

Burying the evidence

Work cancers are killing unprecedented numbers in the UK.

So why does the government's Health and Safety Executive stick with a 25-year-old guesstimate which grossly under-estimates the real extent of the problem and ensures prevention doesn't get the resources it deserves? *Hazards* editor Rory O'Neill investigates.

Jonathan Kay died in August 2005 at the age of 40. Shortly before his death the graduate engineer and father-of-two learned his employer, Kelda Group plc – formerly Yorkshire Water Authority – had admitted liability for the asbestos cancer that was to kill him.

Jonathan is one of a new generation of younger workers succumbing to asbestos cancers. Barry Welch was just 32 when he died of the same asbestos cancer, mesothelioma, in April 2005. His exposure to the fatal fibre is thought to have occurred in childhood, caused by dust on his stepfather's work clothing.

Neither Jonathan nor Barry had worked years in highly polluted heavy industry. They form part of an emerging epidemic which authorities failed to spot and, for the new generation of workplace killers, are doing precious little to prevent.

More than one in three people in the UK will at sometime be told "you have cancer". One in four people in the UK will die from cancer. More than a quarter of a million cases are diagnosed every year.

Working out the relative contribution of lifestyle, diet, pollution, occupation and other factors to the overall cancer toll is at best informed guesswork. The Health and Safety Executive's cancer webpages, updated in 2005, give its best guess.

It says: "Our current best estimate is the proportion of cancer deaths in Great Britain due to occupational exposures over the last few decades is 4 per cent, with an associated uncertainty of 2 per cent to 8 per cent. Applying these estimates to the latest five year's mortality data for Great Britain provides an estimated annual number of cancer deaths from work-related causes of 6,000 (uncertainty range 3,000 to 12,000)."

Preventing prevention

This HSE estimate is cribbed from one study, the 1981 Doll/Peto report, which concluded cancer is overwhelming a "lifestyle" issue. HSE notes: "Although this estimate relates to the US over two decades ago, it is seen as broadly applicable to Great Britain today and remains the best overall estimate available."



NURSE DEATH Rebecca Little died aged 53 from the asbestos cancer mesothelioma. Her family fought to prove the Amicus member's illness was caused by exposure to asbestos dust at a London hospital where she worked as a nurse. The Department of Health eventually admitted liability, and in August 2005 her family was awarded £175,000 in damages. Mrs Little trained as a nurse at the former Charing Cross Hospital between 1968 and 1970. Her husband, Dr Julian Little, also worked at the hospital and was able to provide evidence about the presence of poorly maintained asbestos.

But Doll/Peto got it wrong. The study was limited to an analysis of deaths in those under the age of 65. But only 26 per cent of the deaths in England in 2003 were in people under the age of 60, so Doll/Peto discounted most cancers before it started.

And the study only considered cancer risks posed by a list of 16 substances or industries.

The International Agency for Research on Cancer (IARC) lists 28 definite, 27 probable and 113 possible human occupational carcinogens.

Occupational cancer risks to women are almost entirely ignored in the Doll/Peto analysis. Breast cancer – the most common cancer in women – was excluded entirely (*Hazards* 62).

According to Dr Richard Clapp, co-author of a September 2005 University of Massachusetts Lowell review

of occupational cancer causes: "Using the 1981 Doll/Peto estimates for occupational cancer probably underestimates the occupational exposure contribution by a factor of two to four in both the US and the UK." This would mean an occupational contribution to the UK cancer total of between 8 and 16 per cent.

Dr Clapp told *Hazards*: "The reason we have so much cancer is because we are exposed to so many carcinogens; we need to turn that around both by producing and using fewer carcinogenic materials and not exposing workers and others to them."

He added: "I believe occupational lung cancer is the leading work-related cancer followed by bladder cancer, non-Hodgkin's lymphoma, and leukaemia. Our review paper gives the scientific studies which back

this up, along with the various exposures that cause these cancers."

Even at Clapp's lower estimate of 8 per cent of all cancers being work-related, the UK figure would be of the order of 12,000 deaths a year and about 20,000 new cases.

Old fashioned attitude

An HSE spokesperson defended the use of the Doll/Peto estimates. He told *Hazards* they were "broadly applicable to the situation in Great Britain today. This judgment has mainly been based on the lack of discovery of any major new occupational carcinogens and better workplace controls including the banning and substitution of many carcinogens."

HSE's sluggishness in researching and adopting a new estimate has its critics. "Using their low estimates to set priorities, undoubtedly directs resources elsewhere that would otherwise be directed toward enforcing regulatory restrictions on occupational exposures, researching safer materials and processes, resulting in more cancer in workers than need be," said Clapp.

Professor Andrew Watterson of Stirling University's occupational and environmental health research group agrees. He said: "HSE seems very defensive, not looking at the subject of occupational cancer perhaps for fear of what it might find. We need less



21ST CENTURY KILLERS Helen Clark died aged 59 in June 2004. Helen was chair of Phase Two, the campaign group for those fighting ill-health caused by the microchip industry in Scotland's Silicon Glen. She suspected the cancer that was to kill her was, like other cases known to the group, related to her exposures at the Greenock National Semiconductor plant. A 2001 HSE study at the plant found higher than expected levels of four cancers - lung, stomach and breast cancers in female employees, and brain cancers in males.

blether and more bite from HSE on effective strategies for removing known or suspect occupational carcinogens from the workplace."

The perception that occupational cancer is a legacy of yesterday's dirty industries could be dangerously misleading. French government figures published in 2005 revealed more than 1 in 8 workers was exposed to carcinogens. The figure was higher than a decade earlier.

A report in 2000 on the EU's CAREX database of occupational exposures found near identical levels of carcinogen use in Britain and France, and concluded about 5 million workers in Great Britain, 22 per cent of employees, were exposed at work in the early 1990s.

Occupational cancers are concentrated in that fifth of the workforce exposed to cancer risk at work.

According to Dr Jim Brophy, a colleague of Watterson at Stirling University: "Even the lowest estimates of occupational cancer risk for the overall population translate to a 25 per cent risk in the exposed population. A revised public health strategy would emphasise government regulations and accountability to curtail worker and community exposures to carcinogens rather than relying on individual behaviour modification or allocating the bulk of research cash to discovering a cure for cancer."

According to Dr Richard Clapp: "The least toxic alternative should always be used. Partial but reliable evidence of harm should compel us to act on the side of caution to prevent needless sickness and death. The right of people to know what they are exposed to must be protected."

www.hazards.org/cancer

WHAT DO WE WANT?

- ◆ Occupational cancer prevention should be recognised by the government as a major public health priority and should be allocated resources accordingly.
- ◆ A national occupational cancer and carcinogens awareness campaign should be launched as a matter of urgency.
- ◆ The Health and Safety Executive should convene a tripartite working party, including representatives of unions and occupational disease victims' and advocacy organisations, to review its occupational cancer strategy.
- ◆ Wherever possible, IARC Group 1 and 2A carcinogens should be targeted for "sunsetting", a phase out within a designated timeframe, to be replaced by safer alternatives.
- ◆ Toxics Use Reduction legislation should be introduced to encourage the use of the safest suitable substances and processes. The precautionary principle should be applied to substances suspected of causing cancer in humans.
- ◆ A national system of occupational health records should be developed to ensure adequate recording of workplace exposures and other occupational cancer risk factors. Employers must have a duty to inform any workers of their exposures to known or suspected workplace cancer risks and carcinogens.
- ◆ HSE/government should provide resources for union training courses in "lay epidemiology", techniques for the early recognition of work-related diseases, including cancer.
- ◆ The UK should implement properly the European Union law requiring workers to have access to occupational health services.
- ◆ HSE/government should create a National Exposure Database.
- ◆ The government Industrial Injuries Benefit Scheme should be revised and extended to include a wider range of occupational cancers in its scope. There should be a consideration of the introduction of a "rebuttal presumption" of work-causation for cancers with an established association with work.

Key resource
Richard Clapp, Genevieve Howe, Molly Jacobs Lefevre.
Environmental and occupational causes of cancer: A review of recent scientific literature, UMASS Lowell, September 2005. www.sustainableproduction.org

Cancer at work (GB)	HSE/Doll-Peto	Hazards estimate
Percentage of all cancers	4% (range 2-8%)	12% (range 8-16%)
Deaths (Lower/upper estimates)	6,000 (3,000-12,000)	18,000 (12,000-24,000)
New cases (Lower/upper estimates)	10,800 (5,400-21,600)	32,000 (21,600-43,200)