Understandig Occupational Health Burden

Outline

- On Occupatioinal health
- Cost of occupational health
- Shift work and health
- Some opinions regarding OH

Occupational Health hazards…
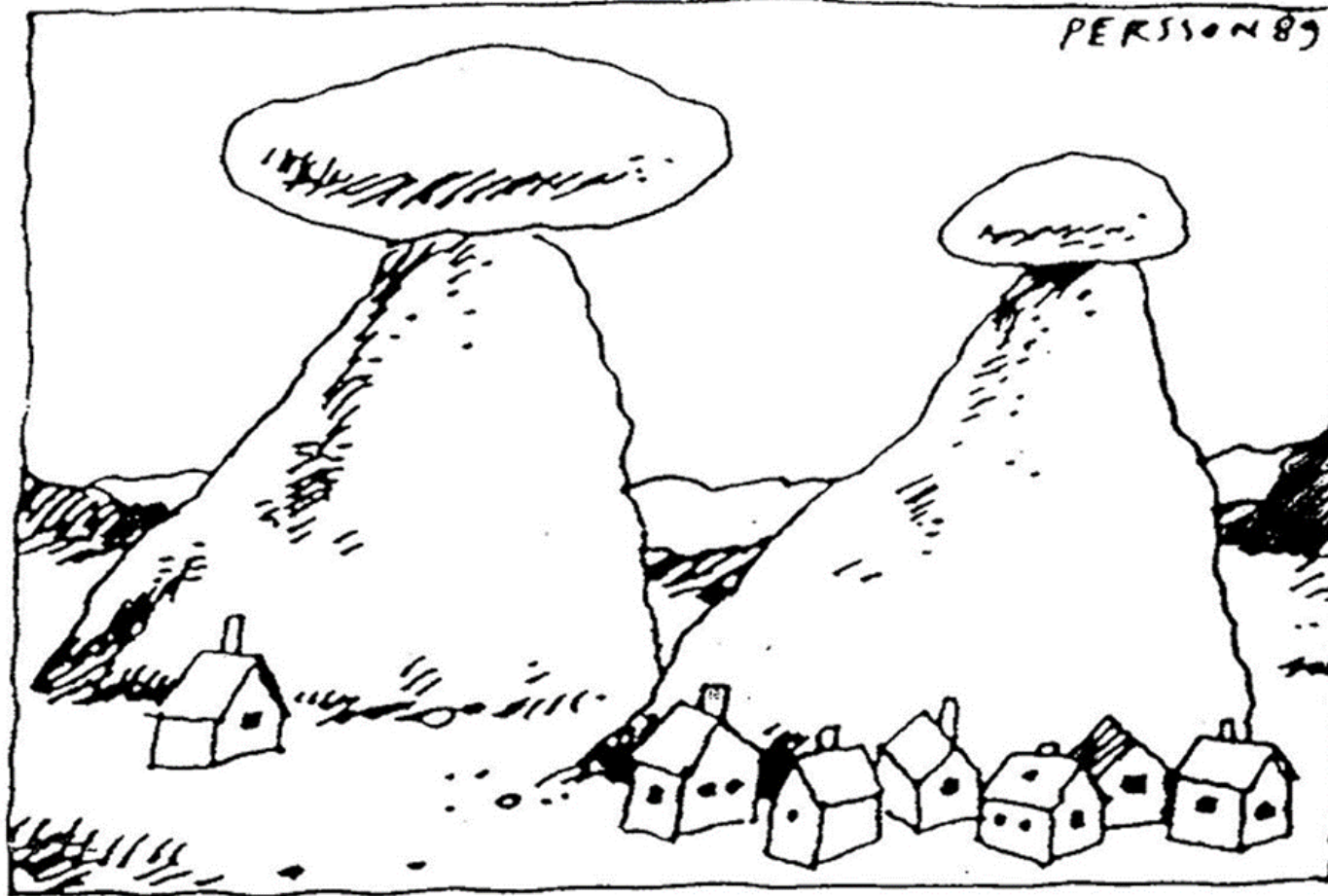
Occupational health (breakdown)

• Occupational accidents

- Fall from height
- Falling objects
- Tripping and falling
- Trapped on a machine
- Contact with corrosive substances
- …

• Occupational disease

o Caused by work
- Hearing loss
- Silicosis
- Dermatitis

o Aggrevated by work
- Asthma

o Related to work
- Occupational Stress
- Carpal Tunnel Syndrome (CTS)

o - MSD

Occupational health hazards: Examples

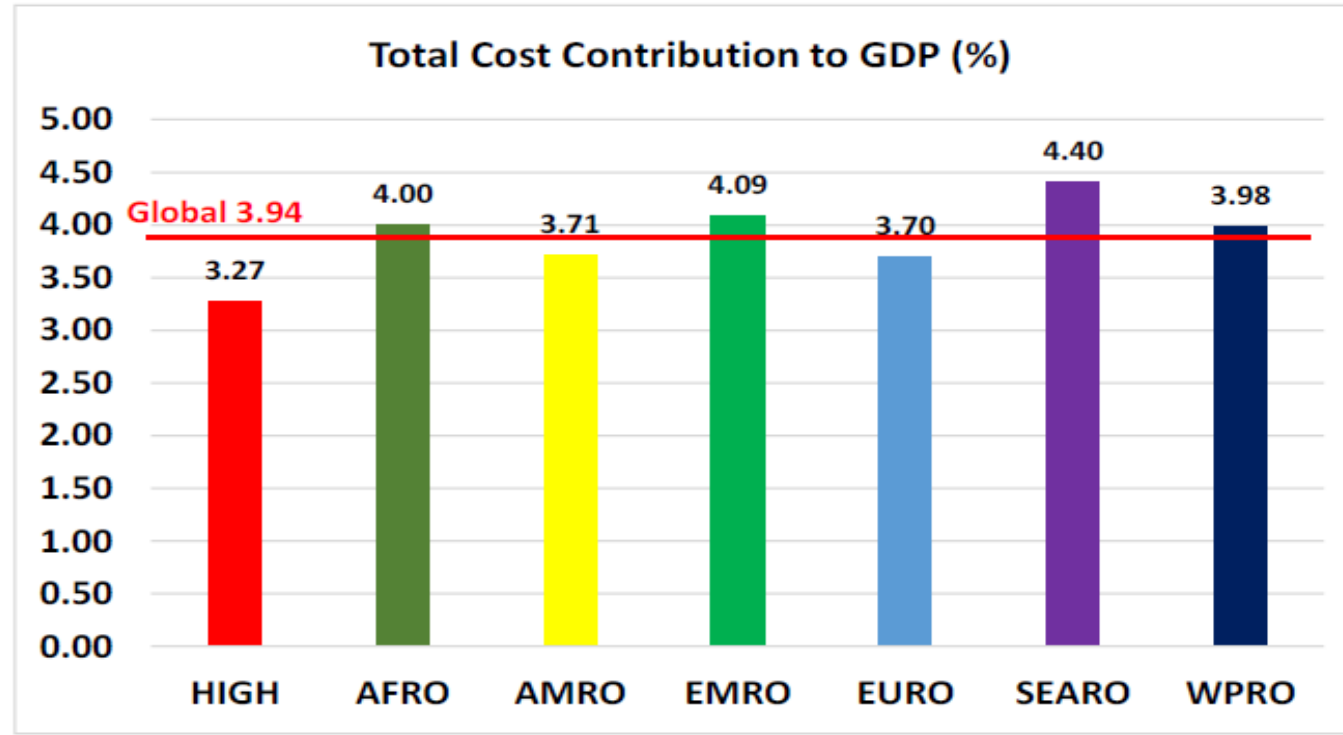| Target organ	Disease	Agent
Lungs	Cancer, COPD, Asthma	Dust, smoke, particles, aerosol cleaning products, Asbestos
Skin	Toxic effects or allergy	Allergens, latex
Internal organs	Hepatotoxic effects, renal effects	Solvents
ENT	Hearingloss, tinnitus, rhinitis	Noise, dust
CNS	Encefalopathi	Solvents, mercury, metals, pesticides
Allergies	Respiratory organs, skin	Isocyanates, epoxy
Hyperreactivity		EMF, solvents, smells

Estimated Costs...

The economic impact of failing to invest in worker safety and health is nearly equal to the combined gross domestic product of the 130 poorest countries in the world, International Labor Organization (ILO) Director-General Guy Ryder said Sept. 3 (2017) during the opening ceremony of the XXI World Congress on Safety and Health at Work.

The organization also unveiled estimates showing that, worldwide, 2.78 million workers die each year as a result of occupational injuries and illnesses. Of those, approximately 2.4 million are linked to work-related disease. The total cost of illnesses, injuries and deaths was 3.94 percent of the global GDP, or $2.99 trillion.

86%

The total cost percentage contribution to Gross Domestic Product (GDP) for the WHO regions was shown in the graph below.

Total Cost Contribution to GDP (%)

Region	Value
HIGH	3.27
AFRO	4.00
AMRO	3.71
EMRO	4.09
EURO	3.70
SEARO	4.40
WPRO	3.98

Global 3.94

The cost of poor or non-existing measures on safety and health were estimated to account for 3.94% of the global GDP.

Legend
HIGH denotes High Income countries
AFRO denotes Low- and Middle-Income countries of the African Region
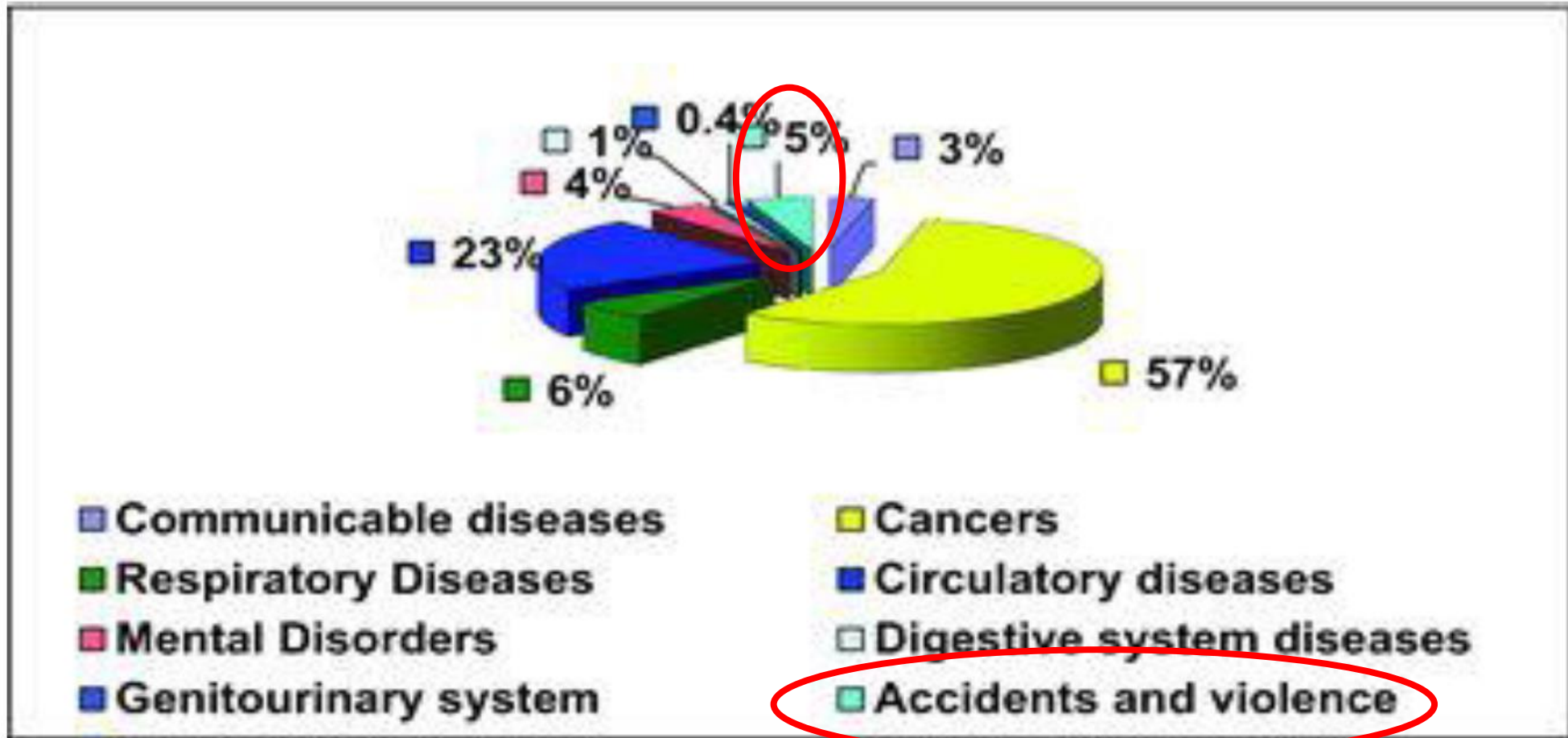AMRO denotes Low- and Middle-Income countries of the Americas
EMRO denotes Low- and Middle-Income countries of the Eastern Mediterranean Region
EURO denotes Low- and Middle-Income countries of the European Region
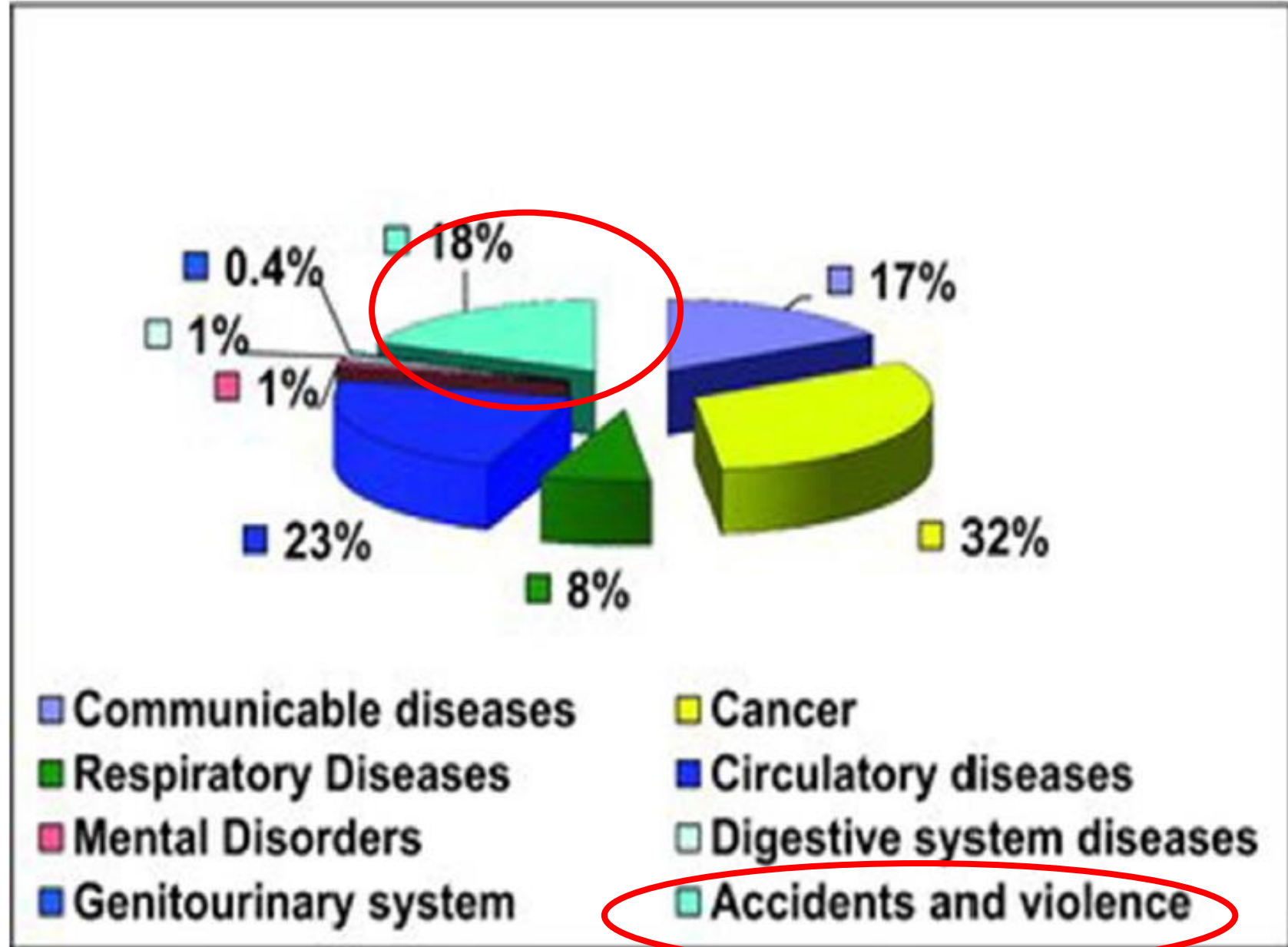SEARO denotes Low- and Middle-Income countries of the South-East Asia Region
WPRO denotes Low- and Middle-Income countries of the Western Pacific Region

Work-related deaths (annually)

(Sources: Hämäläinen P, Takala J, Saarela KL; TUT, İLO, EU-OSHA)

World

Pie chart showing causes of death worldwide:
- 0.4% Genitourinary system (dark blue)
- 1% Digestive system diseases (light teal)
- 1% Mental Disorders (pink)
- 18% Accidents and violence (teal, circled in red)
- 17% Communicable diseases (light purple)
- 32% Cancer (yellow)
- 23% Circulatory diseases (blue)
- 8% Respiratory Diseases (green)

Legend:
- Communicable diseases
- Cancer
- Respiratory Diseases
- Circulatory diseases
- Mental Disorders
- Digestive system diseases
- Genitourinary system
- Accidents and violence

Total economic cost of work injuries and ill health

Employer
- Staff turnover
- Training costs
- Loss of output
- Insurance premium
- Legal cost
- Bad reputation
- Non-sustainable

Workers
- Potential loss of future earnings
- Medical cost
- Rehabilatation costs
- Quality of life
- Dignity

Community
- Social payouts
- Investigation
- Inspection costs
- WSH promotion
- Loss of human capital
- Affected families
- Medical costs

After: Jukka Takala, Päivi Hämäläinen, Kaija Leena Saarela, Loke Yoke Yun, Kathiresan Manickam, Tan Wee Jin, Peggy Heng, Caleb Tjong, Lim Guan Kheng, Samuel Lim & Gan Siok Lin (2014) Global Estimates of the Burden of Injury and Illness at Work in 2012, Journal of Occupational and Environmental Hygiene, 11:5, 326-337

Health effects of shift work

- Reduction in quality and quantity of sleep

- Widespread complaints of "fatigue"

- Anxiety, depression, and increased neuroticism

- Increasing evidence of adverse cardiovascular effects

- Possible increase in gastrointestinal disorders

- Cancer?(nightwork and breastcancer)

- Increased risk of spontaneous abortion, low birth weight, and prematurity.

The unbelievable...

Chief officer,
County (local) government

OH training is a double-edged sword [...]

You may end up with problems!

The oblivious…

A university staff member (assistant to the Director)

…more appropriate in[…], where one can easily loose an arm.

The disappointing...

National official, Dept. of Public Health

Malaria, TB, HIV are more pressing problems...

The empathetic...

Trade unionist

...workers have not been paid for two months...

http://www.tradeunionfreedom.co.uk/uk-government-forced-to-revise-union-membership-figures-after-20-years-of-miscalculation/

It is difficult to get a man to understand something, when his salary depends on his not understanding it.

(Upton Sinclair, 1878-1968, Writer)

Source: Webpages of various local newspapers

KAKUMA Tyre Puncture REPAIR

Sustainable society

"Experience shows that economic growth, on its own, is not sufficient. We must do more to empower individuals through decent work, support people through social protection, and ensure the voices of the poor and marginalized are heard."

UN Secretary-General Ban Ki-moon, World Day of Social Justice 2014

Thank you for your attention