Historical picture

Trends in work-related injuries and ill health in Great Britain since the introduction of the Health and Safety at Work Act (HSWA) 1974

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Summary

The information in this document relates to health and safety statistics for 2013/14. The document can be found at www.hse.gov.uk/statistics/history/

British industry has changed substantially since the introduction of the HSWA in 1974 and data shows there have been large reductions in work-related injury and ill health.

Between 1974 and 2014:

- fatal injuries to employees have fallen by 87%;
- reported non-fatal injuries have fallen by 77% (to 2012);
  - analysis of non-fatal injuries is complicated by changes in the reporting legislation over the past two years
  - research commissioned by HSE suggests about half of the reduction in non-fatal injuries up to 2012 relates to changing employment patterns and occupations
- deaths from asbestos-related diseases have increased almost constantly from 1974 to 2012 with cases occurring now arising mainly from exposure to asbestos many years ago;
- the rate of total cases of self-reported work-related illness, and specifically musculoskeletal disorders, has fallen (since 1990);
- the rate of total cases of stress and related conditions increased during the 1990s, though likely due to awareness of work-related stress and changing attitudes affecting reporting levels.

Earliest and latest data on injuries and ill health since 1974

<table>
<thead>
<tr>
<th>Summary description</th>
<th>Earliest data</th>
<th>Latest data</th>
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<tr>
<td>Workplace injury (latest data adjusted to align with 1974 reporting requirements)</td>
<td>1974</td>
<td>2013/14</td>
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<tr>
<td>Fatal injuries to employees</td>
<td>651</td>
<td>85</td>
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<td>Rate of fatal injury per 100 000 employees</td>
<td>2.9</td>
<td>0.5</td>
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<tr>
<td>Reported non-fatal injuries to employees</td>
<td>336 701</td>
<td>77 310 (2011/12)</td>
</tr>
<tr>
<td>Occupational diseases</td>
<td>1974</td>
<td>2012</td>
</tr>
<tr>
<td>Deaths from pneumoconiosis as underlying cause (non-asbestosis)</td>
<td>453</td>
<td>151</td>
</tr>
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<td>Deaths from asbestosis without mention of mesothelioma (asbestosis register)</td>
<td>74</td>
<td>464</td>
</tr>
<tr>
<td>Deaths from mesothelioma (Mesothelioma register)</td>
<td>243</td>
<td>2 535</td>
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<tr>
<td>Rate of self-reported work-related illness (latest data adjusted to align with</td>
<td>1990</td>
<td>2013/14</td>
</tr>
<tr>
<td>1990 survey definitions where possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall rate per 100 000 employed</td>
<td>5 940</td>
<td>4 000</td>
</tr>
<tr>
<td>Rate of musculoskeletal disorders per 100 000 employed</td>
<td>2 750</td>
<td>1 690</td>
</tr>
<tr>
<td>Rate of stress and related conditions per 100 000 employed</td>
<td>820</td>
<td>1 640</td>
</tr>
</tbody>
</table>

Notes

1. In 1974, reporting requirements for workplace injuries were limited to production and some service sectors. Comparable figures for 2014 exclude reported injuries in the public administration, education, and health and social work sectors.
2. A comparison using latest non-fatal injury data is complicated by changes in the reporting legislation over the past two years (over-7-day replacing over-3-day to in April 2012, and the ‘specified’ injury category replacing the previous category of major injury in October 2013 (mid-way through the 2013/14 year).
3. Mesothelioma is an asbestos-related cancer. The rise was driven by increasing asbestos usage up to the mid 1960s; the effect of subsequent reductions in asbestos usage are starting to be seen in the fall in the numbers of male deaths from this cancer in younger age groups.
4. Estimates of self-reported work-related illness are based on results from the Labour Force Survey collected since 1990. They have been adjusted such that the coverage is approximately consistent (e.g. limited to people who worked in the last 12 months in England and Wales only), and even then are still affected by factors such as differences in survey design and level of information collected.
Fatal injuries

Workers

At the time of the introduction of the HSWA in 1974, the reporting legislation covered accidents that occurred to those mainly employed in factories, construction, manufacturing, agriculture and docks, and excluded ‘office-based’ services activities (such as public administration, education, and health and social work sectors). There were 651 fatal injuries to employees in 1974. When an adjustment is made to the latest data (to exclude the same types of industry), this shows 85 fatal injuries to employees in the provisional year 2013/14. This represents an overall decrease of 87% from comparative figures in 1974.

There were 89 fatal injuries to employees recorded in all industries in 2013/14. Including self-employed deaths, the number of fatal injuries to workers in 2013/14 is 133.

Taking changes in employment levels into account, the rate of fatal injury has decreased by 83% over this period, from 2.9 in 1974 to 0.50 per 100 000 employees in 2013/14. The adjusted rate of fatal injury per 100 000 workers is 0.62 (across all industries the rate of fatal injury per 100 000 workers in 2013/14 is 0.44).

Figure 1: Number and rate of fatal injury to workers# 1974, 1981, 1986/87, 1996/97 – 2013/14 p

The term ‘workers’ describes employees and the self-employed, combined.

p=Provisional.
r=Revised.

See www.hse.gov.uk/statistics/history/histfatalsl.xls for the data featured in Figure 1.

Members of the public

The Notification of Accidents and Dangerous Occurrences Regulations 1980 (NADOR) introduced an additional requirement to report fatal injuries to members of the public in connection with work, and there were 71 fatal injuries reported in 1981. From April 1996, reports made under RIDDOR introduced a further requirement to report fatal injuries to members of the public due to acts of suicide or trespass on railway systems. This change had the effect of dramatically increasing the overall number of fatal injuries reported each year (with a high proportion being suicides). In 2013/14, there were 264 fatal injuries to members of the public; of these deaths, 194 (73%) related to incidents occurring on railways. The requirement to report suicides on railways was removed in October 2013 (midway through the 2013/14 year).
Reported non-fatal injuries

Even allowing for the expansion and diversification of Britain’s workforce since 1974, there have been substantial decreases in the number and rate of reported injuries. Research suggests that only a quarter to a half of the reduction in non-fatal injuries over the last 30 years is attributable to a shift in employment away from manufacturing and heavy industry to lower risk service industries. For more information, see www.hse.gov.uk/research/rrpdf/rr386.pdf.

In 1974 there were 336,701 accidents reported that ‘involved more than three days absence from work’ (and covered the same production and service industries as those for fatal injuries). Survey data to estimate the level of under-reporting of non-fatal injuries was not available then, as it is today. A comparison of the latest non-fatal injuries reported under RIDDOR is made complicated by changes in the reporting regulations over the last two years. Overall, 77,593 non-fatal injuries to employees were reported in 2013/14, and in the previous year 80,368 were reported. However, as the latest change to legislation occurred in October 2013 - mid-way through the 2013/14 year - a comparison of this latest data with earlier years should be avoided.

A more representative comparison of the same industries covered in 1974 is possible, however, using non-fatal injury data for 2011/12 (major plus over-3-day injury): here the figure of 77,310 reported non-fatal injuries to employees in 2011/12 represents a fall of 77% from comparative figures recorded in 1974.

It is also useful to compare the reduction in reported non-fatal injuries since 1986/87, when the requirement to report over-3-day injuries was introduced. In 1986/87 there were 179,706 reported non-fatal injuries to employees (major plus over-3-day). In 2011/12 this figure was 111,299, and represents a reduction of 38%. There was a decrease of 48% in the corresponding rate of non-fatal injury, from 860.2 per 100,000 employees in 1986/87 to 446.0 in 2011/12.

Figure 2: Number and rate of reported non-fatal injury to employees 1986/87 – 2013/14

A historical series of statistics of reported injuries in Great Britain broken down by main industrial sectors is available at www.hse.gov.uk/statistics/history/histinj.xls (for workplace injury numbers) and www.hse.gov.uk/statistics/history/histrate.xls (for workplace injury rates, per 100,000 employed).
Ill health

The Self-reported Work-related Illness (SWI) survey module has been included in the Labour Force Survey (LFS) since 1990. It was initially included periodically, but annually from 2003/04 to 2011/12. The module was suspended for one year in 2012/13, but from 2013/14 reverted to an annual data collection. Results prior to 2001/02 are not directly comparable with later years. Estimates have been adjusted such that the coverage is approximately consistent (e.g. limited to people who worked in the last 12 months in England and Wales only), and even then are still affected by factors such as differences in survey design and level of information collected.

Since 1990, the LFS results suggest that the overall prevalence rate of self-reported work-related illness has fallen. In 1990 and 1995 the estimated rates were similar (not statistically significantly different), and from 2001/02 to 2008/09 generally fell, with the exception of an unusually high rate in 2006/07. More recently, rates have tended to fluctuate, with the rate in 2013/14 being statistically significantly higher than the rate in 2011/12.

The estimated prevalence rate of stress and related conditions increased during the 1990s, but has remained broadly flat since 1998/99, at around double the level of 1990. It is likely that greater awareness and attitudes to work-related stress changed in the 1990s, which will have affected reporting levels.

For musculoskeletal disorders, following an increase between 1990 and 1995, the estimated prevalence rate has generally followed a downward trend over time, with the latest rate being statistically significantly lower than that in 1990.

Figure 3: Comparison of estimated prevalence rates (new and existing cases) of self-reported work-related illness, for people working in the last 12 months in England and Wales, 1990 to 2013/14

![Figure 3: Comparison of estimated prevalence rates (new and existing cases) of self-reported work-related illness, for people working in the last 12 months in England and Wales, 1990 to 2013/14](image)

**Source:** Labour Force Survey

# No self-reported work-related ill health data was collected for years not shown in the chart.

^ Includes stress, depression or anxiety and heart conditions.

See [www.hse.gov.uk/statistics/history/histill.xls](http://www.hse.gov.uk/statistics/history/histill.xls) for historic ill-health data.
Technical Notes

Reporting legislation for workplace injuries since 1974

There have been several key changes in the reporting legislation since 1974. At that time, injuries were reported on a calendar year basis (January to December) and defined in various legislation, but chiefly the 1961 Factories Act. Here reporting was limited mainly to those employed in factories, construction, manufacturing, agriculture and docks, and excluded ‘office-based’ services activities (such as public administration, education, and health and social work sectors). Reporting on this basis continued to 1980. For more information on the Factories Act, see www.legislation.gov.uk/ukpga/1961/34/pdfs/ukpga_19610034

From 1981 to 1985, reporting was defined in the Notification of Accidents and Dangerous Occurrences Regulations (NADOR). This introduced the requirement to report fatal or defined major injuries to the self-employed, as well as injuries to members of the public killed or injured as the result of someone else’s work activity. For more information on NADOR, see www.legislation.gov.uk/uksi/1980/804/pdfs/uksi_19800804.

Since April 1986 the requirement to report has been on a planning year basis (April to March); and defined in the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). The legislation has been subject to several amendments since that date, the most notable as follows:

- From April 1986, RIDDOR 1985 introduced the requirement to report injuries to workers resulting in three or more days absence (over-3-day). For more information on RIDDOR 1985, see www.legislation.gov.uk/uksi/1985/2023/pdfs/uksi_19852023.
- In RIDDOR 1995 (from April 1996), the legislation was extended to include acts of violence to workers, and deaths to members of the public due to acts of suicide or trespass on railways systems, The list of reportable major injuries to workers included a wider range of fractures and amputations, as well as certain dislocations. For more information on RIDDOR 1995, see www.legislation.gov.uk/uksi/1995/3163/contents/made.
- HSE introduced a new online system for the notification of RIDDOR incidents in September 2011 (although legislation did not change at that time).
- In April 2012 the legal reporting requirement changed from over-3-days' incapacitation to over-7-days. The requirement remains for duty-holders to record over-3-day injuries, but not to report them.
- RIDDOR underwent a more extensive legislative change in October 2013. Key changes included the introduction of the 'specified injury' category to replace the 'major injury' category, and the removal of the requirement to report suicides on railway systems. For more information on RIDDOR 2013, see www.legislation.gov.uk/uksi/2013/1471/contents/made. More information on data changes affecting RIDDOR statistics is available at www.hse.gov.uk/statistics/riddor-notification.

Self-reported Work-related Illness

The Self-reported Work-related Illness (SWI) module has been included in the Labour Force Survey (LFS) periodically since 1990 and annually from 2003/04 to 2011/12. The module was suspended for one year in 2012/13, but from 2013/14 reverted to an annual data collection. The Labour Force Survey is a household survey consisting of around 44,000 households across Great Britain which provides information about the labour market. HSE commissions a module of questions in the LFS to gain a view of work-related illness based on individuals’ perceptions.

The LFS is used to make inferences about the whole population. When data obtained from a sample is used in this way, there is an element of sampling error, or uncertainty, about the sample estimate. Confidence intervals represent the range of uncertainty resulting from the estimate being derived from a sample of people, not the entire population. They are calculated so the range has a 95% chance of including the true value in the absence of bias – that is the value that would have been obtained if the entire population had been surveyed. A difference between two sample estimates is described as ‘statistically significant’ if there is a less than 5% chance that it is due to sampling error alone.

The analysis and interpretation of these data are the sole responsibility of HSE. Further details about the LFS, and more specifically, the HSE commissioned questions, are available from www.hse.gov.uk/statistics/lfs/technicalnote.
Asbestos-related and other occupational lung diseases

Pneumoconiosis has been recognised as an occupational disease, and included within the International Classification of Diseases, for many decades. Mortality statistics for pneumoconiosis recorded as the underlying cause of death can therefore be readily obtained from national data compiled by the Office for National Statistics (ONS) and National Records of Scotland (NRS). HSE published annual mortality statistics for non-asbestos related pneumoconiosis in Great Britain (predominantly caused by coal dust and silica) are derived from these sources.

Although the asbestos-related cancer, mesothelioma, has been recognised for many years, the full scale of mortality within Great Britain could not be readily identified from national death data because mesothelioma was not specifically categorised within the International Classification of Diseases prior to Revision 10 (ICD-10). HSE published mortality statistics have been compiled on a consistent basis since 1968 based on the mesothelioma register which includes all deaths where the term 'mesothelioma' was mentioned anywhere on the death certificate. Since the introduction of ICD-10, the majority of deaths on the register have mesothelioma recorded as the underlying cause.

Similarly, HSE published mortality statistics for asbestosis – i.e. pneumoconiosis caused by asbestos – include all deaths that mention the term ‘asbestosis’ anywhere on the death certificate. This includes a substantial number of deaths in addition to those with asbestos recorded as the underlying cause.

Further details on asbestos-related and other occupational lung diseases are available from www.hse.gov.uk/statistics/sources.htm#asbestos.

Changes in industrial classifications

HSE records and publishes data in Standard Industrial Classification (SIC) format, the current being SIC2007. Data from previous years which was collected in the SIC1992/2003 formats has been computer recoded to SIC2007 coding to allow comparisons over time. However, there may be errors as a result of this recoding, and care should be taken when interpreting trends over time. Inconsistencies are most likely to be visible in data between 2008/09 and 2009/10. For more information, see www.hse.gov.uk/statistics/industry/sic2007. The Office for National Statistics (ONS) is responsible for producing and compiling the UK Standard Classification, and more information is available from the ONS website at www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification.

Calculation of injury rates and the source of employment estimates

When making any comparisons, either on an annual basis or between one sector and another, it is important to look at the rate of injury per employees, self employed or workers, as appropriate. This is derived from the numerator (the count of injuries) and the denominator (the estimated employment). This is then multiplied by a factor of 100 000.

Since November 2011, the source of employment data used to construct injury rates in all HSE statistics is the Annual Population Survey (APS). Prior to this a range of information was used, most notably the Workforce Jobs Series. The APS is a comprehensive single data source that provides HSE with insight into a wide range of working structures, as well as ensuring that employment data used for all rate calculations (injuries and ill health) is consistent and therefore comparable. For more information, see www.hse.gov.uk/statistics/sources.htm#employment.

The Office for National Statistics (ONS) is the provider of the APS data. The analysis and interpretation of these data are the sole responsibility of HSE.

Looking back, thinking forward: HSWA 40 and beyond

It is 40 years since the Health and Safety at Work Act received Royal Assent, providing a new regulatory framework for workplace health and safety in Great Britain. For more information, see www.hse.gov.uk/aboutus/40/.
National Statistics

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

An account of how the figures are used for statistical purposes can be found at www.hse.gov.uk/statistics/sources.htm.

For information regarding the quality guidelines used for statistics within HSE see www.hse.gov.uk/statistics/about/quality-guidelines.htm

A revisions policy and log can be seen at www.hse.gov.uk/statistics/about/revisions/

Additional data tables can be found at www.hse.gov.uk/statistics/tables/.

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