The burden of occupational ill-health related to dangerous substances – an EU-OSHA perspective

Elke Schneider, European Agency for Safety and Health at Work
Helsinki, 03 October 2012
EU-OSHA perspectives

- EU-OSHA presentation
- Different statistical sources
- Issues:
  - Dermal exposure
  - Combined exposure
  - Cancer at work
  - Vulnerable groups
EU-OSHA

Established in 1996 in Bilbao, Spain

Mission:
To help improve working conditions in the European Union by collecting, analysing and communicating technical, scientific and economic information related to OSH to Community bodies, Member States, the social partners and all those involved in the field of OSH

EU-OSHA is a tripartite organisation and brings together representatives from:
- governments, employers’ and workers’ organisations
- as well as from the European Commission

http://osha.europa.eu
A network of Focal Points to support the agency’s activities
Dangerous substances – EU-OSHA’s activities

- **Website information online and paper publications**
  - Occupational exposure limits
  - Good practice examples and case studies
  - Links to Member state information
  - Fact sheets in all official languages

- **EU Risk observatory:**
  - Expert surveys, targeted studies, e.g. on nanoparticles

- **Campaigns:**
  - European Week 2003 activities and products
  - Support to SLIC campaigns on asbestos and workplace risk assessment of dangerous substances
  - “Dangerous substances” mainstreamed into our campaigns (noise, construction, young workers, risk assessment, maintenance, worker participation)

- **Mainstreamed into other activities**
  - Sectors, such as cleaners, health care, construction, transport, etc…
  - Groups: young, female, migrant, older workers
  - Emerging risks
  - Statistics

http://osha.europa.eu
EU-OSHA cooperation with ECHA

- Memorandum of understanding
- Institutional collaboration to avoid duplication and enhance complementarity e.g. following model agreements with other agencies
- Exchange of information on work programmes

COUNCIL REGULATION (EC) No 2062/94 of 18 July 1994 and amendments

The Agency shall work as closely as possible with the existing institutions, foundations, specialist bodies and programmes at Community level in order to avoid any duplication.
CLP awareness-raising, EN version available

**EU-OSHA materials**
- a poster and a leaflet
- Frequently asked questions on REACH
- Frequently asked questions on CLP
- Update of the Web section on dangerous substances
- Napo films

**Promotion via Website and Newsletter (40,000 subscribers)**

**Cooperation:**
- Info sheets with ETUI-IndustriAll-ECHA
- DG EMPL guides on CLP and how to use information from labelling at workplaces (guide, powerpoint and notes, leaflet, pocket card)
- ACSH working party chemicals document on REACH and OSH
- Link to ECHA CLP information

**Focal Point request:**
- National information addressing the links between REACH and OSH/CLP and OSH
- will be made available to SLIC Chemex
- Campaigns/initiatives to promote CLP/REACH or explain the links
- Any labour inspection initiatives to access/use information from REACH

http://osha.europa.eu
Promoting guidance on OSH, REACH and CLP

REACH 2013 - Call to action

Workers’ reps in companies manufacturing, importing or using chemicals

The REACH Regulation requires the registration of all chemical substances that are manufactured or imported in the EU; whether they are manufactured in the EU or elsewhere. In order to ensure that workers are fully informed about the health and environmental risks posed by the chemicals they handle, it should be governed and the safety data sheets should be updated.

IS YOUR EMPLOYER READY?

Companies manufacturing or importing chemical substances listed in the Register of 1000 very dangerous substances have to register them by the second REACH deadline of 31 May 2013.

Remember the deadlines

First registration: 30 November 2008
Second registration: 31 May 2013
Third registration: 31 May 2018

Guidance for employers on controlling risks from chemicals

Interface between Chemicals Agents Directive and REACH at the workplace

Occupational Safety and Health and the Chemical Classification, Labelling and Packaging Regulation

Guidance to Help Employers and Workers to Manage the Transition to the New System

December 2011

http://osha.europa.eu
Relevant publications related to dangerous substances
Downloadable from www.osha.europa.eu

- Literature review and links collection on nanotechnologies
- Expert survey about chemical and biological emerging risks
- Member State survey on OELs for CMRs
- Literature review on noise & ototoxic substances
- Report on skin diseases and dermal exposure
- Input to FP 7 – Priorities for EU research
- Risk communication on nanotechnologies
- Large-scale foresight on OSH risks linked to green jobs (2009-2012), includes nanomaterials
Healthy Workplaces Campaign 2012-13
“Working together for risk prevention”

Information materials available for you!
Strategic aims

- Promotion of core message that workers and managers must work together
- Giving clear guidance to employers and workers on how to manage work-related risks
- Provision of practical guidance to promote a risk prevention culture
Promotional material

- Logo, slogan, poster
- Campaign website [www.healthy-workplaces.eu](http://www.healthy-workplaces.eu)
- Campaign Guide
- Campaign leaflet
- Good Practice Award Flyer
- NAPO DVDs and other audiovisual material
- PowerPoint presentations, internet banner, email-signature
- I-Pad application
- Give-aways
  - e.g. USB-Sticks, T-shirts, key ring with coin for supermarket trolley
The enterprise perspective
“For each of the following issues, please tell me whether it is of major concern, some concern or no concern at all in your enterprise”

European Survey of Enterprises on New and Emerging Risks (ESENER) - Managing safety and health at work

% establishments, EU27

Source: 2008 European Survey of New and Emerging Risks
European Agency for Safety and Health at Work

http://osha.europa.eu
“Dangerous substances: please tell me whether it is of major concern, some concern or no concern at all in your establishment.”

% establishments

Source: 2008 European Survey of New and Emerging Risks
European Agency for Safety and Health at Work

http://osha.europa.eu
Chemical emerging risks forecast: Poor management of chemical risks in SMEs

- 99.8% of enterprises are SMEs (EU-25, 2003)
- Employ 66% of EU private sector workforce
- 82% of reported occupational injuries in SMEs
- Fatal accident rate twice higher
- In France: CMRs risks assessed by 20% of micro enterprises, 38% of small companies, 57% of medium companies, and 67% of companies with > 200 workers.
- Lack of awareness/internal expertise/time/resources; poor contact with OSH bodies; poor worker consultation/training
  - SMEs want to be told exactly how to control chemicals so as to meet all regulatory requirements
  - Easy-to-use instruments to assess chemical risks exist – need to be shared and made available/known to SMEs
  - Need to make SMEs’ owners aware that OSH is worth it.
Emerging chemical risks identified in the EU-OSHA survey

BACKGROUND
- Expert survey - Delphi studies
- Questionnaire for chemical and biological agents
  - Risks-substances-products-procedures
  - Health effects-diseases
  - Supporting references
- Part of an overall assessment incl. also
  - Physical and mechanical
  - Human, social and organisational

RESULTS
- Replies from 21 EU countries (19 Member States + 2 EFTA)
  - Exposure to nanoparticles and ultrafine particles
  - Sensitisers and allergens
  - CMRs, and in particular lack of information on reprotoxicants
  - Combined exposures
  - Exposure in waste treatment activities
  - Difficulties in managing chemical risks especially in SMEs and outsourced activities

http://osha.europa.eu
Chemical emerging risks: Five main groups identified

1. Nanomaterials, ultrafine particles (e.g. diesel exhaust, metal welding fumes, silica), fibres (e.g. man-made mineral fibres)
2. Allergenic and sensitising substances, and in particular skin diseases and dermal exposure
3. Carcinogenic, mutagenic and reprotoxic substances
4. Sectors specifically highlighted
   – Waste treatment, home nursing/caring, cleaning and wet work
5. Combined exposures
   – Combined chemicals (even when each taken separately is not toxic)
   – Dangerous substances in SMEs and sub-contracted activities
   – Ototoxic substances and noise
Occupational exposure to chemicals in the EU

- **Still high exposures of workers (ESWC 2010):**
  - More workers handled infectious materials (11% vs. 9% in 2005)
  - 15% either breathe in smoke, fumes, or dust, or handle dangerous chemicals — the same proportion as 10 years before.
  - nearly 1/3 exposed to loud noise, heavy work (e.g. 33% carrying heavy loads), 1/4 exposed to vibrations, unchanged since 2000.
  - Time pressure, tight deadlines, pace increasing
  - Unfavourable working conditions tend to cluster disproportionally in some groups. Therefore policy solutions should be multidimensional

- **Occupational diseases in EU (EODS harmonised figures):**
  - about 50% related to dangerous substances
  - skin diseases are decreasing, but respiratory diseases still recognised for 14-15% of workers
  - 5% are occupational cancers

- **Big differences between genders in the distribution of occupational diseases, incl. the ones related to dangerous substances**
The worker perspective – health problems
(Eurostat - LFS ad hoc module 2007)

Relative occurrence of the type of work-related health problem indicated as most serious health problem in the past 12 months in employed persons in the EU27

- Bone, joint or muscle problem which mainly affects back
- Bone, joint or muscle problem which mainly affects neck, shoulders, arms or hands
- Stress, depression or anxiety
- Bone, joint or muscle problem which mainly affects hips, legs or feet
- Breathing or lung problem
- Other types of complaint
- Heart disease or attack, or other problems in the circulatory system
- Headache and/or eyestrain
- Infectious disease (virus, bacteria or other type of infection)
- Hearing problem
- Skin problem

Men
Women

0 0,1 0,2 0,3 0,4 0,5 0,6 0,7 0,8 0,9 1,0
The Worker perspective:

Main factor adversely affecting physical health (in %) and work-related health problems experienced in the past 12 months (LFS ad hoc module 2007)
Occupational diseases in Europe: About 5% annually recognised occupational cancer

(% of total ODs, EODS 2002-2005. EU15, except Germany, Greece and Ireland)
**Occupational diseases** – big gender differences, emerging diseases and those relevant to women not all reflected (e.g. cardiovascular, depression, reproductive)

(\% of total ODs, EODS 2002-2005. EU15, except Germany, Greece and Ireland)

http://osha.europa.eu
The 5 most frequent diseases and diseases which are more frequent for women 2007 (EODS-data)
More than 80% of the occupational diseases (EODS) in:
- workers in craft and related trades (41%),
- plant, machine operators, assemblers (21%), and
- workers with elementary occupations (19%).

Highest proportion in the sectors
- manufacturing, (38%),
- construction (13%),
- wholesale retail trade, repair (7%), and
- health and social work’ (5%).

For men: ‘manufacturing’ and ‘construction’,
For women: ‘wholesale retail trade, repair’, & ‘health and social work’.
Estimation of work-related Fatalities – EU 27

- 205 million people in employment
- 167,000 fatalities attributed to work-related accidents and diseases in EU, and within that:
  - 159,000 fatalities attributed to work-related diseases
  - 7,460 fatalities caused by accidents at work
  - 74,000 fatalities attributed to hazardous substances at work (asbestos included)
- 95,581 work-related cancer deaths annually (9.6% of all cancer deaths estimated to be attributable to work) (2002)
Deaths attributed to work, 167 000/year

- **Communicable diseases**: 6%
- **Respiratory Diseases**: 4%
- **Mental Disorders**: 1%
- **Cancers**: 57%
- **Circulatory diseases**: 0.4%
- **Digestive systems diseases**: 5%
- **Genitourinary system**: 23%
- **Accidents and violence**: 3%
- **Asbestos**: 31 000

Sources: Hämäläinen P, Takala J, Saarela KL; TUT, ILO, EU-OSHA

http://osha.europa.eu
<table>
<thead>
<tr>
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<td>633</td>
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<td>Romania</td>
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<td>955,493</td>
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<td>7,075</td>
<td>2,712</td>
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<td>Slovakia</td>
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<td>116</td>
<td>108,704</td>
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<td>681</td>
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<td>Spain</td>
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<td>722</td>
<td>678,803</td>
<td>13,887</td>
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<td>6,493</td>
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<td>Sweden</td>
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<td>United Kingdom</td>
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<td>224</td>
<td>210,598</td>
<td>20,778</td>
<td>21,002</td>
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<td><strong>Total</strong></td>
<td><strong>205,431,242</strong></td>
<td><strong>4,422</strong></td>
<td><strong>7,460</strong></td>
<td><strong>7,013,545</strong></td>
<td><strong>159,485</strong></td>
<td><strong>166,945</strong></td>
<td><strong>73,989</strong></td>
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</table>

Sources: Hämäläinen P, Takala J, Saarela KL; TUT, ILO, EU-OSHA
How to measure occupational burden

- The following metrics of risk or burden have been used in these studies: relative risk (RR), attributable fraction (AF) of disease due to specific exposure, incidence of disease due to occupational exposures, life years lost due to occupational factors, disability-adjusted life years (DALY) and costs of occupational diseases and accidents.

- The DALY concept has been favoured in recent years, because it takes into account not only the lost life years but also life with disability/disease.

- However, the use of DALY has also been criticised. DALYs are poor indicators of effectiveness of public health interventions. DALYs have also been claimed to regard life of disabled people as less valuable.
## Work-relatedness of common diseases

<table>
<thead>
<tr>
<th>Disease</th>
<th>Attribution %, Overall: 6.7%</th>
<th>Reference: ILO, Decent Work-SafeWork, 2005</th>
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</thead>
<tbody>
<tr>
<td><strong>Asthma, adult males</strong></td>
<td>30</td>
<td>Karjalainen et al. 2001</td>
</tr>
<tr>
<td><strong>Lung cancer</strong></td>
<td>25-30</td>
<td>Axelsson 2001</td>
</tr>
<tr>
<td><strong>Cardiovascular disorders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHD</td>
<td>5-30</td>
<td>Leigh 1997</td>
</tr>
<tr>
<td>Stroke</td>
<td>5</td>
<td>Leigh 1997</td>
</tr>
<tr>
<td><strong>Musculoskeletal disorders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low back</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td><strong>Mental health disorders</strong></td>
<td>5-10</td>
<td>e.g. Toppinen et al. 1997</td>
</tr>
<tr>
<td><strong>Diabetes II</strong></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td><strong>Breast cancer</strong></td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>
Work-related attributable fractions of various diseases. These fractions (%) are largely based on industrial country conditions while their application was adapted to selected developing countries.

<table>
<thead>
<tr>
<th>Causes</th>
<th>Attributable fraction</th>
<th>Attributable fraction, men</th>
<th>Attributable fraction, women</th>
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<tbody>
<tr>
<td>Communicable diseases</td>
<td>8.8</td>
<td>4.8</td>
<td>32.5</td>
</tr>
<tr>
<td>Malignant neoplasms</td>
<td>8.4</td>
<td>13.8</td>
<td>2.2</td>
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<tr>
<td>Respiratory systems diseases</td>
<td>4.1</td>
<td>6.8</td>
<td>1.1</td>
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<tr>
<td>Circulatory systems diseases</td>
<td>12.4</td>
<td>14.4</td>
<td>6.7</td>
</tr>
<tr>
<td>Neuro-psychiatric conditions</td>
<td>3.4</td>
<td>6.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Digestive systems diseases</td>
<td>2.1</td>
<td>2.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Diseases of the genitourinary system</td>
<td>1.3</td>
<td>3.0</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Overall work-relatedness of mortality, ILO: 6.7%
GDP loss, Australian method: 5.9%
Global Burden of disease and injury in Europe, WHO: 5.0%
Coverage of work-related diseases in estimates

- Most studies reviewed dealing with high prevalence diseases in Europe and globally, such as cancers and pulmonary diseases (asthma and COPD).
- Burden of other diseases with high prevalence in occupational settings like cardiovascular diseases and MSDs not adequately estimated.
- Noise-induced hearing loss, although among most common diseases, only estimated in a small number of studies. The same is true for skin diseases.
- Unexpectedly large burden for diseases of the blood and blood forming organs and certain disorders involving the immune mechanism, attributable to occupation should be seen as challenges for future research (Tuchsen et al., 2004).
- Concern should be given to the burden of reproductive disorders.
- A bias towards traditional (male jobs) for which there is more (exposure and epidemiological) information available – which leaves younger people and women out of the overall picture.
Vulnerable groups - Gender issues

- Exposures underestimated and awareness low
- Men and women work in different sectors, and within one sector, in different jobs
- Risk assessment of exposure to dangerous substances needs to be targeted to women
- Occupational diseases reflect male industry jobs
- Personal protective equipment to be designed for women
- Identify combined exposures typical for female jobs
- How to ensure OSH for female workers in multiple jobs (e.g. cleaning, home care) and informal work
Female employment - segregation
Women concentrated in fewer sectors than men

- Women in services, men mainly in construction, utilities, transport and manufacturing
- Much more part-time for women
- Only one in five men (22%) and one quarter of women are employed in mixed-sex occupations.
- But: high proportion of women in agriculture and manufacturing

<table>
<thead>
<tr>
<th>Sector</th>
<th>Men full-time</th>
<th>Men part-time</th>
<th>Women full-time</th>
<th>Women part-time</th>
</tr>
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<tbody>
<tr>
<td>Construction</td>
<td>4%</td>
<td>9%</td>
<td>9%</td>
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</tr>
<tr>
<td>Electricity, gas and water</td>
<td>0%</td>
<td>18%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Transport and communication</td>
<td>5%</td>
<td>21%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>29%</td>
<td>6%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>30%</td>
<td>7%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Public administration and defence</td>
<td>33%</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial intermediation</td>
<td>33%</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real estate</td>
<td>27%</td>
<td>16%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>29%</td>
<td>21%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>37%</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other services</td>
<td>36%</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>52%</td>
<td>27%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private households and extra-territorial</td>
<td>49%</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Eurofound
http://osha.europa.eu
### Women’s exposure to dangerous substances remains largely unexplored

<table>
<thead>
<tr>
<th>Substance</th>
<th>Source</th>
<th>Circumstances</th>
<th>Occupation, task</th>
</tr>
</thead>
</table>
| Pesticides and storage chemicals | • Foodstuff  
   • Storage  
   • Plants  
   • Animals | • Agriculture and farming  
   • Horticulture  
   • Workers who handle goods from containers and in storage areas | • Farmers, and agricultural workers  
   • Gardeners  
   • Retail  
   • Cleaners |
| Exhaust fumes  
Diesel exhaust and particles     | Exhaust from combustion engine, incl. diesel and other engines on trucks, ships, trains and buses | • Unintentional contact when loading and unloading  
   • Maintenance  
   • Refuelling  
   • Parking areas of vehicles | • Maintenance workers  
   • Retail workers  
   • Drivers, delivery and cargo workers  
   • Workers on mission  
   • Transport workers  
   • Emergency workers |
EU-OSHA publications highlighting chemical and biological risks to women
Combined exposures!

- **Noise in figures – OSH in figures report**
  - highlights exposures in food and textile manufacturing, education, health care and other service professions

- **Combined exposures to noise and ototoxic substances – literature review**

- **Transport sector – OSH in figures report** – highlights overlooked exposures to women in general, in particular women in service tasks (restauration, cleaning)

- **Factsheets on respiratory and skin sensitisers**, highlight exposures to biological agents in service sectors, health care, etc.

- **Reports on cleaners** – highlight exposures to precarious workers and lack of training and information

- **Report on HORECA and efacts on Dangerous substances in HORECA** – highlights multiple exposures and lack of information

- **Legionella and legionnaires’ disease: European policies and good practices, Report and Factsheet 100**
Combined exposures – Noise and ototoxic substances

- Avicenna, first to describe the harmful effect of a chemical substance on ear function almost 1,000 years ago, mercury vapor to combat head lice
- **Sectors with high noise often also sectors with high exposures to ototoxicants**
- **Ototoxicants:**
  - **Pharmaceuticals**: antibiotics, cytostatic drugs
  - **Solvents** (Toluene, ethylbenzene, n-propylbenzene, Styrene and methylstyrenes, Trichloroethylene, p-Xylene, n-Hexane, Carbon disulfide)
  - **Asphyxiants** (carbon monoxide)
  - **Nitriles** (acrylonitrile; 3,3’-Iminodipropionitrile, 3-Butenenitrile, cis-2-Pentenenitrile, cis-Crotononitrile).
  - **Metals and metal compounds** (Pb & compounds, Hg (methyl mercury chloride, mercuric sulfide), Sn-organic compounds, Ge (germanium dioxide)).
  - **Suspected**: Cd (cadmium chloride), As, Bromates (sodium and potassium bromate), tobacco smoke, halogenated hydrocarbons (PCBs, Tetrabromobisphenol A, Hexabromocyclododecane, Hexachlorobenzene)
- **Policy measures – an example:**
  - FR, INRS proposed lowering the OEL for styrene 50 to 30 ppm in addition to the compulsory use of hearing protectors for 8-hour noise exposure to 80 dB(A)
  - Other measures: substitution, public risk communication, monitoring and assessment tools
Combined risks - a major issue for women at work

<table>
<thead>
<tr>
<th>Risk factors, conditions</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Exposure to biological &amp; chemical agents</td>
<td>• Infectious diseases</td>
</tr>
<tr>
<td>• Working in service sectors</td>
<td>• Skin disorders, asthma</td>
</tr>
<tr>
<td>• Working at clients premises</td>
<td>• Stress and mental health problems</td>
</tr>
<tr>
<td>• Jobs not covered by OSH legislation</td>
<td>• Different accidents: slips, trips and falls, violence-related, needlestick injuries, cuts and sprains</td>
</tr>
<tr>
<td>• Monotonous and repetitive work</td>
<td>• Fatigue and cognitive disorders</td>
</tr>
<tr>
<td>• Multiple roles</td>
<td>• Musculoskeletal disorders</td>
</tr>
<tr>
<td>• Lack of information and training</td>
<td></td>
</tr>
<tr>
<td>• Low control, autonomy and support</td>
<td></td>
</tr>
<tr>
<td>• Prolonged standing and sitting</td>
<td></td>
</tr>
<tr>
<td>• Static postures</td>
<td></td>
</tr>
<tr>
<td>• Moving loads repetitively and moving people</td>
<td></td>
</tr>
<tr>
<td>• Client and patient contact</td>
<td></td>
</tr>
<tr>
<td>Substance</td>
<td>Source</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>• Solvents, VOCs, • Exhaust fumes, Diesel exhaust and particles • Road and ambient dust • Disinfectants • Textile fibres (e.g. cotton) • Asbestos • Fumigation and storage chemicals</td>
<td>• Dangerous goods • Cargo loads and foodstuff on long-distance transport • Cleaning products • Insulation materials • Brakes (buses, trucks) • Waste • Fuels</td>
</tr>
</tbody>
</table>

Biological and infectious agents

• Animals • Foodstuff, perishable goods, raw materials • Insects, other vectors • Contact with passengers • Confinement, long-distance travelling

• Contact with foodstuff, infected travellers and goods • When travelling abroad • Contact with animals

http://osha.europa.eu
“Construction” hazards combined with electrical hazards

Greatest risks: manufacturing
- Involves large quantities of chemicals - many are highly toxic
  - solvents and acids for cleaning the semiconductor parts
  - gases for depositing the ultra-thin layers of material
  - metals, depending on the type of PV module being made

Leaching hazard, including at the waste treatment stage
Dermal exposure and skin diseases
Identification and control of risk factors very important

- Skin diseases are among the most often recognized occupational disease (EODS).
- Chemicals responsible for 80-90% of skin disorders – incl. soaps, detergents, solvents, fragrances
- Sector: 1/3 of all cases ‘manufacturing’, followed by ‘construction’ (14 %), & ‘health & social work’ (9.5 %).
- Occupation:
  - crafts and related trades workers, followed by the elementary occupations, service workers, shop and market sales workers, and plant and machine operators and assemblers.
- No harmonised approach to disease recognition and compensation
- Contact dermatis the most common, also chemical burns, contact urticaria, photodermatitis, contact leukoderma, infectious dermatitis, skin cancer
- Not only hands – other skin parts exposed to airborne substances or touched with dirty hands
- No validated method to assess dermal exposure; no « dermal OELs » available
- Lack of data on health effects and dose-effect relationship
- Combined exposures (incl. humidity factor), repeated exposure, exposure to diluted preparations, etc. to be considered
- Gloves not (always) a solution: occlusive, wet atmosphere inside
What is not considered – work-related diseases

- The most popular health outcomes in studies have been cancer and accidental injuries. The determinants of those outcomes are mainly mechanical factors and chemical exposures at work.

- Health problems:
  - Neurologic disorders linked to chemicals exposure
  - Tinnitus, voice disorders
  - Reproductive disorders linked to work organisation and/or chemical exposures
  - Cardiotoxicity
  - Health problems linked to combined exposure
  - Asbestos and cardiovascular diseases
  - …

- Factors underassessed:
  - Work organisational: Issues linked to lack of control, disruption, shift work, night work
  - Multiple exposures
Carcinogens and work-related cancer - workshop

- **Background:**
  - Major cause of death/disease in workers;
  - Legislation in place to address carcinogenic risk
- **Date:** 3 – 4 September 2012, Berlin
- **3 topics**
  - **Monitoring work-related cancer**
  - **Vulnerable workers, work ability, rehabilitation and back-to-work**
  - **Example(s) of prevention initiatives and campaigns**
- **Aim**
  - Scope further EU-OSHA activities
- **Output:** Workshop and online summary
- **To consider:**
  - Integration with other policy areas, such as public health
  - Build on previous EU-OSHA research (emerging risks, vulnerable groups, gender, OELs CMR review, occupational burden of disease)
Work-related cancer – Workshop 3 – 4 September 2012, Berlin - preliminary conclusions

- **Monitoring:**
  - Take different approach (occupation → disease rather than agent → disease)
  - Use job-exposure matrices
  - Use cancer registers and other sources of data

- **Rethink concept of vulnerable workers:**
  - Young workers (e.g. in maintenance)
  - Migrant workers in low-skilled manual jobs – lack of training and access to preventive services
  - Women in service professions
  - Older workers

- **Rethink major causes and how to assess the burden of disease:**
  - NOCCA study looked at socio-economic determinants and occupations via cancer incidence
  - Combined exposures to several factors
  - Shift work and cancer
Work-related cancer - projects

- SUMER survey (France): data collected by occupational health doctors aimed at mapping workers’ exposure to chemical, physical and biological agents
- GISCOP93 survey (France): data collected by researchers aimed at recreating the work history of patients diagnosed with cancer in 3 hospitals of Paris region & improving recognition and compensation
- OCCAM project (Italy): Occupational Cancer Monitoring by automatic linkage of cancer cases (and controls) identified in Hospitals with the information available in the Social Security archives (= name of employing firm and sector in which workers are employed for each year of employment)
- CAREX: assessing number of workers exposed using job-exposure databases and employment figures
Changes in the world of work
Issues to be addressed

- Part-time work and temporary work
- Trend to multiple jobs, how to assess exposures and protect workers
- Move from industry to services
  - Statistics insufficient (e.g. restricted coverage of sectors and diseases)
- Increasing number of female workers & insufficient knowledge
- Increasing number of migrant workers & insufficient knowledge
- Subcontracting
- Informal work. e.g. in home care, cleaning, agriculture
- Move away from the one worker/one workplace concept, how to work at client’s premises
- Unsolved problems regarding combined exposures, including with physical risks, and dermal exposure
- Impact of new technologies – nano, green jobs, etc...
Proposals:

- an approach by sectors and occupations
- monitoring, information, prevention and awareness raising targeted at different groups – diversity approach
- an assessment of combined risks
- how to reach workers and employers in maintenance jobs
- how to reach workers and employers in outsourced work
- how to translate information to the workplace level
- share information from monitoring and practice
- exchange of information on exposures to occupational carcinogens
- unfavourable working conditions tend to cluster disproportionately in some groups. Therefore policy solutions should be multidimensional
- include diversity considerations into the design and implementation of monitoring and estimation methods
- explore the differences between Member states policies and identify what the success factors are for an effective integration of these issues
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