Introduction

• social determinants of health among older people has been a neglected topic:
  – reflect perceptions that poor health and disability are inevitable features of growing older and as such are driven by biological senescence rather than social determinants
  – Beliefs that interventions to reduce inequalities at older ages are less likely to be effective than interventions earlier in the life course and so a lesser priority for research or policy
Introduction

• Few reviews on inequalities in subjective health, (compared to disability, mortality and specific illnesses). The previous reviews focus on subjective health changes after disease or treatment of a disease.
Aim

To investigate inequalities in subjective health in older age groups in Europe using systematic literature review.

- Do the associations between socioeconomic position and subjective health and well-being differ by age group or gender?
- Do health related behaviours and social support mediate the associations between socioeconomic position and subjective health and well-being?
Methods

• The review was undertaken as part of a larger study on the Social Determinants of Health in Europe.

• Criteria to include papers:
  – report on data collected in Europe
  – include results for people aged 60+
  – study health inequalities reporting socioeconomic differences in subjective health
  – empirical research published in a journal article
  – published between January 1995 and October 2013
## Methods: Search words

<table>
<thead>
<tr>
<th>Search limitation</th>
<th>Search words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective health and well-being</td>
<td>Subjective health, self-rated health, life satisfaction, quality of life, well-being</td>
</tr>
<tr>
<td>Inequalities</td>
<td>inequality, disparity, education, socio-economic, wealth, income, financial assets, housing tenure, car owner, deprivation, occupational class, social class</td>
</tr>
<tr>
<td>Europe</td>
<td>Europe, Albania, Andorra, Austria, Belarus, Belgium, Bosnia, Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia (European), San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Yugoslav Republic, Ukraine, United Kingdom</td>
</tr>
<tr>
<td>Age of population</td>
<td>age 60+, ageing, elderly, older people</td>
</tr>
<tr>
<td>Year of publication</td>
<td>1995-Current (October 2013)</td>
</tr>
<tr>
<td>Type of publication</td>
<td>Article</td>
</tr>
</tbody>
</table>
Methods: Databasis

Journal articles were identified using:

- Medline
- Global Health
- Embase
- Social Policy and Practice
- Cinahl
- Web of Science
- IBSS
<table>
<thead>
<tr>
<th>Quality measure</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether longitudinal data were used</td>
<td>(0) Cross-sectional</td>
</tr>
<tr>
<td></td>
<td>(1) Longitudinal</td>
</tr>
<tr>
<td>What covariates the study included</td>
<td>(0) None</td>
</tr>
<tr>
<td></td>
<td>(1) Socio-demographic only</td>
</tr>
<tr>
<td></td>
<td>(2) Socio-demographic plus others (e.g. health status, functioning, social contacts, social support, social network, health-related behaviour)</td>
</tr>
<tr>
<td>Analysis method used</td>
<td>(0) Descriptive</td>
</tr>
<tr>
<td></td>
<td>(1) Bivariate</td>
</tr>
<tr>
<td></td>
<td>(2) Multivariate</td>
</tr>
<tr>
<td>Participation rate</td>
<td>(0) under 50%</td>
</tr>
<tr>
<td></td>
<td>(1) 50-74%</td>
</tr>
<tr>
<td></td>
<td>(2) 75% or higher</td>
</tr>
</tbody>
</table>
Results: included studies

- A total of 4351 citations on inequalities in subjective health were identified.
- Most of the excluded papers did not meet the inclusion criteria of scope of the study or they did not include older people or did not report separate results for older people.
- 71 papers were included in the review
  (44 on self rated health, 20 on quality of life, 11 on life satisfaction)
Results: Location of included studies
## Results: health inequalities

<table>
<thead>
<tr>
<th>Is there an association between SEP and subjective health and well-being?</th>
<th>Does the association weaken with age?</th>
<th>Do health-related behaviours and social support mediate the association?</th>
<th>Are there gender differences in the association?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, although tended to attenuate in the oldest age group and after adjustment for other life circumstances. Of the different health outcomes, inequalities most consistently found in self-rated health, whereas the results less consistent in life satisfaction.</td>
<td>Yes, the association between SEP and subjective health tended to weaken with increasing age.</td>
<td>Yes, to some extent. However, only few studies investigated these intermediate factors.</td>
<td>Yes, but no consistent pattern.</td>
</tr>
</tbody>
</table>
Results: quality check

Only six studies (8%) examined the associations longitudinally.
The use of covariates was not associated with whether the associations were found or not found. However, most of the studies examining age differences included only demographic factors.
Results: quality check

Analysis method in the reviewed papers

- Descriptive: 6%
- Bivariate: 8%
- Multivariate: 86%

In general the analyses methods were appropriate for the study questions and available variables. The type of analysis method was not associated with whether the associations were found or not.
Results: quality check

Participation rate in the reviewed papers

- Not reported: 34%
- Varying: 18%
- < 50%: 37%
- 50-74%: 8%
- > 74%: 3%

Participation rate was not associated with whether the association were found or not, although this was difficult to assess (a third of studies did not report their participation rate and 8% reported a varying rate).
Discussion

- Strong evidence of association between socioeconomic position and subjective health, especially self-rated health.
- The association weaker in older age groups may reflect reduced statistical power in generally smaller samples of very old people, decreased salience of factors related to working life for those in the oldest groups and operation of various selection effects.
- Some support that social support and health-behaviours reduced the association.
- Gender differences were not consistent and tended to diminish after adjusting for health and life circumstances.
Discussion

• Limitations:
  – Older population, especially of women, less differentiated on key indicators of socio-economic status, such as level of education, than mid life groups
  – Current income may reflect a complex combination of influences including life time accumulation of assets, policies on income support, and household composition
  – Measuring subjective health and using self-assessment of socio-economic status may correlate because of use of the same source of information
  – The search was restricted to published journal articles, which excludes grey literature
Discussion

• Future directions:
  – report the results by age groups
  – larger samples in very old ages
  – more studies on health inequalities in Eastern Europe
  – investigate the role of intermediate factors
  – more longitudinal studies to study the processes over time