"Modern aspects of the workers' health preservation in Finland"

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Former President of ICOH
<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Total, years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iceland</td>
<td>44.4</td>
</tr>
<tr>
<td>2</td>
<td>Switzerland</td>
<td>41.8</td>
</tr>
<tr>
<td>3</td>
<td>Sweden</td>
<td>40.6</td>
</tr>
<tr>
<td>4</td>
<td>Netherlands</td>
<td>39.6</td>
</tr>
<tr>
<td>5</td>
<td>Norway</td>
<td>39.6</td>
</tr>
<tr>
<td>6</td>
<td>Denmark</td>
<td>39.3</td>
</tr>
<tr>
<td>7</td>
<td>UK</td>
<td>38.1</td>
</tr>
<tr>
<td>8</td>
<td>Germany</td>
<td>37.5</td>
</tr>
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<td>9</td>
<td>Finland</td>
<td>37.4</td>
</tr>
<tr>
<td>10</td>
<td>Austria</td>
<td>36.9</td>
</tr>
<tr>
<td>11</td>
<td>Portugal</td>
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</tr>
<tr>
<td>12</td>
<td>Cyprus</td>
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<tr>
<td>13</td>
<td>Estonia</td>
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<tr>
<td>14</td>
<td>Latvia</td>
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</tr>
<tr>
<td>15</td>
<td>EU28</td>
<td>35.0</td>
</tr>
<tr>
<td>16</td>
<td>EU27</td>
<td>35.0</td>
</tr>
<tr>
<td>17</td>
<td>Euro area (18)</td>
<td>34.9</td>
</tr>
<tr>
<td>18</td>
<td>Euro area (17)</td>
<td>34.9</td>
</tr>
<tr>
<td>19</td>
<td>Spain</td>
<td>34.7</td>
</tr>
<tr>
<td>20</td>
<td>France</td>
<td>34.6</td>
</tr>
<tr>
<td>21</td>
<td>Czech Republic</td>
<td>34.3</td>
</tr>
<tr>
<td>22</td>
<td>Ireland</td>
<td>34.1</td>
</tr>
<tr>
<td>23</td>
<td>Lithuania</td>
<td>34.0</td>
</tr>
<tr>
<td>24</td>
<td>Slovenia</td>
<td>33.6</td>
</tr>
<tr>
<td>25</td>
<td>Slovakia</td>
<td>32.8</td>
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<tr>
<td>26</td>
<td>Luxembourg</td>
<td>32.5</td>
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<tr>
<td>27</td>
<td>Belgium</td>
<td>32.2</td>
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<tr>
<td>28</td>
<td>Poland</td>
<td>32.1</td>
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<tr>
<td>29</td>
<td>Greece</td>
<td>32.0</td>
</tr>
<tr>
<td>30</td>
<td>Romania</td>
<td>31.9</td>
</tr>
<tr>
<td>31</td>
<td>Italy</td>
<td>29.0</td>
</tr>
</tbody>
</table>

**GDP per capita (Y) and working life experience (X)**

Euro per capita, years

Graph showing correlation between GDP per capita and working life experience.
Figure 3. Working life expectancy at age 50 for 26 countries in Europe, by sex (source: own calculations).
Work & work environment Determinants
- Management
- Type of work
- Work organization
- Work climate

Social & population Determinants
- Labour market status
- Social group
- Social protection
- Migration, low income, poverty, etc.

Individual Determinants
- General health
- Gender
- Age
- Education
- Skill
- Etc...

Occupational morbidity (~ 150 diseases)

Work-related morbidity

General morbidity
- MSDs
- CVDs
- Cancer
- MHDs
- RDs etc
Most often Work capacity > Work ability. In optimal conditions (= Decent Work) the Work ability = Work capacity.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is your work physically or psychologically demanding or both?</td>
<td></td>
</tr>
<tr>
<td>1. What is your work ability in relation to job demands?</td>
<td></td>
</tr>
<tr>
<td>2. What is your work ability compared to your personal best?</td>
<td></td>
</tr>
<tr>
<td>3. Do you suffer any of the listed 14 diseases, on your own conclusion, or diagnosed by doctor?</td>
<td></td>
</tr>
<tr>
<td>4. If yes, how much impairment those diseases cause at work?</td>
<td></td>
</tr>
<tr>
<td>5. What is your expected work ability 2 years from now?</td>
<td></td>
</tr>
<tr>
<td>6. Have you been ill during the past 12 months?</td>
<td></td>
</tr>
<tr>
<td>7. Have you enjoyed your activities - been active and energetic during past 3 months</td>
<td></td>
</tr>
</tbody>
</table>

Scoring and Work ability action:
- 2 – 27 “poor” Reinstall work ability;
- 28 – 36 “medium” Improve work ability;
- 37 – 43 “good” Support work ability;
- 44 – 49 “very good” Maintain work ability.
## Work ability vs. mortality: 28 yr follow-up

(Bondsdorf M et al CMAJ, March 8, 2011, 183(4)


<table>
<thead>
<tr>
<th>Work ability index 28 yr before</th>
<th>White collars M Mortality/1000</th>
<th>Blue collars M Mortality/1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>7.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>14.7</td>
<td>20.2</td>
</tr>
<tr>
<td>Poor</td>
<td>23.5</td>
<td>25.3</td>
</tr>
</tbody>
</table>

**Conclusion:** WAI is a strong long-term predictor of WLE
Risk of work disability pension by job or worker characteristics

<table>
<thead>
<tr>
<th>Job /worker characteristics</th>
<th>Risk of disability pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polvinen, Finnish Centre for Pension 2009, 7-year follow-up, n= 3600</td>
<td></td>
</tr>
<tr>
<td>Age 50-55/30-39</td>
<td>7x</td>
</tr>
<tr>
<td>Education level basic/high</td>
<td>3.4x</td>
</tr>
<tr>
<td>Income €/year 10000/ &gt;20000</td>
<td>1.7x</td>
</tr>
<tr>
<td>CHD+ /CHD -</td>
<td>5x</td>
</tr>
<tr>
<td>Physical fitness good/poor</td>
<td>4.2x</td>
</tr>
<tr>
<td>Psychological exhaustion yes/no</td>
<td>3.8x</td>
</tr>
<tr>
<td>Cynicism</td>
<td>2.6x</td>
</tr>
<tr>
<td>Job satisfaction poor/good</td>
<td>2.62x</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Workplace characteristics</th>
<th>Risk of disability pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monotonous work</td>
<td>30.37-19.29</td>
</tr>
<tr>
<td>Standing</td>
<td>29.93-21.28</td>
</tr>
<tr>
<td>Awkward lifting</td>
<td>15.04</td>
</tr>
<tr>
<td>Low level of supportive leadership</td>
<td>9.57- 6.55</td>
</tr>
<tr>
<td>Bullying/harassment</td>
<td>7.55</td>
</tr>
</tbody>
</table>
Factors affecting work life expectancy (Gould et al 2009)

- Social security
  - Health: $R^2 0.39$
  - Competence: $R^2 0.13$
  - Work/Life balance: $R^2 0.14$

- Ageing culture
  - Age management: $R^2 0.13$

- Employment policy
  - Work organization: $R^2 0.33$
  - Work environment: $R^2 0.33$
Impact of age on work ability among Finnish workers (Source: Gould et al. 2008)

18-29:
- Excellent: 53%
- Good: 42%
- Moderate: 4%
- Poor: 4%

30-44:
- Excellent: 39%
- Good: 49%
- Moderate: 8%
- Poor: 4%

45-54:
- Excellent: 18%
- Good: 53%
- Moderate: 18%
- Poor: 11%

55-64:
- Good: 37%
- Moderate: 27%
- Poor: 29%

65-74:
- Good: 21%
- Moderate: 37%
- Poor: 41%
WAI of Dutch firefighters by age.
(The arbitrary line added by J. Rantanen) (Kis et al. 2002)
Occupational Health Service actions for PMWA

Individual & Group approach

- Basic check
- Age groups >45
- WHP
- LLL, HE
- PMWA

Actions to Work community, work & work environment

"Conducive" management and work culture

- Regular risk monitoring & assessment
- Structural prevention
- Primary prevention

- Regular risk monitoring & assessment
- Structural prevention
- Primary prevention

- Job placement
- Job adjustment
- Work practices

- Job and work environment adjustment
- Lightened work
- Part time work

For All: Resource generating age management

Long-term healthy
Excellent work ability 28%

Healthy,
Good work ability 42%

Diseases,
able to work 15%

Significant loss of health
Poor or no work ability 15%
The Finnish Model for Integrating to work of workers with lowered work ability
(MoSAH Finland 2015)

Social security:
- Partial sickness allowance
- Partial disability pension
- Leaving a pension dormant
- Disability allowance
- Rehabilitation allowance
- Reimbursement of rehabilitation costs
- Allowances for voluntary adult studies

Measures taken at the workplace:
- Accessibility
- Workplace arrangements
- Work community
- Work arrangements
- Safety at work

Labour services:
- Employment offices
- Job application training and job coaching
- Work and training trials
- Labour market training
- Employment subsidy
- Grant for business start-up
- Support for working condition arrangements
- Travel cost compensation
- Career planning
- Job coaching

Health and social services:
- Occupational health care
- Primary health care
- Special health care
- Social services

Training:
- Vocational basic training or degree education
- Labour market training
- Job coach
- Vocational rehabilitation
- Training trial
- Apprenticeship training
- Other forms of training at workplaces
- Worktrial

Rehabilitation:
- Medical rehabilitation
- Vocational rehabilitation
- Social rehabilitation

Coach

Responsible: employer or employment office
Plans the methods to be used: work ability coordinator
Up-to-date information on the various means, services and benefits: open web service

MINISTRY OF SOCIAL AFFAIRS AND HEALTH
Expected effective retirement age, all new retirees on an earnings-related pension

Expected effective retirement age

65.0
64.5
64.0
63.5
63.0
62.5
62.0
61.5
61.0
60.5
60.0
59.5
59.0
58.5
58.0

1996 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 2015

For 50-year-olds

For 25-year-olds

Kannisto Jari 11.2.2016

Finnish Centre for Pensions 7
"New working life"

- Comprehensive multiprofessional OHS
- PMWA
- Collaborating OHS&OSH
- Healthy Workplace
- Healthy working culture
- Zero risk - Zero harm

"Old working life"

- Diagnosis and treatment of traditional ODs
- Health examinations
- OM inspection
- Safety inspection

- Combined occupational health and GP services
- Separate occup. hygiene services
- Separate safety inspection & services
Summary: What to do to promote and maintain work ability

- **Physical work ability:**
  - Regular exercise, low intensity aerobic, muscular strength
  - Weight control, healthy life styles, no tobacco, no alcohol
  - Good health care: promotion, prevention, care, rehabilitation

- **Psychological work ability:**
  - Continual stimuli, memory exercises, memory tools
  - Physical exercise
  - Social networking
  - Positive approach, respect, trust, zero tolerance for age discrimination
  - Cultural activities

- **Cognitive work ability:**
  - Continuous learning
  - Ensuring physical health
  - Collecting new experiences
  - Strengthening metacognition
  - Good sleep

- **Social work ability:**
  - Prevention of isolation (inclusive labour market);
  - Maintaining and development of social networks; hobbies, near-networks,
  - Active participation

- **Develop conducive working conditions and Decent Work**
Spasiba!

Thank you!

Kiitos!