Social determinants of health of older adults

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Social determinants of healthy ageing

• Initiated by WHO European Regional Office for their *Solid Facts* series

• Aim
  To identify the key social determinants of healthy and active ageing, with supporting evidence and policy recommendations

• Edited by Andrew Steptoe, Michael Marmot and Agis Tsouros
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• Gita Sen (Bangalore)
• Johannes Siegrist (Düsseldorf)
• Nicholas Steel (UEA)
• Richard Wilkinson (Nottingham)
Social determinants of healthy ageing

- Determinants that are active earlier in life, and persist into later life
- Determinants that are active earlier in life, but become accentuated in later life
- Emerging social factors at older ages
- Which determinants most amenable to policy initiatives:
  - Within health systems
  - At the societal level
Social determinants of healthy ageing

- Macrosocial factors
- Individual / microsocial factors
Social determinants of healthy ageing

• Macrosocial factors
  ➢ Economic factors / poverty
    ▪ Socioeconomic disparities persist into old age
    ▪ Many older people face economic hardship
SES, age, and all cause mortality

Deaths / 1000 person years

- Admin
- Prof
- Clerical
- Other

Marmot & Shipley, 1996
Social determinants of healthy ageing

• Macrosocial factors
  ➢ Economic factors / poverty
    ▪ Socioeconomic disparities persist into old age
    ▪ Many older people face economic hardship
    ▪ Ensuring adequate financial resources
    ▪ Managing retirement more effectively
    ▪ Ensuring appropriate facilities for care and support
Social determinants of healthy ageing

- Macrosocial factors
  - Economic factors / poverty
  - Empowerment and political engagement
    - Involving older people in planning for their older age
    - Promoting opportunities for participation
    - Reducing age discrimination
    - Reducing misconceptions and stereotypes
Social determinants of healthy ageing

• Macrosocial factors
  - Economic factors / poverty
  - Empowerment and political engagement
  - Gender issues
    - Health differentials result from a combination of biological differences and social differentials
    - Cumulative effects of women’s lower social position throughout life impact in old age
Nominal wages for women are significantly lower than for men.

- 4 countries in the Middle East and North Africa: 81
- 6 countries in East Asia and Pacific: 80
- 22 industrialized countries: 80
- 10 countries in transition: 76
- 8 countries in Latin America and Caribbean: 73
- 4 countries in sub-Saharan Africa: 70

Proportion of women’s wages to men’s wages outside of agriculture

UNICEF, 2006
Social determinants of healthy ageing

- Macrosocial factors
  - Economic factors / poverty
  - Empowerment and political engagement
  - Gender issues
    - Health differentials result from a combination of biological differences and social differentials
    - Cumulative effects of women’s lower social position throughout life impact in old age
    - Gender related to other social determinants: widowhood (loneliness), lower income (poverty), less social support, less developed muscle mass (work patterns), poorer nutrition
Social determinants of healthy ageing

• Macrosocial factors
  ➢ Economic factors / poverty
  ➢ Empowerment and political engagement
  ➢ Gender issues
  ➢ Distribution of health resources
Total expenditure on health per capita, 2006
(in US$)

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: National Health Accounts series, World Health Organization
Map Production: Public Health Information and Geographic Information Systems (GIS), World Health Organization

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Social determinants of healthy ageing

• Macrosocial factors
  ➢ Economic factors / poverty
  ➢ Empowerment and political engagement
  ➢ Gender issues
  ➢ Distribution of health resources
    ▪ Maximise healthy ageing by compressing morbidity
    ▪ Good quality health care for older people
    ▪ Access to affordable preventive care
    ▪ Better evidence base for effective treatment for older people
    ▪ Well designed clinical information systems
Social determinants of healthy ageing

- Macrosocial factors
  - Economic factors / poverty
  - Empowerment and political engagement
  - Gender issues
  - Distribution of health resources
  - Design of living environments
    - Built environment tied to health concerns: risk of injury, exposure to toxins, crime, exercise, social contact, access to services
    - ‘Ageing in place’ desirable
    - Strategic planning for health equity and well-being required
    - Urban design for age-friendly environments
Social determinants of healthy ageing

- Macrosocial factors
  - Economic factors / poverty
  - Empowerment and political engagement
  - Gender issues
  - Distribution of health resources
  - Design of living environments
  - Working life
    - Work has direct and indirect health effects
    - Direct: physical demands, stress, exposure to hazards
    - Indirect: Socioeconomic position achieved through work
    - Need to improve quality of work for older people
Quality of work and intended retirement

Siegrist and Wahrendorf
2009, Lancet
Social determinants of healthy ageing

- Macrosocial factors
  - Economic factors / poverty
  - Empowerment and political engagement
  - Gender issues
  - Distribution of health resources
  - Design of living environments
  - Working life

- Microsocial factors
Social determinants of healthy ageing

- Microsocial factors
  - Social relationships and social participation
  - Exposure to life stress / resilience and coping
    - Later life stressors: retirement, bereavement, caregiving
    - Accumulative effects of biological ‘wear and tear’
    - Greater understanding of determinants of resilience in old age
Social determinants of healthy ageing

• Microsocial factors
  ➢ Social relationships and social participation
  ➢ Exposure to life stress / resilience and coping
  ➢ Mental well-being
    ▪ Poor mental well-being detrimental to physical health
Depressive symptoms and survival following MI

Lespérance et al, Circulation, 2002
Social determinants of healthy ageing

• Microsocial factors
  ➢ Social relationships and social participation
  ➢ Exposure to life stress / resilience and coping
  ➢ Mental well-being
    ▪ Poor mental well-being detrimental to physical health
    ▪ Direct biological correlates and impact on unhealthy lifestyles
    ▪ Positive well-being appears to be protective
Prospective association of positive affect and mortality

<table>
<thead>
<tr>
<th>Type of analysis</th>
<th>No of studies (%)</th>
<th>Effect size</th>
<th>Hazard ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>combined HR (95% CI)</td>
<td>p value</td>
<td>y p value</td>
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<tr>
<td>Overall analysis*</td>
<td>19 (100.0)</td>
<td>0.81 (0.74-0.89)</td>
<td>&lt; 0.001</td>
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<tr>
<td></td>
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<td>0.40 0.60 0.80 1.00</td>
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<tr>
<td>Sample size ≥ 500</td>
<td>13 (68.4)</td>
<td>0.85 (0.77-0.94)</td>
<td>0.002</td>
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<tr>
<td></td>
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<td>&lt; 0.001</td>
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<tr>
<td></td>
<td>8 (42.1)</td>
<td>0.84 (0.70-1.00)</td>
<td>0.044</td>
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<tr>
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<tr>
<td>Follow-up ≥ 5 years</td>
<td>15 (79.0)</td>
<td>0.86 (0.78-0.95)</td>
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<td></td>
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<td>&lt; 0.001</td>
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<tr>
<td>Follow-up ≥ 10 years</td>
<td>12 (63.1)</td>
<td>0.90 (0.76-0.95)</td>
<td>0.003</td>
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<td>0.008</td>
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<tr>
<td>Follow-up ≥ 15 years</td>
<td>9 (47.4)</td>
<td>0.69 (0.76-1.05)</td>
<td>0.159</td>
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<td>0.002</td>
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<tr>
<td>Old population &gt; 60 years</td>
<td>9 (47.4)</td>
<td>0.74 (0.64-0.84)</td>
<td>&lt; 0.001</td>
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<td>&lt; 0.001</td>
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<tr>
<td>Study quality score ≥ 3</td>
<td>11 (57.9)</td>
<td>0.69 (0.55-0.87)</td>
<td>0.001</td>
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<td></td>
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<td>&lt; 0.001</td>
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<tr>
<td>Fully controlled covariates*</td>
<td>8 (42.1)</td>
<td>0.61 (0.44-0.83)</td>
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<td>0.005</td>
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<tr>
<td>Negative affect controlled*</td>
<td>8 (42.1)</td>
<td>0.82 (0.75-0.89)</td>
<td>&lt; 0.001</td>
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<td>0.003</td>
</tr>
<tr>
<td>Personality/coping factor*</td>
<td>13 (68.4)</td>
<td>0.82 (0.73-0.92)</td>
<td>&lt; 0.001</td>
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<tr>
<td>Emotional factor</td>
<td>6 (31.6)</td>
<td>0.76 (0.61-0.94)</td>
<td>0.011</td>
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<tr>
<td>All-cause mortality*</td>
<td>11 (57.9)</td>
<td>0.81 (0.73-0.90)</td>
<td>&lt; 0.001</td>
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<td>&lt; 0.001</td>
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<tr>
<td>Cardiovascular mortality*</td>
<td>5 (26.3)</td>
<td>0.61 (0.36-0.97)</td>
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<td></td>
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<td>0.016</td>
</tr>
</tbody>
</table>

Chida and Steptoe
2008, Psychosom Med
Social determinants of healthy ageing

- Microsocial factors
  - Social relationships and social participation
  - Exposure to life stress / resilience and coping
  - Mental well-being
  - Health habits and health behaviours
    - Habitual behaviours: smoking, alcohol, physical activity, food choice
    - Preventive actions: cancer screening, vaccinations, dental care
    - Individual motivation/choice and physical and social environmental determinants
# Health Benefits of Regular Physical Activity for Older Adults

<table>
<thead>
<tr>
<th>How physical activity can improve physical functioning</th>
<th>How physical activity can improve mental functioning</th>
<th>How physical activity can be beneficial at older ages in general</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improved cardiorespiratory fitness</td>
<td>• Enhanced emotional well-being</td>
<td>• Helps maintain independence</td>
</tr>
<tr>
<td>• Improved glucose metabolism and insulin sensitivity</td>
<td>• Provides relaxation and helps lower stress levels</td>
<td>• Improved quality of life</td>
</tr>
<tr>
<td>• Reduced blood pressure</td>
<td>• Helps maintain cognitive function and alertness</td>
<td>• Increased energy</td>
</tr>
<tr>
<td>• Improved lipid profiles</td>
<td>• Helps reduce depression</td>
<td>• Helps maintain social connectedness</td>
</tr>
<tr>
<td>• Reduced levels of inflammatory markers</td>
<td>• Enhanced perceptions of coping ability</td>
<td></td>
</tr>
<tr>
<td>• Induction of growth factors</td>
<td>• Improved sleep</td>
<td></td>
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<tr>
<td>• Improved balance</td>
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<tr>
<td>• Improved strength, flexibility and joint mobility (range of motion)</td>
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<tr>
<td>• Reduced decline in bone density</td>
<td></td>
<td></td>
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<tr>
<td>• Helps maintain a healthy weight</td>
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</tr>
</tbody>
</table>
SHARE/ELSA - physical activity in Europe

Proportion of adults (50+) reporting moderate or vigorous activity at least once a week

Share wave 2
ELSA wave 2
Diabetes and physical inactivity (HRS/SHARE/ELSA)

Steptoe and Wikman
NAS report, in press
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