Occupational health in 21st century – the perspective of WHO Regional Office for Europe

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Occupational Health in 21st century
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The WHO European Region

53 Member States: 900 000 000 pop.

WHO European Centre for Environment and Health
Human and economic burden of occupational diseases is substantial

Globally:

• more than 2.3 million people die each year from work-related injuries, accidents and diseases

• around 4% of annual GDP is lost as a result of occupational diseases and accidents

## Global burden of disease attributable to occupational risk factors, 2013

<table>
<thead>
<tr>
<th>Occupational risks</th>
<th>Deaths (thousands)</th>
<th>DALYs (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>717 (641 to 801)</td>
<td>55 352 (44 589 to 67 890)</td>
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<tr>
<td>Occupational carcinogens</td>
<td>304 (263 to 341)</td>
<td>5 803 (5 076 to 6 526)</td>
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<tr>
<td>Occupational PM, gases, fumes</td>
<td>205 (164 to 251)</td>
<td>8 802 (7 012 to 10 740)</td>
</tr>
<tr>
<td>Occupational injuries</td>
<td>159 (127 to 206)</td>
<td>9 947 (7 886 to 12 927)</td>
</tr>
<tr>
<td>Occupational asthmagens</td>
<td>52 (42 to 70)</td>
<td>2 771 (2 227 to 3 521)</td>
</tr>
<tr>
<td>Occupational noise</td>
<td>-</td>
<td>7 119 (4 549 to 10 329)</td>
</tr>
<tr>
<td>Occupational ergonomic factors</td>
<td>-</td>
<td>21 109 (14 206 to 29 304)</td>
</tr>
</tbody>
</table>

Global, all-age, all-cause, for both sexes combined
Global change – new challenges for workers’ health

- Growing informal economy
- Changing relations at work – no workers-employer contract
- Agriculture
- Outsourcing, subcontracting
- Family business
- Child labour

Source: EEA, 2015 The European environment - state and outlook 2015
Ageing Europe, ageing workforce

Implications of demographic change:

• the projected gap of working age people in the EU by 2030 - 20.8 million people

Challenges of the ageing workforce:

- more people at work with health problems/chronic diseases
- concerns about productivity and absenteeism

Healthy Workplaces for All Ages 2016-2017

For specific sources of the data, see: https://oshwiki.eu/wiki/Older_workers
Psychosocial hazards at workplace

... those aspects of the design and management of work, and its social and organisational contexts that have the potential for causing psychological or physical harm.

Source: Cox & Griffiths, 2005. in: WHO, 2010
Shortening time lapse before mass adoption of new technologies

Invention first available to public >>>>> 1926
1873 1876 1897 31
1870 1897 35
Telephone

1870 1897 46
Electricity

Time before mass use
Long Short

World Wide Web 7
Compact disc 12
Mobile phone 13
Colour television 16
Computer 26

Years necessary for an invention to be used by a quarter of the US population

Source: Kurzwell, 2005.

EEA, 2010
Number of consumer products on the market containing nano-materials

Note: Europe data include United Kingdom, France, Germany, Finland, Switzerland, Italy, Sweden, Denmark, the Netherlands. East Asia data include China, Taiwan, Korea, Japan. Other data include Australia, Canada, Mexico, Israel, New Zealand, Malaysia, Thailand, Singapore, The Philippines, Malaysia.

Health approach promoted by WHO

**Occupational Health**
- Labour contract
- Only at the workplace
- Employer’s responsibility
- Only work-related health issues
- Negotiation between workers and employers

**Workers Health**
- All workers
- Beyond the workplace
- Responsibility of everybody
- All health determinants
- Health protection not subject to collective negotiation
- Other stakeholders: health and environment authorities, insurance
### Factors determining workers’ health

#### Working environment
- Mechanical
- Physical
- Chemical
- Biological
- Ergonomic
- Psycho-social

#### Health behaviour
- Individual risk taking behaviour; Physical activity
- Diet and nutrition
- Habits (smoking, alcohol, etc)

#### Social factors
- Occupational status, Employment conditions
- Precarious work
- Income
- Inequalities

#### Access to health services
- Primary care
- Occupational health services
- Health and accident insurance
- Financial health protection
- Health technology
- Medicines

Towards a universal health coverage, including:

- workers in the informal economy, small and medium-sized enterprises, in agriculture, and contractual workers
- essential interventions and basic health services for primary prevention of occupational and work-related diseases and injuries
- vulnerable working populations, such as younger and older workers, persons with disabilities and migrant workers, taking account of gender aspects
The 2030 Agenda for Sustainable Development

Human health is a precondition for, and an outcome, and indicator of all three dimensions of sustainable development.
Looking ahead – workers’ health in the sustainable development perspective

A healthy workforce is a prerequisite for social and economic development;

Health and safety at work are among the fundamental pillars of decent work; these are also essential for a green economy.
## End poverty in all its forms everywhere

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<th>Indicators</th>
<th>Public health interventions</th>
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| 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable | 1.3.1. Percentage of the population covered by social protection floors/systems disaggregated by sex, and distinguishing children, unemployed, old age, persons with disabilities, pregnant women/newborns, work injury victims, poor and vulnerable | Early detection and case management of occupational diseases and injuries  
Providing health surveillance of high risk workers  
Improving the rate of reporting occupational diseases and injuries |

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1 UN Economic and Social Council, Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators  
## Ensure healthy lives and promote well-being for all at all ages

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| **3.4 by 2030 reduce by one-third premature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing** | 3.4.1 Mortality of cardiovascular disease, cancer, diabetes, or chronic respiratory disease | • Substitute occupational carcinogens  
• Dust control  
• Improve work organization  
• Prevent and manage stress  
• Workplace health promotion  
• Smoke free workplaces |
| **3.8 achieve universal health coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all.** | t.b.d. | • Build capacities of primary care to deliver essential interventions for workers' health  
• Scale up coverage with basic and specialized occupational health services  
• Provide health coverage to all workers, including in the informal sector |
| **3.9 by 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination** | 3.9.2 Mortality rate attributed to hazardous, chemicals, water and soil pollution and contamination | • Safe management of chemicals at the workplace  
• Pesticide safety |
## Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

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<td>8.7 take immediate and effective measures to secure the prohibition and <em>elimination of the worst forms of child labour</em>, eradicate forced labour, and by 2025 end child labour in all its forms including recruitment and use of child soldiers</td>
<td>8.7.1 Percentage and number of children aged 5-17 engaged in child labour, by sex and age group</td>
<td>• Detection and prevention of hazardous child labour</td>
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<td></td>
<td></td>
<td>• Prohibition of hazardous child labour</td>
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<td>8.8 protect labour rights and <em>promote safe and secure working environments</em> of all workers, including migrant workers, particularly women migrants, and those in precarious employment</td>
<td>8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status</td>
<td>• Regulations and enforcement for occupational safety and health</td>
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<td></td>
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<td>• Hazard mitigation and substitution</td>
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<td></td>
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<td>• Engineering and administrative controls</td>
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<td></td>
<td></td>
<td>• Health education of workers</td>
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<td>• Personal protection</td>
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<td></td>
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<td>• Health surveillance</td>
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Workers’ health in the sustainable development perspective - opportunities

Full cost pricing - include social (health) externalities in the price of energy and products

Sustainable production and consumption – workers’ health and well-being as a measure of business sustainability

Key sectors - renewable energy, green construction, public transport, waste management

Green jobs – maximising potential gains for health and safety of workers, managing and reducing risks

Green technologies - prevention through design
Thank you for attention!

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