Office for National Statistics

Sickness Absence in the Labour Market, April 2012

Coverage: **UK**
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Geographical Area: **Region**
Theme: **Labour Market**
Theme: **Health and Social Care**

Animated YouTube Video

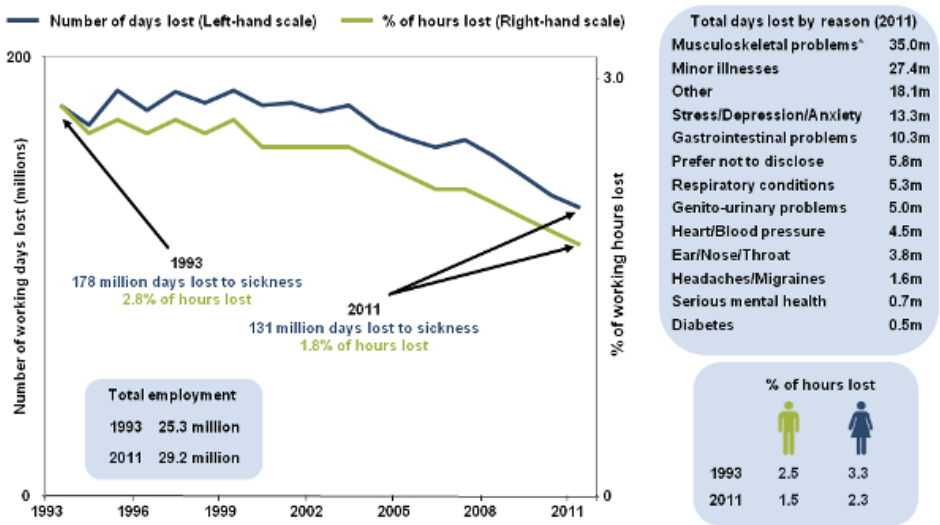
A podcast explaining this story using audio commentary and graphical animations is available on the ONS Youtube channel.

Sickness absence in the UK labour market

131 million days were lost due to sickness absences in the UK in 2011, down from 178 million days in 1993

In 2011, around 131 million days were lost through absences due to sickness or injury, a fall of around 26 per cent since 1993 where 178 million days were lost (these figures include employees and self-employed, aged 16+, across the whole of the UK).

Sickness absence levels, all persons 16+, annual averages 1993-2011, UK.



Total days lost by reason (2011)	
Musculoskeletal problems*	35.0m
Minor illnesses	27.4m
Other	18.1m
Stress/Depression/Anxiety	13.3m
Gastrointestinal problems	10.3m
Prefer not to disclose	5.8m
Respiratory conditions	5.3m
Genito-urinary problems	5.0m
Heart/Blood pressure	4.5m
Ear/Nose/Throat	3.8m
Headaches/Migraines	1.6m
Serious mental health	0.7m
Diabetes	0.5m

% of hours lost		
1993	2.5	3.3
2011	1.5	2.3

Source: Labour Force Survey - Office for National Statistics

Notes:

1. *'Musculoskeletal problems' includes back pain, neck and upper limb problems and other musculoskeletal problems.

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(25 Kb)

The number of days lost through sickness absences remained constant through the 1990's until 2003 and has fallen since then. Over the same period, the percentage of people having a spell of sickness and hence the percentage of working hours lost has been falling. The reason the number of days lost remained constant between 1993 and 2003, when the percentage of hours lost were falling over this period, was because there were more people entering employment during this time.

Looking at the number of days lost per worker, in 1993, around 7.2 days were lost (or around a week and a half based on a 5 day week). By 2011 this had fallen to less than a week (or 4.5 days).

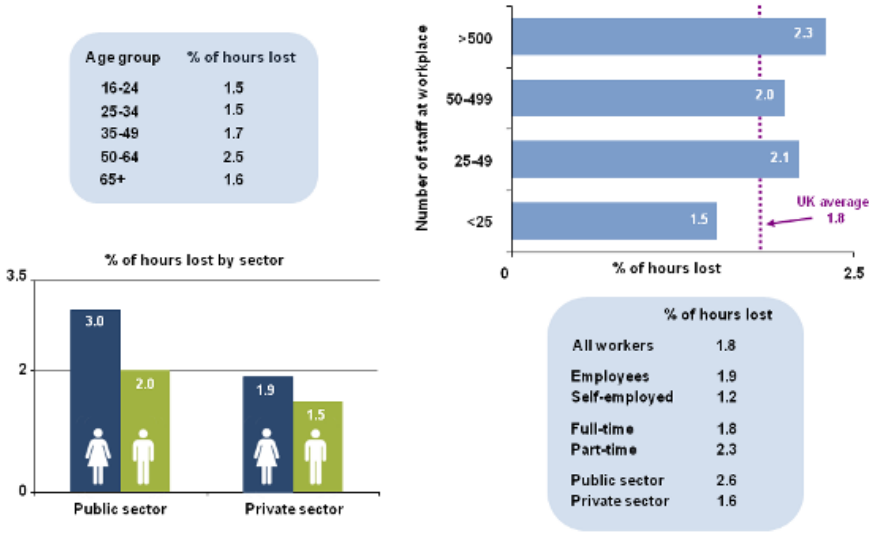
The most common reason given for sickness in 2011 was minor illnesses such as coughs, colds and flu. This type of illness tends to have short durations and the greatest number of days lost were actually due to musculoskeletal problems. This accounted for just over a quarter of all days lost or 35 million days. Around 27.4 million days were lost due to minor illnesses and 13.3 million days were lost to stress, depression and anxiety.

Sickness higher for women and older workers

Women have consistently higher sickness absence rates than men but both sexes have seen a fall over the past 20 years. Men have gone from losing around 2.5 per cent of their hours due to sickness in 1993 to around 1.5 per cent in 2011. Over the same period women have seen a reduction from 3.3 per cent to 2.3 per cent.

People are generally more likely to develop health problems at older ages and sickness absence rates also increase with age. For workers aged between 16 and 34 around 1.5 per cent of hours were lost to sickness in 2011 compared with around 2.5 per cent of hours lost for workers aged 50 to 64. Workers aged 65+ lose a lower percentage of hours to sickness because those with health problems are more likely to have left the labour market.

Sickness absence rates, annual averages 2011, UK.



Source: Labour Force Survey - Office for National Statistics

Download chart

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(43 Kb)

Lower sickness for the private sector and self-employed

The percentage of hours lost to sickness in the private sector is lower than in the public sector, 1.6 per cent and 2.6 per cent respectively. There are a number of things to consider when interpreting these differences such as:

- There are differences in the types of jobs between the two sectors and some sectors have higher likelihoods of sickness than others.
- On average, women have more sickness absence than men and the public sector employs a higher proportion of female workers.
- The analysis only counts someone as sick if they work fewer hours than contracted for. It would exclude someone who is sick and makes up for the lost hours at a later point in the week. It is possible that individuals in smaller workforces are under more pressure to make up any lost hours and these workforces are more prominent in the private sector.
- Individuals within the private sector are also more likely to not be paid for a spell of sickness than individuals within the public sector.

Looking at differences between men and women in the two sectors, women in the public sector lost the highest percentage of their hours in 2011 at 3.0 per cent. Men in the private sector lost the fewest at 1.5 per cent.

Self-employed people, at 1.2 per cent of working hours lost, took less sickness than employees in 2011 (1.9 per cent of working hours lost). Self-employed people do not generally have the same sick-leave cover as employees do and would therefore have more incentive to make up any hours

lost due to sickness. Also self-employed individuals are more likely to lose out financially if they lose working hours.

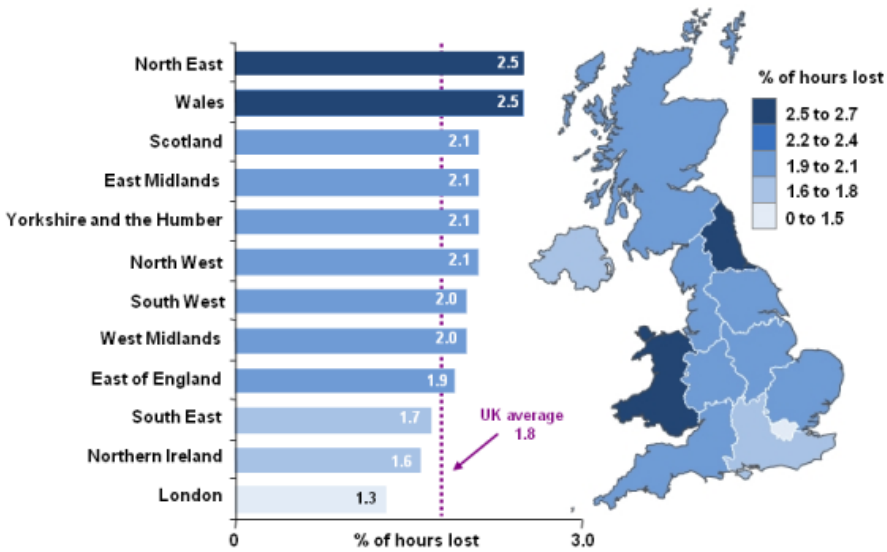
Largest workforces report highest sickness levels

Workers in organisations with more than 500 employees had the highest percentage of working hours lost in 2011, at 2.3 per cent. Those working in firms sized 25 to 49 and 50 to 499 lost a similar percentage of hours (2.1 and 2.0 per cent respectively) and the smallest firms had the lowest percentage of hours lost at 1.5 per cent. Sickness absences in small workplaces may be less common as workers do not feel able to take time off due to work commitments and not having colleagues to cover their work.

Sickness lowest in London

Workers in London had the lowest percentage of hours lost to sickness, at 1.3 per cent. The highest percentage lost was in the North East and Wales, both at 2.5 per cent. There may be a variety of factors to explain these differences. The London workforce is made up of a much younger demographic (aged 25-49), has a higher proportion of self-employed people and more private sector workers. These characteristics are associated with lower than average sickness absence rates. Wales and the North East on the other hand have on average an older workforce, more public sector workers (especially female public sector workers) and the North East has by far the highest proportion of employees. These characteristics are associated with higher than average sickness absence rates. Northern Ireland also has a younger work force than average and more self-employed people than average. The types of occupations and industries also vary across the country.

Sickness absence rates by region, 2010/2011.



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

1. Based on the October 2010 to September 2011 dataset

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(19.5 Kb)

Looking at sickness across different occupations, those working in ‘Caring, leisure and other service occupations’ lost the highest percentage of hours in 2011, at 2.7 per cent. This is more than double the percentage of hours lost for ‘Managers, directors and senior officials’ which stood at 1.1 per cent.

Background notes

1. Email: labour.market@ons.gov.uk

    1. The main analysis uses the quarterly LFS datasets to generate annual averages

    2. The regional analysis uses the October 2010 to September 2011 APS dataset

    3. The APS data gives more robust estimates but the LFS data was used for the main analysis as it is timelier and would allow analysis of a time series back to 1993. The APS could only go back to 2004

    4. A day is defined here as 7 hours and 30 minutes

    5. The sickness absence rate is the percentage of usual hours lost due to sickness absences

    6. The LFS variables used to calculate sickness absence levels and rates are YLESS6, TTACHR and TTUSHR

    7. The LFS variables ILLNE11 and ILLFST11 are used to look at the type of sickness/injury causing the absence

    8. Sickness absence rates do not account for the total length of absence because the Labour Force Survey can only measure up to seven days off work during the interviewee’s reference week.

    9. Full description of main condition of illness categories from the Labour Force Survey:

- Minor illnesses: coughs, colds and flu, sickness, nausea and diarrhoea
- Headaches and migraines
- Back pain
- Neck and upper limb problems (arthritis in hand joints, stiff neck)
- Other musculoskeletal problems
- Eye, ear, nose and mouth/dental; to include sinusitis and toothache
- Heart, blood pressure and circulation problems
- Stress, depression, anxiety (common mental health problems)

- Manic depression, schizophrenia and other serious mental health problems
- Other respiratory conditions (asthma, Chronic Obstructive Pulmonary Disease [OPD], bronchitis, pneumonia)
- Other gastrointestinal problems (irritable bowel syndrome [IBS], piles, bowel cancer, stomach ulcer)
- Genito-urinary; to include urine infections, menstrual problems, pregnancy problems
- Diabetes
- Other (accidents, poisonings, infectious diseases, skin disorders and anything else not covered above.

2. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

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Appendices

Sickness absence methodology

Calculating sickness absence estimates from the Labour Force Survey and Annual Population Survey

Calculating sickness absence rates

Individuals that are in employment are asked to record the number of hours they would *usually* work in the reference week. They are then asked to record the *actual* number of hours they worked in the reference week. Those individuals who *actually* worked fewer hours than they *usually* would are asked to record why this was the case. One of the answer options to this question is ‘sick or injured’. For those individuals who worked fewer hours than usual due to sickness or injury, the total number of hours lost during the reference week can be calculated. This is done by subtracting the actual hours worked from the usual hours worked. The total number of hours lost due to sickness or injury can then be taken as a percentage of the total usual hours worked to get a ‘sickness absence rate’.

Equation 1 - sickness absence rate

$$\text{sickness absence rate} = \frac{\text{total hours lost due to sickness or injury}}{\text{total hours usually worked}} \times 100$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

The data used in this calculation refers to the reference week that a respondent has been sampled to provide information for. Each quarterly LFS dataset contains information about 13 weeks, with around a thirteenth of the sample responding about each of the 13 weeks. Therefore if this calculation is done using a quarterly LFS dataset then the sickness absence rate gives the average percentage of hours lost due to sickness or injury for that quarter. Sickness absence is very seasonal however, so it is better to report on annual averages unless data can be seasonally adjusted. This can be done in two ways, either all four quarters of LFS data can be used to generate an annual average or the Annual Population Survey (APS) can be used to produce figures for a 12 month period.

Estimating working days lost due to sickness or injury

The total number of days lost due to sickness or injury can then be calculated by converting the number of hours lost in to days lost by defining ‘a day’ as 7 hours and 30 minutes. No adjustment is needed for part time workers as this method does not use reported days lost due to sickness or injury (where ‘a day’ is open to individual interpretation and may differ between full and part time workers), but instead uses the difference between usual and actual hours to get the total hours lost. If we assume an average full day is 7 hours and 30 minutes then the total hours lost can be divided by 7.5. However, this would only give you the number of days lost in an average week. To estimate the number of days lost due to sickness or injury in a year the total hours lost first need to be multiplied by 52 before being divided by 7.5.

Equation 2 - total days lost to sickness

$$\text{total days lost due to sickness or injury in the year} = \frac{(\text{total hours lost due to sickness or injury} \times 52)}{7.5}$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

Estimating average days lost per worker

The average number days lost per worker due to sickness or injury can be calculated by dividing the total number of days lost by the total number of workers estimated to have been in employment for that period.

Equation 3 - average days lost per worker

$$\text{average days lost per worker} = \frac{\text{total days lost due to sickness or injury in the year}}{\text{average number of workers in the year}}$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

This can also be done for more specific groups within the sample. For example, to calculate the average days lost per public sector worker the calculation would be as follows:

Equation 4 - average days lost per public sector worker

$$\text{average days lost per public sector worker} = \frac{\text{total sick days lost in the year for public sector workers}}{\text{average number of public sector workers in the year}}$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

Calculating total days lost by type of sickness or injury

The LFS and APS also collect information relating to the type of sickness or injury that caused a period of sickness absence. This data can be used to estimate the number of days lost by different types of sickness or injury. Not all respondents who worked fewer hours than usual in the reference week due to sickness or injury are asked the questions about the type of sickness or injury. However the majority are asked the questions, and the data that is collected can be used to calculate proportions which can then be applied to give adjusted estimated total days lost for each reason. This can be done as follows:

Equation 5 - % share of hours lost by reason

$$\text{\% share of hours lost for REASON A} = \frac{\text{total hours lost due to REASON A}}{\text{total hours lost for ALL REASONS}} \times 100$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

Equation 6 - estimated days lost by reason

$$\text{estimated days lost due to REASON A} = \frac{\text{\% share of hours lost for REASON A}}{100} \times \text{total days lost}$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

Calculating sickness incidence rates and levels

As well as measuring the percentage of hours lost or estimating the number of days lost, it is also possible to look at the sickness *incidence* rates and levels. This measures how many people had a sickness absence during the reference week. What is defined as ‘a sickness absence’ can vary and must be made clear in any analysis; for example it could be defined as ‘one hour or more’ or ‘a day or more’. By using the ‘hours lost to sickness’ calculation cases on the dataset can be flagged as either having had a sickness absence in the reference week or not having had a sickness absence in the reference week. See the technical notes below for more details.

National and regional sickness absence analysis

There are limitations to the data however. Because the data is only collected about sickness or injury in the reference week the sample sizes are relatively small. When looking at national estimates the LFS data gives reliable figures but regional estimates from the LFS are less robust. The APS has a larger sample size that allows for analysis at the regional level, as well as at the national level, and this is the recommended source for sickness absence data. The APS is not as timely as the LFS data and the LFS data has a longer consistent time series (back to 1993 compared to 2004 for the APS) so the LFS may be the preferred source for some sickness absence analysis at a national level. In relation to sickness absence analysis, sample sizes on the APS are very small at geographic areas lower than the regional level, such as local authority or unitary authority areas. It is not recommended that analysis is done at a level lower than the regional level. However, if analysis is conducted at lower geographic levels, caveats should be included to warn about the reliability of the estimates.

A note on ONS' previous sickness absence method

ONS previously used a different method to estimate sickness absences. This required respondents to first record the days that were scheduled to be worked in the reference week. They are then asked if they took any of these days off due to sickness or injury, which days those were if so, and the type of sickness or injury causing the absence. An issue was identified with these questions as figures did not match those obtained when looking at those who had worked fewer hours than usual due to sickness or injury. Investigations showed that, despite instructions, many respondents who had taken the whole reference week off due to sickness or injury responded that they were not working at all and were therefore not asked about having days off due to sickness or injury. This meant that sickness absence was being underestimated using this method. Changes were made to the questionnaire in 2010 that has improved the situation although there are still some issues with using this method. This method no longer has a consistent time series for analysis as the improvements in 2010 have caused a break in the series. Even with the improvements this method still appears to underestimate sickness absence compared to other measures. Part of the reason is that this method only captures 'days' which can be interpreted very differently by respondents and it can not take in to account different working patterns easily or measure the impact of part days being lost due to sickness absences. Therefore the method detailed above using actual and usual hours is currently the preferred method for estimating sickness absence using LFS and APS data.

Technical notes and syntax

This section gives some additional practical guidance for users who want to calculate the above estimates using LFS or APS data.

Calculating sickness absence rates

The variables TTUSHR (total usual hours), TTACHR (total actual hours) and YLESS6 (why worked fewer hours than usual) are used to calculate sickness absence rates.

Equation 7 - sickness absence rate

$$\text{sickness absence rate} = \frac{\sum((\text{TTUSHR} - \text{TTACHR}) \text{ if YLESS6} = 6)}{\sum \text{TTUSHR}} \times 100$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

The best way to do this is to create a new variable that calculates the number of hours lost due to sickness or injury. Lets call this HRSOFFSICK, it can be calculated with the SPSS code below:

```
COMPUTE HRSOFFSICK=-8.

DO IF YLESS6=6.

        COMPUTE HRSOFFSICK=TTUSHR-TTACHR.

ELSE.

        COMPUTE HRSOFFSICK=-9.

END IF.

VARIABLE LABELS HRSOFFSICK 'Hours lost due to sickness or injury'.

MISSING VALUES HRSOFFSICK (-8,-9).

EXE.
```

The total number of hours lost can be generated as follows (this should be done on weighted data):

```
TABLES

 /FORMAT BLANK MISSING('.')

 /OBSERVATION= HRSOFFSICK

 /GBASE=CASES

 /TABLE=HRSOFFSICK BY (STATISTICS)

 /STATISTICS

 sum( HRSOFFSICK( F7.0 )).
```

And the total usual hours can be generated as follows (again on weighted data):

```
TABLES
```

/FORMAT BLANK MISSING('.')

/OBSERVATION= TTUSHR

/GBASE=CASES

/TABLE=TTUSHR BY (STATISTICS)

/STATISTICS

sum(TTUSHR(F7.0)).

The sum of hours lost divided by the sum of usual hours multiplied by 100 gives the sickness absence rate.

Equation 8 - sickness absence rate

$$\text{sickness absence rate} = \frac{\sum \text{HRSOFFSICK}}{\sum \text{TTUSHR}} \times 100$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

To generate sickness absence rates for different groups these figures can be created in crosstabs, for example, to generate the rates by gender the following tables can be run (again weighted):

TABLES

/FORMAT BLANK MISSING('.')

/OBSERVATION= HRSOFFSICK

/GBASE=CASES

/TABLE=HRSOFFSICK BY SEX > (STATISTICS)

/STATISTICS

sum(HRSOFFSICK(F7.0)).

TABLES

/FORMAT BLANK MISSING('.')

/OBSERVATION= TTUSHR

/GBASE=CASES

/TABLE=TTUSHR BY SEX > (STATISTICS)

```
/STATISTICS

sum( TTUSHR( F7.0 )).
```

Estimating working days lost due to sickness or injury

Once you have estimates for hours lost due to sickness or injury these can be converted in to days lost per year by multiplying by 52 and dividing by 7.5. The estimates generated from HRSOFFSICK refer to an average week therefore to get an estimate for the year they need to me multiplied by 52. This gives total hours lost and if we assume an average full day to be 7 hours and 30 minutes then dividing by 7.5 gives total days lost.

Equation 9 - total days lost

$$\text{total days lost} = \frac{(\sum \text{HRSOFFSICK}) \times 100}{7.5}$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

Estimating average days lost per worker

The total days lost can be converted in to average days lost per worker. Running a frequency on ILODEFR will give an estimate of workers where ILODEFR=1. The calculated total days lost can then be divided by this estimate.

Equation 10 - average days lost per worker

$$\text{average days lost per worker} = \frac{\text{total days lost}}{\sum (\text{ILODEFR} = 1)}$$

The description for this equation is currently unavailable. ONS apologises for any inconvenience caused.

Calculating total days lost by type of sickness or injury

As not all the respondents who worked fewer hours than usual due to sickness or injury are asked the questions about type of illness some adjustment is required to calculate the total days lost by type of sickness or injury. Using the data available for those who worked fewer hours than usual and responded about the type of illness we can generate figures for the number of hours lost by each type of illness. These figures can not be used as they are as they would underestimate the length of sickness absence, instead we can use the proportions here and apply them to the total number of days lost already calculated. For example, if we had estimated that 150 million days had been lost to sickness or injury and 10% of the total hours lost was due to back pain then we would estimate that 10% of 150 million days, 15 million days, were lost due to back pain.

These estimates will be based on the *main* reason for the absence and two variables need to be combined to calculate this. This can be done as follows, creating a variable called TYPSICK:

```
COMPUTE TYPSICK=-9.
DO IF ILLNE11 = -9.
        COMPUTE TYPSICK=ILLFST11.
ELSE.
        COMPUTE TYPSICK=ILLNE11.
END IF.
EXECUTE.
VARIABLE LABELS TYPSICK 'Type of sickness or injury (combined)'.
VALUE LABELS  TYPSICK
  1  'Back pain'
  2  'Neck and upper limb problems'
  3  'Other musculoskeletal problems'
  4  'Stress, depression, anxiety'
  5  ‘Serious mental health problems’
  6  'Minor illnesses'
  7  ‘Respiratory conditions’
  8  'Gastrointestinal problems'
  9  ‘Headaches and migraines’
  10  'Genito-urinary problems'
  11  ‘Heart, blood pressure and circulation problems’
  12  'Eye/ear/nose/mouth/dental problems'
  13  ‘Diabetes’
  14  'Other'
  15  'Prefers not to give details'  .
MISSING VALUES TYPSICK (-8,-9).
```

EXECUTE.

The first three options can be combined in to one category called ‘musculoskeletal problems’.

Calculating sickness incidence rates and levels

The HRSOFFSICK variable can be used to measure sickness incidence. To get a measure of the number of people who had a sickness absence of a specified period or longer. To estimate the number of people who had any time off sick in their reference week the data could be filtered by IF HRSOFFSICK>0. If you defined ‘a day’ as 7 hours and 30 minutes, to estimate the number of people who had at least a day off sick in their reference week the data could be filtered by IF HRSOFFSICK=>7.5.