New Methodologies for Collecting Occupational Injury Data

Karen Taswell
Bureau of Statistics
International Labour Office
4, route des Morillons
CH-1211 Geneva 22, Switzerland
taswell@ilo.org

Peter Wingfield Digby
Statistical consultant
P.O. Box 308 Chiang Mai
Chiang Mai 50000, Thailand
pwdigby@loxinfo.co.th

1. The current state of data on occupational injuries

Most countries compile statistics on occupational injuries. In general these come from the administrative reports of injuries submitted to agencies responsible for compensation, labour inspection or occupational safety and health. About 110 countries regularly send their data to the ILO for publication in its *Yearbook of Labour Statistics*. For various reasons, these administrative sources suffer from a number of drawbacks, particularly in relation to coverage and under-reporting. The proportion of employed people covered by the statistics generally ranges between 30 and 70 per cent, but can fall as low as 10 percent.

Recognizing the weakness of the national statistics, the ILO has taken a series of initiatives aimed at improving their quality, including the establishment of an ILO Code of Practice on the recording and notification of occupational accidents and occupational diseases, and new international statistical standards in the form of the Resolution concerning statistics on occupational injuries adopted by the Sixteenth International Conference of Labour Statisticians (ICLS) in 1998 (see *www.ilo.org/public/english/bureau/stat/*). Both these instruments promote statistics with universal coverage, with the Code of Practice concentrating on notification through administrative procedures, and the 16th ICLS resolution providing for the use of a variety of sources. Another effort demonstrates the severity of the problem worldwide: the ILO has made global estimates of injuries due to occupational accidents, which show that over 300,000 workers die each year because of accidents in the workplace, and about eight workers are injured seriously enough each second to require time off work, equivalent to about 250 million occupational accidents each year.

In 1998, the ILO's Bureau of Statistics, with assistance from an outside consultant, began collaboration with the Infocus Programme on SafeWork on a project to develop easy-to-apply methodologies for collecting statistics on occupational injuries, based on the new statistical guidelines. This paper presents some background information about the project, along with some preliminary findings.

2. Developing new instruments

The objective of the project is to determine the feasibility of collecting reliable data from sources other than the traditional notification systems, in particular modules of questions that could be attached to existing surveys of households and establishments, the two principal sources of information on this topic. A precursor to the project was a test carried out in Pakistan in 1997-98, when a small module of questions on occupational injuries and diseases was attached to the regular labour force survey questionnaire. Despite limited resources and short preparation time, the test gave interesting results for this approach: for example, while official statistics indicate that only 86 cases of time-loss injury in mining and quarrying and 173 cases in manufacturing were reported to

the Labour Inspectorate in 1996, the test suggested that the true number of accidents in these two sectors was likely to have been about 16,000 and 210,000 respectively.

Data collection for the project has been carried out by national statistical agencies in Jamaica, Nigeria and the Philippines, with the ILO providing technical and financial assistance. At the time of writing, project results have been received only from the Philippines National Statistics Office.

The project designed a module of questions, along with detailed instructions, to be attached to a ***regular labour force survey***, to collect basic information about occupational accidents and injuries incurred during the previous 12 months. This approach has a number of *advantages*, particularly in terms of coverage: it can reach all workers of all types, in all economic activities and sectors, i.e. not just paid employees in formal sector establishments who are the traditional population covered by national statistics in this field, but also informal sector workers, the self-employed, workers in agriculture, and even young workers. As a consequence, more cases of occupational injury should be identified, including some that were not reported through the official notification systems.

In addition, labour force characteristics collected through a host labour force survey can be linked to the information on occupational accidents and injuries. Thus, it is possible to obtain data about the person injured that might not be available in accident reports or employer's records.

There are also *disadvantages*, perhaps the most important being that deaths due to occupational accidents may not be adequately picked up. It is also a relatively expensive approach, particularly when being established, and the sample size must be large enough to detect the relatively rare occurrences of occupational injuries. It requires very careful questionnaire design and preparation of instructions for enumerators. The correct training of enumerators is essential. Experience in the Philippines showed that, despite considerable efforts in training, some enumerators were nevertheless confused about the different concepts involved. Other difficulties faced included the need for frequent callbacks since even proxy respondents were often absent, and the 12-month reference period meant frequent memory lapses so that questionnaire completion was slow.

The ILO module of questions was attached to the regular labour force survey, to which two other large riders were also attached. Consequently, household interviews were very long, which led to complaints of boredom and frequent interviews.

A module of questions and detailed instructions to be attached to the questionnaire used in ***regular surveys of establishments*** covering employment and earnings were also developed. The obvious *advantages* of this approach are the relatively low additional cost of data collection and the fact that occupational injuries occur in the workplace, therefore it might be assumed that information about them should be simple to obtain, including information on deaths.

A major *disadvantage* is that establishments do not always keep records of occupational injuries, even those for which there is normally a legal obligation to notify a labour inspectorate or health and safety agency. Where records are kept, they may be restricted to those required by law or for compensation purposes, for which the concept of occupational injury or accident is often defined more narrowly than in the international statistical guidelines. Experience in the Philippines showed that the 12-month reference period was also a problem, especially where records were not kept. In addition, establishment surveys generally only cover establishments above a certain size (20 or more workers in the case of the Philippines) and can only collect information concerning paid employees. Labour force characteristics of victims may also not be available.

3. Future plans

On completion of the project in the other two participating countries, the ILO will analyse the survey experiences, the problems encountered, the quality of data obtained and the costs involved. The final objective is to modify the draft instruments that were tested in the field, taking into account the lessons learned and the views of those involved and of other experts in this area. The instruments will then be incorporated in a technical manual, along with guidance for their use.

RESUME

Ce papier décrit des nouvelles méthodologies établies actuellement part le BIT en vue de la collecte des données rélatives aux lésions professionnelles, au moyen de modules de questions annexés aux enquêtes de la force de la main-d'oeuvre et celles auprès des établissements. Des enquêtes pilotes ont eu lieu au Jamaï que, au Nigéria et aux hilippines.