

THE LACK OF PRECAUTION IN OCCUPATIONAL CANCER  
PREVENTION IN THE UK or the end of caution as well as  
precaution?

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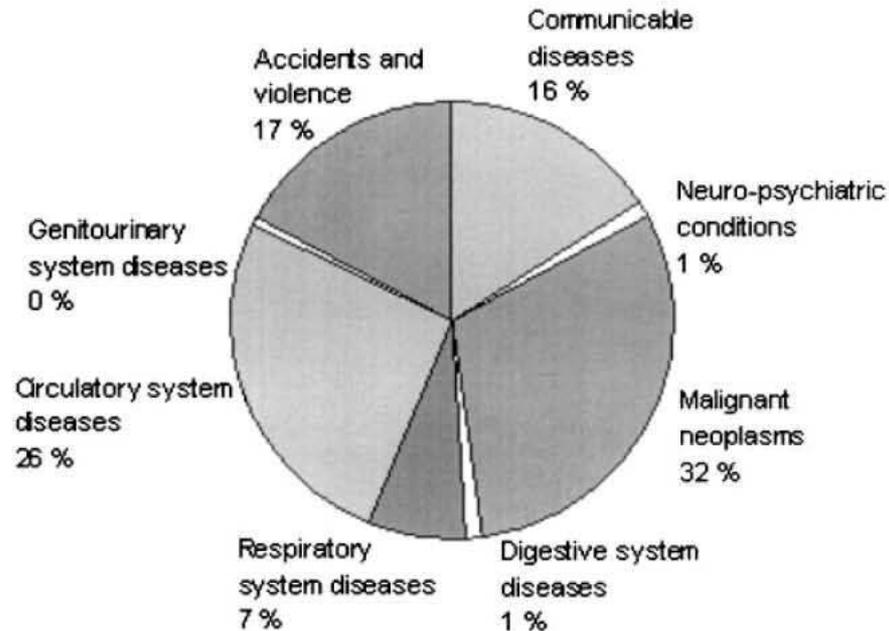


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## Table: Estimate of the proportion of cancer deaths that will be found to be attributable to various factors

	Best Estimate	Range
<b>Tobacco</b>	<b>30</b>	<b>25-40</b>
<b>Alcohol</b>	<b>3</b>	<b>2-4</b>
<b>Diet</b>	<b>35</b>	<b>10-70</b>
<b>Food additives</b>	<b>&lt;1</b>	<b>5-2</b>
<b>Sexual behaviour</b>	<b>1</b>	<b>1</b>
<b>Yet to be discovered hormonal analogies of reproductive factors</b>	<b>Up to 6</b>	<b>0-12</b>
<b>Occupation</b>	<b>4</b>	<b>2-8</b>
<b>Pollution</b>	<b>2</b>	<b>1-5</b>
<b>Industrial products</b>	<b>&lt;1</b>	<b>&lt;1-2</b>
<b>Medicines and procedures</b>	<b>1</b>	<b>0.5-3</b>
<b>Geographical factors</b>	<b>3</b>	<b>2-4</b>
<b>Infective processes</b>	<b>10</b>	<b>1-?</b>

# Global estimates of fatal work-related-diseases. Hamalainen et al 2007 AJIM 50:28-41 (1)



**FIGURE 2.** Global estimated work-related mortality, by cause.

# EU/Global Statistical picture (Takala EASHW 2008)

Region	Number of all cancer deaths		Attributable fraction related to work		Number of deaths attributable to work		Work-related cancer
	Men	Women	Men	Women	Men	Women	Total
<i>Cancer (total)</i>							
<i>EU 15</i>	528,953	410,829	13.8	2.2	72,996	9,038	<b>82,034</b>
<i>EU 25</i>	600,508	464,757	13.7	2.2	82,194	10,144	<b>92,338</b>
EU 27	623,709	481,307	13.6	2.1	85,106	10,177	<b>95,581</b>
<i>World</i>	3,872,766	3,062,008	<b>9.6%</b>				<b>665,738</b>

# UK government and regulator responses to the cancer prevention science. No need for precaution Myopia between 1980 -2005?

1. There is no problem? There was one but it's all gone away.

- COSHH and REACH solve all - the 2% and below solution.

- Cancer is an issue about lifestyle and age and genetics not workplace or environmental exposures?

2. If there is still a problem, it's minor. The 4% solution. (diesel, silica, asbestos, solvents, EDCs, shift work etc etc ?)

# 1980s 'Stakeholders' and views on precaution



## ASTMS – 1980 advocated:-

1. Bans and reduction of exposures to known and suspect carcinogens
2. No safe limit for carcinogens
3. Tightest exposure controls
4. More exposure data and epi studies
5. Detailed occupational histories and death certificates recording previous occupations
6. Critiqued lack of cancer references in UK notifiable diseases lists
7. Wanted stronger action on VCM and benzene

## UK CIA

1. Attacked ASTMS proposals
2. Thought 4 cases in UK of VCM cancers between 1973 and 1980 showed no problem
3. Thought BisCME presented no problem
4. Rubbished Infante's concerns about benzene and thought no need to lower benzene TLV below 10ppm\*\*

\*\* HSE benzene level in 1998 was 1ppm

1983. Doyal et al [Cancer in Britain] advocated (1) a generic cancer policy (2) an independent cancer institute (3) greater emphasis across Government and charities on cancer prevention (4) greater labelling and safety precaution action (5) public participation and openness on carcinogenic controls (6) test of social utility

## HSE thinking on PP policy and application 1990s (1)

From United Kingdom Interdepartmental Liaison Group on Risk Assessment 1996-2002 and chaired by HSE Chief Scientist  
– no text reference to cancer. Extant October 2012



Application of the precautionary principle requires considered judgement in selecting the appropriate scenarios on which to base risk management decisions. In particular: the assumptions made about consequences and likelihoods should err on the side of caution and so seek to avoid harmful effects if things go wrong; but the bias towards caution should be tempered by application of the principles of good regulation, particularly proportionality and consistency in the assumptions made and the risk management measures selected

## HSE thinking on PP policy and application 1990s (2)

From United Kingdom Interdepartmental Liaison Group on Risk Assessment (UK-ILGRA) – no text reference to cancer. Extant October 2012

Action in response to the precautionary principle should accord with the principles of good regulation, i.e. invocation of the precautionary principle should lead to action that is:

- proportionate to the required level of protection
- consistent with other forms of action
- targeted to the risk
- be invoked in a process that is transparent
- accountable to stakeholders and ultimately to the political process

Weak precaution is defined as 'presumption of unfettered market-led development and technological innovation'.

Regulators intervene only when positive scientific evidence of risk exists and interventions are cost-effective. Banning is rare. Assumes RM

# Health and Safety Executive Board: HSE/ 12 /64 22<sup>nd</sup> Aug 2012

## Occupational cancer, priorities for future intervention – supplementary paper

### Point 8

HSE's role in occupational health issues, as in safety issues, can only be that of a catalyst to bring about improvements, with the primary role resting with others. Securing the contribution of all relevant sectors, key players and partners will deliver further beneficial interventions on occupational disease including occupational cancers. We therefore suggest holding a workshop in 2012/3 to explore what others could do, seek their commitment and address current concerns from a variety of organisations.

### Point 12, Conclusion

“ HSE’s approach to improving standards of occupational ill-health is to intervene in a range of appropriate ways, at different levels depending on the nature, severity and extent of the risk. It seeks to lead and harness the efforts of all the stakeholders in the system in order to achieve a greatly magnified effect from resources which will always be limited”.



Pledges on  
precaution, no  
enforcement  
linked to  
plummeting  
inspections  
and regulation

## Current UK Agency (HSE) thinking on precaution and occupational cancer prevention

Two "major" policy documents in 2012

References to PP or any precaution = 0

[In all HSE funded cancer research reports,  
one mention of PP on  
lymphohaematopoietic cancer,  
one on bladder cancer and leukaemia  
2012]

The views of other stakeholders in the UK on HSE occupational cancer policy – the TUs August 2012



“ Reflect on the fact that nearly 40 years after Robens, we are still left with this burden of largely preventable occupational illness caused by working conditions. While we cannot change the past, many of us have been saying for years that health and safety in the UK needs to sharpen its focus on exposures in the work environment that can cause cancer”

**Shift work:** while it is understandable that more information about shift work might be necessary to accurately target interventions, it might be better for HSE to be seen to be doing something, if only a reference to participation in international research.

2008 TUC Occupational Cancer Policy document:- The level of enforcement of the regulations aimed at controlling exposure to carcinogens is minimal, and that which does take place is usually aimed at chemicals used in manufacturing rather than the more common ones such as silica, wood dust or radon. Trade unions want to see an enforcement-led campaign by the HSE and local authorities aimed at ensuring that employers which continue to expose workers to carcinogens are prosecuted.

# Disease recognition leads to precaution and prevention? Differential precautionary principles in action nasal cancers due to wood dust and related compensation issues

## UK

“Professional” estimate = 20 occupational cases a year from approximately 500 new cases of nasal cancers that occur - reported with 2.3 million people exposed to wood dust at work. These cases are viewed as due to exposures 20 plus years ago. CRUK estimate 34% of all male nasal cancers are occupationally caused = 166 cases

2007 Naso-pharyngeal cancer linked to wood prescribed if 10 years exposure to wood and usual latency period of 10 years

## Denmark

90% of all nasal cancers are estimated to be work-related

## Germany

2000s. Wood dust due to nasal adenocarcinoma - compensation occurs when exposure has been for at least 5 years and the latency period 8 years.

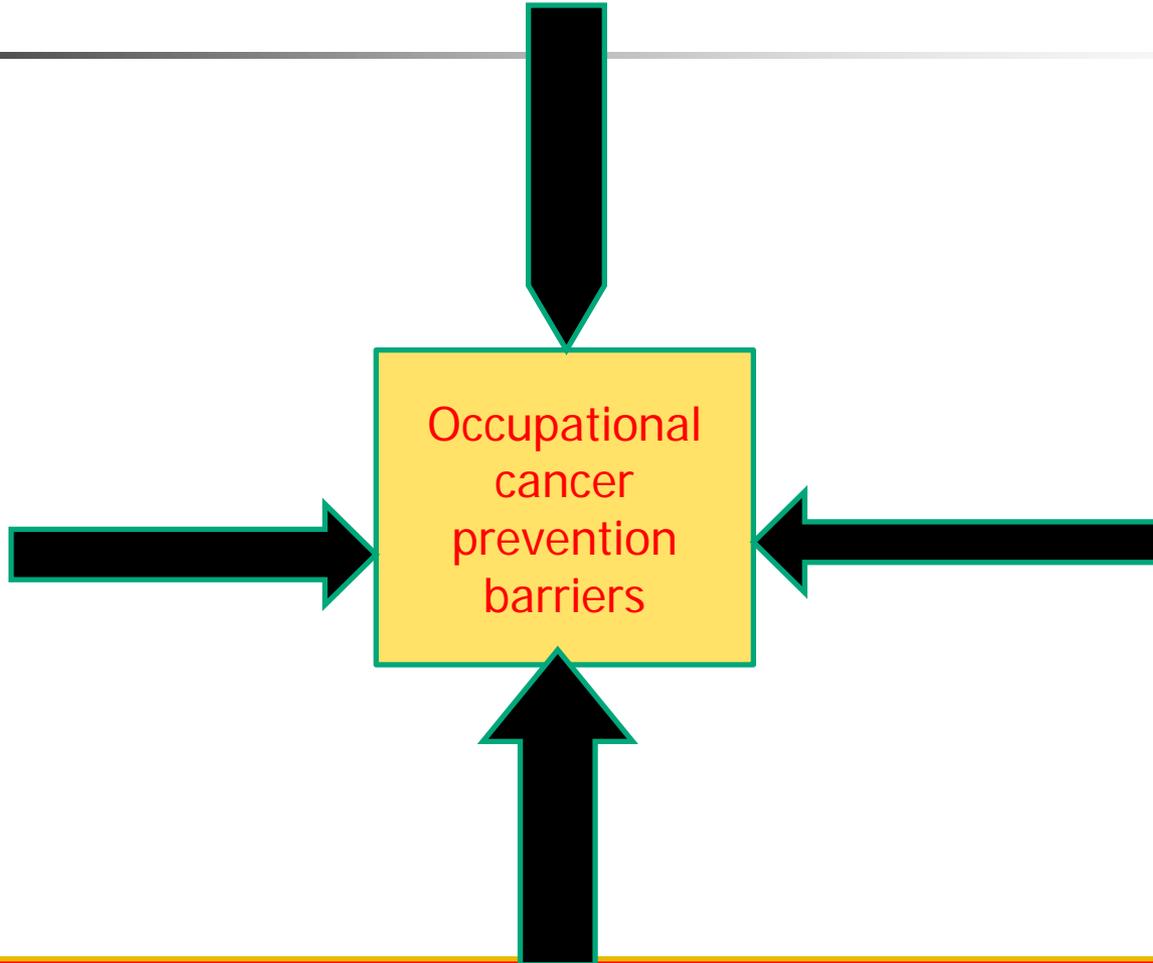


# The vicious square – boxing off precaution in practice on occupational cancer.

Government, regulators, employers and trade unions? Ideology not even 'evidence' or fact

National tunnel vision? Ignore decades of international research and global initiatives – WHO, Asturias, Canada, France, USA Government, regulators, employers and TUs

Government and regulators  
Change legal and related compensation laws to make it harder to obtain recognition for occupational cancers.  
Reduce reporting of occupational diseases. RIDDOR proposal



The Politics of cancer prevention.  
Government with regulators

1. Better regulation and deregulation
2. Promote risk desensitisation
3. Run down and cut occupational health professionals in key agencies and cut OHS budgets
3. "Evidence-based" policy making or policy –based evidence collection?

BisCME  
Asbestos  
Diesel  
Silica  
Shift work &  
Wilful ignorance?

The economics of cancer prevention – Government and employers - don't count costs and don't identify who pays most.

# Global activity on cancer prevention – solutions base on or moving away from precaution?

WHO/IARC and Asturias

International Agency for Research on Cancer



The UK?



Canada



Canadian Cancer Society  
Société canadienne du cancer

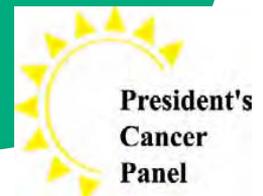
French substitution programme



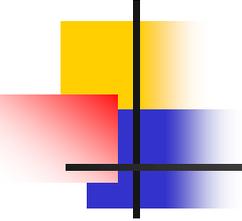
Based on the economic valuation of an occupational cancer, DEFRA concluded that cutting just 18 occupational cancer deaths would cover the costs of the REACH program . Department for Environment, Food and Rural Affairs, 2006)

Carpi 2012

USA



# WHO view ( Kim 2008) for precaution



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- Occupational cancer is a major preventable disease burden in Europe. Five recommendations to reduce cancers of workers:
  1. Political Commitment - develop policy instruments on cancers of workers
  2. Primary Prevention – eliminate asbestos, tobacco smoke, and carcinogens at the workplace, home and community
  3. Occupational Health Services – use the workplace as a setting for interventions for early detection and treatment of cancers of workers
  4. Evidence – improve surveillance, research, and communication
  5. Workers' Health in All Policies – coordinate health, labour, environment, trade and other policies on cancers of workers



Massachusetts Toxics Use  
Reduction Act 1989

TURI (1990 - 2005)

1. **Prevention of the environmental and occupational exposures that cause cancer must be an integral component of cancer control worldwide.** Such prevention will require strong collaboration across sectors - the health, environment, labour, trade and financial sectors and among countries, and also with civil society and the media.
2. WHO to develop a global framework for control of environmental and occupational causes of cancer that concentrates on occupational and environmental causes of cancer identified by IARC as proven or probable carcinogens.
3. WHO to lead development of measurable indicators of exposure and disease to guide cancer surveillance in countries around the world.
4. **All countries to adopt and enforce legislation for protection of populations, especially the most vulnerable populations, against environmental and occupational cancers.**
5. All countries to develop communication campaigns that educate populations about environmental and occupational causes of cancer and about **preventive strategies.**
6. **Corporations to comply with all rules and regulations for prevention of environmental and occupational cancers and to use the same protective measures in all countries, developed and developing, in which they operate.**
7. Research to discover still unrecognized environmental and occupational causes of cancers so as to guide future prevention.

Carcinogen	Reduction in Use	Reduction in Byproduct Generated
TCE	77%	97%
Cadmium	73%	70%
Formaldehyde	63%	29%
Chromium	83%	82%

Precaution in occupational cancer prevention addresses

1. Health inequalities
2. Environmental justice