Study HLTs across prevalent & incident chronic diseases

3. Examine if changes in disease-related symptoms are associated with HLTs
Methods

• Longitudinal Aging Study Amsterdam (LASA):
  - Population-based
  - Since 1992 (N=3,107)
  - Age 55-85 year old
  - Three-year intermittent
  - Main & medical interviews
  - Included baseline & 2nd follow-up (N= resp. 2,184 and 1,167), i.e. 6-year period

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Methods

• Each cycle provided data on:

  - Self-reported chronic disease status
    * Lung disease, CVD, Diabetes, OA/RA (yes / no)

  - Disease-related symptoms
    * Disease-specific questions about symptoms
      → Lung disease (e.g. freq. of coughing, wheezing, shortness of breath)
      → CVD (e.g. freq. of chest pains, and how fast the pains disappears)
      → Diabetes (e.g. freq. pain during walking)
      → OA/RA (e.g. freq. of pain, stiffness, swelling of joints)
Methods

• Each cycle provided data on:

-Lifestyle
* Smoking (yes ; no)
* Alcohol use (abstaining ; moderate [>0 - ≤ 2 glass/d] ; excessive [>2 glass/d])
* Physical activity (sedentary [0 - <86 min./d] ; active [>86 min./d])

-Sociodemographics, covariates
* Age, gender, education, multimorbidity
Methods

• Analyses:

1. Study lifestyles across prevalent chronic diseases → multivariate logistic regression analyses

2. Study HLTs across prevalent & incident chronic diseases → McNemar tests

3. Examine if changes in disease-related symptoms (cat) are associated with HLTs (cat) → Manova

Marks statistical significance (p at least < .05)

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**Results**

Lifestyles in prevalent chronic diseases (1/3)

### Smoking (% yes)

<table>
<thead>
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<tr>
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Results

Lifestyles in prevalent chronic diseases (2/3)

Alcohol use (% excessive)

- Baseline mean, n=2184
- Prev. CVD, n=638
- No CVD, n=1546
- Prev. Lung disease, n=261
- No Lung disease, n=1923
- Prev. Diabetes, n=171
- No Diabetes, n=2013
- Prev. OA/RA, n=804
- No OA/RA, n=1380

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## Results

### Lifestyles in prevalent chronic diseases (3/3)

#### Physical activity (% sedentary)

<table>
<thead>
<tr>
<th>Condition</th>
<th>n</th>
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<tbody>
<tr>
<td>Baseline mean</td>
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<td>Prev. OA/RA</td>
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### Results

**HLTs across prev. & inc. chronic diseases (1/3)**

**6-yr changes in smoking**

<table>
<thead>
<tr>
<th>1992</th>
<th>Quit</th>
<th>Initiated</th>
<th>1998</th>
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<tbody>
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<tr>
<td>22.6</td>
<td>![Graph]</td>
<td>![Graph]</td>
<td>17.3</td>
</tr>
</tbody>
</table>

- Sample mean, n=1167
- Prev. CVD, n=277
- Inc. CVD, n=186
- Prev. Lung disease, n=118
- Inc. Lung disease, n=81
- Prev. Diabetes, n=64
- Inc. Diabetes, n=44
- Prev. OA/RA, n=434
- Inc. OA/RA, n=226

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Results\(^2\)  

## HLTS across prev. & inc. chronic diseases (2/3)

### 6-yr changes in excessive alcohol use

<table>
<thead>
<tr>
<th></th>
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<th>1992</th>
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<tr>
<td><strong>Prev. CVD, n=277</strong></td>
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<td><strong>Prev. Lung disease, n=118</strong></td>
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<td><strong>Prev. Diabetes, n=64</strong></td>
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<td><strong>Prev. OA/RA, n=434</strong></td>
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<tr>
<td><strong>Inc. CVD, n=186</strong></td>
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<tr>
<td><strong>Inc. Lung disease, n=81</strong></td>
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<tr>
<td><strong>Inc. OA/RA, n=226</strong></td>
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**Sample mean, n=1167**  
**Prev. CVD, n=277**  
**Prev. Lung disease, n=118**  
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Results\textsuperscript{2} HLTs across prev. & inc. chronic diseases (3/3)

6-yr changes in sedentary lifestyle

<table>
<thead>
<tr>
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<th>1998</th>
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</thead>
<tbody>
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<td>23,1</td>
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Results

HLTs & change in disease-related symptoms

• Change in disease-related symptoms did not differ between GypRs with HLT and those persisting in their unhealthy lifestyle in prevalent and incident chronic disease categories in which a significant lifestyle change took place between baseline and follow-up.
Discussion

• More (excessive) alcohol use in prevalent lung disease, and less in other disease categories

• Rs with incident CVD more likely to quit smoking, cease excessive alcohol use, and less likely to become active reactive to new diagnose?

• Change in disease severity does not play a role in HLTs

• Next step? Objective symptom measures (FEV$_1$, HbA1c)?

• Targeted health promotion

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