B/03/038

QUARTERLY HSC/E PSA REVIEW MEETING: 12 JUNE

HSE'S STATISTICAL SOURCES AND THE DEVELOPMENT OF THE WORKPLACE-BASED HEALTH AND SAFETY SURVEY (WHASS)

Background

1. HSE has long-standing and robust systems to prepare and publish statistics on workplace injuries and ill-health caused by work, to:

   - provide knowledge and ensure understanding of where the principal risks arise
   - target action on key areas of risk and hazard
   - measure progress in the reduction of risk.

2. HSE obtains statistical information from a number of sources and has, in conjunction with outside experts and in consultation with the Office of National Statistics, developed methods of dealing with the principal challenges to the collection of accurate statistics in this field, in particular:

   - the under-reporting of workplace accidents (other than fatalities)
   - the difficulty of identifying occupational causation of many ill-health conditions.

3. Data on workplace accidents is principally obtained from notifications to HSE required by specific regulations (RIDDOR) and from questions included in the annual Labour Force Survey (LFS). Data on work-related illness comes from a larger number of sources which, together, provide sufficient knowledge of the scale, nature and overall trends in work-related illness. These sources include:

- the Self-reported Work-related Illness (SWI) household survey (the first two of which were linked to the Labour Force Survey, the most recent integrated in it)
- reports from specialist doctors in the Occupational Disease Intelligence Network (ODIN)
- analysis of death certificates (DCs) for certain types of illness and data from DWP's Industrial Injuries Scheme (IIS).

4. HSE also obtains information on certain dangerous occurrences (reported under the RIDDOR regulations) and publishes data on our own enforcement activity alongside the injury and ill-health data. Since last year the main vehicle for public presentation of these analyses has been an annual "Statistics Highlights" document (available at www.hse.gov.uk/statistics/overall/hssh0102.pdf) with more detailed information in a dedicated section of HSE's website (www.hse.gov.uk/statistics). The website now includes a new Fatal Injury report.

Measuring Progress in Achieving the Targets

5. From 2000, further to the launch of "Revitalising Health and Safety", HSE has developed methods of monitoring progress against the specific targets for reduction in injuries and ill-health announced in that document and subsequently incorporated into our Public Service Agreement. To ensure that the measurement of progress against the targets is on a robust and transparent basis HSE published, in June 2001, a note – "Achieving the Revitalising Health and Safety Targets: Statistical Note on Progress Measurement" (www.hse.gov.uk/statistics/statnote.pdf). This commits HSE to reporting progress annually, with appropriate arrangements for peer review to ensure open-ness and honesty in the methodology used. The annual Statistics Highlights document includes a section on progress in meeting the targets.

6. HSE will, on this basis, continue to publish progress reports on the three PSA indicators, for which targets in terms of percentage reductions have been set:

i. **The injury indicator – to reduce the incidence rates of fatalities and major injuries**: the measure of progress with the injury indicator is the incidence rate per 100 000 workers of fatal and major injuries reported annually under RIDDOR, adjusted to take account of under-reporting using data from the LFS. The relevant baseline figure for 1999/2000 is 263.2 injuries per 100,000 workers. The indicator is available on an annual basis.

ii. **The ill-health indicator - to reduce the incidence rates of new cases of work-related ill health**: for this indicator measurement of progress involves a more complex approach set out in the statistical note described in paragraph 5 above, and in essence involves:

- a baseline incidence rate from the key SWI source of 2200 cases of ill health for every 100 000 people who worked in the last twelve months. This figure was estimated from information obtained from the Self-reported Work-related illness (SWI) household survey for 2001/02
- for the first part of the strategy period (to the 2004/05 midpoint) progress will be assessed annually using a technique based on integration of statistics from different sources. This process is supported by a model for work-related ill-health and draws on integration methodologies used in other areas (such as national accounts and labour accounts); this approach is being quality assured by a method of external peer review to ensure the outputs can be classed as National Statistics.

Information from this source will be available for the first time later this year and will provide, annually, an indicator of change from the baseline

- for longer-term progress measurement, up to the 2009/10 end-point of the target period, HSE proposes to develop new sources to enhance the available data and give more control over their content, timing and frequency. The two specific proposals are for a workplace Health and Safety Survey (WHASS) and a General Practitioner-based reporting scheme for cases where the GP attributes ill-health or injury to work causes.

iii. **The days lost indicator - to reduce the number of working days lost per 100,000 workers from work-related injury and ill health**: two sets of self-reported survey data are combined to provide this measure: days lost due to injury from the LFS and days lost due to ill-health from the SWI. The baseline figure for 2000-2002 (drawn from the LFS 2000/01 and SWI 2001/02) is 40 million days lost per year. It is intended to repeat the relevant questions in these surveys in 2004/05 and 2009/10. However, the two new sources of data described in paragraph 6(ii) above will provide an alternative method of measurement, on an annual basis, in the longer term

The New Data Sources

7. HSE thus has well-established sources of data (in particular RIDDOR, the LFS, the SWI) that it is using to measure overall progress with the targets. Paragraph 6 above describes two new sources of data, the proposed Workplace Health and Safety Survey (WHASS) and the General Practitioner – based reporting scheme for injury or ill-health attributed to work. Without the additional information from these new sources HSE

would still be able to rely on its existing, established sources for data on work-related injury and ill-health to assess annual progress against these two targets, but not the days lost target, which can only be measured on a three year cycle. However, the new sources will produce information to allow annual progress measurement on all 3 targets. In addition they will insure against risks arising from the review of and changes to data sources such as the Labour Force Survey. But perhaps equally importantly - as set out below - they will provide a richer source of data that will provide novel analyses in order to provide better indications of the factors associated with successful control of risks to health and safety at work, thus helping HSE to target its programmes better and to measure the success of these programmes. They will form an important additional data source for evaluation of HSE's priority programmes.

8. A full description of the proposed Workplace Health and Safety Survey (WHASS) is at the Annex.

9. The WHASS would provide a "workplace" dimension to HSE's regular statistical sources and would:

- mean better data on industry sector and workplace size, and the potential to adjust coverage by these factors (eg to sample in depth priority sectors)
- provide new data on exposures, working conditions and health and safety arrangements and management systems, which could be studied in conjunction with injury and health outcome data on the same employees
- provide additional estimates of ill health which are more accurately determined as work related.

10. The GP-based reporting system would fill a major gap in the existing arrangements by providing information on the many cases seen by doctors, but not by occupational physicians or disease specialists, where the patient

is injured or ill due to a condition the doctor is able to attribute to work. As GPs certify sickness absence they can thus provide valuable data on days lost from work-related illness, not available from any other source. There are established networks of GP's and systems of reporting that can be used as the basis of this source of intelligence.

11. Alongside HSE's other information systems, including our programme of focused evaluation studies, the new data sources (GP – based reporting and, especially, a WHASS) will contribute significantly to our understanding of the levers we can use to influence health and safety performance in the changing workplace and thus assist in both the design and evaluation of future programmes. They will thus build a more complete evidence base to help HSE achieve its PSA targets. If they are to provide data for 2004/05, both need to move to a call for tenders as a matter of urgency.

12. Both of these sources will involve additional costs, including (in the case of WHASS) costs to employers and workers of assisting with the survey. The financial costs to HSE are likely to be £1.4m over three years for the first WHASS and a recurring cost of £1.2m annually if the survey is repeated annually. There will in addition be a recurring cost of £60k per annum for the GP-based reporting system. HSE will not, in the short to medium term, be able to abandon any existing data collection method in favour of the new sources, as it will be necessary to "calibrate" the new sources alongside existing sources to ensure a run of comparable data. Thus in the short term they will need to proceed alongside each other. However, HSE is reviewing the RIDDOR scheme and will review other sources of data in the light of experience with the new data sources. It is not possible at this point to say whether that will lead to financial savings in the long term. RIDDOR is, of course, meeting needs other than the provision of statistics, eg to guide inspection activity.

What can be done in the interim ?

13. In summary, the future path for evaluation of progress against the targets is:

i. the injury indicator: continuing use of existing sources to produce annual data against the baseline

ii. the ill-health indicator: the SWI baseline figure can be updated in 2005 using 2004/05 LFS/SWI data, and can be updated every three years thereafter (as the LFS only includes the relevant questions every three years). To deal with the problem of the three-year periodicity of the data, HSE has developed the integration methodology that will produce annual trend data. In the longer term WHASS and the GP-based reporting scheme will produce an alternative annual measure that can be calibrated against the baseline

iii. the days lost indicator: the baseline figure will be updated in 2005 using 2004/05 LFS/SWI data and thereafter every three years. In the longer term WHASS and the GP-based reporting scheme will produce an alternative annual measure that can be calibrated against the baseline, but this will not produce trend data till 2006.

14. HSE has considered what can be done to fill the gap before trend information from the new data sources is available, in particular for the days lost indicator (as there will be annual data from some source for the other two indicators). The following possibilities have been identified:

i. to persuade ONS to include the question sets that enable HSE to measure cases of work-related ill-health and days lost from occupational injury and ill-health in the 03/04 and 05/06 LFS (they will in any case be in the 04/05 LFS). This route is being explored

ii. to use such surrogate measures as are available for days lost from work-related injury and ill-health, recognising their limitations and that they are imperfect measures. The most obvious measure would be to simply use days lost

from work due to all causes, which is measured in every LFS, assuming the proportion that is attributable to occupation injury/ill-health to be constant until this can next be tested. We would welcome reaction to this proposal

iii. to mount an experimental survey to see if it is possible to collect from a sample of employers and/or employees data on absence from work related to occupational accidents/ill-health on a regular basis. The purpose of this would be to measure the trend in the "days lost" figure, to show if we are moving towards the target. Its weakness would be that while providing some interim trend data it would be entirely self-standing and unconnected to any other data source, including the baselines. It would not provide the richness of data WHASS would provide so could not be considered to be in any way a substitute. While this approach appears less appealing than (ii) above and would involve financial cost, reaction to this option is also sought.

Action

15. The Minister is invited to:

i. note the way HSE develops and use statistical sources, and proposals for their improvement

ii. consider the options in paragraph 14 to fill a short-term gap in the annual measurement of the "days lost" indicator

iii. consider what financial assistance the Department can give in respect of the WHASS, which otherwise will proceed on a more limited and less satisfactory basis, making it less likely to provide the robust intelligence HSE and the Department require; and will not be repeated as frequently as the Department and HSE would want.

COSAS, HSE

May 2003

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ANNEX

THE WORKPLACE-BASED HEALTH AND SAFETY SURVEY (WHASS)

1. The WHASS will be a two-stage survey focussed on a sample of workplaces. In each workplace interviews will be conducted with:

   i. the employer (probably the senior manager responsible for health and safety in that workplace)
   ii. a sample of employees.

2. Consideration is being given to whether we need to make special arrangements for sampling in the construction industry, and for home workers.

3. The main sampling frame for workplaces will be the Interdepartmental Business Register (IDBR).

4. For initial planning purposes, we assume a sample of 3000 workplaces (strictly speaking IDBR "local units"), and 30,000 employees.

5. The employer questionnaire will cover:

   - industry (SIC)
   - workplace size (number of employees – broken down by sex and broad occupation: perhaps single digit SOC, minimum manual/non-manual
   - structure (independent business or local unit of a larger organisation)
   - health and safety (hazards present, injuries and ill health cases, employer's knowledge, approach and policies, unionisation and workers consultation etc.).

6. This may be administered in two stages, a preliminary fact-finding data sheet completed and returned by post, followed up with an interview (telephone or face-to-

face). Consideration is being given to whether some questionnaire modules should be industry-specific.

7. Employee questionnaires will cover:

- age, sex, occupation (SOC)
- self-reported injury or illness in the last year (detailed questions on the nature of injury/illness, causation, days lost etc).

8. In addition to these core questions, there will be questions covering working conditions (risk factors for physical hazard, musculoskeletal conditions, stress, violence, noise and vibration), and health and safety attitudes, awareness and behaviour. The potential volume of all questions of interest is large. Some efficiency may be gained by packaging these questions into two or three separate modules of related questions and administering these modules (always together with the core questions) to half (or one-third) of the employee sample in each workplace. The reasoning for this is that self-reported injury or illness will be relatively rare events (< 10 percent of respondents). The maximum possible sample is therefore required to get reasonably stable estimates. In contrast, all respondents will be in a position to provide information on such issues as the hazards present at the workplace and on attitudes, awareness and behaviours, so smaller sample sizes will give adequate statistical precision.

9. If agreement to proceed is confirmed the broad timetable is:

i.	Consult on survey scope and tendering	by 15-Jun*
ii.	Develop draft survey materials, consulting within HSE	by 15-June*
iii.	Publish agreed tender	by 15-June*
iv.	Identify possible contractors	by 15-June*
v.	Choose contractors	by 30-Sept
vi.	Develop survey plan, sampling	01-Oct to 31-Dec

	scheme and questionnaires	
viii.	Piloting	Jan 04 to Feb-04
ix.	Assessing pilot to modify survey plan as necessary. Produce final survey materials.	Mar-04 to May 04
xi	Fieldwork	Jun-04 to Dec-04

(* - action underway with check point at 15 June)

10. The fastest route to publication of headline results following completion of the fieldwork will be explored with the contractor.

11. It is envisaged that, depending on experience with the survey, it will be repeated annually, though consideration is still being given to whether it would be wise to follow up the 2004 survey with a repeat survey in 2005 at a point when the full results from evaluation and analysis of the implications of the first survey are not available.

12. The financial costs of the first survey to HSE, excluding internal staff time, are expected to be:

2003 – 04 £200 k
2004 – 05 £1m
2005 – 06 £200k

15. The principal outputs of the survey will be information on injury and ill-health with more extensive breakdowns than currently available, going beyond industry, occupation, age, sex, nature of illness/injury, cause etc. For example, it would be possible to analyse information by such factors as management arrangements (eg, whether there is a full-time safety officer), worker consultation (eg whether there are trade union safety representatives) and length of employment (eg. to test the thesis that many construction accidents occur to workers in their first few days on site). The survey structure would make it possible to design specific sub-projects to look in detail at specific issues. The data can be analysed for a number

of purposes and will provide better information on the impact on final accident and ill-health outcomes of HSE programmes, to facilitate better targeting of effort in a way that will make it more likely the PSA targets will be achieved.

14. The next step is immediate action to develop the full scope of the survey and identify potential contractors.

COSAS, HSE
May 2003

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