EU OSHA: CALCULATION METHODOLOGY FOR COST OF POOR WORKING CONDITIONS – PROJECT PRESENTATION

William Cockburn

Head of Prevention and Research Unit, EU-OSHA

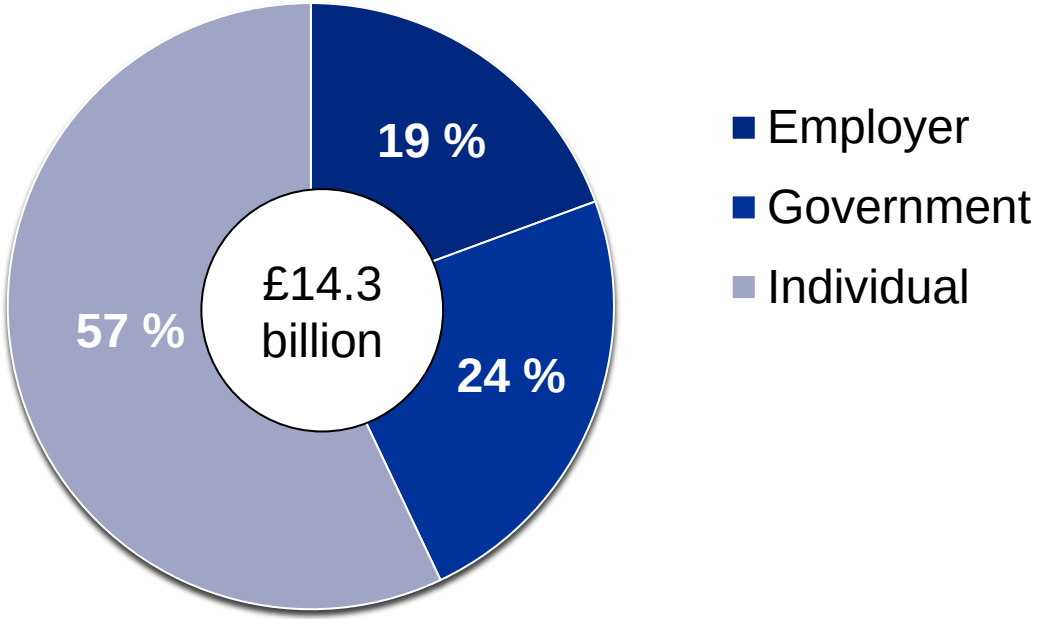
European Agency for Safety and Health at Work

Why do we value health and safety outcomes in monetary terms?

- Regularly make trade-offs between costs and risks
- This is valid for both everyday life and policy making decisions
- If we don't value life and health impacts, will implicitly make trade-off – or may get assigned zero-weight.

These costs are very important…

- Provide **economic justification** to support, incentivise and regulate employers, since they do not bear full costs…



Source: HSE (2015), *Costs to Britain of workplace fatalities and self-reported injuries and ill health in 2013/14* link

Background of EU-OSHA activity on costs and benefits of OSH

- **Strategic background**
  - Europe 2020 Strategy: More and better jobs
  - European Commission Strategic Framework on Health and Safety at Work 2014-2020
  - EU-OSHA Multi Annual Strategic Programme 2014-2020

- **Objectives**
  - Provide policy makers with relevant information on the economic impact of poor or non-OSH at macro level.
  - Highlight contribution of OSH to improving productivity and competitiveness and thus increase the OSH motivation of enterprises
  - Raise awareness about the costs of non-OSH among policy makers outside the field of OSH.

Background: diversity of estimates

- **ILO: 4% of the world's annual GDP is lost as a consequence of occupational diseases and accidents = € 556 billion for EU28**

Country	Estimate % share GDP	Year
Netherlands	3.0	2004
Spain	1.7	2004
United Kingdom	1.2	2007
Australia	4.1	2013
New Zealand	3.4	2006
Germany	3.6	2013
Austria	2.7	2008

EU-OSHA projects on economic aspects of OSH

- **Combining society and enterprises level through economic incentives**
  - How to create economic incentives in occupational safety and health: A practical guide (2011)

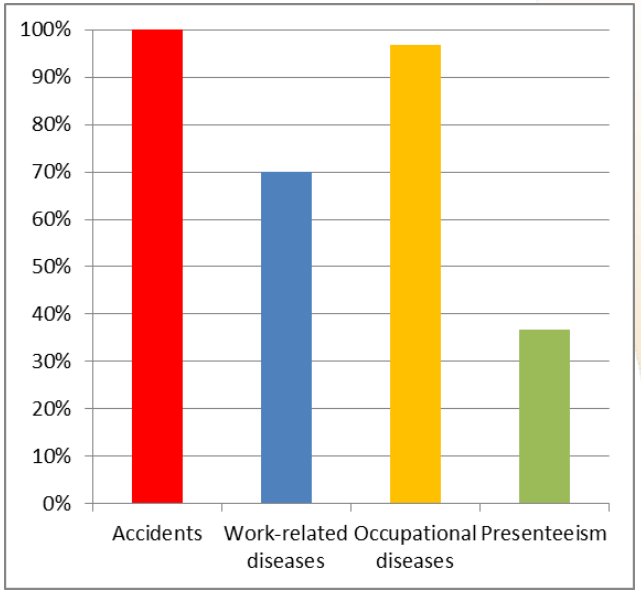
- **Busines case on enterprise level**
  - The business case for safety and health: Cost–benefit analyses of interventions in small and medium-sized enterprises (2014)

- **Business case on society level**
  - Estimating the cost of accidents and ill-health at work: A review of methodologies (2014)
  - overview of the availability and quality of national and international data sources that could be used to develop a European level cost calculation (2017)
  - ‘Approximate’ estimate of EU costs based on international data sources (2017)
  - ‘Sophisticated’ estimate of EU costs based on national data sources (2018)

First results from data availability project
National sources - cases

- **All country experts have delivered sources on cases**
  - Accidents → complete coverage – all countries reported to have sources
  - Work-related diseases → almost two-third of the countries reported sources
  - Occupational diseases → almost all countries reported sources
  - Presenteeism → only one-third reported sources

- **Coverage of *sources* does not ensure usefulness, quality or completeness of *data***

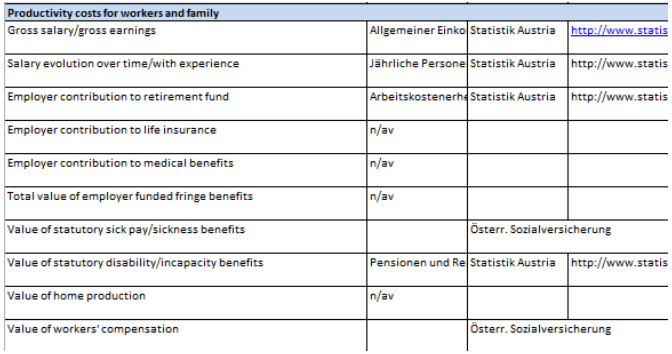


First results from data availability project
National sources – costs

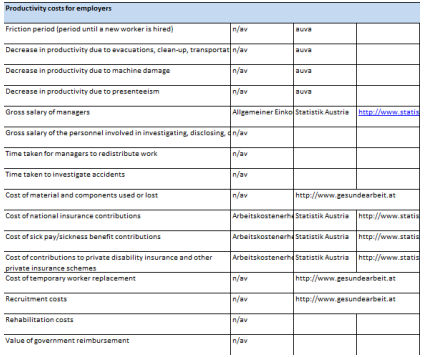
Cost category	Cost bearer	% coverage
Productivity costs	for workers and family	53
	for employers	22
	for the government	73
	support data	68
Healthcare costs	for workers and family	26
	for the government	40
	for society	25
Quality of life losses	for workers and family	8
Administration costs	for workers and family	11
	for employers	30
	for the government	34
Insurance costs	for workers and family	38
	for employers	23

First results from data availability project
National sources – costs example: *Austria*

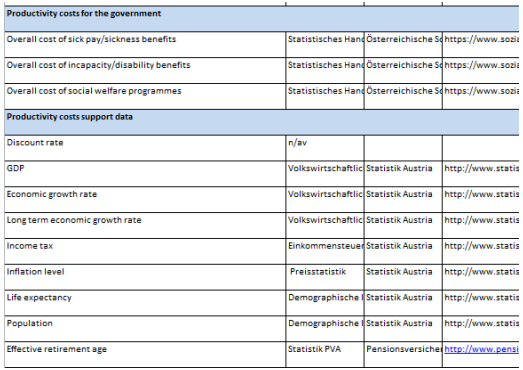
Cost category	Cost bearer	% coverage
Productivity costs	for workers and family	40
	for employers	25
	for the government	100
	support data	90



Productivity costs for workers and family			
Gross salary/gross earnings	Allgemeiner Einko	Statistik Austria	http://www.statis
Salary evolution over time/with experience	Jährliche Persone	Statistik Austria	http://www.statis
Employer contribution to retirement fund	Arbeitskostenerhe	Statistik Austria	http://www.statis
Employer contribution to life insurance	n/av		
Employer contribution to medical benefits	n/av		
Total value of employer funded fringe benefits	n/av		
Value of statutory sick pay/sickness benefits		Österr. Sozialversicherung	
Value of statutory disability/incapacity benefits	Pensionen und Re	Statistik Austria	http://www.statis
Value of home production	n/av		
Value of workers' compensation		Österr. Sozialversicherung	



Productivity costs for employers			
Friction period (period until a new worker is hired)	n/av	auva	
Decreasse in productivity due to evacuations, clean-up, transportat	n/av	auva	
Decrease in productivity due to machine damage	n/av	auva	
Decrease in productivity due to presenteeism	n/av	auva	
Gross salary of managers	Allgemeiner Einko	Statistik Austria	http://www.statis
Gross salary of the personnel involved in investigating, disclosing, c	n/av		
Time taken for managers to redistribute work	n/av		
Time taken to investigate accidents	n/av		
Cost of material and components used or lost	n/av	http://www.gesundearbeit.at	
Cost of national insurance contributions	Arbeitskostenerhe	Statistik Austria	http://www.statis
Cost of sick pay/sickness benefit contributions	Arbeitskostenerhe	Statistik Austria	http://www.statis
Cost of contributions to private disability insurance and other private insurance schemes	Arbeitskostenerhe	Statistik Austria	http://www.statis
Cost of temporary worker replacement	n/av	http://www.gesundearbeit.at	
Recruitment costs	n/av	http://www.gesundearbeit.at	
Rehabilitation costs	n/av		
Value of government reimbursement	n/av		



Productivity costs for the government			
Overall cost of sick pay/sickness benefits	Statistisches Hand	Österreichische Sc	https://www.sozia
Overall cost of incapacity/disability benefits	Statistisches Hand	Österreichische Sc	https://www.sozia
Overall cost of social welfare programmes	Statistisches Hand	Österreichische Sc	https://www.sozia
Productivity costs support data			
Discount rate	n/av		
GDP	Volkswirtschaftlic	Statistik Austria	http://www.statis
Economic growth rate	Volkswirtschaftlic	Statistik Austria	http://www.statis
Long term economic growth rate	Volkswirtschaftlic	Statistik Austria	http://www.statis
Income tax	Einkommensteuer	Statistik Austria	http://www.statis
Inflation level	Preisstatistik	Statistik Austria	http://www.statis
Life expectancy	Demographische I	Statistik Austria	http://www.statis
Population	Demographische I	Statistik Austria	http://www.statis
Effective retirement age	Statistik PVA	Pensionsversicher	http://www.pensi

Summary: Project overview and publications

- **Phase 1: large-scale study to identify and assess the available data in each Member State that can be used to develop a model for calculating costs.**
  - Output: overview report of the availability and quality of the data (spring 2017).
- **Phase 2a: produce an approximate economic costing model based on international available data sources (in collaboration with ILO, Finland and Singapore).**
  - Output: report on the development of the approximate model (September 2017).
- **Phase 2b: development of a sophisticated economic costing model based on national data sources.**
  - Output: report on the development of the sophisticated model (end 2018).
- **Seminar for stakeholders to discuss the implications of the model in 2018**
- **Data visualisation tool and infographics – collaboration with Commission's 'EU-OSH Information System'**
- **Further dissemination and evaluation in 2019**

Thank you for your attention