Are sickness absence frequencies in the study of EU countries underestimates?

The paper by Gimeno et al provides a comparison of sickness absence between 15 European Union (EU) countries. According to this study, 14.5% of employees were absent at least one day in the past 12 months by an accident at work, by health problems caused by the work, or by other health problems. For Finnish employees, for instance, this percentage was 24%, the highest among the 15 EU countries; in the UK it was 11.7%.

These figures are much lower than those reported previously. A population-based survey of Finnish employed workforce aged 25–64 carried out in 2000 found that 45% of employees took sickness absence during the past six months. Correspondingly, a population-based survey of 5400 British adults aged 15–64 reported that 30% of working adults took time off work in the past year because of their health or feelings.

Three large cohort studies from Finland and the UK have used absence records instead of self-reports. In 2000, 58% of 77 850 municipal employees participating in the 10 town study took at least one sickness absence day; the same percentage was obtained in the Hospital Personnel Study for 30 864 hospital workers aged 15–65. In the Whitehall II study of over 10 000 British civil servants aged 35–55, 57% of men and 76% of women recorded sick leave 12 months prior to the study entry in 1985–88.

Based on these national studies, we suspect that the figures presented by Gimeno et al are underestimates of actual absence frequency in the EU countries. Data on sickness absence were derived from face-to-face interviews that were carried out at the participant’s home, a rarely applied assessment strategy for sickness absence. It is possible that the wording of the question led people to report sickness absence only when they believed it to be work related. The authors note that low response rates in some countries and healthy worker effect are potential sources of bias.

We feel that the data presented by Gimeno et al are far too preliminary to be the basis of any policy at this stage or of conclusions regarding differences in absence frequency between nations. We fully agree with their recommendation for further research on sickness absence in EU countries.

M Kivimäki, J Vahtera, J Head, J E Ferrie
Department of Psychology, University of Helsinki, PO Box 9, Helsinki FIN-00014, Finland; mika.kivimaki@helsinki.fi
doi: 10.1136/oem.2004.018663

References


Authors’ reply

In response to our study, Kivimäki et al suggested that reported sickness absence frequencies were underestimates of the total sickness absence burden in European Union (EU) member countries. This concern about the veracity of these estimates led Kivimäki et al to caution policy makers to not use this data to inform policy. While we agree that more research is needed to establish potential biases associated with different approaches to ascertain accurate sickness absence data, we consider the European Survey on Working Conditions (ESWC) to be useful to inform the cross-national policy debate. Country specific studies contribute knowledge to the evidence base, but cross-national studies such as ours help to provide a stronger basis on which to make cross-national inferences. Furthermore, cross-national studies become more relevant as data accumulate and the data collection quality improves. We hope that Kivimäki and colleagues are not suggesting the ESWC be discontinued.

We consider the studies by Kivimäki et al to be some of the most relevant epidemiological studies of sickness absence predictors. Although informative, these studies raise several issues for future cross-national comparisons. First, epidemiological cohorts in Finland and the United Kingdom represent very homogeneous and specific working populations (that is, municipal employees, hospital workers, and civil servants) with unknown generalisability to the national representative surveys studied in our paper or the ones referenced by Kivimäki and colleagues.

Second, a fundamental advantage of national workforce surveys is the ability to capture all sickness absence and these data are very conditioned by the country’s social security system criteria for sickness absence, which complicates between-countries comparisons. Therefore, whether registries are the gold standard in sickness absence studies remains a point of debate yet to be closed.

In addition, Kivimäki et al compared our results to two survey based studies from Finland and Britain, but differences in sample selection and questionnaire design between these studies may limit comparisons. Our study included people aged 15 years and older who had any paid job during the reference week, or who had a job but were temporarily absent. The recall period for sickness absence was 12 months. The Finnish study was based on employees aged 25–64 using a six month recall period for sickness absence. The British survey investigated the psychiatric morbidity prevalence among the British adult population. This study sampled workers aged 16–64 years and excluded workers with a psychosis diagnosis. Workers who were currently working or had been working in the last year were asked to report absence days due to the work related causes. For these reasons, caution is needed if a direct comparison between these three studies is intended.

Finally, we agree with Kivimäki et al that potential bias in the ESWC could be present (see pp. 868–9 in our article). However, we would argue that the best sources of data to inform policy are derived from systematic efforts to collect sickness absence data in a clear and consistent fashion from a representative sample of the labour force within each country. We consider the evidence presented by Kivimäki et al to support our argument of the difficulty in establishing between-country comparisons due to the fragmented and insufficient sickness absence data available at the European Union level.

We consider our results useful. Although the results are preliminary and may be subjected to scientific scrutiny, the comparative findings may provoke researchers to develop standards for sickness absence studies to facilitate between-country comparisons. In addition, we hope the observed differences will promote further investigation into root causes of between-country differences, especially between northern and southern EU members, as well as within-country gender differences. We certainly welcome cross-national collaborative efforts among the EU sickness absence researches to address all these issues.

D Gimeno, B C Amick III, F G Benavides, J Benach
The University of Texas School of Public Health, Health Science Center at Houston, 1200 Herman Pressler Street, Houston TX 77225, USA; dgimeno1@hsph.uchmc.edu
doi: 10.1136/oem.2004.018655

www.occenvmed.com
asbestos problem has been largely solved.

the earlier decline in use of amphiboles, the
concerned with public health policy. It would
be read with great circumspection by those
utes onwards, fibres are seen to interact with
bronchial epithelial metaplasia and malig-
vasive experimental evidence that all species
will be aware of the extensive and persua-

mesothelioma incidence

References
1 Weill H, Hughes JM, Chung AAM. Changing trends in
US mesothelioma incidence. Occup Environ Med

Analyses of hazardous substances in biological materials. Volume 9
Special issues: Marker of susceptibility

This is an unusual edition in a series of books devoted to methods of estimation of chemi-
cal substances in workplace atmospheres. Protocols for genotyping CYP P450 1A1, 1B1, 2E1, N-
acetyltransferase 2, glutathione S-transferase T1, M1 and P1, sulphotransferase 1A1 and 1A2, and
phenotyping of glucose-6-phosphate dehydrogenase, N-acetyltransfer-
ase 1A2, and phenotyping of glucose-6-
GPTase, N-acetyltransferase 2, glutathione S-transferase
T1, M1 and P1, sulphotransferase 1A1 and
phenotyping of glucose-6-phosphate dehydrogenase, N-acetyltransfer-
ase 1A2, and phenotyping of glucose-6-phosphate dehydrogenase, N-acetyltransfer-
ase 2, and glutathione S-transferase T1 are presented. Each protocol is clearly set out
with a discussion of underlying principles, quality control and sources of error. A short
section on real time PCR genotyping for a number of polymorphisms is also included.
The authors quite sensibly took the decision to repeat essential basins in each protocol (for
example, preparation of gels for chromatography) so that each protocol can be read
independently. It is inevitable that the methods proposed will become dated but
that should not detract from the current value of this edition to bench scientists.
A number of the preliminary chapters will be of
value to students. Of these I found the
section on polymerase chain reaction and
background information on polymorphisms which preceded each protocol easy to follow
and instructive. The editors do note that the
book may contain minor typographical errors.
Readers should note the lack of reference
numbers in the bibliography for N-acetyl-
transferase 2 genotyping (although these are
listed in numerical order) and the incorrect
correction for the Tris buffer concentration
in the CYP 1A1 genotyping protocol (p. 74).
The book is not intended to be a text on
molecular epidemiology and the short chapter
on evaluation of susceptibility is at most a
very basic introduction. Overall, well worth
buying by academic libraries for use by
researchers and students.

J Batterhill