Occupation

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Identifying and Definitional Attributes

Data Dictionary: NHDD

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Definition: The current occupation of the person is the current job or duties which the person is principally engaged in. This occupation may be in the context of:
- a person as a client or patient, or
- a person as a service provider.

This concept relates specifically to current occupation. A related concept, ie. of lifetime occupation, is of relevance to epidemiological analysis.

Context:

Relational and Representational Attributes

Datatype:

Guide For Use: Occupation is currently recorded on hospital morbidity forms or hospital admission forms in all States and Territories except Victoria. It is coded only in Western Australia and Tasmania.

Hall et al. (1986) recommended to the National Committee on Health and Vital Statistics that occupation be collected in both mortality and hospital morbidity data and that there should be a pilot study of the validity and reliability of occupational coding. They noted that occupation is recognised as an important factor in studying disease (Mathews 1983). Principal occupation during lifetime for males is recorded on death certificates. It has been common practice not to record occupation, but only marital status, of females.

However, in the Census, current occupation is recorded. Hence, the Census and mortality registers use different operational definitions of occupation. This makes it impossible to calculate proportional mortality rates by occupation groups by combining

mortality and Census data.

The National Committee on Health and Vital Statistics (1979) asked all government health authorities to provide comments on the inclusion of occupation in hospital morbidity collections. The consensus at that time was that, while occupational data would be a useful addition to the database and was collected by some authorities, it was recognised that a number of difficulties existed. For example, a number of older patients would have their occupation recorded as retired and, in the case of occupation-related illness, the current occupation may differ from the occupation responsible for the illness.

The National Occupational Health and Safety Commission has developed a minimum data set for the national monitoring of workplace injuries and diseases of rapid onset (Worksafe Australia 1987). Roder and Holman (1987) argued that complementary data collection mechanisms are needed to ensure that Australia has comprehensive occupational health statistics. The importance of occupation-related ill health has been underlined by the Health Targets and Implementation Committee of the Australian Health Ministers' Advisory Council (1988). Roder and Holman (1987) noted that 'where the contribution of occupational factors is not self-evident, and there are delays of years or even decades between occupational exposure and manifestation of disease, it will not be possible to rely upon workplace reporting'. Rather, data will have to come from those places where diseases are diagnosed and deaths are notified.

Workers compensation data will not be suitable for the surveillance and discovery of diseases not yet known to be work-related. Moreover, the validity of these data for epidemiological surveillance will be suspect in those areas subject to changes in compensation policy.

'Sometimes there are circumstances where workers are fearful of special health risks in their workplaces. Routine data systems can be useful to assess whether prevailing mortality and morbidity rates offer justification for these concerns'.

In such applications, data would be used at a superficial level to ensure that there are sufficient grounds for committing resources to more in-depth studies. Waddell and Holman (1985) have shown the potential value of collecting occupational data in hospital morbidity collections in a preliminary analysis of

Western Australian data.

Roder and Holman (1987) made the following recommendations in relation to hospital morbidity collections:
- hospital admission clerks record industry and occupation on discharge forms for all patients aged 15 years and over, as pertaining to the main lifetime job and, where different, the present job;
- the National Occupational Health and Safety Commission prepare guideline manuals to assist hospital admission clerks to record occupational information;
- pilot programs precede the introduction of these initiatives to ensure that the methodology proposed is practical. Thereafter, recording should be introduced incrementally by regions of Australia, with a progressive resolution of any unexpected difficulties;
- occupation be coded using the Australia and New Zealand Standard Industrial Classification and Australian Standard Classification of Occupations, as for Census data.

In relation to the first recommendation, it was noted that a Victorian pilot study (Working Party on Feasibility of Collecting Occupational Data Relevant to Cancer, 1983) had shown that hospital admission clerks can obtain information of a reasonable accuracy on patients' present jobs and industries, and their main lifetime jobs and industries. The misclassification of occupational information obtained in routine collections such as hospital morbidity collections is of the order of 30 per cent (Roder and Holman 1987). This is considered sufficient for initial analyses of trends. Validation checks of USA death registration data have indicated that misclassifications tend to occur at random, thereby effecting an attenuation of correlations with occupational factors, but not a systematic bias (Schumacher 1986). Perhaps more important than the question of accuracy is the tendency in Australia and many other countries to:
- record only the last occupation, not the longest lifetime occupation, as would be more appropriate for long-latency diseases;
- record only retired or pensioner for those age groups contributing most to death statistics;
- provide too vague a description of occupation for specific classification;
- give too little attention to the occupations of women, a legacy from the days when women were seldom part of the paid work force;

- provide no information on industry.

This latter deficiency is important because jobs in individual occupation categories are often heterogeneous across industries. Combined industry-occupation codes provide a much greater specificity and the opportunity to infer exposures by applying job exposure matrices (Roder 1986).

Roder and Holman recommended a style of questioning similar to that used by the Australian Bureau of Census and Statistics in censuses, and to that advocated for the minimum data set for workers compensation statistics. The following aspects should be included:
- the name of the occupation;
- the tasks and duties performed by the decedent;
- the trading name of the employer and, where feasible, the employer's main address;
- the kind of business or service carried out by that business.

The 1991 Australian Census asked the following questions relating to occupation and industry:

29. In the main job held LAST WEEK, what was the person's occupation?
- Give full title.
- For example, Civil Engineer, Draftsman, Accounts Clerk, Fast Foods Cook, 1st Class Welder, Extruding Machine Operator, Coal Miner.
- Armed Service personnel state rank as well as occupation.

30. What are the main tasks or duties that the person usually performs in that occupation?
- Describe as fully as possible.
- For example, preparing drawings for dam construction, recording and paying accounts, cooking hamburgers and chips, welding of high pressure steam pipes, operating plastic extruding machine, operating continuous mining machine.

Occupation is coded using Australian Standard Classification of Occupations (ABS 1986a). This classification is based on a type of work criterion with an emphasis on skill level (length and type of training) and skill specialisation (for example, subject matter knowledge). The structure of the Australian Standard Classification of Occupations has four levels:

8	Major groups	1-digit codes

52 Minor groups 2-digit codes
282 Unit groups 4-digit codes
1079 Occupations 6-digit codes

For example:

Level	Code	Title
Major group	2	Professionals
Minor group	28	Artists and related professionals
Unit group	2805	Designers and illustrators
Occupation	2805-13	Graphic designer

A Computer Assisted Coding system is available from the Australian Bureau of Statistics to assist in coding occupational data to Australian Standard Classification of Occupations codes.

The Commonwealth Department of Community Services and Health informed the working party that it supported the collection of occupation data based on a 2-digit Australian Standard Classification of Occupations code.

Five of the eight morbidity systems currently collect current occupation but, apart from Western Australia, do not code it. The Morbidity Working Party examined the proposal to include current occupation in the National Minimum Data Set - Institutional Health Care and noted the following:
- Most States felt that it was difficult to code, had low level of accuracy and required substantial resources. The Commonwealth Department of Community Services and Health argued that its accuracy was comparable to that of collected items such as principal diagnosis.
- The ABS noted that the limitations of collecting health data in sample surveys were much greater than those of collecting occupational data in administrative collections.
- New South Wales was sympathetic to the concept of collecting socioeconomic data but felt that the resources needed were not available. Several States expressed interest in collecting socioeconomic data if funded by the Commonwealth.
- Victoria has done a study which suggested it might be of limited use at the hospital level, but this would require asking several questions.
- South Australia uses a 2-digit Australian Standard Classification of Occupations code in psychiatric hospitals.
- Western Australia has collected it for years but regards it as neither reliable nor useful (big gaps in data).

The Morbidity Working Party decided not to recommend that occupation be included in the National Minimum Data Set - Institutional Health Care at its first meeting. However, following the request of the Department of Community Services and Health to reconsider this item for inclusion as it is already collected in a majority of systems, the working party subsequently agreed in principle to endorse the inclusion of occupation in the National Minimum Data Set - Institutional Health Care. It also recommended that the collection of occupational data for in-patients of acute hospitals be tested in trials, using in-hospital surveys (linked to morbidity data) for six- or twelve-month periods in a selected sample of hospitals. Such trials should evaluate the costs and benefits of sampling options versus routine collection for all in-patients.

With regard to psychiatric hospitals, all States collect occupation except New South Wales. The Psychiatric Working Party felt that, given the emphasis on socioeconomic differentials in health, occupation data would be worthwhile collecting and recommended that occupation be included in the National Minimum Data Set - Institutional Health Care for psychiatric hospitals.

In Victoria, lifetime occupation is currently collected on admission to State psychiatric hospitals and upon registration with outpatient and other community services. Codes currently used are a modification of ABS standard codes but revision of the outpatient collection system is now under way, and Victoria will adopt the Australian Standard Classification of Occupations framework (2-digit codes). Revision of the in-patient system will soon follow. The justification for this item is based on the important role that vocational rehabilitation plays in improving outcomes for people with psychiatric disability. Data on the lifetime occupation of clients of psychiatric services assist in the identification of rehabilitation needs and the development of service options. The collection of such data is generally accepted by providers and clients.

Principal lifetime occupation is defined as the occupation the patient has engaged in that accounts for the greatest number of working years.

Collection of lifetime occupation in routine morbidity data collections is likely to be more difficult than current occupation. This should also be evaluated as part of the trial recommended

above, and a final decision on which definition to use should then follow.

Related metadata: relates to the data element Profession labour force status of health professional version 1
relates to the data element Occupation of person version 1

Administrative Attributes

Source Document:
Source Organisation:

Comments: There is considerable user demand for data on occupation-related injury and illness, including from Worksafe Australia and from industry, where unnecessary production costs are known in some areas and suspected to be related to others in work-related illness, injury and disability. The report Health for all Australians also identifies occupational related ill health as a focus for health promotion and illness prevention activities.

Lack of morbidity data is severely hampering the development of preventive interventions in this area. User demand can be expected to grow.

There is an increasing commitment by governments to reducing inequalities in health status between population subgroups. There is already some evidence of higher incidence of morbidity and mortality in particular occupations, but greater knowledge in this area is required.

The Australian Health Ministers' Advisory Council Health Targets and Implementation Committee (1988) identified socioeconomic status as the most important factor explaining health differentials in the Australian population. The committee recommended that national health statistics routinely identify the various groups of concern. This requires routine recording in all collections of indicators of socioeconomic status.

Data Element Links

Information Model Entities linked to this Data Element

NHIM Labour characteristic

NHIM Party role

Data Agreements which include this Data Element