Historical Picture

Trends in work-related ill health and workplace injury in Great Britain, 2017

Contents

Summary 3

Introduction 4

Work-related ill health 4
All illness 4
Musculoskeletal disorders 5
Stress and related conditions 5
Lung disease 6

Workplace injury 8
Fatal injury 8
Non-fatal injury 9

Working days lost 10

Links to Detailed data tables 10

Sources and Definitions 11
Data sources 11
Definitions 12
Summary

The document can be found at: www.hse.gov.uk/statistics/history.

Available data shows that in recent decades there have been large reductions in both fatal and non-fatal workplace injuries. The picture for ill health is mixed, with reductions in the rate of self-reported work-related illness and specifically musculoskeletal disorders, while the rate of self-reported work-related stress and related conditions has remained broadly flat over the last twenty years. Mesothelioma deaths have continued to rise as a result of historical asbestos exposures.

Rate of self-reported work-related ill health
(LFS, England & Wales; estimated rate per 100,000 workers)

Number of deaths from mesothelioma
(HSE Mesothelioma Register, Great Britain)

Rate of self-reported musculoskeletal disorders
(LFS, England & Wales; estimated rate per 100,000 workers)

Rate of self-reported stress and related conditions
(LFS, England & Wales; estimated rate per 100,000 workers)

Number of fatal injuries to employees
(RIDDOR and earlier reporting legislation, Great Britain)

Rate of self-reported workplace non-fatal injury
(LFS, Great Britain; estimated rate per 100,000 workers)

Rate of employer-reported non-fatal injury
(RIDDOR, Great Britain; rate per 100,000 employees)

Days lost per worker due to work-related incidents
(LFS, Great Britain; self-reported ill health and injury days lost)

Notes:

p = Provisional

RIDDOR: Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

LFS: Labour Force Survey (estimates of work-related ill health and workplace injury)

This document is available from www.hse.gov.uk/statistics/
Introduction

This report presents an assessment of the longer term trends in work-related illness and workplace injury using a range of available data sources. Note: the time period coverage is different for different data sources, with each data source generally going back at least as far as 1990. Also, sometimes we need to adjust data to enable comparisons on a broadly consistent basis for the whole period. For example, for some data the geographical coverage is adjusted to England and Wales. The latest information and trends over more recent years is available at [www.hse.gov.uk/statistics](http://www.hse.gov.uk/statistics).

Work-related ill health

All illness

In 2016/17, an estimated 1.3 million workers in Great Britain were suffering from an illness which they believed was caused or made worse by work (either new or long-standing), equivalent to a rate of 3,970 per 100,000 workers (4%).

To look at the long term trend in work-related ill health (or injury) we generally consider how the rate has changed, rather than the number of cases, as the rate accounts for variations in the number of people in work between years.

The rate of total self-reported work-related ill health showed a generally downward trend to around 2011/12; more recently the rate has been broadly flat. Since 1990, the estimated rate of work-related ill health has fallen by around one-third. (Source: Labour Force Survey, England and Wales)

Figure 1: Estimated self-reported work-related ill health per 100,000 workers, England and Wales (new and long-standing cases)

![Figure 1: Estimated self-reported work-related ill health per 100,000 workers, England and Wales (new and long-standing cases)](chart1.png)

- General downward trend to 2011/12
- Broadly flat in recent years

Estimated rate down by around one-third since 1990

- Represents years where survey data collected
- Shaded area represents a 95% confidence interval

Source: Labour Force Survey
**Musculoskeletal disorders**

Musculoskeletal disorders account for a large proportion of self-reported work-related ill health - around 40 per cent of all self-reported cases in Great Britain in 2016/17.

Despite the increase in rate between 1990 and 1995, the rate has been generally downward over the period from 1990 to 2016/17. Since 1990 the rate has fallen by around 40 per cent. (Source: Labour Force Survey, England and Wales).

Figure 2: Estimated self-reported work-related musculoskeletal disorders per 100,000 workers, England and Wales (new and long-standing cases)

**Stress and related conditions**

Stress and related conditions includes cases of both stress, depression or anxiety and heart conditions and account for around 40% of all cases of self-reported work-related ill health in Great Britain in 2016/17, a similar proportion to musculoskeletal disorders. (Note: heart conditions are included alongside stress, depression or anxiety to allow consistency with definitions used in the 1995 survey).

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

Figure 3: Estimated self-reported work-related stress and related conditions per 100,000 workers, England and Wales (new and long-standing cases)
Lung disease

Typically 3-4% of cases of self-reported work-related illness are reported as “breathing or lung problems”. This general category is likely to include a wide range of specific illnesses: some caused by, and others aggravated by work; some that can occur rapidly following exposure to respiratory hazards, and others that take many years to develop.

In 2016/17, an estimated 42,000 workers in Great Britain were suffering from a work-related breathing or lung problem (either new or long-standing).

The rate of self-reported work-related breathing or lung problems reduced from around 200 cases per 100,000 workers in the early 2000s but remained broadly constant over the last 10 years, with an estimated 130 cases per 100,000 based on the latest three Labour Force Surveys.

Figure 4: Estimated self-reported work-related breathing or lung problems per 100,000 workers, Great Britain (new and long-standing cases)

Source: Labour Force Survey
**Specific lung diseases**

Long-term trends for certain specific occupational lung diseases can be assessed where data have been collected consistently over extended periods, for example based on death certificates or the Industrial Injuries Disablement Benefit (IIDB) scheme. Here we show trends for *mesothelioma* (an asbestos-related cancer), and *silicosis* (a form of pneumoconiosis caused by respirable crystalline silica).

**Figure 5: Annual mesothelioma deaths and cases assessed for IIDB in Great Britain, 1974-2016**

![Graph showing annual mesothelioma deaths and cases assessed for IIDB in Great Britain, 1974-2016](chart)

**Sources:** *Death Certificates; Industrial Injuries and Disablement Benefit scheme*

Annual mesothelioma deaths have increased around 10-fold since 1974 and numbers are expected to remain at the current level of around 2,500 deaths per year for the rest of this decade before beginning to decline. Annual IIDB cases have followed a similar trend.

These mesothelioma cases are a consequence of heavy past occupational asbestos exposures and the fact that the disease typically takes decades to develop.

Further information about mesothelioma and other asbestos-related disease is available at [www.hse.gov.uk/statistics/causdis/asbestos.htm](http://www.hse.gov.uk/statistics/causdis/asbestos.htm).

**Figure 6: Annual silicosis deaths and cases assessed for IIDB in Great Britain, 1974-2016**

![Graph showing annual silicosis deaths and cases assessed for IIDB in Great Britain, 1974-2016](chart)

**Sources:** *Death Certificates; Industrial Injuries and Disablement Benefit scheme*

There has been a steady decline in annual deaths since 1974, with numbers in recent years about half or lower than those in the 1970s. Annual IIDB cases have tended to fluctuate considerably, though there is also evidence of a reduction over the period.

Workplace injury

Fatal injury

In 2016/17, 137 workers were killed at work in Great Britain including 101 employees and 36 self-employed workers. It is the second lowest year on record after 2013/14. However, in statistical terms the number of fatalities has remained broadly level in recent years – the average annual number of workers killed at work over the five years 2012/13-2016/17p is 142.

While data on fatal injuries to the self-employed have only been collected since 1981 (when the Notification of Accidents and Dangerous Occurrences Regulations were introduced), data on fatal injuries to employees have been collected under various regulations since at least 1900, though prior to 1981 reporting did not cover all industry sectors. Notably, injuries to employees in ‘office based’ service activities (such as public administration, education and health and social work) were excluded.

Figure 7 below shows the number of fatal injuries to employees in Great Britain notified to enforcing authorities each year since 1900. While data prior to 1981 is not entirely comparable with latter years, the chart demonstrates how deaths at work have reduced significantly over the period, from around 4,400 to around 200 over the course of the 20th Century, further reducing since the year 2000 to a total of 101 in the latest year. This reduction is in part due to changes in the industry composition over the period (a shift away from mining, manufacturing and other heavy industry to lower risk service industries).

A comparison of fatal injury numbers between 1974 (when the Health and Safety at Work Act was introduced) and 2016/17, adjusting to allow for the difference in industry coverage of the reporting requirements between these years, suggests that fatal injury numbers to employees have fallen by around 85% over this period.

Figure 7: Number of fatal injuries to employees in Great Britain 1900-2016/17p
(Note: estimate for 2016/17 is a provisional estimate, labelled as p)

Source: RIDDOR and earlier reporting legislation
Non-fatal injury

In 2016/17, an estimated 609,000 workers sustained a non-fatal injury at work in Great Britain according to self-reports, equivalent to a rate of 1,970 injuries per 100,000 workers (2%). Around a quarter of these injuries resulted in over-7-days absence from work.

The rate of self-reported non-fatal injury to workers showed a downward trend up to 2010/11; since then the rate has been broadly flat. Since 2000/01, the estimated rate of non-fatal injury to workers has fallen by around a half. (Source: Labour Force Survey).

Figure 8: Estimated rate of self-reported non-fatal injury per 100,000 workers, Great Britain

![Graph showing the estimated rate of self-reported non-fatal injury per 100,000 workers, with a downward trend to 2010/11 and a broadly flat trend in recent years. The shaded area represents a 95% confidence interval. Source: Labour Force Survey.]

Certain workplace injuries also require reporting by employers to the Enforcing Authorities. Since October 2013 this reporting is required under the 2013 Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR 2013), and previously under various revisions of RIDDOR regulations or earlier legislation - see Sources and Definitions for more details. Current reporting requirements under RIDDOR 2013 require all non-fatal injuries resulting in over-7-days absence from work or a certain defined set of 'specified' injuries to be reported (changing from the previous requirement to report over-3-day absence injuries and the previous ‘major’ injury category).

Changes in the reporting requirements, coupled with under-reporting (non-fatal injuries to employees are substantially under-reported by employers, with current levels of reporting estimated at around a half; and the reporting of injuries to the self-employed a much lower proportion) makes comparison of employer reported injuries difficult.

However using what we know from estimates of self-reported injuries from the Labour Force Survey, we are able to adjust employer reported non-fatal injury data for 2011/12 and earlier years to align with the current RIDDOR 2013 reporting requirements. This suggests a downward trend in the rate of non-fatal injury to employees reported by employers, with an estimated 58% reduction since 1986/87. However, reporting by employers is known to be incomplete and may be distorting the trends.

Figure 9: Rate of employer reported non-fatal injury per 100,000 employees in Great Britain

(Note: estimate for 2016/17 is a provisional estimate, labelled as p)

![Graph showing the rate of employer reported non-fatal injury per 100,000 employees, with a 58% estimated reduction since 1986/87. Source: RIDDOR.]

(Rates for 11/12 and earlier have been adjusted to align with current RIDDOR reporting definitions.)
Research commissioned by HSE in 2005 showed that around half of the fall in the rate of non-fatal injury between 1986 and 2003 was due to the changing occupational structure of the GB workforce, with the other half due to residual factors including real improvements in health and safety over the period - see www.hse.gov.uk/research/rrhtm/rr386.htm.

**Working days lost**

In 2016/17, 31.2 million working days were lost due to work-related illness and non-fatal workplace injuries in Great Britain, 25.7 million days due to work-related illness and 5.5 million days due to workplace injury. This is equivalent to 1.2 working days lost per worker over the year.

To look at the long term trend in working days lost we generally consider how the average number of working days lost per worker has changed, rather the total number of days, as the average accounts for variations in the number of people in work between years.

Working days lost per worker due to self-reported work-related illness or injury showed a generally downward trend up to around 2010/11; since then the rate has remained broadly flat.

**Figure 10: Estimated working days lost per worker due to self-reported work-related incidents, Great Britain**

![Graph showing trend in working days lost per worker]

*Source: Labour Force Survey*

**Links to Detailed data tables**

The detailed data included in this report can be found in tables located at [www.hse.gov.uk/statistics/tables](http://www.hse.gov.uk/statistics/tables). Specific tables include:

- **LFSILLHIST** - Self-reported work-related illness in England and Wales
- **LFSINJSUM** - Self-reported non-fatal workplace injuries
- **RIDHIST** – Employer reported injuries
- **LFSWDL** – Working days lost due to work-related illness and non-fatal workplace injury
- **MESO01** – Death certificates mentioning mesothelioma
Sources and Definitions

Data sources

**Labour Force Survey**

Estimates of self-reported work-related ill health and self-reported workplace injury are sourced from the Labour Force Survey (LFS).

The Labour Force Survey (LFS) is a household survey consisting of around 37,000 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 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.htm](http://www.hse.gov.uk/statistics/lfs/technicalnote.htm).

**Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (and earlier injury reporting legislation)**

Employer reported injuries are sourced from reports made to enforcing authorities under statutory reporting requirements.

Since April 1986 the relevant reporting legislation is the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). RIDDOR 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 over three days absence from work.
- Under 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.
- 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. This 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](http://www.legislation.gov.uk/uksi/2013/1471/contents/made)


Prior to RIDDOR, employers were required to report injuries to the enforcing authority under the Notification of Accidents and Dangerous Occurrences Regulations (NADOR, 1981-1985). 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. And prior to NADOR, reporting was required under various legislation, but chiefly the 1961 Factories Act. 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).

To enable a numerical comparison of employer-reported injuries between different time periods requires data to be adjusted on a consistent basis.

- For fatal injuries, the latest years injury total is restricted to exclude employee deaths to workers in public service industries (industries defined by sections O-Q in the 2007 Standard Industrial Classification) to make it comparable with the fatal injury count in 1974.
- For non-fatal injuries, the rate of reported injury for years 2011/12 and earlier has been adjusted to allow for the change in the reporting definitions introduced by RIDDOR 2012 and RIDDOR 2013. Data from the Labour Force Survey suggested that around 72% of injuries reported prior to these changes were also in scope of the new regulations. Therefore injury rates for this period have been adjusted to reflect this.
Death certificates

Information on mortality from certain occupational lung diseases is available from the cause of death included on death certificates currently recorded in Great Britain using the International Classification of Diseases, revision 10 (ICD-10).

A number of different forms of pneumoconiosis (including coal worker’s pneumoconiosis and silicosis) have been recognised as occupational diseases, and included within the ICD classification, 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).

Although mesothelioma was included in the ICD classification only from revision 10, mesothelioma mortality statistics have been compiled on a consistent basis since 1968 based on the HSE mesothelioma register, which includes all deaths where the term ‘mesothelioma’ was mentioned anywhere on the death certificate.

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

Industrial Injuries Disablement Benefit (IIDB) cases

The Industrial Injuries Disablement Benefit (IIDB) scheme, administered by the Department for Work and Pensions (DWP), compensates employed earners who have been disabled by a prescribed occupational disease (PD). Diseases are prescribed where an occupational cause is well established, and where the terms of prescription can be framed to identify cases of genuine occupational origin.

Pneumoconiosis and asbestos-related diseases have, for many years, been prescribed occupational diseases within the scheme. Although the scheme does not include all cases of these diseases (for example, the onus is on individuals to make a claim and the self-employed are not covered) it does provide a consistent basis for assessing trends over time.

Definitions

Self-reported Work-related Illness: People who have conditions which they think have been caused or made worse by their current or past work, as estimated from the LFS. Estimated total cases include long-standing as well as new cases. New cases consist of those who first became aware of their illness in the last 12 months. Estimates are based on the most serious work-related illness, as defined by the individual, if they have more than one. HSE has collected data on ill health through the LFS periodically since 1990 and annually from 2003/04 to 2011/12. In 2012/13, the ill health data collection was suspended but from 2013/14 returned to annual data collection. Results prior to 2001/02 are not directly comparable with later years and so estimates have been adjusted such that the coverage is approximately consistent (e.g. limited to people resident in England and Wales only), and even then are still affected by factors such as differences in the survey design and the level of information collected.

Self-reported injuries: Workplace injuries sustained as a result of a non-road traffic accident, as estimated by the LFS. HSE has collected data on injuries through the LFS in 1990 and annually since 1993/94. Data is available on a consistent basis since 2000/01, but over-7-day absence injury data is only available from 2003/04.

Confidence intervals: Confidence intervals represent the range of values which we are 95% confident contains the true value, in the absence of bias. This reflects the potential error that results from surveying a sample rather than the entire population.

Rate per 100,000: The number of annual injuries or cases of ill health per 100,000 employees or workers. The rate is constructed by dividing the count of injuries or ill health by the employment estimate. This is then multiplied by a factor of 100,000 to give a rate per 100,000 employees or workers, in line with international standards.
**National Statistics**

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority’s regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Health and Safety Executive’s responsibility to maintain compliance with the standards expected by National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

An account of how the figures are used for statistical purposes can be found at [www.hse.gov.uk/statistics/sources.htm](http://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](http://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/](http://www.hse.gov.uk/statistics/about/revisions/).

Additional data tables can be found at [www.hse.gov.uk/statistics/tables/](http://www.hse.gov.uk/statistics/tables/).

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