

Health and Safety Executive Board		HSE/12/06	
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Health and Safety Statistics 2010/11: Key facts and trends

Purpose of the paper

1. To present the latest health and safety statistics for 2010/11 and provide associated context and analysis.

Background

2. Each autumn we publish a compendium release of statistics related to ill health and injury at work. This release includes self-reported injury and ill health from the Labour Force Survey, reported non-fatal injury from RIDDOR, ill health reports from the THOR GP and specialist schemes, claims for Industrial Injuries Disablement Benefit (IIDB) and deaths from asbestos-related disease. The latest release, with statistics for 2010/11, was published on 2 November 2011.

Argument

Headline statistics for 2010/11

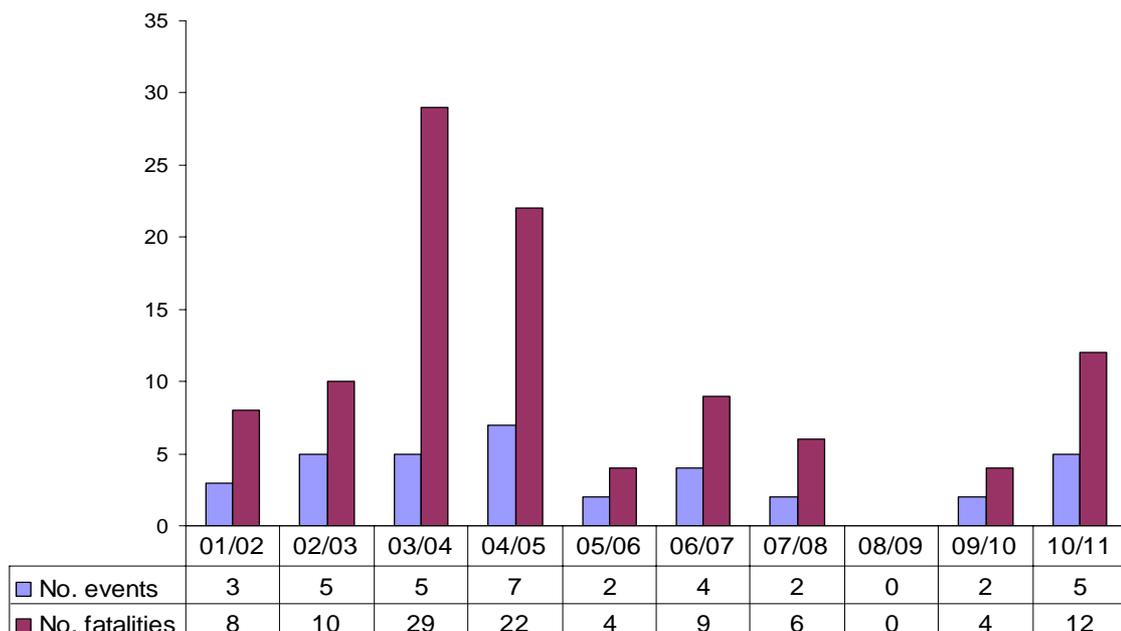
3. With the exception of fatal injuries and deaths from asbestos-related disease, all headline measures of health and safety outcomes saw improvements in 2010/11:
 - The total number of people who worked in the last 12 months who were suffering from work-related illness fell by 113,000 to 1.2 million and there is a measurable downward trend in total work-related ill health over the past decade (as estimated from the Labour Force Survey).
 - The estimated number of new cases of work-related illness amongst those who worked in the past 12 months fell by 60,000 to 0.5 million and again there is a significant downward trend since 2001/02.
 - Self-reported injuries leading to absence from work of more than 3 days fell by an estimated 31,000 to 200,000, continuing the downward trend over the last 10 years.
 - Over-3-day injuries and major injuries reported by employers fell by 6% in the year.

- Fatal injuries to workers increased from 147 to 171 in 2010/11. Despite the increase, the 2010/11 figure remains below the five year average for 2005/06 to 2009/10 (205) and is still consistent with a continuing downward trend.
- Deaths from mesothelioma and asbestosis continue to rise year on year due to past exposure to asbestos.
- Overall, GB performance is better than many other European countries in the key outcome areas; accidents, fatalities and levels of self-reported work-related ill health

Commentary on the statistics

Injuries - fatalities

4. An analysis of the latest fatal injury statistics was presented to the Board in August along with a discussion of our assessment of the trend (HSE/11/49). Despite the disappointing increase in the number and rate of fatalities in 2010/11, there is no evidence to suggest a reversal of the general downward trend in fatalities which has been observed over several decades.
5. A number of high profile multiple fatality events have occurred in recent years which obviously raise concerns. The chart below shows the number of multiple fatality events and associated deaths to workers over the past ten years. The spikes in 2003/04 and 2004/05 are due to the 21 cockle picker deaths and the nine fatalities at ICL. The multiple fatalities at Chevron and the Gleision colliery in Wales occurred in the 2011/12 year and so do not yet feature in the published statistics.

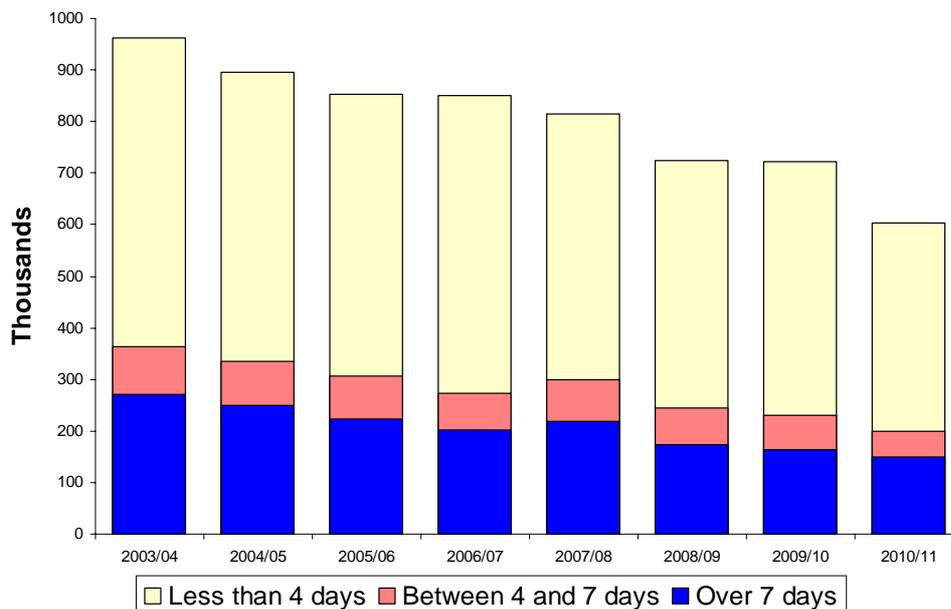


- It is very difficult to interpret the multiple fatality data since these figures are even more subject to chance variation than the annual count of worker fatalities. Furthermore, the recent events have occurred across a wide range of industries: mining, chemicals, construction, agriculture and manufacturing. Hence, it is very unlikely that anything systematic could be driving an apparent increase in these events.

Injuries – non-fatal incidents

- There are two sources of data for non-fatal injuries: self-reported injuries from the Labour Force Survey (LFS) and employer-reported injuries from RIDDOR. We know that RIDDOR under-reports non-fatal injury and that reporting levels are higher for certain industries and for larger employers. Hence, our headline measure of workplace injury comes from the LFS which is not affected by this under-reporting. There has been a strong downward trend in both the LFS and RIDDOR non-fatal injury series since 2001/02.
- The chart below shows the estimated number of injuries as measured from the LFS, by duration of absence from work. Around a third of all injuries result in over three day absence with three-quarters of these being absent for more than seven days.

Note: average sample variability +/- 11% on the total



- Research has shown that, in times of recession, injury rates tend to fall, especially in construction and manufacturing industries¹. This is reversed in recovery when rates tend to increase, largely due to the recruitment of inexperienced workers and longer hours being worked. Hence, some of the improvement in injury rates in recent years may be due to the recession. This is particularly true for the period between 2007/08 and 2008/09 when the decline in RIDDOR reported injury rates was much

¹ Trends and context to rates of workplace injury, 2005, www.hse.gov.uk/research/rrhtm/rr386.htm

sharper for manufacturing (-9%) and construction (-12%) than for the all-industry average (-4%). Over the latest year the falls were more in line (7% in manufacturing and construction compared with 6% overall). As we are yet to see appreciable growth in the economy, it is difficult to assess whether we will see any upward pressure on injury rates in the near future.

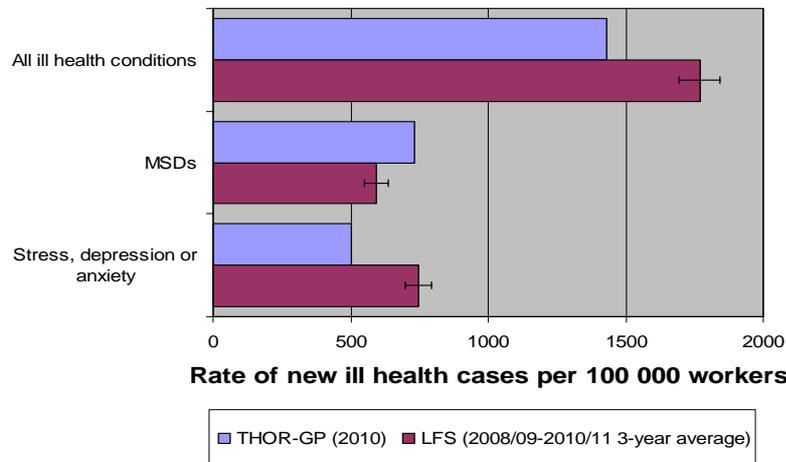
- The statements below summarise what we know about workplace injury from our statistics sources and associated research.

What we know about workplace injury:

- Approximately 200,000 workplace injuries each year resulting in absence over three days
- There is a strong downward trend in all main industries and for all types of injury.
- The most frequent causes of injury remain manual handling, slips and trips, falls from height and being struck by a moving object.
- Highest rates in agriculture, construction, waste and transport.
- Highest rates for manual occupations and higher rates for men than women.
- Higher rates for less experienced workers.

Work-related ill health – common ill health conditions

- Our headline measure of work-related ill health comes from the Labour Force Survey, supplemented with information reported by the THOR-GP network. Data from both sources shows that around three-quarters of the new cases of work-related ill health that arise each year are due to stress or Musculoskeletal Disorder (MSD). Incidence rates from the two sources are similar, as illustrated in the chart below.



12. The slightly higher overall ill health figures from the LFS reflect the self-reported nature of the data i.e. individuals who report suffering from a condition but have not necessarily consulted their GP. A study is underway to follow-up those respondents to the 2010 Labour Force Survey who reported suffering from work-related ill health. One element of the study is to correlate the self-reported information with that provided by the respondents GPs. The aim of the study is to get a better understanding of self-reported work-related ill health and the contribution that work makes to ill health. This is a repeat of an earlier study in 1995 which concluded that self-reported data provides valid and important information about work-related ill health. We expect to have results from the current study available in the spring.
13. Overall, we currently estimate that 1.8 million individuals are suffering from a work-related illness: almost 40% of these are people who have not worked for over 12 months and the majority of those are over normal retirement age. This group are excluded from further analyses presented below. Of the 1.2 million sufferers who have worked in the past 12 months, an estimated 500,000 have a new ill health condition which started in the last year. The remainder have conditions which have lasted for more than 12 months and are predominantly cases of MSD.
14. Work-related ill health is difficult to measure with precision and, as a result, individual LFS results can be subject to wide confidence intervals which makes interpretation of trend complex. By combining data over a number of years, this uncertainty is reduced and we can be more confident in the conclusions drawn. We have had annual ill health data from the LFS since 2003/04 and periodic surveys before that. We have been able to model a smoothed trend in that data for both total ill health cases and new cases. For both groups we see a downward trend with approximately 2% reduction each year over the past decade.
15. A downward trend is also observed for MSDs and particularly back disorders. This is seen in both the LFS and THOR data. For stress it is more difficult to assess the trend. The latest estimates are statistically significantly lower than 2001/02. However, it is not possible to fit a smoothed model to the ten years series. The boxes below illustrate what we know from the statistics about MSDs and stress.

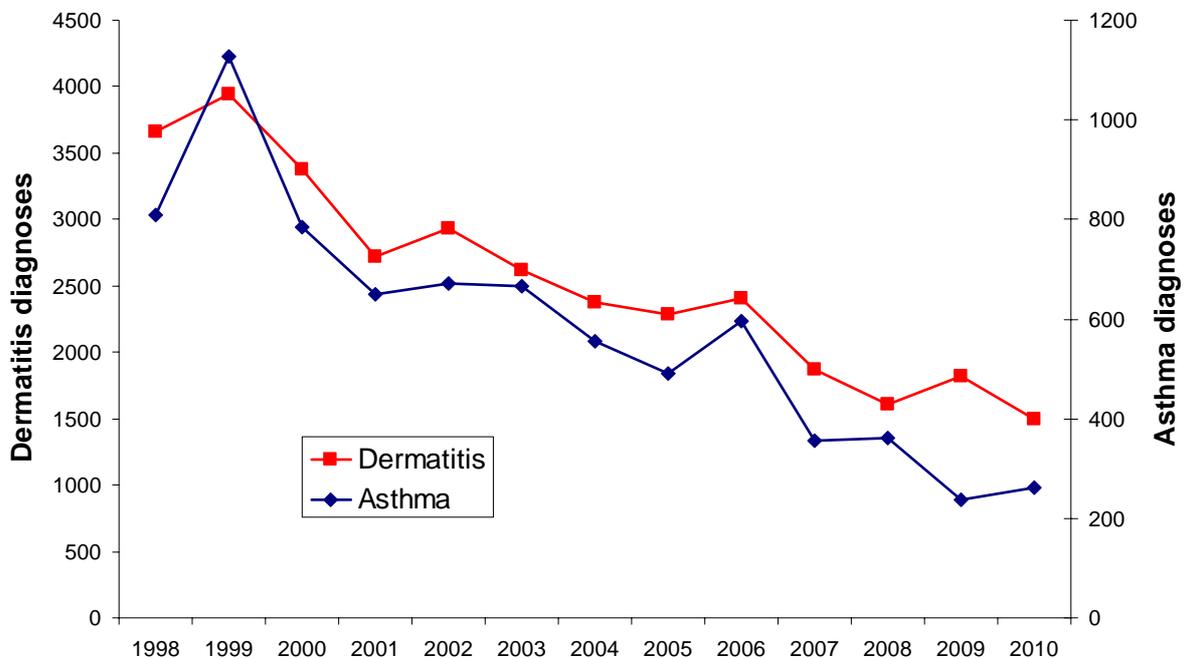
What we know about work-related stress:

- Approximately 400,000 cases each year. Roughly half are new cases which started in the past year
- Account for almost 11m working days lost
- Higher rates for women than men and higher rates for middle-aged workers
- Highest rates in health, social care, education and public administration
- Highest rates in managerial and professional occupations
- Highest rates in the largest workplaces

What we know about work-related MSDs:

- Approximately 500,000 cases each year. 30% of these are new cases which started in the last 12 months
- Account for almost 8m working days lost
- Significant reduction over the last 10 years
- Highest rates in agriculture, construction and postal/courier activities
- Highest rates in manual and skilled occupations
- Highest rates for workers over 45

16. Although MSD and stress make up the bulk of the common ill health conditions which are attributed to work in terms of numbers, other conditions such as respiratory and skin conditions also make a sizeable contribution. We are unable to reliably measure these conditions using the Labour Force Survey. However, THOR reports from specialist physicians give us an indication of the most severe cases. The chart below shows estimated cases of work-related asthma and work-related dermatitis as reported by specialist physicians. In both cases, a strong downward trend is observed.



Work-related ill health – long latency conditions

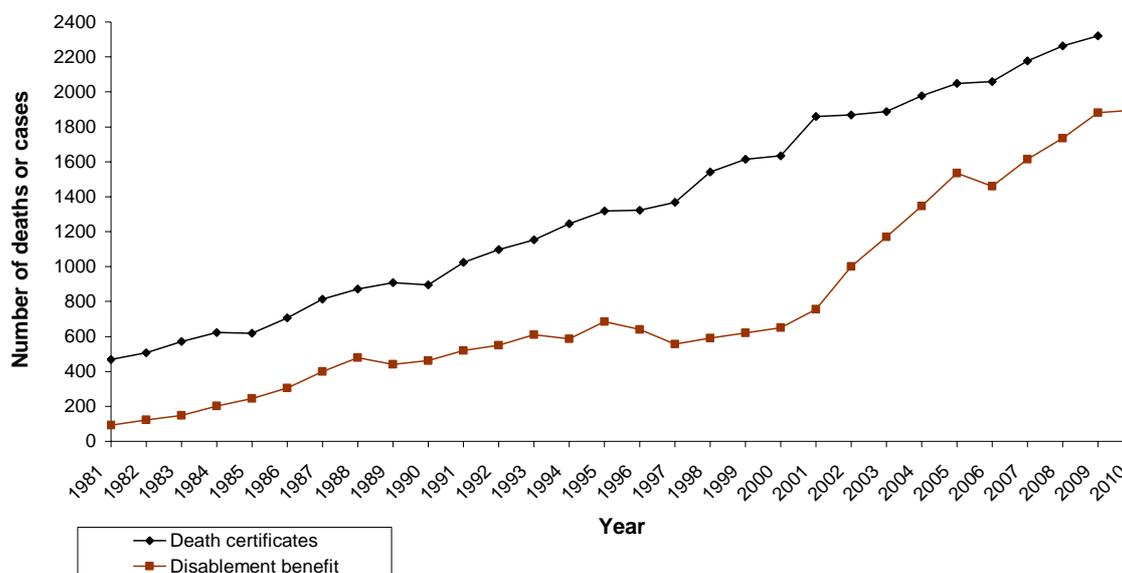
17. Our evidence base on long latency health conditions is much weaker than for injuries or common ill health conditions because of the challenges in studying these diseases. For example, it may be difficult to attribute cases of disease occurring now to workplace exposures that occurred many years ago, particularly where non-workplace causes may have also played a role. Most of what we know is based on studying the effects of past exposure, whereas the future effects of current workplace exposures – i.e. those that can be influenced and prevented – are less certain.
18. We estimate that there are 12,000 deaths each year as a result of work-related exposures in the past from diseases where it is feasible to produce credible estimates: 8,000 cancer deaths and 4,000 deaths from COPD. Hence, over 98% of the work-related deaths each year are health-related rather than safety-related. This illustrates that unless current workplace exposures to long latency disease hazards are very substantially lower today than in the past, future annual deaths resulting from today's exposures are very likely to exceed current annual fatalities due to accidents.
19. The recent cancer burden study has provided much needed detail behind the figure of 8,000 deaths (and 13,000 cancer registrations) each year. The box below summarises the key findings.

What we know about work-related cancer:

- 3 times more men than women die from occupational cancer.
- Over 5,000 cancer registrations estimated each year are from the construction industry.
- Most new cases are lung cancer, breast cancer or skin cancer
- Leading cause of death is exposure to asbestos
- Other causes of occupational cancer are solar radiation, mineral oils, silica and (probably) shift work

20. Mesothelioma is the only mainly occupational cancer we are able to track specifically year on year. The chart below shows the number of mesothelioma deaths and claims for disablement benefit since 1991. Total deaths are continuing to rise every year and are not expected to peak until around 2016. Deaths at ages below 50 have been falling since the early 1990s, reflecting reductions in usage since the 1960s and subsequent bans on all usage.

21. Mesothelioma deaths and disablement benefit cases



22. Epidemiological studies have found that 15% of COPD deaths can be attributed to occupational exposure to dusts, fumes, vapours and gases and this is the basis for the estimate of 4,000 deaths each year. Detail below the total figure is uncertain. However, while a substantial proportion is likely to have been due to coal mining, industries with continuing potential for widespread exposures today – such as construction – are also likely to have played an important role.
23. A research project is about to start with the UK Biobank study. This will gather and analyse detailed occupational information from a large population sample with a specific focus on workplace hazards likely to be associated with COPD. The project aims to establish more up-to-date estimates of the contribution occupational exposures make to the burden of COPD, and provide detailed information about the relative importance of different exposures. This work is just starting and will be carried out over the next three years.
24. There is a common strand to both the cancer and COPD deaths: exposure to dust, fumes and gases. The next phase of work with the cancer burden study is to estimate the future burden which will require an assessment of current exposure levels. It is recognised that it will take decades before we are able to see the affect of any change in harmful exposure on the outcome data i.e. reduced cases of cancer or COPD. At present, for long latency hazards, we do not have representative data to enable us to assess whether exposure and control of risks is improving in the short term.

Action

25. For information.

Paper clearance

26. This paper has been cleared by Dave Bench.