

Public health implications

- The relation between the socioeconomic status of an area and the number of psychiatric admissions is well established
- Unemployment rates are a useful marker for socioeconomic deprivation
- This study found a sevenfold variation between small areas in the rates of people under 65 admitted to psychiatric hospitals
- There was a very powerful correlation between the psychiatric admission ratios in those aged under 65 and unemployment rates, explaining over 90% of this variation
- This should be considered in the process of allocating resources to areas otherwise people with serious mental illness could be considerably disadvantaged

health. Some longitudinal studies have identified the development of depression and other psychiatric disorders after substantial periods of unemployment.⁹⁻¹¹

In community surveys in America, however, Kessler *et al* showed that lack of income is the component of low socioeconomic status that most strongly influences exposure to negative events.¹² Their findings also suggest that the extent to which a person reacts negatively to these events is influenced by education and occupation. Furthermore, unemployment is also more common in certain groups within society—for example, unmarried, unskilled, or semiskilled people and those who earn comparatively low wages when employed.¹³

Whether the relation we observed was due to increased admissions among unemployed people or to other reasons is unclear. However, we identified no significant changes in the numbers of admissions or lengths of stay during the two years we studied, despite a doubling of the unemployment rates during the period.

The use of unemployment rates has been proposed as a simple up to date marker for deprivation.⁵ The explanatory power we found was remarkably similar to that derived from a complex blend of census variables reflecting deprivation⁸ and to that between unemployment and the rate of admission of new long stay

patients.¹⁴ We therefore suggest that this study confirms the view that the unemployment rate in an area reflects its socioeconomic status, which has a profound effect on its need for inpatient psychiatric care.

Some account is already taken of deprivation in resource allocation, with the underprivileged area score being used to allocate enhanced capitation fees to general practitioners working in deprived areas. Within Bristol and District Health Authority the range of the variation between sectors in psychiatric admissions was far greater than in any other major specialty. If, as seems likely, this variation reflects genuine differences in morbidity between areas then clearly this should be considered separately in allocation of resources. This is a particularly important issue now that fundholders in general practice can purchase some elements of local mental health services. Because of their magnitude, unless such variations are specifically taken into account patients living in areas of poor socioeconomic status could be severely disadvantaged.

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(Accepted 1 October 1993)

Screening migrants at risk of tuberculosis

R M Hardie, J M Watson

Public Health Laboratory Service, Communicable Disease Surveillance Centre, London NW9 5EQ
R M Hardie, registrar in public health medicine
J M Watson, consultant epidemiologist

Correspondence to: Dr Hardie.

BMJ 1993;307:1539-40

Nearly half the notifications of tuberculosis in England and Wales occur in people born abroad. In those born in countries with a high prevalence of tuberculosis notification rates are highest in the five years after entry into the United Kingdom.¹ Notification rates declined in all ethnic groups in England and Wales up to the mid-1980s, but since then the decline in annual notifications has stopped and in some years the number of notifications has actually increased.^{1,2}

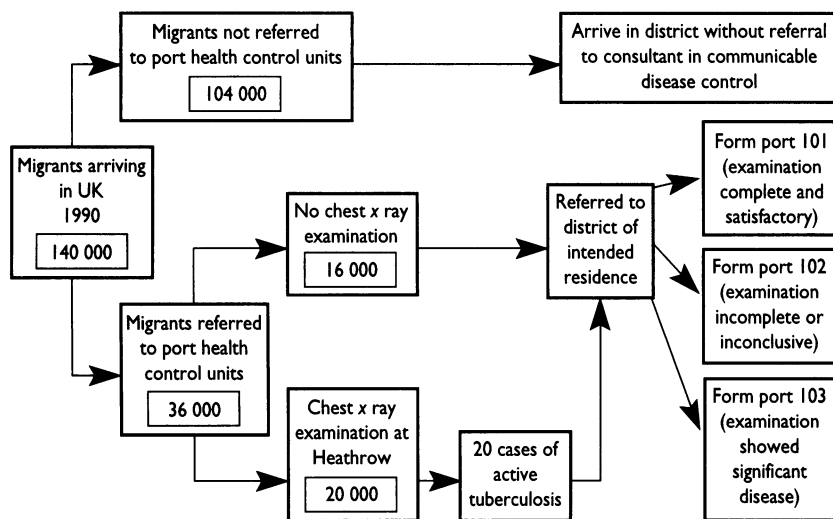
Newly arrived migrants who might benefit from screening for tuberculosis should be referred to health control units at their port of arrival; the control unit should then notify the migrant's destination district so that follow up can be arranged. But only a third of migrants are referred to port health control units (figure), and, of those referred, many are lost to follow up at district level.³ Districts are recommended to use additional methods to identify migrants.⁴ We performed a survey to determine the methods used by

district health authorities to identify and screen newly arrived migrants for tuberculosis.

Methods and results

A questionnaire was sent to consultants in communicable disease control in 50 randomly selected districts in England and Wales in February 1992 asking whether they had written policies for screening migrants for tuberculosis, the methods they used to identify migrants, and how they screened them. Forty five districts replied. Nineteen had a written policy for screening migrants for tuberculosis. Forty three districts used the port of arrival system and eight used additional methods to identify migrants. Within these eight districts the principal methods were liaison with schools, family health services authorities, social services, and community groups. Six districts reported finding 0-100 additional migrants in this way, but one, using three supplementary methods, identified over 100 migrants more than those referred from the port of arrival (50-200 a year). Initial screening took place in the migrant's home in 31 districts, in chest medicine clinics in 36 districts, and in a clinic for new migrants in six.

For migrants referred using form port 102 (figure) chest x ray examinations were used for screening by 37



The port of arrival system for migrants, refugees, students, and long term visitors at Heathrow airport (G Stewart, personal communication)³

districts and tuberculin testing by 33. If indicated, BCG vaccination was subsequently offered in 43 districts and chemoprophylaxis in 37. Thirteen districts offered routine follow up to migrants not meeting the criteria for BCG or chemoprophylaxis.

Problems identified by the responders included difficulties locating referred migrants because of inadequate or incorrect addresses; ambiguity of existing guidelines on following up migrants from countries with a low prevalence of tuberculosis; and a lack of resources to ensure follow up of migrants who had not received chemoprophylaxis or BCG but remained at increased risk of developing tuberculosis.

Comment

Only a few districts use methods in addition to the port of arrival system to identify migrants. Those that

do find many more migrants who need screening. Districts would find it easier to identify migrants needing screening if they were notified of all migrants, not only those referred to port health control units. Additional methods should be used to locate migrants who cannot be contacted using the port of arrival system. Guidance on which migrants do not need screening needs clarification.

All migrants should receive information about health care services and be encouraged to register with a general practitioner; tuberculosis screening should be provided at a convenient location and offered as part of a range of services including routine immunisations. Migrants at risk of developing tuberculosis, and their general practitioners, should be informed of their status. Districts should have written policies for screening migrants and should audit their performance.

These recommendations could have resource implications, particularly for districts with large migrant populations. Many districts, particularly those with large migrant populations, may, however, find it difficult to identify and screen new migrants for tuberculosis without additional resources.

We thank the consultants in communicable disease control for completing questionnaires; Drs Spence Galbraith, Georgia Duckworth, and George Stewart for comments and information; and Mr Brian Ward and Mrs Yvette Rowlett for their computing support.

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(Accepted 17 August 1993)

A PAPER THAT CHANGED MY PRACTICE

Quality: Prevention or recrimination

A theoretical paper on health care quality has most influenced my practice. Berwick conveys complex ideas in a readable, stimulating, and memorable way.¹ On a visit to the United States in 1989 I was impressed by the extent to which he had captured the imagination. Discussions sooner or later recommended his seminal paper, which makes the idea of total quality management seem both self evident and revolutionary.

Berwick argues that much quality assurance activity to date has been concerned with identifying the outlier (the "bad apple") and applying sanctions. This inspectorial approach engenders gaming, defensiveness, explanation rather than improvement, and it inhibits the openness necessary in a quality centred organisation. Any improvements produced will be limited and far outweighed by negative effects.

In contrast, an organisation that embraces continuous quality improvement pursues the improvement of all, supported by education and training, and makes best use of the skills of individuals and the strength of teams. Leadership empowers staff, generating a culture of openness and striving for continuous improvement, focused on the users of the service (patients).

The value of a theory lies in its ability to explain the past, predict the future, and generate new theory. Berwick's juxtaposition of the continuous quality improvement theory with the "bad apple" theory helps to explain the limitations and failures of many quality assurance methods in American health care. As for predicting the future, that requires evaluation; Berwick himself has had a major influence on studies designed to

assess the practical value of applied continuous quality improvement theory. Future quality theory will draw widely on his work.

His paper helped to address a personal concern, not only about health care quality methods, but about wider societal values. We live in the era of the blame oriented society. Our response to adverse events is to point the finger and to identify the culprit. As an epidemiologist with a role and interest in audit Berwick offered a preventive, population based theory which could help realise the aims and objectives of quality assurance and audit while emphasising the importance of education and of the individual as a contributor to quality improvement.

My philosophy of quality was irrevocably changed by Berwick, and by writers in the field outside health care, such as W Edwards Deming.² Moreover, I believe that my behaviour in my professional and personal life has changed. I have become less critical and more prepared to listen. Berwick's paper should be compulsory reading for all health care staff, especially those concerned with policy development, professional audit, and quality assurance. —RICHARD THOMSON is a senior lecturer in epidemiology and public health in Newcastle upon Tyne

1 Berwick DM. Continuous improvement as an ideal in health care. *N Engl J Med* 1989;320:53-6.

2 Deming WE. *Out of crisis*. Cambridge, Massachusetts: Massachusetts Institute of Technology, 1986.

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