Correspondence

Calculating expected numbers of deaths in cohort studies

SIR,—I am writing in relation to the article by Chovil (1987;44:699–701) which essentially proposes that in occupational cohort studies: “the person-years methodology should be replaced by that of the prospective model.” The latter was described and advocated in *Statistics in Medicine*¹ a few years ago, and was followed by substantive correspondence published together with the authors’ replies.^{2,3} Interested readers would be advised to refer to these letters where good reasons are given for preferring the person-years technique to the suggested prospective method for determining whether the relative mortality experience of a study group differs from that in some reference population. The proposed replacement would, in fact, be inappropriate.

The same correspondence effectively unearths an unfortunate confusion with the terminology “expected deaths” having a different meaning in the two methods. Under the person-years approach the expected number of deaths in the study group is calculated using the reference population death rates applied to the observed duration of follow up or survival in the study group. Under the prospective model the expected number of deaths is calculated rather differently. After such long usage of the term expected deaths in the person-years context it would probably be inappropriate to change it now—even though possibly desirable to do so.

M J GARDNER

MRC Environmental Epidemiology Unit,
Southampton General Hospital,
Southampton SO9 4XY.

References

- 1 Hartz AJ, Giefer EE, Hoffman RG. A comparison of two methods for calculating expected mortality. *Statistics in Medicine* 1983;2:301–6.
- 2 Smith PG. A comparison of two methods for calculating expected mortality. *Statistics in Medicine* 1984;3:301–2.
- 3 Steenland K, Beaumont J, Schulte P, et al. A comparison of two methods for calculating expected mortality. *Statistics in Medicine* 1985;4:105–9.

Notices

Sixth International Cadmium Conference, Paris, 19–21 April 1989

The conference will provide a comprehensive update on cadmium questions and issues of concern. Keynote reviews will cover the current world cadmium scene (production, consumption, uses, and economics) and the technical, environmental, and health aspects of cadmium. The main sessions will deal with: new markets and technologies: the essential uses of cadmium; regulating cadmium: proposals, experiences, and effects for cadmium workers, the environment, and cadmium products; reducing cadmium levels in the environment: problems and practicalities; recycling and waste recovery; health effects: cadmium and the kidney; and cadmium and cancer: assessing current evidence. For more information write to: Mr S A Hiscock, Cadmium Association, 34 Berkeley Square, London W1X 6AJ.

7th International Conference on Heavy Metals in the Environment, Geneva, 12–15 September 1989

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